ANALYSIS OF TRADE BETWEEN THE UNION AND CERTAIN OTHER COUNTRIES—(*continued*).

(xvi) HOLLAND—(*continued*).

Classification.	Average: 1910–14.	Average: 1925–29.	Average: 1930–34.	1937.	1938.
EXPORTS.					
TOTAL EXPORTS.....	£ 32,209	£ 1,737,520	£ 965,789	£ 1,294,061	£ 464,185
SOUTH AFRICAN PRODUCE..	30,413	1,731,049	910,955	1,292,601	454,405
Diamonds.....	13,577	751,534	190,286	118,203	82,202
Wool (in Grease).....	7,023	130,053	21,385	46,312	29,991
Wool (Scoured).....	—	5,955	5,616	2,343	6,336
Maize.....	472	321,836	110,205	505,785	70,524
Hides and Skins.....	3,313	100,183	64,945	73,451	32,606
Asbestos.....	—	1,509	5,797	3,496	5,081
Whale Oil.....	—	193,464	44,130	108,416*	9,342
Wattle Bark.....	10	41,338	24,829	57,163	61,101

(xvii) ITALY.

Classification.	Average: 1910–14.	Average: 1925–29.	Average: 1930–34.	1937.	1938.
IMPORTS.					
TOTAL IMPORTS.....	£ 235,004	£ 832,972	£ 727,765	£ 1,168,824	£ 1,146,855
Apparel and Slops.....	1,282	13,092	8,824	3,704	4,240
Cotton Piece Goods.....	55,557	159,080	88,500	42,298	51,577
Cotton Manufactures.....	17,548	180,766	106,711	152,878	100,197
Beads.....	11,604	20,422	9,394	33,291	30,197
Hats and Caps.....	5,202	100,165	67,963	71,343	60,092
Woollen Manufactures.....	14,823	61,838	122,394	400,159	462,607
Motor Cars.....	11,333	101,187	23,759	79,385	20,647
Motor Car Tyres.....	—	23,642	2,916	5	111
EXPORTS.					
TOTAL EXPORTS.....	£ 36,589	£ 1,083,509	£ 967,368	£ 854,952	£ 1,025,172
SOUTH AFRICAN PRODUCE..	31,934	1,078,992	963,926	849,642	1,020,971
Hides and Skins.....	4,793	85,623	118,092	62,993	45,575
Wool.....	22,371	637,834	630,091	702,214	916,418
Maize.....	—	26,126	20,659	12,291	—
Beef and Veal.....	—	184,709	137,481	3,548	—
Copper.....	—	124,596	12,576	20,525	30,923

(xviii) NORWAY.

Classification.	Average: 1910–14.	Average: 1925–29.	Average: 1930–34.	1937.	1938.
IMPORTS.					
TOTAL IMPORTS.....	£ 273,857	£ 407,795	£ 296,712	£ 499,942	£ 324,898
Fish (Preserved).....	46,984	115,356	70,099	92,389	76,191
Wood (Unmanufactured).....	135,230	73,103	51,590	38,737	11,186
Paper (Manufactured, not Stationery).....	283	6,946	9,439	7,841	5,457
Paper (Printing).....	4,130	47,550	47,805	126,884	61,734
Paper (Wrapping).....	9,676	41,727	33,229	70,005	53,415

(xix) SWEDEN.

Classification.	Average: 1910–14.	Average: 1925–29.	Average: 1930–34.	1937.	1938.
IMPORTS.					
TOTAL IMPORTS.....	£ 664,525	£ 1,102,159	£ 945,519	£ 1,927,022	£ 1,604,525
Wood (Unmanufactured).....	420,353	463,253	197,995	229,949	93,423
Wood (Manufactured).....	82,626	280,519	246,528	410,942	316,733
Paper (all).....	33,737	131,227	142,596	334,227	252,350
Telegraph and Telephone Material.....	27,491	25,894	22,642	5,328	9,823
Dairy Utensils.....	15,382	27,276	16,289	36,670	24,791
Bar, Bolt, and Rod (Iron and Steel).....	1,269	48,280	50,583	105,677	137,130

* Amended figure.

ANALYSIS OF TRADE BETWEEN THE UNION AND CERTAIN OTHER COUNTRIES—(*continued*).

(xx) SWITZERLAND.

Classification.	Average: 1910–14.	Average: 1925–29.	Average: 1930–34.	1937.	1938.
IMPORTS.					
TOTAL IMPORTS.....	£ 160,840	£ 668,526	£ 414,004	£ 503,947	£ 571,360
Cotton Manufactures.....	21,080	41,707	9,348	6,308	6,661
Haberdashery and Millinery.....	82,198	170,523	81,849	78,750‡	83,449
Boots and Shoes.....	11,195	46,930	16,107	16,524	22,719
Clocks and Watches.....	18,661	100,367	65,421	90,800	88,540
Instruments.....	113	1,760	1,265	4,177	4,157
Confectionery.....	11,414	29,322	14,239	354	833
Silk Manufactures.....	11,092	57,562	28,415	5,385	5,899
Locomotives.....	—	41,385	10	—	658

(xxi) UNITED STATES OF AMERICA.

Classification.	Average: 1910–14.	Average: 1925–29.	Average: 1930–34.	1937.	1938.
IMPORTS.					
TOTAL IMPORTS.....	£ 3,156,210	£ 12,126,508	£ 7,486,171	£ 20,224,457	£ 16,690,715
Wheat.....	7,059	19,299	1,037	—	—
Baking Powder.....	42,066	61,340	3,239	1,333	2,286
Food and Drink (N.O.D.).....	229,605	354,946	212,120	334,322	238,162
Cotton Manufactures.....	22,025	636,646	215,999	127,465	206,433
Apparel and Slops.....	31,735	131,783	143,557	456,295	468,351
Boots and Shoes.....	46,076	9,564	9,037	41,539	57,418
Wood (Unmanufactured—Pine and Oak).....	122,193	280,085	169,924	541,417	468,674
Iron and Steel.....	88,904	94,295	87,786	924,555	618,664
Machinery (including Electrical Material and Machinery).....	476,376	1,341,745	1,079,493	3,543,671	3,284,937
Railway Material (including Locomotives).....	39,330	214,528	47,360	273,089	162,765
Motor Cars.....	160,854	2,356,161	969,302	3,277,541	2,191,715
Other Vehicles (including Lorries)	58,045	1,330,094	931,627	3,536,512	2,680,628
Implements (including Agricultural Machinery) and Tools....	286,401	757,769	333,582	614,408‡	666,715
Hardware and Cutlery.....	265,002	414,132	274,699	769,897‡	632,679
All Mineral Oils.....	473,213	1,907,976	975,436	1,392,171	1,013,808
Paraffin Wax.....	110,700	52,409	29,691	27,424	23,177
Rubber Tyres.....	*	188,195	66,935	66,991	23,390
Drugs, Chemicals, and Apothecaryware.....	46,527	145,279	133,273	226,060	216,503
Paints and Painters' Goods.....	44,769	120,983	133,505	299,026	271,935
Stationery and Books.....	76,009	159,555	127,550	313,107	302,263
Bioscope Films.....	†	120,772	183,386	204,348	258,553
Perfumery.....	16,255	71,220	54,571	73,943	62,847
Silk Manufactures.....	644	136,949	110,884	82,633	124,474

* Figures shown with motor cars.
† Not available.
‡ Amended figure.

EXPORTS.					
TOTAL EXPORTS.....	£ 452,092	£ 1,795,417	£ 756,819	£ 1,380,379	£ 787,223
SOUTH AFRICAN PRODUCE..	443,352	1,780,457	728,160	1,338,529	754,650
Wool (in Grease).....	9,830	425,458	69,275	135,165	24,163
Wool (Scoured and Washed).....	614	120,036	17,128	86,634	5,801
Hides and Skins.....	79,074	584,826	312,572	553,863	253,483
Bark (Wattle) and Extract.....	211	66,742	18,434	43,033	29,739
Feathers (Ostrich).....	330,617	27,581	13,264	5,767	6,820
Buchu Leaves.....	9,734	5,443	2,617	8,391	5,032
Mohair.....	624	121,688	14,762	6,703	106
Corundum.....	—	23,799	12,548	17,797	10,951
Diamonds.....	783	264,851	149,544	67,814	77,473
Asbestos.....	56	28,545	18,232	67,403	72,464

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STATISTICAL SUMMARY OF UNION PROGRESS, 1911 TO 1938.

NOTE.—The table below is intended to provide a ready synopsis of South African progress in various directions during the period stated, and it has therefore been deemed advisable to exclude therefrom all but the most essential explanations of the figures given. Fuller particulars regarding the different items will be obtained on reference to the relative sections of this *Year Book*.

Heading.	1911.	1921.	1926.	1931.	1935.	1936.	1937.	1938.
Mean Population—								
Total.....1,000	5,992	6,956	7,836	8,713	9,428	9,618	9,793	9,980
European.....1,000	1,280	1,523	1,678	1,829	1,964	2,009	2,045	2,081
Other.....1,000	4,712	5,433	6,158	6,884	7,464	7,609	7,754	7,899
Mining Production—								
Total Value...£1,000	47,039	54,268	56,695	54,895	84,378	88,517	94,292	96,700
Gold, Value...£1,000	35,049	43,082	42,285	46,206	76,533	79,495	82,557	84,670
Fine oz...1,000	8,251	8,129	9,955	10,878	10,774	11,335	11,785	12,161
Diamonds.....£1,000	8,747	3,103	10,684	4,183	2,171	2,125	3,445	3,490
Coal Sold...1,000 ton	7,595	11,397	13,735	11,639	14,008	15,996	16,718	17,536
Factory Production—								
Gross Output..£1,000	"	98,308	91,537	111,799 [1]	131,597	150,337	172,964	[2]
Net Output...£1,000	"	37,546	40,933	51,533 [1]	61,214	70,030	80,033	[2]
Agricultural Production—								
Maize.....1,000 ton	863	1,355	1,022	2,239 [3]	1,856	1,498	2,818	1,921
Kaffir-corn.. "	155	155	75	177 [4]	138	103	156	116
Wheat..... "	181	228	278	328 [3]	508	711	480	812
Oats..... "	155	96	88	101 [4]	106	156	115	95
Barley..... "	31	26	27	53 [4]	28	44	30	28
Potatoes.... "	92	112	101	173 [4]	169	174	180	191
Tobacco.... "	7	8	8	6 [4]	8	9	9	10
Cotton (seed) 1,000 lb.	35	3,576	24,937	16,307 [4]	3,492	2,358	4,050	1,413
Tea (green leaf)..ton.	3,361	1,851	2,073	1,331	1,725	1,662	1,564	1,647
Wine.....1,000 gal.	7,501	16,945	13,230	15,899 [3]	7,482	7,179	6,503	7,036
Sugar.....1,000 ton.	82	144	240	393	359	417	446	507
Live Stock—								
Horses.....1,000	719	920	888	868 [3]	[5]	[5]	778	[5]
Mules..... "	94	117	138	141 [3]	[5]	[5]	157	[5]
Asses..... "	337	722	796	740 [3]	[5]	[5]	863	[5]
Cattle..... "	5,797	8,557	10,514	10,751 [3]	10,575	11,111	11,495	11,679
Sheep..... "	30,657	31,730	39,020	48,520 [3]	35,906	39,321	41,150	39,113
Goats..... "	11,763	7,837	7,988	7,095 [3]	6,037	6,299	6,178	6,193
Pigs..... "	1,082	915	931	963 [3]	965	1,077	1,087	948
Ostriches..... "	747	262	105	33 [3]	[5]	[5]	40	[5]
Foreign Trade—								
Net Imports...£1,000	36,401 [6]	53,769	70,341	49,794	73,217	84,101	100,552	99,894
Exports (S.A. Produce).....£1,000	55,674	70,038	83,184	68,619	100,279	112,331	122,584	102,906
Exports of—								
Coal.....1,000 ton.	1,509	3,432	4,315	2,065	2,460	2,543	2,148	2,251
Farm Produce..£1,000	9,246	17,899	21,314	12,817	19,978	19,087	26,141	19,876
Wool (in grease)ton	63,447	109,447	102,827	115,776	125,600	103,186	114,917	116,529
Wool (scoured)..ton	2,657	5,765	3,021	2,548	4,295	3,786	5,741	3,578
Mohair.....ton	10,533	8,564	5,570	2,721	5,314	3,171	2,230	2,556
Ostrich feathers 1,000 lb.	827	297	148	81	69	60	69	64
Skins.....1,000	8,102	6,032	6,187	7,028	8,504	7,997	8,551	8,543
Hides.....1,000	521	388	1,219	1,051	910	1,266	1,187	929
Maize.....ton	103,277	388,623	146,566	177,064	500,370	18,421	856,217	221,194

[1] 1930 Figures.
[2] Exports.
[3] As at 31st August, 1930.
[4] Not enumerated.
[5] Production for 1929–30.
[6] European production.
[7] According to returns of the Koöperatiewe Wijnbouwers Vereniging van Zuid-Afrika Beperk.
[8] Grader's figure, includes native production.
[9] Not available.

STATISTICAL SUMMARY OF UNION PROGRESS, 1911 TO 1938—(*continued*).

Heading.	1911.	1921.	1926.	1931.	1935.	1936.	1937.	1938.
Vessels entered—								
Number.....	1,805	1,217	1,321	1,412	1,670	2,065	2,163	2,191
Tonnage...1,000 ton.	5,417	4,199	4,937	4,971	6,726	8,525	8,971	9,294
Railways—								
Open Mileage [1].....	7,548	9,617	12,196	13,048	13,175	13,189	13,213	13,213
Total Revenue £1,000	13,257	23,618	24,151	26,951	29,879	33,055	34,999	36,800
Total Expenditure, £1,000	6,203	15,437	17,235	27,898	27,607	27,432	28,535	31,213
Passengers carried 1,000	37,166	64,069	76,283	76,287	83,281	89,600	96,496	105,476
Ton Miles—								
Goods....1,000,000	"	"	"	2,254	3,423	3,511	4,829	4,098
Coal.....1,000,000	"	"	"	1,703	1,985	2,122	2,216	2,370
Union Finance (excluding Railways, but including Provinces)—								
Total Revenue £1,000	12,043	29,345	31,337	33,483	45,282	46,523	50,739	51,845
Total Expend. £1,000	10,852	30,087	30,514	42,163	44,306	45,697	50,201	50,201
Public Debt (Net)£1,000	109,182	167,455	208,157	237,982	250,052	246,407	249,227	258,838
Post Office—								
Revenue..... £1,000	1,472	2,785	3,538	4,029	4,400	4,626	5,022	5,540
Expenditure... £1,000	1,491	3,344	2,788	3,203	3,022	3,365	3,527	3,956
Post Office Savings Bank—								
Depositors (No.) 1,000	225	307	332	442	607	676	761	858
Deposits..... £1,000	6,128	7,025	6,387	6,862	14,288	16,262	18,418	19,981
Banking—								
Commercial Banks—								
Deposits.... £1,000	44,392	90,998	94,659	85,647	139,633	146,309	150,313	157,153
Advances... £1,000	41,146	74,914	69,632	61,733	73,792	79,580	85,566	78,719
Notes issued—								
Reserve Bank £1,000	—	10,614 [2]	8,575	8,799	14,718	16,476	18,083	19,171
Notes in Circulation—								
Reserve Bank£1,000	—	7,077 [2]	6,402	7,183	11,872	13,755	15,237	15,781
Other Banks £1,000	[3]	8,764	215	150	137	135	135	134
Gold Reserves—								
Reserve Bank £1,000	[3]	4,746	7,542	8,104	25,723	24,635	22,937	23,723
Electric Units Generated (Million K.W.H.)	[3]	1,276	1,761	2,454 [4]	3,772	4,603	5,336	[3]
Motor Vehicles Licensed 1,000	"	"	114,095	188,127	272,948	311,488	352,220	376,414
Immovable property transferred.... £1,000	19,181 [4]	30,423	33,470	23,911	34,385	47,795	32,650	43,433

[1] Includes South West Africa.
[2] Not available.
[3] 1922 figures.
[4] 1914 figures.
[5] 1930 figures.

DISTRICT STATISTICAL SUMMARY.

Districts.	Area in Square Miles.	Recorded Rainfall, 1938. Ins.	Deviation from Normal Annual Rainfall. Ins.	Population Census, 1936. European.	Population Census, 1936. Non-European.	European Population Census, 1931.	Taxable Income of Individuals, 1937–38. § £	Revenue Collections, 1937–38. ‡ £
CAPE OF GOOD HOPE.								
Aberdeen	2,661	9·32	− 2·41	3,138	4,773	3,091	47,133	10,401
Adelaide	610	19·25	+ 0·35	2,022	7,919	2,115	120,683	18,188
Albany	1,645	28·12	− 0·07	10,855	27,945	10,181	307,432	55,193
Albert	1,338	18·23	− 1·17	4,384	9,928	4,854	43,681	11,146
Alexandria	948	25·02	− 0·85	2,967	16,851	2,798	25,323	7,140
Aliwal North	809	20·06	+ 1·08	4,837	11,001	5,086	65,556	14,653
Barkly East	1,460	23·97	+ 0·05	2,950	7,217	3,194	108,692	13,064
Barkly West	3,955	22·76	+ 6·40	6,203	28,694	6,759	42,561	15,869
Bathurst	573	25·74	− 3·62	2,504	15,294	2,572	26,374	7,785
Beaufort West	6,374	7·38	− 1·88	6,199	9,210	6,252	126,916	31,886
Bedford	1,000	28·73	+ 1·30	2,037	9,103	2,255	76,767	15,977
Bellville	379	18·68	+ 2·11	19,382	23,065	14,038	†	†
Bredasdorp	1,577	20·29	+ 1·05	6,847	6,228	6,588	60,046	14,339
Britstown	2,824	8·86	− 2·10	1,066	3,216	2,196	49,645	7,372
Caledon	1,735	22·45	+ 1·34	14,448	15,206	13,694	181,685	48,820
Calitzdorp	388	6·95	− 1·16	3,886	2,913	3,567	11,305	1,896
Calvinia	13,894	5·27	− 2·89	7,482	10,249	7,415	51,400	13,434
Cape	76	25·15	+ 0·50	90,549	89,012	90,046	8,371,455	2,725,215
Carnarvon	6,286	8·37	÷ 0·57	3,447	5,842	3,493	37,485	9,571
Cathcart	995	29·41	+ 3·34	1,827	12,829	2,090	77,368	12,596
Ceres	3,871	41·49	+ 1·02	3,915	7,201	3,909	53,444	9,128
Clanwilliam	2,899	6·15	− 2·33	6,730	8,013	5,979	24,877	6,533
Colesberg	2,214	15·53	+ 0·20	3,831	8,215	3,871	72,654	9,916
Cradock	2,248	10·12	− 3·47	6,203	15,546	6,349	130,726	26,161
De Aar	1,168	11·16	− 0·62	3,831	5,214	3,843	104,659	13,746
East London	689	33·62	+ 1·78	35,239	58,883	31,760	1,230,387	272,244
Elliot	828	35·85	+ 3·99	3,470	9,680	3,734	42,631	8,234
Fort Beaufort	515	20·53	− 0·88	2,190	15,184	1,907	65,189	9,300
Fraserburg	4,872	7·08	+ 0·48	2,536	3,036	2,586	11,059	3,839
George	979	28·93	− 5·19	13,354	13,432	12,068	93,275	25,933
Glen Grey	929	27·75	+ 4·31	811	64,027	592	16,453	24,523
Gordonia	16,334	8·72	+ 1·55	16,801	23,346	11,033	79,323	17,807
Graaff-Reinet	2,576	15·16	+ 1·72	6,876	16,257	7,151	202,441	33,849
Hanover	1,731	10·99	− 1·80	1,282	2,806	1,361	39,812	4,924
Hay	6,526	12·09	− 0·06	5,104	12,655	5,823	14,482	10,263
Herbert	2,763	13·97	+ 0·96	3,910	10,875	4,368	16,998	6,460
Herschel	684	32·75	+ 6·06	220	38,424	195	—	10,572
Hopefield	1,123	10·71	− 2·01	5,059	7,261	4,616	30,868	5,925
Hopetown	3,214	12·96	+ 0·75	3,713	5,777	3,240	35,379	7,429
Humansdorp	1,950	18·40	− 8·63	9,167	16,633	9,229	29,565	11,783
Indwe	337	26·24	+ 2·00	1,966	4,663	2,084	14,086	7,418
Jansenville	1,768	*	*	3,740	5,967	3,740	56,959	7,357
Keiskamahoek	224	27·67	+ 2·19	759	17,346	822	12,491	5,147
Kenhardt	15,086	11·06	+ 5·36	4,233	5,732	4,681	19,258	6,326
Kimberley	1,833	14·01	− 1·67	20,151	37,383	21,861	723,990	642,476
Kingwilliamstown	819	24·37	− 0·61	9,096	57,047	9,946	165,337	37,134
Knysna	810	23·46	− 8·37	7,571	8,769	6,922	45,841	13,364
Komgha	539	33·14	+ 4·75	1,687	15,387	1,718	27,300	8,067
Kuruman	14,159	16·35	+ 0·98	7,030	25,134	7,419	25,062	11,951
Ladismith	1,365	11·46	− 2·28	5,130	5,110	4,731	11,733	4,470
Lady Grey	521	27·68	− 3·17	1,504	4,020	1,705	26,076	4,581
Laingsburg	3,483	4·29	− 0·06	3,072	2,537	3,145	18,656	3,613
Maclear	992	34·84	+ 1·77	2,946	9,673	3,269	16,369	6,451
Mafeking	4,265	17·61	− 4·18	5,848	39,989	6,013	63,911	18,012
Malmesbury	1,181	12·87	− 4·70	10,539	17,271	10,820	121,580	32,526
Maraisburg	902	13·71	+ 0·21	1,591	3,312	1,621	12,985	4,596
Middelburg	2,193	10·19	− 3·57	4,145	9,643	4,351	87,282	25,082
Middeldrift	27	22·63	+ 1·44	277	25,701	302	8,455	6,877
Molteno	714	25·40	+ 4·68	2,457	6,909	2,618	32,945	6,850
Montagu	934	11·38	− 1·26	3,992	4,303	3,733	36,277	13,786
Mossel Bay	707	13·11	− 3·89	7,627	8,306	7,012	81,523	12,440
Murraysburg	2,055	8·29	− 2·43	1,309	3,196	1,323	57,795	4,885
Namaqualand	17,556	3·98	− 5·18	8,335	17,512	8,019	39,054	16,376
Oudtshoorn	1,345	9·58	+ 0·06	12,575	17,717	11,623	165,654	32,639
Paarl	399	29·34	− 3·53	12,391	21,587	11,485	316,701	87,004
Pearston	1,045	12·03	− 1·38	1,299	3,860	1,305	34,891	5,525
Peddie	657	23·56	+ 0·67	1,323	25,515	1,324	16,712	7,490
Philipstown	2,158	14·42	+ 1·36	2,082	4,544	2,227	79,644	11,797

* Records incomplete.
† Included in Cape.
‡ Includes Provincial Revenue.
§ Refers to districts having ten or more individuals liable to tax.

DISTRICT STATISTICAL SUMMARY—(*continued*).

Districts.	Area in Square Miles.	Recorded Rainfall, 1938. Ins.	Deviation from Normal Annual Rainfall. Ins.	Population Census, 1936. European.	Population Census, 1936. Non-European.	European Population Census, 1931.	Taxable Income of Individuals, 1937–38. ¶ £	Revenue Collections, 1937–38. § £
CAPE OF GOOD HOPE—(*continued*).								
Piquetberg	1,760	18·07	− 1·90	12,086	11,150	11,727	53,024	16,962
Port Elizabeth	645	17·40	− 5·33	56,265	68,450	46,916	2,368,928	638,981
Prieska	5,643	10·37	+ 1·42	3,565	6,503	6,925	38,642	7,106
Prince Albert	3,148	6·28	− 1·24	3,515	3,776	3,600	13,011	9,990
Queenstown	1,371	20·12	− 2·17	8,428	33,465	8,401	239,688	45,147
Richmond	2,827	11·36	− 1·42	1,582	4,041	1,645	114,031	9,569
Riversdale	1,712	23·82	+ 6·71	10,142	7,568	9,087	45,865	15,148
Robertson	646	11·48	− 0·99	6,238	8,031	6,036	61,848	22,788
Simonstown	101	29·92	+ 4·40	9,253	6,517	9,421	—	5,715
Somerset East	2,102	23·21	− 0·49	5,124	14,220	5,451	132,585	19,868
Somerset West	141	26·33	+ 1·72	6,788	9,253	6,733	149,088	25,003
Stellenbosch	205	26·45	− 1·41	8,261	15,544	7,770	246,696	104,890
Sterkstroom	646	20·60	+ 1·28	1,750	4,919	1,929	39,213	4,657
Steynsburg	1,103	18·10	+ 3·33	2,082	5,907	2,155	34,463	8,510
Steytlerville	1,349	7·93	− 1·28	2,333	3,410	2,376	40,907	5,602
Stockenström	314	23·20	÷ 0·42	1,945	10,418	1,862	37,871	4,791
Stutterheim	629	33·28	+ 2·55	2,889	16,491	2,907	48,507	15,792
Sutherland	3,426	7·23	− 1·86	2,156	1,791	2,095	—	3,070
Swellendam	2,145	29·99	− 0·96	10,659	10,740	9,686	56,017	14,697
Tarka	1,223	14·09	− 3·94	1,764	6,937	1,928	76,187	9,873
Taung	1,442	13·27	− 3·73	1,533	22,156	1,341	11,739	4,589
Tulbagh	373	16·95	− 1·33	2,983	6,729	3,156	16,462	15,081
Uitenhage	1,883	14·59	− 4·42	16,270	31,812	15,205	275,581	43,528
Unionldale	1,690	7·89	− 5·21	6,048	8,117	5,954	15,522	4,633
Van Rhynsdorp	5,026	3·12	− 2·37	7,726	7,863	6,606	26,104	11,427
Venterstad	810	||	|| 1,062	3,013	1,215	—	3,594
Victoria East	384	19·28	− 0·39	1,279	15,366	1,197	29,718	6,302
Victoria West	4,254	11·56	+ 1·59	3,045	5,306	3,171	102,127	15,071
Vryburg	16,193	14·93	− 4·01	8,324	35,528	7,437	83,057	24,594
Wellington	179	27·78	− 0·78	4,299	8,336	4,226	69,429	11,421
Williston	5,078	8·07	+ 3·22	2,321	3,417	2,153	—	3,408
Willowmore	2,813	†	†	3,837	5,471	3,931	34,582	7,833
Wodehouse	1,152	23·87	+ 1·93	4,394	9,344	4,745	48,174	10,555
Worcester	1,641	7·32	− 4·57	12,352	19,871	10,935	285,919	172,172
Wynberg	173	26·59	− 6·52	58,473	72,756	49,141	*	*
Walvis Bay‡	430	0·47	+ 0·05	523	1,512	753	—	—
TOTAL—CAPE OF GOOD HOPE (excluding Transkeian Territories)	260,615	—	—	773,950	1,572,01¶	731,633	19,236,281	5,922,721
The Transkeian Territories—								
E. Griqualand								
Matatiele	1,299	26·22	− 0·74	2,464	53,074	2,455	74,007	19,148
Mount Ayliff	369	45·01	+ 2·99	197	26,093	232	—	7,601
Mount Currie	1,102	30·40	+ 1·41	3,119	21,652	2,940	133,584	17,467
Mount Fletcher	929	30·38	+ 2·66	254	37,777	296	—	10,894
Mount Frere	684	37·67	+ 8·20	427	48,559	371	26,243	14,634
Qumbu	564	40·89	+10·09	256	42,128	290	13,195	10,058
Tsolo	649	29·85	+ 4·13	449	39,409	447	16,392	10,202
Umzimkulu	1,006	33·40	+ 3·15	671	52,441	604	19,069	12,804
Tembuland.								
Elliotdale	299	31·54	+ 4·08	277	34,276	258	16,775	8,839
Engcobo	1,063	42·67	+11·06	688	71,752	733	40,249	31,027
Mqanduli	508	31·95	+ 5·33	283	46,935	302	21,967	13,779
St. Marks	580	38·32	+13·56	433	54,229	429	19,978	11,913
Umtata	632	29·25	+ 3·60	2,804	48,922	2,736	147,612	36,805
Xalanga	366	28·39	+ 4·82	807	20,690	895	—	7,634
Transkei.								
Butterworth	263	27·91	+ 2·82	778	25,588	807	27,962	11,345
Idutywa	448	36·12	+10·78	508	33,886	533	37,254	15,899
Kentani	434	48·19	+12·66	334	48,332	328	22,249	11,330
Nqamakwe	425	30·17	+ 2·21	254	40,092	270	16,852	11,455
Tsomo	397	26·31	+ 4·30	234	33,319	213	12,793	10,522
Willowvale	537	41·75	+ 0·40	392	55,654	375	20,537	13,439

* Included in Cape.
† Records incomplete.
‡ Under Act No. 24 of 1922 this area is administered as a part of South West Africa.
§ Includes Provincial Revenue.
|| Closed.
¶ Refers to districts having ten or more individuals liable to tax.

DISTRICT STATISTICAL SUMMARY—(*continued*).

Districts.	Area in Square Miles.	Recorded Rainfall, 1938. Ins.	Deviation from Normal Annual Rainfall. Ins.	Population Census, 1936. European.	Population Census, 1936. Non-European.	European Population Census, 1931.	Taxable Income of Individuals, 1937-38. § £	Revenue Collections, 1937-38. † £
CAPE OF GOOD HOPE—(*continued*).								
Pondoland.								
Bizana	709	30·43	− 1·33	273	57,888	221	14,632	12,282
Flagstaff	428	31·56	− 2·51	248	43,519	311	14,910	10,073
Libode	535	34·68	+ 5·67	214	38,349	250	9,057	9,451
Lusikisiki	931	34·38	− 8·85	310	70,961	334	17,732	17,299
Ngqeleni	540	*	*	267	47,441	257	9,914	13,077
Port St. Johns	340	41·30	− 6·31	464	24,959	494	11,595	7,347
Tabankulu	517	26·53	− 3·37	219	46,390	217	12,052	10,292
TOTAL—TRANSKEIAN TERRITORIES	16,554	—	—	17,624	1,166,315	17,598	756,610	366,616
GRAND TOTAL—CAPE OF GOOD HOPE	277,169	—	—	791,574	2,738,326	749,231	19,992,891	6,289,337
NATAL.								
Alfred	570	31·38	− 0·32	1,357	43,662	1,397	18,881	12,750
Babanango	583	38·96	+ 8·27	643	10,578	765	11,664	3,470
Bergville	1,100	29·51	+ 3·97	951	24,667	1,218	15,904	8,967
Camperdown	368	26·88	+ 0·11	1,147	23,062	1,173	24,543	7,345
Dundee	778	41·88	+ 9·83	5,216	41,310	5,397	124,222	32,591
Durban	99	41·89	− 3·12	95,457	166,909	86,649	5,655,329	1,409,506
Estcourt	1,872	29·70	+ 0·86	4,400	54,560	4,576	112,732	28,307
Helpmakaar	351	30·76	− 0·35	537	8,735	586	—	3,101
Impendhle	700	48·25	+12·04	436	13,133	461	7,649	4,988
Inanda	150	37·64	− 0·93	1,622	26,705	1,407	109,788	26,431
Ixopo	964	30·45	− 3·92	1,627	58,008	1,599	32,587	17,726
Klip River	1,374	30·20	+ 0·36	5,481	50,544	5,698	113,576	26,881
Kranskop	429	‡	‡	440	24,582	448	10,366	8,511
Lions River	609	48·88	+ 7·20	2,518	18,883	2,203	78,615	17,967
Lower Tugela	453	*	*	2,628	54,355	2,469	225,207	37,534
Mapumulo	327	47·37	+ 8·08	72	40,365	66	—	7,947
Msinga	718	24·68	− 1·04	126	61,956	83	—	14,705
Ndwedwe	282	48·05	+ 5·95	56	41,112	39	—	6,404
Newcastle	1,120	32·85	− 3·51	7,331	42,300	4,626	127,118	21,051
New Hanover	520	43·31	+ 5·71	1,682	30,794	1,768	34,442	15,078
Ngotshe	1,400	34·59	+ 2·70	1,096	29,113	1,104	—	9,288
Paulpietersburg	618	44·27	+ 8·64	1,609	17,913	1,610	22,237	8,043
Pietermaritzburg	411	41·97	+ 5·91	23,596	67,800	22,686	999,190	351,626
Pinetown	177	37·96	+ 1·83	3,330	26,322	3,047	39,773	25,385
Polela	455	50·36	+ 8·05	548	26,426	608	—	7,717
Port Shepstone	534	42·52	+ 0·08	4,123	57,264	2,891	80,887	28,480
Richmond	520	40·36	− 3·96	883	28,943	927	25,969	10,236
Umlazi	258	‖	‖	111	51,331	82	—	230
Umvoti	871	35·48	− 2·38	2,277	42,940	2,636	74,493	20,956
Umzinto	672	31·95	+ 3·94	3,014	95,015	2,881	110,042	43,029
Underberg	767	32·68	− 1·99	638	8,580	562	17,852	4,624
Utrecht	2,048	38·69	+ 8·59	2,477	27,514	2,721	53,373	10,055
Vryheid	2,299	40·44	+ 6·28	6,117	46,956	6,449	131,997	36,082
Weenen	460	30·08	+ 5·74	844	23,306	827	25,144	6,902
TOTAL—NATAL (excluding ZULULAND)	24,857	—	—	184,390	1,399,657	171,659	8,274,580	2,273,913

* Records incomplete.
† Includes Provincial Revenue.
‡ Closed.
§ Refers to districts having ten or more individuals liable to tax.
‖ Not available.

DISTRICT STATISTICAL SUMMARY—(*continued*).

Districts.	Area in Square Miles.	Recorded Rainfall, 1938. Ins.	Deviation from Normal Annual Rainfall. Ins.	Population Census, 1936. European.	Population Census, 1936. Non-European.	European Population Census, 1931.	Taxable Income of Individuals, 1937-38. £	Revenue Collections, 1937-38. † £
NATAL—(*continued*).								
Zululand—								
Emtonjaneni	620	27·41	− 4·06	651	25,110	557	9,850	8,734
Eshowe	671	46·49	− 6·27	1,277	51,652	1,192	35,150	17,658
Hlabisa	1,514	¶	¶	571	23,741	555	23,518	11,536
Ingwavuma	1,650	41·84	+10·15	135	39,572	60	—	8,747
Lower Umfolozi	1,025	39·79	− 2·18	1,639	27,320	1,579	108,149	21,528
Mahlabatini	611	30·31	− 1·31	134	21,072	72	—	6,287
Mtunzini	431	40·10	− 4·15	786	34,470	753	67,252	25,078
Nkandhla	741	80·03	+48·44	243	44,437	357	—	10,005
Nongoma	873	33·65	− 0·94	226	29,822	205	—	10,041
Nqutu	628	34·28	+ 4·43	295	36,660	275	7,995	8,177
Ubombo	1,863	35·80	+ 0·70	202	22,406	185	—	5,533
TOTAL—ZULULAND	10,427	—	—	6,159	356,262	5,790	251,914	133,324
GRAND TOTAL NATAL	35,284	—	—	190,549	1,755,919	177,449	8,526,494	2,407,237
TRANSVAAL.								
Barberton	1,703	34·03	+ 3·85	3,324	39,181	2,243	139,378	44,664
Belfast	1,302	37·90	+ 6·74	5,473	16,836	5,523	24,909	7,360
Benoni	124	23·49	− 4·15	24,462	67,819	19,899	1,263,898	233,303
Bethal	1,270	27·39	− 1·37	7,703	30,670	8,057	122,416	22,228
Bloemhof	840	16·38	− 1·96	4,060	6,948	3,664	18,790	5,789
Boksburg	60	23·69	− 2·35	17,379	35,890	14,284	579,228	119,386
Brakpan	68	22·94	− 4·30	18,465	39,517	11,658	715,341	130,025
Brits	1,142	¶	¶	11,384	18,083	13,004	44,875	12,130
Carolina	1,978	30·93	+ 1·65	4,874	26,392	4,597	58,438	13,427
Christiana	725	§	§	3,796	5,217	3,291	21,055	4,296
Ermelo	3,003	23·76	− 5·46	11,032	50,191	10,920	199,447	40,101
Germiston	155	26·48	− 3·33	39,690	60,047	29,022	1,452,719	334,756
Heidelberg	1,690	27·33	− 0·72	16,237	55,157	12,666*	534,628	105,465
Johannesburg	310	33·27	+ 0·67	262,434	274,783	206,753	20,277,976	18,772 012†
Klerksdorp	1,352	§	§	10,480	23,310	9,016	236,973	45,072
Krugersdorp	959	27·14	− 2·30	30,361	73,503	23,046	1,092,876	208,658
Letaba	7,475	39·40	+ 8·50	3,600	115,092	2,820	58,907	44,734
Lichtenburg	4,295	16·90	− 6·72	20,868	51,029	25,688	119,426	33,963
Lydenburg	3,442	32·99	+ 9·08	6,685	93,818	6,324	72,931	24,575
Maricc	3,676	22·15	− 1·05	10,825	38,588	11,784	53,996	15,537
Middelburg	3,778	27·03	− 1·87	13,689	79,606	13,315	117,993	29,894
Nelspruit	3,100	32·27	+ 3·93	5,244	90,776	4,297	112,555	29,016
Pietersburg	5,796	19·02	− 1·50	11,298	195,697	11,038	137,921	62,526
Piet Retief	1,616	40·93	+ 5·35	3,600	34,799	3,549	62,066	13,571
Pilgrims Rest	5,634	47·95	+ 9·10	5,518	78,500	3,641	116,710	47,681
Potchefstroom	1,703	19·78	− 3·98	19,667	28,718	18,736	262,117	43,788
Potgietersrust	7,308	24·04	− 0·91	7,793	85,669	7,692	72,382	28,949
Pretoria	5,249	25·98	− 2·30	94,144	163,137	79,477	3,536,840	7,895,258*
Roodepoort	192	29·11	+ 1·45	14,242	36,048	10,574	449,845	103,290
Rustenburg	9,020	23·64	− 1·88	25,492	88,732	24,854	182,955	50,271
Schweizer Reneke	1,648	12·93	− 5·99	6,379	14,032	5,901	27,955	9,903
Springs	587	22·16	− 5·06	22,659	88,463	11,344	1,463,037	278,865
Standerton	1,875	29·40	− 0·18	9,698	35,238	9,964	113,747	26,454
Ventersdorp	1,782	§	§	7,728	22,648	10,952	52,454	11,949
Vereeniging	997	29·25	+ 2·76	12,257	39,630	9,594	329,272	75,946
Volksrust	719	31·19	− 1·28	5,263	13,450	4,913	79,110	11,050
Wakkerstroom	1,608	30·92	+ 0·02	3,726	26,695	3,872	63,119	10,776
Waterberg	8,562	19·22	− 5·23	11,992	48,191	4,847	74,046	21,258
Witbank	1,156	32·41	+ 1·97	8,838	33,065	8,520	264,871	44,404
Wolmaransstad	1,853	21·87	+ 1·45	10,519	17,023	10,418	44,040	11,589
Zoutpansberg	10,698	35·74	−13·37	7,878	229,536	7,363	104,944	60,759
TOTAL—TRANSVAAL	110,450	—	—	820,756	2,520,714	696,120	34,756,186	28,584,748

* Includes Union Departmental Revenue for nearly whole of Union.
† Including Mining Revenue for whole of Reef.
‡ Includes Provincial Revenue.
§ Records incomplete.
‖ Refers to districts having ten or more individuals liable to tax.
¶ Closed.

DISTRICT STATISTICAL SUMMARY—(*continued*).

Districts.	Area in Square Miles.	Recorded Rainfall, 1938. Ins.	Deviation from Normal Annual Rainfall. Ins.	Population Census, 1936. European.	Population Census, 1936. Non-European.	European Population Census, 1931.	Taxable Income of Individuals, 1937–38. § £	Revenue Collections, 1937–38. * £
ORANGE FREE STATE.								
Bethlehem	1,433	‡	‡	10,304	29,337	10,114	143,863	36,485
Bethulie	985	16·09	− 1·45	3,372	5,969	3,727	35,966	9,899
Bloemfontein	2,373	19·66	− 1·11	34,197	47,939	32,719	1,012,035	326,290
Boshof	3,905	20·19	+ 1·92	6,169	13,078	6,949	24,796	16,174
Bothaville	1,720	20·91	− 0·57	6,670	19,539	6,419	63,657	27,508
Brandfort	1,682	26·25	+ 6·07	4,519	12,172	4,737	38,511	13,217
Clocolan	406	30·66	+ 5·26	2,373	11,331	2,554	28,652	13,265
Dewetsdorp	873	21·04	− 2·17	2,683	7,305	2,749	38,195	9,255
Edenburg	792	17·38	+ 2·18	1,730	4,156	1,993	22,405	6,666
Fauresmith	3,423	17·86	+ 4·55	7,104	10,573	7,949	106,080	31,137
Ficksburg	517	26·03	− 3·18	4,604	15,348	4,729	76,706	18,547
Fouriesburg	445	27·17	− 3·16	1,913	10,278	2,011	—	5,945
Frankfort	1,284	29·80	+ 7·21	7,290	17,823	7,517	87,213	25,137
Harrismith	2,955	30·52	+ 1·12	8,952	50,955	9,064	169,180	38,489
Heilbron	1,846	28·68	+ 1·09	9,356	25,680	8,843	77,275	29,171
Hoopstad	3,004	12·95	− 5·10	6,156	17,797	5,984	79,284	27,520
Jacobsdal	1,219	13·73	− 2·17	1,608	3,083	1,724	—	4,429
Kroonstad	2,147	26·80	+ 3·48	11,933	33,253	12,348	256,141	60,893
Ladybrand	850	30·41	+ 2·99	5,688	19,491	5,972	52,069	18,000
Lindley	1,101	26·48	+ 1·75	5,949	19,568	6,330	47,825	28,496
Philippolis	1,285	15·15	− 1·47	1,878	3,571	2,252	20,587	8,453
Reddersburg	590	16·73	− 2·09	1,484	3,067	1,698	14,242	4,172
Reitz	1,045	30·48	+ 2·63	5,246	19,040	5,165	37,429	17,280
Rouxville	1,053	23·85	+ 0·78	2,751	6,605	2,956	42,885	8,880
Senekal	1,642	26·36	+ 1·14	8,192	30,497	8,477	110,148	34,325
Smithfield	1,096	23·71	+ 3·27	2,615	4,461	2,937	36,827	8,324
Thaba 'Nchu	1,185	25·80	+ 2·26	2,502	23,631	2,591	48,497	16,835
Trompsburg	742	12·81	− 1·81	1,356	2,793	1,519	36,292	6,041
Ventersburg	970	26·07	+ 5·21	3,666	15,273	3,097	59,552	14,897
Vrede	2,176	22·61	− 4·68	6,886	28,851	7,164	78,101	25,265
Vredefort	1,308	28·27	+ 1·87	9,101	17,353	9,704	98,908	31,403
Wepener	677	24·03	− 1·93	2,640	6,675	2,629	55,035	10,904
Winburg	2,182	24·97	+ 3·08	6,781	25,984	7,190	84,776	33,453
Zastron	736	32·95	+ 6·64	3,310	8,606	3,564	47,757	10,446
TOTAL— ORANGE FREE STATE.	49,647	—	—	200,978	571,082	205,375	3,110,889	977,201
TOTAL— UNION	472,550	—	—	2,003,857	7,586,041	1,828,175	66,386,460†	33,258,523

* Includes Provincial Revenue.
† Total amount of taxable income (individuals) for the Union, £60,878,653.
‡ Records incomplete.
§ Refers to districts having ten or more individuals liable to tax.

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OFFICIAL YEAR BOOK

OF THE

UNION OF SOUTH AFRICA AND OF BASUTOLAND, THE BECHUANALAND PROTECTORATE, AND SWAZILAND.

PART I.

UNION OF SOUTH AFRICA.

(INCLUDING A CHAPTER ON SOUTH WEST AFRICA.)

INTRODUCTORY.

STATISTICAL SERVICE AND SOURCES OF INFORMATION.

§ 1. Statistical Service of the Union.

1. **Statistical Information prior to the Constitution of the Union.**—Apart from the statistics collected at each census of population,* the statistics published up to the constitution of the Union were those procured by various government departments as an incident of the ordinary work of their administration. Special mention may be made of the work of the Customs Statistical Bureau, established by the South African Customs Union in July, 1905, which gathered and published comprehensive statistics in regard to overseas trade and shipping for all the States in British South Africa. Apart, however, from such sources of information as those mentioned, there existed no other organized means of obtaining statistics. When, therefore, the Union was constituted, statistics were lacking in regard to many matters of essential importance to those concerned in the administration and development of the country.

Particulars of early statistical information in South Africa are contained in previous issues (Nos. 1, 2, and 3) of this *Year Book*.

The following official publications indicate the chief printed sources of earlier statistical information for the territories now constituting the Union:—

Cape of Good Hope: Cape Statistical Register (1887-1911).

Natal: Departmental Reports (1896-1900); Blue Book of Natal (1890-1893); Statistical Year Book (1893-1909).

Transvaal: Staats Almanak voor de Zuid Afrikaansche Republiek (1897-1899); Statistics of the Transvaal (1902-1909); Epitome of Transvaal Statistics (1902-1906).

2. **Statistical Service subsequent to the Constitution of the Union.**—The *Census Act* of 1910 provided for the taking of a census in the year 1911 and in any subsequent year determined by the Government. Section 34 (ii) of the *South Africa Act*, 1909, requires, for electoral purposes, that there shall be a quinquennial census of the European population. This section was amended by the *Electoral Quota Act*, No. 21 of 1937, which provides that after the year 1951 censuses shall be taken decennially.

* A table giving the date of the taking of each census in the four Colonies now constituting the Union and of the first and subsequent censuses in the Union will be found in Chapter XXV.

In order to undertake these operations, a Census Office was established in Pretoria in 1910. Subsequently an effort was made by the Director of Census to collect all available statistics in a satisfactory form, and in 1913 the *Statistical Year Book*, superseded in 1918 by the present *Official Year Book*, was inaugurated and gave either in detail or in abstract such information as was available in different government departments. Owing, however, to the fact that legal authority for the collection of statistics was wanting, the work was found in many ways to be unsatisfactory, and, in 1914, the Union Parliament provided the necessary powers for a complete system of statistics by passing the *Statistics Act* (No. 38 of 1914). Provision is made in the Act for the collection and publication of statistics in respect of the following matters:—

(*a*) population;
(*b*) vital, social, educational, and industrial matters, including rates of wages, cost of living, prices of commodities, and rents of habitations;
(*c*) local government;
(*d*) employment and non-employment;
(*e*) imports and exports;
(*f*) immigration and emigration;
(*g*) posts, telegraphs, and telephones;
(*h*) factories, mines, and productive industries generally;
(*i*) agricultural, horticultural, viticultural, dairying, pastoral, and fishing industries;
(*j*) banking, insurance, and finance;
(*k*) railways, tramways, shipping, and transport;
(*l*) the tenure, occupation, and use of land;

and any other matter prescribed by the Minister of the Interior [sect. 1 (1)].

For various reasons the *Statistics Act* was not promulgated until 1st April, 1917, but on that date a central statistical office for the Union, the Office of Census and Statistics, was established. To this office, as a division of the Department of the Interior, was entrusted the administration of the *Census Act*, 1910, and the *Statistics Act*, 1914.

The following is an enumeration of the main provisions of the *Statistics Act*:—

(i) Provision is made for the appointment of an administering officer, and the *Director of Census* was appointed for the purpose [sect. 1 (2)].
(ii) A Statistical Council is provided for, to consist of not fewer than four and not more than eight members. The function of the Council is to advise the Minister in regard to matters connected with the Act [sect. 1 (3)].
(iii) Arrangements, if necessary or convenient, may be entered into with the Provincial Administrations with a view to the collection of statistics by means of officers of such administrations (sect. 2).
(iv) Every person, of whom information is required under the Act, is compelled to supply it on demand (sects. 3 and 4).
(v) Officers under the Act, for the purposes of inspection and making inquiries, are given powers of entry upon any land or premises upon or within which any industrial undertaking is carried on, or persons are employed (sect. 5).
(vi) Any officer appointed under the Act, who divulges irregularly any information collected in pursuance of the Act, is guilty of an offence and is liable on conviction to a fine not exceeding £50, or to imprisonment for a period not exceeding three months without the option of a fine (sect. 7).
(vii) Any person, who wittingly supplies false information in reply to any question asked him under the authority of the Act, is guilty of an offence and on conviction is liable to a fine of £50, or to imprisonment for a period of three months without the option of a fine (sect. 8).

By the *Statistics Amendment Act* (No. 5 of 1919) authority was further granted for the issuing of regulations, if necessary, requiring particulars and information to be furnished by persons in prescribed areas, or as to the addresses and occupations of persons, or in respect of prescribed periods.

3. Organization of Statistical Collection.—(i) *General.*—The principle involved in the statistical organization of the Union under the *Statistics Act* is that of centralization. The statistics of South Africa prior to the promulgation of this Act were open to arraignment on the following grounds, viz.: The restricted and incomplete character of available statistics; the lack of coherence and common purpose; the unevenness of quality; in many cases the lateness of their presentation and their inaccessibility; the duplication of publication and the inevitable conflict occasionally resulting therefrom, due to the detachment of the various government departments concerned with statistics; and the expense of production due to lack of skilled supervision and the absence of mechanical tabulating appliances.

The Office of Census and Statistics collects statistics dealing with a wide diversity of subjects. The following statement is intended as a guide to the nature of the collection and the times and modes of publication of statistics.

Population.—In terms of the *South Africa Act* a census of the European population must be taken every five years beginning with the year 1911; thus there is taken a quinquennial census of the European population, and also a decennial census of the total population.* The usual date selected for enumeration is about the first Tuesday in May, and preliminary results are available for publication about the middle of June. Detailed tables and a report are printed and published in separate parts as they become available.

A decennial census of the entire population was due to be taken in 1931, but owing to the world-wide economic depression, from which South Africa did not escape, the Government decided to postpone the major operation, and to take a census of Europeans only, so as to comply with the requirements of the *South Africa Act*. A census covering all races of the population was taken on the 5th May, 1936, the preliminary results of which were published in December, 1936 (U.G. No. 50, 1936). The final figures became available in December, 1937, and Volume I of the 1936 Census Report, "Distribution of the Population in Provinces, Towns, Villages, Native Areas, etc.", was published early in 1938 (U.G. No. 21, 1938). Volume II (Ages), Volume III (Marital Condition), and Volume IV (Languages) have been published.

Births, Deaths, and Marriages.—Monthly figures for the nine principal towns and the towns of the Witwatersrand and quarterly figures for the whole Union are published in the Monthly Bulletin of Statistics.

The details for a number of years prior to 1926 were issued in neostyle form as special reports. Commencing with the data for the year 1926, fuller information of these events within the Union is contained in a printed publication issued annually, and summaries and analyses of the data are published in the *Official Year Book*.

Migration.—Monthly and half-yearly returns of migration are published in the Monthly Bulletin of Statistics, and since 1927 the figures collected have been issued annually in detail in a printed publication. Summaries and analyses are published in the *Official Year Book*. For some years prior to 1927, the information was published in neostyle form as a special report.

Agricultural Production.—From 1917-18, when the Agricultural Census was instituted, until 1929-30, when the Government for reasons of economy abandoned certain statistical activities, statistics of the main items of agricultural and pastoral production were collected annually, and a complete census of agriculture was undertaken for the years 1917-18, 1920-21, 1925-26, and 1929-30. The 1930 census was taken in conjunction with the World Census of Agriculture of which it formed part. The returns cover the period 1st September to 31st August in each year, except in the case of the first census, when they relate to the twelve months ended 30th June, 1918, and the four censuses from 1918-19 to 1921-22, when they refer to the twelve months ended 30th April in each year.

In 1934 the Government decided to recommence the annual census of agricultural and pastoral production, and the first inquiry, subsequent to that of 1929-30, related to the year 1933-34. The annual censuses are again confined to the main items of agricultural and pastoral production, but a complete census of a scope similar to that of 1929-30 was taken for the year 1936-37. A preliminary total of the maize crop is published about the latter half of December in each year, while preliminary general figures are published about May of the following year in a Special Report. The detailed report of the census is issued a few months later as a separate publication.

*See para. 2 above.

As from 1922-23 a special census of the sugar-cane plantations in Natal has been undertaken each year without interruption. The returns cover the period 1st May to 30th April and are due to be rendered on or before the 30th June following.

Industrial Production.—From 1915-16, when the Industrial Census was introduced, until 1929-30 statistics of industrial production were collected annually. The returns covered the business year ended on any date between 1st July and 30th June and were due to be rendered on or before the 30th September following. For the same reasons as decided the Government to postpone the agricultural and decennial population censuses, the taking of the industrial census was suspended between the years 1930 and 1933.

The first census of industries subsequent to that of 1929-30 referred to business years which ended on any date in the calendar year 1933. The period covered by the later annual censuses is comparable with that adopted for 1933, and the returns are due to be rendered on or before the 31st March following. Certain preliminary figures are published in a Special Report as soon as they become available, and the detailed report of the census is issued a few months later as a separate publication.

Apart from the annual statistics of industrial production, returns of the quantities of certain commodities (additional to the foodstuffs mentioned below) manufactured monthly by certain industrial establishments have been collected as from January, 1937, with comparative figures for 1936. The commodities concerned are pig-iron, cement, building bricks, and soap and candles.

Index of Industrial Employment.—Particulars of employment are collected from a selected number of industrial establishments in each class of industry, and an index is published monthly in the Monthly Bulletin of Statistics.

Return of Certain Foodstuffs.—Monthly returns are obtained from all bacon and ham factories, cold stores, registered butter and cheese factories, and from the principal grain mills. Quarterly returns of butter sold on the principal markets and of cattle slaughtered at the chief abattoirs are collected. Statistics of wheat stocks held by co-operative societies are collected monthly.

Particulars are handed to the press about the 15th of the following month and are also published in the Monthly Bulletin of Statistics.

Fishery Statistics.—Particulars from Natal are collected monthly and published in the Monthly Bulletin of Statistics. The Cape provincial collection has now been suspended for a considerable number of years, but negotiations for obtaining these statistics are in progress, and it is hoped to be able to publish the figures regularly in the near future.

Wool and Mohair Stocks.—Returns of these are collected monthly from the five principal seaports of the Union, and the particulars are published in the Monthly Bulletin of Statistics.

Social.—Wage statistics, as well as details of membership of trade unions and employers' associations, are collected annually. Price statistics, retail and wholesale, are regularly compiled, the former monthly and the latter once a quarter. Retail quotations are secured every month from the following towns, viz.:—Capetown, Port Elizabeth, East London, Kimberley, Pietermaritzburg, Durban, Pretoria, Johannesburg, Benoni, Germiston, Krugersdorp, and Bloemfontein, as well as from Windhoek in South West Africa, while the wholesale price statistics are based on quotations from the four large coastal towns and Johannesburg. The "sundries" item, including clothing, etc., is dealt with once a quarter. Statistics of rents are collected annually.

Educational Statistics.—These statistics are compiled annually for State and State-aided schools, as well as for private schools, and are published, as they become available, in the Monthly Bulletin of Statistics or in the *Official Year Book.*

Local Government.—All local authorities render, once a year, returns of financial transactions, and details thereof appear in the *Official Year Book.* They are also required to submit details of their employees. Statistics of building plans passed and buildings constructed in respect of the nine principal towns are obtained and published monthly in the Monthly Bulletin of Statistics.

Crime, Divorce, and Insolvency.—Crime returns are secured monthly from approximately 700 "A" and "B" class police stations, and the results are summarized in the Monthly Bulletin of Statistics. A Special Report containing preliminary figures is published in advance of the annual report. Divorce and insolvency statistics are collected quarterly and monthly respectively. The former are published annually; the latter, monthly as well as annually.

Motor Vehicles.—Duplicates of all tax receipt forms are submitted by licensing officers each month, and statistics are published annually through the medium of Special Reports. Statistics of new motor vehicles as derived from the duplicate receipt forms are published monthly in the form of Press Releases and in the Monthly Bulletin of Statistics.

Road Vehicle Accidents.—A report on each accident, as it occurs, is obtained from the police station having jurisdiction over the area of occurrence. The statistics are published in the Monthly Bulletin of Statistics and the *Official Year Book*, and, from the year 1938, in a Special Report.

Miscellaneous.—Statistics are collected annually in a variety of subjects, such as savings banks, friendly societies, charitable institutions, art galleries, botanical gardens, museums, public libraries, roads and bridges, tramways, water boards, zoological gardens, etc. Particulars regarding the valuation of rural properties transferred, bonds passed, and deeds registered, are also collected. These statistics are published in the *Official Year Book.*

Trade, Banking, Finance and Insurance, Mining, and Railways.—Statistics dealing with these subjects, which are prepared by government departments and private bodies, are summarized and analysed for publication in the Monthly Bulletin of Statistics and the *Official Year Book.*

Publications.—These include the *Official Year Book* of the Union, which gives the substance of all available statistics and official information; the Monthly Bulletin of Statistics, which is designed to bring the information in the *Year Book* up to the latest possible date; Annual Reports—(i) Census of Agricultural and Pastoral Production, (ii) Census of Industrial Production, (iii) Vital Statistics, (iv) Migration Statistics, (v) Statistics of Crime; Special Reports which include *inter alia*: Farm Mortgage Interest Act Statistics, Mortgage Bonds Passed, Increased, Cancelled, and Part-paid, Motor Vehicle Statistics, Transfers of Rural Immovable Property, Workmen's Compensation, and Road Vehicle Accidents; Reports on the Population Censuses.

(ii) *Office of Census and Statistics.*—The Office of Census and Statistics is organized in the following sections:—

Section.	Scope of Duties.
Administration	General executive work.
Population	Population census (quinquennial); vital statistics; migration; hospitals; rent census.
Production	Agricultural and pastoral censuses; statistics of manufacturing industries (annual and monthly), electrical undertakings, and fisheries.
Social	Labour and wages; retail prices (monthly); wholesale prices (quarterly); crime and penology; insolvencies; divorces; local government; charitable institutions; schools; motor vehicles; workmen's compensation; road vehicle accidents; miscellaneous.
Tabulation	Tabulation by means of mechanical and electrical card-sorting and counting machines.
Compilation and Computing	Tabulation by hand; calculations by calculating machines or otherwise; statistical analyses; tabulation of insurance returns; general statistics in regard to finance, banking, exchange, trade, mining, transportation, land values, mortgage bonds, etc.
Publications	Publications of the Census Office; library; revision of works of reference.

(iii) *Field Organization.*—For certain purposes, such as the censuses of agriculture and manufactures, the Union police force has supplied the necessary field machinery in a most adequate manner. The police organization covers every part of the country and has been perfected to such an extent that, for any operations of this kind, it is able to render efficiently a service, which otherwise would involve a very heavy annual expenditure from public funds. The circumstances inevitably surrounding a population census render it impossible to utilize the assistance of the police force to any great extent, with the result that a complete system of field organization has to be improvised

on the occasion of each census, involving in the Union, as in almost all other countries, a very considerable but unavoidable item of public expenditure. The local supervision of the various censuses is undertaken almost entirely by government officials—electoral officers or magistrates.

(iv) *International Convention relating to Economic Statistics.*—The Union, including the mandated territory of South West Africa, ratified this Convention on the 1st May, 1930. The Convention and the Protocol, which were approved of and signed at Geneva on the 14th December, 1928, by the plenipotentiaries representing most of the principal nations of the world, came into force on the 15th December, 1930, when, in accordance with the provisions of the Convention, ten signatories had deposited their ratifications. The Union Government sent its own representative to Geneva to take part in the discussions.

The object of the Convention is to assure, on a comparable basis, the availability of statistics showing the economic position and development in different countries and in the world as a whole. This aim is to be achieved by simultaneous and concentrated action in regard to the official preparation and publication of various classes of economic statistics, and the general adoption of uniform methods in the preparation of certain statistical returns.

§ 2. Archives.*

1. **Early Organization.**—In 1876 the Government of the Cape of Good Hope appointed the first commission to inquire into the state of the Colonial Archives. A few years later a Keeper of the Colonial Archives was appointed, and the records from 1652 to 1806 were placed in his custody. To these archives were added the documents of the four oldest magistracies. In addition to the usual duties of an archivist, the Keeper published from time to time an English précis of some of the more important archives of the early period under the title of *Précis of the Archives of the Cape of Good Hope.* In the Transvaal an archives branch of the Colonial Secretary's Department was established soon after the grant of Crown Colony Government in 1902, to take custody of and examine that portion of the South African Republic records which was preserved in the late State Secretary's Department, and such other records as might be collected. In addition to these duties the Keeper translated into English and prepared an index of the resolutions of the Executive Council. In neither Natal nor the Orange Free State was there a specially constituted archives department.

2. **Post-Union Organization.**—No definite steps were taken to co-ordinate the archives of the four provinces after Union until 1919, when a Chief Archivist was appointed. He is responsible for both Union and provincial archives. Since then the *Public Archives Act*, No. 9 of 1922, has been passed, which divides the archives into (*a*) Union archives and (*b*) Provincial archives. Those under (*a*) form the records of the Central Government since Union, and are still in the custody of State departments; but when thirty years old they will be transferred to the archives. The provincial archives are those which formed the separate records of each of the four provinces before Union and the records of magisterial offices; to them will be added the records of the Provincial Administrations when thirty years old. The bulk of the pre-Union records has been centralized in the archives depots of the capital of each province. The Union archives will be centralized in the depot in the administrative capital, Pretoria. In terms of the Act an Archives Commission has been appointed, and rules and regulations have been issued for the public use of the archives, the disposal of valueless records, and the transfer of public archives to the depots. Archives depots have been established at Bloemfontein and Pietermaritzburg, and a specially constructed archives building was built in 1925 at Bloemfontein—the first archives building erected in South Africa. The Transvaal archives are housed in the Union Buildings, Pretoria; the Cape archives in a special building in Queen Victoria Street, Capetown. The latter building has a fine reading room for research students, a museum for exhibiting some of the more interesting manuscripts bearing on the early history of the Cape, facilities for photographing documents, and a bindery. There is ample space for future expansion in the vacant ground at the back of the buildings. In Natal the archives are accommodated in an up-to-date archives building erected in 1936. In each province there is an Archivist responsible to the Chief Archivist. The concentration of records in each province, with a staff

* See "The Public Archives of South Africa, 1652–1910", by C. Graham Botha, Chief Archivist for the Union, publ. 1928.

and an officer in charge, and the whole administration centred in the Chief Archivist, secures uniformity in administration, classification, arrangement, indexing, methods of preservation, and general care.

In recent years there has been a marked increase in the use of the archives of the various provinces. The number of research students and of the general public using the archives indicates that their value is being recognized as a national asset and that they are of importance for historical research.

From time to time collections of private papers are acquired by the various archives. Among the most important are the Joubert, the Lauts, the Leyds, and the Burgers Papers in the Transvaal Archives; the Shepstone and the Colenso Papers in the Natal Archives; and the Maclear Papers in the Cape Archives.

In 1933 the Union Government established Film Archives, which are housed in the Archives at Capetown. The collection contains a number of historical films.

The Archives Commission has published a series of volumes, *Kaapsche Archiefstukken:* volumes covering the period 1778 to 1783 have so far been issued, and the work is being continued. A volume, *Voortrekker Archiefstukken*, 1829-1849, has recently been published.

§ 3. Bibliography of the Union of South Africa.

1. **Parliamentary and Government Reports.**—A classified list of the principal reports and similar publications issued by government departments from 1910 to 1929 appeared in *Official Year Book* No. 12. Subsequent issues contain particulars of publications issued in later years. No mention has been made of numerous publications, which have emanated from the Publicity Department of the South African Railways and South African Publicity Agent's Office in London. These, though interesting and informative, are of a special character. It is to be noted also that between 1920 and 1926 the annual reports of a number of government departments were published in abridged form in a combined volume.

(*a*) REPORTS OF PARLIAMENTARY SELECT COMMITTEES, GOVERNMENT COMMISSIONS, ETC., CLASSIFIED ACCORDING TO SUBJECTS.

NOTE.—(S) denotes Senate Reports.

(I) SELECT COMMITTEE REPORTS (1934 to 1938).

Agriculture.
- 1934: 7. Herbert Ainsworth Settlers Trust (Private) Bill.
- 1936: 10. Live Stock and Meat Industries Bill.
- 1936: 3. Co-operative Societies Bill.
- 1936: 4. Dairy Industry Bill.
- 1936: 6. Marketing Bill.
- 1937: 16. Wheat Transactions.

Asiatics.
- 1936: 11. Transvaal Asiatic Land Tenure Amendment Bill.
- 1937: 11. Subject of Provincial Legislative Powers Extension Bill and of Transvaal Asiatic Land Bill.

Commerce and Trade.
- 1934: 16. Trade Coupons Bill.
- 1936: 16. Insolvency Bill.
- 1936: 17. Mine Trading Amendment Bill.
- 1938: 11. Subject of Customs Agents and Clerks Bill.

Education.
- 1936: 5. University of the Witwatersrand, Johannesburg (Private) Act Amendment Bill.

Electorate.
- 1935: 10. Population Registration and Compulsory Registration and Voting

Finance.
- 1934: 1 and 2. Public Accounts and Railways and Harbours.
- 1934: 1. Public Accounts.
- 1934: 11. South African Association Further Amendment (Private) Bill
- 1934: 12. Trust Moneys Protection Bill.
- 1934: 18. Building Societies Bill.
- 1935: (S) 3, 3A, and 3B. Land Grants, Pensions and Gratuities.
- 1935: 1. Public Accounts.
- 1935: (S) 3 and 3A. Land Grants, Pensions and Gratuities.
- 1935: 5. Malmesbury Board of Executors and Trust and Fire Assurance Company (Amendment) (Private) Bill.
- 1935: 9. Insolvency Amendment Bill.
- 1936: 1. Public Accounts.
- 1936: 18. Land Bank Loan, Calvinia.
- 1936: 21. Pensions, Grants and Gratuities.
- 1937: 1. Public Accounts.
- 1937: 3. South African Mutual Life Assurance Society Amendment (Private) Bill.
- 1937: 8. Subject of Insurance Amendment Bill (Burial Societies).
- 1937: 12. British Kaffrarian Savings Bank Society (Private) Bill.
- 1937: 13. Subject of Companies Amendment Bill.
- 1937: 17. Petition of S. J. Gillmor.
- 1937: 21. Pensions, Grants and Gratuities.

1938..... 3 and 8. Public Accounts.
6 and 16. Pensions, Grants and Gratuities.
9. Petition of E. J. E. Lange (and Petition of J. G. W. Leipoldt and two others).
12. Subject of Accountancy Bill.

Industries.
1934..... 10. Live Stock and Meat Industries Bill.

Irrigation and Water Supply.
1934..... 3 and 3A. Irrigation Matters.
4. Sundays River Irrigation District Adjustments Bill (Hybrid Bill).
5. Pretoria Waterworks Further (Private) Bill.
14. Buffelspoort Irrigation District Adjustment Bill.
1935..... 3. Irrigation Matters.
4. Rand Water Board Statutes, 1903-33, Amendment (Private) Bill.
1936..... 14. Irrigation Matters.
1937..... 6. Durban Waterworks (Private) Bill.
7. Ultenhage (Groendal) Water (Private) Bill.
1938..... 9. Irrigation Matters.
2. Rand Water Board Statutes, 1903-1935, Amendment (Private) Bill

Law.
1934..... 8. Attorneys, Notaries and Conveyancers Admission Bill.
19. General Law Amendment Bill.

Labour.
1935..... 7. Unemployment Benefit Bill.
1936..... 7. Workmen's Compensation Amendment Bill.
9. Unemployment Insurance Bill.
1937..... 5. Subject of Wage Bill (and Industrial Conciliation Bill).
1938..... 13. Subject of Shops and Offices Bill.

Lands.
1935..... 6. John Dunn (Distribution of Land) Bill (Hybrid Bill).
8. Vyfhoek Management Bill (Hybrid Bill).
1936..... 12. Deeds Registries Amendment Bill.
20. Crown Lands.
1937..... 14. Subject of Deeds Registries Bill.
1938..... 20. Crown Lands.
5 and 15. Crown Lands.

Mines.
1936..... 8. Orange Free State Metals Mining Bill.

Natives.
1934..... 9. Native Affairs.
1935..... (S) 2 and 2A. Native Affairs.
1. Joint Committee on the Representation of Natives and Coloured Persons in Parliament and Provincial Councils and the Acquisition of Land by Natives.
1. Joint Committee on Natives and Coloured Persons (supplement).
(S) 4 and 4A. Sessional Committee on Native Affairs.
1936..... 12. Native Affairs.
1937..... 10. Native Affairs.
(Joint) S.C. 4. Native Affairs.
1938..... 1. Amendment of Native Laws.
7. Native Affairs.

Parliament and Government.
1934..... (S) 1 and 1A. Standing Orders.
1935..... (S) 1 and 1A. Sessional Committee on Internal Arrangements.
11. Question of Privilege.
1936..... 19. Standing Rules and Orders.
1937..... 18. Standing Rules and Orders.
19. Internal Arrangements.
1938..... 4 and 14. Standing Rules and Orders.

Public.
1934..... 13. Sea Shore Bill.
17. Slums Bill.
1936..... 13. Arms and Ammunition Bill.
15. Public Holidays.
1937..... 10. Subject of Proprietary Medicines and Appliances Bill.
15. Children's Bill.

Railways and Transport.
1934..... 1 and 2. Public Accounts and Railways and Harbours.
1935..... 2. Railways and Harbours.
1936..... 2. Railways and Harbours.
1937..... 2. Railways and Harbours.
1938..... 1 and 10. Railways and Harbours.

(II) GOVERNMENT REPORTS (1932 to 1938).

Agriculture.
Report of the Pre-cooling Commission on Deciduous Fruits (U.G. 51—'36).
Report of the Wine Commission (U.G. 25—'37).

Asiatics.
Report of the Indian Colonization Enquiry Committee, 1933-34 (U.G. 23-'34).
Report of the Transvaal Asiatic Land Tenure Act Commission, Parts I and II (U.G. 7—'34) and and III (U.G. 22—'35).
Report of the Transvaal Asiatic Land Tenure Act Commission, Parts IV, V, and VI (U.G. 50-'35, U.G. 40-'36, and U.G. 42-'36).
Report of the Transvaal Asiatic Land Tenure Act Commission, Part VII (U.G. 11—'37).
Report of the Transvaal Asiatic Land Tenure Act Commission, Part VIII (U.G. 35—'37).

Commerce and Trade.
Report of the Trading on Mining Ground Commission (U.G. 33—'35).

Co-operation and Agricultural Credit.
Report of Commission of Enquiry into Co-operation and Agricultural Credit (U.G. 16—'34).

Education.
Report of Committee of Enquiry into Subsidies paid to Universities, University Colleges, and Technical Colleges (U.G. 8-'34).
Report of Conference on Rural Education, 1934 (U.G. 29—'34).

Finance.
Report of the Provincial Finance Commission appointed in 1933 (U.G. 46—'34).
Report of the Commission on the Economic and Financial Relations between the Union of South Africa and the Mandated Territory of South West Africa (U.G. 16—'35).
Report of the Departmental Committee on Pensions (U.G. 48—'35).

Health.
Report of the Central Housing Board (U.G. 18—'36).
Report of the Central Housing Board (U.G. 23—'37).
Report of Committee on Mental Hospitals (U.G. 36—'37).

Justice.
Report of the Company Law Commission (U.G. 45—'36).
Report on Retention of Bar Licences (U.G. 32—'37).
Report of the Police Commission of Enquiry (U.G. 50—'37).

Labour.
Report of the Unemployment Investigation Committee (U.G. 36—'32).
Report of the Industrial Legislation Commission (U.G. 37—'35).

Mining.
Low Grade Ore Commission (U.G. 16—'32).

Miners' Phthisis.
Inquiry into the Position of Miners' Phthisis Beneficiaries (U.G. 18—'35).

Natives.
Report of Native Economic Commission (U.G. 22—'32).
Report of the Native Education Commission (U.G. 29—'36).
Notes on the Conference between the Municipalities and the Native Affairs Department (U.G. 56—'37).
Report of the Proceedings of The Natives Representative Council, 1937 (U.G. 7—'38).

Population.
Report on 5th (1931) Census of the Union (Europeans) (U.G. 11—'33).
Report of Indian Colonization Enquiry Committee, 1933-34 (U.G. 23—'34).
Report on the 6th (1936) Census of the Union (Preliminary) (U.G. 50—'36); Vol. I, Distribution (U.G. 21—'38); Vol. II, Ages (U.G. 28—'38); Vol. III, Marital Condition (U.G. 39-'38); Vol. IV, Languages (U.G. 44—'38); Ages and Marital Condition of the Bantu Population (U.G. 50—'38); Vol. X, Unemployment (U.G. 14—'39).

Railways, Transport, and Communication.
Report of Post Office-Railways (Electrical Communications) Commission (U.G. 40—'32).
Report concerning Construction of Railway—(i) Springs-Nigel and (ii) Tuinplaats-Marble Hall (U.G. 19—'33).
Report of Committee of Enquiry into Railway Printing (U.G. 18—'34).
Report of the Railway and Harbour Affairs Commission (U.G. 36—'34).
Report of the Harbours Affairs Commission, 1934, Parts A and B (U.G. 27—'35).

South West Africa.
Report to League of Nations concerning Administration of South West Africa, 1933 (U.G. 27—'34), 1934 (U.G. 26—'35), 1935 (U.G. 25—'36), 1936 (U.G. 31—'37), 1937 (U.G. 25—'38).
Report of the Commission on the Economic and Financial Relations between the Union of South Africa and the Mandated Territory of South West Africa (U.G. 16-'35).
Report of the South West Africa Commission (U.G. 26—'36).

General.
Report on Broadcasting Policy and Development (U.G. 14—'35).
Report of the Settlers' Relief Commission, 1934 (U.G. 25—'35).
Report of Interdepartmental Committee on Destitute, Neglected, Maladjusted and Delinquent Children and Young Persons 1934-1937 (U.G. 38—'37).
Report of Inquiry into Expenditure of European Families (U.G. 21—'37).
Report of the Commission of Inquiry regarding Cape Coloured Population of the Union (U.G. 54—'37).
Report of the Committee on Poor Relief and Charitable Institutions (U.G. 61—'37)

(*b*) ANNUAL GOVERNMENT REPORTS.

Agriculture and Forestry.
Census of Agricultural and Pastoral Production, 1917-18 *et seq.**
Report of the Department of Agriculture and Forestry (published in *Farming in South Africa*).
Report of the Division of Forestry.
Report on Low Temperature Research.
Report of Dairy Research Institute.

Archaeology.
Report of the Bureau of Archaeology.

Assize.
Report of Superintendent of Assize.

Aviation.
Report of the Director of Civil Aviation.

Building Societies.
Report of the Registrar of Building Societies.

Central Road Transportation Board.
Annual Report.

Commerce.
Trade Reports—Customs and Excise (Annual and Quarterly).

Crime.
Statistics of Crime. (Census Office.)

Defence.
Departmental Report.

Education.
Union Education Departmental Report.
Reports of Education Departments of Cape, Natal, Transvaal, and Orange Free State.

Electricity Supply Commission.
Annual Report.

Explosives.
Report of Chief Inspector of Explosives.

Finance.
Controller and Auditor-General's Report.
Commissioner for Inland Revenue's Report.
Provincial Auditor's Reports.

Fisheries.
Report of Director of Fisheries.

Forests.
Report of the Division of Forestry.

Fuel Research Board.
Annual Report.

Government.
Estimates of Revenue.
Estimates of Expenditure from Revenue and Loan Funds.

Harbours.—See Railways.

Historical Monuments.
Report of the Historical Monuments Commission.

Hospitals.
Provincial Auditors' Reports (Cape and Natal).

Industries.
Census of Manufacturing Industries, 1915-16 *et seq.**

Insurance.
Summaries of Insurance Returns, 1924 *et seq.*

Irrigation and Water Supply.
Irrigation Department Report.
Irrigation Commission Report.

Labour.
Labour Department Report (including Reports of Chief Inspector of Factories, Wage Board, and Workmen's Compensation Commissioner).

Land Bank.
Land and Agricultural Bank Report.

Lands.
Report of Department of Lands.

Local Government.
Reports of Provincial Auditors (Cape and Natal).

Mental Hygiene.
Report of Commissioner for Mental Hygiene.

Meteorology.
Report of the Meteorological Office.

Migration.
Statistics of Population (1916 to 1918).
Migration Statistics, 1927 *et seq.*

Miners' Phthisis.
Miners' Phthisis Board Report.
Miners' Phthisis Medical Bureau Report (published every three years).
Miners' Phthisis Medical Board of Appeal Report.

Mines.
Reports of Government Mining Engineer (Annual and Monthly).

Native Affairs.
Departmental Report.
Report of Native Affairs Commission.

Parliament.
Estimates of Revenue.
Estimates of Expenditure from Revenue and Loan Funds.

Population.
Statistics of Population (1916 to 1918).
Vital Statistics, 1926 *et seq.*
Migration Statistics, 1927 *et seq.*

Posts, Telegraphs, and Telephones.
Departmental Report.

Prisons.
Departmental Report.

Provincial Administration.
Estimates of Revenue and Expenditure of Cape, Natal, Transvaal, and Orange Free State.
Reports of Provincial Auditors.
Estimates of Capital Expenditure of Cape, Natal, Transvaal, and Orange Free State.

Public Debt.
Public Debt Commissioners' Report.

Public Health.
Departmental Report.
Report of Commissioner for Mental Hygiene.
Report of the Central Housing Board.

Public Service.
Report of Public Service Commission.

Railways and Harbours.
Report of General Manager of Railways and Harbours.
Railways and Harbours Board Report.
Controller and Auditor-General's Statement of Accounts.
Estimates of Revenue and Expenditure.
Estimates of Expenditure on Capital and Betterment Works.

Roads.
Report of the National Road Board.
Report of Provincial Roads Engineer (Transvaal).

Shipping Board.
Annual Report.

South West Africa.
Report of the Government of the Union of South Africa to the League of Nations.
Estimates of Revenue and Expenditure.
Accounts of the Administration of South West Africa for the Financial Year, together with the Report of the Controller and Auditor-General thereon.

Veterinary.
Report of Department of Agriculture and Forestry.

Vital Statistics.
Statistics of Population (1916 to 1918).
Reports, 1926 *et seq.*

*The collection of these statistics was suspended between the years 1930 and 1933.

2. **Works of Reference and Periodicals.**—The list hereunder enumerates the principal publications of a periodical or special character issued in the Union by public and official bodies and societies and by publishing companies. The list does not claim to be exhaustive.

(a) *Year Books, Directories, and General Works of Reference—*

Federation of British Industries—Annual Reports on British South Africa.
Hortors' Diary and Law List for South Africa.
Monthly Bulletin of Statistics.
Official Year Book of the Union of South Africa.
South African Municipal Year Book.
South African Who's Who (*Ken. Donaldson*).
South and East African Year Book and Guide (*Union-Castle Company*).
Year Book of the Rand Airport.
Statistics of Migration (Annually).
Statistics of Production (Annually)*—
(*a*) Agricultural, 1917-18 *et seq.*
(*b*) Industrial, 1915-16 *et seq.*
Trade and Shipping of the Union of South Africa and the Territory of South West Africa (Quarterly and Annually).
Vital Statistics of the Union (Annually).

(b) *Periodicals and other Miscellaneous Trade Reports—*

(i) *Agriculture—*

Agricultura et Industria (*Pretoria*).
Boere Saamwerk Produce Bulletin (*Port Elizabeth, East London, Capetown*).
Bulletins of the Department of Agriculture and Forestry (Official) (*Pretoria*).
Crops and Markets (Department of Agriculture and Forestry—Official) (*Pretoria*).
Die Landbouweekblad (*Bloemfontein*).
Farming in South Africa (Official) (*Pretoria*).
Onderstepoort Journal of Veterinary Science and Animal Industry (*Pretoria*).
S.A. Milk Journal (*Johannesburg*).
S.A. Farmer (Die Suidafrikaanse Boer) (*Pretoria*).
South African Friesland Journal (*Bloemfontein*).
South African Fruit Grower and Smallholder (*Capetown*).
South African Poultry Magazine (*Bloemfontein*).
South African Wool (*Port Elizabeth*).
The Citrus Grower (*Port Elizabeth*).
The Farmer (*Pietermaritzburg*).
The Farmer's Weekly (*Bloemfontein*).

(ii) *Industry—*

Amalgamated Engineering Union Monthly Journal (*Johannesburg*).
Amalgamated Society of Woodworkers—Monthly Report (*Johannesburg*).
Engineer and Foundryman (*Johannesburg*).
Escom—A Magazine for the Electrical Home.
Industrial and Commercial South Africa (*Capetown*).
Industries of South Africa (*Durban*).
Iscor News—Nuus (*Pretoria*).
Journal of the Underground Officials' Association of South Africa (*Johannesburg*).
Mining and Industrial Magazine (*Johannesburg*).
Rhodesian Mining Journal (*Johannesburg*).
South African Builder (*Johannesburg*).
South African Electrical Review (*Johannesburg*).
South African Mining and Engineering Journal (*Johannesburg*).
South African Mining Review (*Johannesburg*).
South African Railways and Harbours Employees' Review.
South African Sugar Journal (*Durban*).
South African Typographical Journal (*Johannesburg*).
The Architect, Builder, and Engineer (*Capetown*).
The Mineworker (*Johannesburg*).
The Primary Producer (*Johannesburg*).
Trades and Labour Journal (*Johannesburg*).

(iii) *Commerce—*

African Chemist and Druggist (*Johannesburg*).
African Insurance Record (*Capetown*).
Barclays Bank—Monthly Trade Report (*Pretoria*).
British Trade in South Africa (*Capetown*).
Commercial Bulletin of South Africa (*Capetown*).
Commercial Opinion (*Capetown*).
Dun's Gazette (*Capetown*).
Financial Review (*Johannesburg*).
Industrial and Commercial South Africa and Storekeepers' Review (*Capetown*).
Insurance, Banking and Finance (*Capetown*).
Journal of the Institute of Bankers (*Capetown*).
Licensed Victuallers' Gazette (*Johannesburg*).
Monthly Bulletin of Chamber of Commerce, Capetown (*Capetown*).
South African Banking Magazine (*Johannesburg*).
South African Insurance Magazine (*Capetown*).
South African Philatelist (*Johannesburg*).
South African Printer and Stationer (*Johannesburg*).
South African Property Review (*Johannesburg*).
South African Railways and Harbours Magazine (*Johannesburg*).
South African Stationery Trades Journal (*Johannesburg*).
South African Trader (*Johannesburg*).
Standard Bank of South Africa Monthly Review (*Capetown*).
The Stock Exchange in a Nutshell.

(c) *Libraries, Museums, Learned Societies, etc.—*

Annals of the South African Museum.
Annals of the Transvaal, Natal, and other Museums.
Annual Report of Libraries.
Child Welfare Association—Report.
Classical Association of South Africa—Proceedings and Selected Papers.
Geological Society of South Africa—Transactions.
Journal of the Association of Certificated (S.A.) Mechanical and Electrical Engineers.
Journal of the Astronomical Society.
Journal of the Botanical Society of South Africa.
Journal of the Chemical, Metallurgical, and Mining Society of South Africa.
Journal of the Institute of Bankers.
Journal of the Institute of Land Surveyors of Transvaal.
Journal of the Medical Association of South Africa.
Journal of the Ornithological Society.
Journal of the South African Chemical Institute.
Journal of the South African Geographical Society.
Journal of the South African Institute of Engineers.
Journal of the South African National Union (1908-11).
Michaelis Art Gallery (*Capetown*)—Reports.
National Zoological Gardens (*Pretoria*)—Reports.
Natural and Historical Monuments Commission Reports (Annual).
Royal Observatory—Publications.
Royal Society of South Africa—Transactions.
South African Architectural Record (*Johannesburg*).
South African Geographical Journal.
South African Journal of Economics.
South African Institute of Electrical Engineers—Transactions.
South African Journal of Science.
South African Law Journal.
South African National Gallery (*Capetown*)—Reports.
South African National Society for Preservation of Historic Objects (Annual).
South African Society of Civil Engineers—Proceedings.
The Municipal Magazine.
The South African Institute for Medical Research—Publications.
Tydskrif vir Wetenskap en Kuns.
Union Observatory—Circulars.
Van Riebeeck Society's Transcripts of Rare Documents.

* The collection of these statistics was suspended between the years 1930 and 1933.

(d) *General*—

Manual for Justices of the Peace (Official).
Manual of Criminal Procedure (Official).
Mayors' Minutes and Municipal Year Books.
Monthly Summary of Decided Cases in the Supreme Court of South Africa (Official).
Municipal By-Laws.
South African Indian Review with which is incorporated The African Chronicle.
Supreme Court Reports (Juta).

3. **General Works.**—*Official Year Book* No. 12 and previous issues of this *Year Book* contained detailed lists of the more important general works that were published in connexion with South Africa up to the year 1930. Books which appeared after that date were noted in *Official Year Book* No. 13 and subsequent issues. Books which have appeared since 1936 are mentioned in the subjoined list under appropriate headings, but the list is by no means exhaustive.

Afrikaans Language and Literature—

Le Roux (T. H.)—Afrikaanse Taalstudies. Pretoria, 1937.
Rousseau (H. J.)—Die Invloed van Engels op Afrikaans, Deel I. Capetown, 1937.

Economics—

Arndt (Dr. E. H. D.)—An Analysis of the Investment Policies of Life Insurance Companies in the Union of South Africa. Pretoria, 1937.
Busschau (W. J.)—The Theory of Gold Supply with special reference to the Problems of the Witwatersrand. Oxford, 1937.
Cloete (J. H.)—Johannesburg Stock Exchange Practice. Johannesburg, 1937.
Maud (J. P. R.)—City Government: The Johannesburg Experiment. Oxford, 1938.
Neumark (S. D.)—The Citrus Industry of South Africa: Its National and International Aspects. Johannesburg, 1938.
Schumann (C. G. W.)—Structural Changes and Business Cycles in South Africa, 1806–1936. London, 1938.
Van der Post (A. P.)—Economics of Agriculture. Johannesburg, 1937.

Education—

Milne (F. T.)—The Use of Scholastic Tests in South African Schools. Research Bulletin No. 2. Pretoria, 1937.
New Education Fellowship Conference. Capetown, 1934. Educational Adaptations in a Changing Society. Capetown, 1937.
Pells (E. G.)—European, Coloured and Native Education in South Africa, 1652–1938. Capetown, 1938.
Smuts (A. J.)—Education of Adolescents in South Africa. Capetown, 1938.

Geology—

A list of recent publications of the Union Geological Survey is given in Chapter I, § 4, E.

History and Description—

Agar-Hamilton (J. A. I.)—The Road to the North. London, 1937.
Armstrong (H. C.)—Grey Steel (Biography of General Smuts). London, 1937.
Baden Powell (Lord)—African Adventures. London, 1937.
Batson (A.)—African Intrigue. London, 1937.
Birkby (C.)—Zulu Journey. London, 1937.
Blackwell (L.)—African Occasions. London, 1938.
Carnochan (F. G.) and Adamson (H. C.)—Out of Africa. London, 1937.
Coetzee (A.)—Die Opkoms van die Afrikaanse Kuiturgedagte aan die Rand, 1886–1936. Johannesburg. 1938.
Collyer (J. J.)—The Campaign in German South West Africa, 1914–15. Pretoria, 1937.
Cutten (T. E. G.)—History of the Press in South Africa. Johannesburg.
Dawson (R. M.) (*Editor*)—The Development of Dominion Status, 1900–1936. Oxford, 1937.
De Kiewiet (C. W.)—The Imperial Factor in South Africa. Cambridge, 1937.
Devitt (N.)—Galloping Jack. London, 1937.
Du Toit (P. S.)—Onderwys aan die Kaap onder die Kompanjie, 1652–1795. Capetown, 1937.
Engelbrecht (Dr. S. P.)—Onbekende Herinneringe van E. J. P. Jorrissen oor die Eerste Vryheidsoorlog. Meegedeel deur Prof. Dr. S. P. Engelbrecht. Pretoria, 1937.
Foster (W.)—Night over Africa. London, 1937.
Franken (J. L. M.) (*Editor*)—Duminy-dagboeke. Capetown, 1938.
Fouche (Prof. L.) (*Editor*)—Mapungubwe: Ancient Bantu Civilisation on the Limpopo. Cambridge, 1937.
Fuller, (J. F. C.)—The Last of the Gentlemen's Wars. London, 1937.
Gibson (G. F.)—The Story of the Imperial Light Horse in the South African War. Johannesburg, 1937.
Gray (J.)—Payable Gold. Johannesburg, 1937.
Hailey (Lord)—An African Survey. London, 1938.
Hardinge (R.)—South African Cinderella. London, 1937.
Hattersley (A. F.) (*Editor*)—Later Annals of Natal. London, 1938.
Hertslet (J.)—The Zulu Scene. Durban, 1938.
Hustinx (A.)—Tussen Tafelberg en Zambesi. Utrecht, 1938.
Isaacs (N.)—Travels and Adventures in Eastern Africa, Vol. II. Capetown, 1937.
Jansen (E. G.)—Die Voortrekkers in Natal. Capetown, 1938.
Juta (M.)— Oom Paul. Amsterdam, 1938.
Klein (H.)—Stage Coach Dust. London, 1937.
Knight (C. W. R.)—Knight in Africa. London, 1937.
Leipoldt (Dr. C. L.)—The Bushveld Doctor. London, 1937.
Leipoldt (Dr. C. L.)—Die Groot Trek. Capetown, 1938.
Lewinsohn (R.)—Barney Barnato: From Whitechapel Clown to Diamond King. London, 1937.
Macmillan (W. M.)—Africa Emergent. London, 1938.
Nathan (Dr. M.)—The Voortrekkers of South Africa from Earliest Times to the Foundations of the Republics. Johannesburg, 1937.
Padmore (G.)—Africa and World Peace. London, 1937.

History and Description (continued)—

Potgieter (C.) and Theunissen (N. J.)—Kommandant-Generaal Hendrik Potgieter. Johannesburg, 1938.
Preller (Dr. G. S.)—Andries Pretorius: Lewensbeskrywing van die Voortrekker Kommandant-Generaal. Johannesburg. 1937.
Preller (Dr. G. S.)—Daglemier in Suid-Afrika. Pretoria, 1937.
Pretorius (H. S.) and Kruger (D. W.) (*Editors*)—Voortrekker-Argiefstukke, 1829–1849. Pretoria, 1937.
Rogers (A. W.)—The Pioneers of South African Geology and their Work. Johannesburg, 1937.
Rogers (G. M.)—I.... Alone: an Englishwoman's Sixty Adventurous Years in South Africa, 1876–1936. Pietermaritzburg, 1937.
Sauer (H.)—Ex Africa. London, 1937.
Schmidt-Pretoria (W.)—Der Kulturanteil des Deutchtums am Aufbau des Burenvolkes. Hanover. 1938.
Scholtz (G. D.)—Die Konstitusie en die Staatsinstellings van die Oranje-Vrystaat, 1854–1902. Amsterdam, 1937.
Skawran (P.)—Das Süd-Afrika-Buch. Berlin, 1937.
Special Correspondent.—The Nation on Guard: an Exposition of South Africa's Defence Policy. Capetown, 1937.
Van der Sleen, (W. G. N.)—Zuid-Afrika. Tilburg, 1938.
Vedder (H.)—Die Voorgeskiedenis van Suidwes-Afrika. Windhoek, 1937.
Vedder (H.)—South West Africa in Early Times. Oxford, 1938.
Walker (E.)—W. P. Schreiner—A South African. London, 1937.
Wessels (L. H.)—Die Mandaat vir Suidwes-Afrika. 's Gravenhage, 1938.
Wilson (J. C.)—Three-wheeling through Africa. London, 1937.

Law—

Bell (W. H. S.)—Estates Administration. Durban, 1938.
Blaine (C. H.)—New Consolidated Index to the Statute Law of the Union of South Africa up to 1936. Durban, 1937.
Emmett (E.)—The Law of Negotiable Instruments. Capetown, 1938.
Goldberg (W.)—A Guide to the Preparation of Accounts of Trustees and Liquidators. Capetown, 1938.
Kriel (H. J.)—Executors' Accounts and Death Duties Affidavits. Capetown, 1938.
Pollak (W.)—The South African Law of Jurisdiction. Johannesburg, 1937.
Roberts (C. C.)—Tangled Justice: Some Reasons for a Change of Policy in Africa. London, 1937.
Van Wyk (J. T.) and Froneman (G. F.)—Die Kieswet. Capetown, 1937.
Wessels (Sir J. W.)—Law of Contract in South Africa, Vol. II. Johannesburg, 1937.
Wille (G.)—Principles of South African Law. Capetown, 1937.
Wille (G.) and Millin (P.)—Mercantile Law of South Africa. Ninth Edition. Johannesburg, 1937.

Mineral Resources—

A bibliography of recent publications dealing with the Minerals of South Africa will be found in Chapter XXII, § 14.

Natives and Native Art—

Beach (D. M.)—Phonetics of the Hottentot Language. London, 1937.
Consultative Committee, Joint Councils of European and Bantu, 1937.
Dodd (A. D.)—Native Vocational Training. Lovedale, 1938.
Franklin (N. N.)—Natives and the Administration of Justice. Johannesburg, 1937.
Fraser (Sir J. G.)—Anthologia Anthropologica: Native Races of Africa and Madagascar. London, 1938.
Frobenius (L.) and Fox (D. C.)—African Genesis. London, 1938.
Hobley (C. W.)—Bantu Beliefs and Magic. London, 1938.
Jones, Rheinallt- (J. D.) and Doke (C. M.) (*Editors*)—Bushmen of the Southern Kalahari. Johannesburg, 1937.
Junod (H. P.)—Bantu Heritage. Johannesburg, 1938.
Laubscher (B. J. F.)—Sex, Custom and Psychopathology: A Story of South African Pagan Natives. London, 1937.
MacCrone (I. D.)—Race Attitudes in South Africa. Oxford, 1937.
Neilson (P.)—The Colour Bar. Capetown, 1937.
Phillips (Dr. R. E.)—The Bantu in the City (a Study of Cultural Adjustment on the Witwatersrand). Lovedale, 1938.
Schapera (I.) (*Editor*)—The Bantu-speaking Tribes of South Africa. An Ethnographical Survey. London, 1937.
Schapera (I.)—A Handbook of Tswana Law and Custom. Oxford, 1938.
Stockil (J. H.)—Siyangapi (Whither are we Drifting). (A treatise dealing with the Native problem in South Africa). Durban, 1937.
Stuart (P. A.)—An African Attila: Tales of the Zulu Reign of Terror. Pietermaritzburg, 1938.

Natural Science—

Alston (M.)—Wanderings of a Bird Lover in South Africa. London, 1937.
Bolus (H. M. L.)—South African Succulents. Wynberg, 1937.
British Empire Vegetation Committee—Vegetation of South Africa. London, 1938.
Hecton (J. M.)—Introduction to the Botany of Field Crops, 2 Vols. Johannesburg, 1938.
Jacot-Guillermod (C. F.)—Ten New Species of Thysanoptera and a Catalogue of the Known South African Forms. Pretoria, 1937.
Janse (A. J. T.)—Moths of South Africa, Vol. III. Pretoria, 1937.
Kearton (C.)—Diere by die Drinkplek. Capetown, 1937.
Pickford (G. E.)—A Monograph of the Acanthrodrilline Earthworms of South Africa. London, 1937.

Religion—

Clinton (D. K.)—The South African Melting Pot. London, 1937.
Moorrees (A.)—Die Nederduits Gereformeerde Kerk in Suid-Afrika. Capetown, 1937.
Westermann (D.)—Africa and Christianity. Oxford, 1937.

CHAPTER I.

HISTORY AND DESCRIPTION.

§ 1. The Development of South Africa.

In Chapter XXVIII will be found a table of the principal events in South African history.

Articles by various contributors, relating to the history and development of the country, were published in earlier editions of the *Year Book*. A list of such special articles will be found at the end of this volume.

§ 2. Capital Cities.

Under the *South Africa Act*, 1909, it is laid down (section 18) that Pretoria shall be the seat of Government and (section 23) Capetown the seat of the Legislature of the Union, thus practically establishing a system of two capitals, though the Act does not describe either city under that term. Under this arrangement the headquarters of the various departments of State with their staffs are placed in Pretoria; while the Houses of Parliament and the parliamentary establishment are situated in Capetown. In terms of section 94 of the *South Africa Act*, the seats of the Provincial Governments are fixed respectively at Capetown, Pietermaritzburg, Pretoria, and Bloemfontein.

§ 3. Area.

1. **Area.**—The total area of the Union is 472,550* square miles: the area of each province is given hereunder. The area of each magisterial district will be found in the district summary at the beginning of this volume. These figures are subject to correction from time to time as re-surveys of portions of the country are undertaken.

AREA OF PROVINCES.

Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Union.
Sq. Miles. 277,169*	Sq. Miles. 35,284	Sq. Miles. 110,450	Sq. Miles. 49,647	Sq. Miles. 472,550*

2. **Comparison with other Countries.**—Particulars are given hereunder as to the total area of the Union in comparison with the area of each self-governing British Dominion and of certain other countries in Europe, America, Asia, and Africa:—

AREA OF UNION AND VARIOUS COUNTRIES.

Union	472,550 square miles*
South West Africa (excluding Walvis Bay—430 sq. miles)	322,450 square miles

Country.	Sq. Miles.	Country.	Sq. Miles.
GREAT BRITAIN	89,041	EUROPE—	
IRELAND—		Germany (including Austria and Sudetenland)	223,300†
Northern Ireland	5,237	France	212,659
Eire	26,592	Spain	196,607
BRITISH DOMINIONS, ETC.—		Sweden	173,347
Canada	3,694,863	Norway	118,752
Newfoundland (with Labrador)	162,734	Italy	119,714
Australia	2,974,581	Denmark (with Iceland)	55,348
India (including Native States)	1,808,679	Portugal	35,490
Rhodesia—		Greece	50,270
Southern and Northern	440,664	Switzerland	15,944
Kenya	224,960	Netherlands	12,692
Tanganyika Territory	360,000	Belgium	11,775
New Zealand (with dependencies)	104,751		

* Walvis Bay (area 430 sq. miles) is included in this total, but the area is administered under Act No. 24 of 1922 as a part of the mandated territory of South West Africa.
† Approximately.

AREA OF UNION AND VARIOUS COUNTRIES—*(continued)*.

Country.	Sq. Miles.	Country.	Sq. Miles.
ASIA—		AFRICA—	
China (with dependencies)	4,277,170	Egypt and Sudan	1,352,600
Japan (with Korea, Formosa, etc.)	260,662	Belgian Congo	860,233
		Angola	487,788
NORTH AMERICA—		Tripoli (Libya)	420,500
United States	2,973,776	Portuguese East Africa	283,800
Mexico	763,944	Madagascar	228,000
		Cameroons	191,130
SOUTH AMERICA—			
Brazil	3,275,510		
Argentine Republic	1,079,965		

§ 4. Topography and Geology.*

The Union of South Africa occupies an area of 472,120† square miles at the southern extremity of Africa. It is, therefore, only about one-eighth the size of Canada. It lies between latitudes 22° 10′ and 34° 50′ South, so that except for a narrow strip along its northern boundary it is all within the temperate zone. On three sides it is swept by the ocean, while along an irregular boundary on its north lie the territories of South West Africa, Bechuanaland, Southern Rhodesia, and Mozambique.

Of the four provinces that constitute the Union, the Cape of Good Hope is larger than the others combined. From its north-eastern boundary the Orange Free State, Natal, and the Transvaal project northward. The Transvaal, which lies the farthest north, occupies less than one-fourth of the total area of the Union and is by far the richest in mineral wealth. It has produced over 80 per cent. of the total value of the mineral output of the Union and possesses very large reserves of gold, coal, iron, and other ores.

A.—PHYSICAL FEATURES.

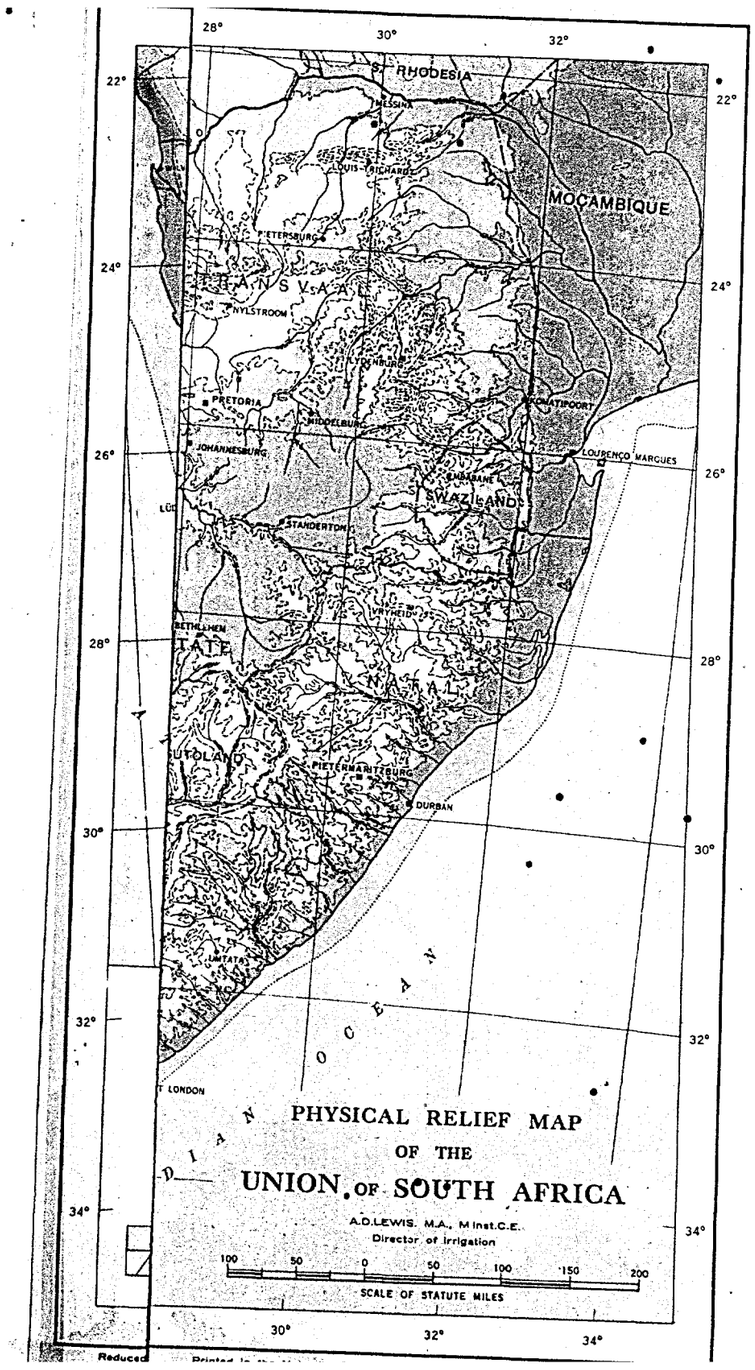
The Union of South Africa is divided into an interior plateau and a diversified tract of country between it and the ocean on the east, south, and west; the escarpment which separates the two regions is the Drakensberg of the Transvaal, the Drakensberg or Quathlamba of Natal and the Transkei, the Stormberg of the north-eastern Cape Province, the Sneeuwberg, Nieuweveld, Komsberg, Roggeveld, Bokkeveld, and Kamiesberg farther south and west, and it is continued northwards under less well-known names to beyond the Cunene river. The highest parts of the country are generally on or near the edge of the escarpment; it is only in the south, where the Cape ranges lie, that the ground between the escarpment and the coast rises in places to greater heights than on the escarpment itself. Though the highest point in the sub-continent (Mont-aux-Sources) is only about 11,000 feet above sea-level, some 39½ per cent. of the Union is included within the 4,000-feet contour, and most of this elevated country lies on the interior plateau.

The plateau is generally a country of great plains from which rise flat-topped hills of irregular plan, for it is chiefly made of nearly horizontally bedded shales and sandstones and sheets of dolerite, varying in the resistance they offer to denudation; but where these flat rocks (Karroo beds) have been removed, as in the northern and central Transvaal, Griqualand West, Prieska, Kenhardt, and Namaqualand, the older rocks usually appear in ridges or plains according to the attitude of their beds, or in irregular plains and craggy hills where they are extensive igneous intrusions.

The interior plateau can be divided up into several regions more or less sharply defined from each other by the shape and character of the surface and the climate. The number of these regions can be increased by narrowing the range of characters considered to be distinctive of each, but most of those adopted here are commonly recognized as convenient units. The surface characters are the results of past geological events and climate, but although references to some of these events will be found in this and the succeeding

* Based on a contribution by A. W. Rogers, Sc.D., F.R.S., formerly Director of Geological Survey, revised by S. H. Haughton, D.Sc., Director of Geological Survey.

† Excluding Walvis Bay (area 430 square miles).



the west and the Low Country of the Limpopo valley on the north. The Pilgrims Rest goldfields, the amosite (asbestos) mines, and the corundum deposits of the Pietersburg plateau are in the region, while the chrysotile asbestos near Kaapsche Hoop is just below the escarpment on the east; the undeveloped coalfield of the Waterberg Flats may be important in the future.

10. **The Low Country.**—The Low Country stretches from the Limpopo valley behind the escarpment past the eastern end of Zoutpansberg southwards to meet the South-eastern region below the escarpment east of Carolina; it thus embraces country both behind and below the escarpment, which abuts on the southern flank of Zoutpansberg, west of the area where that range disappears under the Karroo rocks of the Lebombo Flats. Thus defined, the Low Country includes the high ground known as the Barberton Mountain Land, where the heights considerably exceed the 3,000 feet often regarded as the upper limit of the Low Veld. Malaria is prevalent in the lower ground; the rainfall varies from 50 or 70 inches in places on the slope of the escarpment to 20 in the east and in the Limpopo valley. Made chiefly of granite and schists, in which the copper mines of Messina are worked, the Limpopo valley retains large areas of Karroo sediments, basalts, limburgites, and soda-rich basic lavas. The Lebombo range on the east is made of Karroo rocks, including the thickest succession of volcanic beds of that date in the Union; these beds dip seawards. The Barberton Mountain Land owes its prominence to strong quartzites. The gold mines of Barberton are important, and other minerals worked in the region are talc, magnesite, and mica.

The country between the escarpment and the ocean is considerably smaller than the interior plateau, but as regards climate and structure it presents as much diversity. The outstanding difference in structure is due to the existence of the Cape ranges, folded mountains of late Karroo age, whereas in the plateau region all important folding took place in very much earlier—probably pre-Cambrian—times, and the late or post-Karroo earth-movements were either widespread and vertical or, in a few regions, local and vertical. The axes of folding in the Cape ranges do not follow closely the curve of the escarpment, nor are they parallel to the coast, but it is obvious that these three great physical features are to some extent interrelated. The country below the escarpment can be conveniently sub-divided into the following regions:—

11. The Great Karroo.	13. The Folded Belt.
12. The South-eastern Region.	14. The Coast Belt.

11. **The Great Karroo.**—The Great Karroo is the dry country (average rainfall from less than 5 to 15 inches) between the escarpment and the Folded Belt. Its eastern limit is ill-defined, but may be placed on the Sundays river, beyond which the rainfall increases towards the north-east and the Cape ranges disappear, so that the slope to the coast is not broken by a defined mountain range. The region lies between 1,000 and 4,000 feet (Klein Roggeveld) above the sea. The driest parts are the Tanqua Karroo on the west and the Ghoup (or Gouph), the valleys of the Dwyka and Gamka rivers, in the central part. The region is immediately underlain by the lower half of the Karroo formation; thin soils and rock-strewn surfaces between outcrops of sandstone and shale are characteristic. The alluvial soils along the rivers are very fertile where protected from the accumulation of salts. Defined pans are not found in the region, but on the shale flats there are irregularly bounded bare areas covered with a brak silt, which may be regarded as pans in process of formation. The vegetation is drought-resisting scrub; grass appears only in exceptionally wet years. The Great Karroo has gradually become occupied since the early years of the nineteenth century; before that time it was regarded as a desert unfit for man or beast, but well-sinking and motor transport have bettered the conditions.

12. **The South-eastern Region.**—The South-eastern Region consists of the seaward slope of the escarpment from the Graaff-Reinet district north-eastwards to the southern limit of the Low Country. At the western end the Folded Belt lies between it and the coast, but the Cape ranges are finally cut through by the coast near the mouth of the Great Fish river, and beyond that neighbourhood the Lower Karroo beds reach the coast unfolded for many miles, but, in a small tract at the Umgazana mouth, inclined Stormberg beds lie on the coast south of an east and west fault, and in eastern Pondoland the lower Karroo beds dip towards the shore at considerable angles. Farther

north in Natal a wide belt of pre-Karroo rocks appears along the axis of a low anticline flanked on the coast side by remnants of Karroo beds. The middle Ecca beds in Natal contain the coal of the Natal fields. In the interior of the region the country is terraced by thick dolerite sheets and massive sandstones, and remarkable intrusions related to the Karroo dolerites, but more bulky and with a wider range in composition, form the Ingeli, Tonti, Insizwa, and Mount Currie. The rainfall increases (from 15 to 40 inches) towards the north-east, and the streams become more and more permanent in the same direction. The rivers in general have steep grades, but there are numerous instances of long stretches of low grade with ox-bows and meanders above falls or rapids on thick sandstones or dolerite sheets, and the valleys are usually deeply entrenched in the terraced landscape. Grass is the characteristic vegetation, but in the south-west there is a transition to Karroo scrub, and forest and thick bush become conspicuous in the valleys towards the north-east.

13. **The Folded Belt.**—The Folded Belt embraces the mountain ranges in the south of the Cape Province and the wide valleys between them. The Cape ranges owe their existence primarily to the earth-movements of late Karroo times, but they are made of the harder, more weather-resisting portions of the very thick (probably at least 20,000 feet) body of strata known to have been involved in the folding; so these ranges have quartzitic rocks on the surface and sandy soils poor in lime and clay. The valleys are mainly in the synclines, predominantly shales of the folded formations and shales and conglomerates of the Cretaceous beds, which were deposited unconformably on the folded rocks; but extensive tracts of pre-Cape slates, granites, and limestones appear in the cores of certain anticlines and on the west from under the less disturbed flank of the folded rocks. The region ranges from near sea-level to 7,627 feet in the Seven Weeks' Poort mountain on Swartberg, and in soil and climate it presents as great variety as or even greater variety than any other of the regions into which the country is here divided. The Little Karroo of Ladismith (Cape) has a considerable resemblance to the Ghoup, though made of the Bokkeveld beds instead of Karroo strata, for it has a very low rainfall, while close at hand on the south is Tradouw Berg with wet climate, sour soil, and the stretch of forest called Grootvader's Bosch on its southern flank. The mountains on the west trend north-north-west, and their folds flatten out in that direction; where these rocks are cut by the coast and the lower reaches of Olifants river, they are inclined at very low angles. Possibly the inland axis of Cedarberg is represented farther north by the edge of the escarpment of Kamiesberg and, if so, this is the only region where the escarpment and the folded belt coincide, but the amplitude of the fold has decreased so much that denudation has removed the most obvious kind of evidence required to substantiate its existence there. Near Karroo Poort the east-west folds make their appearance and from thence eastwards the numerous axes are, in plan, wide curves concave to the south, and, in general, the height of the mountains above sea-level decreases until they reach the south-eastern coast. The closest folding is probably in the Swartberg region, but towards the east the region where the folds flatten out is covered by the sea. In the Folded Belt there are terraces skirting the mountains, and tablelands separated by deep valleys from the terraces with which they were once continuous. These terraces and outliers are striking features in the region; they slope towards the nearest large valley or the coast from various heights up to about 2,500 feet above the sea, and they are evidently parts of plains from which the mountains rose abruptly. These great plains extended at least from the Albany district westwards as far as the Breede river valley and the Ceres Karroo, and they are of post-Cretaceous date. The climate of the Folded Belt ranges from almost that of a desert (near Prince Albert and Karroo Poort) to one with over 70 inches of rain about the sources of the Berg river. The south-western and southern rivers rising in the mountains are perennial, but the great rivers from the escarpment, the Sundays, Gamtoos, Gouritz, and Tanqua, may become a series of pools in times of drought; they receive insufficient water in their course across the Folded Belt to maintain a constant flow.

14. **The Coast Belt.**—The Coast Belt varies greatly in width and character. In the north-west it is continuous across the Orange river with the Namib of South West Africa, which is the only true desert in the country; though the rainfall is low (average of 2.17 inches at Port Nolloth) the heavy sea fog on that part of the coast maintains a fairly thick cover of bush on the sandy ground. Towards the south and east the rainfall increases steadily, except

for the marked inversion at the Cape Peninsula, as far as the George-Knysna districts; beyond that area of heavy fall it drops sharply near Algoa Bay and rises again towards Durban, where the coast assumes tropical characters. The coast generally is low and shelving, or the shore may be backed by low cliffs behind which the ground rises gradually. Great cliffs fronting the sea are found only round the Cape Peninsula (800 feet at Cape Point), and less conspicuous cliffs occur north of Port Nolloth, near Strandfontein, at Baboon Point, and near Saldanha Bay on the west coast, and to the east near Hermanus, Cape Infanta, Cape St. Blaize, George, and Knysna, and on the coast of Pondoland. The coast is remarkably straight from the Orange river to St. Helena Bay, and again from Algoa Bay to Portuguese territory on the east; the south coast has headlands such as the Peninsula, and the Capes Agulhas, St. Blaize, and St. Francis, made of hard Table Mountain sandstone, but they afford little protection to ships, and the only good natural harbour on the coast is Saldanha Bay, which is probably a drowned valley. Drowned valleys at the mouths of rivers are marked features of the coast, but they have sand bars and are available for ships only when they are kept open by dredging. Raised beaches of various dates, some ranging back into Tertiary times, occur on all parts of the coast, and those in Namaqualand include streaks and patches extremely rich in diamonds.

15. **Drainage System.**—The rivers of the Union can be grouped in three great classes: (*a*) those draining the interior plateau, (*b*) those taking their rise on the escarpment or on the slope to the sea below it, and (*c*) those rising in the Folded Belt. Some features observed in them have been mentioned in the description of the several geographical regions.

(*a*) All the drainage from the interior plateau eventually reaches the ocean by way of the Orange or the Limpopo river. The Orange river drains by far the largest catchment in the country (some 261,000 square miles, including the Nosop and Oup), and the fact that its mouth is closed for months at a time is a comment on the rainfall; it must be remembered that below the confluence of the Vaal river (over 600 miles from its mouth) the Orange receives practically no water during the greater part of the year, and that the river is thus in the main a channel carrying water from a region with an average of over 20 inches of rain through an arid country to the sea. The river goes over a fall of some 400 feet at Aughrabies, 300 miles from the mouth, and rapids occur to within 25 miles of the mouth. The high grade thus indicated is characteristic of all South African rivers, though the Orange is the most striking example. The Limpopo, though it has a much smaller catchment, has a wider valley and a lower grade; it reaches the 2,000-feet contour 530 miles from the coast, while the Orange reaches the same level 300 miles up its valley. The Limpopo is joined below the escarpment by the Olifants river, which drains a large part of the Bushveld and has an independent valley through the escarpment.

(*b*) The rivers rising on the escarpment are largest and most constant in the east, where the Tugela is the most important of them. The characters of their valleys have been mentioned in the description of the South-eastern region. The rivers which rise on the escarpment between the Sneeuwberg and the Roggeveld cross the Cape ranges by a series of great poorts. Beyond the Sneeuwberg the rivers run only for a short time after rain.

(*c*) The chief rivers which have their origin in the Folded Belt are the Berg, Breede, and certain tributaries of the Gouritz, Gamtoos, and Sundays rivers. They are in the main in longitudinal valleys following the strike of the rocks, as contrasted with the transverse rivers draining from the Karroo.

The escarpment which bounds the interior plateau is by far the most important orographical feature in the country, and its significance, as regards the geological structure and history of South Africa, will be briefly discussed in the third portion of this article. Its chief human interest is in the hindrance it offers to roads and railways. The most important mountain ranges of Alpine type, and also the youngest, are those of the Folded Belt (Cape ranges); the older ranges of the same type, the Langeberg and Koranberg in the north, are the comparatively recently exposed remnants of very ancient chains.

The Funduzi, in Zoutpansberg, is the only natural body of water in the Union that can properly be called a lake. The water, held up by a landslide, lies in a valley affected by faults of post-Karroo age; when full, the lake is 2¾ miles long.

The other closed depressions are shallow pans, which are most abundant in those parts of the interior plateau where the Karroo formation lies nearly flat and is being stripped from the older rocks by denudation, but they occur in other parts of the plateau and also in the coast belt. They owe their existence to various circumstances, but the action of the wind, under favourable conditions of rock-structure and weathering, is probably the most potent factor in the production of the inland pans. The largest pans are some 100 square miles in area.

B.—GEOLOGY.

The stratified rocks which build up the territory of the Union have been divided up into the systems and subordinate groups tabulated in Section D, and in this table there is a statement of the chief earth movements and phases of igneous activity so far recognized as having affected this country during the period represented by the succession of sedimentary rocks.

There is still much uncertainty on some of the main points in the geological record in South Africa, especially in the correlation and determination of the relative age of the more ancient sediments and of the great intrusions of granitic rocks in them. Up to the present time no fossils older than those of Devonian age have been determined from South Africa, and therefore it is from the structure and characters of the rocks themselves that the history of the greater part of the South African strata has to be deciphered.

Beds of proved marine origin are restricted to the margin of the subcontinent, and they are thin compared with the great deposits lacking fossils of marine habit and, in the case of the Karroo system, abounding in evidence of deposition under fresh-water or continental conditions.

Owing to the want of fossils in the rocks older than the Bokkeveld (Devonian), there is no means of determining the base of the Palaeozoic in South Africa, and that horizon known as the Cambrian, and recognized in the other continents as one of the most important geological benchmarks, has therefore not been recognized here.

The *Swaziland system* was formerly held to include all sedimentary and volcanic rocks believed to be older than the Witwatersrand beds, but work in the eastern Transvaal and northern Natal has justified the separation of the Pongola and Insuzi beds as the *Pongola system*. This scheme leaves in the Swaziland system the thick and varied groups called the Kraaipan, Kheis, Moodies, Onverwacht, Jamestown, Mfongosi, Nondweni, Nkandhla, and Tugela series, as well as the highly metamorphosed sedimentary and volcanic rocks closely associated with the granites and gneisses of Namaqualand and the northern Transvaal. In general character the Swaziland beds recall the Archaeozoic or Archaean of other lands, while the younger pre-Cape rocks are more like the Proterozoic or Algonkian, the differences being due chiefly to the greater degree of metamorphism shown by the older group.

The recognition of older and newer granites in the Transvaal served for some years to separate extensive stratified formations, and it is now known that the "older granites" in the Transvaal, the Cape Province, and Natal include intrusions of different ages, though petrographical distinctions between them have not been ascertained, so that analogous use of the several older granites cannot yet be made.

There are large bodies of highly metamorphosed sediments and volcanic rocks enclosed in the granite and gneiss of the north-west Cape and the northern Transvaal. It may well be that these will be found to belong to formations in which definite successions have been made out in Prieska and Kenhardt and in Natal.

In the Barberton area of the eastern Transvaal, the oldest group of rocks within the system is the *Onverwacht volcanic series*, which is best exposed in the Komati valley and consists of amygdaloidal lavas, quartz porphyries, tuffs, carbonate rocks, chert, and basic schists. At the base of the succession there are sericitic and quartzitic schists which in part seem to have had a sedimentary origin. Rocks of volcanic origin form the basal part of the succession in the Murchison range syncline.

Overlying the Onverwacht series in Barberton, probably unconformably, is a succession of variegated shales with banded ironstones, greywackes, and some grits to which it is proposed to give the name *Fig Tree series* from the fact that Fig Tree creek cuts right through the succession.

In northern Natal the *Mfongosi series* contains sheared and partly altered lavas and tuffs, with limestone and dolomite, while the *Nondweni series* is composed of amygdaloids and schistose volcanics, cherty quartzite, banded ironstone, chloritic schists and phyllites with cherty bars. These two series seem to be equivalent either to the Onverwacht series entirely or to the Fig Tree series in part.

Lying above the Fig Tree series in Barberton and commencing usually with a conglomerate carrying boulders and pebbles of granite together with fragments of quartz porphyry, chert, jasper, and other material from the underlying series, is a predominantly quartzitic series with intercalated shales and lavas to which the name *Moodies series* can properly be applied. Part of the succession of old rocks in the Murchison range, in Pietersburg and in Mount Maré may be the equivalents of this series: and the *Nkandhla series* of Zululand, consisting of micaceous schists and quartzites, probably represents it.

Intrusive into all the earlier rocks in the Murchison range and in the Barberton area are complexes of basic igneous rocks, strongly serpentinised, which are themselves invaded by granite batholiths. In Barberton these basic rocks are known as the *Jamestown basic rocks*, while in the Murchison range area the name *Rooiwater igneous complex* has recently been given to them.

The *Tugela series* of Natal consists of great bodies of hornblende schist and some metamorphosed sediments invaded by veins of granite and aplite. The rocks are intensely and isoclinally folded, and have been considered to be highly metamorphosed equivalents of the Mfongosi and Nondweni series.

In the divisions of Prieska, Kenhardt, and Gordonia, there is a great group of sedimentary and extrusive rocks known as the *Kheis series*. It is divided into three sub-groups, the Marydale, Kaaien, and Wilgenhout Drift beds, which apparently follow each other conformably upwards in the order named. Gneiss is in intrusive contact with all three sub-groups, and large bodies of the Marydale and Kaaien beds lie entirely surrounded by granite and gneiss. The *Marydale beds* consist of arkose, lavas of acid and basic compositions, tuffs, quartzites of various kinds, including some with very much magnetite in them, limestone, and various schists and granulites. The original nature of some of the granulites is proved by the presence of amygdaloidal structure, but others are of doubtful character. The variety of new minerals developed in these beds is great. Amongst them are pyroxenes, amphiboles, garnet, sillimanite, cyanite, staurolite, and various lime silicates. The *Kaaien beds* are quartzites and quartz schists chiefly, and they form the prominent range of hills on the Prieska-Kenhardt boundary, as well as Scheurberg in the Kalahari. The *Wilgenhout Drift beds* include slates, acid and basic lavas and tuffs, quartzites and limestones.

The *Kraaipan series* of Bechuanaland is older than the Ventersdorp system, but it has not been found to be penetrated by granite or gneiss. It is composed of banded magnetic quartzites, jaspers, various schists, limestones, and altered acid and basic lavas. The very similar beds of Abel's Kop and Goudplaats in the western Transvaal are traversed by offshoots from the neighbouring granite. All these beds present close resemblances to parts of the Kheis series.

The *Pongola system* is divided into two series by an unconformity. The *Lower Pongola* or *Insuzi series* consists of lavas with six groups of interbedded quartzitic sediments and some phyllite. The lavas are mainly andesitic, though more acid and more basic varieties are also present. Fragmental volcanic rocks are rare. The *Upper Pongola* or *Mozaan series* is made up of quartzites, occasionally containing pebble beds, shales, and ironstones, with one thin lava sheet near the top of the succession.

Although the Insuzi series rests with a sedimentary contact on granite-gneiss, the rocks of the Upper Pongola series are invaded by a later granite which seems to be indistinguishable from the older one in macroscopic features.

Between the old granite and the base of the Transvaal system along the eastern side of the escarpment between Godwan river and Sabie is a group of conglomerates, shales, arenaceous rocks and lavas to which the name *Godwan beds* will be applied. The sequence of rocks, and their stratigraphical position, make it possible that these beds represent part of the Pongola system.

Granite and gneiss posterior in age to the *Kheis series* and to the rocks which are represented by the fragments of schists in the Namaqualand and Bechuanaland granites cover an area of many thousand square miles in the north of the Cape Province and the adjoining part of the Transvaal. They are quartz-microcline-orthoclase-biotite rocks as a rule. Amphiboles and pyroxenes are rare. Porphyritic granites are not often seen; pegmatites are abundant. The granites and gneiss of the northern and north-eastern Transvaal, as well as those of the country immediately north of the Witwatersrand, are quartz-microcline-plagioclase-biotite rocks generally, and are distinguishable from the much younger granite of the Bushveld.

A probably later, but pre-Transvaal, group of intrusive rocks is the Palabora Complex of granite, syenite, and pyroxenite, which invaded the older gneiss and Swaziland beds of the north-eastern Transvaal.

An important and interesting feature in the granitic areas north of Pietersburg and in the Low Veld is the abundance of corundum in pegmatites intrusive in ultra-basic magnesian rocks.

In Namaqualand, a group of small intrusions of rocks varying from quartz rocks to nearly pure magnetite, and including pyroxenite, norite, diorite, and anorthosite, is of later age than the gneiss and schists, and probably older than the Nama formation. They are of importance on account of the apparently syngenetic copper ores in them.

The *Witwatersrand system* is found in the southern Transvaal and the adjoining part of the Orange Free State. In the chief area, the Witwatersrand itself, the system is divided into lower and upper groups, and these again into five series.

The *Lower Witwatersrand* beds of the chief area comprise:—

The *Hospital Hill series*, commencing with the Orange Grove beds, quartzites and shales, which form the conspicuous northern escarpment of the Rand overlooking lower ground towards Pretoria. They rest upon a denuded surface of granite and schists, and are followed by thinly laminated siliceous and ferruginous rocks locally called slates or shales. With these beds are two thin but remarkably persistent bands of quartzites, the ripple-marked quartzite and the felspathic speckled bed. Towards the top of the series are the thick Hospital Hill quartzites, sometimes coloured green, and in parts having large well-rounded quartz grains set in a finer-grained quartzite matrix (sago structure). These quartzites, with the shales interbedded with them, form the ridges immediately north of Johannesburg.

The *Government Reef series* lies conformably on the Hospital Hill series, but along the Central Rand the beds are for the most part eliminated by strike-faults, a fact which was responsible for many misunderstandings of the succession of the rocks below the Main Reef group before Dr. Mellor's map appeared. The series consists of quartzites and shales, some of which are very ferruginous rocks, and thin conglomerate beds which have not been found to be worth mining on a large scale.

The *Jeppestown series*, red-weathering argillaceous rocks with subordinate sandstones or quartzites, rarely forms good outcrops; it varies in apparent thickness from place to place owing to faulting and it carries a zone of amygdaloidal lava.

The *Upper Witwatersrand* group follows the lower conformably, and differs from it chiefly in being more arenaceous and in having a greater development of conglomerates. At its base is the *Main-Bird series*, some 3,000 feet of quartzites with subordinate argillaceous beds and persistent bands of conglomerate, notably the Main Reef group of conglomerates in the lower part of the series, which are the important beds from an economic point of view because they yield almost all the gold won on the Witwatersrand gold field. In the Central Rand there are three reefs of banket—the local name for a gold-bearing conglomerate of quartz pebbles set in a matrix of pyritic quartzite. These are known as the Main Reef, the Main Reef Leader, and the South Reef. The Main and South reefs thin out eastwards, leaving the Main Reef Leader as the productive reef there, and the Leader disappears westwards. The beds of conglomerate are not uniformly auriferous, and it has been found in certain areas that rich patches, several thousand feet in length, extend in a south-easterly direction, and are bordered by poorer conglomerate or even by rock formed by the hanging and foot walls coming together to the exclusion of pebble beds. The origin of the gold in the rock was

probably detrital, as in placers, but it has been recrystallized subsequently. Evidence of the great molecular changes which have taken place in the Main-Bird series since their consolidation is seen in the abundance of chloritoid in the sediments and in many of the older dykes of intrusive rocks which traverse them. The conglomerates above the Main Reef group, the Livingstone and Bird reefs, are thin individually, though numerous, and are non-persistent. A band of chloritoid-chlorite rock, known as the Bird Reef Marker, lies a short distance above the Bird Reefs on the Central Rand and andesitic lava, called the Bird amygdaloid, is on the same horizon in the East Rand and Heidelberg.

The *Kimberley-Elsburg series* lies conformably on the beds just described, and at their base is a thick band of argillaceous beds, the Kimberley shales. The Kimberley conglomerates are usually separated from the shales by quartzites, and grits and quartzites some 3,000 feet thick separate the Kimberley from the Elsburg conglomerates. These latter are often large-pebble conglomerates, and in the main area of their occurrence north of the amygdaloids of Klipriviersberg no discordance below them has been detected. The occurrence, however, of very similar conglomerates lying unconformably on Lower Witwatersrand beds at Langermann's Kop and the north side of Bezuidenhout Valley points to the unconformable overlap of the Elsburg beds northwards.

Witwatersrand beds form considerable areas in the Heidelberg and Klerksdorp districts. In Heidelberg the thickness of the system is reduced to 57 per cent. of what it is on the Rand.

In Klerksdorp there is a great unconformity with the overlying Ventersdorp beds which transgress across horizons low down in the Witwatersrand system. Between the old granite and the bottom quartzite of the Hospital Hill series there occurs a series of quartzitic sediments (sometimes with conglomerate bands) and volcanic rocks to which the name *Dominion Reef series* has been applied. In this area, the Lower Witwatersrand beds are highly faulted and are repeated by a series of strike-faults; the Upper Witwatersrand beds are poorly developed in outcrop. On the whole, the system here is more arenaceous than in the Central Rand area.

The *Ventersdorp system* lies on the Elsburg beds conformably in the Klipriviersberg and Heidelberg, and overlaps the Witwatersrand beds unconformably on the Witwatersrand and in Klerksdorp; in the Cape Province it lies on older rocks. It is mainly a volcanic group and three sub-divisions, the *Zoetlief*, the *Kuip*, and the *Pniel series*, have been distinguished, separated from each other by unconformities. The Zoetlief beds are acid lavas, tuffs, quartzites, shales, limestones, conglomerates, and flagstones found in Bechuanaland, Prieska, and in the Kimberley rock-shafts. Acid lavas somewhat resembling those of the Zoetlief beds occur in parts of the Klerksdorp district and have been assigned to the Dominion Reef series. The Kuip series has only been recognized near Omdraaisvlei; it consists of basic lavas, arkose, flagstones, limestones, and chert. The Pniel series covers a much wider area than the two lower groups in the Cape Province. The lavas of the Pniel series are usually blue or green amygdaloidal diabase or andesite, though quartz porphyries also occur, and tuffs and breccias accompany them. Conglomerates, quartzites, and other sedimentary rocks often underlie the volcanic beds in the Cape Province. In the Transvaal the Ventersdorp system covers wide areas south and west of the Witwatersrand; amygdaloidal diabase, such as that in the Klipriviersberg, plays a very important part in the formation, but there are conglomerates and quartzites as well as quartz porphyries and fragmental volcanic rocks in it.

On the western side of the Richtersveld in Namaqualand there is a group of folded rocks divided into four series; the *Stinkfontein series* of quartzites, arkose, thin conglomerates, phyllites, and volcanic rocks is at the base resting on gneiss; it is followed by the *Kaigas series* consisting of limestones and shales, on which lies the *Numees series* of tillite, grit, conglomerate, and slates. The tillite is some 800 feet thick and the boulders are made of gneiss, granite, quartz porphyry, limestone, various other sedimentary rocks, and granulites, but no amygdaloidal rocks have been observed in it. West of the Numees beds there is the *Groot Derm series* of slates, lavas, tuffs, and limestones, which may be younger than the Numees beds, but their position is uncertain. These beds are part of the Konkip formation found by Dr. Range in South West Africa and suspected to be of Ventersdorp age. Beyond the fact that they are intermediate in age between the old gneiss and the Nama system, there is little to support the correlation, so their relation to better known pre-Nama beds of the Union is quite unsettled.

The large intrusion of hornblende granite, rich in lime-soda felspar, which forms the mountain south of Kuboos and which is traversed near that place by part of the great escarpment, is later than the Konkip formation, but its relation to the Nama formation is not decided. Many dykes of bostonite and camptonite are associated with the Kuboos granodiorite.

In the valley of the Orange river, from 12 to 36 miles above Upington, there are several areas of volcanic and sedimentary rocks known as the *Koras series*. They rest unconformably on, or are faulted against, the Kheis beds, but they have suffered little from shearing, and in this respect they offer a great contrast to all the other pre-Karroo rocks of the district. The series consists of two groups; the lower, and mainly volcanic, group is overlain unconformably by the upper group, which is composed of conglomerates and sandstones. The volcanic beds are composed of andesitic and basaltic lavas and tuffs, and there are intercalations of a red quartz porphyry, probably intrusive, in them. The upper group contains much material derived from both the lavas and the porphyry. The correlation of the Koras series is uncertain, but it is possibly part of the Ventersdorp system.

The *Transvaal system* is the most widely distributed of the pre-Karroo sedimentary rocks in the Union. At its base is the *Black Reef series*, a group of quartzites and conglomerates with intercalations of shales. In Vryburg there are also volcanic rocks interbedded with the Black Reef, which, on account of their close resemblance to the underlying Ventersdorp lavas, emphasize the connexion between the two formations. The Black Reef series forms the upper part of the great escarpment of the eastern Transvaal, where it is thicker than elsewhere, giving rise to some of the finest scenery in the province. It received its name from the occurrence of black carbonaceous matter in the conglomerates mined for their gold content in the southern Transvaal. In the west of the Union these beds are very probably represented by the *Nieuwerust series*, which underlies the Malmesbury beds in Namaqualand and Van Rhynsdorp. The Black Reef series is conformably overlain by the *Dolomite* in the Transvaal, and in the neighbouring part of the Cape Province (*Campbell Rand series*). In Little Namaqualand thick limestones lie on the Nieuwerust beds; but a change becomes more marked southwards, the beds forming an argillaceous and arenaceous group, the *Malmesbury beds* of the Cape Province. East of the Cape Peninsula, however, in Oudtshoorn and Humansdorp, there are again limestones (Cango and Hankey limestones), which may prove to be part of this series. R. C. McIntyre has shown that the *Cango series*, consisting of conglomerates, arkose, limestones, and slates, rests unconformably upon an older formation made up of dolomite and chert, foliated sediments, and volcanic rocks which have been invaded by granite and gneiss. In the Transvaal, Bechuanaland, and Griqualand West, the dolomite has a most important influence on the water supply, owing to its taking up large volumes in fissures and cavities, and giving the water out again from large springs. It is, in fact, the only formation in the Union which can be said to be water-bearing on a large scale. The rock is compact and usually crystalline, and the water is not held by the rock itself, but is in the widened joints and other spaces. The dolomite is succeeded conformably by the *Pretoria series* (*Griquatown series* of the Cape Province), which consists of quartzites, shales, highly ferruginous beds, and volcanic rocks, chiefly andesitic (Ongeluk beds). In the Cape Province, and in parts of the Transvaal, asbestos (crocidolite and amosite) is strongly developed in the strata below the volcanic horizon, apparently by the rearrangement of material in the sediments in cross-fibred veins of amphiboles strictly parallel to the bedding. Important deposits of iron ore exist in the Pretoria beds in the Transvaal and Griqualand West. In the Cape Province there is a well-developed tillite with striated boulders just below the Ongeluk lavas, and a less well-developed tillite has been found in a similar position in the Pretoria district.

In the Western Province of the Cape there are two formations younger than the Malmesbury beds and older than the Table Mountain series; the older of the two, the *French Hoek beds*, consists of conglomerates, arkose, grits, and shales with felsitic lavas and tuffs; the younger, *Klipheuvel beds*, sandstones, grits, conglomerates, and shales are tentatively correlated with the Matsap and Waterberg beds, while the French Hoek beds have been regarded as possibly representing the Rooiberg series. The *Ibiquas beds* of Van Rhynsdorp rest unconformably upon the Malmesbury beds and are sandstones and shales with felspathic grits and conglomerates at their base; they may be correlated with the French Hoek beds.

The *Rooiberg series*, consisting of felspathic quartzites, quartzites, shales, and felsitic lavas, was invaded by the Bushveld igneous rocks and in places clearly forms the roof of the Bushveld norite and granite. The Rooiberg series is now provisionally classed with the Transvaal system, but east-north-east of Pilansberg it rests apparently unconformably on lower beds of that system.

A very important feature in the Transvaal is the mass of intrusive rocks which occupies an area some 280 miles long from east to west, and 160 miles wide in the central part of the country, and which is known as the *Bushveld igneous complex*. The rocks are in part covered by fragments of their original roof and partly also by much younger beds belonging to the Karroo system. The mass, as a whole, behaves as a laccolith, with a floor made of the lower members of the Transvaal formation and a roof of the Rooiberg series. It is composed of various rocks, possibly differentiates of a common magma, soda-rich granite (the Red Granite of Transvaal geologists) in the central parts, and more basic rocks, diabase, norite, gabbro, and pyroxenite in the peripheral and lower portions. Intrusions of the granite in the basic rocks prove that the latter solidified first. The mineral and structural changes produced by the Bushveld complex on the surrounding rocks are extensive. The numerous sheets of diabase intruded amongst the Transvaal beds in the southern and central Transvaal are regarded as belonging to the Bushveld complex, as are also the long dykes of syenitic rocks in the Transvaal.

The scattered intrusions of nepheline syenite and related rocks, of which the most important group is that of Pilansberg, are generally believed to be a late product of this great period of igneous activity. In Pilansberg, which covers some 200 square miles and is situated in a region of weakness where the W.S.W. synclinal axis of the Bushveld is crossed by an important group of N.N.W. dykes, the following sequence of events has been elucidated: granite magma left at depth after the intrusion of the red granite reacted with the dolomite and gave rise at the weak place to a group of small volcanoes which threw out a cover of tuff and lava; the alkaline magma then made its way along the base of the volcanic rocks and formed a laccolite with a floor of granite and norite and a roof of volcanic beds; the top of the laccolite carrying the volcanic rocks collapsed, and magma welled up around it. The date of these events is uncertain; the rocks are of pre-Karroo age, as are the related dykes in Heidelberg, but the date relative to the Waterberg system is unknown, though the absence of recognized remains of Waterberg sediments in and about Pilansberg supports the idea that the Pilansberg rocks are the older. There is nothing strictly comparable to the Bushveld complex in other parts of the Union.

The large granite masses of the south-west of the Cape Province (Cape Peninsula and its neighbourhood, Robertson, and Van Rhynsdorp) are normal granites and are post-Malmesbury (Transvaal) and pre-Cape in age.

The *Waterberg system* forms large tracts of country in the northern Transvaal (Waterberg and Zoutpansberg districts), and in the Pretoria and Middelburg districts. In the latter it rests unconformably on the Pretoria beds. It consists of conglomerates and quartzitic sandstones; the colour of the sediments is predominantly red or purplish, and the conglomerates are often coarse. The base of the Waterberg system in the Zoutpansberg is made of volcanic rocks of basaltic type.

The *Matsap series* of Bechuanaland, Griqualand West, and Prieska is regarded as the correlative of the Waterberg system on account of its stratigraphical position and lithological characters. It lies unconformably on beds belonging to the Ventersdorp and Transvaal systems, and is unconformably covered by the Dwyka. It consists of a great thickness of purplish quartzites with conglomerates and shales; but the arenaceous types predominate. In the middle of the series there is, on the eastern side of the Langeberg, a thick volcanic group of andesitic lavas and tuffs. The Matsap and Waterberg beds have not been connected by mapping between the north end of the Langeberg and the Transvaal through Bechuanaland, but they are in all probability parts of one system. In the Postmasburg manganese fields, a group of post-Transvaal sediments bearing some lithological similarities to the Matsap sediments has been separated under the name *Gamagara series*.

The *Cape system* is developed in the south and west of the Cape Province, and it appears again on the south-east coast near Port St. Johns, continuing through the coast belt of Natal. Only the lowest series is found in the east.

The lowest member of the Cape system is the *Table Mountain series*, a group of sandstones and shales, the former predominating, which builds up the mountains of the Cape Peninsula and the long ranges flanking the Karroo on the south and west. In the south-western region there is a thick band of mudstone, containing scattered pebbles and boulders of various kinds of rocks, some of which are striated after the fashion of glaciated stones. This tillite lies about a thousand feet below the top of the series. In the Drakenstein and neighbouring ranges the quartzites immediately below the tillite, as well as part of the tillite, are folded and truncated in an unusual way; the appearances are believed to be due to ice moving in a south-easterly direction. The sandstones are often quartzitic and have a characteristic appearance. They are occasionally conglomeratic, but the pebbles are usually scattered or form layers only one pebble thick.

The second series in the system is the *Bokkeveld* group, consisting of shales and sandstones, in the lower part of which there is a fairly abundant marine fauna closely related to that of the Lower and Middle Devonian of South and North America, and less closely to the Lower Devonian of Europe. Some of the Cape species have also been found in the Sahara. The Bokkeveld beds form the greater part of the cultivated portions of the Ceres district and the valleys between the Zwartberg and the south coast, as well as the valleys immediately north of the Zwartberg.

The third and youngest series is the *Witteberg* group of shales, sandstones, and quartzites, which are well seen along the western line of railway between Touws River and Matjesfontein. These beds have yielded few fossils, only badly preserved plants and a fragment of a eurypterid.

The Cape system is fully developed between Karroo Poort and the region where it is cut off diagonally by the coast near Port Elizabeth. North of Karroo Poort it becomes progressively thinner owing to denudation in pre-Karroo times, and north-west of Calvinia the Karroo beds rest directly on the older Nama rocks or on granite.

The *Karroo system* occupies the whole of the central part of the Cape Province, almost the whole of the Orange Free State, the western side of Natal, and a large area in the south-eastern Transvaal. No evidence has yet been found that marine conditions occurred in this large area of deposition during Karroo times, but in a part of South West Africa marine fossils have been found in the lower beds of the system. In the southern Karroo the Witteberg series passes up conformably into shales, which are taken to be the base of the Karroo system, and these in their turn pass up into a hard boulder-clay or tillite usually without any precise line of division. To the north of Karroo Poort the shales are wanting, and there is an unconformity below the tillite. This has a matrix of mudstone or slightly laminated and sandy, often calcareous, hardened clay, containing pebbles and boulders of many varieties of rocks occurring in places to the north of the spots where they are found in the tillite, and many of them are flattened and striated after the fashion of the stones in glacial deposits of regions which are now, or have within recent times been, covered by sheets of ice. In many districts north of the Karroo the tillite rests upon striated surfaces or characteristically shaped hummocks of rock called *roches moutonnées*. The thickness of the tillite varies from a foot or so up to 1,400 feet in the southern Karroo, or it may even be absent altogether, as in parts of the Transvaal. Four centres of distribution of ice have been recognized: South West Africa, Griqualand West, the central Transvaal, and a region lying east of Natal. The movements of the ice from these centres were southwards in general. The tillite is followed conformably by shales in the west, south, and east, but in the Transvaal there is almost certainly a break of unknown but not great extent at the top of the *Dwyka series*, as the lowest group of Karroo rocks is called.

The *Ecca series* follows the Dwyka conformably in the Cape Province and Natal. It consists of shales and sandstones, and in Natal and the Transvaal the Middle Ecca beds are the main source of coal in the Union, also containing oil-shales. In the south of the Cape Province the Ecca beds reach their greatest thickness—over 6,000 feet. The series decreases in thickness northwards, and in the Transvaal it is probably only a few hundred feet thick. The Ecca beds contain a flora characterized by the genera *Glossopteris* and *Gangamopteris*, which, with their fellows, are found also in the Gondwana beds of India, and in Australia, South America, the Falkland Islands, and in the Antarctic continent.

In five of these regions the *Glossopteris* flora occurs in beds overlying tillite like the Dwyka tillite, and it is this fact which leads to the belief that glacial conditions prevailed over a great region in the southern hemisphere at the remote period when the coal-measures of the northern hemisphere were being formed, or soon afterwards. The evidence as to the age of the beds as compared with the European rocks is obtained from Australia and India, for the marine fauna on which it rests does not occur in South Africa.

The *Beaufort series* lies conformably on the Ecca in the Karroo region, Natal, the southern part of the Orange Free State, and in the south-eastern Transvaal. Its most striking feature is the abundance and variety of its reptilian fossils, which are of exceptional interest because they include forms with mammalian relationships and the habit of walking with the body raised clear of the ground, as is proved by the structure of their legs. With the reptiles are amphibians, fish, lamellibranchs of fresh-water habit, and some plants belonging to the same genera as those in the Ecca below, as well as, in the uppermost beds, a few which are found in the Molteno beds above. Sandstones, shales, and mudstones, with a small amount of limestone, chiefly in the form of nodules, make up the Beaufort beds. In the south-eastern Transvaal the upper coal beds of Volksrust are in the Beaufort series.

The *Stormberg series* follows the uppermost Beaufort beds conformably in the east of the Cape Province and the neighbouring part of Natal and Basutoland, and it is ushered in by the shales and sandstones known as the Molteno beds, which are coal-bearing and include some oil-shales.

The *Molteno beds* contain a flora with Triassic affinities, but none of the reptiles known from the Beaufort series has been found in them. The Molteno beds thin out in the east of the Orange Free State, and have not been found in the north of that Province or in the Transvaal.

The Molteno beds are succeeded in the Cape, Natal, Basutoland, and the south-east of the Orange Free State by the *Red beds*, which are red weathering sandstones and shales containing a few dinosaurs and other reptiles and fish.

The *Cave sandstone*, a rather remarkable formation of thick bedded sandstones, succeeds the Red beds conformably in the Cape, Natal, Basutoland, and the Orange Free State, and it also occurs in the Transvaal, where it is known as the Bushveld sandstone. It contains a few dinosaurs, a crocodile, fish, and some small crustacea. The Cave sandstone makes bold outcrops along the slopes of the Drakensberg in East Griqualand, Natal, and Basutoland; it is very closely associated with the volcanic rocks of the *Drakensberg series* at the top of the Karroo system, which form the precipitous portion of the Drakensberg or Quathlamba range, the Maluti mountains, and also much of the flat country (Springbok Flats) of the Transvaal Bushveld. The lowest volcanic beds are interbedded with the Cave sandstone in places, but elsewhere the lavas rest upon eroded surfaces of the sandstone. They are chiefly andesitic or basaltic, but in the north-east Transvaal limburgite and soda-rich lavas underlie the basalts, and in the Lebombo range great thicknesses of more acid lavas are intercalated with basaltic flows. A large number of the vents or necks from which outbursts took place are known, but it is probable that much of the lava came from long fissures now represented by dykes of dolerite. The volcanic rocks of Zuurberg are of pre-Uitenhage age and are underlain by fine grained sandstone containing fragments of bone; they are basalts, tuffs, and breccias, and are probably of Stormberg age.

To the latest part of the Karroo period belong the *intrusions of dolerite*, which are found traversing nearly all the rocks in the Union older than the Drakensberg series, as well as that group. The only large tract in the Cape Province which is free from dykes and sheets of this dolerite is the Folded Belt. The dolerite sheets give rise to the long lines of cliffs capping the escarpment of the Nieuweveld and its continuations to east and west, and both sheets and dykes form conspicuous features in the Orange Free State, Natal, and the Cape Province. In Griqualand East picrites and other ultra-basic differentiates of the basaltic magma have been discovered, and in the Insizwa, Tonti, and Ingeli masses they form important bodies of rock which may yield metallic ores of value. The acid differentiates are much more widely distributed. They are small bodies of diorite and granophyre, which rarely give rise to any conspicuous feature.

The *Cretaceous system* in the Union comprises beds of marine and continental origin found on or near the south and east coasts. The chief areas of these beds are in the Uitenhage and Alexandria districts (where Dr. W. G. Atherstone first made out their sequence), Oudtshoorn, Riversdale, and Mossel Bay, where the older beds, called the *Uitenhage series*, occur. Narrow strips along the coast of Pondoland, and a wider area on the northern coast of Natal, are made of younger Cretaceous beds.

The lowest beds of the Uitenhage series are conglomerates and sandstones, which are followed by plant-bearing shales. In the Sundays river valley these are succeeded by shales and limestones containing marine fossils of Neocomian age. West of the Uitenhage district marine fossils have only been found in a small outlier of the series near Knysna. All these areas of Uitenhage beds are faulted down against older rocks to the north.

In Zululand unfossiliferous sandstones and conglomerates rest unconformably against the lavas of the Lebombo range and are succeeded by a thick group of shales, limestones, and sandy beds, which have yielded rich faunas of Aptian, Albian, Cenomanian, and Senonian affinities. In the south of Natal and the neighbouring part of Pondoland, Senonian beds (*Umzamba series*) rest on Table Mountain sandstone, while farther south-west conglomerates and sandstones containing plants and a few marine fossils, probably of Neocomian age, are faulted down against older rocks.

Near East London and in Alexandria there are some marine limestones of Danian age, but little is known of them yet.

In Bushmanland a remarkable deposit of granite wash containing bones of dinosaurs fills an old valley leading to the Orange river. This may be a remnant of the continental deposits formed when South Africa began to have the type of climate which has led to the formation of the Kalahari, the semi-arid region from which Bushmanland is separated by the valley of the Orange river.

Patches of gravels that lie on top of the northern part of the Lebombo range may be remnants of beds of conglomerate that were contemporaneous with the conglomerates of the plateau sandstones recently described from the south-eastern corner of Southern Rhodesia, to which a Cretaceous age has been tentatively assigned.

At some time after the Uitenhage beds were laid down, perhaps at a much later date, the peculiar phase of volcanic activity began which is represented by the contents of many pipes and fissures distributed through the central portion of the Union, and found also in the Drakensberg, Riversdale, Van Rhynsdorp, Namaqualand, Gordonia, and outside the borders of the Union in Rhodesia and South West Africa. Natal seems to be without them. The age of each occurrence can, of course, only be determined by the surrounding rocks, but there are certain features common to them and connecting links between diverse types of material filling the channels, so that it is probable that they were all related in origin. There can be no doubt that some explosive force produced the channels, or took advantage of pre-existing paths of weakness, and that the channels were filled with fragmentary or molten rock derived from various depths between the lower parts of the earth's crust and the superficial strata. As Dr. Wagner suggested, the explosions seem to have been connected with the marked rise in level of the sub-continent in late geological times. The most striking instance of a large pipe filled with fragments of the rocks traversed, but apparently devoid of minerals derived from contemporaneous rock-magma, is Geitsi Gubib in South West Africa; but similar pipes and fissures exist in Van Rhynsdorp and Ceres. In the Sutherland district there are many vents clustered round Saltpetre kop filled with material derived from the rocks passed through mixed with minerals belonging to volcanic rocks, and in the neighbouring country there are pipes filled with breccia resembling blue-ground in containing minerals derived from great depths, accompanied by masses of melilite-basalt. The pipes and fissures filled with the rocks commonly known as blue-ground have been more thoroughly explored than any other of these channels, because some of them contain diamond in sufficient quantity to repay mining, as at Kimberley, also near Pretoria, and at several places in the Orange Free State. It has been shown that these ultra-basic rocks, kimberlites, comprise basaltic and micaceous varieties, both of which may contain diamond, and that this mineral was almost certainly a component of the magma from which they were derived

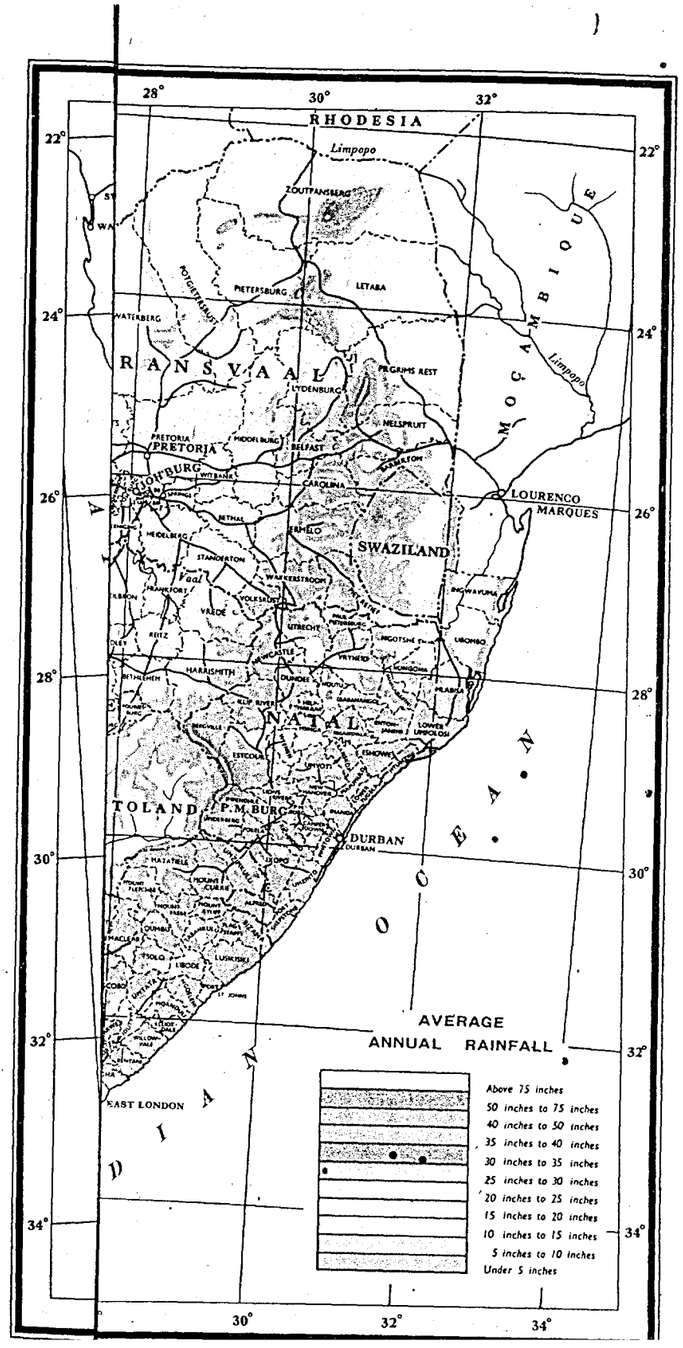
by differentiation at great depths. Xenoliths of eclogite in kimberlites and kimberlite tuffs and breccias have been found with diamond in them, and they have been regarded as the source of the diamond and accidentally associated with kimberlite; but the evidence is now very strongly in favour of these being cognate xenoliths formed at depth in the magma which also gave rise to kimberlite. The opinion of Carvill Lewis that kimberlite may have been a melilite-basalt has not been substantiated, but the occurrence of that rock in several pipes in Sutherland, at Spiegel River, and in Namaqualand, where it also contains nepheline, points to some connexion between them.

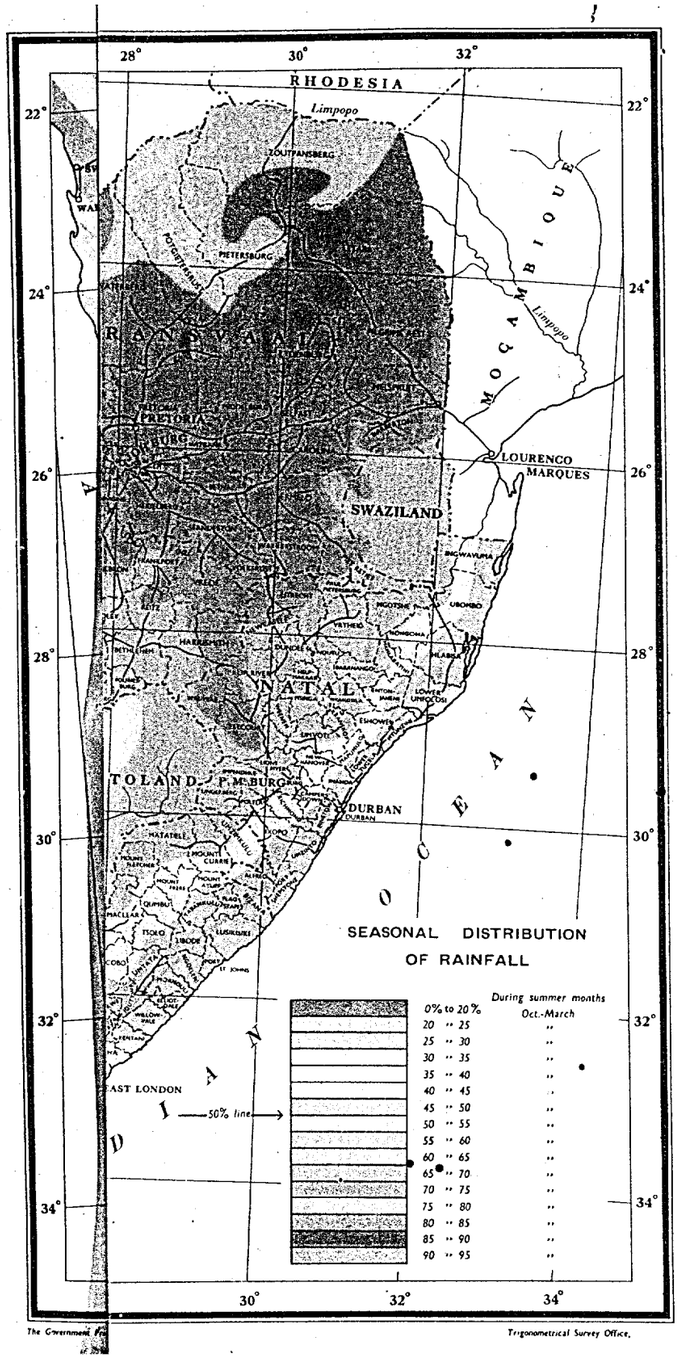
Beds of *Tertiary* age are known in the Union, but little information concerning them is at present available. The best known are those belonging to the Alexandria formation, and there are inshore marine beds occurring at various heights up to some 1,300 feet above sea-level on the south and east coasts. The oldest beds are now farthest from the sea, and the presence in them of *Orthophragmina* indicates their Eocene age. The fossils from the country behind Algoa Bay are of Mio-Pliocene age according to Bullen-Newton. On the west coast, in Namaqualand and to the south, there is a series of fossiliferous raised beaches extending to over 100 feet above the sea and containing shells of extinct and living species which indicate the former presence of warmer inshore water than is now found on that coast. Diamonds occur in some of these raised beaches. None of the early Miocene species described by Böhm and Weisfermel from near Bogenfels north of the Orange river have been found in the Union, though the fossil cephalopod, *Aturia*, a genus which occurs at Bogenfels, has been dredged off the Cape Province. Late Tertiary or early Pleistocene deposits occur on the coast of Zululand, containing the remains of extinct kinds of hippopotamus, buffalo, buck, and elephant. Inland deposits of Tertiary age are indicated by the occurrence of mastodont remains in the high-level gravels of the Vaal river near Barkly West. Extinct species of buck and buffalo from the Modder river, and a horse from the south-west coast, are probably Pleistocene.

In the Knysna district some valleys in the Table Mountain series are filled in with sands and lignites loosely consolidated; they contain wood and leaves of genera and, in some instances, species still living in the surrounding forest. In certain bays between the Kei and Bashee rivers there are lignite-bearing beds with nodules and veins of pyrites; the plant remains in them have not yet been determined. The age of these beds has not been ascertained, but they are perhaps as old as the Tertiary. Gravels far above the level of the modern rivers, and the superficial deposits cemented by lime or silica, which are widely spread within the Union, perhaps date back to Tertiary times, but proof of age is lacking. The calcareous tufas are extensively developed in the Kalahari region, the Transvaal, and Griqualand West, and less widely in the Karroo and the coast belt. The discovery of the bones of an extinct anthropoid ape in the tufa of the Kaap Rand, near Taungs, and in limestones of Sterkfontein and Kromdraai, near Krugersdorp, points to these deposits being of considerable antiquity. The siliceous deposits, which are closely connected with those cemented by hydrated iron oxides in the Folded Belt of the Cape, are most conspicuous in the country below the great escarpment, though they have not been noticed in the central part of the Great Karroo. They also occur in the Kalahari, Bechuanaland, and Griqualand West.

The gravels which are the site of the diamond-diggings in the Transvaal, Griqualand West, and Aliwal North lie at various levels from that of the modern river-beds to 400 feet above them, and often many miles from their banks. The chief diggings are in the Vaal and Harts river gravels and in gravels in the Lichtenburg and Potchefstroom districts. In a few instances diamond gravels have been found far from the rivers, on the top of the Kaap plateau. The deposition of these highest gravels probably dates back to Tertiary times.

The thick deposits of sand in the Kalahari and Bushmanland are of great age, though they are being formed to-day. The evidence from Bushmanland that dinosaurs lived there at the time when the valleys cut in the granite began to be filled with wash from the neighbourhood, and that since then the climate has allowed the steady levelling up and down of the inequalities of the surface, affords an indication that the development of the features characteristic of that region began in pre-Tertiary times.




28°
30°
32°
RHODESIA
Limpopo
22°
24°
26°
28°
30°
32°
34°
PETERSBURG
PRETORIA
LOURENCO MARQUES
SWAZILAND
NATAL
DURBAN
EAST LONDON
50% line
SEASONAL DISTRIBUTION OF RAINFALL
During summer months
Oct.-March
0% to 20%
20 " 25
25 " 30
30 " 35
35 " 40
40 " 45
45 " 50
50 " 55
55 " 60
60 " 65
65 " 70
70 " 75
75 " 80
80 " 85
85 " 90
90 " 95
Trigonometrical Survey Office.

C.—GEOLOGICAL STRUCTURE.

The dominating feature in the structure of South Africa is the great syncline of Karroo beds stretching 820 miles from Karroo Poort in the Ceres district north-eastwards to Carolina in the Transvaal, with a width of 340 miles between Kimberley and the Transkei coast. On the north-western side of this irregularly oval area the base of the Karroo rocks maintains an altitude of between 2,500 and 5,500 feet above the sea, and the beds dip at very low angles towards the basin. On the south, between the Tanqua Karroo and the Keiskama, they are folded in a general east-west direction, and their dip carries them deep under the Karroo region. The shore cuts the edge of the syncline from the Qualana to the St. Johns river, and where the base of the system emerges near the latter it is no longer markedly folded but, striking through Natal, is affected by faults. The belt of pre-Karroo rocks trending north-north-east through Natal is on the axis of a low, broad anticline much faulted in its eastern limb, which in Swaziland merges in the easterly dipping beds of the Lebombo. Outliers of Karroo beds north of the syncline prove that they once stretched far beyond the borders of the Union, and that over the northern region there has been no earth-movement of the mountain-building kind since the commencement of Karroo times. The arc-shaped ranges of Griqualand West and Bechuanaland, the Langeberg and Kuruman hills, were undergoing denudation then, and the same statement holds good for much of the Transvaal, where the east-north-easterly trend of the structural lines in the Low Veld of the north and the east-west syncline of the Witwatersrand are of pre-Transvaal date. The broad anticline trending east-north-east from the south-west of the Province to the West Rand is of pre-Karroo and post-Transvaal age, but it is superimposed upon older and more pronounced disturbances along approximately the same lines; and the marked arrangement of the hills about the great Bushveld intrusion, of which the longer axis is directed a little north of east, is a feature of pre-Karroo times. In the Transvaal the trend-lines of pre-Karroo age are chiefly in an east-north-east direction, and this strike, due to forces acting perpendicularly to that direction, was repeated at long intervals. In the north and west of the Cape Province the pre-Karroo movements were nearly at right angles to this, and produced north or north-north-west trends, and they were followed by the later or post-Karroo movements of the Cedarberg region. In the south the east-west trend of the pre-Cape folds was repeated in the late or post-Karroo movements, which gave rise to the southern mountain ranges. South and west of the Karroo the ranges with northerly trend in the west, and easterly trend in the south, are made of the Cape formation, and are due to the folding of the crust in late Karroo times by forces which tended to overfold and thrust the strata towards the Karroo region, and the folds were produced where the Cape and lower Karroo sediments were very thick. The axes of the southern folds are inclined eastwards, so that the folded belt is traversed slantingwise by the coast between Cape St. Francis and the Keiskama.

The whole form of the basin, as it is now seen, has been determined by earth movements, which gave rise to the dip of the beds, and by denudation removing the folded or nearly flat beds from part of the area formerly covered by them. The thickest deposits of the Karroo system were probably much nearer the southern limit than the northern, but whether the southern limit is within 100 miles of the original limit of deposition is unknown. The outliers in Worcester, Robertson, and Uitenhage prove that the rocks once extended south of the mountain ranges, and there is no trace of an unconformity at the base of the Karroo beds till they reappear on the coast of Pondoland.

The outliers of Cretaceous beds within the folded belt, probably remnants of a formerly continuous cover of those beds stretching westwards from Algoa Bay at least as far as Worcester, are faulted down on the south side of fractures parallel to the trend of the pre-existent southern folds. The great Worcester fault, the first of these important features to be discovered, was for long thought to be of pre-Cretaceous date, but it has been shown that it, like the eastern faults of the same group, was of post-Uitenhage age.

The main lines of the structure of Namaqualand were determined in pre-Karroo times; but post-Karroo faulting is proved by the outliers of Dwyka in the valley of the Orange river, not far above sea-level. The flat country of the Kalahari and Bushmanland, now divided by the Orange river, is essentially a pre-Karroo plain, diversified by a few isolated hills, and is being stripped of its cover of Karroo beds, except in the large areas where the accumulating sand protects the underlying rocks from denudation.

The great escarpment which plays such an important part in the geography of the Union commences as a definite feature in the slope of the Woodbush, and from there southwards to the Carolina district the base of the Transvaal system forms the uppermost and steepest part; in that district the Karroo beds come in, and higher and higher beds of the system take part in the face of the escarpment as it is followed southwards into Natal, where the Quathlamba is a rampart of volcanic beds at the top of the Karroo formation; in the Native Territory of the Cape Province the same conditions hold, but the volcanic beds disappear in the Stormberg, and westwards of that region the escarpment is capped by lower and lower beds, until in Van Rhynsdorp the Nama system and still older rocks alone take part in its structure. There is thus a broadly symmetrical character in the escarpment on the two sides of the continent, and the asymmetrical feature due to the presence of the volcanic beds in the east has some relation to the submergence of the south-eastern edge of the Karroo basin in the same quarter. Since the escarpment lies, broadly speaking, parallel to the coast, it is natural to look for a connecting link between the two features. The greatest departure from this correspondence is in the south, where the Cape ranges intervene and the coast-line projects in conformity with the curve of the ranges in the Ceres district (syntaxis of the Zwartberg and Cedarberg folds), and does not follow closely the blunter sweep of the escarpment. In trying to find an explanation of the existence of the escarpment, it is most important to bear in mind the very great age of the interior of South Africa as a land-surface; from the Cape ranges northwards to Central Africa the country has probably been exposed to the air since Triassic times, and for a further period stretching back to Devonian times the sea is not known to have encroached upon it. How far the Devonian sea advanced north of the latitude of Calvinia is unknown. It appears from the present state of our knowledge that the escarpment marks the limit of headward erosion of the rivers draining the coast-belt and the Great Karroo, and that the prominence of the feature for long distances is due to the agents of erosion having encountered resistant horizontal or gently inclined strata or intrusive sheets of dolerite, one or other of which is a prominent feature of the greater part of the margin of the interior plateau. In Namaqualand these flat strata have in part been removed by denudation, but large remnants exist in the Steinkopf plateau, and again in the fragments near Nieuwerust. This view entails the great age of the coast-line as a whole, though it is often held that the straight or smooth shape of the coast indicates a recent origin through faulting. The fact, however, that inshore deposits of various dates from early Cretaceous to late Tertiary and recent age are preserved is in harmony with the supposed great age of the coast as a whole, and no great faults parallel to the coast have yet been found. The great faults with downthrow on the ocean side, those flanking the southern ranges, are cut by the coast slantingwise. The enlargement of the area outside the escarpment in the Cape Province is evidently connected with the folding which took place in the region of the very thick deposits of the Cape and Karroo periods, and that in the north-east of the Union is connected with the extensive rise in level of the sub-continent in post-Cretaceous times.

D.—SYSTEMS OF GEOLOGICAL FORMATION.

	Stratified Formations.	Maximum Thickness.	Igneous Intrusions.	Earth Movements.
	Recent and sub-recent sands, gravels, tufas, ironstones, and surface quartzites; raised beaches	Over 300 ft.		Uplift. Warping of older terraces and depression of part of coast region with production of lagoons.
Cainozoic.	Marine inshore beds of Alexandria, Addo, Bredasdorp, Zululand and the West Coast; lignites of Knysna	Small		Uplifts.
			Volcanic pipes and fissures of kimberlite and melilite - nepheline basalts	

D.—SYSTEMS OF GEOLOGICAL FORMATION—(*continued*).

		Stratified Formations.	Maximum Thickness.	Igneous Intrusions.	Earth Movements.
Mesozoic.	Cretaceous System.	Needs Camp beds (Danian) Umzamba, Itweba and Peroniceras beds (Senonian) Munyuane beds (Turonian ?) Skoenberg beds (Cenomanian) Umsinene beds (Albian) Ndabana beds (Aptian)	Thick.		Encroachments of sea on south-east and east coasts, and faults in region of southern ranges (post-Neocomian).
		Uitenhage series (Neocomian): Sundays River beds; marine clays and limestones Wood beds; sands, and clays Enon beds; sands, clays, and conglomerates			Encroachment of sea over part of area where southern ranges exist.
	Karroo System.	Stormberg Series (Triassic and Rhaetic): Drakensberg volcanic beds; basaltic and andesitic lavas and tuffs of Basutoland area, Springbok Flats and Lebombo rhyolites	4,000 ft.	Intrusion of basic rocks throughout the Union	Emergence of land over Karroo region and denudation throughout Jurassic. Formation of Lebombo monocline and other broad folds in Karroo area.
		Cave sandstone of Basutoland area and Bushveld sandstone of Transvaal	800 ft.		
		Red beds; sandstones and shales	1,600 ft.		
		Molteno beds; sandstones, shales, and conglomerates with thin coals	2,000 ft.		
		Beaufort series (Permian and Trias): Burghersdorp beds; shales and sandstones	3,000 ft.		Mountain building in the south of Cape Province during later Beaufort times.
		Middle Beaufort beds; sandstones and shales	1,000 ft.		
		Lower Beaufort beds; shales and sandstones	7,000 ft.	•	Sinking of Karroo geosyncline.
		Ecca series; shales and sandstones; coal in Transvaal and Natal	6,200 ft.		•
		Dwyka series: Upper shales	800 ft.		
		Dwyka series: Tillite	1,400 ft.	•	
		Dwyka series: Lower shales	1,000 ft.		
Palæozoic.	Cape System.	Witteberg series; quartzites and shales	2,500 ft.		Uplift and denudation north of 32° S.; continuous deposition to the south.
		Bokkeveld series; shales and sandstones; marine (Devonian) fossils in lower half	2,500 ft.		
		Table Mountain series; quartzitic sandstones and shales with a tillite band	5,000 ft.		
	Waterberg System.	Waterberg series in the East; sandstones, shales, and conglomerates; correlated with	5,000 ft.		Mountain building in Griqualand West, etc.
		Matsap series of Griqualand West, etc., quartzites, conglomerates, lavas, and tuffs; correlated with	Over 7,000 ft.		
		Klipheuvel beds of Western Province, conglomerates, quartzites and shales, and	5,000 ft.		
		Gamagara series of Postmasburg...	1,200 ft.		
			• •	Intrusion of Bushveld Complex	Updoming in Vredefort area and accompanying folding and faulting in S. Transvaal.
				Intrusion of younger granites of the Cape Province	Mountain building in south and west of Cape Province.

D.—SYSTEMS OF GEOLOGICAL FORMATION—(*continued*).

	Stratified Formations.	Maximum Thickness.	Igneous Intrusions.	Earth Movements.
Transvaal-Nama System.	Rooiberg series; quartzites, shales and lavas; correlated with French Hoek beds in the south; conglomerates, quartzites and lavas	2,000 ft.		Long period of depression in the north, west, and south of the Union.
	Pretoria series; quartzites, shales, and lavas, possibly correlated with the Ibiquas beds of the west, mainly shales	10,000 ft.		
	Campbell Rand or Dolomite series; dolomite, shales; correlated with Malmesbury beds of Cape Province; quartzites, shales and limestones; and Cango beds of Oudtshoorn; conglomerates, slates, quartzites, limestones	3,500 ft.		
	Black Reef series; quartzites, shales and conglomerates; correlated with	2,550 ft.		
	Nieuwerust beds of Cape Province; arkose and quartzite	500 ft.		Minor uplifts in Griqualand West, Bechuanaland, and Transvaal; folding in Namaqualand.
Ventersdorp System.	Pniel series; lavas, tuffs, conglomerates, shales, and quartzites	5,000 ft.		
	Kulp series; lavas, limestones, cherts, sandstone, arkose			
	Zoetlief series; acid lavas, shales, quartzites, conglomerates			
	Possibly belonging to this system are:—			
	Koras series of Kenhardt and Gordonia; lavas, sandstones, conglomerates; and			
	Grootderm series			
	Numees series			
	Kaigas series			
	Stinkfontein series			
Witwatersrand System. Upper.	Kimberley-Elsburg series; quartzites, conglomerates and shales	12,000 ft.	Intrusion of basic dykes in S. Transvaal	Uplift in the Witwatersrand area. Beginning of folding and fracturing in Klerksdorp, which continued into Ventersdorp times.
	Main-Bird series; quartzite, grits, conglomerates, shales and lavas	3,000 ft.		
Witwatersrand System. Lower.	Jeppestown series; shales, quartzites and lava	3,500 ft.		
	Government Reef series; quartzites, shales, ferruginous beds, grits, conglomerates, tillite	6,220 ft.		
	Hospital Hill series; quartzites, shales, ferruginous beds, arkoses	4,815 ft.		
	Dominion Reef series; mainly lavas with basal arkose, quartzites and conglomerates	3,000 ft.		
			Intrusion of granite and of ultra basic and basic rocks into Pongola beds	Folding of Pongola beds.
			Intrusion of Palabora Complex?	
Pongola System.	Upper Pongola (Mozaan) series; shales and quartzites, with thin conglomerates and ferruginous beds	16,000 ft.		
	Lower Pongola (Insuzi) series; lavas, quartzites and phyllites	20,000 ft.		
			Intrusion of ultra-basic rocks and granite into Mfongosi and Nondweni series (pre-Insuzi) and intrusion of granite and gneiss of north and west of Cape Province, Transvaal and Natal (perhaps post-Pongola)	Mountain building in west and north (perhaps post-Pongola) and in east (pre-Insuzi).

D.—SYSTEMS OF GEOLOGICAL FORMATION—(*continued*).

	Stratified Formations.	Maximum Thickness.	Igneous Intrusions.	Earth Movements.
Swaziland System (Intercorrelation unknown.) Khels series.	*Cape and Bechuanaland.* Kraaipan series and Abels Kop beds; banded ironstones, limestones and volcanic beds			
	Wilgenhoutdrift beds: sedimentary and volcanic rocks			
	Kaalen beds; quartzites and schists			
	Marydale beds; sedimentary and volcanic beds		Intrusion of Jamestown basic rocks and Rooiwater igneous complex	
	Transvaal and Natal. Rocks of the Murchison range; sediments and lavas above the quartz porphyries			
	Nkandhla series; schists and quartzites, and			
	Moodies series; quartzites, shales, lavas and conglomerates			
	Fig Tree series; variegated shales, banded ironstones, greywackes, and grits	25,000 ft.		
	Nondweni and Mfongosi series; volcanic beds, cherty quartzite, phyllites, ironstone and limestones, and			
	Onverwacht series; volcanic beds, cherts and basic schists. Possibly quartz porphyries of the Murchison range			
	Tugela series; basic schists and metamorphosed sediments and volcanics			
	Schists of Northern Transvaal			

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§ 5. Climate and Meteorology.

1. **Topography of the Union.**—Both the weather and the climate of the Union of South Africa are profoundly affected by the elevation of its land surface, which rises in four plateaux as follows:—

(1) The Coast Plateau or Coast Flats, having an average elevation of 500 to 600 feet and varying in width from about thirty miles in South West Africa to three or four or even less in the south-east of the Cape Province.

(2) The Southern or Little Karroo, a narrow table-land about fifteen miles in width, crossed from east to west by a series of parallel mountain ranges separated by narrow valleys; its average elevation is about 1,500 feet, and it is separated from the coast belt by the Langeberg and Outeniqua ranges.

(3) The Central or Great Karroo has an average elevation of between 2,000 and 3,000 feet. It is bounded on the west by the Cedarberg and Bokkeveld and on the south by the Witteberg, Zwartberg, and Zuurberg ranges.

(4) The Northern Karroo or High Veld is the innermost plateau, comprising the greater part of the remainder of the Cape Province, the Orange Free State, and the major portion of the Transvaal. It is encircled on the west, south, and east by the mountains of Namaqualand, the Roggeveld, Winterberg, Stormberg, and Drakensberg ranges, constituting the great escarpment. This plain has an elevation of about 4,000 feet, rising in the north-eastern portions to 6,000 feet in the Transvaal High Veld, and 10,000 to 11,000 feet in Basutoland, and forms the main watershed of the country.

Outside of these areas lie the Transvaal low veld, Swaziland, Natal, Zululand, and the eastern uplands of the Cape Province, the native territories of the Transkei, the mountainous south-west, including the Cape Peninsula, and the west coastal area.

The greater portion of South Africa has an elevation of over 3,000 feet, whilst the area below 1,500 feet consists merely of a narrow fringe around the coast.

The most obvious effect of this formation is found in the temperature, which will be referred to later.

2. **Pressure.**—The climate of South Africa is mainly dependent on the secular movements of the sub-tropical high pressure belt. In January, owing to the heating of the land mass, this belt of high pressure is broken up into two separate anticyclones:—The Indian Ocean anticyclone, having its centre near Latitude 37° S., and the Atlantic anticyclone, having its centre near Latitude 35° S. and with the northern boundary of its eastern extremity just touching the west and south Cape coasts. Over the land, pressure is highest in northern Natal and eastern Transvaal with the equatorial tongue of low pressure extending southwards to the centre of the Cape (Chart 1). This distribution of pressure on sea and land favours an influx of warm moist air on the eastern side of the Union during the summer months, and, since the area of the land is small in comparison with the vast surrounding ocean, about 86 per cent. of the land surface receives its rains during that period.

In July the sub-tropical high-pressure belt stretches right across the Continent in the vicinity of the 30th parallel. A prominent anticyclone is now established over the innermost plateau with its axis lying north-east and south-west. *The circumpolar-low*, with its western circulation, also moves northward with its northern boundary touching the south coast (Chart 2). The influx of moisture on the eastern side of the Union is thus excluded during the winter months, and rains are confined to the west, south-west, and south of the Cape Province, now brought within the influence of the cyclones of the Southern Ocean.

From the table on the following page giving the mean monthly pressures (corrected for gravity and reduced to 32° F.) it is seen that the barometric pressure over the greater part of the country lies between twenty-five and twenty-six inches, falling to just over twenty-four inches at the more elevated stations such as Belfast and Johannesburg. The surface density of the air in the interior is consequently low, the mean value at Johannesburg during the hottest part of the day in January being 958 grams per cubic metre as against 1,157 grams per cubic metre under similar conditions at Durban.

3. **Atmospheric Circulation.**—The pressure diagrams included in this article show the general flow of the air over the country near the ground and this conforms more or less with the sea-level isobars. In summer an extensive moisture-laden south-easterly current of air from the Indian Ocean passes over the land. This is gradually deflected by the run of the isobars over the northern Transvaal and southern Rhodesia towards the east and eventually sweeps southwards over the western and central Transvaal, Free State, Bechuanaland, and north-east Cape as a northerly current, whilst along the south, south-east, and east coasts an opposing current sets in from the south-east, penetrating the land only in the south and west of the Cape Province. Part of the northerly flow of air in the centre of the Union moves westwards over the central Cape, and ultimately flows out over the south Atlantic as a south-easterly wind, and part moves over the north-east Cape and south Natal towards the Indian Ocean as a north-westerly wind, passing over a landward current from the south-east, which, in those regions, does not extend far inland.

In winter there is still a slight landward movement of the surface air on the east coast; over the Transvaal and Orange Free State little actual displacement of the air takes place, whilst over the remainder of the Union a very extensive current sets in from the north-west, replacing in parts, such as the south-east Cape, the summer movement from the opposite direction; the general movement of the air is now seawards, excepting in the south-west and south Cape, where moisture is imported by the north-westerly flow of air from the Atlantic Ocean, bringing rain to these areas.

MEAN MONTHLY PRESSURES REDUCED TO 32°F. AND TO STANDARD GRAVITY.

Station.	Altitude.	Latitude.	Longitude.	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Year.
	Ft.															
Barberton	2,790	25° 47′	31° 03′	27·186	27·213	27·251	27·316	27·348	27·360	27·426	27·398	27·333	27·278	27·234	27·196	27·290
Bedford	2,460	32° 41′	27° 09′	27·462	27·490	27·518	27·600	27·600	27·625	27·655	27·614	27·687	27·490	27·490	27·475	27·552
Bethulie	4,205	30° 30′	25° 59′	25·809	25·843	25·878	25·920	25·911	26·002	26·038	25·988	25·934	25·872	25·834	25·801	25·908
Blomfontein	4,683	29° 07′	26° 12′	25·461	25·492	25·531	25·574	25·610	25·642	25·642	25·637	25·579	25·625	25·553	25·495	25·556
Cape Agulhas	92	34° 50′	20° 01′	29·900	29·907	29·936	29·965	30·003	30·040	30·085	30·049	30·040	30·000	29·955	29·920	29·984
Cape St. Blaize	198	34° 11′	22° 00′	29·737	29·749	29·780	29·813	29·858	29·899	29·937	29·905	29·881	29 847	29·797	29·760	29·830
Capetown—Royal Observatory	40	33° 56′	18° 28′	29·909	29·912	29·944	29·999	30·034	30·102	30·143	30·108	30·081	30·030	29·984	29·939	30·017
Durban	50	29° 52′	31° 03′	29·887	29·913	29·963	30·019	30·070	30·108	30·102	30·131	30·055	30·000	29·941	29·900	30·012
East London	140	33° 02′	27° 55′	29·772	29·788	29·828	29·867	29·914	29·971	30·005	29·995	29·934	29·884	29·829	29·787	29·879
Grootfontein	4,144	31° 27′	24° 58′	25·867	25·894	25·931	25·977	26·006	26·051	26·057	26·034	25·990	25·918	25·884	25·859	25·953
Johannesburg—Union Observatory	5,925	26° 11′	28° 02′	24·394	24·312	24·345	24·380	24·397	24·422	24·452	24·421	24·380	24·340	24·313	24·297	24·363
Kenhardt	2,600	29° 18′	21° 14′	27·303	27·280	27·329	27·403	27·458	27·523	27·536	27·498	27·426	27·301	27·300	27·278	27·389
Kimberley	3,900	28° 44′	24° 46′	25·984	26·017	26·052	26·111	26·088	26·203	26·221	26·178	26·118	26·057	26·014	25·986	26·092
Klaver	137	31° 47′	18° 37′	29·819	29·824	29·852	29·912	29·914	30·003	30·092	30·057	30·001	29·943	29·892	29·856	29·942
Komatipoort	488	25° 26′	31° 56′	29·434	29·456	29·504	29·577	29·637	29·697	29·757	29·716	29·716	29·610	29·568	29·512	29·580
Kokstad	4,351	30° 33′	29° 26′	25·676	25·708	25·743	25·793	25·808	25·863	25·836	25·803	25·769	25·709	25·722	25·688	25·749
Kroonstad	4,493	27° 39′	27° 15′	25·597	25·626	25·711	25·759	25·785	25·815	25·775	25·752	25·716	25·656	25·650	25·616	25·694
Nelspoort	3,318	32° 09′	23° 01′	26·051	26·007	26·044	26·099	26·098	26·839	26·852	26·828	26·780	26·706	26·671	26·647	26·738
O'Okiep	3,060	29° 36′	17° 52′	26·858	26·864	26·907	26·935	26·981	27·010	27·046	27·010	26·967	26·932	26·902	26·871	26·939
Pietermaritzburg	2,243	30° 35′	30° 22′	27·672	27·690	27·748	27·800	27·830	27·870	27·920	27·870	27·811	27·762	27·708	27·680	27·781
Pietersburf	4,244	23° 54′	29° 28′	25·802	25·818	25·856	25·907	25·941	25·974	26·015	25·976	25·925	25·875	25·845	25·822	25·896
Piet Retief	4,134	27° 00′	30° 48′	25·965	25·980	26·013	26·066	26·090	26·106	26·150	26·120	26·065	26·017	25·976	25·954	26·042
Pt Elizabeth	181	33° 58′	25° 37′	29·692	29·783	29·822	29·858	29·899	29·852	29·988	29·949	29·925	29·878	29·829	29·788	29·870
Port Nolloth	24	29° 14′	16° 51′	29·052	29·050	29·068	29·022	29·088	29·150	29·181	29·153	30·117	30·062	30·021	29·981	30·054
Port St. Johns	153	31° 38′	29° 35′	29·761	29·782	29·908	29·926	30·026	30·088	30·150	29·997	29·920	29·880	29·812	29·770	29·882
Potchefstroom	4,424	26° 44′	27° 05′	25·587	25·600	25·649	25·702	25·702	25·746	25·777	25·772	25·690	25·643	25·604	25·588	25·681
Pretoria	4,350	25° 45′	28° 12′	25·082	25·099	25·740	25·787	25·822	25·856	25·858	25·856	25·800	25·750	25·713	25·694	25·775
Queenstown	3,553	31° 54′	26° 52′	26·421	26·449	26·484	26·519	26·561	26·588	26·611	26·573	26·530	26·435	26·443	26·426	26·503
Worcester	771	33° 40′	19° 27′	29·131	29·166	29·173	29·238	29·274	29·333	29·333	29·313	29·310	29·258	29·200	29·162	29·243
Zeerust	3,886	25° 32′	26° 05′	26·090	26·108	26·154	26·213	26·252	26·295	26·295	26·270	26·217	26·160	26·124	26·096	26·193

4. **Upper Air Circulation.**—Reference should be made to *Year Book* No. 14 and to previous issues for a description of air movements at higher levels, as determined by pilot balloon observations. Charts showing the wind frequencies and velocities at heights ranging from sea-level up to 10,000 feet are there presented, together with a brief discussion of the upper air circulation.

5. **Hot Winds.**—All along the coastal districts, and inland near the foot of the plateau, hot, dry winds are experienced. These "berg winds" as they are called along the south coast, cause at times a practical inversion of the seasons, the maximum temperatures late in autumn or in early spring frequently being higher than those recorded in summer. They may blow for only a few hours or may continue for two or three days in succession, producing a feeling of great depression; when the wind changes its direction it brings cool, cloudy weather and occasionally rain follows, bringing a welcome feeling of relief. As these winds owe the greater part of their heat to being warmed by compression in passing from the elevated table-land in the interior to the low coastal lands, the directions from which they blow, being more or less at right angles to the coastline, depend on the direction in which the escarpment and mountain ranges extend. Thus, they are easterly along the west coast from Walvis Bay southwards, northerly to north-westerly (very seldom north-easterly) along the south coast and the southern interior Cape, and north-westerly along the Transkei and Natal coastal belt. The hot winds appear to be most frequent on the west coast (Port Nolloth) and least frequent on the east coast (Durban).

6. **Duststorms.**—A disagreeable feature of the South African climate is the occurrence of duststorms, mainly over the drier inland parts of the country. They are most frequent during the second half of the year, usually starting in August, when the high pressure over the interior is beginning to break up; they are also frequently associated with the forefront of advancing thunderstorms which are common over the summer rainfall area. The fine dust, raised by a strong squally wind, rises as an enormous, thick cloud, almost blotting out the landscape, and penetrating everywhere. Fortunately, these duststorms seldom last for any length of time and are usually followed by rain.

7. **Temperature.**—The most noteworthy effect of the plateau structure of South Africa is the remarkable uniformity of mean annual temperature over the greater part of the country. Thus Cape Agulhas, the most southerly point in Latitude 34° 50′ S. and 62 feet above mean sea-level, has a mean yearly temperature of 61·3° F., whilst Johannesburg (Joubert Park), in Latitude 26° 11′ S. at an elevation of 5,735 feet, has an annual mean of 60·4° F., a difference of less than 1 degree.

A factor having a profound influence on the South African climate, particularly along the coastal belt, is the presence of ocean currents. The west coast of South Africa is washed by the cold Benguela current, and its influence on the coastal climate is accentuated by the upwelling of cold waters along the coast under the influence of the prevailing off-shore south-east winds. This current produces important climatic effects, which are in evidence from Capetown almost to the Equator. The coldest water is found in the vicinity of Port Nolloth. The result of this is a cool and foggy seaboard, much of which is at the same time an almost rainless desert. Another consequence of the presence of this current is a decrease of temperature from south to north instead of an increase, the mean annual temperatures of Capetown (33° 56′ S.), Blaauwbergstrand (33° 47′ S.), Port Nolloth (29° 14′ S.), and Walvis Bay (22° 56′ S.) being 62·5, 60·2, 57·6, and 61·1° F. respectively. Conditions on the east coast form a striking contrast to those on the west coast. Owing to the warm Mozambique current which flows down the east coast, there is a more rapid decrease in temperature as we go southwards than would be expected on the basis of difference in latitude only. The mean annual temperatures of Durban (31° 00′ S.), Port St. Johns (31° 38′ S.), East London (33° 00′ S.), Port Elizabeth (33° 58′ S.), and Cape Agulhas (34° 50′ S.) are 69·8, 67·5, 64·9, 63·7, and 61·3° F. respectively. The contrast between the east and west coasts is most striking, if it is borne in mind that Port Nolloth and Durban lie in nearly the same latitude and yet show a difference of no less than 12·2° F. in their mean annual temperatures.

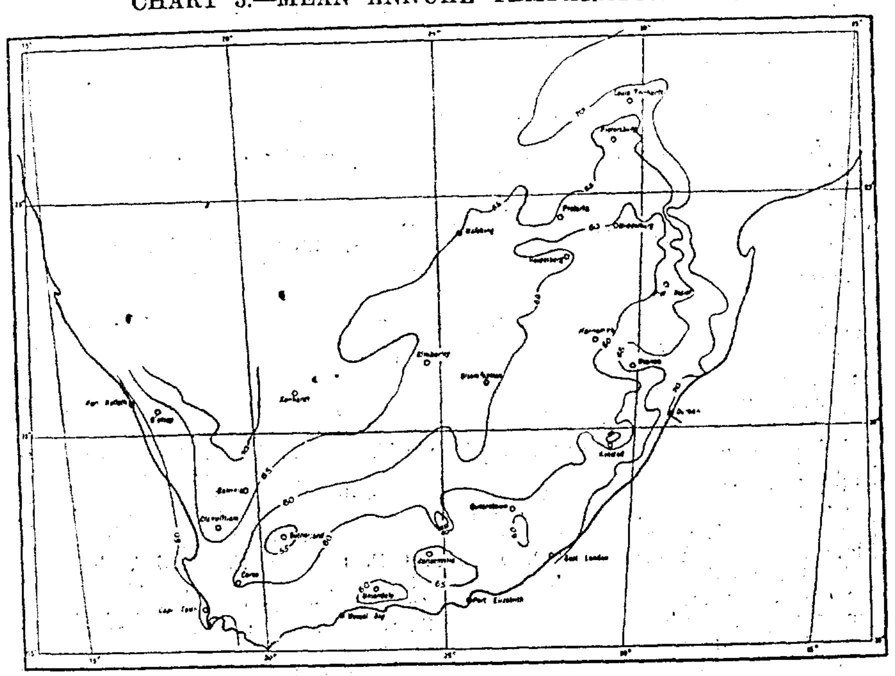
Chart 3 shows the mean annual isothermals at 5° intervals. Although the isothermal lines at first sight appear to be rather irregular, certain distinctive features stand out prominently. Thus by far the greater part of the Union is included between the 55° and 65° lines, and it is interesting to

follow the course of the latter isothermal. Starting just north of East London, it runs north more or less parallel to the coast until Lydenburg in the eastern Transvaal is reached; here it swings around to the west, passing north of Pretoria. Near Mafeking its direction changes once more, and it now runs in a south-westerly direction, until in the neighbourhood of Clanwilliam it turns sharply to the north. The only parts of South Africa which have mean annual temperatures above 65° F. are therefore: The narrow strip along the east coast, which includes the low-lying parts of Natal; the low veld of eastern Transvaal; the greater part of northern Transvaal; and a considerable part of the north-western Cape. Annual temperatures of 70° and over are confined to the coastal fringe of north Natal, the low veld in the eastern Transvaal, the valley of the Limpopo, and the lowlands along the Orange River between the 18th and 20th meridiars.

The 60° F. isothermal includes the whole of the eastern escarpment of the innermost plateau, whilst temperatures below 55° F. are encountered only in a limited area around Sutherland. Similar low temperatures, however, will also be found on the mountains, as is indicated by the mean annual temperature of 54·7° F. at Disa Head on Table Mountain.

The warmest place thus far noted in the Union is Goodhouse, near the mouth of the Orange River. Here, at an elevation of 648 feet above sea-level, the mean annual temperature is 73·8° F. This is followed closely by Komatipoort on the border of Portuguese East Africa, where, at an altitude of 486 feet, the mean temperature amounts to 73·4° F.

CHART 3.—MEAN ANNUAL TEMPERATURE °F.



The coldest station is Sutherland, in the Roggeveld Mountains, at a height of 4,785 feet, where the yearly mean is 54·1° F. The next coldest is Grootvallei, to the east of Graaff-Reinet, at a height of 4,700 feet in the Tandjes Berge. There is thus a difference of 19·7° between the mean annual temperature of the known warmest and coldest parts of the country.

Further information regarding temperatures may be obtained from the table on the following page, which gives mean monthly maximum (M) and minimum (m) temperatures for stations of continuous standing for 15 years and over.

MEAN MAXIMUM (M) AND MEAN MINIMUM (m) TEMPERATURES IN °F FOR STATIONS OF CONTINUOUS STANDING FOR 15 YEARS AND OVER.

Station.	Lat. S.	Long. E.	Approx. Height. Feet.	Jan. M.	Jan. m.	Feb. M.	Feb. m.	March. M.	March. m.	April. M.	April. m.	May. M.	May. m.	June. M.	June. m.	July. M.	July. m.	Aug. M.	Aug. m.	Sept. M.	Sept. m.	Oct. M.	Oct. m.	Nov. M.	Nov. m.	Dec. M.	Dec. m.	Year. M.	Year. m.
Cape of Good Hope.																													
Aliwal North	30° 41′	26° 40′	4,367	86	57	84	56	79	52	74	44	67	36	62	30	63	29	67	34	73	41	77	46	81	50	85	50	75	44
Amalienstein	33° 20′	21° 27′	1,570	89	59	88	60	84	56	77	50	72	42	67	37	67	35	69	38	74	44	77	49	82	52	87	56	78	48
Cape Agulhas	34° 50′	20° 01′	62	73	62	73	63	71	61	68	57	65	54	62	51	61	50	61	50	62	52	65	54	68	57	71	60	67	56
Capetown— Royal Observatory	33° 56′	18° 29′	40	80	60	81	61	78	59	73	54	67	51	63	48	63	47	63	48	66	50	70	53	74	56	77	59	71	54
Carnarvon	30° 58′	22° 08′	4,112	90	59	88	59	82	56	76	48	67	38	61	34	61	32	65	35	72	40	79	47	82	51	88	57	76	46
Ceres	33° 22′	19° 19′	1,497	86	56	86	56	82	53	74	46	67	40	62	37	61	35	63	37	68	41	73	46	78	50	83	54	74	46
Cradock	32° 10′	25° 38′	2,860	88	57	87	58	82	55	77	47	70	39	66	35	66	33	70	37	75	42	80	47	83	51	87	55	78	46
Clanwilliam	32° 10′	18° 55′	245	92	59	93	60	90	57	83	51	76	46	69	42	69	40	71	41	76	45	79	49	85	53	89	57	81	50
East London— Signal Station	33° 01′	27° 54′	149	76	64	76	64	75	63	73	59	72	54	71	50	70	49	70	51	69	55	71	57	73	60	75	63	72	57
Goodhouse	28° 56′	18° 13′	648	102	71	101	71	97	69	90	62	80	52	73	45	73	44	77	47	84	53	91	60	94	64	99	69	89	59
Graaff-Reinet	32° 16′	24° 32′	2,463	89	60	88	60	83	58	78	52	72	46	68	43	67	40	71	43	75	47	80	50	83	54	87	58	78	51
Groot Drakenstein— Rhodes' Farm	33° 52′	19° 01′	466	85	60	86	61	83	59	76	52	70	47	64	44	64	43	65	44	68	47	73	51	78	54	83	57	75	52
Grootfontein	31° 27′	24° 58′	4,144	89	55	87	55	80	53	75	45	67	37	61	33	62	32	67	35	72	40	79	44	82	49	88	53	76	44
Kenhardt	26° 21′	21° 09′	2,600	97	65	95	65	90	61	82	52	74	43	68	37	69	35	72	39	78	45	84	52	89	56	95	63	83	51
Kimberley	28° 44′	24° 46′	3,991	93	63	90	63	85	59	79	51	71	43	67	38	67	37	71	41	79	47	85	53	88	57	92	62	81	51
Kingwilliamstown	32° 52′	27° 23′	1,314	84	61	84	61	81	59	78	53	73	47	70	42	70	41	73	44	74	49	76	52	79	55	83	58	77	52
Kokstad	30° 33′	29° 26′	4,351	78	55	78	55	75	52	72	45	67	38	64	33	64	32	67	37	71	43	73	47	75	50	78	53	72	45
Lovedale	32° 46′	26° 51′	1,760	85	60	85	60	81	57	77	52	72	45	69	41	68	39	71	43	75	47	77	50	80	54	84	58	77	50
Mafeking	25° 52′	25° 39′	4,169	87	62	85	61	82	58	78	50	72	41	68	36	68	36	73	40	81	49	85	56	86	58	88	61	79	51
Mossel Bay	34° 11′	22° 09′	198	75	63	75	64	74	62	71	58	68	53	67	51	65	49	65	50	66	52	68	55	71	58	74	61	70	56
Murraysburg	31° 57′	23° 48′	3,800	88	57	86	57	80	52	74	45	65	37	60	33	61	31	65	34	71	39	76	45	80	50	85	55	74	45
O'Okiep	29° 36′	17° 52′	3,060	87	59	87	61	84	59	78	56	70	49	63	45	63	44	65	45	70	47	77	50	80	53	84	56	76	52
Port Elizabeth	33° 59′	25° 37′	181	76	64	76	64	74	62	72	58	70	54	68	51	67	49	67	50	67	53	68	56	71	58	74	62	71	57
Port Nolloth	29° 14′	16° 51′	24	67	53	67	54	67	53	68	50	67	48	65	46	64	45	64	45	64	46	65	49	66	50	66	52	66	49
Port St. Johns	31° 38′	29° 35′	153	73	66	73	67	72	65	69	61	66	57	63	53	62	52	63	53	64	56	66	59	69	61	71	64	68	60
Prieska	29° 39′	22° 45′	3,080	96	67	93	66	87	62	80	52	71	42	65	35	66	33	71	37	77	45	84	53	87	59	94	65	81	51
Prince Albert	33° 14′	22° 02′	2,200	83	60	80	58	73	51	69	49	65	45	62	41	62	38	65	41	71	47	74	51	80	58	82	59	72	50
Queenstown	31° 54′	26° 52′	3,533	85	58	84	58	79	55	75	48	68	41	64	37	65	35	68	39	73	44	77	49	81	52	84	56	75	48
Somerset East	32° 44′	25° 35′	2,514	84	57	83	58	79	56	75	51	69	45	66	42	66	40	69	43	72	46	77	48	78	52	83	56	75	50
Stutterheim	32° 34′	27° 26′	2,750	79	58	79	59	77	56	75	52	70	46	67	44	67	42	70	45	71	47	73	50	75	53	78	56	74	51
Sydney's Hope	33° 24′	26° 16′	1,750	79	58	80	59	77	58	74	55	68	51	64	47	64	46	67	47	69	49	70	50	73	53	77	56	72	52
Uitenhage	33° 47′	25° 24′	358	84	61	84	62	81	59	79	53	74	47	71	42	71	41	73	44	73	48	76	52	78	55	82	59	77	52
Umtata	31° 35′	28° 46′	2,278	81	60	81	61	79	58	77	52	73	43	70	37	70	36	73	41	74	47	75	51	77	55	80	58	76	50
Vryburg	26° 58′	24° 45′	3,890	91	63	88	62	83	58	79	48	72	38	68	32	67	31	71	36	80	45	86	53	87	57	90	61	80	49
Willowmore	33° 17′	23° 20′	2,760	87	56	85	57	81	55	76	48	67	40	61	36	61	35	66	38	69	41	76	46	80	50	85	55	75	46
Worcester	33° 39′	19° 26′	815	85	58	86	59	83	57	75	51	69	47	65	43	63	40	65	41	70	46	74	50	79	53	83	56	75	50
Wynberg	34° 00′	18° 28′	238	79	60	80	60	78	58	73	54	68	50	65	48	64	47	65	47	68	49	71	52	74	54	77	58	72	53

MEAN MAXIMUM (M) AND MEAN MINIMUM (m) TEMPERATURES IN °F FOR STATIONS OF CONTINUOUS STANDING FOR 15 YEARS AND OVER—*continued.*

Station.	Lat. S.	Long. E.	Approx. Height. Feet.	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Year.
				M. m.	M. m.	M. m.	M. m.	M. m.	M. m.	M. m.	M. m.	M. m.	M. m.	M. m.	M. m.	M. m.
Natal.																
Dundee	28° 11′	30° 15′	4,090	82 58	81 57	78 55	76 48	71 40	68 35	68 35	71 39	76 47	79 52	80 54	82 57	76 48
Durban, Point	29° 52′	31° 03′	50	82 70	82 70	81 69	78 65	75 59	73 56	72 55	72 57	73 61	75 63	77 65	80 68	77 63
Empangeni	28° 46′	31° 55′	210	85 67	85 67	83 66	81 62	76 56	74 51	74 50	76 53	77 57	79 61	83 63	85 66	80 60
Eshowe	28° 53′	31° 27′	1,700	79 64	80 64	78 63	76 60	73 56	71 53	70 52	72 53	73 56	75 58	76 60	79 62	75 58
Estcourt	29° 00′	29° 53′	3,833	82 60	81 59	78 57	76 50	70 40	67 34	66 33	70 38	74 46	77 52	79 55	81 58	75 49
Hlabisa	28° 08′	31° 52′	800	82 64	82 65	81 64	78 61	75 56	73 53	73 53	73 53	75 56	77 59	79 61	82 63	78 59
Ladismith	28° 33′	29° 47′	3,279	88 62	87 61	82 59	79 51	73 42	69 36	69 36	73 41	78 49	82 55	84 58	87 60	79 51
Pietermaritzburg—Mental Hospital	29° 35′	30° 22′	2,243	81 63	81 62	79 60	77 55	73 49	70 43	70 43	73 47	75 52	77 56	79 58	81 61	76 54
Newcastle	27° 45′	29° 56′	3,935	87 61	85 61	82 56	78 49	72 42	68 36	69 36	73 42	79 48	83 54	85 58	87 60	79 50
Nottingham Road	29° 20′	30° 01′	4,719	76 53	75 52	73 50	70 42	66 33	63 27	63 26	66 31	70 39	72 46	73 49	75 52	70 42
Vryheid	27° 47′	30° 46′	3,917	81 58	81 58	78 57	76 51	71 44	68 40	69 41	72 44	75 49	78 53	79 55	81 57	76 51
Weenen	28° 51′	30° 05′	2,773	90 61	89 60	85 58	83 51	76 40	72 33	71 32	75 38	79 47	83 54	86 57	89 59	82 49
Transvaal.																
Barberton	25° 47′	31° 03′	2,906	83 64	83 64	81 62	79 57	75 52	73 48	72 48	75 51	79 56	81 60	81 61	83 63	79 57
Belfast	25° 41′	30° 02′	6,250	74 51	73 50	71 48	69 40	64 31	61 26	60 26	65 29	71 38	75 44	74 47	75 49	69 40
Bethal	26° 27′	29° 28′	5,457	78 54	77 53	75 51	72 43	67 35	63 28	63 28	68 33	73 41	76 47	76 51	78 54	72 43
Christiana	27° 55′	25° 10′	3,960	91 63	88 61	84 58	78 49	72 40	66 33	67 31	72 36	78 45	83 51	87 56	90 60	80 49
Ermelo	26° 31′	29° 59′	5,870	78 55	78 53	75 51	72 45	67 38	63 32	63 32	68 36	73 43	76 48	76 51	77 53	72 45
Heidelberg	26° 30′	28° 22′	5,054	82 58	81 56	78 53	75 45	68 36	64 29	65 29	70 34	76 43	80 51	80 54	82 56	75 45
Johannesburg—Joubert Park	26° 11′	28° 03′	5,750	80 57	79 56	76 54	72 48	66 42	62 37	62 37	67 41	74 47	78 51	78 53	80 56	73 48
Komatipoort	25° 26′	31° 56′	486	92 70	90 69	88 67	86 61	82 54	80 47	79 47	82 52	86 59	90 63	90 66	92 68	87 60
Lichtenburg	26° 10′	26° 10′	4,950	83 59	81 58	78 55	75 47	69 39	65 34	65 34	70 38	76 46	80 52	81 55	83 57	75 48
Louis Trichardt	23° 03′	29° 54′	3,120	82 61	80 61	78 59	76 54	73 48	71 44	69 43	73 46	78 53	81 57	81 60	82 61	77 54
Messina	22° 20′	30° 03′	1,050	90 69	89 69	87 67	84 62	80 55	77 50	76 50	79 53	85 60	89 65	90 67	91 69	85 61
Middelburg	25° 46′	29° 28′	4,774	82 57	81 56	79 53	76 45	71 37	67 30	67 29	71 34	77 43	80 50	80 53	81 56	76 45
Nylstroom	24° 42′	28° 25′	3,708	84 61	83 60	81 57	78 50	74 41	70 36	69 35	74 40	81 48	84 54	84 58	84 60	79 50
Pietersburg	23° 54′	29° 28′	4,244	82 60	82 59	79 57	77 50	72 43	69 37	69 37	73 40	78 48	81 54	81 57	82 59	77 50
Piet Retief	27° 00′	30° 48′	4,134	78 59	77 58	76 56	74 51	70 44	67 40	67 39	70 43	73 48	76 52	76 55	78 58	74 50
Pilgrims Rest	24° 54′	30° 44′	4,200	78 58	77 58	75 55	74 49	70 42	68 36	68 36	71 40	76 46	78 51	78 55	79 57	74 49
Potchefstroom	26° 44′	27° 05′	4,424	86 60	84 59	81 55	78 47	72 38	67 32	67 31	72 36	79 45	83 52	83 54	86 58	78 47
Pretoria, Meteorological Office	25° 45′	28° 12′	4,350	83 61	82 60	79 58	77 51	72 43	68 37	68 36	73 41	78 49	82 55	82 58	84 60	77 51
Rustenburg, Experimental Farm	25° 40′	27° 14′	3,675	87 62	85 61	82 58	79 51	74 43	70 38	69 37	74 41	81 49	85 56	86 58	87 61	80 51
Standerton	26° 57′	29° 15′	5,004	82 55	80 54	77 52	74 43	69 33	64 26	65 25	69 30	75 40	78 47	79 51	81 54	74 43
Zeerust	25° 32′	26° 05′	3,883	86 62	85 61	82 58	79 48	73 39	68 32	68 32	73 38	80 48	84 55	85 58	86 61	79 49

MEAN MAXIMUM (M) AND MEAN MINIMUM (m) TEMPERATURES IN °F FOR STATIONS OF CONTINUOUS STANDING FOR 15 YEARS AND OVER—*continued.*

Station.	Lat. S.	Long. E.	Approx. Height. Feet.	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Year.
				M. m.	M. m.	M. m.	M. m.	M. m.	M. m.	M. m.	M. m.	M. m.	M. m.	M. m.	M. m.	M. m.
Orange Free State.																
Bethulie	30° 30′	25° 58′	4,217	88 60	86 59	81 55	75 47	68 38	62 32	62 32	67 36	73 42	79 48	82 52	87 57	76 46
Bloemfontein	29° 07′	26° 12′	4,615	87 60	85 59	80 56	74 48	67 38	62 32	63 31	67 36	75 43	80 51	83 54	86 59	76 47
Harrismith	28° 16′	29° 07′	5,352	75 53	74 53	71 50	68 45	62 39	58 34	59 34	62 37	68 42	71 47	73 50	75 52	68 45
Kroonstad	27° 39′	27° 15′	4,423	85 60	83 58	80 55	75 46	69 36	64 29	65 29	70 35	76 44	81 51	82 54	85 58	76 46
Ladybrand	29° 10′	27° 26′	5,300	82 56	79 55	75 52	71 46	64 38	60 32	60 32	64 36	70 42	75 49	77 51	81 55	71 46
Lindley	27° 53′	27° 55′	5,000	83 57	81 56	78 53	74 44	68 35	63 28	64 27	68 33	74 42	78 49	80 52	83 55	75 44
Basutoland.																
Mafeteng	27° 47′	27° 13′	5,300	82 57	79 55	74 53	69 46	62 39	57 34	57 33	62 37	68 43	74 48	76 52	80 56	70 46
Swaziland.																
Mbabane	26° 19′	31° 09′	3,800	77 59	77 58	74 56	72 52	69 48	67 44	66 43	70 46	73 50	74 54	75 55	76 57	73 52

8. **Annual Range of Mean Temperatures.**—Notwithstanding the remarkable uniformity in the yearly temperatures, a considerable diversity exists in the mean annual range, i.e. in the temperature difference between the hottest and coldest months. Seeing that the seasons in the southern hemisphere occur in the inverse order to those of the northern hemisphere, it follows that the coolest month occurs in either June, July, or August, and the warmest month in December, January, or February.

So far as has been ascertained up to the present, the annual range of temperature is least (6·2° F.) at Port Nolloth on the west coast, where with a mean annual temperature of 57·6° F., February, the warmest month, has a temperature of 60·6° F., whilst August, the coolest month, has a mean of 54·4° F. Contrasted with this Prieska, in the northern Karroo, altitude 3,030 feet, has a mean annual temperature of 66·0° F., January, the warmest month, showing a temperature of 81·4° F., and July, the coldest, 49·1° F., giving a range of 32·3° F.

Between these two extremes of mean annual range intermediate values are found, as a general rule, increasing from the coast inland, being greater, however, in valleys than on mountains. With the exception of the central and northern parts of the Cape Province, where the largest ranges (25°-32°) are to be found, the mean annual range over the greater part of the Union is not much different from that of Great Britain, where the annual range varies from 14·0° at Lerwick in the Shetland Islands to 24·2° F. at Camden Square, London.

9. **Mean Diurnal Range.**—On a plateau the loss of heat at night by radiation, owing to the dry and rarified state of the atmosphere, is much more pronounced than at sea-level; hence the difference between the day and night temperatures is greater on a plateau than at lower altitudes.

Since South Africa consists mainly of high table-land, it is to be expected that high values of the daily temperature range will be encountered, and this is indeed the case, the daily range for the greater part of the country being 25°-30° F. The daily range at Valencia, Ireland, is only slightly more than 10° F. Warm days and cool nights are therefore characteristic of the South African climate as a whole. Here, again, the coastal belt forms an exception, the diurnal range being on the average in the neighbourhood of 15° F.

Owing to the relatively greater intensity of insolation during the summer months, it is to be expected that the diurnal range would be greater in summer than in winter, and this is the case over the western parts of the Union. The eastern parts, however, receive their rain in summer, and since cloudiness of the sky causes cooler days and warmer nights, the diurnal range is greater in winter than in summer.

10. **Extremes of Temperature.**—Maximum temperatures of 90° to 95° are a fairly common occurrence at most stations during the summer months, whilst temperatures of 100° F. or over are frequently experienced along the Orange River valley and in the Transvaal Low Veld. Such high temperatures occasionally also occur at valley stations near the coast, at the foot of the plateaux, and even at stations with altitudes of 4,000 to 4,500 feet in the more northerly portions of the country.

Air temperatures below freezing point, occasionally as low as 15° to 10° F., are liable to occur at inland stations between April and October, but more particularly between the end of May and the middle of September.

The extremes recorded thus far are a maximum of 125° F. at Main, in Tembuland, during the prevalence of a hot wind on the 28th January, 1903, and the unusually low minimum of 5·6° F. at Carolina in the Transvaal on the 23rd July, 1926, during a cold spell, when temperatures below 20° F. were recorded in all provinces, and below 10° F. at places in the Transvaal, Orange Free State, and interior of Natal.

11. **Frosts.**—Frosts may occur over the interior at any time of the year, but outside the period April to October their occurrence is exceptional. Frosts of sufficient severity to freeze water are rare along the coastal belt, and when they occur at night in the interior the ice so formed usually disappears during

The frequency of frost depends a good deal on whether the station is situated in a valley or on a hill or slope, and in the latter event whether on the north or south side. The average number of days per year, on which the temperature of the air four feet above the surface of the ground falls to 32° or below, is sixty-four at Murraysburg, sixty-three near Aliwal North, fifty-two at Bloemfontein, thirty-three at Queenstown, twenty-eight at Kenhardt, twenty-six at Zeerust, and eleven at Pretoria. The period during which such temperatures may occur is greatest (about six months) in the Sutherland, Fraserburg, Carnarvon, Prieska, Hay, Hopetown, Britstown, Philipstown, Colesberg, Albert, Aliwal North, Barkly East, Elliot, Wodehouse, Steynsburg, and Middelburg districts of the Cape, in the Rouxville, Smithfield, Wepener, Thaba 'Nchu, Bloemfontein, and Edenburg districts of the Orange Free State, in the Standerton district of the Transvaal, and in the Utrecht district of Natal. The areas of non-occurrence are the north, north-east, and east of the Transvaal, Zululand, and a narrow belt along the Natal and Cape coasts. Between the temperature of the air at four feet above and that within an inch or two of the ground a difference of ten to twelve degrees is quite common, so that ground frosts are much more frequent and extend over a longer period.

12. **Humidity.**—The relative humidity during the year (at 8.30 a.m. S.A.S.T.) varies from 91 per cent. at Cape Agulhas to 52 per cent. in the Carnarvon division of the Cape. From about 85 per cent. along the west coast there is a decrease to 80 per cent. along the south-west, south, and south-east coasts, then a further fall to 75 per cent. on the Natal coast. From the coast there is a decrease, rapid in the west and south but slow in the east, to between 50 per cent. and 60 per cent. in the interior of the Cape Province. The values lie between 75 per cent. and 70 per cent. over most of Natal and the north and east of the Transvaal and north-east of the Orange Free State, and between 70 per cent. and 65 per cent. over the remainder of the two last-named provinces.

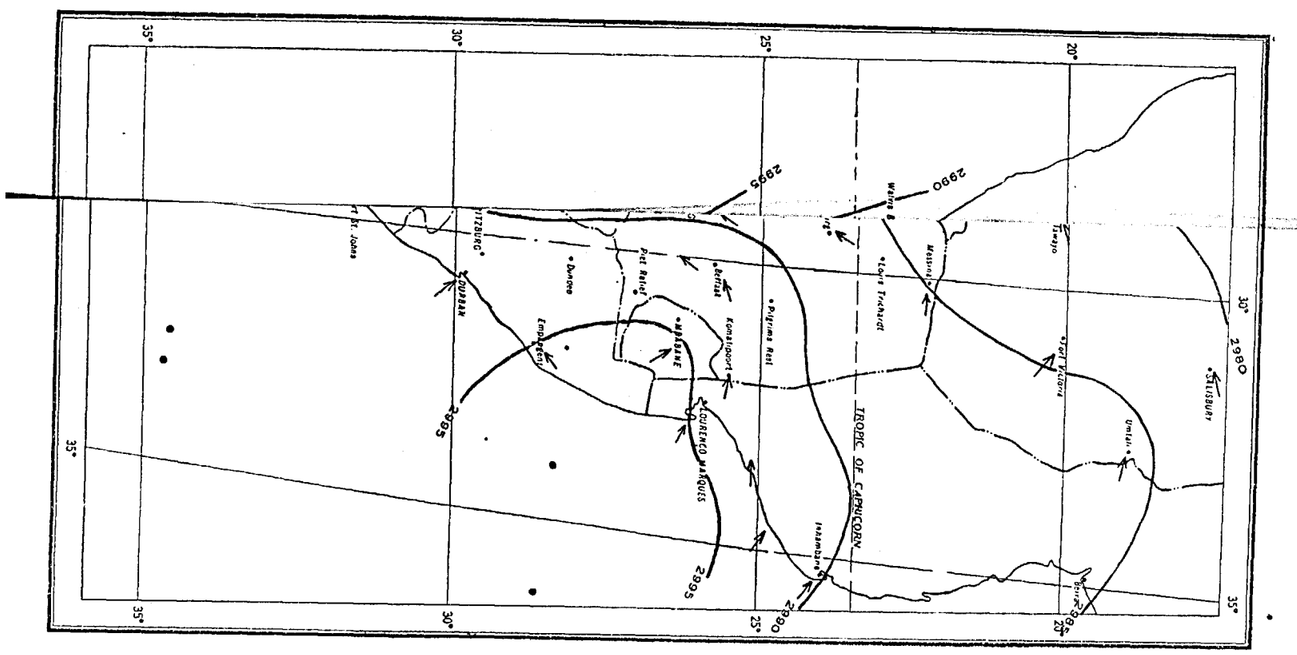
Relative humidity is at its maximum between June and August in the Cape Province west of longitude 23°, and generally in March over the rest of the country; and at a minimum in June on the east and south-east coast, between August and September over the remainder of the country east of longitude 23°, and between October and January west of that meridian.

13. **Rainfall.**—The mean annual precipitation over the Union is about 17½ inches. About three-quarters of the country has a fall of less than 25 inches, and a quarter above that amount. As might be expected from the distribution of pressure, the amount generally decreases from east to west, as the result of the summer rainfall, with an increase in the extreme south-west and south in consequence of the superimposition of the winter rainfall. Natal is the best watered province as a whole. The two coloured maps show the average annual rainfall and the seasonal distribution of the rainfall of the Union.

The area over which the fall during the summer months exceeds that of the winter months is about 406,000 square miles; over about 16,000 square miles the precipitation is fairly equally distributed throughout the year, and about 50,000 square miles receive most during the winter months. The winter-rainfall area is a comparatively narrow belt parallel to the west coast, and the zone of non-seasonal rainfall lies along the south coast. Quantities exceeding 70 inches occur over limited areas; thus, in the north of the Transvaal, in the Zoutpansberg district, the Woodbush Forest station shows an average of 71·97 inches falling on 138 days of the year; occasionally a fall exceeding 100 inches has been recorded in a year. Another outstanding wet area is Evelyn Valley, in the Amatola Mountains in the south-east of the Cape Province, where the average annual fall is 70·20 inches on 150 days of the year, the fall also exceeding 100 inches in some years. By far the wettest area known up to the present time, however, comprises the mountainous districts of Berg River Hoek and Wemmer's Hoek near Paarl, in the south-west of the Cape Province. A few years' observations taken here showed that several stations in this area have annual quantities in the neighbourhood of 200 inches. St. Michael's, on Table Mountain, shows an average of 74·75 inches per annum. Omitting Walvis Bay, where the average annual rainfall is about three-quarters of an inch, the driest station is Port Nolloth, on the west coast, south of the Orange River mouth. There the average for 35 years is only 2·17 inches on 17 days. The driest areas with less than five inches per annum are found along the west coast in the Cape Province, in the western basin of the Orange River, and in the neighbourhood of Van Wyks Vlei and the Gouph.

I.—MEAN MONTHLY RAINFALL—STATIONS OF CONTINUOUS STANDING FOR 20 YEARS OR OVER.

Station.	Lat. S.	Long. E.	Period. Years.	Jan. In.	Feb. In.	Mar. In.	Apl. In.	May. In.	June. In.	July. In.	Aug. In.	Sept. In.	Oct. In.	Nov. In.	Dec. In.	Year. In.	Percentage during Summer Months (Oct.-Mar.).
Cape of Good Hope.																	
Aliwal North	30° 41′	26° 40′	53	·86	3·07	3·39	1·66	0·93	0·50	0·43	0·69	0·89	1·39	1·97	2·42	20·20	75
Beaufort West	32° 21′	22° 36′	58	0·98	1·28	1·75	0·84	0·61	0·35	0·32	0·34	0·64	0·59	0·73	0·83	9·26	67
Bedford	32° 41′	26° 05′	58	3·22	3·49	3·97	2·23	1·50	0·90	0·87	1·00	1·97	2·42	2·93	2·90	27·46	69
Britstown	30° 35′	23° 31′	46	1·03	1·72	2·46	1·52	0·64	0·38	0·25	0·20	0·51	0·59	0·78	0·88	10·96	68
Capetown (Royal Observatory)	33° 56′	18° 29′	95	0·66	0·60	0·85	1·86	3·68	4·35	3·58	3·34	2·26	1·62	1·95	0·80	24·65	23
Carnarvon	30° 58′	22° 08′	57	0·91	1·25	1·54	0·91	0·60	0·30	0·22	0·28	0·31	0·38	0·62	0·48	7·80	66
Ceres	33° 22′	19° 19′	58	0·97	0·77	0·99	2·65	5·67	7·45	5·91	5·78	4·11	3·29	1·71	1·14	40·47	22
Clanwilliam	32° 10′	18° 55′	64	0·19	0·28	0·28	0·65	1·26	1·59	1·31	1·13	0·72	0·53	0·35	0·19	8·48	21
Concordia	29° 32′	17° 56′	24	0·14	0·31	0·48	0·39	0·66	1·41	1·02	0·05	0·43	0·21	0·18	0·21	6·39	24
Driefontein (Franschhoek)	33° 54′	19° 03′	15	1·46	1·80	1·89	4·09	8·21	13·34	9·81	9·90	8·06	4·08	3·48	1·56	67·68	21
East London	33° 01′	27° 54′	52	2·97	3·15	3·78	2·62	2·29	1·52	1·55	1·87	2·94	3·46	3·24	3·12	32·51	61
Fraserburg	31° 55′	21° 31′	58	0·67	1·00	1·12	0·80	0·62	0·39	0·30	0·27	0·29	0·28	0·44	0·42	6·60	60
Garies	30° 33′	17° 59′	48	0·12	0·17	0·17	0·46	0·65	0·99	0·71	0·81	0·43	0·32	0·19	0·12	5·14	21
George	33° 57′	22° 29′	58	2·07	3·37	3·54	2·60	2·58	2·06	1·73	2·43	3·31	3·20	3·12	3·21	34·12	57
Graaff-Reinet	32° 16′	24° 32′	55	1·31	1·68	2·27	1·10	1·01	0·54	0·53	0·56	1·05	1·06	1·44	1·48	14·03	66
Grahamstown	33° 18′	26° 32′	58	2·51	2·64	3·31	2·26	2·01	1·41	1·29	1·56	2·50	2·98	3·11	2·58	28·16	61
Griquatown	28° 51′	23° 15′	51	1·09	2·02	2·58	1·45	0·73	0·30	0·18	0·24	0·40	0·71	0·94	1·37	12·61	74
Groot Drakenstein	33° 52′	19° 01′	43	1·02	0·74	1·08	2·62	4·08	6·47	5·20	4·75	3·34	2·47	1·63	0·88	35·18	22
Hanover	31° 04′	24° 26′	52	1·71	2·16	2·68	1·49	0·95	0·47	0·30	0·32	0·75	0·73	1·26	1·09	14·00	69
Hopetown	29° 37′	24° 05′	57	1·68	1·76	2·58	1·11	0·75	0·31	0·25	0·26	0·45	0·73	1·21	1·12	12·21	74
Kenhardt	29° 21′	21° 09′	57	0·55	1·12	1·21	0·64	0·39	0·21	0·18	0·15	0·18	0·31	0·35	0·41	5·70	69
Kimberley	28° 44′	24° 46′	51	2·25	2·40	3·04	1·38	0·67	0·24	0·24	0·27	0·57	1·03	1·60	1·99	15·68	79
Kingwilliamstown	32° 52′	27° 23′	67	2·46	3·03	3·36	2·04	1·45	0·87	1·12	1·05	1·80	2·40	2·68	2·71	24·97	67
Knysna	34° 03′	23° 03′	52	2·02	2·14	2·47	2·20	2·40	1·16	2·12	2·55	3·01	2·64	2·36	2·31	27·38	51
Kokstad	30° 33′	29° 26′	30	4·94	4·28	3·91	1·64	1·01	0·56	0·65	0·79	1·58	2·38	3·86	4·48	30·08	79
Ladismith	33° 29′	21° 17′	57	0·93	1·06	1·51	1·35	1·18	1·04	0·98	1·04	1·21	1·05	1·33	0·91	13·59	50
Mafeking	25° 52′	25° 39′	22	3·62	3·16	3·16	1·05	0·46	0·18	0·24	0·39	0·60	1·39	2·79	3·49	20·53	86
Mossel Bay	34° 12′	22° 09′	57	1·10	1·40	1·47	1·61	1·50	1·28	1·23	1·44	1·73	1·63	1·31	1·30	17·00	48
O'Okiep	29° 36′	17° 52′	53	0·17	0·33	0·42	0·61	0·91	1·15	0·79	0·97	0·58	0·38	0·19	0·16	6·66	25
Oudtshoorn	33° 35′	22° 13′	57	0·50	0·69	1·18	0·94	0·94	0·71	0·56	0·76	1·02	0·80	0·78	0·64	9·52	48
Philipstown	30° 25′	24° 30′	58	1·54	2·00	2·77	1·25	0·86	0·41	0·29	0·36	0·64	0·66	1·15	1·13	13·06	71
Piquetberg	32° 53′	18° 45′	57	0·56	0·49	0·54	1·54	2·75	3·29	2·69	2·82	2·11	1·60	0·90	0·62	19·07	24
Port Elizabeth	33° 59′	25° 37′	70	1·17	1·29	1·90	1·88	2·38	1·68	1·94	2·11	2·38	2·27	2·06	1·67	22·73	46
Port Nolloth	29° 14′	16° 51′	51	0·06	0·05	0·16	0·22	0·38	0·38	0·34	0·32	0·18	0·12	0·07	0·09	2·37	22
Port St. Johns	31° 38′	29° 35′	48	5·05	5·26	5·98	3·37	2·75	1·87	1·54	2·16	3·91	5·47	4·88	5·37	47·61	67



I.—MEAN MONTHLY RAINFALL—STATIONS OF CONTINUOUS STANDING FOR 20 YEARS OR OVER—*continued.*

Station.	Lat. S.	Long. E.	Period. Years.	Jan. In.	Feb. In.	Mar. In.	Apl. In.	May. In.	June. In.	July. In.	Aug. In.	Sept. In.	Oct. In.	Nov. In.	Dec. In.	Year. In.	Percentage during Summer Months (Oct.-Mar.).
Pretoria	25° 45'	28° 11'	42	5·70	4·21	3·94	1·69	0·90	0·25	0·33	0·43	1·00	2·46	4·59	4·68	30·18	85
Belfast	25° 41'	30° 02'	31	5·41	4·00	4·02	1·63	0·74	0·55	0·33	0·39	0·96	3·02	5·18	5·23	31·10	86
Pilgrim's Rest	24° 27'	29° 28'	32	4·06	3·74	3·42	1·30	0·61	0·22	0·32	0·45	0·97	2·07	5·06	4·74	25·70	87
Barberton	25° 47'	31° 03'	42	5·70	4·21	3·94	1·69	0·90	0·25	0·33	0·43	1·00	2·46	4·59	4·68	30·18	85
Belfast	25° 41'	30° 02'	31	5·41	4·00	4·02	1·63	0·74	0·55	0·33	0·39	0·96	3·02	5·18	5·23	31·10	86
Pilgrim's Rest	24° 27'	29° 28'	32	4·06	3·74	3·42	1·30	0·61	0·22	0·32	0·45	0·97	2·07	5·06	4·74	25·70	87
Barberton	25° 47'	31° 03'	42	5·70	4·21	3·94	1·69	0·90	0·25	0·33	0·43	1·00	2·46	4·59	4·68	30·18	85
Belfast	25° 41'	30° 02'	31	5·41	4·00	4·02	1·63	0·74	0·55	0·33	0·39	0·96	3·02	5·18	5·23	31·10	86
Pilgrim's Rest	24° 27'	29° 28'	32	4·06	3·74	3·42	1·30	0·61	0·22	0·32	0·45	0·97	2·07	5·06	4·74	25·70	87
Bloemhof	27° 37'	25° 36'	32	3·22	3·23	3·30	1·28	0·56	0·16	0·28	0·24	0·65	1·09	2·22	2·11	18·34	83
Ermelo	26° 31'	29° 59'	28	4·07	3·25	3·34	1·12	0·68	0·25	0·30	0·53	1·17	3·36	4·70	4·87	29·22	86
Natal.																	
Dundee	28° 11'	30° 15'	28	5·43	4·82	4·10	1·72	0·72	0·28	0·34	0·73	1·40	2·04	4·33	5·24	32·05	84
Durban	29° 52'	31° 03'	39	4·59	5·27	6·03	3·67	2·64	1·77	1·08	1·77	2·75	5·14	4·03	5·16	45·08	68
Pietermaritzburg	28° 46'	31° 55'	28	5·15	4·67	5·78	3·11	2·70	1·46	1·81	1·58	2·49	4·42	4·63	4·37	42·02	69
Estcourt	29° 00'	29° 53'	41	5·37	4·38	3·03	1·50	0·59	0·36	0·36	0·63	1·23	2·42	3·47	4·06	28·84	84
Greytown	29° 04'	30° 36'	38	5·86	5·02	5·29	1·90	0·96	0·39	0·52	1·02	1·09	3·72	5·34	5·85	37·86	82
Illabisa	28° 08'	31° 52'	33	6·70	5·30	6·32	2·63	1·54	0·66	0·99	1·11	2·53	4·77	5·28	6·06	43·89	78
Howick	29° 27'	30° 14'	40	4·89	4·05	4·68	1·94	0·77	0·66	0·49	0·85	1·78	3·12	4·19	4·70	33·01	81
Ladysmith	28° 33'	29° 47'	35	5·29	4·71	4·22	1·26	0·63	0·28	0·38	0·81	1·25	2·70	3·30	4·81	29·84	85
Newcastle	27° 45'	29° 56'	40	6·74	5·54	5·05	1·50	0·78	0·22	0·34	0·70	1·34	3·01	5·09	6·05	36·36	87
Pietermaritzburg	29° 35'	30° 22'	41	5·66	4·01	3·38	1·60	1·06	0·88	0·71	0·80	1·67	2·24	2·71	3·17	25·65	81
Stanger	29° 19'	31° 17'	40	5·16	4·19	5·40	2·01	1·88	1·29	1·06	1·37	2·06	4·74	4·78	5·78	41·22	73
Vryheid	27° 47'	30° 46'	29	6·10	4·59	4·10	1·55	0·66	0·36	0·49	0·55	1·54	3·22	4·54	4·10	34·16	84
Weenen	28° 51'	30° 05'	39	5·98	3·89	3·08	1·52	0·55	0·21	0·24	0·70	1·10	2·31	3·65	4·03	29·34	84
Transvaal.																	
Barberton	25° 47'	31° 03'	42	5·70	4·21	3·94	1·69	0·90	0·25	0·33	0·43	1·00	2·46	4·59	4·68	30·18	85
Belfast	25° 41'	30° 02'	31	5·41	4·00	4·02	1·63	0·74	0·55	0·33	0·39	0·96	3·02	5·18	5·23	31·10	86
Pilgrim's Rest	24° 27'	29° 28'	32	4·06	3·74	3·42	1·30	0·61	0·22	0·32	0·45	0·97	2·07	5·06	4·74	25·70	87
Bloemhof	27° 37'	25° 36'	32	3·22	3·23	3·30	1·28	0·56	0·16	0·28	0·24	0·65	1·09	2·22	2·11	18·34	83
Ermelo	26° 31'	29° 59'	28	4·07	3·25	3·34	1·12	0·68	0·25	0·30	0·53	1·17	3·36	4·70	4·87	29·22	86

I.—MEAN MONTHLY RAINFALL—STATIONS OF CONTINUOUS STANDING FOR 20 YEARS OR OVER—*continued.*

Station.	Lat. S.	Long. E.	Period. Years.	Jan. In.	Feb. In.	Mar. In.	Apl. In.	May. In.	June. In.	July. In.	Aug. In.	Sept. In.	Oct. In.	Nov. In.	Dec. In.	Year. In.	Percentage during Summer Months (Oct.-Mar.)
Haenertsburg	23° 56′	29° 56′	31	8·35	6·06	6·01	1·63	1·31	0·22	0·61	0·33	0·61	2·44	4·17	5·56	37·10	87
Heidelberg	26° 30′	28° 22′	31	4·64	4·40	3·63	1·20	0·58	0·16	0·32	0·40	0·83	2·42	4·08	4·49	28·05	88
Johannesburg (Joubert Park)	26° 11′	28° 03′	47	6·17	4·90	4·32	1·73	0·77	0·18	0·38	0·45	0·95	2·48	4·90	5·37	32·60	86
Klerksdorp	26° 52′	26° 40′	30	4·24	3·57	3·24	1·51	0·63	0·17	0·25	0·31	0·63	1·77	2·97	3·59	22·88	85
Komatipoort	25° 26′	31° 56′	32	4·83	4·61	4·54	1·65	0·74	0·24	0·42	0·40	0·65	0·84	3·06	3·80	25·78	84
Lichtenburg	26° 10′	26° 10′	30	4·54	3·47	3·73	1·47	0·63	0·14	0·28	0·25	0·52	1·76	3·03	3·65	23·47	86
Louis Trichardt	23° 03′	29° 54′	28	6·05	4·95	3·99	1·36	0·87	0·37	0·68	0·30	0·44	1·94	3·63	4·68	29·26	86
Messina	22° 20′	30° 03′	28	3·28	2·34	1·42	0·51	0·44	0·02	0·17	0·06	0·08	0·69	2·38	2·85	14·24	91
Middelburg	25° 46′	29° 28′	32	5·20	4·09	3·44	1·46	0·63	0·19	0·22	0·38	0·80	2·66	5·06	4·77	28·90	87
Nylstroom	24° 42′	28° 25′	30	5·09	3·63	3·43	1·45	0·52	0·15	0·25	0·35	0·52	1·85	3·52	3·60	24·45	87
Pietersburg	23° 56′	29° 29′	32	3·88	3·13	2·80	0·99	0·41	0·05	0·24	0·21	0·33	1·77	3·02	3·69	20·52	89
Piet Retief	27° 00′	30° 48′	31	5·95	4·77	4·21	1·71	0·71	0·27	0·50	0·61	1·64	3·79	5·22	6·20	35·58	85
Pigeonhole	23° 56′	30° 07′	25	11·82	8·08	8·02	2·46	1·18	0·32	1·02	0·62	0·96	2·55	5·46	7·91	50·40	87
Pilgrims Rest	24° 54′	30° 44′	43	7·81	7·09	6·26	2·09	1·02	0·33	0·56	0·50	0·93	2·15	4·74	5·37	38·85	86
Potchefstroom	26° 44′	27° 05′	33	4·24	3·70	3·20	1·33	0·64	0·24	0·28	0·46	0·68	1·81	3·25	3·93	23·76	85
Pretoria (Meteorological Office)	25° 45′	28° 12′	33	5·43	4·21	3·63	1·21	0·64	0·08	0·32	0·51	0·63	2·48	4·72	4·42	28·28	88
Roolberg	24° 46′	27° 44′	28	4·88	3·33	3·07	1·04	0·57	0·09	0·26	0·48	0·41	1·72	3·79	3·59	23·23	88
Rustenburg	25° 40′	27° 14′	32	4·91	3·98	3·82	1·00	0·63	0·16	0·31	0·44	0·63	1·90	3·65	4·09	25·52	88
Standerton	26° 57′	29° 15′	29	4·81	4·56	3·48	1·27	0·66	0·24	0·43	0·55	0·99	3·25	4·70	4·64	29·58	86
Vereeniging	26° 40′	27° 56′	35	4·60	3·84	3·43	1·54	0·68	0·20	0·27	0·39	0·88	2·32	4·17	4·17	26·49	85
Villa Nora	23° 32′	28° 07′	26	3·57	2·37	2·87	0·77	0·46	0·08	0·14	0·18	0·26	1·03	2·60	3·20	17·53	89
Wakkerstroom	27° 21′	30° 08′	31	5·17	4·44	3·52	1·35	0·71	0·27	0·48	0·62	1·21	3·30	4·99	4·84	30·90	85
Woodbush	23° 51′	29° 59′	31	14·88	11·35	10·87	3·16	1·79	0·51	1·11	0·94	1·60	4·00	7·26	10·56	68·03	87
Zeerust	25° 32′	26° 05′	32	4·18	3·78	3·43	1·43	0·73	0·10	0·16	0·33	0·46	1·55	3·33	3·72	23·20	86
Orange Free State.																	
Bethlehem (Whinburn)	28° 15′	28° 16′	31	4·62	3·99	4·17	1·60	0·93	0·34	0·60	0·66	1·39	2·80	4·22	4·68	30·00	82
Bethulie	30° 30′	25° 58′	47	2·60	2·86	3·08	2·42	0·75	0·46	0·38	0·46	0·75	1·09	1·49	2·20	18·54	72
Bloemfontein	29° 07′	26° 12′	52	3·55	3·13	3·50	1·76	0·97	0·38	0·33	0·44	0·82	1·51	2·13	2·25	20·77	77
Boshof	28° 32′	25° 14′	32	2·87	2·61	3·54	1·50	0·72	0·21	0·25	0·43	0·84	1·04	2·17	2·09	18·27	78
Harrismith	28° 16′	29° 10′	31	4·63	4·24	3·85	1·25	0·81	0·32	0·45	0·70	1·41	3·01	4·27	4·46	29·40	83
Hellbron	27° 17′	27° 58′	24	4·84	3·69	3·32	1·51	0·85	0·37	0·35	0·45	0·94	2·36	4·46	4·45	27·59	84
Kroonstad	27° 40′	27° 15′	56	4·10	3·36	3·59	1·70	0·90	0·31	0·29	0·47	0·86	1·94	3·21	3·32	24·05	81
Ladybrand	29° 10′	27° 26′	30	4·32	3·74	3·97	1·87	1·01	0·42	0·43	0·60	1·34	2·38	3·77	3·57	27·42	79
Lindley	27° 53′	27° 55′	36	4·17	3·58	3·12	1·61	0·88	0·29	0·32	0·49	0·96	2·26	3·28	3·77	24·73	82
Barutoland.																	
Mafeteng	29° 49′	27° 14′	36	4·90	4·36	4·50	2·53	1·34	0·67	0·53	0·68	1·24	2·03	3·06	4·09	29·93	77
Swaziland.																	
Mbabane	26° 19′	31° 09′	32	9·86	7·64	7·85	2·56	1·32	0·54	0·85	1·06	2·15	4·98	6·80	8·42	54·02	84

II.—YEARLY RECORDS OF RAINFALL IN TEN TOWNS. 1866–1938.

Year.	Capetown (Royal Observatory). In.	Port Elizabeth. In.	Uitenhage. In.	Durban. In.	*Pietermaritzburg. In.	*Aliwal North. In.	*Graaff-Reinet. In.	Prieska. In.	Kimberley. In.	Johannesburg (Joubert Park). In.
1866	19·21	—	11·88	48·54	30·27	21·70	14·24	—	—	—
1867	22·96	33·59	18·02	33·08	31·49	18·91	18·20	—	—	—
1868	19·95	19·78	15·89	—	44·36	26·68	16·46	—	—	—
1869	32·34	22·93	16·40	—	30·83	19·93	13·84	—	—	—
1870	28·06	30·38	18·34	—	30·63	28·70	18·42	—	—	—
1871	20·11	24·24	11·02	—	32·26	31·93	16·47	—	—	—
1872	29·33	28·60	16·30	—	44·98	28·69	15·14	—	—	—
1873	23·77	20·15	—	43·90	36·50	21·30	10·24	—	—	—
1874	26·20	30·33	18·26	53·17	45·60	24·40	21·70	—	—	—
1875	25·71	23·40	—	54·68	37·08	24·93	17·47	—	—	—
1876	26·64	22·17	17·48	35·22	38·52	30·67	21·01	—	—	—
1877	35·56	15·31	—	35·54	33·91	17·00	10·91	—	—	—
1878	41·02	24·83	18·15	28·64	26·72	23·90	9·98	7·46	—	—
1879	18·74	20·73	17·89	44·14	42·29	22·86	13·74	9·54	—	—
1880	17·71	25·99	21·70	47·58	46·18	28·64	16·20	6·67	—	—
1881	25·61	22·52	13·62	37·07	37·62	24·91	14·50	18·09	13·33	—
1882	29·31	17·27	14·48	36·21	39·25	29·60	12·30	8·05	11·76	—
1883	32·06	23·17	12·74	44·52	37·49	21·88	10·00	3·62	17·71	—
1884	28·29	19·70	10·48	44·68	38·33	18·31	9·60	11·24	8·25	—
1885	27·92	17·14	13·01	34·48	33·70	21·54	14·72	4·46	—	—
1886	27·79	22·56	16·25	31·79	34·68	20·60	21·46	6·39	13·07	—
1887	23·08	16·22	13·50	31·87	—	30·88	15·86	11·52	17·33	—
1888	36·06	28·39	20·98	38·21	41·82	22·54	14·47	9·70	16·25	—
1889	30·98	25·02	16·45	29·27	—	25·45	18·53	11·12	15·97	—
1890	26·34	15·28	10·84	32·78	—	26·94	17·21	13·15	21·00	19·85
1891	30·30	24·82	24·98	45·45	—	35·77	20·61	15·98	30·17	25·94
1892	40·92	19·16	17·46	38·20	—	25·59	15·01	14·54	7·90	40·85
1893	23·42	22·29	23·11	71·32	—	24·04	15·32	13·66	14·52	27·54
1894	22·55	16·22	15·51	37·27	—	21·46	14·83	12·68	25·21	37·63
1895	28·52	17·05	12·61	51·41	45·97	29·26	12·35	11·64	15·76	35·41
1896	17·07	16·97	18·99	39·60	35·76	22·33	13·87	4·87	18·54	29·14
1897	19·92	26·23	19·93	34·39	31·66	11·04	12·21	4·63	10·54	23·23
1898	28·78	22·35	14·23	42·48	43·64	25·78	13·51	10·78	16·94	28·98
1899	26·79	10·41	10·27	27·86	31·78	25·62	9·10	13·48	18·00	28·99
1900	21·24	17·42	10·36	27·24	25·19	—	16·41	7·55	16·38	28·57
1901	25·66	20·38	18·34	55·54	36·76	16·48	15·15	12·02	21·67	32·80
1902	35·74	20·09	23·54	41·28	28·73	22·12	15·11	3·53	18·78	35·48
1903	29·92	25·93	15·87	35·66	26·64	9·92	7·84	1·37	10·80	33·51
1904	31·82	21·95	16·86	34·72	33·51	15·34	12·14	11·87	15·98	27·23
1905	30·15	24·20	27·73	44·95	42·10	16·54	12·94	8·38	12·15	30·60
										27·57

* Records at Pietermaritzburg for the years 1866–1888, at Aliwal North for the years 1866–1880, and at Graaff-Reinet for the period 1866–1883 copied from "Cycles of Drought and Good Seasons in South Africa," by D. E. Hutchins, "Times" Office, Wynberg, C.P., 1889.

II.—YEARLY RECORDS OF RAINFALL IN TEN TOWNS, 1866–1938—*continued.*

Year.	Cape-town (Royal Observa-tory).	Port Elizabeth.	Uitenhage.	Durban.	Pieter-maritzburg.	Aliwal North.	Graaff-Reinet.	Prieska.	Kimberley.	Johannes-burg (Joubert Park).
	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.
1906	20·26	20·15	20·87	41·58	34·18	22·39	17·03	6·09	20·05	32·22
1907	19·89	21·40	14·74	38·78	51·64	26·50	12·17	18·71	25·69	37·55
1908	24·72	25·65	20·09	44·91	32·53	14·27	7·12	6·02	19·47	26·06
1909	24·01	22·00	16·04	44·37	30·17	27·11	18·49	17·03	19·40	52·57
1910	21·56	25·34	19·72	47·03	42·66	19·01	13·02	3·80	14·05	33·29
1911	27·42	28·82	22·39	44·83	38·71	18·45	17·03	14·81	10·70	29·50
1912	21·00	22·30	20·44	31·36	26·30	18·20	9·05	8·49	12·85	26·38
1913	24·01	23·00	18·02	46·60	43·71	15·40	12·64	11·41	14·15	30·18
1914	25·02	23·03	17·55	30·33	37·73	17·81	12·40	8·00	16·44	32·10
1915	20·00	22·96	13·77	37·01	30·19	19·66	8·56	8·11	12·31	44·46
1916	21·20	20·54	15·04	29·84	32·56	10·40	13·15	5·53	9·74	32·91
1917	25·31	34·08	26·17	74·94	54·43	17·52	10·70	10·89	15·56	54·68
1918	22·33	26·04	19·30	40·56	35·08	20·40	11·11	11·43	18·29	52·41
1919	19·69	26·26	12·06	37·28	25·93	8·68	5·79	4·45	8·90	25·05
1920	26·08	13·57	12·19	44·51	52·90	14·19	17·09	11·12	21·44	39·59
1921	25·83	28·29	19·37	48·67	42·52	20·83	21·02	12·15	14·43	40·24
1922	19·11	21·48	21·13	37·70	34·80	15·68	12·44	2·47	7·01	31·59
1923	27·89	20·69	14·70	27·81	25·09	18·97	12·60	9·47	13·35	30·54
1924	18·82	16·81	9·66	31·68	38·00	22·16	12·80	7·45	18·22	34·33
1925	24·42	20·40	14·06	40·99	49·34	34·08	10·10	15·69	18·41	37·06
1926	19·84	29·44	11·10	23·21	33·04	14·67	7·79	4·60	11·69	31·24
1927	18·96	13·73	11·04	34·79	35·08	16·15	8·77	3·76	12·99	24·97
1928	16·65	31·08	19·35	27·47	28·80	10·15	15·28	13·69	12·89	32·00
1929	19·54	20·36	16·11	44·17	44·33	23·10	18·23	8·77	19·17	36·61
1930	16·47	19·82	15·00	33·24	34·38	16·50	14·18	5·48	11·30	25·84
1931	19·09	30·85	21·05	35·89	23·82	22·81	20·59	8·73	17·05	29·37
1932	23·74	32·04	23·64	43·05	33·80	9·09	13·07	4·75	12·14	23·30
1933	18·06	25·16	19·42	29·39	31·77	17·18	15·64	7·23	22·59	32·86
1934	19·13	20·01	19·61	39·21	39·34	25·25	15·69	15·35	22·39	40·18
1935	21·16	21·81	21·64	55·55	27·65	19·89	15·66	8·33	18·08	22·43
1936	28·01	21·00	18·06	46·38	36·62	22·53	15·99	4·43	21·21	33·68
1937	25·15	21·00	15·09	42·42	30·13	14·27	14·75	5·08	13·48	38·23
1938		17·40	14·59	35·77	41·97	23·16	12·91	11·30	14·01	33·27
Average	24·94	22·74	17·11	40·24	36·37	21·52	14·40	9·23	15·65	32·79
Highest	41·02	34·08	27·73	74·94	54·43	34·08	21·70	18·71	30·17	54·68
Lowest	16·47	10·41	9·66	23·21	23·82	8·68	5·79	1·37	7·90	19·85
Ratio of Highest to Lowest	2·49	3·27	2·87	3·23	2·28	3·93	3·75	13·66	3·82	2·76

Considerable variations in annual rainfall are met with at places within a few miles of each other. This is particularly the case in the Cape Peninsula. Thus, the Fire Station in Capetown has an average fall of 25·64 inches, whilst Platteklip, about 1½ miles to the south-east, also in the Capetown valley, on the lower slopes of Table Mountain, has an average yearly total of 45·12 inches, almost double the former amount. Again, Robben Island, in Table Bay, has an annual average of 18·24 inches; Camps Bay, at the foot of Table Mountain on its western side, 24·25 inches; St. Michael's, on Table Mountain (approximate altitude, 3,050 feet), 74·75 inches; and Newlands (Montebello), on the eastern side of Table Mountain, 66·07 inches. The horizontal distance through the mountain between Camps Bay and Newlands is about six miles. The great variation in rainfall over the Cape Peninsula is due to the influence of the Table Mountain range to the west, the rain being largely orographic. Again, George, on the south coast at the foot of the Outeniqua Mountains, has an average of 34·36 inches, whilst Ezeljagt, about 12 miles distant in a north-easterly direction, but on the north side of the same range, has only 14·98 inches or about two-fifths of the amount at George. The village of Balfour, Cape, at an elevation of 2,100 feet, has an average of 28·08 inches, whilst on the top of the Katberg, at a height of 4,490 feet, the average is 53·23 inches.

Further information concerning the distribution may be obtained from Table I in paragraph 13, which gives records for stations of continuous standing for 20 years or over.

As an indication of the great annual fluctuation in the amount of precipitation at the same place, Table II, which contains the yearly records for ten stations since 1866, may be referred to.

It will be noticed that at all these stations the highest annual amount is more than double the lowest.

14. **Thunderstorms.**—The greater part of the precipitation over the summer-rainfall area occurs with thunderstorms, which reach their maximum seasonal frequency in February and their maximum diurnal frequency at about 4 p.m. The greatest number of these storms occurs in Kaffraria and over the north-east of the Orange Free State, the Transvaal High Veld, and the highlands of the Waterberg. From these areas there is a decrease in all directions, the relative frequency falling to about half on the Natal coast and to less than a tenth on the west coast. Precipitation associated with thunderstorms occurs at Johannesburg, on the Transvaal High Veld, on 61 days of the year, which is about two-thirds of the average number of rain days there.

15. **Hail.**—Although all aspects of the origin and growth of hailstones have not as yet been fully explained, it is generally accepted that a hailstone, once it is formed, grows in size owing to the freezing of super-cooled water-drops on its surface. Hail thus originates at great heights, where the temperature of the atmosphere is considerably below freezing point.

An essential condition for the formation of large hailstones is the presence of violent up-currents of air to keep the hailstone in suspension during its period of formation. In thunderstorms such strong vertical currents are always present, as direct observations have proved and as is also evidenced by the towering shape of thunder clouds; and we find that hail often accompanies thunderstorms. Thus hail is most prevalent in those parts which are subject to frequent thunderstorms. The average number of occasions on which hail occurs in some part of the Transvaal is one hundred and six per annum.

Hailstones occasionally reach large dimensions and may cause considerable damage to fruit and crops and even kill small stock and penetrate galvanized-iron roofing. Stones about 4 oz. in weight fell during one period of a destructive storm which passed over Pretoria on Christmas Day, 1923. Fortunately the path pursued by storms such as this is usually narrow and limited in extent.

16. **Intensity of Rainfall.**—Over the areas most subject to thunderstorms the intensity of the daily rainfall is naturally great. Over the central Witwatersrand, for instance, no less than 57 per cent. of the total amount falls in daily quantities of over half-an-inch, which may be compared with 25 per cent. under similar conditions at Greenwich, England. With the exception of the west coast, all parts of the country are liable to falls of two inches in one day, and a fall of ten inches has been exceeded on a number of occasions along the east and south-east coast. Great intensities over short periods may

also be experienced, and over the eastern and central Transvaal three-and-a-half to four inches may fall in one hour. Floods, frequently causing extensive damage in low-lying regions and towns, may result from these intense falls, and also from rains continued for two or three days over wide areas and aggregating in places over 20 inches. These occur more particularly in the south and south-east of the Cape Province.

17. **Snow.**—Falls of snow are comparatively infrequent and are usually confined to the mountainous districts. Snow is rarely met with on the coastal flats, as may be appreciated from the statement that it has been seen even on Table Mountain (Capetown) on only seven occasions in fifty-seven years; and falls were recorded on the High Veld (Transvaal) in only eleven out of fifty-seven years. This form of precipitation, however, is much more frequent on the mountains in the east of the Cape Province, where it may be seen at least three or four times each winter.

18. **Evaporation.**—Over the whole country evaporation from free water surfaces exceeds the mean annual rainfall. At Johannesburg, Capetown (Molteno Reservoir), and Dunbrody (near Port Elizabeth), the mean annual amounts are 74·67, 78·57, and 72·19 inches respectively, as against rainfalls of 30·73, 33·25, and 14·88 inches.

19. **Sunshine.**—The average number of hours of sunshine per day throughout the year is 9·4 at Kimberley, 8·7 at Johannesburg, and 7·5 at Capetown, whereas the periods at London, Bucharest, and New York respectively are 3·8, 6·4, and 6·9 hours. The largest proportion of possible sunshine during the summer months occurs at Capetown, and during the winter months at Kimberley, the former being situated in the winter-rainfall area and the latter in the summer-rainfall area.

20. **Fog and Mist.**—Fog is defined as obscurity in the surface layers of the atmosphere caused by particles of condensed moisture or by solid particles held in suspension in the air. The term "fog" is usually limited to a condition of atmospheric obscurity in which objects at a distance of one kilometre (±1,000 yards) are not visible. When the visibility exceeds one kilometre but is less than two kilometres, the obscuration is called "mist" or "haze" according to whether it is produced by condensed water particles or by solid matter such as dust or smoke. Fog is formed when the air near the earth's surface is cooled to below its dew point.

Radiation Fogs.—On clear, calm nights, after a rainy spell, fogs frequently form in valleys over the interior of South Africa. The cooling and subsequent condensation of the moisture in the lower layers is due to radiation from the earth's surface. Under these conditions a temperature inversion, i.e. an increase of temperature with height, usually takes place near the surface which effectively prevents the air from rising. Normally such fogs reach their maximum intensity about an hour after sunrise and usually disperse shortly afterwards. As a rule they are more frequent in autumn and winter than during the other seasons. These fogs do not occur during cloudy nights because the air near the surface seldom cools sufficiently; neither do they occur during moderate to fresh winds, since the winds through turbulence prevent the formation of large cold lakes of air.

Advection Fogs are mostly due to the slow movement of relatively warm air over a surface colder than itself, which causes the air in contact with the surface to be cooled below its dewpoint. Along the coast these fogs may occur in any month, but are most frequent in late summer and autumn (January to May), except along the northern part of the west coast as at Walvis Bay, where they are most frequent in autumn and winter (April to August).

The mean number of days on which fogs occur is greatest on the west and decreases rapidly towards the south-west and south coasts, reaching a minimum in the east. For example the mean number of foggy days in March is 10 at Port Nolloth, 6 at Cape Point, 3 at Port Elizabeth, and only 0·4 (or 4 in 10 years) at Durban.

In the mist belt of Natal fogs appear to be most frequent in autumn and early spring as the relatively warm moist air from the Indian Ocean passes over the cold and undulating land surface.

21. **Meteorological Service.**—An adequate modern building, erected on the premises of the University of Pretoria and taken into use on 1st July, 1938, serves as the headquarters of the Union's Meteorological Service, which is a branch of the Irrigation Department. There are also ten sub-stations at different centres in the Union, where permanent officers are stationed principally for the purpose of supplying weather information to aircraft.

The work of the meteorological service falls naturally into three main divisions: the climatological, forecasting, and aviation divisions.

Monthly climatological reports are received at the head office from a network of 4,176 stations spread over the Union, Basutoland, Swaziland, and the Bechuanaland Protectorate. Of these, 3,827 are equipped with a rain-gauge only, 349 with a rain-gauge and thermometers, and 115 with a rain-gauge, thermometers, and a barometer. Some of the barometric stations are further equipped with automatic instruments, and continuous records of wind direction and speed are obtained at fourteen, of precipitation at twelve, and of pressure, temperature, humidity, and sunshine at fifty-four stations. Annual reports containing monthly values of rainfall, temperature, and other weather elements have been published since 1926. Many requests for special climatological data are received at head office, and in the course of a year a great deal of such information is supplied to other meteorological services, to government departments, farmers, engineers, industrialists, officers of health, students, etc. A great deal of this service is rendered free of charge, but in the case of private individuals and commercial and industrial concerns a small fee is charged for the labour of extracting the required information from the records.

The main task of the forecasting division is to collect daily telegraphic weather reports from a suitable network of stations distributed over the southern part of Africa and from ships off the coasts, and to disseminate this information, together with forecasts which are based on these reports. With the aid of a teleprinter service, weather messages are received in the central office from 95 stations in the Union, 4 in South West Africa, 17 in the Rhodesias, 21 in Portuguese East Africa, 17 in Madagascar, 5 in Bechuanaland, and from ships at sea. All of these stations send in daily reports based on readings taken at 8.30 a.m. and some of them send a second daily report of observations taken at noon. Forecasts of expected weather, together with rainfall and temperature data from a number of selected stations, are supplied daily to certain public bodies, the press, and the Broadcasting Corporation, and thus the weather information is disseminated to the public at large. Local weather forecasts for the Cape Peninsula are issued from the meteorological sub-station at Wingfield Airport, Capetown. For the benefit of neighbouring meteorological services, shipping, and aviation, similar information is broadcast in code daily from Roberts Heights, Capetown, and Durban. Monthly weather reports and daily weather maps are printed by means of a duplicating machine in the forecasting division, and these are issued to all meteorological offices in the world, and to other interested parties in South Africa and abroad.

The task of the aviation division is to supply the pilots of South African Airways and of other companies operating in the Union with such weather information as is essential for the maintenance of an efficient and regular flying service. For this purpose a number of aerological stations have been erected and are at present in operation at Pietersburg, Germiston, Bloemfontein, Kimberley, Beaufort West, Matroosberg, Capetown, Mossel Bay, Port Elizabeth, and Durban. Lay observers at intermediate points along the different air routes transmit weather messages at appointed times, and whenever a pilot prepares to leave an aerodrome the local meteorological officer provides him with a statement of weather conditions along the proposed route. At the aerological stations the direction and velocity of the wind up to levels of ten or fifteen thousand feet are determined by means of pilot balloons, and this information is also supplied to pilots to enable them to select the most favourable flying heights. During actual flight pilots are also kept informed by means of wireless as to the weather conditions they are likely to encounter. Every aerological station is also a first-order meteorological station, which means that it is equipped with a full set of self-recording instruments by means of which a complete record is kept of the different meteorological elements.

§ 6. The Vegetation of South Africa.

A comprehensive article on the Vegetation of South Africa, contributed by Dr. I. B. Pole Evans, Director of the Botanical Survey of the Union, appeared in Nos. 18 and 19 of the *Official Year Book*. The article has had to be omitted reluctantly for reasons of space, but the map which accompanied it is reproduced in this issue.

The article has also been printed in pamphlet form under the title "A Vegetation Map of South Africa", Botanical Survey of South Africa, Memoir No. 15, and is obtainable from the Government Printer, Pretoria.

§ 7. Fauna and Game Preservation.

1. **General.**—The preservation of game is a function of the Provincial Administrations, and particulars are given below of legislation relating to game in the various provinces.

2. **Cape of Good Hope.**—The preservation of game is regulated by Act No. 11 of 1909, those parts of the First Schedule to Ordinance No. 19 of 1930 entitled "Game", Ordinances Nos. 10 of 1911, 14 of 1916, 17 of 1918, 7 of 1920, 13 of 1932, 24 of 1934, 11 of 1935, 10 of 1936, 14 of 1937, and 11 of 1938. Game is fully protected in the province and the close seasons, which vary as to period according to area, occur generally within the interval 1st July to 30th April. Any person desirous of shooting or capturing royal or big game [except such as may be exempted under Act No. 11 of 1909 and section (2) under the heading of "Game" in the Schedule to Ordinance No. 19 of 1930] is required to obtain an ordinary game licence, a royal game licence, and a special permit from the Administrator. The following species of royal game are found in certain areas:—Elephant, eland, zebra, buffalo, bontebok, blesbok, gemsbok, hartebeest, kudu, rietbok, oribi, wildebeest, and klipspringer. Permits to shoot or capture elephants, eland, bontebok, or zebras, are issued only under the most exceptional circumstances. The undermentioned birds and animals are specially included as game with respect to certain districts:—Namaqua partridge, wild duck and geese, snipe, coot, flamingo, springbok (actually migrating), ant-bear (*Orycteropus capensis*), rock rabbit, and tree-climbing bushbaby. The Zulu hare or Kol-haas and the Cape hare or Vlak-haas are exempted from the operation of the game laws throughout the Cape Province. The shooting of game is prohibited in the game reserves situated in the province. Under Ordinance No. 13 of 1932, the hunting of game of any description with the aid of artificial light is prohibited, while, by Ordinance No. 24 of 1934, the hunting and shooting of game from motor cars is prohibited. Under Ordinance No. 10 of 1936 the Administrator may grant special permits to owners of land, under certain conditions, to shoot game, not being royal game, during the close season or periods of protection, and Ordinance No. 11 of 1938 provides that no elephant tusk weighing less than twenty-two pounds shall be exported.

3. **Natal.**—An Ordinance to amend the laws relating to game was passed in 1912 and practically consolidated all previous legislation on the subject. The game was divided into three classes, viz., ordinary or small game, which can be shot during the open season (1st May to 15th August) on payment of the sum of £1; specially protected game, in respect of which varying fees for the different animals are payable; and royal game, which may not be destroyed at any time, except for scientific or certain public purposes on special permit. Special provision is made by the Ordinance for the destruction by owners or occupiers of land of ordinary or specially protected game during the close season, where damage to standing crops, plants, or trees can be proved, and for the killing by residents in Zululand of a limited number of game for food, more especially during times of scarcity owing to failure of crops.

In the game reserves no hunting is allowed, and the Administrator is empowered to establish or abolish such reserves from time to time.

The fines for contraventions of the *Game Ordinance* range from £20 to £200, with the alternative of periods of imprisonment extending from one month to two years.

Owing to the existence of the tsetse fly or Nagana disease in cattle, the provisions of the *Game Ordinance* have been relaxed considerably in Zululand since the year 1915.

The animals classed as royal game comprise the white and black rhinoceros, elephant, hippopotamus, hartebeest, roan antelope, tsessebe, blesbok, springbok, lion, common fallow deer, and females of the eland, as well as the crested crane and the Stanley crane, the klipspringer and the oribi, and various species in certain districts.

4. **Transvaal.**—Game legislation restricting and regulating the destruction of wild animals and birds is contained in Ordinance No. 11 of 1935.

The "big" game of the Transvaal Province comprises the larger and rarer animals and birds, including roan and sable antelope, gemsbok, tsessebe, kudu, hartebeest, zebra, wildebeest, and ostrich. The elephant, rhinoceros, hippopotamus, buffalo, and eland are now practically unknown in the Transvaal except in the Kruger National Park.

Lions and leopards are not classed as game, but are regarded as vermin. Ordinary game consists of all Transvaal varieties of the smaller and more common kinds of buck and hares and also of the following birds:—All Transvaal varieties of pheasant or francolin, partridge, sandgrouse, guineafowl, wild duck, and wild goose. No game may be shot or hunted by anyone without a game licence, except certain prescribed species by the owner or the lessee of a farm on which the game is pursued, and of course "open" varieties only may be shot. Big game may not, under severe penalties, be shot or hunted without a special big game permit issuable by magistrates of districts, and in the case of Pretoria district by the Receiver of Revenue, Pretoria. A game licence or permit entitles the holder to shoot game during the open season only, which, under normal circumstances, for small game extends from the 1st May to the 15th August and for big game, from the 15th June to the 15th August. The "open season" is, however, determined by proclamation. A game licence may restrict the holder to destroying only a given number of one or both sexes of any kind of game. The destruction of any particular kind of game may be restricted throughout the province or in any particular district for a given period. The possession of a game licence does not give the right to pursue or destroy any game so protected, neither may the owner nor the lessee of a farm destroy on his farm game so protected. Certain areas are proclaimed as game reserves, in which shooting and hunting are entirely prohibited.

There are seven game reserves in the Province: the Pretoria Reserve, the Kruger Reserve, the Pafuri Game Reserve, the Rietvallei Game Reserve, the Rust-der-Winter Game Reserve, the Marico Bosveld Game Reserve, and the Honnet Game Reserve.

5. **Orange Free State.**—Ordinance No. 6 of 1937, which took effect on the 23rd July, 1937, consolidated and amended the laws with reference to the protection of the several kinds of wild animals commonly known as *buck*, comprehending the whole antelope species and including the wildebeest or gnu, the several kinds of birds, not being domesticated, known as ostrich, paauw, korhaan (bustard), guineafowl, partridge, pheasant, dikkop, goose, plover, lapwing, snipe, duck, coot, and other water fowl, and any other wild animals or birds, which the Administrator may, from time to time, by proclamation declare to be game. The period commencing on the first day of August and ending the last day of March in the succeeding year is the close season for game. The Administrator is also empowered to prohibit the hunting of any kind of game or of any other wild animals or birds for any period not exceeding three years in any district of the province. Under this provision, two species of rhebuck (rooi and vaal), which were in danger of becoming extinct, were protected throughout the province for a period of three years, as from March, 1936.

No person, whether an owner of land or not, is allowed to hunt at any time any locust bird or, without the written permission of the Administrator, any hartebeest, kudu, or eland, or any other animal or bird which the Administrator may at any time by proclamation declare to be royal game.

§ 8. National Parks and Game Reserves.*

1. **Preservation of Indigenous Fauna and Flora.**—With a view to ensuring the preservation of the wild fauna characteristic of the Union, many varieties of which, in spite of their immense numbers when the first European pioneers pushed their way into the interior, are in imminent danger of becoming extinct, the Government in the 1926 session of Parliament passed a measure to provide for the merging of the Transvaal or Shingwedzi Game Reserve and the Sabie Reserve into one continuous area to be known as the *Kruger National Park*. In addition, the Act (No. 56 of 1926) provides for the establishment of national parks by Governor-General's proclamation in the *Gazette*, and the purposes of the measure are defined as being for the propagation, protection, and preservation of wild animal life, wild vegetation, and objects of geological, ethnological, historical, or other scientific interest for the benefit, advantage, and enjoyment of the inhabitants of the Union. Provision is made in the Act for a board of trustees, consisting of ten members to be appointed by the Governor-General, whose duties are the control and management of the parks. The address of the Board of Trustees is P.O. Box 787, Pretoria.

In the 1931 session of Parliament, the Legislature authorized the constitution of three areas in the Cape of Good Hope Province to be set aside under the provisions of Act No. 56 of 1926 as national parks. These three areas were

* Compiled principally from data supplied by the National Parks Board of Trustees.

designated the Kalahari National Park, the Addo Elephant National Park, and the Bontebok National Park. In 1937 the Mountain Zebra National Park, also in the Cape Province, was constituted. The following paragraphs give, in brief, some indication as to the size and situation of these reserves and the particular animals to be found in them, but except in the Kruger National Park, and in a less degree the Addo Elephant Reserve and the Natal game reserves, no provision whatever has as yet been made for the convenience of visitors.

Within the last few years more attention has been paid to the question of the preservation of the natural flora and fauna of the country, and the matter has been taken up with greater decision. Societies having this for their object have come into being in various parts of the Union, and are doing good work in deliberating with the Government, the Provincial Administrations, and local bodies, and assisting them in establishing areas where the indigenous fauna and flora can be preserved and maintained against extinction.

In 1934 a further important step to ensure the preservation of the indigenous fauna of the country was taken by Parliament; and Act No. 22, designed for the protection of wild birds, was passed. Under the provisions of this Act it is a punishable offence to capture any wild birds for sale, purchase, or barter, unless a formal permit for the purpose has been granted. Permits for the capture, sale, or purchase of wild birds may be granted only by an officer designated by appointment in writing by the Minister of Lands, and the permit, in addition to giving the name of the person to whom it is issued, contains restrictions as to the locality where the birds are to be captured, the method of capture, the species, and the number of each species which may be captured and disposed of, as well as the period of validity of the permit. A permit for the sale of wild birds must contain the names of the parties to the intended transaction.

The Act should go a long way towards preventing the indiscriminate capture and sale of wild birds, which has been responsible for a heavy mortality in the past.

2. **Cape Province Reserves.**—(i) *Kalahari National Park.*—This reserve, situated approximately 250 miles north of Upington, between the Oup and the Nosop River, is in the district of Gordonia, Cape Province, and borders on South West Africa. From Upington the road is passable for traffic, and within the park, especially along the river beds, the sand of which is level and firm, some of the roads present little difficulty, but it will no doubt be some years before the roads can be made suitable for tourist traffic. The climate is very hot in summer, but in winter the days are genial and temperate, with cold nights and frosts towards morning. The park is an area of sand-dunes, with open flats covered with shrubs and dotted with acacia trees. Boreholes have been sunk, windmills have been erected, and reservoirs and dams are being constructed, in order to ensure a permanent and plentiful supply of drinking water. The district is naturally arid, and in the absence of water the animals, and even human beings when necessity arises, subsist on the "Tsama melon".

The reserve contains thousands of gemsbok, a beautiful species of buck, in their natural home, as well as large numbers of springbok, wildebeest, and red-hartebeest, and a few eland and kudu. Wild ostriches, steenbok, and duiker are also found, besides lion, leopard, hyena, cheetah, jackal, and wild dog; birds of numerous varieties are found. A ranger is stationed in the park, which measures approximately 1,130,414 morgen (2,386,429 acres) in extent.

(ii) *Addo Elephant National Park.*—This reserve is situated in the Cape Province about 35 miles north of Port Elizabeth on the main road to the northern provinces. Part of the park adjoins the Sundays River Settlements. Additional land has recently been granted by the Government, and some 1,000 morgen of privately-owned land has also been acquired by purchase. The extent of the park is now approximately 8,000 morgen (16,932 acres), 90 per cent. of which is covered with beautiful evergreen bush, with an average height of from 10 to 12 feet. The variety of bush and plant life is extraordinary, and the area has rightly been termed a botanist's paradise. As the bush is nearly all edible it makes an ideal area in which to preserve the survivors of the well-known Addo elephants. The herd consists of twenty-five animals and includes some particularly fine specimens. These elephants are slightly smaller in stature and carry less ivory than the equatorial elephant, and very few of the cows have tusks.

In addition to the elephants there are some fairly big thriving herds of Cape buffalo, which are the only ones in the Cape Province. Small game, such as bushbuck, duiker, grysbok, and bushpig, are plentiful throughout the park. An interesting addition is a small herd of kudu, which voluntarily took up its abode in the park two years ago.

The north-eastern corner of the park has open land, and it is possible that in the future game suitable for this type of veld may be introduced.

As a result of the financial assistance rendered by the public and certain local bodies it has been possible to make experiments in connexion with feeding the elephants in open spaces, in order to establish reasonable chances of visitors seeing them more easily, and it has been proved that the elephants can be attracted in this way to any desired area. One regular feeding place is only 200 yards from the resident ranger's quarters.

The park is open to visitors from June to October.

(iii) *Bontebok National Park.*—This park is situated 17 miles south of the village of Bredasdorp, and is distant approximately 100 miles in an easterly direction from Capetown. Bredasdorp is situated not far from the main road from Capetown, via Caledon, to Mossel Bay and Knysna, but can also be reached readily by rail.

The area of the park is about 850 morgen (1,800 acres); it is properly fenced, and windmills make satisfactory provision for a permanent water supply. The area consists of excellent mixed veld, which provides ample grazing, sufficient to meet the needs of any reasonable increase of animals during the next twenty years. One hundred bontebok are confined in the park. This species of buck, which in appearance closely resembles the blesbok, is almost extinct, and in addition to those in the park only one other herd totalling some 30 head, which has been carefully preserved for many years by some local families, is known to exist. A few rhebok, duiker, vlakbok, grysbok, and steenbok also find a habitat in the reserve.

The park may be visited by tourists during the period December to April.

(iv) *Mountain Zebra National Park.*—As a result of representations made regarding the rapidly dwindling numbers of mountain zebra in the Union, the Government in 1935 instituted inquiries and eventually secured options for the purchase of the farms where the zebra were still to be found. These areas are in the districts of Oudtshoorn and Cradock in the Cape of Good Hope Province. Finally the farm Babylons Toren in the Cradock district was selected as affording the zebra the most favourable conditions, and also on account of its accessibility. This area was constituted a National Park as from the 2nd July, 1937. The park is 1,675 morgen (3,545 acres) in extent and is well fenced and provided with windmills and jackal-proof camps. It is situated about 16 miles from Cradock on the Graaff-Reinet road. The area while predominantly mountainous has some mixed shrub veld.

Zebras are known to be slow breeders, but it is hoped that with absolute protection the herd on the farm, which consists of seven animals, will within a few years re-establish itself.

In addition rooi rhebuck, klipspringer, and duiker are found in the reserve. All species of game are protected in the reserve.

3. **Natal Province Reserves (including Zululand).**—There are six game reserves in Zululand and one in Natal proper. Subject to certain rules regarding the carrying of firearms, camp sites, fires, etc., visitors are allowed entry to these reserves on permit. Permits, which are free, may be obtained from the game conservators at Hluhluwe in the case of the Zululand Reserves, and at Rockmount, P.O., via Estcourt, Natal, in the case of the Giants Castle Reserve in Natal proper.

(i) The *Hluhluwe Game Reserve* embraces an area of approximately 40,000 acres. This reserve is situated within 30 miles of Mtubatuba railway station and is easily accessible by motor car, the road being good throughout, especially during the dry season. The reserve lies in a basin surrounded by bush-clad mountains, and the grazing and water supply are adequate throughout the year for all purposes. Nearly every species of game that has its habitat in Zululand may be seen in the reserve, including the white rhinoceros, black rhinoceros, kudu, inyala, impala, waterbuck, wildebeest, zebra, buffalo, and many varieties of small game animals and vermin.

The headquarters of the game conservator for Zululand are situated in the reserve, and every facility to view the animals is given on request. Rest huts with modern conveniences are available for visitors. The facilities include hot and cold water, electric light, bedding, etc., and the charges are very moderate. Full details are obtainable from the Game Conservator, P.O. Mtubatuba.

(ii) The *Umfolozi Game Reserve* covers an area of over 60,000 acres. As this reserve is bounded on two of its three sides by rivers, and on the remaining side by mountainous country, it is difficult of access by motor transport except in very dry seasons, when the rivers may be negotiable, but a motor car can be taken to within a short distance of the river boundaries at any time and the remaining distance performed on foot. The northern boundary is within 30 miles by road of the Mtubatuba railway station, and the southern boundary is within 40 miles by road of Empangeni railway station. The reserve is the main habitat of the white rhinoceros, but it also contains other species of large game, such as kudu, waterbuck, buffalo, wildebeest, and zebra, and also several species of smaller game animals. The area is heavily bushed in parts and, apart from the rivers on the boundaries, water is scarce.

Permits to enter the reserve are not being issued at present in view of the tsetse-fly investigation operations that are being carried out in the area.

(iii) The *Mkuzi Game Reserve* is approximately 62,000 acres in extent. This reserve is situated to the east of the Ubombo village and is bounded on the north by the Mkuzi River. It is connected by road, negotiable by motor transport, with the Mkuzi railway station, a distance of about 30 miles. Water and grazing are rather scarce during dry seasons, and generally speaking the country is densely bushed. The reserve contains black rhinoceros, inyala, impala, kudu, waterbuck, wildebeest, zebra, and numerous varieties of smaller game animals, including the Livingstone antelope. There are also a few lions, which are strictly preserved. The usual facilities for entry are provided.

(iv) The *Ndumu Game Reserve* comprises an area of 24,000 acres. This reserve is situated in the Ingwavuma district on the Portuguese border, is bounded on the north by the Usutu River, and is intersected by the Pongola River. It is accessible by motor car from Mkuzi railway station, via Ubombo and Ingwavuma. The reserve contains hippopotamus, inyala, and numerous small game; and a large fresh water lake has been stocked with black bass.

(v) The *St. Lucia Game Reserve* embraces the St. Lucia Lake and False Bay and the islands situated in these expanses of water. Although established originally for the protection of bird life, it also offers sanctuary to three or four large herds of hippopotami. The reserve, which is within an hour's run by motor car of Mtubatuba, affords some of the finest sea-fishing obtainable in the Union, and excellent facilities are available at the two hotels situated on the St. Lucia estuary. The development of this area as a tourist resort is proceeding apace, and it has become one of the most popular holiday resorts on the north coast of the Natal Province.

(vi) The *Richards Bay Game Reserve* was established solely for the purpose of giving protection to the numerous varieties of water-fowl that visit the area. The reserve offers excellent fishing, and visitors are well catered for by the local hotel. There is a good road from Empangeni, a distance of 18 miles.

(vii) The *Giants Castle Game Reserve* is the only government game reserve in Natal proper and is approximately 50,000 acres in extent. It is situated in the Drakensberg Mountains in the Estcourt magisterial district, and extends along the Drakensberg range and foothills from the Giants Castle peak to the Little Tugela watershed. It is accessible by motor car from Estcourt, Mooi River, or Nottingham Road railway station, the distance in each case being between 40 and 50 miles; but the road from the boundary of the reserve to the game conservator's residence is difficult to negotiate during wet seasons. There is no rest-house in the reserve, but certain hostels and farmers in the vicinity of the reserve cater for visitors, more especially in the Loskop and Mooi River areas. Excellent trout fishing may be had in the Bushman's River, which flows through the reserve. The usual conditions of entry apply to the reserve.

The grazing and the water supply are abundant. The country is mountainous, but there are extensive plateaux on the foothills within the reserve. There is much natural bush on the mountain slopes and in the ravines through which the mountain torrents run. The reserve contains over fifteen hundred head of eland, a few blesbok and red-hartebeest, and innumerable species of small game, birds, and vermin. The small game comprise oribi, klipspringer, grysbok, bushbuck, reedbuck, vaalrhebok, etc.

(viii) The *Natal National Park*, although not essentially a game reserve, is nevertheless of importance as a reserved area, and embraces some 10,000 acres of the finest scenery in the Drakensberg Mountains. Portion of the area was reserved by the old Colonial Government of Natal as a national park, and after Union the administration and development was entrusted to the Natal Provincial Council, which has added several farms to the area. The administration and control of the area is in the hands of an advisory committee, which is responsible to the Provincial Council for the development of the national park.

The protection and preservation of the natural flora and fauna of the Berg, of the Bushman paintings, and other interesting features is one of the prime functions of the committee, as well as opening up and giving access to outstanding vantage points, constructing and maintaining paths, roads, etc., and providing comfortable accommodation and cuisine.

The hostel, which is situated at the foot of the Berg, consists of a main building and about 60 rondavels, garages, stables, etc. The main building, which has recently been enlarged, includes the office, a bar, a dining-room and annexe, two lounges, reading-room accommodation, and an extensive verandah. All the buildings are of stone with thatched roofs; water-borne sewerage, hot and cold water, and electric light are installed. Tennis, bathing, and mountaineering are the chief forms of recreation enjoyed by visitors. There is also a postal and telephone service.

The national park is easily accessible by road, being situated 30 miles from Bergville and 65 from Ladysmith; from this latter point the railway administration has instituted a road motor service, the journey taking five hours. The journey from Durban by motor car takes from 6 to 7 hours, and the roads are generally in good condition.

(ix) *Private Game Reserves.*—In addition to the above, there are seven private game reserves in the Natal Province, which have been duly declared as such by the Administrator at the request of the owners. These private reserves are situated in the Ladysmith (3), New Hanover, Pietermaritzburg, Utrecht, and Ngotshe districts respectively.

4. **Transvaal Province Reserves.**—(i) *Kruger National Park.*—The Kruger Park had its origin in representations made during the republican régime to the late President Kruger for the preservation of various forms of the characteristic fauna of South Africa, and in 1898 an area in the Eastern Transvaal known as the Sabie Game Reserve was set aside for this purpose. After the Anglo-Boer War the area was reproclaimed a game reserve—it had been greatly depleted during the period of hostilities—and there was added a further area called the Shingwedzi. In these reserves existed the remnants of the various species of the rich and wonderful fauna of the Low Veld, some of which were in imminent danger of early extinction, and under the protection afforded them they are establishing themselves and breeding freely in natural surroundings. The park stretches from Komatipoort northwards along the Portuguese East Africa border to the Limpopo River, in the north-east corner of the Transvaal, a distance of about 200 miles; its breadth from east to west averages 40 miles and its area is approximately 8,000 square miles. The terrain consists of flat bush veld and varies from park-like areas to dense bush, with occasional hills and kopjes breaking the surface. The streams traversing the park are fringed with reed and palm, and their rich subtropical vegetation serves as a natural habitat for the animals.

The park is under the control of a warden and for administrative purposes is divided into nine sections, each in charge of a ranger. In any one of these sections may ordinarily be seen wildebeest, waterbuck, zebra, kudu, impala, giraffe, reedbuck, sable and roan antelope, warthog, ostrich, steenbok, duiker, tsessebe, bushbuck, rhebok, klipspringer, monkeys, and baboons. Birds of all varieties are plentiful throughout the reserve. Elephants are found in the north and hippo in all the large rivers, but more especially in the Crocodile River in the vicinity of Komatipoort, where in the pools about a mile distant from the railway station they can invariably be seen to advantage. The black rhinoceros, a species now nearing extinction in South Africa, is found in the neighbourhood of the Lower Sabie River. Buffalo inhabit most sections; while eland and inyala frequent only a limited area in the north.

Most animals can be seen from the roads traversing the park, and as they are comparatively tame can be observed at close quarters, but elephant, rhinoceros, and buffalo, all dangerous animals, frequent the more secluded areas. Lions, leopards, wild dogs, hyenas, jackals, civets, etc., are to be found in all sections, but except for the first-named they are not often seen owing to their nocturnal habits. Recently lions have been met with very frequently on most of the roads traversing the park: their attitude towards cars is one of mild interest.

The park is easily accessible to the public, either by rail or by road, but visitors are required to be in possession of permits, which may be obtained at a prescribed fee from the permit issuers stationed at any one of the park's six entrance gates. During the 1938 tourist season, no fewer than 9,891 motor cars entered the park, representing 38,014 visitors.

The popularity of the park may be adjudged from the fact that the rest camps during the July school holidays are usually crowded with family parties. Therefore persons who can make it convenient to visit the park at other times in the open season, which extends from the 31st May to the 31st October, are advised to do so. Tourists are allowed access to the Pretorius Kop section of the park throughout the year, and are permitted to sleep at the rest camp situated there.

A brochure describing the Union's national parks, which contains a guide to the Kruger National Park, is obtainable gratis from the Secretary, National Parks Board of Trustees, P.O. Box 787, Pretoria.

The roads within the park are good on the whole and can be easily traversed by motor traffic. Each year the trustees have opened up new areas, and much is being done to improve the existing routes. In 1933 a road was built northwards from Letaba to Punda Maria near the Limpopo, making available to visitors a new stretch of 120 miles of park. Inside the park a total of approximately 900 miles of motor roads has been constructed.

The droughts between 1930 and 1935, and particularly in the last mentioned year, were felt with particular severity over a considerable range of the national park, and the drying up of many of the drinking pools caused a migration of the animals towards the better watered areas, especially to those along the sides of the rivers flowing through the park. To avoid a recurrence of these unfavourable conditions the Government, several municipalities, and a number of private persons subscribed towards the sinking of boreholes and the erection of windmills in selected parts of the park. Altogether no fewer than 14 of these boreholes have been sunk and a similar number of windmills has been erected. These have proved to be by far the most efficient means of supplementing the water supply. It has, therefore, been decided to devote £10,000 to provide additional amenities for the game, and the programme includes amongst other items 12 more boreholes and 29 dams.

A map is included in this chapter, showing the situation of and approaches to the park.

(ii) The *Pretoria Reserve.*—This area, approximately 7,700 morgen in extent, which covers the townlands of Pretoria and the farm Groenkloof (Fountains) in the immediate neighbourhood of the city, has been proclaimed a reserve within which it is not lawful to hunt game of any kind without the special permission in writing of the Provincial Administration.

(iii) The *Pafuri Game Reserve.*—This area, established under the provisions of Administrator's Proclamation No. 43, dated the 1st July, 1933, extends from the junction of the Limpopo and Pafuri Rivers to the south-eastern beacon of Makulekse Location, thence north-westwards to the Pafuri River and onwards to its intersection with the Motale River; thence northwards in a straight line to the junction of the Bubye and Limpopo Rivers and eastwards along the Limpopo and the international boundary of the Transvaal and Rhodesia to the point of commencement above mentioned. Within this area it is not lawful to hunt game without the special permission of the Administrator of the Transvaal Province.

(iv) The *Rietvallei Game Reserve.*—This area, which is approximately 5,285 morgen in extent and covers portion of the farm Rietvallei in the immediate neighbourhood of Pretoria, has been proclaimed a game and bird sanctuary within which it is not lawful to hunt without the special permission in writing of the Administrator of the Transvaal Province.

(v) The *Rust-der-Winter Game Reserve.*—This area, established under the provisions of Administrator's Proclamation No. 189 dated the 20th December, 1937, comprises the farms Kliprand 344 and Kameelrivier 75, district Pretoria, and covers the area of the Rust-der-Winter irrigation scheme.

(vi) The *Marico Bosveld Game Reserve.*—This area, comprising the Marico Bosveld Irrigation Scheme, was established as a game reserve under Administrator's Proclamation No. 190 dated the 20th December, 1937. It is not lawful to hunt game within this area without the special permission in writing of the Administrator of the Transvaal.

(vii) The *Honnet Game Reserve.*—This area, which is approximately 2,220 morgen in extent and covers the farm Honnet No. 1190, situate in the district of Zoutpansberg, was established as a reserve under the provisions of Administrator's Proclamation No. 4, dated the 30th December, 1938. It is not lawful to hunt game therein without the special permission in writing of the Administrator.

5. **Orange Free State Reserves.**—(i) *Sommerville Estate Reserve.*—A game reserve has been established by the Provincial Administration on the Sommerville Estate in the Winburg district, which was handed over to the province for that purpose by the Department of Lands in December, 1924. The reserve is 11,464 morgen in extent, and the principal kinds of game at present found are blesbok and springbok. In 1936 the Administration was successful in obtaining and stocking the reserve with a number of black Wildebeest (White-tailed Gnu), with the result that a small herd consisting of six fully grown animals and a couple of calves is now established there. In order to supply living game to farmers and others interested for breeding and zoological purposes, a catching-kraal has been erected on the reserve. Game drives are held for this purpose periodically during open seasons, when it is considered that the stock on the reserve should be slightly decreased in numbers.

(ii) The *Franklin Game Reserve, Bloemfontein.*—For many years the area comprising Naval Hill was set aside as a park for indigenous flora, and in 1930 the logical step of making it a home for natural fauna also was taken. The area is enclosed by a dog-proof fence, with one entrance provided with a grid type opening on the motor road leading to the summit. The whole area of 479 acres is available for the animals, which enjoy complete liberty within this space. Among the animals to be found in the reserve are kudu, eland, blesbok, springbok, steenbok, klipspringer, duiker, waterbuck, zebra, ostriches, and camels. A motor road encircles the top of Naval Hill, and from it excellent panoramic views of the city and surrounding country can be obtained.

§ 9. Natural and Historical Monuments, Relics, and Antiques.

The promulgation of the *Bushman Relics Protection Act*, No. 22 of 1911, was the first step taken by the Government towards the protection and preservation of objects of natural, historical, and scientific interest and value. This Act prohibited the removal of Bushman relics from the Union without the written authority of the Minister of the Interior.

In 1923 the *Natural and Historical Monuments Act* was passed providing for the appointment of a permanent commission and the extension of protection in many directions. This Commission was also required to cause a register to be made of monuments in the Union, which in the opinion of the Commission ought to be preserved, and to act as trustee of any monument acquired or placed under its control.

Both these Acts were repealed by the *Natural and Historical Monuments, Relics and Antiques Act*, No. 4 of 1934, which embodies the provisions of the previous Acts and further extends the scope of the Commission, embracing a wide range of objects which the Minister of the Interior may from time to time on the recommendation of the Commission proclaim to be monuments. Any object or property so proclaimed may not be altered or alienated without the concurrence of the Commission. In the Act a *monument* is described as "any area of land having a distinctive or beautiful scenery or geological formation, any area of land containing a rare or distinctive or beautiful flora and fauna, any area of land containing objects of archaeological interest, any waterfall, cave, grotto, avenue of trees, old tree or old building and any other object (whether natural or constructed by man) of aesthetic, historical, archaeological or scientific value or interest".

In addition, and in similar fashion, the Minister may proclaim as a *relic* "any fossil of any kind, any drawing or painting on stone or petroglyph known or commonly believed to have been executed by Bushmen or other aborigines of South Africa, or by any people who inhabited or visited South

Africa before the advent of the Europeans, and any implement or ornament known or commonly believed to have been used by them", and as an *antique* "any movable object (not being a *monument* or *relic*) of aesthetic, historical, archaeological or scientific value or interest, the whole or more valuable portion whereof has for more than one hundred years been in any part of South Africa included in the Union, or which was made therein more than one hundred years before the publication of the notice in the *Gazette*". No such relic or antique may be removed from the Union without the written consent of the Commission (*vide* Government Notice No. 1571 of the 20th September, 1938).

It was found that the existing Act did not confer sufficiently wide powers on the Commission, and amending legislation was passed during the 1937 session of Parliament enabling the Commission to recommend the proclamation of groups of objects. Thus, for instance, all rock paintings in a defined area may be proclaimed without the necessity of specifically indicating each site in the area. Government Notice No. 1572 of 20th September, 1938, promulgates by-laws and regulations which ensure the employment of proper scientific methods in excavating anthropological or archaeological objects.

It is the policy of the Commission to foster and encourage public interest in objects and sites of historical and national value. In order to stimulate local interest the Commission meets regularly in various centres in the Union, when full publicity is given to its work and members avail themselves of opportunities of inspecting historic sites. In addition to its other activities, the Commission may take steps to protect historic objects by erecting suitable fences and warning notices. It may also mark such sites by the erection of its bronze badge and inscription plates. It is further empowered to act as trustee of any such object and accept, as trustee for the State, any object donated to or bequeathed to the State.

The Commission functions on a grant from the Government of £1,000 per annum, augmented by assistance from the public.

A list of objects proclaimed as monuments up to the end of 1937 appeared in *Official Year Book* No. 19.

The following objects were proclaimed during 1938:—

Cape of Good Hope—

Blockhouse, Tulbagh Road.
The Powder Magazine, Fort Glamorgan, East London.
King's Blockhouse, Devil's Peak, Capetown.
Signal Tower Reserve, district Albany.
Rhodes's Cottage, Muizenberg.
Martello Tower, Fort Beaufort.
Old Drostdy, Swellendam.
Tower and adjacent walls of Fort Brown, Grahamstown.
Donkin Reserve, Port Elizabeth.
Old Drostdy Gates, Grahamstown.
Cango Caves, Oudtshoorn.
Blockhouse, Aliwal North.
Old Bridge over Lourens River, Somerset West.
Old Post Office Tree, Mossel Bay.
Fort Armstrong, district Stockenström.
Fort Murray, district Kingwilliamstown.

Orange Free State—

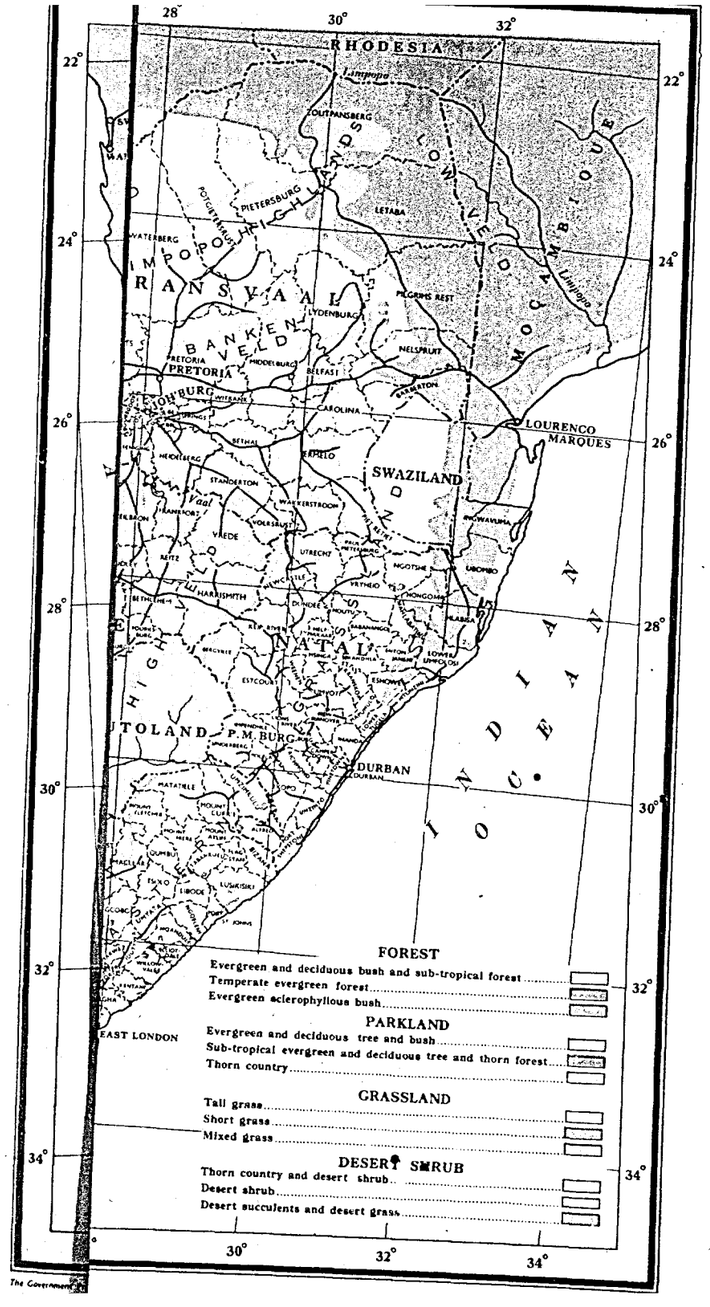
The Residency, Bloemfontein.
Blockhouse, Harrismith.

Natal—

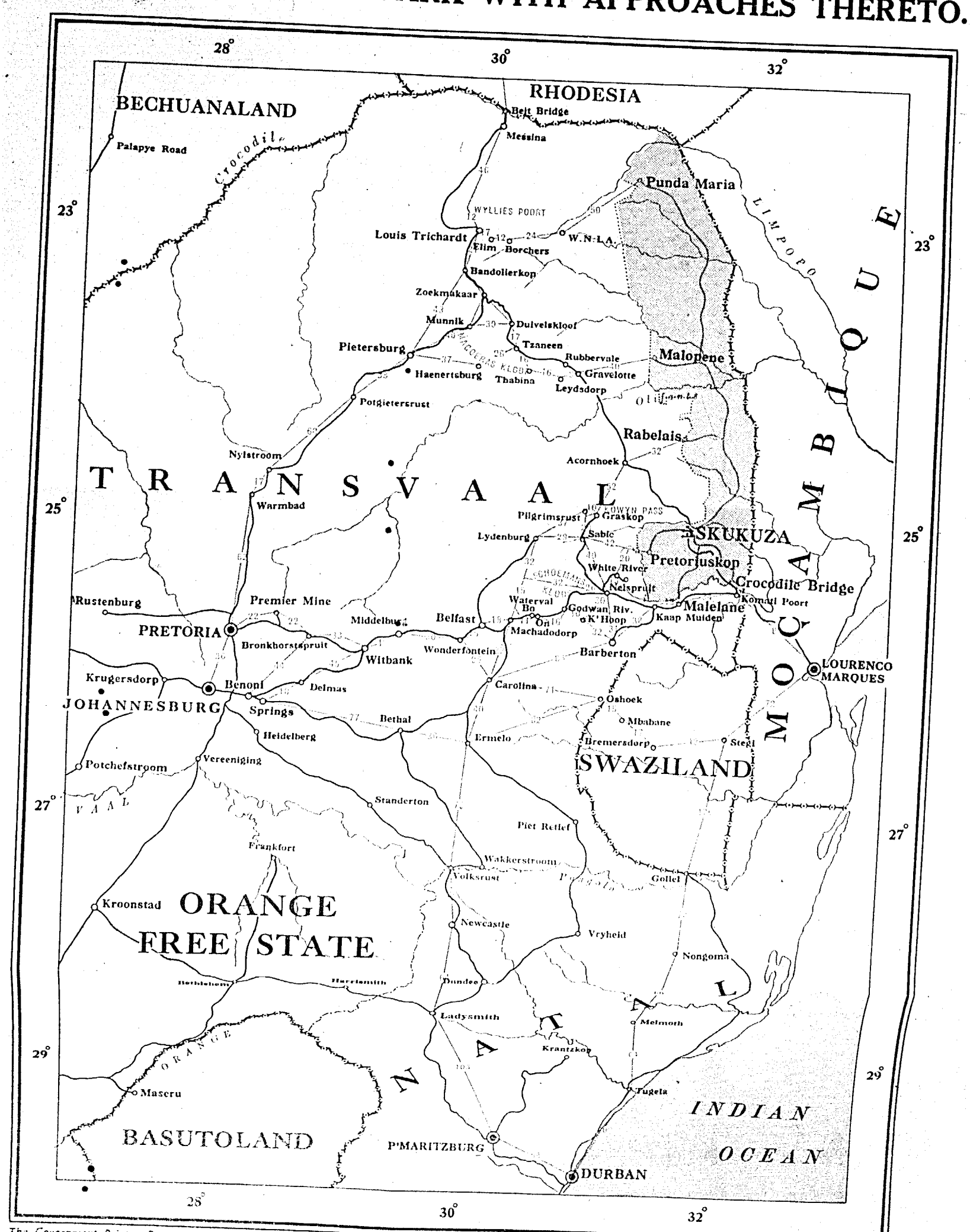
Voortrekker Kommandant Karel Landman's Home, Ladysmith.
Wagon Hill, Ladysmith.
Shaka Memorial, Stanger.

Transvaal—

Verdun Ruins, district Zoutpansberg.
Old English Fort, Pietersburg.
Dzata Ruins, district Zoutpansberg.
Klapperkop and Skanskop Forts, Pretoria.
First Gold Power Plant Site, Pietersburg.
First Gold Crushing Site, Pietersburg.
Makapan Caves, district Potgietersrust.



KRUGER NATIONAL PARK WITH APPROACHES THERETO.



The Government Printer, Pretoria.

Trigonometrical Survey Office, Pretoria.

The following objects have been recommended for proclamation:—

Cape of Good Hope—

Old Town House, Greenmarket Square, Capetown.
Mostert's Hill, Groot Schuur.
"Rust en Vreugd", Capetown.
Koopmans-de Wet House, Capetown.
Valley of Desolation, Graaff-Reinet.
Heerenlogement Caves, van Rhynsdorp.
Blockhouse, Burghersdorp.
Western Fort, Hout Bay.
Old Dovecot, De Bosch, Somerset West.
Moffat Church, Kuruman.
Beehive Stone Huts, Steynsburg.

Natal—

Cetewayo's and Mpande's Kraals.

Transvaal—

Blockhouse, Hekpoort.
Moorddrift, Potgietersrust.
Rev. Broadbent's House, Wolmaransstad.

Orange Free State—

Painting of Piet Retief's name in the Drakensberg, district Harrismith.

§ 10. Observatories.

A. THE UNION OBSERVATORY.

[Longitude, 1h. 52m. 18·0s. E.; Latitude, 26° 10′ 55″3 S.; Altitude, 1,806 metres (5,925 feet).]

UNION ASTRONOMER: H. E. WOOD, D.Sc., F.R.A.S.

1. **Institution.**—The early history of the Union Observatory is intimately associated with the activities of the South African Association for the Advancement of Science. In 1902 the Johannesburg branch of the association petitioned the Government of the Transvaal, then a Crown Colony, for the establishment of an observatory for the sciences of meteorology and astronomy. As a result the Transvaal Meteorological Department was instituted on 1st April, 1903, and the Transvaal Observatory was erected on the Hospital Hill ridge on the outskirts of Johannesburg. In the selection of the site, the possibilities of the ultimate development of an astronomical observatory were taken into consideration.

In 1905 a number of prominent European astronomers visited South Africa under the auspices of the British Association and, having in view the relatively small number of astronomical observatories in the Southern Hemisphere and, in particular, the excellent conditions for astronomical work which the High Veld offered, urged upon the Government the erection of a powerful telescope at the Transvaal Observatory. The Government took a sympathetic view, but it was not until 1909 that definite steps could be undertaken to carry out the suggestion.

The Union of the four provinces of South Africa brought about a great change in the work and status of the Transvaal Observatory. The meteorological services of the four provinces were combined into a Union Meteorological Department with headquarters in Pretoria, and as from 1st April, 1912, the Transvaal Observatory became officially an astronomical institution, and was renamed the Union Observatory, the officer-in-charge being styled the Union Astronomer. From this time the main activities of the Union Observatory have been astronomical. Certain meteorological observations are still continued and the results communicated to the Union Meteorological Department.

2. **Instruments and Equipment.**—The Union Observatory is at present equipped with the following instruments:—

(i) A 26½-inch visual refractor.
(ii) The Franklin-Adams Star camera (two photographic objectives each of 10 inches aperture).
(iii) The Reunert Telescope (visual refractor of 9 inches aperture).
(iv) The Franklin-Adams Twin Telescope (apertures 6 inches and 7 inches).
(v) A Zenith telescope.

The observatory is also well equipped with auxiliary apparatus, e.g., a Zeiss Stereocomparator and Blink-Microscope.

The 26½-inch refractor is the outcome of recommendations made by European astronomers, who visited South Africa in 1905. The times then were not favourable; but when the question of the provision of a large refracting telescope for the observatory was again raised by a deputation from the South African Association for the Advancement of Science in April, 1909, the Transvaal Government agreed to the proposal, and a contract was at once placed with Sir Howard Grubb, of Dublin, for the supply of a 26-inch visual refractor. It was expected that the telescope would be completed and erected in 1911, but, owing to a number of circumstances, chief amongst which was the difficulty of procuring optical glass in sufficiently large blocks, the telescope did not actually reach Johannesburg until January, 1925.

Under a scheme of co-operation with the Leiden Observatory, Holland, a twin 16-inch photographic telescope has now been installed in the grounds of the observatory in a building which has been erected for the purpose by the Union Government.

3. **General Operations.**—The 26½-inch visual telescope has been used almost entirely for the discovery and measurement of double stars. The general survey of the southern sky south of −19° for the discovery of double stars has now been completed. In this survey the Lamont-Hussey Observatory at Bloemfontein and the Union Observatory have co-operated in order to avoid duplication of work. In future the programme of work with the 26½-inch telescope will be mainly concerned with the systematic measurement of the known double stars of the southern sky.

An eyepiece interferometer has been successfully used in connexion with the telescope in the measurement of very close double stars of suitable magnitude. The telescope has been occasionally used for double-star photography, although it was not designed for this purpose.

Amongst the interesting discoveries made with this telescope may be mentioned the discovery of the duplicity of the new stars Nova Pictoris (1925) and Nova Aquilae 5 (1936) and of the anomalous appearance of the minor planet Eros.

The Franklin-Adams Star-Camera is now chiefly used for the photographic observations of the minor planets when they are in southern declinations. The preparation of a series of star charts covering the southern sky between −19° and the south pole, which was commenced in 1917, has now been completed, and the charts have been distributed to the astronomical observatories of the world. Photographic observations of faint comets are also carried out with this telescope and, in the course of routine work with this instrument, three new comets have been discovered in recent years. Under the arrangement existing between the Leiden Observatory, Holland, and the Union Observatory for an interchange of observers, the telescope has been extensively used by a member of the staff of the Leiden Observatory for variable star research.

The 9-inch refractor is chiefly used for the observation of the occultations of stars by the moon and for the visual observation of the eclipses of the satellites of Jupiter.

The Union Observatory supplies official time (Standard time of the 30th meridian East of Greenwich) to the provinces of the Transvaal and Natal. Wireless rhythmic time signals are received daily from Rugby, England, and other stations and are used for the correction of the Observatory clocks. Automatic hourly time signals are sent from the Observatory to the Central Telegraph Office at Johannesburg. Special hourly time signals, consisting of six dots, of which the last dot marks the exact hour, are sent from the Observatory to the Johannesburg Station of the South African Broadcasting Corporation; from here they are broadcast by an automatic apparatus at various hours of the day.

The Union Observatory publishes at intervals a circular containing the reports of the work in progress. Up to December, 1938, 100 of these circulars had been issued and distributed to astronomical observatories and institutions.

Visitors are admitted to the observatory on Wednesday evenings upon written application, and are shown celestial objects through the 9-inch telescope. During the year 1938, the number of visitors was 1,492.

4. **Meteorological Observations.**—Regular observations of temperature and rainfall are maintained and are communicated to the Union Meteorological Department in Pretoria.

The following tables, containing data for the years 1936-37 and 1937-38, are a continuation of a summary of the records of rainfall and temperature observations made at the observatory without a break since 1904. The figures for prior years will be found in previous issues of this *Year Book*.

RECORD OF RAINFALL—UNION OBSERVATORY—1936-37 AND 1937-38.

Month.	1936–37.		1937–38.		Monthly Mean.*	
	Inches.	Days.	Inches.	Days.	Inches.	Days.
July	0·04	1	0·06	1	0·40	2
August	0·00	0	0·00	0	0·41	1
September	0·28	2	1·06	6	0·86	4
October	1·47	8	1·35	7	2·33	9
November	0·68	15	2·41	9	4·70	13
December	1·95	12	8·45	24	4·76	15
January	8·45	18	5·15	14	5·50	15
February	5·85	14	3·29	10	4·25	12
March	2·63	10	1·75	9	3·81	13
April	1·75	7	5·27	9	1·55	7
May	0·26	2	0·36	2	0·86	3
June	0·00	0	0·21	2	0·16	1
SEASON	29·36	89	29·36	93	29·59	95†

* Monthly means for the period 1904–05 to 1937–38.
† Mean of thirty-four seasons from 1904–05.

RECORD OF TEMPERATURE OBSERVATIONS—UNION OBSERVATORY, 1936-37 AND 1937-38.

Month.	1936–37.			1937–38.			Monthly Mean.*		
	Average Maximum.	Average Minimum.	Average Mean.	Average Maximum.	Average Minimum.	Average Mean.	Average Maximum.	Average Minimum.	Average Mean.
	°	°	°	°	°	°	°	°	°
July	60·5	40·7	50·6	58·7	36·3	47·5	60·1	40·6	50·4
August	66·9	44·1	55·5	68·1	45·0	56·5	65·1	43·4	54·2
September	69·2	44·4	56·8	69·8	47·0	58·4	70·9	48·0	59·4
October	72·8	50·6	61·7	75·7	52·4	64·0	74·5	52·0	63·3
November	72·5	52·8	62·6	81·0	55·6	68·3	74·6	53·4	64·0
December	78·7	57·0	67·9	72·2	54·4	63·3	76·1	54·1	65·6
January	75·6	56·6	66·1	77·3	57·2	67·3	77·0	56·4	66·7
February	75·3	56·9	66·1	75·4	54·7	65·0	75·8	55·7	65·8
March	75·7	53·6	64·6	77·4	55·2	66·3	73·1	54·0	63·6
April	69·8	50·1	60·0	70·0	52·7	61·3	69·9	50·4	60·2
May	68·2	48·4	58·3	66·6	47·8	57·2	64·5	45·6	55·0
June	62·0	42·4	52·2	60·6	43·3	51·4	60·3	41·2	50·8
SEASON	70·6	49·8	60·2	71·1	50·1	60·5	70·2	49·6	59·9†

* Monthly means for the period 1904–05 to 1937–38.
† Mean of thirty-four seasons from 1904–05.

EXTREME TEMPERATURES RECORDED AT THE UNION OBSERVATORY.

Year.	Highest Recorded.	Lowest Recorded.
1936–37	87°·5 on 21st Dec., 1936	29°·8 on 15th Sept., 1936.
1937–38	90°·2 on 12th Nov., 1937	23°·1 on 14th July, 1937.
Period 1904–05 to 1937–38	93°·6 on 21st Dec., 1925	20°·8 on 23rd July, 1926.

NOTE.—The thermometers are exposed in a Stevenson screen. The 31st January and the 1st March are added to February in order to make the division of the year more even. January, February, and March thus have thirty days each, except in leap years, when February has thirty-one days.

B. ROYAL OBSERVATORY, CAPETOWN.

H.M. Astronomer: J. JACKSON, M.A., D.Sc., F.R.S.

The Royal Observatory at Capetown was instituted by an Order-in-Council, dated the 20th October, 1820, as the result of a memorial presented by the Lords Commissioners of the Admiralty. The present buildings, erected on grounds covering twenty-five acres, consist of the main building and ten other detached observatories, together with residences for the staff and other necessary buildings. The following instruments form the present equipment:—

(i) Transit circle (aperture 8 inches).
(ii) Reversible transit circle (aperture 6 inches).
(iii) Victoria photographic telescope (aperture 24 inches) with visual telescope (aperture 18 inches) and guiding telescope (aperture 8 inches); also four-prism spectroscope and two objective prisms (aperture 24 inches).
(iv) Astrographic telescope (aperture 13 inches) with guiding telescope (aperture 10 inches).
(v) Wide-angle triplet lens (aperture 5 inches) for the determination of the positions of stars.
(vi) Photographic and photovisual lenses (aperture 5 inches) for photometry.
(vii) Heliometer (aperture 7 inches).
(viii) Photoheliograph.
(ix) Two equatorial telescopes (aperture 7 inches and 6 inches) each with Repsold micrometer.
(x) Polar telescope (aperture 7 inches).
(xi) Three standard sidereal clocks (one Shortt free pendulum and two Riefler); one Shortt free pendulum mean-time clock with Belin apparatus for the automatic emission of wireless time signals.
(xii) Schilt photometer.
(xiii) Various physical, meteorological, and geodetic apparatus.

The following are the names of H.M. Astronomers from the date of institution:—

1820—Rev. F. Fallows.
1832—Thos. Henderson.
1833—Sir Thos. Maclear.
1870—E. J. Stone.
1879—Sir David Gill, K.C.B.
1907—S. S. Hough, M.A., F.R.S.
1923—H. Spencer-Jones, M.A., Sc.D., F.R.S.
1933—J. Jackson, M.A., D.Sc., F.R.S.

The names of Maclear and Gill are intimately associated with the most important geodetic operations carried out in South Africa.

The observatory has been under the control of the British Admiralty from the time of its foundation, and its expenses are defrayed out of naval votes. It was instituted to promote practical astronomy and navigation by observing southern stars, thus supplementing the work done by Greenwich Observatory in the northern hemisphere. The accurate determination of the positions of stars has continued to be the primary work of the observatory, but, with the advance of astronomy, developments in other directions have followed, and the Cape Observatory is now one of the chief observatories in the world.

The fundamental instrument is the transit circle, which is used for the determination of time and of the positions of stars. South African Standard Time is distributed daily throughout the Union, a signal being sent out every hour for regulating the clocks connected with the railway and telegraphic services. Special time signals are sent daily to the various ports, and at 11 p.m. on a 600 metres wave length a wireless time signal of the new International (ONOGO) type is transmitted to ships at sea through the medium of the wireless station at Slangkop. A time signal, sent direct from the observatory, is also distributed several times daily by the South African Broadcasting Corporation.

It was at the Cape Observatory that the idea of employing the telescope for the determination of accurate star positions by means of stellar photography first took practical shape in 1882. The development of this has resulted in (i) the Cape Photographic Durchmusterung, a photographic catalogue of nearly 400,000 stars, and (ii) the international survey of the heavens, in which many of the principal observatories of the world are co-operating. The Cape contribution to the *Carte de Ciel* is a catalogue of about half a million stars, the publication of which was completed in 1927. The zones of the sky observed at the Cape have recently been rephotographed, and the proper motions of the stars have been determined by comparing plates of the early and recent series.

Another important astronomical problem, in which the Cape Observatory has taken a prominent part, has been the determination of the solar parallax, which is equivalent to the determination of the radius of the earth's orbit. This was derived from an extensive series of observations of minor planets made with the heliometer. In collaboration with other observatories, opportunity was taken of redetermining this most important constant at the opposition of the minor planet Eros in 1931.

The Victoria telescope was used until 1926 for the spectroscopic determination of the motions of stars in the line of sight. The spectroscopic observations have also afforded a further determination of the solar parallax, confirming previous Cape results. The telescope is at present employed for the determination by photographic methods of stellar distances, and the distances of more than 950 stars have been measured.

The wide angle triplet lens is used to photograph the sky south of $-30°$. Work on the determination of the positions of the stars from $-30°$ to $-35°$ and $-35°$ to $-40°$ is well advanced. In view of the completeness with which the zone from $-40°$ to $-52°$ has been observed with the astrographic telescope, the next zone to be undertaken is $-52°$ to $-56°$. The photographic and photovisual magnitudes of the stars are being determined on plates taken with the photometric lenses.

Observations of occultations of stars by the moon are undertaken regularly. Photographs of the sun are taken daily, weather permitting. These are sent to the Royal Observatory, Greenwich, for measurement, along with the photographs taken there. As a result of the work at the two observatories the sun is photographed nearly every day.

Regular meteorological observations are taken and forwarded to the Union Meteorological Department in Pretoria.

A supply of chronometers and chronometer watches is kept at the observatory, and regularly rated for issue, as required, to ships of the Royal Navy.

The senior staff is constituted as follows:—

H.M. Astronomer.....	J. Jackson, M.A., D.Sc., F.R.S.
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Assistants.....	J. W. Jackson, J. H. Peirce, G. W. Reed, M.Sc.
Secretary.....	H. M. Bale.

There are in addition eight junior assistants and six temporary clerks, an instrument maker, an electrician, and a carpenter; with three labourers and messengers.

C. YALE UNIVERSITY OBSERVATORY—SOUTHERN STATION.

ASTRONOMER IN CHARGE: HAROLD L. ALDEN, M.Sc., PH.D.

The Southern Station of the Yale University Observatory was opened by the then Prince of Wales on 23rd June, 1925, during his visit to Johannesburg. Early in that year, Dr. Frank Schlesinger, Director of the Yale University Observatory, New Haven, Conn., U.S.A., had arrived in South Africa to select the site for the station and superintend the construction of the observatory and the installation of the telescope. The University of the Witwatersrand generously provided a site on the western portion of its grounds in Milner Park and also a combined residence and office building for the accommodation of the staff.

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ASTRONOMER IN CHARGE: HAROLD L. ALDEN, M.Sc., PH.D.

The Southern Station of the Yale University Observatory was opened by the then Prince of Wales on 23rd June, 1925, during his visit to Johannesburg. Early in that year, Dr. Frank Schlesinger, Director of the Yale University Observatory, New Haven, Conn., U.S.A., had arrived in South Africa to select the site for the station and superintend the construction of the observatory and the installation of the telescope. The University of the Witwatersrand generously provided a site on the western portion of its grounds in Milner Park and also a combined residence and office building for the accommodation of the staff.

The equipment consists of a photographic refractor of 26 inches aperture and 36 feet focal length, to which is attached a 10-inch visual telescope of the same focal length. This instrument is specially designed for the rapid and accurate photography of celestial objects on a scale large enough to permit precise measurements of positions and motions.

In 1931 a special camera of five inches aperture and eighty inches focal length was mounted on the large telescope. The field of this camera covers one hundred and twenty square degrees, about 140 times that of the large telescope. It is used for the determination of the positions of stars south of the equator.

The main programme with the large refractor is devoted to the determination of the parallaxes and proper motions of stars. Other astrometric investigations include measurements of the relative positions of the satellites of Jupiter and Saturn, of the components of double stars, and the study of special stars for orbital motion and mass ratios. Photometric observations are undertaken in cases of variable stars which are components of double stars not well separated on plates of smaller scale.

An extended programme with both the telescope and the camera has been inaugurated for the determination of the errors of star places, by comparing the positions of a selected list of asteroids relative to the stars with their positions computed from purely dynamical considerations.

D. HARVARD OBSERVATORY, BOYDEN STATION.

Longitude 1h. 45m. 37s. E.; Latitude 29° 2′·3 S.; Altitude 4,575 feet (above sea-level).

ASTRONOMER IN CHARGE: Prof. J. S. PARASKEVOPOULOS, Sc.D., F.R.A.S.

The Boyden Station of Harvard Observatory (Department of Harvard University, Cambridge, Mass., U.S.A.) was first established in 1889 in Arequipa, Peru, on the western slopes of the Andes.

In 1927 it was decided to transfer the station to Bloemfontein, where conditions from an astronomical point of view were better. The site selected for the Boyden Station is close to the waterworks at Mazelspoort, 15 miles E.N.E. of Bloemfontein, on a kopje now known as *Harvard Kopje*, the height of which above the veld is about 200 feet.

The establishing of the observatory, with the exception of the building and the dome housing the 60-inch reflector, was finished in July, 1929, when regular work was begun. Preliminary work had been carried out with two of the smaller instruments since September, 1927. The construction of the building to house the 60-inch reflecting telescope was begun in July, 1931, and the instrument was brought into operation in 1933.

The station is equipped with the following instruments:—

(1) One reflecting telescope of 60-inch aperture.
(2) One photographic refractor of 24-inch aperture (doublet).
(3) One photographic and visual refractor of 13-inch aperture, mounted together with an 8-inch refractor.
(4) One photographic refractor of 10-inch aperture (triplet), mounted together with an 8-inch refractor and a 6-inch finder.
(5) One photographic refractor of 8-inch aperture, with 4-inch finder.
(6) One visual refractor of 5-inch aperture.
(7) One photographic refractor of 5-inch aperture.
(8) Two photographic cameras of 3-inch lens.
(9) One photographic camera of 1·5-inch lens.
(10) One transit.
(11) Stellar spectrographs.

The work of the Harvard Observatory and its southern branch is purely research work. It involves investigations on:—

(1) Stellar photometry.
(2) Stellar and nebular spectroscopy.
(3) Astrometry (proper motions and parallaxes of stars).
(4) Photographic survey of nebulae and extragalactic objects.
(5) Various other fields of modern astronomy.

E. LAMONT-HUSSEY OBSERVATORY OF THE UNIVERSITY OF MICHIGAN.

ASTRONOMER IN CHARGE: R. A. ROSSITER, M.A., PH.D., F.R.A.S.

The University of Michigan Astronomical Expedition owes its existence to two former students of the Engineering College of the University. One, Mr. R. P. Lamont of Chicago, furnished funds for building a 27-inch refracting telescope, for building an observatory, for paying the salaries of three observers, and for the maintenance of the observatory for a period of eight to ten years. The other, the late Professor W. J. Hussey, head of the Department of Astronomy in the University of Michigan, was a notable double-star observer at the Lick Observatory of the University of California. Professor Hussey's greatest ambition was to carry out as thorough double-star work in the southern as had been done in the northern sky, and in this he was warmly supported by Mr. Lamont.

A site on Naval Hill, Bloemfontein, was decided upon and the building of the observatory was begun early in June, 1927, and completed in March, 1928. The building consists of a circular wall, 56 feet in diameter, surmounted by a structural steel hemispherical dome, and of two rectangular wings, which house the offices and auxiliary rooms and provide storage space. The flat roofs of the two wings are of concrete covered with broken stone and are well below the level of the dome opening, so that little difficulty with radiation is experienced from them.

The sole instrumental equipment of the observatory is the 27-inch refracting telescope.

Regular work with the Lamont telescope began in May, 1928, with a staff of three observers: Professor R. A. Rossiter, Mr. H. F. Donner, and Mr. M. K. Jessup, but Professor Rositter now continues as the astronomer-in-charge and the sole observer.

The Lamont telescope has been used chiefly for searching for new double stars and for measuring new pairs found. Practically nothing is done in other phases of astronomy. Up to January, 1939, the total number of new double stars found at the Lamont-Hussey Observatory was approximately 6,250. Of these new pairs a first list of 2,232 by Professor Rossiter was published in 1933 in the Memoirs of the Royal Astronomical Society, Volume LXV, Part II. A second list of 1,108 new pairs by Professor Rossiter and first lists of 1,057 new pairs by Mr. Donner and 854 new pairs by Mr. Jessup were published as another part of Volume LXV in 1936. A third list by Professor Rossiter of 800 new pairs was published in 1938 as a part of Volume LXVI.

Thanks to the generosity of the Union Government and of the municipality of Bloemfontein the double-star programme will be continued until the middle of 1942. Plans after that date are as yet uncertain.

When the special double-star programme is completed, the results will be published as a memorial to the late Professor Hussey; for it was mainly by virtue of his personality and his achievements in the observation of double stars that the observatory became a reality.

In the past ten and a half years just over 12,170 visitors have been entertained at the Lamont-Hussey Observatory, of whom 10,510 saw one or more objects with the Lamont telescope. This more than used up 10 hours per month, whereas 6 hours per month was set as an adequate public use of the big refractor. It also reflects the interest shown by the public in the comparatively little-known science, astronomy.

F. THE RADCLIFFE OBSERVATORY, PRETORIA.

RADCLIFFE OBSERVER: H. KNOX-SHAW, M.A., D.Sc.

(Longitude: 1h. 52m. 54·9s. E.; Latitude: 25° 47′ 18″ S.; Altitude: 5,060 feet.)

The Radcliffe Observatory was first established in Oxford, England, in 1771. The circumstances resulting in its transfer to South Africa have been stated in previous issues of this *Year Book*. The new observatory is situate on the town lands of Pretoria, 600 feet above the city, on a site generously presented by the City Council.

In July, 1935, an order was placed with Sir Howard Grubb, Parsons & Co., of Newcastle-on-Tyne, for a 74-inch reflecting telescope. Considerable difficulty was experienced by the Corning Glass Co., of New York, in casting a disc of pyrex glass for the large mirror, but this was at last accomplished in August, 1938, when the disc was shipped to England for grinding and figuring. It is expected that this work will be finished during 1939, when the mirror will be sent to Pasadena, California, on its way out to South Africa, to receive a reflecting surface of aluminium. The five secondary mirrors are of fused silica. Apart from the mirrors, the erection of the telescope was completed during 1938. It is housed in a building 61 feet in diameter and 65 feet high, of which the upper portion is a cylindrical revolving turret. To prevent undue rise of temperature inside the building during the daytime, with consequent bad effect on the figure of the mirrors, it has been constructed with double walls and roof, the outer being of low heat capacity to obviate air currents rising from them during the night and spoiling the definition of objects viewed through the telescope.

Several novel features are embodied in the telescope. It is driven electrically, the frequency of the alternating current being controlled by a tuning fork, and provision is made for sending the beam of light down the polar axis to a stationary spectrograph housed in a constant-temperature room. In addition observations can be made at the Cassegrain focus below the large mirror, and at the Newtonian focus at the top of the tube, access to which is effected by means of a special moving platform designed by Mr. Gordon Leith, F.R.I.B.A., in conjunction with the telescope makers. It is hoped that the telescope will be in action by the end of 1939 or early in 1940. It will be employed mainly on spectroscopic work of a kind which, owing to its size, has not before been possible on the southern stars, and it will, it is hoped, make an important contribution to our knowledge of the structure of the stellar universe.

The project of erecting the telescope, which is the largest telescope in the southern hemisphere, would not have been possible without the help and co-operation of the Union Government and of the Municipality of Pretoria.

§ 11. South African Standard Time.

Uniform time of two hours east of Greenwich is observed in the Union and South West Africa, Portuguese East Africa, and Southern and Northern Rhodesia.

§ 12. The Voortrekker Centenary.*

The year 1938 saw the centenary of the Voortrekkers and celebrations took place on a large scale at Blood River and at Pretoria. At each place the foundation stone of a monument in honour of the Voortrekkers was laid.

In order to understand what these centenary celebrations meant to South Africans, it is necessary to know something of the history of the Voortrekkers.

1. **Before the Great Trek.**—In 1652 Jan van Riebeeck, in the service of the Dutch East India Company, landed with his small following on the shores of Table Bay and laid the foundation of European civilization on the African sub-continent. As the years passed by the European population increased and many became settlers on the land. In 1688 and 1689 they were joined by the Huguenots, who had been compelled to leave their native country, France, by the persecutions they had to endure because of their Protestant faith. Their descendants have become entirely identified with the Afrikaans-speaking section of the population. A long list of Governors followed van Riebeeck and gradually the Europeans spread into the interior. The colonists often had grounds for complaint against the administration of the Dutch East India Company and eventually they rebelled in some districts and set up their own governments in Graaff-Reinet and Swellendam. That was shortly before the first British occupation of the Cape in 1795, which put an end to the rule of the Dutch East India Company in South Africa. The occupation was a result of war with France and, when peace was declared in 1802, it was agreed that the

* Contributed by the Hon. E. G. Jansen, M.P., Chairman of the Central Voortrekker Centenary Committee.

Cape was to be handed over to the Batavian Republic, which had been formed in the Netherlands. This formally took place, amidst scenes of joy on the part of the colonists, early in 1803. War between Britain and France having again broken out, the Cape was occupied a second time by the British in 1806 and they retained possession of the Colony when the Napoleonic wars came to an end in 1814. Meantime the colonists were expecting to be restored to the Mother Country at the conclusion of peace. In this they were disappointed.

In considering later events it must be borne in mind that many of those who took part in the Great Trek were men and women who had seen the establishment of British rule against their own will. It was, however, possible by tolerance, tact, and good government, to gain the confidence of the new subjects. But the attitude of the new rulers towards the colonists and their partiality to the natives brought about an alienation, which eventually led to loss of all confidence in the government. Most of the grievances of the colonists had to do with the native policy of the government. That policy was too often based on one-sided and prejudiced statements which led those responsible for the government of the country to regard the white man as always being in the wrong, and the native as the innocent and injured party. This state of affairs obtained not only with regard to natives within the borders of the Colony, but also with regard to the marauders from without. The result was that eventually the white man despaired of the lawlessness on the part of natives in their midst ever being put down and of protection ever being given against the murders, robberies, and other crimes perpetrated by raiders from the neighbouring native territories. The root cause of the Great Trek was to be found in native policy and the total loss of confidence in the government.

The abolition of slavery was also an element but certainly not a deciding factor. It must be remembered that the slaves were not natives of South Africa but people imported from elsewhere and sold in the Colony. They were legally acquired by their owners and many were mortgaged for debt. The colonists themselves were in favour of abolition provided it took place gradually and without too great loss to the community. The value of slaves was assessed at £3,000,000 sterling. The compensation allocated to the owners was less than half that amount and payment had to be received in London. The result was that many owners of slaves were ruined. The objection was not to the abolition of slavery, but to the manner in which it was carried out. That the slaves, on the whole, were well treated, is shown by the fact that many remained with their former owners even after abolition. Many of them voluntarily accompanied their former masters into the interior with the Great Trek. In 1838 the Government sent a Commissioner to bring these people back who were supposed to have been forced to accompany the Voortrekkers. The Commissioner was everywhere well received. Notwithstanding the fact that some 250 servants, many of them former slaves, had been massacred with their employers by the Zulus, nearly all those who met the Commissioner stated that they preferred to remain with their masters, and even the few who elected to return to the Colony declared that they had accompanied their masters of their own free will.

The causes of the Great Trek were cumulative. There was a deep-felt resentment against the authorities in England, who lent a willing ear to what the colonists considered to be calumnies spread in England by interested parties, whilst the testimony of the Governor, Sir Benjamin D'Urban, was ignored. His opinion of the Voortrekkers was expressed as follows: "a brave, patient, industrious, orderly and religious people, the cultivators, the defenders, and the tax contributors of the country".

There was a large number of grievances which were set out *inter alia* by Piet Retief on the eve of his departure in 1837. The chief grievances may be summarized as follows:—

1. Lack of protection and a virtual denial of the right to protect themselves. In the Kaffir War of 1835 the following losses were recorded:—456 houses and 58 wagons burnt or otherwise destroyed; 5,715 horses, 114,930 cattle, and 161,930 sheep and goats driven off; besides the destruction of household furniture, etc. The attitude of the authorities in England was that the colonists were the aggressors and merited no sympathy. The salutary measures taken by Sir Benjamin D'Urban were reversed, and he was eventually dismissed from office.

2. The colonists, both Dutch and English, resented deeply the slanderous statements made about them in England by people who were prejudiced against them, and who were believed by the authorities in spite of the representations of the Governor. In face of such a state of affairs the people felt absolutely helpless and despaired of ever receiving justice at the hands of the government.

3. The total lack of control of natives and Hottentots who wandered about the country without restraint, often robbing and in some cases murdering the inhabitants.

4. The feeling on the part of the Voortrekkers that they were strangers in their own country. Their language could no longer be used in the courts; their system of government had been done away with and nothing of their own in the government of the country had been left to them. No effective form of representative government had been established, and they were governed from Downing Street by men who were prejudiced against them and knew nothing about their difficulties and requirements. They felt that it was hopeless to expect any consideration from such a government. Their choice lay between rebellion and leaving the country of their birth, and they chose the latter course. It was then that the ideal of founding an independent state of their own in the interior, where their national life could gain expression through their own national institutions, took definite shape.

2. **The Great Trek.**—As far back as 1834 Natal was visited by Stephanus Maritz, P. Uys, G. Rudolph, Hans de Lange, and others who were very favourably impressed with the country. Their party was one of several that had been sent out in different directions to ascertain the possibilities of the interior. At that time a number of English traders had already been established at Port Natal for some ten years.

In 1835 Louis Trigardt and van Rensburg were already proceeding northwards. By May, 1836, they had reached the Zoutpansberg, where they separated. Van Rensburg trekked further north, and all the members of his party were killed by natives in a desparate struggle near the Limpopo River. Trigardt eventually made his way to Delagoa Bay, where he and most of his followers died of fever. The few survivors were taken by sea to Natal after the Voortrekkers had established themselves there. These intrepid pioneers left no trace on the country they had explored except the story of their indomitable courage and perseverance in adversity. Louis Trigardt left a diary, which is of the greatest historical value.

The Great Trek may be said to have commenced in earnest at the end of 1835, when Hendrik Potgieter and his party, consisting mostly of families from the Tarka and Colesberg Districts, and including Sarel Cilliers, left the Cape Colony and proceeded towards the interior. A feature of the Trek was the implicit belief of the emigrants in the word of God and their reliance on His protection. Family worship and divine service were regularly held, and of one commando it was said that it resembled an itinerant prayer meeting. The emigrants, with few exceptions, were a deeply religious people and were profoundly influenced in all their actions by their religion.

In May, 1836, Potgieter with a number of men left the main body of his party near the Vaal River and proceeded to Zoutpansberg in order to get into touch with Trigardt. In this he succeeded and then proceeded even further north beyond the Limpopo and then returned to his people on the Vaal River. There seems to have been some understanding between the two leaders that Potgieter would return to his people and bring them to Zoutpansberg. Potgieter was prevented from making an early return and Trigardt, after waiting in vain for many months, proceeded to Delagoa Bay, where he and most of his followers died of fever as we have seen. He arrived there about April, 1838.

On his return to the Vaal River, Potgieter found that a number of his people had been massacred by the warriors of Mzilikazi, Chief of the Matabele. This chieftan had been one of the officers of Tshaka, King of the Zulus, but having incurred the anger of the king, he fled to the north with his followers, spreading destruction wherever he went. At this time his headquarters were at Mosega in what is now known as the Marico District in the Transvaal. The massacre of Potgieter's people had taken place near Parys, on the Transvaal side of the Vaal River. There is a kopje there bearing the name of Liebenberg's Kopje, the victims having been mostly Liebenbergs.

Potgieter concentrated his party at Vegkop, near Heilbron, where, for the first time, wagons were used to form a laager as a protectoin against the attacks of the enemy. The Matabele fiercely attacked but were repulsed with heavy loss by the 36 defenders of the laager, of whom two were killed and a number wounded. In this battle the women folk of the defenders took an active part. The Matabele went off with all the oxen and stock of the emigrants. A message was sent to Maroko, Chief of the Baralong at Thaba 'Nchu, who sent oxen to bring the men, women and children back to that place. Thaba 'Nchu was the meeting place of all the emigrants who left the Cape Colony.

In the meantime, G. Maritz, with a large following, had reached Thaba 'Nchu from Graaff-Reinet. In December, 1836, a general meeting of emigrants was held in order to regulate the Trek. A council of seven was elected with Maritz as Chairman and Potgieter as Commandant.

In January, 1837, a commando under Potgieter and Maritz took the field against Mzilikazi to punish him for the unprovoked attack on the Liebenbergs and other trekkers. The Matabele were attacked at Mosega and totally defeated.

In April, 1837, Piet Retief arrived with some 100 families and on the 17th day of that month he was elected Governor and Commandant-General of the community. On 6th June, 1837, he took the oath of office and the first Constitution was agreed upon. Some months of discord followed. It was Retief's desire to proceed to Natal but Potgieter was bent on proceeding further north. On arrival of the Uys party, matters were further complicated by their declaring themselves not bound by what had been done with regard to the election of Retief and other officials. After some months, during which numerous meetings were held and further efforts made to compose the differences, it was agreed not to quarrel but to allow the emigrants to follow such leaders as they preferred. Of these there now were Piet Retief, Hendrik Potgieter, G. Maritz, and P. Uys.

(*a*) *In Natal.*—Retief with a few followers proceeded to Port Natal, where he was welcomed by the traders settled there. He then proceeded to Umgungundhlovu, the capital of the Zulu King, Dingaan, in order to endeavour to obtain a grant of land from him. The Zulu King promised him land on condition that he should re-take cattle raided from him by the people of Sikonyella. This Retief promised to do. He returned to Port Natal and sent a message to his people, who were waiting on the Drakensberg, that they could come down the mountains into Natal. Retief rejoined his trek at the Tugela River towards the end of November, 1837. With a small commando he proceeded a month later to deal with Sikonyella, who lived at Imperani, near the present Ficksburg, O.F.S., The raided cattle were taken and on January 11, 1838, Retief returned to his trek, which then stood in the vicinity of Doornkop, near Winterton.

It was from there that Retief with 60 men, four boys, including his own son, and a number of servants, set out with the re-captured cattle on his fatal journey to Dingaan. Thomas Halstead, who had accompanied him as interpreter to Sikonyella, now also went with him in the same capacity. The Zulu King, after having signed the grant of a large portion of the present Natal to the emigrants, invited Retief and his companions, who were on the point of departure, to come and drink beer with him and see his soldiers dance. The unsuspecting farmers, no doubt elated at the success of their mission, readily accepted the invitation and, as was customary, left their weapons outside the enclosure with the servants and saddled horses. Beer was partaken of and the soldiers danced. Suddenly Dingaan rose and shouted the order "Kill the wizards", and thousands of warriors fell on the unfortunate victims, who were all put to death. None of the servants who had been left with the horses were permitted to escape. Immediately afterwards Dingaan sent his impis to attack the unsuspecting men, women, and children, scattered in small groups between the Tugela and Bushmans Rivers.

In the early hours of February 17, 1838, the massacre began and 40 men, 56 women, 185 children, and some 250 servants were cruelly done to death. In most cases the unfortunate victims were fallen upon in their sleep. Where the people were warned and could prepare for the attack, they were able, in most cases, to beat off the enemy and many deeds of heroism were performed by both men and women. Gradually parties of the survivors got together and took the offensive, and eventually the Zulus were compelled to flee. They were pursued to the Tugela River but were able to drive off most of the emigrants' stock. The task of attending to the

wounded and burying the dead was then undertaken, amid scenes of the greatest desolation. Most of the victims of the massacre were found along the Bloukrans River and the Moordspruit, not far from the present Chievely. In 1896 a monument was erected on the scene of the massacre to the memory of the fallen.

When news of the disasters reached the emigrants beyond the Drakensberg, they immediately sent assistance, and early in April a mounted commando under Uys and Potgieter took the field against the Zulus. In a battle at Italeni, not far from the present Babanango, the emigrants suffered a severe reverse losing some ten men including Piet Uys and his brave son Dirk, a boy of about 14 years. Potgieter was blamed for this reverse by many emigrants. Feeling ran very high and eventually Potgieter left Natal with about 160 men and their families. It was estimated that about 600 men and 3,000 women and children with 1,000 wagons remained in Natal.

Before the expedition against Dingaan set out, contact had been established with the British traders at Port Natal who were prepared to attack Dingaan from the south. There does not seem to have been any agreed plan, with the result that the expedition from Port Natal actually left after the battle of Italeni had been fought and lost. The force from Port Natal, consisting of 17 Europeans and about 1,500 natives, was overwhelmed by the Zulus after having crossed the Tugela and 13 Europeans and numbers of natives were killed.

A period of great difficulty now set in for the emigrants and many men began to talk of withdrawing from Natal. This met with an emphatic protest from the women folk, who refused to leave until the blood of innocent men, women, and children had been avenged. Messages were sent to the Cape for assistance and steps were taken to safeguard the laagers.

On 13th and 14th August, 1838, the Zulus made determined attacks on the main laager of the emigrants, which had been established on the Bushmans River about seven miles above the present Estcourt at a place which has since been called "Vechtlaager". The Zulus were, however, beaten off with heavy loss. The main laagers were then moved and established on the Little Tugela River, just above the Gourton Bridge of to-day on the road leading from Estcourt over Loskop to Bergville. Maritz's laager had been established there since the beginning of July. These laagers on both sides of the Little Tugela River were the headquarters of the emigrants until after the battle of Blood River.

A number of emigrants had proceeded towards the coast. Some of them under Greyling established themselves where Pietermaritzburg now stands and laid out the town there. Others proceeded to Port Natal in the vicinity of which three camps under Karel Landman were established.

G. Maritz died on 23rd September, 1838, and in November of the same year Andries Pretorius arrived at the laagers on the Little Tugela. He was elected Commandant-General, and a few days later took the field against the Zulus with some 470 men and 64 wagons. Included in the commando were 123 men under Karel Landman, who had come from Port Natal. There was also Alexander Biggar with a number of Natal natives. *It was on this expedition that the Voortrekkers, by mouth of Sarel Cilliers, made the vow that if God, in His mercy, would vouchsafe them the victory they would build a house to the honour of His name and they would consecrate the day as a sabbath and thanksgiving day for ever and enjoin their children and future generations so to observe the day in honour of Almighty God.* This vow was repeated every evening after divine service. After the victory of Blood River the Voortrekkers' Church at Pietermaritzburg was built, and the 16th day of December is observed by Afrikaans-speaking South Africans throughout the country.

It was on Sunday, 16th December, 1838, that the battle of Blood River was fought against the full forces of the Zulu King, who was at the height of his power. The Zulus were totally defeated and more than 3,000 of them were killed. The commando then proceeded to Umgungundhlovu, the Zulu capital, which they found in flames. Near the great kraal the remains of Retief and his followers were found, and in a pouch worn by Retief the grant of Natal to the emigrants was found intact. A few days after, the commando was ambushed in the ravines of the White Umfolosi valley, and the men had to fight practically the whole day to extricate themselves. Several of them were killed, including the brave Biggar, who fell in an attempt to succour some natives under his command, who were in danger. It was due to the determined leadership of Hans de Lange that the emigrants were not overwhelmed.

Owing to horse sickness the commando then returned to the laagers on the Little Tugela, which soon after broke up, and the settlement of Natal commenced with Pietermaritzburg as capital. In September, 1839, Mpande, a brother of Dingaan, fled with a large portion of the Zulu people into Natal and sought the protection of the Voortrekkers. In January, 1840, another commando took the field against Dingaan, whilst an impi of Mpande's followers under Nongalaza marched on Dingaan's new headquarters near Nongoma. In a battle between the followers of Dingaan and those of Mpande near the Mkuzi River, Dingaan's impi was defeated and he fled across the Pongola River and was shortly after killed by the Swazis in the Lebombo mountains. Mpande was then proclaimed king of the Zulus by Andries Pretorius. The emigrants were now able to turn to the task of building up their state. They were not afforded much opportunity for this purpose as the British Government decided to reoccupy Natal, and Captain Smith was ordered to proceed to Port Natal, where he arrived at the beginning of May, 1842. He had encountered no opposition from the emigrants, who protested against the invasion of their territory. Protests were of no avail and hostilities followed. Smith suffered a severe reverse and was besieged in his camp. It was then that Dick King made his famous ride to Grahamstown and thus secured the relief of Smith and his men. The submission of the Voortrekker leaders followed soon after and this submission was confirmed by a resolution of the Volksraad in August, 1843. That ended the Republic of Natal and most of the emigrants withdrew to the territory beyond the Drakensberg. In 1845 Natal was formally annexed to the Cape and became a British Colony under a Lieut.-Governor.

In the annual celebrations in commemoration of the vow made before the battle of Blood River, the experiences and sufferings of the Voortrekkers in Natal generally figure as the main theme. The activities and sufferings of the pioneers in the Orange Free State and in the Transvaal are, none the less, part of the history of the Voortrekkers. In the short space of ten years (1836-1846) the Voortrekkers established themselves over all the territory now forming the Union of South Africa, outside the Cape Province, and they opened up all that vast country to European civilization. Before their arrival practically the whole country had been devastated and depopulated by the Zulu impis of Tshaka and Dingaan and the Matabele warriors of Mzilikazi. The emigrants entered into agreements with most of the remaining remnants of tribes, who were only too anxious to come under their protection. When their rule had been established over the devastated areas there was a tremendous influx of natives, who either returned to former haunts or settled there because of the security offered by the white man's rule. Later on, when the fear of attacks from the Zulus and Matabele was no longer left, these natives caused endless trouble. In Natal the influx was on such a scale that it was largely responsible for the departure in 1847 and 1848 from that Colony of most of the emigrants who had decided to remain under British rule after the annexation of Natal.

In an article such as this, one cannot deal at length with the whole history of the Voortrekkers, and the events in the Orange Free State and the Transvaal will only be dealt with very briefly.

(*b*) *In the Orange Free State.*—Notwithstanding the defeat of the Matabele in January, 1837, they continued to be a menace to the emigrants in the Free State and those to the north of the Vaal River. When Retief proceeded to Natal, Potgieter and Uys led a commando against the Matabele in November, 1837. In a series of engagements lasting nine days, the Matabele were routed and driven across the Limpopo, where they later on established themselves in Matabeleland with Bulawayo as the chief kraal.

In April, 1838, both Potgieter and Uys were in Natal to assist their countrymen after the disasters of February. We have seen that they were in command of the commando which suffered the reverse at Italeni, where Uys was killed. Subsequently Potgieter left Natal with a large following and settled in the Winburg area of the present Orange Free State, which had been bought from a native Chief. Winburg was so called because of the victory over the Matabele in November, 1837. Later Potgieter crossed the Vaal River and founded Potchefstroom, the first capital of the Transvaal. The policy of the Cape Governor of entering into treaties with native chiefs led to treaties with Moshesh, the Basuto Chief, and Adam Kok, Chief of the Griquas, as well as other chiefs to the north of the Cape Colony. The emigrants, in what is now the Orange Free State, had continual trouble with these treaty chiefs, who were supported by the Colonial Government. In 1845

British troops crossed the Orange River to assist the Griqua Chief, Adam Kok, and an engagement took place at Swartkoppies. An arrangement was then entered into whereby Major Warden was installed as British Resident and later on he established himself at Bloemfontein. The troubles with the natives continued, however, and loss of life and property were usual occurrences. Sir Harry Smith, who became Governor of the Cape in 1847, thought to cut the Gordian knot by proclaiming the whole of the territory south of the Vaal River to be under the sovereignty of the Queen. The territory was named the Orange River Sovereignty. This proclamation, issued early in 1848, was welcomed by some, but resented by a large majority of the residents in the territory. In the same year the emigrants under Andries Pretorius, who had left Natal, seized Winburg and compelled Major Warden and the British officials to leave Bloemfontein. Sir Harry Smith immediately took the field against them, crossed the Orange River at the head of British troops and defeated Pretorius at the battle of Boomplaats on 29th August, 1848. British rule was established and many of the inhabitants trekked across the Vaal River. The British administration had an unhappy time. Wars with the Basutos were not very successful and after the independence of the emigrants north of the Vaal River was acknowledged in 1852 it was decided to end the Orange River Sovereignty and in 1854 the independence of the Orange Free State was also acknowledged.

(c) *In the Transvaal.*—After the Voortrekkers had established themselves in Natal with a Volksraad, which sat at Pietermaritzburg, an agreement was come to whereby all the emigrants, including those beyond the Drakensberg, were subject to the jurisdiction of the Natal Volksraad. At the same time it was agreed that there should be a Local Council (Adjunct Raad) for Winburg and Potchefstroom to deal with all local matters and with the right to sit with the Volksraad at Pietermaritzburg whenever important matters were considered.

Andries Pretorius was acknowledged as Commandant-General over the emigrants and Potgieter as Chief Commandant. We have seen that Potgieter moved from Winburg to Potchefstroom in 1839. After the British occupation of Natal the people of Winburg and Potchefstroom declared themselves no longer bound by the actions of the Volksraad at Pietermaritzburg and Potgieter was their recognized leader. It was Potgieter's desire to establish communication with Delagoa Bay and the sea and to be free of any danger of a collision with the British Government. He also had in mind the *Cape of Good Hope Punishment Act*, passed in England and making crimes committed by British subjects in any part of Africa south of the 25th parallel of latitude cognisable in the courts of the Cape Colony. The emigrants were still looked upon by the British authorities as British subjects, notwithstanding repeated protests, and this Act was specially passed to apply to them.

When the troubles with the treaty chiefs in the Orange Free State followed the annexation of Natal, Potgieter trekked with a large following to a place nearer Delagoa Bay and north of the 25th parallel of latitude. There the town of Andries Ohrigstad was founded and named after Potgieter, whose full name was Andries Hendrik Potgieter, and a certain Ohrig, a business man of Amsterdam who had interested himself on behalf of the emigrants. The place is still called Ohrigstad. It was a fever stricken area and the emigrants after suffering great distress were compelled to move to higher ground. They then founded Lydenburg—the town of suffering. Potgieter himself moved to the Zoutpansberg where Schoemansdal was established and a flourishing trade in ivory, etc., developed, largely with Inhambane in Portuguese territory. Potgieter was still the acknowledged leader of the emigrants north of the Vaal River. He was bitterly opposed by other people, some of whom had come from Natal after the annexation of that area. Andries Pretorius left Natal in the beginning of 1848 and we have seen that he was at the head of the farmers who were defeated by Sir Harry Smith at Boomplaats in August of that year. Pretorius thereafter settled at the Magaliesberg in the Transvaal and made overtures on behalf of the Transvaal emigrants for a treaty of peace with Britain. These eventually led to the Sand River Convention which was signed on 17th January, 1852. In this Convention, the British Government "guaranteed in the fullest manner, to the emigrant farmers beyond the Vaal River, the right to manage their own affairs and to govern themselves according to their own laws, without any interference on the part of the British Government, and that no encroachment should be made by the said government on the territory north of the Vaal River". Amongst other provisions all alliances with native tribes north of the Vaal River were disclaimed by the British Government, and trade in war material with natives was prohibited by both sides.

It had been Potgieter's policy to have nothing to do with the British and to move as far as possible away from them. He had a very large following. The action of Pretorius in negotiating with the British was deeply resented by Potgieter and his followers, and it was openly stated that he had no power to enter into any negotiations, much less to sign a treaty. Both leaders were strongly supported and many feared civil war. In March, 1852, a great meeting was held at Rustenburg. Feeling ran very high. Fortunately the elders induced the two leaders to meet in Potgieter's tent and their differences were peaceably settled. When eventually the tent was thrown open Pretorius and Potgieter were seen clasping hands over an open Bible between them, and great was the joy of the public.

This part of our history may be fittingly closed with the following quotation from Theal*:—

> "The emigrants had at last obtained what they had striven for so long and through so much suffering. To God, the same God who had led from misery to happiness another people whose history was on every tongue, their grateful thanks were due. And so they joined together to praise Him. The Psalms that they sang might have sounded discordant to those whose ears are used to organ and choir, the prayers that the elders uttered might have seemed to modern divines to savour more of the teaching of Moses than of Paul; but psalm and prayer went up to the Throne of God from deeply grateful hearts, and men who had never been moved to shed a tear by all the blows that disaster had struck, were strangely moved that day.
>
> The strife of sixteen years was over, and independence was won."

Both of these great leaders died not long afterwards—Potgieter in March, 1853, and Pretorius in July, 1853.

The foregoing is a bare outline of the principal features of the Great Trek, which was the central theme in all the centenary celebrations last year. The monument, in course of erection near Pretoria, is in honour of the whole Voortrekker community, and is intended to be a worthy memorial to those intrepid pioneers who opened up South Africa and were the actors in perhaps the most important series of events in our history.

3. **The Monument.**—In December, 1895, the late General Joubert laid the foundation stone of the Monument erected near the Bloukrans River about 3 miles from Chieveley, Natal, to the memory of the victims of the massacre of 17th February, 1838. On that occasion a committee was formed for the purpose of collecting funds for a Voortrekker Monument. An amount of money was collected but nothing came of the movement. In 1909 the matter was again mooted by the committee entrusted with the acquisition of the Voortrekker Church at Pietermaritzburg, which had fallen into private hands, and subsequently efforts were made from time to time to move in the matter. Several bodies in different parts of the Union were interested in the movement, and in April, 1931, a conference of delegates from such bodies was held at Bloemfontein. A central committee was formed to co-ordinate all activities in the direction of working for the erection of a central monument in honour of the Voortrekkers to be unveiled on 16th December, 1938. The time was not very propitious as the great depression had set in, and the committee contented itself with the issue of Voortrekker Monument Stamps which the government readily sanctioned. Later on active propaganda for the cause was made and efforts to collect funds were increased. In 1935 the government informed the committee that it considered the erection of a monument in honour of the Voortrekkers and the approaching centenary to be of such national importance that it would take up the matter. After negotiations it was agreed that the government should appoint a number of representatives on the committee and that the committee so enlarged should continue the work.

The committee had to decide where the monument should be erected. A sub-committee was appointed to visit all the places put forward and to report on the whole matter. The following places were involved and were visited by members of the sub-committee:—In Natal: Pietermaritzburg, Weenen, Danskraal (near Ladysmith), and Blood River; in the Orange Free State: The Drakensberg at a point where Retief crossed in 1837, near Oliviers Pass, about 25 miles from Harrismith, Thaba 'Nchu, Bloemfontein, Winburg, and Vegkop, near Heilbron; in the Transvaal: Potchefstroom, Pretoria, and Ohrigstad. The report of the sub-committee was considered at a conference of representatives from all the provinces with the central committee. The

* Theal: History of South Africa, 1834-1854, p. 486.

conference decided by a majority in favour of Pretoria. Although at first there was disappointment and opposition, especially in Natal, this decision was later on generally approved.

The site chosen was a kopje forming part of the ridge running from Skanskop to a point on the road from Pretoria to Johannesburg where it is joined by the road from Voortrekkerhoogte.

The form of the monument was decided upon after careful consideration of a large number of designs, suggestions, photographs, etc., received from all parts of the Union and from overseas. The design ultimately accepted was a combination of two original designs, one of which had come from Pretoria and the other from Stellenbosch. The main feature of the monument will be a massive square structure of granite rising some 130 feet from the summit of the kopje on which it stands (Pretoria design). From the top of the monument there will be a wide view of the surrounding country. The Witwatersrand to the south, the Magaliesberg to the north and west, the Premier Mine to the east, and the Waterberg in the far north, will all be visible on a clear day. Within the structure will be the hall of honour, where the memory of Piet Retief and other Voortrekker leaders will be suitably honoured. On the walls, right round, the history of the Voortrekkers will be portrayed by a frieze in relief 260 feet long and 7½ feet high and showing 32 incidents of the Great Trek. The whole interior will be surmounted by a dome on which mural paintings will show other historic associations. At each of the four corners outside there will be a huge figure of a Voortrekker leader in granite, and before the entrance there will be the bronze figures of a Voortrekker mother with two children. This group will be the work of the well known South African sculptor, Anton van Wouw.

The structure will be surrounded by a laager of 56 wagons, also of granite (Stellenbosch design). The laager was the form of defence adopted by the Voortrekkers. Symbolically the structure will remind us of the rugged and intrepid character of the Voortrekkers; it will contain all that the Afrikaner holds dear and honours in his history, and the laager will represent his determination to defend these things to the utmost.

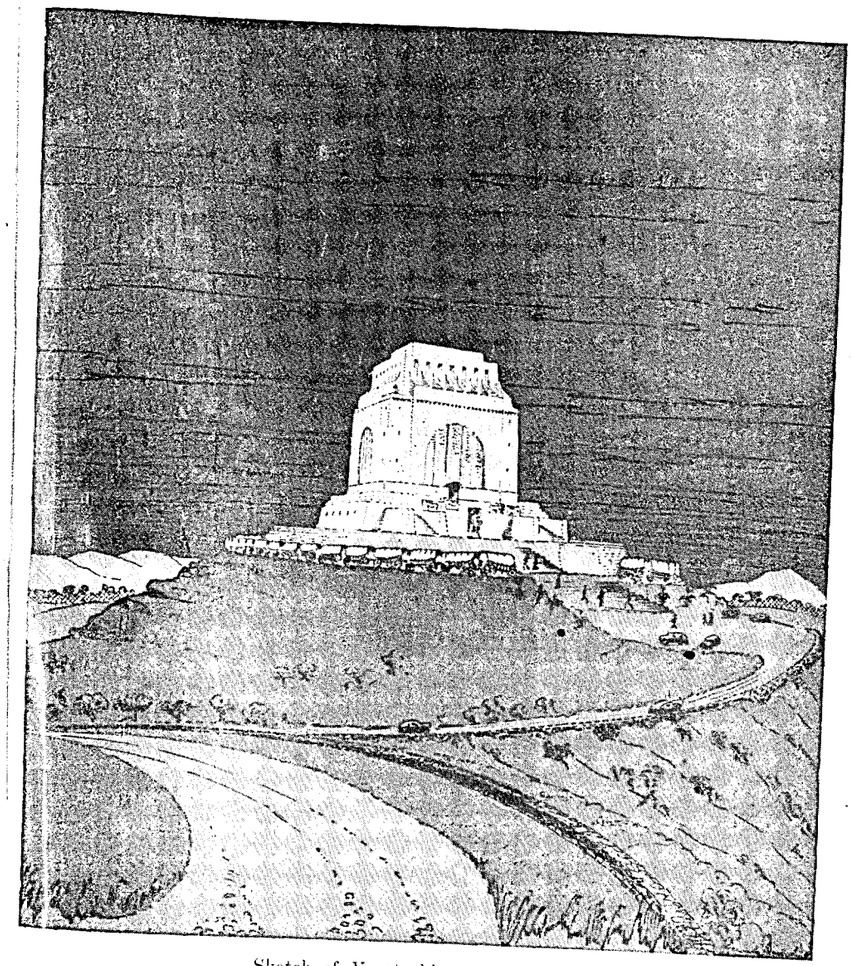
Work on the monument is proceeding and it is hoped that it will be ready for unveiling on the 16th December, 1943. It proved to be impossible to have it completed by the 16th December, 1938, as was originally contemplated.

4. **The Trek of 1938.**—The Trek of 1938 originated and was carried out by the A.T.K.V. van die S.A.S. & H. (Afrikaanse Taal- en Kultuur-Vereniging van die Suid-Afrikaanse Spoorweë en Hawens, which means Afrikaans Language and Cultural Society of the South African Railways and Harbours).

The A.T.K.V. is a cultural society organized by Afrikaans-speaking railwaymen. This society offered, as a contribution to the centenary celebrations at Pretoria, to have a Voortrekker wagon made of stinkwood, and to send it by road to reach Pretoria in time for the celebrations and the laying of the foundation stone of the monument. The Centenary Committee readily accepted the offer, and the necessary preparations were started for the trek along the actual routes followed by the Voortrekkers more than a hundred years ago. At first it was thought to make the Eastern Cape Province the starting point because the Great Trek had really commenced there, but eventually it was decided to start from Capetown itself. At the request of the Centenary Committee the ox wagon mail was inaugurated in co-operation with the Postal Department, for the carrying of special envelopes bearing Voortrekker Monument stamps from Capetown and other centres, to Pretoria. It was anticipated that provision for some 10,000 envelopes would be sufficient, but eventually a special wagon had to be provided to carry the enormous mail, which was increased by the later inclusion of Blood River as an objective.

So great was the interest aroused by the idea of the ox wagon trek, that people in all parts of the country clamoured for the privilege of a visit from one of wagons. The result was that several other treks besides that from Capetown were organized. Consequently most parts of the Union were visited by ox wagons converging on Pretoria and Blood River. Eventually eight wagons arrived in Pretoria and four at Blood River, it having been decided to send some of the wagons to the scene of the battle of 16th December, 1838, where celebrations on a large scale were also to take place.

Each trek had to be organized in minutest detail. Railwaymen, members of the A.T.K.V., were in charge of the wagons. Oxen, mostly red Afrikanders, were provided by local farmers, who where only too willing to have the honour of their oxen taking the wagons from one centre to another. Everything was organized by the A.T.K.V.



Sketch of Voortrekker Monument.
(By courtesy of the Architect Mr. Gerard Moerdyk.)



6th December, 1938. The arrow indicates the site of the Monument.
[*Photograph by the Aircraft Operating Co. of Africa (Pty.), Ltd.*]

On the afternoon of the 8th August, 1938, the trek commenced from Capetown, and two wagons left the mother city on the long trek to the north. Thousands of people gathered by the monument of Jan van Riebeeck at the bottom of Adderley Street, to witness the send-off, and thousands more watched the progress of the wagons as they slowly passed through the streets of Capetown.

The first outspan was at Goodwood, some 8 miles from Capetown, where about 20,000 people gathered that evening for a "braai-vleis-aand", and to listen to speakers who addressed the huge crowd.

The wagons seemed to be very frail and small and there were those who doubted if they could stand the long journey. They were, however, made according to the model and measurements of the light wagons used by the Voortrekkers on commando. At all centres visited by the wagons the enthusiasm of the public was overwhelming. Never before had such interest and universal approval been shown with regard to any movement. Everywhere people gathered in their thousands round the wagons and joined in the festivities arranged for the occasion. This tremendous interest was thoroughly maintained until the treks to Pretoria and Blood River were completed nearly four months after the departure of the two wagons from Capetown.

The Afrikaans-speaking public regarded these ox wagons as symbols of all that they hold dear in the history of their own people, hence the unbounded enthusiasm. The treks of the ox wagons undoubtedly contributed largely to the success of the Centenary Celebrations. The organization of the treks and the way in which they were carried out and conducted redound to the credit of the A.T.K.V. and the trek leaders.

The Voortrekkers of 1838 took possession of the "platteland" and secured a means of livelihood there. Latterly the people who have left the "platteland" to seek a livelihood in the cities and towns have been called the "New Voortrekkers", and they are engaged in a hard struggle to gain a footing for Afrikaans-speaking South Africans in trade and industry. It is significant that the trek of 1938 was organized, not by farmers as was the trek of 1838, but by workers on the railways who belong to the ranks of the "New Voortrekkers". And well did they acquit themselves of the task.

At each centre visited by the ox wagons a programme was arranged for their reception. The celebrations were mostly of a religious nature and the history of the Voortrekkers formed the subject of the speeches. Family worship was a feature of the life of the trekkers, whose families accompanied them in some instances. At most of the centres visited, a monument was erected to commemorate the event and to mark the "Pad van Suid-Afrika" (the Path of South Africa). In many places also the wagon was drawn over a block of wet cement in order to preserve the impression of the wheels.

All the wagons safely reached their destinations at Pretoria and Blood River in time for the celebrations, and so ended one of the most remarkable and unique undertakings that has ever figured in any celebrations of a similar nature.

5. **The Celebrations.**—(*a*) *Arrangements.*—The arrangements for the Centenary Celebrations were in the hands of a committee, which was appointed by the government after consultation with the Central Monument Committee, and which consisted of members of that Committee and other members appointed by the government.

The co-operation of various State Departments was secured, especially the Defence, Police, Railway, and Health Departments, as well as the assistance of the corporation of Pretoria and the Provincial Roads Department. Roads had to be made and parking areas laid out and provision was made for housing some 40,000 people under canvas. Tents and sails, for the construction of huts, were hired from the Defence and Railway Departments, and members of the Special Service Battalion rendered yeoman service in assisting to prepare the ground and to put up the tents and canvas huts. Catering was in the hands of the Suid-Afrikaanse Vroue Federasie (South African Women's Federation), for whose use special refreshment rooms under canvas were provided. A large amphitheatre, to seat some 3,000 people, was constructed (under canvas) and a special parade ground was prepared for displays by members of the Defence Force. The canvas city was divided into laagers named after Voortrekker leaders, and there were also groups of students, factory girls, and others. There was also a laager of some 3,000 Voortrekkers (Afrikaans movement corresponding to the Boy Scouts).

These changes necessitated alterations in the constitution of the Union in order to bring it into agreement with the *Statute of Westminster*, and accordingly during the 1934 session of Parliament legislation was introduced and the *Status of the Union Act*, No. 69, was passed amending certain sections of the *South Africa Act*. The more important of the amendments contained in Act No. 69 are:—

§ 2. Determines that the Parliament of the Union shall be the sovereign legislative power in and over the Union, to the exclusion of all Acts of Parliament of the United Kingdom and Northern Ireland passed after the 11th December, 1931.

§ 4. (1). Invests in the King (or his representative), acting on the advice of His Ministers of State for the Union, the Executive Government of the Union in regard to any aspect of its domestic or external affairs.

§ 5. Establishes that the "heirs and successors" of His Majesty the King shall be taken to mean His Majesty's heirs and successors in the sovereignty of the United Kingdom and Ireland as by law established.

§ 6. Provides for an amendment to sections *twenty-six* and *forty-four* of the *South Africa Act* by the deletion of the words "a British subject of European descent" and the substitution of the words,

> "A person of European descent who has acquired Union Nationality whether (i) by birth or (ii) by domicile as a British subject or (iii) by naturalization, or otherwise, in terms of Act No. 40 of 1927 or of Act No. 14 of 1932."

§ 7. Section *fifty-one* of the *South Africa Act* providing for the Oath or form of affirmation to be taken by a senator or member of Parliament is amended by the deletion of the words "of the United Kingdom of Great Britain and Ireland," and the insertion after "His Majesty" of the words "the King or Queen (as the case may be)".

§ 8. Repeals section *sixty-four* of the *South Africa Act* and substitutes:—

> "64. When a Bill is presented to the Governor-General for the King's assent he shall declare according to his discretion, but subject to the provisions of this Act and to such instructions as may from time to time be given in that behalf by the King, that he assents in the King's name, or that he withholds assent. The Governor-General may return to the House in which it originated any Bill so presented to him, and may transmit therewith any amendments which he may recommend and the House may deal with the recommendation."

§ 9. Amends section *sixty-seven* of the *South Africa Act* by providing for the deletion of the words "or having been reserved for the King's pleasure shall have received his assent."

§ 11. Repeals sections *eight* and *sixty-six* of the *South Africa Act*, and provides for the repeal of section *sixty-five* as from a date to be fixed by the Governor-General by proclamation in the *Gazette*. (A proclamation repealing the section was made on the 2nd November, 1934.)

The *Royal Executive Functions and Seals Act*, No. 70 of 1934, passed during the same session of Parliament and described as being "to provide for the King's Acts as Head of the Executive of the Union, the use of Royal seals in connection therewith and the vesting of certain functions in Union officials and bodies," although not amending the *South Africa Act*, must be read in conjunction with Act No. 69 as amplifying and bearing upon the expansion of the constitutional position.

SYNOPSIS OF THE PRINCIPAL CLAUSES OF THE SOUTH AFRICA ACT, 1909, AND AMENDMENTS.

[Sections marked with an asterisk * are referred to in the table of amending, modifying, or definitive legislation given below.]

PART I—PRELIMINARY (SECTIONS 1 TO 3).

*§ 1. Acknowledgment of Sovereignty and Guidance of Almighty God.

PART II—THE UNION (SECTIONS 4 TO 7).

*§ 4. The Colonies of the Cape of Good Hope, Natal, the Transvaal, and the Orange River Colony are to be united by Royal Proclamation into a legislative union. The Government and Parliament are to have full power within the limits of the Colonies, but the King is to appoint a Governor-General.

PART III—EXECUTIVE GOVERNMENT (SECTIONS 8 TO 18).

§§ 9-11. A Governor-General appointed by the King represents His Majesty in the Union, and exercises, subject to this Act, such powers and functions as His Majesty is pleased to assign to him. The salary of the Governor-General is fixed at £10,000, payable out of the Consolidated Revenue Fund of the Union, and is not to be altered during his continuance in office. The provisions of the Act are to apply to any person appointed as deputy to the Governor-General during his temporary absence.

*§ 14. Ministers of State, not exceeding ten† in number, are to be appointed to administer such departments of State as are established by the Governor-General-in-Council. They are to be members of the Executive Council, and after the first general election of members of the House of Assembly, no Minister is to hold office for more than three months unless he becomes a member of either House of Parliament.

*§ 15. The appointment and removal of all officers of the public service is vested in the Governor-General-in-Council unless delegated to some other authority.

§ 16. All powers and functions vested in the Governor or other authority of a Colony at the date of the establishment of the Union are to be vested in the Governor-General, the Governor-General-in-Council, or in the authority exercising similar powers under the Union.

§ 18. Save as in section 23 excepted, Pretoria is to be the seat of Government of the Union.

PART IV—PARLIAMENT (SECTIONS 19 TO 23).

§ 19. The legislative power of the Union is vested in the Parliament, consisting of the King, a Senate, and a House of Assembly.

§ 22. A period of twelve months may not intervene between the last sitting of Parliament in one session and its first sitting in the next session.

§ 23. Capetown is to be the seat of the Legislature of the Union.

SENATE (SECTIONS 24 TO 31).

*§ 24. For the ten years after the establishment of the Union eight senators are to be nominated by the Governor-General-in-Council, one half of their number being selected mainly on the grounds of their thorough acquaintance with the reasonable wants and wishes of the coloured races in South Africa. Each original province is to elect eight senators. The senators hold their seats for ten years.‡

*§ 25. Parliament may provide for the constitution of the Senate after the expiration of the ten years, and unless and until such provision has been made, the Senate is to consist of the nominated members together with eight senators for each province elected in the prescribed manner and holding office for ten years unless the Senate be sooner dissolved.

*§ 26. The qualifications of a senator are as follows:—
He must—

(*a*) be not less than thirty years of age;
(*b*) be qualified to be registered as a voter for the election of members of the House of Assembly in one of the provinces;
(*c*) have resided for five years within the limits of the Union as existing at the time when he is elected or nominated;
(*d*) be a British subject of European descent;‖
(*e*) in the case of an elected senator, be the registered owner of immovable property within the Union of the value of not less than £500 over and above any special mortgages thereon.

§ 30. The presence of at least twelve senators is necessary to constitute a meeting of the Senate for the exercise of its powers.

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† Increased to eleven by Act No. 34 of 1925, and to twelve by Act No. 13 of 1938.
‡ Amended by Act No. 54 of 1926.
‖ Amended by Act No. 69 of 1934.

HOUSE OF ASSEMBLY (SECTIONS 32 TO 50).

§§ 32–33. ¶ The House of Assembly is composed of members chosen by the voters of the Union in electoral divisions. The number in any original province may not be diminished until the total number of members of the House of Assembly reaches 150, or until a period of ten years has elapsed.†

*§ 34. Provision is made for the increase, from time to time, of the number of members to be elected in each province.†

*§ 35. Parliament may prescribe the qualifications necessary to entitle persons to vote. No voter registered in the Province of the Cape of Good Hope may be disqualified by reason of his race and colour only except by a Bill passed by a joint sitting of both Houses of Parliament, and at the third reading be agreed to by not less than two-thirds of the total members of both Houses.‡

*§ 36. The qualifications of voters for the election of members of the House of Assembly are the same as existed in the several Colonies at the establishment of the Union.‖

*§ 37. The laws relating to elections in force in the Colonies at the establishment of the Union apply to the election of members of the House of Assembly. All polls are to be taken on the same day throughout the Union.

§§ 38–40. ¶ Provision is made for the setting up of an Electoral Delimitation Commission, and the duties of the Commissioners are defined.

*§§ 41-43. A similar commission is to be appointed after each quinquennial census.

*§ 44. The qualifications of a member of the House of Assembly are as follows:—

He must—

(*a*) be qualified to be registered as a voter for the election of members of the House of Assembly in one of the provinces;

(*b*) have resided for five years within the limits of the Union as existing at the time when he is elected;

(*c*) be a British subject of European descent.**

§ 45. No House of Assembly is to continue for a period longer than five years from the first meeting thereof.

§ 49. The presence of at least 30 members is necessary to constitute a meeting of the House.

BOTH HOUSES OF PARLIAMENT (SECTIONS 51 TO 58).

*§ 51. Every senator and every member of the House of Assembly is required to take an oath or affirmation of allegiance in a form prescribed.**

§ 52. A member of one House of Parliament is incapable of sitting as a member of the other House. Every Minister of State has the right to sit and speak in both Houses but may vote only in the House of which he is a member.

*§§ 53-54. The disqualifications for sitting as a senator or member of the House of Assembly are enumerated.

§ 55. Provides a penalty for any person, not a member, who sits or votes in the Senate or House of Assembly.

*§ 56. Provision is made for an annual allowance to each senator and each member of the House of Assembly.

POWERS OF PARLIAMENT (SECTIONS 59 TO 67).

*§ 59. Parliament has full power to make laws for the peace, order, and good government of the Union.

§§ 60–62. Bills appropriating revenue or imposing taxation must originate in the House of Assembly. The Senate may not amend such Bills nor may it amend any Bills so as to increase any proposed charges or burden on the people. The appropriation of any part of the public revenue must be recommended by message from the Governor-General before it may be originated or passed as a vote, resolution, address, or bill.

§ 63. Provision is made for the joint sitting of the members of the Senate and the House of Assembly in the event of both Houses not agreeing to amendments of a Bill after other prescribed expedients have failed.

† For number of members see § 4 (4) and § 10 (2) of this chapter.
‡ Amended by Act No. 12 of 1936.
‖ Amended by Acts No. 18 of 1930 and No. 41 of 1931.
¶ See § 10, paras. 2 and 3 *seq.*
** Amended by Act No. 69 of 1934.

*§ 64. The Governor-General may assent to, or withhold assent from, a Bill in the King's name, or may reserve the Bill for the signification of the King's pleasure. Bills repealing or amending this section or any of sections 32 to 50, and Bills abolishing provincial councils or abridging their powers, must be so reserved.†

*§ 65. The King may disallow any law within one year after it has been assented to by the Governor-General.

*§ 66. A Bill reserved for the King's pleasure has no force until it has received the King's assent and the fact has been proclaimed within one year from its presentation to the Governor-General.†

*§ 67. Two copies of every law, one in English and one in Dutch ‡ (one to be signed by the Governor-General†), are to be enrolled of record in the office of the Registrar of the Appellate Division of the Supreme Court of South Africa. In case of conflict between the two copies, that signed by the Governor-General shall prevail.

PART V—THE PROVINCES.

ADMINISTRATORS (SECTIONS 68 TO 69).

§§ 68–69. Provision is made for the appointment of an administrator in each province, who holds office for a term of five years. The salaries of the administrators are fixed and provided by Parliament, and may not be reduced during their respective terms of office.

PROVINCIAL COUNCILS (SECTIONS 70 TO 77).

§ 70. In each province there is a provincial council consisting of the same number of members as are elected in the province for the House of Assembly; but in no case is the membership to be less than twenty-five.

§ 72. A member of the provincial council ceases to be a member on being elected to either House of Parliament.

*§ 73. Each provincial council continues for three years from the date of its first sitting.‖

EXECUTIVE COMMITTEES (SECTIONS 78 TO 84).

§ 78. An executive committee of four persons, not necessarily members of the council, together with the administrator as chairman, is elected by the provincial council at its first meeting after each general election.

§ 79. Members of the executive committee who are not members of the provincial council may take part in the proceedings of the council but may not vote.

§ 80. The administration of affairs on behalf of the provincial council is carried on by the executive committee, or, when there are not sufficient members to form a quorum, by the administrator pending the election of members to fill the vacancies.

§ 84. The administrator may, and, when required to do so, must act on behalf of the Governor-General-in-Council in regard to all matters in respect of which no powers are reserved or delegated to the provincial council.

POWERS OF PROVINCIAL COUNCILS (SECTIONS 85 TO 91).

*§ 85. The provincial council may make ordinances in relation to certain specified matters. (See § 6 of this chapter.)

§ 86. Any ordinance made by a provincial council has effect in and for the province as long and as far only as it is not repugnant to any Act of Parliament.

§ 87. A provincial council may recommend to Parliament the passing of any law relating to any matter in respect of which it is not competent to make ordinances.

§ 89. Provides for the formation of a provincial revenue fund in each province and for its appropriation by ordinance for the provincial administration generally or for particular purposes, on the recommendation of the administrator.

§ 90. The Governor-General-in-Council may assent to, or withhold his assent from, a proposed ordinance passed by the provincial council, or may reserve it for further consideration.

† Amended by Act No. 69 of 1934. ‡ Or Afrikaans, *vide* Act No. 8 of 1925.
‖ Now five years, *vide* § 2, Act No. 43 of 1935.

PART VI—THE SUPREME COURT OF SOUTH AFRICA (SECTIONS 95 TO 116).

*§ 95. The Supreme Court of South Africa is to consist of a Chief Justice of South Africa, the ordinary judges of appeal, and the other judges of the several divisions of the Supreme Court of South Africa in the provinces.

*§ 96. The Appellate Division of the Supreme Court of South Africa is to consist of the Chief Justice, two ordinary judges of appeal, and two additional judges of appeal assigned from any of the provincial or local divisions of the Supreme Court.

*§ 98. The several supreme courts of the four Colonies at the establishment of Union are to become provincial divisions of the Supreme Court of South Africa, each presided over by a judge president. The court of the Eastern Districts of the Cape of Good Hope, the High Court of Griqualand, the High Court of Witwatersrand, and the several circuit courts are to become local divisions of the Supreme Court. Provision is made for the jurisdiction of the provincial and local divisions.

*§§ 103–105. Provision is made for appeals in civil and criminal cases.

*§ 106. There is no appeal from the Supreme Court of South Africa to the King-in-Council, but the King-in-Council retains the right to grant special leave to lodge such an appeal.

PART VII—FINANCE AND RAILWAYS (SECTIONS 117 TO 133).

*§ 117. All revenues are vested in the Governor-General-in-Council. Provision is made for the formation of a Railways and Harbours Fund and a Consolidated Revenue Fund.

§ 119. The annual interest of the public debts of the Colonies and any sinking funds constituted by law at the establishment of the Union form a first charge on the Consolidated Revenue Fund.

*§ 120. Money is to be withdrawn from the Consolidated Revenue Fund and from the Railways and Harbours Fund only under appropriation made by law; but expenditure may be incurred from the funds until the expiration of two months after the first meeting of Parliament.

§ 121. All stocks, cash, bankers' balances, and securities for money belonging to each of the Colonies at the establishment of the Union are to be the property of the Union.

*§ 124. The Union is to assume all debts and liabilities of the Colonies existing at its establishment, under certain conditions.

§ 125. No railways and harbours are to be constructed without the sanction of Parliament.

*§ 126. Provides for the control and management of the railways, ports, and harbours of the Union by a board consisting of not more than three commissioners and a minister of State as chairman.

§ 127. The railways, ports, and harbours are to be administered on business principles. The total earnings are not to be more than sufficient to meet the necessary outlay on working, etc., and the payment of interest due on capital.

*§ 128. Provides for the establishment out of railway and harbour revenue of a fund to be used for maintaining uniformity of rates notwithstanding fluctuations in traffic.

*§ 129. All balances standing to the credit of any fund established in any of the Colonies for railway or harbour purposes at the establishment of the Union are to be under sole control of the Board.

*§ 130. Every proposal for construction is to be considered by the Board. The Board is to frame an estimate of the annual loss which in its opinion will result from construction carried out contrary to its advice. The amount of such estimate, when approved by the Controller and Auditor-General, is to be paid annually to the Railways and Harbours Fund from the Consolidated Revenue Fund. If in any year the actual loss incurred is less than the estimate, the amount paid over is to be reduced accordingly.

§ 131. Provides for compensation for any loss incurred by the Board for provision of services gratuitously or at an insufficient rate of charge.

*§ 132. Provides for the appointment of a Controller and Auditor-General by the Governor-General-in-Council, the office to be held during good behaviour.

*§ 133. Provides for compensation of Colonial capitals for diminution of prosperity or decreased rateable value by reason of their having ceased to be seats of government.

PART VIII—GENERAL (SECTIONS 134 TO 148).

§ 134. Provides for the election of senators and of members of the executive committees of the provincial councils according to the principle of proportional representation.

§ 136. Provision is made for free trade throughout the Union.

*§ 137. Both English and Dutch† are the official languages of the Union.

*§ 142. Provides for the appointment of a permanent public service commission with powers relating to the appointment, discipline, retirement, and superannuation of public officers.

§ 144. Any officer of the public service of any of the Colonies who is retained in the service of the Union is to retain all his existing and accruing rights and pension privileges.

§ 145. The services of officers in the public service of any of the Colonies are not to be dispensed with by reason of their want of knowledge of either the English or the Dutch† language.

§ 147. The control and administration of native affairs and matters specially affecting Asiatics is to vest in the Governor-General-in-Council.

§ 148. All rights and obligations under any conventions or agreements which are binding on any of the Colonies are to devolve upon the Union. The provisions of the railway agreement between the Governments of the Transvaal, the Cape of Good Hope, and Natal are to be given effect to by the Government of the Union.

PART IX—NEW PROVINCES AND TERRITORIES (SECTIONS 149 TO 151).

*§ 149. Provision is made for the alteration of boundaries and the formation of new provinces.

§§ 150–151. Provide for the admission into the Union of territories administered by the British South Africa Company, and territories belonging to or under the protection of His Majesty, inhabited wholly or in part by natives, upon the terms embodied in the schedule to the Act.

PART X—AMENDMENT OF THE ACT (SECTION 152).

§ 152. Provides for the amendment of the Act and the procedure to be followed in the repeal or alteration of §§ 33, 34, 35, and 137.

*§ 153. The Act is to be known as the "South Africa Act, 1909."

SOUTH AFRICA ACT, 1909—SCHEDULE OF AMENDING, MODIFYING OR DEFINITIVE LEGISLATION TO 1938.

Section of *South Africa Act.*	Amended, Defined, or Amplified by.	Extent of Amendment, etc.
1. Title	Act No. 9 of 1925	Title transferred to new section, 153, and acknowledgment of sovereignty and guidance of Almighty God substituted in Section 1 therefor.
2. Definitions	§ 5 of Act No. 69 of 1934	By the insertion of a definition of "heirs and successors".
4. Proclamation of Union	Acts No. 49 of 1919, § 2, No. 32 of 1921, No. 42 of 1925	As to the territory of South West Africa.
7. Application of Imperial Statutes	§ 2, Statute of Westminster, 1931	Non-applicability of Colonial Laws Validity Act, 1865, and other Imperial Acts.
8. Executive power	§ 11 of Act No. 69 of 1934	Repealed.
14. Appointment of Ministers of State	Act No. 34 of 1925	Increasing number of Ministers of State from *ten* to *eleven*.
	Act No. 17 of 1933	Appointment of any Member of Executive Committee as Acting Minister of State.
	Act No. 13 of 1938	Increasing number of Ministers of State from *eleven* to *twelve*.
15. Appointment and removal of officers	§ 9, Act No. 27 of 1923	As to appointment of officers in the public service.
	§ 19, Act No. 27 of 1923	As to the removal of such officers.
20, 24, and 25. Original constitution of Senate	§ 1, Act No. 9 of 1920	As to the ending of the period of ten years.
	Act No. 54 of 1926	As to the dissolution of the Senate.

† Including Afrikaans, *vide* Act No. 8 of 1925.

SOUTH AFRICA ACT, 1909—SCHEDULE OF AMENDING, MODIFYING, OR DEFINITIVE LEGISLATION TO 1938—*continued.*

Section of *South Africa Act.*	Amended, Defined, or Amplified by.	Extent of Amendment, etc.
26. Qualifications of senators....	§ 4 (2), Act No. 18 of 1930	As to women married in community of property.
	§ 6, Act No. 69 of 1934....	Substitution "Union National" for "British Subject".
34. Increase of number of members of the House of Assembly	Act No. 2 of 1910.....	As to the taking of a census for the purposes of delimitation of electoral divisions.
	Act No. 15 of 1918.....	As to the taking of a census in May, 1918, to be regarded as the quinquennial census; the next census to be taken in 1921.
	Act No. 31 of 1918.....	As to the inclusion, for the purposes of the parliamentary delimitation based on the census of 1918, of European male adults absent from the Union on war service.
	Act No. 5 of 1935.....	As to the continuation of the quinquennial census until 1941, and thereafter a census every ten years.
	§ 1, Act No. 21 of 1937 ..	As to the continuation of the quinquennial census until 1951 and thereafter a census every ten years. For the purposes of the parliamentary delimitation "European Union nationals 21 years or over" substituted for "European male adults," and the quota of the Union is to be determined by dividing the number of European Union nationals of 21 years and over, as ascertained at the 1936 and subsequent Censuses, by 150.
35. Qualifications of voters.....	§ 44 of Act No. 12 of 1936	As to procedure for legislation dealing with native voters.
36. Application of existing qualifications of voters	Act No. 18 of 1930.....	As to enfranchisement of white women.
	Act No. 41 of 1931.....	As to enfranchisement of white males of 21 years and over.
37. Elections.....	Acts No. 12 of 1918, No. 11 of 1926, No. 23 of 1926, No. 24 of 1928, and No. 35 of 1931	As to the registration of voters and the conduct of elections for the House of Assembly.
41 and 42. Delimitation of electoral divisions	§ 3, Act No. 18 of 1930..	Female voters not to be taken into account in re-division of any province into electoral divisions.
	Act No. 5 of 1935.....	The words "census referred to in paragraph (ii) of section *thirty-four*" substituted for "quinquennial census."
	§ 2, Act No. 21 of 1937....	By § 3 of Act No. 18 of 1930 female voters were not taken into account in the redivision of any province into electoral divisions. This section now repealed.
44. Qualifications of a member of the House of Assembly	§ 6 of Act No. 69 of 1934	By substituting "Union national" for "British subject".
48. Resignation of members.....	§ 49, Act No. 11 of 1926..	New provisions substituted.
51. Oath or affirmation of allegiance	§ 7 of Act No. 69 of 1934	By omission of the words "of the United Kingdom of Great Britain and Ireland".
53. Disqualifications for being a member of either House	Act No. 10 of 1915.....	As to removal of certain disabilities from members of Parliament or other persons who assisted in naval or military operations.
	§ 1, Act No. 23 of 1920...	As to members of the Native Affairs Commission.
	Act No. 17 of 1933.....	Certain Justices of the Peace not disqualified.
56. Allowances of members.....	Act No. 51 of 1926 as amended by § 2, Act No. 29 of 1933, and by § 1 of Act No. 43 of 1935	As to method of payment of allowances of members of House of Assembly and Senate and exemptions from deductions.
	§§ 4 and 11, Act No. 21 of 1932	Temporary reduction of allowances and temporary amendment of law.
57. Privileges of House of Parliament	Act No. 19 of 1911.....	Defining the powers and privileges of Parliament.
59. Powers of Parliament.....	§ 3, Statute of Westminster	Power to legislate extra-territorially.
64. Royal assent to Bill.....	§ 8 of Act No. 69 of 1934	By omission of the provision for the reservation of Bills for the signification of the King's pleasure.
65. Disallowance of Bills..... 66. Reservation of Bills.....	§ 11 of Act No. 69 of 1934	Repealed.

SOUTH AFRICA ACT, 1909—SCHEDULE OF AMENDING, MODIFYING, OR DEFINITIVE LEGISLATION TO 1938—*continued.*

Section of *South Africa Act.*	Amended, Defined, or Amplified by.	Extent of Amendment, etc.
67. Signature and enrolment of Acts	§ 9 of Act No. 69 of 1934	By omission of the reference to the reservation of laws for the King's pleasure.
67. Signature of Acts in English or Dutch	Act No. 8 of 1925.....	Dutch includes Afrikaans.
71. Delimitation of provincial electoral divisions	§ 3, Act No. 18 of 1930...	Female voters not to be taken into account.
	§ 2, Act No. 21 of 1937....	By § 3 of Act No. 18 of 1930 female voters were not to be taken into account. This section now repealed.
73. Tenure of office by provincial councils	§ 2 of Act No. 43 of 1935..	Life of future provincial councils extended to five years.
85. Powers of provincial councils	Acts Nos. 10 of 1913, 9 of 1917, 6 of 1920, § 2 of 40 of 1920, 5 of 1921, 5 of 1922, 46 of 1925, 31 of 1926, and 50 of 1935	As to further powers conferred on provincial councils.
	§§ 11, 12 of Act No. 5 of 1922	As to higher education and the appropriation of provincial funds to certain educational purposes.
	Act No. 1 of 1926.....	To declare the legislative powers of provincial councils in relation to local government institutions.
	§ 3, Act No. 56 of 1926...	As to national parks.
	Act No. 39 of 1927 and § 3 of Act No. 50 of 1935	As to limitation of tax on persons and incomes of persons and restriction of penalty for delay in payment of tax on incomes of persons.
	Act No. 30 of 1928.....	As to restriction of powers of provincial councils through repeal of § 13 of Act No. 5 of 1922.
	Act No. 29 of 1928 and Act No. 34 of 1935	As to vocational education and special schools.
	Act No. 27 of 1933.....	Removal of doubts as to power of provincial councils to impose certain taxation.
	§ 7 of Act No. 50 of 1935..	As to limitation of powers of provincial councils in respect of pension schemes.
	§ 13 (*d*) of Act No. 21 of 1935	As to powers of a provincial council to legislate in respect of sea-shore.
88. Power to deal with matters proper to be dealt with by private Bill legislation	Act No. 20 of 1912.....	As to private Bill procedure.
91. Signature of ordinances in English or Dutch	Act No. 8 of 1925.....	Dutch includes Afrikaans.
Part VI, Supreme Court, 95 to 116	§§ 2 and 3, Act No. 11, 1927	Quorum of three judges of Appellate Division for the hearing and determination of certain criminal and other cases, and substitution of jury trials in civil cases in Cape and Natal.
95. Constitution of the Supreme Court 96. Appellate division of the Supreme Court 97. Filling of temporary vacancies in appellate division 100. Appointment and remuneration of judges	Act No. 12 of 1920 and Act No. 30 of 1934	As to the reconstitution of the appellate division to consist of the Chief Justice and four Judges of Appeal.
103. Appeals to appellate division	§ 5, Act No. 1 of 1911....	As to appeals by consent of parties.
	§ 1, Act No. 1 of 1911....	As to appeals from the Native High Court of Natal
	§ 3, Act No. 12 of 1920 and § 108, Act No. 46 of 1935	As to appeals from the High Court of South West Africa.
	§§ 368–372, Act No. 31 of 1917, and Act No. 11 of 1927	As to procedure in appeals from Supreme Courts and special reference of a point of law in such cases.
	§ 7 (2), Act No. 18 of 1931..	Deletion of the words "or from the High Court of Southern Rhodesia."
	§§ 73 and 104 of Act No. 46 of 1935 substituting new section 388 of Act No. 31 of 1917	Minister may invoke appellate division's decision on doubtful point of law in any criminal case for future guidance.
	§ 95 of Act No. 46 of 1935 inserting new sections after section 100 in Act No. 32 of 1917	As to appeal by prosecutor to appellate division.

SOUTH AFRICA ACT, 1909—SCHEDULE OF AMENDING, MODIFYING, OR DEFINITIVE LEGISLATION TO 1938—*continued.*

Section of *South Africa Act.*	Amended, Defined, or Amplified by.	Extent of Amendment, etc.
105. Appeals from inferior courts to provincial divisions	§ 105, Act No. 46 of 1935..	As to leave to appeal to the appellate division and the fixing of security.
107. Rules of procedure in appellate division	Act No. 12 of 1920.....	Deletion of the word "Ordinary."
109. Place of sitting of appellate division	§ 16, Act No. 27 of 1912..	As to the hearing of an appeal elsewhere than at Bloemfontein.
110. Hearing of appeals.....	§ 1, Act No. 11 of 1927...	Repeal of entire section and substitution of a new section.
112. Execution of processes of provincial divisions	§ 5 (1), Act No. 24 of 1922	As to the High Court of South West Africa, which is to be regarded as a division of the Supreme Court.
113. Transfer of suits from one provincial or local division to another	§ 14, Act No. 27 of 1912...	As to the removal of civil proceedings.
	§§ 141, 142, Act No. 31 of 1917	As to the removal of criminal proceedings.
	§ 8, Act No. 24 of 1922...	As to the removal of civil or criminal proceedings from the High Court of South West Africa.
115. Advocates and attorneys....	Act No. 23 of 1934.....	As to the common qualifications required for the admission of attorneys in the Union and the right to be enrolled in any division of the Supreme Court.
117. Constitution of Consolidated Revenue Fund and Railways and Harbours Fund	§ 4, Act No. 33 of 1922...	As to the Defence Endowment Fund.
	§ 2 (3), Act No. 20 of 1922	As to South West Africa.
118. Commission of inquiry into financial relations between Union and provinces	Acts Nos. 10 of 1913, 9 of 1917, 6 of 1920, 5 of 1921, 5 of 1922, 21 of 1924, 46 of 1925, and 31 of 1926	As to the financial relations between the Union and the provinces.
120. Requirements for withdrawal of money from funds	§ 2 (3), Act No. 20 of 1922	As to railways in South West Africa.
124. Assumption of debts and liabilities of former Colonies	Act No. 50 of 1926.....	As to provision of a General Sinking Fund.
126. Constitution of Railways and Harbours Board	Act No. 13 of 1915.....	As to period of office of the first members of the Railway Board.
	Act No. 17 of 1916.....	As to the functions of the Board.
128. Establishment of fund for maintaining uniformity of railway rates	§ 3 (1), Act No. 17 of 1916	As to the duty of the Railway Board with regard to funds.
129. Management of Railways and Harbours balances		
130. Construction of harbour and railway works	§ 3 (2), Act No. 17 of 1916	As to details required in report.
	Act No. 20 of 1922.....	As to South West Africa.
132. Controller and Auditor-General	§ 1, Act No. 21 of 1911...	Section repealed.
133. Compensation of Colonial capitals for diminution of prosperity	§ 6, Act No. 50 of 1935...	Natal Provincial Council may continue to compensate Pietermaritzburg.
137. Official languages.....	Act No. 8 of 1925.....	The term "Dutch" to read as including "Afrikaans".
139. Administration of Justice...	§ 2, Act No. 14 of 1914...	As to the *curator ad litem* of lunatics, the Attorney-General being substituted for the Minister.
	§§ 14 and 88, Act No. 38 of 1916	
	§ 13, Act No. 27 of 1912..	As to the abolition of the office of the Crown Prosecutor of Griqualand West.
	§ 1, Act No. 39 of 1926...	All words after the word "Colonies" deleted.
142. Public Service Commission..	§ 2, Act No. 29 of 1912 as amended by § 3, Act No. 39 of 1914	Appointment, powers, and duties of the Commission.
	§§ 2, 3, 4, 5, 6, 7, and 8 of Act No. 27 of 1923	
149. Alteration of boundaries of provinces	Act No. 45 of 1934.....	Restricting power of Parliament in respect of alteration of boundaries of any province or abolition of or abridgment of powers of any provincial council unless on petition by provincial council concerned.

§ 3. Central Administration.

1. **General.**—Under the *South Africa Act*, the supreme executive authority in the Union is vested in the King, and may be administered by him in person, or by the Governor-General as his representative. There is an Executive Council to advise the Governor-General. The term Governor-General-in-Council is understood as referring to the Governor-General acting with the advice of the Executive Council, the members of which are chosen by him and hold office during his pleasure. These at present are the Ministers charged with the administration of the Departments of State (who may not exceed twelve in number) and the Minister without portfolio. They are appointed by the Governor-General; but the mode of the selection of Ministers and the formation of a ministry conforms to the practice under the British Constitution, as does also the method of government by a cabinet possessing the confidence of a majority in Parliament.

2. **The Governor-General.**—The Governor-General (section 9 of the *South Africa Act*) is appointed by and represents the King, and is also Commander-in-Chief of the naval and military forces within the Union. The salary, to be paid out of the Consolidated Revenue Fund of the Union, is fixed (section 10 of the *South Africa Act*) at £10,000 annually.

3. **The Royal Great Seal.**—Shortly after the inception of Union, provision was made for the sealing of public documents, signed by the Governor-General, with a Great Seal of the Union (see Royal Warrants published under Government Notices No. 422 of 1911 and No. 1011 of 1932), but prior to the enactment by the Union Parliament of the *Royal Executive Functions and Seals Act*, 1934, which was assented to by His Majesty on the 22nd June, 1934, and came into operation on the 3rd December of that year, there was no provision in the Union legislation for the sealing of public documents of the Union which bear the King's sign manual. Section 1 of that Act lays down that:—

(1) There shall be a Royal Great Seal of the Union hereinafter referred to as the Great Seal, which shall show on the obverse the effigy of the Sovereign, with his full titles as circumscription and on the reverse the coat of arms of the Union with supporters and the inscription "Unie van Suid-Afrika" and "Union of South Africa."

(2) There shall be a Royal Signet (hereinafter referred to as the Signet) showing the reverse of the Great Seal with the Tudor Crown for crest and the King's full title in Latin on the outer rim and the words "Unie van Suid-Afrika—Union of South Africa" on the inner rim.

(3) The Great Seal and Signet shall be of a design and size approved of by the King and the Great Seal shall show the effigy of the Sovereign in such manner and of such design as His Majesty may be pleased to approve.

The use of the Royal Seals is prescribed in section 4, which, after providing that the King's will and pleasure as Head of the Executive Government of the Union shall be expressed in writing under his sign manual, and that every such instrument shall be countersigned by one of the King's Ministers for the Union, continues:—

"The King's sign manual shall furthermore be confirmed by the Great Seal on all royal proclamations and he may, by proclamation, prescribe which other public instruments, bearing his sign manual, shall pass either the Great Seal or the Signet."

His Majesty the King by Proclamation (No. 5 of 1935, *Government Gazette* of 11th January, 1935) prescribed the particular public instruments which are required to pass either the Royal Great Seal or the Royal Signet: these are:—

(*a*) *the Royal Great Seal of the Union:*—
Instruments conferring full powers to negotiate on behalf of the Union treaties between Heads of States.
Instruments of ratification in respect of treaties between Heads of States. Letters Patent.

(*b*) *the Royal Signet of the Union:*—
Commissions issued to the Governor-General or Acting Governor-General of the Union.
Commissions issued to Union Diplomatic Agents.
Instruments regulating the Institution and Conferment of Honours, Orders, Decorations, Medals, and Coats of Arms.
Instructions to Governor-General.
Exequaturs to foreign Consular Officers.
Commissions to Union Consular Officers.

In terms of section 5 of the Act the Governor-General issued regulations (see *Government Gazette* of 30th November, 1934) for the making and use of wafer seals representing the Royal Great Seal.

4. **Ministries of the Union:—**

Ministry.	Prime Minister.	Date of Formation.
First Botha Ministry	Right Hon. Louis Botha, P.C.	31st May, 1910.
Second Botha Ministry	Right Hon. Louis Botha, P.C.	20th Dec., 1912.
Smuts Ministry	Right Hon. J. C. Smuts, P.C., C.H., K.C.	3rd Sept., 1919.
" (reconstituted)	Right Hon. J. C. Smuts, P.C., C.H., K.C.	10th March, 1921.
First Hertzog Ministry	The Hon. J. B. M. Hertzog	30th June, 1924.
Second Hertzog Ministry	The Hon. J. B. M. Hertzog	6th Nov., 1928.
Third Hertzog Ministry	The Hon. J. B. M. Hertzog	30th March, 1933.

The names of Ministers who held office in these Ministries are given in para. 5 below.

THIRD HERTZOG MINISTRY (AS CONSTITUTED AT 1st FEBRUARY, 1939).

Department.	*Minister.*
Prime Minister and Minister of External Affairs	Gen. the Hon. J. B. M. Hertzog.
Justice	Gen. the Rt. Hon. J. C. Smuts, P.C., C.H., K.C., D.T.D.
Finance	Hon. N. C. Havenga.
Mines	Col. the Hon. Deneys Reitz.
Commerce and Industries and Defence	Hon. O. Pirow, K.C.
Railways and Harbours	Senator the Hon. A. P. J. Fourie.
Lands	Gen. the Hon. J. C. G. Kemp.
Interior and Public Health	Hon. R. Stuttaford.
Posts and Telegraphs and Public Works	Senator the Hon. C. F. Clarkson.
Native Affairs, Education, and Social Welfare	Hon. H. A. Fagan, K.C.
Agriculture and Forestry	Col. the Hon. W. R. Collins.
Labour	Hon. H. G. Lawrence, K.C.
Without Portfolio	Hon. R. H. Henderson.

5. **Departments of State and Ministers.**—The subjoined table gives each department of State which has been constituted from 1910, with the names of each Minister of such department and the date of assumption of office. The number of Ministers in charge of departments of State must not exceed twelve (section 14 of the *South Africa Act* as amended):—

DEPARTMENTS OF STATE IN THE UNION AND MINISTERS FROM 31st MAY, 1910.

Department and Minister.	Date of Assumption of Office.
Prime Minister—	
General the Right Hon. Louis Botha, P.C.	31. 5.10
General the Right Hon. J. C. Smuts, P.C., C.H., K.C.	3. 9.19
General the Hon. J. B. M. Hertzog	30. 6.24
Agriculture—	
General the Right Hon. Louis Botha, P.C.	31. 5.10
Hon. J. W. Sauer	25. 6.12
General the Right Hon. Louis Botha, P.C.	20.12.12
Hon. H. C. van Heerden	23. 9.13
Hon. F. S. Malan	19. 3.20
Right Hon. Sir Thomas Smartt, P.C., K.C.M.G.	10. 3.21
General the Hon. J. C. G. Kemp	30. 6.24
†*Agriculture and Forestry—*	
Col. the Hon. Deneys Reitz	7. 1.35
Col. the Hon. W. R. Collins	8.11.38
**Commerce and Industries—*	
Right Hon. Sir F. R. Moor, P.C., K.C.M.G.	31. 5.10
Col. the Hon. G. Leuchars, C.M.G., D.S.O.	23. 2.11
The Hon. A. P. J. Fourie	1. 5.33
Hon. O. Pirow, K.C.	8.11.38
Defence—	
General the Hon. J. C. Smuts, K.C.	31. 5.10
Colonel the Hon. H. Mentz	19. 3.20
Colonel the Hon. F. H. P. Creswell	30. 6.24
Hon. O. Pirow, K.C.	30. 3.33
Education—	
Hon. F. S. Malan	31. 5.10
Hon. Patrick Duncan, C.M.G.	10. 3.21
Hon. Dr. D. F. Malan	30. 6.24
Hon. J. H. Hofmeyr	30. 3.33
Hon. H. A. Fagan, K.C.	26. 9.38
‡ *External Affairs—*	
General the Hon. J. B. M. Hertzog	1. 6.27
Finance—	
Hon. H. C. Hull	31. 5.10
General the Hon. J. C. Smuts, K.C.	13. 6.12
Hon. H. Burton, K.C.	23. 9.13
Hon. Sir David P. de Villiers Graaff, Bart.	24. 2.15
Hon. H. Burton, K.C.	1. 2.16
Hon. Thomas Orr, C.M.G.	4.10.17
Hon. H. Burton, K.C.	19. 3.20
Hon. N. C. Havenga	20. 6.24
Interior—	
General the Hon. J. C. Smuts, K.C.	21. 5.10
Right Hon. A. Fischer, P.C.	25. 6.12
Hon. Sir. Thomas Watt, K.C.M.G.	1. 2.16
Hon. Patrick Duncan, C.M.G.	10. 3.21
Hon. Dr. D. F. Malan	30. 6.24
Hon. J. H. Hofmeyr	30. 3.33
Hon. R. Stuttaford	4.12.36
Justice—	
General the Hon. J. B. M. Hertzog	31. 5.10
Hon. J. W. Sauer	20.12.12
Hon. N. J. de Wet, K.C.	23. 9.13
Hon. T. J. Roos, K.C.	30. 6.24
Hon. O. Pirow, K.C.	19. 6.29
Gen. the Rt. Hon. J. C. Smuts, P.C., C.H., K.C., D.T.D.	30. 3.33
§ *Labour—*	
Col. the Hon. F. H. P. Creswell	30. 6.24
Hon. T. Boydell	12.11.25
Col. the Hon. F. H. P. Creswell	19. 6.29
Hon. A. P. J. Fourie	30. 3.33
Hon. J. H. Hofmeyr	4.12.36
Hon. H. G. Lawrence, K.C.	20. 7.38
Lands—	
Right Hon. A. Fischer, P.C.	31. 5.10
Hon. H. S. Theron	23. 9.13
Colonel the Hon. H. Mentz	1. 2.16
Colonel the Hon. Deneys Reitz	10. 3.21
Hon. P. G. W. Grobler	30. 6.24
Col. the Hon. Deneys Reitz	30. 3.33
Gen. the Hon. J. C. G. Kemp	7. 1.35

* Portfolio abolished in 1912 and combined with Mines and Industries. Re-established in 1933.
† Formerly Agriculture. Title amended on 1st October, 1934.
‡ Constituted 1st June, 1927.
§ Formerly Labour and Social Welfare. Title amended on 1st October, 1937.

DEPARTMENTS OF STATE IN THE UNION AND MINISTERS FROM 31st MAY, 1910—*continued.*

Department and Minister.	Date of Assumption of Office.
Mines (1910-1912)—	
General the Hon. J. C. Smuts, K.C.	31. 5.10
Hon. F. S. Malan	1. 2.12
Mines and Industries (1912-1933)—	
Hon. F. S. Malan	20.12.12
Hon. F. W. Beyers, K.C.	30. 6.24
Hon. A. P. J. Fourie	30. 8.29
Mines (1933)—	
Hon. Patrick Duncan, C.M.G., K.C.	30. 3.33
Hon. J. H. Hofmeyr	4.12.36
Col. the Hon. Deneys Reitz	8.11.38
Native Affairs—	
Hon. H. Burton, K.C.	31. 5.10
General the Hon. J. B. M. Hertzog	25. 6.12
Hon. J. W. Sauer	20.12.12
General the Right Hon. Louis Botha, P.C.	23. 9.13
General the Right Hon. J. C. Smuts, P.C., C.H., K.C.	3. 9.19
General the Hon. J. B. M. Hertzog	30. 6.24
Hon. E. G. Jansen	19. 6.29
Hon. P. G. W. Grobler	30. 3.33
Hon. H. A. Fagan, K.C.	3. 6.38
Posts and Telegraphs—	
Hon. Sir David P. de Villiers Graaff, Bart.	31. 5.10
Hon. Sir Thomas Watt, K.C.M.G.	20.12.12
Hon. Sir J. H. Meiring Beck, Kt.	1. 2.16
Hon. Thomas Orr, C.M.G. (Actg.)	16. 5.19
Hon. Sir J. A. C. Graaff, K.C.M.G.	19. 3.20
Hon. Sir Thomas Watt, K.C.M.G.	10. 3.21
Hon. T. Boydell	30. 6.24
Hon. W. B. Madeley	12.11.25
Hon. H. W. Sampson, O.B.E.	6.11.28
Senator the Hon. C. F. Clarkson	30. 3.33
Public Health—	
Hon. Sir Thomas Watt, K.C.M.G.	1. 7.19
Hon. Patrick Duncan, C.M.G.	10. 3.21
Public Health (continued)—	
Hon. Dr. D. F. Malan	30. 6.24
Hon. J. H. Hofmeyr	30. 3.33
Hon. R. Stuttaford	4.12.36
Public Works—	
Hon. Sir David P. de Villiers Graaff, Bart.	31. 5.10
Col. the Hon. G. Leuchars, C.M.G., D.S.O.	1. 2.12
Hon. Sir Thomas Watt, K.C.M.G.	20.12.12
Senator the Hon. Sir Jacobus A.C. Graaff, K.C.M.G.	19. 3.20
Hon. Sir Thomas Watt, K.C.M.G.	10. 3.21
Hon. T. Boydell	30. 6.24
Hon. W. B. Madeley	12.11.25
Hon. H. W. Sampson, O.B.E.	6.11.28
Senator the Hon. C. F. Clarkson	30. 3.33
Railways and Harbours—	
Hon. J. W. Sauer	31. 5.10
Hon. H. Burton, K.C.	25. 6.12
Hon. Sir Thomas Watt, K.C.M.G.	19. 3.20
Hon. J. W. Jagger	10. 3.21
Hon. C. W. Malan	30. 6.24
Hon. O. Pirow, K.C.	30. 3.33
Senator the Hon. A. P. J. Fourie	8.11.38
Social Welfare—*	
Hon. J. H. Hofmeyr	1.10.37
Hon. H. A. Fagan, K.C.	26. 9.38
Ministers without Portfolio—	
Senator the Hon. Dr. C. O'Grady Gubbins	31. 5.10
Hon. Sir David P. de Villiers Graaff, Bart.	24. 1.13
Senator the Hon. Sir Jacobus A. C. Graaff, K.C.M.G.	23. 9.13
Hon. R. Stuttaford	30. 3.33
Hon. F. C. Sturrock	4.12.36
Hon. R. H. Henderson	8.11.38

*New department created 1st October, 1937. Formerly part of Department of Labour and Social Welfare.

6. **Functions of Departments.**—The following statement gives the names of the various departments of State, together with their sub-departments, and indicates in concise form the principal matters dealt with by each.

FUNCTIONS OF DEPARTMENTS OF STATE.

PRIME MINISTER.

Communications between His Excellency the Governor-General, the Governor-General-in-Council and the departments of State; between the Executive and Parliament; between State departments and the press; and with the Mandated Territory of South West Africa.

AGRICULTURE AND FORESTRY.

(*a*) AGRICULTURE.

Agriculture and forestry generally. Control and eradication of diseases of stock. Issue of vaccines for inoculation of live stock. Registration of brands. Improvement of markets for agricultural products. Improvement of cattle, sheep, and wool industry. Improvement of pastures and prevention of soil erosion. Inspection of agricultural produce. Control of plant diseases and insect pests. Control and inspection of cold stores. Prevention of adulteration of wine, spirits, and vinegar. Control of the sale of fertilizers, farm foods, seeds, and pest remedies. Agricultural chemistry and soil survey. Viticulture, tobacco culture, cotton cultivation, horticulture, field husbandry services. Collection and distribution of guano. Agricultural extension work. Agricultural education (including scholarships and bursaries for agricultural study). Home economics. Dairy industry. Issue and publication of a monthly publication *Farming in South Africa* and of popular and scientific bulletins. Agricultural economics, marketing, crop estimates, market reports, etc. Agricultural co-operation. Agricultural research and experiment stations. Locust research and destruction. Eradication of jointed cactus, gifblaar, and other noxious plants and weeds. Control of schemes for the relief of distress amongst farmers. Control boards and levy funds. Marketing Council. Assistance to farmers for the combating of soil erosion and construction of small dams.

(*b*) FORESTRY.

Protection, utilization, and regeneration of the indigenous forests, the aim being to maintain and if possible to increase their productivity. Adding to the timber resources of the country through afforestation so as to make the country as far as possible independent of overseas sources. Protection of catchment areas for the sake of water supplies. Prevention of and reclamation of drift sands. Maintenance of selected spots as nature reserves. Encouraging and assisting private afforestation and treeplanting by providing expert advice and supplying seed and plants at low costs. Inculcating a deeper forest sense by means of lectures to the public and forestry courses at universities and agricultural schools. The training of foresters. Research in forestry matters generally as also in connexion with the seasoning, preservation, and utilization of South African-grown timbers. The grading of all export wattle bark. Welfare work on Forestry Settlements.

COMMERCE AND INDUSTRIES.

Industrial development. Industrial utilization of the Union's natural resources and raw materials. Co-ordination between South African exporters and the Union's overseas representatives to promote the Union's export trade. Investigations by the Board of Trade and Industries. Assize Division: inspection and assizing of weights, measures, and weighing and measuring instruments. Assize Board. Marine fisheries and marine biological survey. Development of fishing harbours. South African Iron and Steel Industrial Corporation. Electricity Supply Commission. Electricity Control Board: supply of power and permits or licences to sell power. Fuel Research Institute: grading of coal for export, etc. Overseas marketing of base minerals. Control of explosives: manufacture, sale, transport, etc. Administration of the *Sugar Act*, 1936 (Act No. 28 of 1936), the *Unlawful Determination of Prices Act*, 1931 (Act No. 24 of 1931), the *Crawfish Export Control Act*, 1934 (Act No. 50 of 1934), and the *Trade Coupons Act*, 1935 (Act No. 18 of 1935).

DEFENCE.

Establishment and maintenance of the Union Defence Forces and cadets, and all matters in relation to the defence of the Union. Regulation of air navigation, and the control, regulation, and encouragement of civil aviation.

EXTERNAL AFFAIRS.

Communication with His Majesty's Governments and Administrations in the British Commonwealth of Nations and with foreign Governments. Communication with League of Nations. Negotiation of treaties and agreements, diplomatic relations, and external matters generally.

EDUCATION (UNION) AND CHILD WELFARE.

Supervision of all higher education. Universities of South Africa, Capetown, Stellenbosch, Witwatersrand, and Pretoria. University colleges (5) and South African Native College. Technical colleges at Durban, Capetown, Johannesburg, East London, Pretoria, Pietermaritzburg, Bloemfontein, and Port Elizabeth, and vocational courses in other centres. Conduct of technical and commercial examinations. Trades and housecraft schools at various centres. Industrial schools (8) and reformatories (5) established under the *Children's Act*, No. 31 of 1937. Education and training of deaf, blind, and sane epileptic children. State-aided schools for the deaf (4), blind (2), and epileptics (1). Grants in aid of research.

FINANCE.

(*a*) TREASURY.

Appropriation and supply (except for the services of the Railways and Harbours Administration). Currency and banking. Building societies. Insurance. Raising and management of loans. Banker for spending departments. Pensions and gratuities. Military pensions and medical work. Old age pensions. Blind persons' pensions. Financial relations with provinces. Powers, functions, and duties previously vested in the Custodian of Enemy Property. General control of finances of the Union (excepting the finances of the Railways and Harbours Administration). Union Tender and Supplies Board. State Advances Recoveries Office.

(*b*) CUSTOMS AND EXCISE.

Customs and excise. Registration of shipping and care of British seamen. Examination of candidates for certificates of competency as masters, mates, and engineers of foreign-going, home trade, and fishing vessels. Protection of trade marks and copyrights so far as imported goods are concerned. Supervising the importation of goods prohibited or restricted under various Acts dealing with adulterated food and drink, agricultural pests, second-hand clothing, arms and ammunition, drugs, disinfectants, fertilizers, objectionable literature, etc. Compilation of trade statistics.

(*c*) INLAND REVENUE.

Assessment and collection of revenues other than Customs and Excise, Postal, and Railways and Harbours revenues. Administration of Act No. 34 of 1933 concerning the payment of interest subsidies on farm mortgage bonds and matters relating thereto.

(*d*) PUBLIC DEBT COMMISSIONERS.

Investment of all available trust and deposit funds which may be held by, for, or on account of the Government of the Union and Provincial Administrations and the Railways and Harbours Administration. Application of sinking funds for the redemption of the public debt. Administering the Local Loans Fund established by Act No. 19 of 1926, and the collection, administration, and investment of moneys belonging to public bodies or institutions which the Minister of Finance may require them to undertake.

(*e*) CONTROLLER AND AUDITOR-GENERAL.

Control of issues from the exchequer. Audit of the public accounts, including those of the Railways and Harbours and South West Africa Administrations and such other accounts as the Governor-General may require to be examined in terms of Act No. 21 of 1911, section 60, and reporting to Parliament thereon.

(*f*) HIGH COMMISSIONER (LONDON).

Representation of the Government of the Union in the United Kingdom. Service as agency for the Union in London for financial, commercial, and other purposes, including service on behalf of the S.A. Railways and Harbours Administration, the Provinces, the Electricity Supply Commission, the South African Iron and Steel Corporation, Ltd., and the Perishable Products Export Control Board.

INTERIOR.

(*a*) VARIOUS OFFICES.

Mental hospitals and contingent matters. Immigration and Asiatic affairs. Electoral matters. Naturalization and questions of nationality. Passports. Newspaper and imprints registration. Missing persons. Libraries, museums, and kindred matters. Union Observatory. Census and statistics (Office of Census and Statistics). Registration of births, marriages, and deaths. Government printing and publications. Copyright of government publications. Archives. Commission for the Preservation of Natural and Historical Monuments, Relics and Antiques, Archaeological Bureau, Translation Bureau. Questions relating to late enemy subjects. General matters involving communication with Public Service Commission. Provincial Administrations. Regulation and control of the public exhibition and advertisement of cinematograph films, and of pictures, and of performances for public entertainment. Registration for the purposes of protection of names, uniforms, and badges. National Road Board. Other miscellaneous matters.

(*b*) PUBLIC SERVICE COMMISSION.

Organization and discipline of the public service (see paragraphs 7 and 8 hereunder).

IRRIGATION.*

Professional advice to farmers and public bodies. Construction and supervision of large works for irrigation boards. Administration and control of major government irrigation works. Advice on water supply to municipalities when requested by Provincial Administrations. Reconnaissance surveys of river valleys. Boring for farmers and public bodies. Collection of hydrographic data of all streams. Loans to farmers and others for irrigation purposes. Administration of water courts. Rainfall records and forecasting of weather. Upper air research.

JUSTICE.

Appointment of judges, attorneys-general, magistrates, special justices of the peace, justices of the peace, and commissioners of oaths. All matters connected with the Supreme Court, including Appellate, Provincial and Local

* Irrigation came under the control of the Minister of Mines as from 25th January, 1939.

Divisions, Native High Court (Natal), Magistrates' Courts, and Courts of Special Justices of the Peace. Sheriffs. Capital punishment. Reprieves. Extradition. Fugitive offenders. Messengers of court. Jurors. Inquests. Liquor laws and appointment of licensing boards, except in the Transkeian Territories. Maintenance orders. Legal advice to government departments and conduct of government litigation. Drafting of government Bills and publication of Statutes. Administration of estates. Authentications. Patents, designs, trade marks, and copyright. Registration of companies. Insolvencies and assignment of estates, including deportations for offences under the *Insolvency Act*. Guardians' funds. Inquiries into shipping casualties (in Natal), railway and harbour accidents. *Performing Animals Protection Act*. Administration of *Riotous Assemblies Act*, Venia Aetatis (O.F.S.). Young persons performing in public—control on behalf of Government of the United Kingdom. Appointment of King's Counsel. *Workmen's Compensation Act*—appointment of medical and technical assessors. Administration of *Arms and Ammunition Act*. Determination of amounts of fines recovered in respect of traffic offences, due to be refunded to municipalities.

LABOUR.

Employment generally (other than native employment), in which are included (*a*) urban and rural employment exchanges, (*b*) recruiting for and replacement of units of the Special Service and Pioneer Battalions, (*c*) the recruiting of such members of the Public Service as are not dealt with by the Public Service Commission, and (*d*) the recruiting of labourers for government departments. International Labour Organization affairs. General control of factories and machinery (other than mining machinery) and the regulation of wages and conditions of labour arising out of the administration of the following Acts, as amended: *Workmen's Wages Protection Act*, 1914; *Factories Act*, 1918; *Juveniles Act*, 1921; *Apprenticeship Act*, 1922; *Workmen's Compensation Act*, 1934; *Industrial Conciliation Act*, 1937; *Wage Act*, 1937; and *Unemployment Benefit Act*, 1937.

LANDS.

Administration, control, and disposal of Crown lands. European land settlements. Land surveys. Trigonometrical Survey of the Union, including triangulation surveys, precise levelling, magnetic survey, topographical survey, and all mapping in the Central Mapping Office. Registration of deeds.

MINES.

General administration and control of mining and prospecting. Issue of claim licences, prospecting permits, mining leases, alluvial diamond licences, surface rights, etc., on mining ground. Trading on mining ground. Geological reports and surveys and geological work generally throughout the Union. Mining engineering and control of mines. Regulations governing underground and surface work on mines. Inspection of mines. Control of explosives on mines. Miners' training schools. Registration of mining titles, mining leases, surface rights, etc. Registration work in connexion with Rand Townships. Control and payment of miners' phthisis compensation. Medical examination of applicants and periodical examination of all mine workers and other matters generally connected with miners' phthisis.

NATIVE AFFAIRS.

Administration of the Native Territories in the Transkei, Zululand, and elsewhere, including native reserves and the direction and supervision of local and general native councils. Training of agricultural students. Control and direction of agricultural activities. Direction and supervision of the recruitment of native labour, especially for mining purposes and control of natives in urban areas. Control of native taxation and pass system. Administration of the *Native Trust and Land Act*, 1936, and of the *Representation of Natives Act*, 1936. General supervision of all matters concerning the welfare and interests of the native races of the Union.

POLICE.

Police administration. Suppression of white slave traffic and traffic in dangerous drugs.

POSTS AND TELEGRAPHS.

Control of all postal, mail, telegraph, and telephone services, as well as money order, postal order, postal draft, savings bank, and Union Loan Certificate business. Control of nomenclature of places; the encashment of civil, military, railway, and old-age pension warrants; the collection of Transvaal (basic) personal and income tax; and the sale of Cape and Orange Free State entertainment-tax labels and Union savings-stock.

PRISONS.

Prisons administration, including road camps, farm colonies, and inebriate reformatories.

PUBLIC HEALTH.

Public health. Venereal diseases. Food adulteration. Port health matters. Habit-forming drugs. District surgeons. Pathological laboratories. Vaccination. Inspection of areas of local authorities, water supplies, drainage schemes, and matters under the *Housing Act* and the *Slums Act*. Leprosy and leper institutions. Medical boards and *Medical, Dental and Pharmacy Act*, 1928. Medical advice and assistance to other government departments, the Public Service Commission, and Provincial Administrations.

PUBLIC WORKS.

Design, erection, and maintenance of (*a*) public buildings for Union and provincial purposes (exclusive of certain buildings in the Cape and Transvaal Provinces) and (*b*) inter-provincial and various provincial bridges. Provision of accommodation for Union Government purposes, and services in connexion therewith, including the hiring of all property required for the use of Union government departments. Letting of official residences, quarters, and government buildings generally. Provision and maintenance of mechanical and electrical equipment. Miscellaneous agency and consulting services for Union departments, Provincial Administrations, and university and hospital authorities.

SOCIAL WELFARE.

Administration of *Children's Act*, 1937, with exception of provisions relating to industrial schools and reformatories; *Rents Act*, 1920; *Work Colonies Act*, 1927. Registration of Blind Welfare Societies, subsidization of workshops, training centres and hostels for the blind, and augmentation of wages of the blind under the *Blind Persons Act*, 1936. Assistance to needy physically unfit European persons. The establishment and control of settlements for needy aged and physically unfit European persons. The supply of rations to indigent European persons on the alluvial diamond diggings. Subsidization of hostels for low-paid workers. Subsidization of salaries of social workers in the employ of private welfare organizations. Subsidization of crèches. Subsidization of social centres. Training centre for needy European girls from rural areas. Control of inebriate retreats. Natal. The Church-State scheme for co-operation between the Church and the State in dealing with the Poor White problem.

7. **The Public Service.**—The organization and discipline of the public service is provided for by the *Public Service and Pensions Act*, No. 27 of 1923, as amended by the *Government Service Pensions Act*, No. 32 of 1936, and the *Public Service Amendment Act*, No. 36 of 1936. By this the public service is classed in five divisions:—

(i) *The Administrative Division.*—This consists of the secretaries and under-secretaries of the several departments of State; the chief clerks, principal clerks, senior clerks, Provincial Secretaries, Provincial Auditors of accounts, and magistrates; and all other persons whose offices or posts are directed by the Governor-General from time to time to be included in the administrative division.

(ii) *The Clerical Division.*—This includes all persons whose offices or posts are directed by the Governor-General to be included in the clerical division.

(iii) *The Professional Division.*—This division consists of a higher and a lower branch, and includes all persons whose offices or posts are directed by the Governor-General to be included in the division, and such persons shall be in the higher or the lower branch, as may be directed by the Governor-General.

(iv) *The General Division.*—This includes all persons whose offices or posts the Governor-General directs to be included in the general division.

(v) *The Services.*—These include the permanent Defence Force, the Police Force, and subordinate officers of the Prisons Department.

The following are not included in the public service:—

Ministers; the Administrator of a province or of a mandated territory; the High Commissioner for the Union in the United Kingdom; the Chief Justice of South Africa or any judge of the Supreme Court, a private secretary to a Minister, a clerk to the Chief Justice or to a judge of the Supreme Court, and an itinerant water-court judge if, at the date of appointment as such private secretary, clerk, or water-court judge, he was not an officer of the public service; officers of Parliament; the personal staff of His Excellency the Governor-General; any member of the Public Service Commission; any person employed in the Railway Administration; any person employed by the Government or by any Provincial Administration or by the Administration of the mandated territory, whose whole time is not at the disposal thereof, or any person remunerated by fees only; any person so employed if by the terms of his appointment made in accordance with law he is not subject to the laws regulating the public service; any teacher serving under any Provincial Administration or under the Administration of the mandated territory; persons temporarily employed under section 16 of the Act, or any person in the employment of the Government of the Union or of the Administration of the provinces or of the mandated territory, not being a member of the services, whose post is not included by the Act or by direction of the Governor-General in the administrative, the clerical, the professional, or the general division.

Regulations in connexion with the classification of posts undertaken in terms of the Act were contained in Government Notices issued in September, 1923. Revised scales of salaries, wages, and allowances under the Act were published in October, 1923, and have been further revised from time to time. The scales of pay at present applicable to certain posts in the administrative, clerical, and professional divisions which are common to all or several departments are given hereunder.

PUBLIC SERVICE—SCALES OF PAY FIXED IN TERMS OF ACT No. 27 OF 1923.

Division.	Post.	Grade.	Scale. Minimum.	Increment.	Maximum.
			£	£	£
Administrative.....	Secretary.....	—	—	—	1,800 (Fixed)
"	Under-Secretary.....	—	1,200	50	1,350
"	Chief Clerk.....	First.....	800	25	900
"	"	Second.....	700	25	800
"	Principal Clerk.....	—	600	25	700
"	Senior Clerk.....	—	500	25	600
Clerical.....	Clerical Assistant.....	First.....	340	20	500
"	"	Second.....	140-15-200-25-300-20-400		
"	Woman Clerk.....	Special.....	300	20	400
"	"	First.....	200	20	300
"	"	Second.....	120	12½	170
				15	200
"	Supervising Shorthand-Typist	—	300	20	400
"	Shorthand-Typist.....	Class A.....	140	15	200
				20	200
"	"	" B.....	120	15	210
"	Typist.....	—	120	12½	170
				15	200
"	Clerk Stenographer.....	—	340	20	500
Professional.....	Professional Officer....	—	500	25	700
"	Assistant Professional Officer	—	250-25-300-20-500		

8. **Public Service Commission.**—Section 142 of the *South Africa Act* required the appointment of a permanent Public Service Commission. Section 2 of the *Public Service Act*, No. 27 of 1923, made provision in conformity with such requirement. The Commission appointed consists of three members.

9. **Powers and Duties of Public Service Commission.**—The Commission has certain powers conferred and duties imposed upon it by the Act, relating

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to the appointment, promotion, discipline, retirement, and superannuation of persons employed in the public service, and is required *inter alia*:—

(i) To make recommendations as to appointments and promotions.
(ii) To keep a record of persons employed in the administrative, clerical, and professional divisions and in prescribed posts in the general division.
(iii) To make recommendations as to the grading and classification or regrading and conversion of posts in the administrative, clerical, professional, and general divisions.
(iv) To make recommendations as to the control, reorganization, and readjustment of any departments or offices in the public service and, further, to make recommendations as to the retirement from the public service of any persons in consequence of any such reorganization or readjustment.
(v) To make recommendations as to the retirement of officers in the administrative, clerical, and professional divisions, and in prescribed posts in the general division on the ground of superannuation, continued ill-health, or inefficiency.
(vi) To make recommendations for effecting economies and promoting efficiency in the management and working of departments, sub-departments, and other offices of the public service.
(vii) To inquire into the grievances of officers.
(viii) To make recommendations as to the provisions of the regulations to be made under the Act.
(ix) To frame for the information of Parliament an annual report and such special reports as the Commission considers desirable.
(x) To recommend action in cases of misconduct of a serious character.
(xi) To exercise such other powers and jurisdiction and perform such other duties not repugnant to the Act as may be assigned to it by the Governor-General.

The general administration of the Public Service Regulations is vested in the Public Service Commission, which also decides all questions regarding their interpretation and effect.

In terms of the Financial Regulations, framed under section 61 of the *Exchequer and Audit Act*, 1911, the recommendation of the Commission is required *inter alia* for—

(i) the appointment of permanent and temporary officials, except when the appointment is to certain specified posts in the lower grades;
(ii) the creation of any new post not provided for in the estimates of expenditure approved by Parliament;
(iii) the alteration of the scale of salary attached to any existing appointment by raising the minimum or maximum of the scale or the rate of annual increment;
(iv) the payment of any gratuity or extra remuneration to any public servant, except when the payment is specifically provided for by regulation.

10. **Public Service Advisory Council.**—In terms of Act No. 27 of 1923, regulations in connexion with a Public Service Advisory Council were issued under Government Notice No. 2203 of 7th December, 1925. The council consists of not more than eight members nominated by the various public service associations from amongst their members, and acts in an advisory capacity to the Public Service Commission. Its functions include advising upon the following matters:—

(i) The best means of utilizing the ideas and experience of the staff.
(ii) The general principles governing conditions of service, recruitment, hours, promotion, advancement, discipline, tenure, remuneration, and superannuation.
(iii) The means for encouraging the further training and education of public servants, and also their training in higher administration and organization.
(iv) The introduction of improvements in office machinery and organization, and the provision of opportunities for the full consideration of suggestions by the staff on this subject.
(v) Legislation so far as it has a bearing upon the position of public servants in relation to their employment.
(vi) Any matter referred to it by the Commission.

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An official side, consisting of four permanent members nominated by the Public Service Commission, is attached to the council for consultative purposes.

Rules have been prescribed for the recognition of associations and for the government and the conduct of the business of the council.

The first Public Service Advisory Council was established in December, 1923.

11. **Strength of Staff in Government Service.**—The following tables give particulars of the staff employed in the various departments of the public service. Particulars of the numbers on the staffs of the various Provincial Administrations will be found below in § 5 of this chapter, and on the staff of the Railways and Harbours Administration in Chapter XIII.

The authorized European establishment of the public service, as shown in the estimates presented annually to Parliament, has been for each year since 1912-13 as follows:—

Year.	Authorized Establishment.†	Year.	Authorized Establishment.†
1912-13	20,859	1926-27	27,876
1913-14	21,412	1927-28	28,756
1914-15	22,739*	1928-29	29,650
1915-16	19,700*	1929-30	30,620
1916-17	20,878*	1930-31	31,379
1917-18	20,796*	1931-32	31,130
1918-19	20,832*	1932-33	30,574
1919-20	25,005	1933-34	30,279
1920-21	28,234	1934-35	31,298
1921-22	28,772	1935-36	32,542
1922-23	27,149	1936-37	35,314
1923-24	26,392	1937-38	37,144
1924-25	26,637	1938-39	39,195
1925-26	27,071		

* No figures of the Defence Executive were given between the years 1914-15 and 1918-19.
† Includes from the year 1920-21 onwards the uniformed staff and learners attached to the Department of Posts and Telegraphs.

Particulars of the staff employed in the government service as furnished by departments of State are as follows:—

(i) TOTAL NUMBER OF PERSONS EMPLOYED IN GOVERNMENT SERVICE IN PERMANENT AND TEMPORARY CAPACITIES, 1936-37 AND 1937-38.

Department.	1936-37. Number. Permanent.	Temporary.	Total.	Salary Cost.	1937-38. Number. Permanent.	Temporary.	Total.	Salary Cost.
				£				£
Agriculture	1,016	1,066	2,082	596,041	1,056	1,108	2,164	648,600
Agriculture (Education)	201	16	217	82,944	218	14	232	87,080
Agriculture (Forestry)	381	4	385	103,776	410	5	415	118,048
Audit	173†	4	177†	61,201	187	2	189	67,721
Child Welfare and Reformatories	446	—	446	78,386	448	21	469	89,581
Commerce and Industries	153	14	167	58,806	172	8	180	67,265
Controller of Transport	45	124	169	26,296	53	146	199	31,290
Customs and Excise	772	64	836	230,485	845	64	909	254,559
Defence	3,311	6	3,317	551,636	3,834	60	3,894	658,160
Education (Union)	742	4	746	133,175	812	25	837	161,396
Governor-General	13	—	13	5,739	14	—	14	5,946
High Commissioner in London	109	27	136	37,930	111	22	133	41,001
House of Assembly	42	19†	61†	24,660	41	12	53	23,530
Inland Revenue*	580†	32	612†	155,796	593	36	629	163,797
Interior	410	287	697	162,241	421	438	859	193,632
Irrigation	276	5	281	107,290	305	8	313	124,096

* President and members of Income Tax Court of Appeal not included.
† Amended figure.

(i) TOTAL NUMBER OF PERSONS EMPLOYED IN GOVERNMENT SERVICE IN PERMANENT AND TEMPORARY CAPACITIES, 1936-37 AND 1937-38—(*continued*).

Department.	1936-37. Number. Permanent.	Temporary.	Total.	Salary Cost.	1937-38. Number. Permanent.	Temporary.	Total.	Salary Cost.
				£				£
Justice—								
Justice*	188	6	194	86,297	179	1	180	89,852
Magistrates and District Administration	1,601	453	2,054	540,621	1,669	125	1,794	575,689
Superior Courts	315	36	351	186,633	325	8	333	191,581
Labour and Social Welfare—								
Labour	275	97	372	104,874	328	134	462	129,369
Social Welfare					23	9	32	4,111
Lands, Deeds, and Survey	768‡	68‡	836‡	228,111	900	118	1,018	256,153
Mental Hospitals, etc.	2,515	26	2,541	317,856	2,603	39	2,642	337,279
Mines	451	17	468	172,435	488	9	497	195,059
Minister without Portfolio	2	—	2	536	3	—	3	846
Native Affairs	1,733	27	1,760	313,617	1,748	44	1,792	345,195
Pensions	117	44	161	46,749	137	70	207	57,757
Police	10,398	—	10,398	2,109,498	10,732	—	10,732	2,415,498
Posts, Telegraphs, and Telephones	10,537	3,598	14,135	2,567,472	11,135	3,728	14,863	2,801,643
Prime Minister and External Affairs	82‡	29	111‡	82,655	89	30	119	78,928
Printing and Stationery	48	656	704	160,589	50	668	718	174,314
Prisons and Gaols*	2,396	67‡	2,463‡	454,753	2,488	87	2,575	499,639
Public Health	752	365	1,117	225,238	774	411	1,185	237,253
Public Service Commission	51	1	52	25,218	56	—	56	27,249
Public Works	484	650	1,134	253,221	524	714	1,238	282,990
Senate†	9	1	10	6,318	9	1	10	6,638
State Advances Recoveries Office	138	105	243	51,361	193	93	286	57,620
Treasury	102	10	112	38,643	106	9	115	42,535
TOTAL	41,632	7,928	49,560	10,389,097	44,079	8,267	52,346	11,541,798

* Prisons Administrative Staff paid from Justice Vote.
† Temporary sessional messengers not included.
‡ Amended figure.

(ii) TOTAL NUMBER OF PERSONS EMPLOYED IN THE GOVERNMENT SERVICE ACCORDING TO RACE AND SEX, 1936-37 AND 1937-38.

Department.	1936-37. European. Male.	Female.	Non-European. Male.	Female.	Total.	1937-38. European. Male.	Female.	Non-European. Male.	Female.	Total.
Agriculture	1,726	191	165	—	2,082	1,769	219	176	—	2,164
Agriculture (Education)	195	22	—	—	217	208	24	—	—	232
Agriculture (Forestry)	320	18	47	—	385	348	23	44	—	415
Audit	166*	11	—	—	177*	176	13	—	—	189
Child Welfare and Reformatories	198	137	98	13	446	203	149	109	8	469
Commerce and Industries	133	25	9	—	167	138	27	15	—	180
Controller of Transport	134	7	28	—	169	155	9	35	—	199
Customs and Excise	690	97	49	—	836	750	109	50	—	909
Defence	2,620	85	612	—	3,317	3,127	129	638	—	3,894

* Amended figure.

(ii) TOTAL NUMBER OF PERSONS EMPLOYED IN THE GOVERNMENT SERVICE ACCORDING TO RACE AND SEX, 1936-37 AND 1937-38—(*continued*).

Department.	1936-37.					1937-38.				
	European.		Non-European.		Total.	European.		Non-European.		Total.
	Male.	Female.	Male.	Female.		Male.	Female.	Male.	Female.	
Education (Union)	290	235	174	47	746	336	251	199	51	837
Governor-General.	9	3	1	—	13	8	5	1	—	14
High Commissioner in London.....	88	48	—	—	136	86	47	—	—	133
House of Assembly	61	—	—	—	61	53	—	—	—	53
Inland Revenue†	349	259	4	—	612	358	267	4	—	629
Interior.....	341	317	39	—	697	355	477	27	—	859
Irrigation.....	247	30	4	—	281	275	34	4	—	313
Justice‡—										
Justice.....	146	48	—	—	194	138	42	—	—	180
Magistrates and District Administration..	1,625	225	204	—	2,054	1,542	141	111	—	1,794
Superior Courts.	297	51	3	—	351	287	43	3	—	333
Labour and Social Welfare—										
Labour.....	} 278	90	4	—	372	{ 323	135	4	—	462
Social Welfare..						{ 16	16	—	—	32
Lands, Deeds, and Survey.....	658	152	26	—	836	830	159	29	—	1,018
Mental Hospitals, etc.....	813	942	536	250	2,541	845	974	553	270	2,642
Mines.....	359	57	61	—	468	376	63	58	—	497
Minister without Portfolio.....	1	1	—	—	2	2	1	—	—	3
Native Affairs....	701	103	952	4	1,760	720	110	958	4	1,792
Pensions.....	91	67	3	—	161	117	87	3	—	207
Police.....	7,204	34	3,160	—	10,398	7,255	37	3,440	—	10,732
Posts, Telegraphs, and Telephones	7,501	2,276	939	—	14,135¶	7,759	2,510	1,040	—	14,863*
Prime Minister and External Affairs	81	26	4	—	111	89	26	4	—	119
Printing and Stationery.....	439	258	7	—	704	450	261	7	—	718
Prisons and Gaols‡	1,452	249	761	1	2,463	1,537	268	766	4	2,575
Public Health....	543	144	395	35	1,117	569	149	420	47	1,185
Public Service Commission....	39	13	—	—	52	42	14	—	—	56
Public Works....	747	82	305	—	1,134	817	85	336	—	1,238
Senate§.....	10	—	—	—	10	10	—	—	—	10
State Advances Recoveries Office	179	64	—	—	243	196	90	—	—	286
Treasury.....	84	27	1	—	112	85	29	1	—	115
TOTAL.....	30,806	6,394	8,591	350	49,560	32,350	7,023	9,035	384	52,346

† President and members of Income Tax Court of Appeal not included.
‡ Prisons Administrative Staff paid from Justice Vote.
§ Temporary sessional messengers not included.
‖ Amended figure.
¶ Including 3,419 non-departmental servants, sex not recorded.
* Including 3,554 non-departmental servants, sex not recorded.

§ 4. Parliament and Legislation.

[For list of Members, see Chapter XXVIII.]

1. **Parliament.**—The legislative power of the Union is vested in terms of section 19 of the *South Africa Act* (see § 2 of this chapter) in the King, represented by the Governor-General, a Senate, and a House of Assembly. Sessions of Parliament (section 20 of the *South Africa Act*) may be appointed by the Governor-General, who may also prorogue Parliament, or may dissolve the Senate* and the House of Assembly simultaneously, or the House of Assembly alone. Capetown is constituted as the seat of the Legislature (section 23 of the *South Africa Act*). The powers of Parliament are prescribed in sections 59 to 67 of the Act. Parliament has full powers to make laws for the peace, order, and good government of the Union.

* Under the *South Africa Act* the original Senate held office to 31st May, 1920, and under Act No. 9 of 1920 until 31st October, 1920.

2. **Sessions of Parliament.**—A session of Parliament must be held once at least in every year, so that a period of twelve months shall not intervene between the last sitting of Parliament in one session and its first sitting in the next session. The first Parliament was opened by His Royal Highness the Duke of Connaught and Strathearn on the 4th November, 1910. The following table gives a list of sessions from 1910 to 1938 with the dates of commencement and ending in each case and the duration of each session (Sundays and public holidays included):—

SESSIONS OF PARLIAMENT.

Number of Parliament and of each Session.	Year.	Commencement and Ending.	Duration (In Days).
First Parliament—			
1st Session	1910-11	31.10.10—25. 4.11	177
2nd Session	1912	26. 1.12—24. 6.12	151
3rd Session	1913	24. 1.13—16. 6.13	144
4th Session	1914	30. 1.14— 7. 7.14	159
5th (Extraordinary) Session	1914	9. 9.14—14. 9.14	6
6th Session	1915	26. 2.15—21. 4.15	55
[*House of Assembly dissolved by Proclamation No. 93 of 1915, dated 23rd August, 1915.*]			
Second Parliament—			
1st Session	1915-16	19.11.15—17. 6.16	212
2nd Session	1917	16. 2.17— 3. 7.17	138
3rd Session	1918	18. 1.18— 8. 5.18	111
Joint Sitting of Both Houses	1918	17. 4.18—24. 4.18	8
4th Session	1919	17. 1.19—20. 6.19	155
5th (Special) Session	1919	5. 9.19—17. 9.19	13
[*House of Assembly dissolved by Proclamation No. 24 of 1920, dated 6th February, 1920.*]			
Third Parliament—			
Session	1920	19. 3.20—17. 8.20	152
[*Senate expired by effluxion of time on 31st October, 1920, under sections 24 and 25 of the South Africa Act, 1909, and sections 1 and 2 of the Constitution of the Senate Act, 1920.*]			
[*House of Assembly dissolved by Proclamation No. 225 of 1920, dated 31st December, 1920.*]			
Fourth Parliament—			
1st Session	1921	11. 3.21—14. 7.21	126
2nd Session	1922	17. 2.22—19. 7.22	153
3rd Session	1923	19. 1.23—23. 6.23	156
4th Session	1924	25. 1.24—10. 4.24	77
[*House of Assembly dissolved by Proclamation No. 88 of 1924, dated 9th May, 1924.*]			
Fifth Parliament—			
1st Session	1924	25. 7.24— 6. 9.24	44
2nd Session	1925	13. 2.25—25. 7.25	163
Joint Sitting of Both Houses	1925	6. 5.25— 8. 5.25	3
3rd Session	1926	22. 1.26— 8. 6.26	138
Joint Sitting of Both Houses	1926	7. 5.26—12. 5.26	6
4th Session	1927	28. 1.27—29. 6.27	122
5th Session	1927-28	14.10.27— 1. 6.28	232
Joint Sitting of Both Houses	1928	29. 3.28—30. 3.28	2
6th Session	1929	25. 1.29—27. 3.29	62
Joint Sitting of Both Houses	1929	12. 2.29—25. 2.29	14
[*House of Assembly dissolved by Proclamation No. 94 of 1929, dated 13th April, 1929.*]			
Sixth Parliament—			
1st Session	1929	19. 7.29—16. 8.29	28
2nd Session	1930	17. 1.30— 2. 6.30	137
Joint Session of both Houses	1930	Various dates.	7
3rd Session	1931	30. 1.31— 6. 6.31	128
4th Session	1931-32	17.11.31—27. 5.32	192
5th Session	1933	20. 1.33— 2. 3.33	42
[*House of Assembly dissolved by Proclamation No. 77 of 1933, dated 7th April, 1933.*]			
Seventh Parliament—			
1st Session	1933	26. 5.33—22. 6.33	28
2nd Session	1934	26. 1.34— 4. 6.34	130
3rd Session	1935	11. 1.35— 4. 5.35	114
4th Session	1936	24. 1.36—16. 6.36	144
Joint Sitting of Both Houses	1936	13. 2.36— 6. 4.36	54
5th Session	1937	8. 1.37—17. 5.37	130
6th Session	1938	11. 2.38—16. 3.38	34
[*House of Assembly dissolved by Proclamation No. 84 of 1938, dated 11th April, 1938.*]			
Eighth Parliament—			
1st Session	1938	22. 7.38—24. 9.38	65
2nd Session	1939	3. 2.39—16. 6.39	134

3. **Senate.**—The Senate consists of 44 members, 32 (eight for each province) elected as stated below, eight nominated by the Governor-General-in-Council, and 4 elected by the native population under the provisions of the *Representation of Natives Act*, No. 12 of 1936. The provincial representatives are elected according to the system of proportional representation, with the single transferable vote, by the members of the House of Assembly and of the Provincial Council for each province sitting together and presided over by the Administrator of such province. Vacancies amongst provincial senators are filled in the same manner. The first election of senators under the *Representation of Natives Act* was held in 1937, and the members elected hold their seats for five years.* Under the provisions of Act No. 54 of 1926, the Governor-General is empowered to dissolve the Senate within one hundred and twenty days of the dissolution of the Assembly, and the nominated members, as well as the elected members†, are required to vacate their seats. Originally, under section 24 of the *South Africa Act*, nominated senators held their seats for a definite period of ten years, but this provision has been amended under the Act of 1926, so that, while nominated senators nominally hold their seats for a ten-year period from the date of nomination or until the dissolution of the Senate, they are required to vacate them when a change of government takes place. A change of government is described in the Act as occurring "when another person than the Prime Minister for the time being becomes Prime Minister," and when the Governor-General, by notice published in the *Gazette*, intimates that such a change of government has occurred. In addition to having the qualifications required by members of the House of Assembly, all senators must be not less than thirty years of age, and, in the case of elected senators, must own unencumbered, immovable property within the Union of not less value than £500. Each member receives an allowance of £700 a year, except the President who receives a salary under the Crown. The legislative powers of the Senate are co-ordinate with those of the House of Assembly, except in regard to the origination and amendment of certain monetary provisions in Bills.

Duration of Senates.	*From.*	*To.*
First Senate.....	31st May, 1910.....	31st October, 1920.‡
Second Senate.....	11th March, 1921.....	19th August, 1929.
Third Senate.....	6th September, 1929....	5th September, 1939.

4. **The House of Assembly.**—The House of Assembly is composed of members directly chosen by the voters of the Union in electoral divisions, as laid down by the *South Africa Act*. Matters relating to the delimitation of such divisions, the qualifications of voters, and the election of members are dealt with in § 10 of this chapter. The number of members which was fixed for the first election in 1910 was 121. Provision for an increase in the number of members is made in section 34 of the *South Africa Act*.

The original and the later constituted membership of the House are given hereunder:—

PROVINCIAL REPRESENTATION.

Parliament and Date of Duration.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Total Representation.
First (1910–15).....	51	17	36	17	121
Second (1915–19)....	51	17	45	17	130
Third and Fourth (1920–24).....	51	17	49	17	134
Fifth (1924–29).....	51	17	50	17	135
Sixth (1929–33).....	58	17	55	18	148
Seventh (1933–1938).	64§	16	57	16	153§
Eighth (1938–)...	62§	16	60	15	153§

§ Includes 3 additional members elected under the provisions of the *Representation of Natives Act*, No. 12 of 1936. For further particulars refer to Chapter XI, § 2.

The qualifications of a member of the House of Assembly are defined in section 44 of the *South Africa Act* and amending legislation. Every House of Assembly has a duration of five years from the date of its first meeting, unless sooner dissolved by the Governor-General. The first business of the House is the election of one of its members as Speaker, who ceases to be Speaker if he ceases to be a member of the House. A member may resign his seat. The presence of thirty members is necessary to constitute a quorum. Each member receives an allowance of £700 a year, except the Speaker and the Ministers, who receive salary under the Crown.

* For further information regarding the *Representation of Natives Act* refer to Chapter XI, § 2.

† This provision does not apply to members elected in terms of the *Representation of Natives Act*, 1936.

‡ Under Section 24 of the *South Africa Act* the duration of the original Senate was fixed for 10 years, but its life was extended until the 31st October under the provisions of Act No. 9 of 1920.

5. **Acts of Parliament.**—A synopsis is given hereunder of the various enactments of the eighth Parliament of the Union in the 1938 Session, excluding Appropriation Acts. Similar information in respect of Acts passed by the first to the seventh Parliament (1910 to 1938) will be found in previous issues of this *Year Book*.

SYNOPSIS OF LEGISLATION, 1938, EIGHTH PARLIAMENT. (FIRST SESSION.)

Session in Which Act was passed: Number and Short Title.	Date of Commencement.	Object and Effect.
Eighth Parliament (First Session), 1938.		
11. Cape of Good Hope Savings Bank Society Further Amendment Act, 1938	22/8/38	To amend Ordinance No. 86 of 1831 (Cape), as amended by Ordinance No. 10 of 1848 (Cape), Act No. 24 of 1894 (Cape) and Act No. 3 of 1924, regulating the affairs of the "Cape of Good Hope Savings Bank Society".
12. Rand Water Board Statutes 1903–35 Amendment (Private) Act, 1938	22/8/38	To amend the Rand Water Board Statutes 1903–1935.
13. South Africa Act Amendment Act, 1938	22/8/38	To amend the South Africa Act, 1909. (Increasing number of Ministers of State from eleven to twelve.)
14. Public Health Amendment Act, 1938.	1/4/38	To amend the Public Health Act, 1919.
15. Tourist Development Corporation Act, 1938.	30/9/38	To establish a corporation the object of which shall be by means of advertisement and the dissemination of information about Southern Africa to encourage persons who reside elsewhere to visit Southern Africa and to travel about therein, and to provide for other incidental matters.
16. Attorneys, Notaries and Conveyancers Admission (Amendment) Act, 1938	30/9/38	To amend the Attorneys, Notaries and Conveyancers Admission Act, 1934.
17. Finance Act, 1938.....	30/9/38	To provide for the disposal of certain surplus state revenues; for the transfer of certain stock held by the Public Debt Commissioners from the registers kept in London to the registers kept in the Union; and for the investment of the capital sums of the Slave Compensation Fund and the Bible and School Commission Fund; to empower provincial councils to authorize the carrying on of professions without licences; to provide for the closing of the fund established by Act No. 29 of 1897 (Natal); for the assessment of interest on uninvested balances of the joint pre-Union fund; for the refund of pension contributions of officers who die leaving no dependants; and for the admittance of certain temporary officers as members of the Government employees' provident fund; to write off certain debts due to the Government; and to amend Act No. 13 of 1855 (Cape), Law No. 23 of 1875 (Natal), and Acts Nos. 10 and 24 of 1913, No. 42 of 1922, No. 64 of 1934, Nos. 48 and 49 of 1935, and Nos. 18, 22, 24 and 35 of 1936.
18. Railways and Harbours Acts Amendment Act, 1938	30/9/38	To amend the Railways and Harbours Service Act, 1912; the Railways and Harbours Regulation, Control and Management Act, 1916; the Railway and Harbours Service Act, 1925; and the Railways and Harbours Superannuation Fund Act, 1925.
19. Marketing Amendment Act, 1938	30/4/37	To amend the Marketing Act, 1937.
20. Income Tax Act, 1938..	30/9/38	To fix the rates of normal income tax and super income tax in respect of the year of assessment ending on the thirtieth day of June, 1938, and to amend the Income Tax Act, 1925.
21. Second Pensions (Supplementary) Act, 1938	30/9/38	To provide for certain pensions, grants, gratuities and other pensionable benefits.
23. Representation of Natives (Amendment) Act, 1938	30/9/38	To amend the Representation of Natives Act, 1936.
24. Land Bank Amendment Act, 1938	30/9/38	To amend the laws relating to the Land and Agricultural Bank of South Africa.

6. **Subjects of Parliamentary Legislation.**—The subjoined table gives a synopsis of the enactments passed by the eighth Parliament of the Union

arranged under a variety of headings according to the subject dealt with. Appropriation Acts are not included.

Official Year Book No. 9 contains a complete list of parliamentary legislation from 1910 to 1927; No. 11 a synopsis of legislation of the fifth Parliament, 1924 to 1929; No. 12 of the sixth Parliament, 1929 to 1933; and No. 19 of the seventh Parliament, 1933 to 1938.

SYNOPSIS OF LEGISLATION, EIGHTH PARLIAMENT, CLASSIFIED ACCORDING TO SUBJECTS, 1938.

Subject.	No. of Act.	Year.
A.—GOVERNMENT.		
Parliamentary and Constitutional.		
South Africa Act Amendment Act	13	1938
Representation of Natives (Amendment) Act	23	1938
B.—THE PEOPLE.		
(*a*) *Social.*		
Public Health Amendment Act	14	1938
(*b*) *Migration.*		
Tourist Development Corporation Act	15	1938
C.—LAND AND PROPERTY.		
Water Conservation.		
Rand Water Board Statutes 1903-35 Amendment (Private) Act	12	1938
D.—INDUSTRIES.		
Agricultural and Pastoral.		
Marketing Amendment Act	19	1938
E.—COMMERCE AND TRADE.		
Agricultural.		
Marketing Amendment Act.	19	1938
F.—LAW AND JUSTICE.		
Notarial.		
Attorneys, Notaries and Conveyancers Admission (Amendment) Act	16	1938
G.—RAILWAYS AND HARBOURS AND TRANSPORT.		
(*a*) *Administration.*		
Railways and Harbours Acts Amendment Act	18	1938
(*b*) *Staff.*		
Railways and Harbours Acts Amendment Act	18	1938
H.—FINANCE.		
(*a*) *Taxation.*		
Income Tax Act	20	1938
(*b*) *Pensions.*		
Railways and Harbours Act Amendment Act	18	1938
Second Pensions (Supplementary) Act	21	1938
(*c*) *Banking.*		
Land Bank Amendment Act	24	1938
Cape of Good Hope Savings Bank Society Further Amendment Act	11	1938
(*d*) *General.*		
Finance Act	17	1938

§ 5. Provincial Administration.

1. **Administrators of the Provinces.**—The *South Africa Act* provides that in each of the four provinces there shall be a chief executive officer, appointed by the Governor-General-in-Council, and styled the Administrator of the Province. All executive acts relating to provincial affairs are done in the name of this officer. In the appointment of an Administrator preference is, as far as possible, given to a person resident in the province. Administrators are appointed for five years, and their salaries are provided for by Parliament.

2. **Executive Committees of the Provinces.**—Each Provincial Council elects at its first meeting, from among its members or otherwise, four persons to form with the Administrator an Executive Committee for the province, the Administrator acting as chairman. A member of a Provincial Executive Committee, who is not also a member of the Provincial Council, is entitled to take part in the proceedings of the Council, but has not the right to vote. The function of Executive Committees is to carry on the administration of provincial affairs on behalf of the Provincial Council. Executive Committees have the power, subject to certain considerations, to appoint officers to the provincial services.

3. **Functions of Provincial Administrations.**—The functions of the Administrations of the several provinces are concerned with the matters in respect of which Provincial Councils possess the power of legislation, and with those matters, the administration of which has been specially assigned to the provinces. (*Cf.* paragraph 2 of § 6 of this chapter.) The control of primary and secondary education comprises an important part of those functions, and references to this subject will be found in Chapter VIII, which

deals with education. The establishment, maintenance, and management of hospitals and charitable institutions are controlled by the provinces, and these phases of provincial supervision are treated of in Chapter IV and Chapter V respectively. Similarly, the question of the control of municipal institutions, divisional councils, and other local governing bodies of a similar nature with which the provinces are concerned, is referred to in Chapter III, which deals with local government. Roads (other than National Roads), outspans, ponts, and bridges (other than bridges connecting two provinces), moreover, come under provincial control (for particulars of these, see Chapter XIII). The preservation of game and fish is likewise under the control of the Provincial Administrations (see Chapters I and XXI respectively).

The Provincial Administrations also deal, among other matters, with the destruction of vermin and the regulation of shop hours and public entertainments.

4. **Staff in the Service of the Provincial Administrations.**—Particulars are given hereunder of the authorized establishments of the Provincial Administrations, excluding teachers, in respect of the financial year 1938-39, together with a statement of the temporary staff actually employed by them at 31st December, 1938:—

NUMBER OF PERSONS IN THE SERVICE OF THE PROVINCIAL ADMINISTRATIONS, 1938-39.

Administration.	Permanent Staff Authorized, 1938-39.			Temporary Staff Employed, 31st December, 1938.			Grand Total.
	Male.	Female.	Total.	Male.	Female.	Total.	
Cape of Good Hope*	590	239	829	318	35	353	1,182
Natal†	319	53	372	25	5	30	402
Hospitals	131	321	452	154	346	500	952
Transvaal‡	642	176	818	47	18	65	883
Orange Free State§	155	28	183	15	1	16	199
TOTAL	1,837	817	2,654	559	405	964	3,618

* Includes the staff of the Conradie Home, Capetown, and the Prince Alfred Infirmary, Grahamstown, but not that of hospitals.
† Excluding casual road employees and teachers employed in government schools.
‡ Excluding hospital staff and casual road employees.
§ Excluding hospital staff.

5. **The Inter-Provincial Consultative Committee.**—As a result of a recommendation by the Provincial Finances Committee, the Government instituted at the beginning of 1935 the Inter-Provincial Consultative Committee, consisting of the Minister of the Interior (Chairman), the Minister of Education (Deputy Chairman), and the four Provincial Administrators. The latter are assisted at the meetings, which take place at quarterly intervals, by members of their respective Executive Committees and by the chief officials of their respective Administrations.

The chief function of this consultative committee is to co-ordinate the various activities of the Union and the Provincial Administrations, with a view to eliminating anomalies and unnecessary overlapping.

The work is done chiefly by means of sub-committees, which deal with the different phases of provincial administration.

§ 6. Provincial Councils and Legislation.

1. **Provincial Councils.**—The Provincial Council of each province consists of the same number of elected members as there are electoral divisions of the House of Assembly, unless that number is under twenty-five, as is the case in Natal and the Orange Free State, when the number of members of the Provincial Council is fixed at twenty-five. In the case of the Cape Province 2 members additional to the number of members provided for in the

South Africa Act, 1909, are elected by the native population under the provisions of the *Representation of Natives Act*, No. 12 of 1936 (see Chapter XI, § 2). Under the provisions of section 73 of the *South Africa Act*, 1909, each Council had a duration of three years and was subject to dissolution only by effluxion of time. This section was amended by Act No. 43 of 1935, which provides for the extension of the life of Provincial Councils to five years. The times for sessions and their prorogation are fixed by the Administrator. There must be a session of the Council once in every year: so that a period of twelve months shall not intervene between the last sitting of a Council in one session and its first sitting in the next. Members receive allowances of £180 each annually, subject to deductions for absences. There is freedom of speech, and members are not liable to action at court for any speech or vote in a Council. (See sections 70-77 of the *South Africa Act*.)

2. **Powers of Provincial Councils.**—The legislative powers of Provincial Councils are defined and limited by sections 85 to 91 of the *South Africa Act* and a series of *Financial Relations Acts*, commencing in 1913, which determined the sphere of action assigned to these bodies and regulated the financial responsibilities and powers of the provinces in relation to the central government. A summary of these enactments in their effect on the system of provincial administration was given in previous issues of this *Year Book* (Nos. 1 to 6). A considerable change was made in the financial relations between the Central Government and the provinces under the provisions of Act No. 46 of 1925 (see Chapter XV). In general, the evolution of the provincial system has been in the direction of extending the authority of the Councils in matters of purely local concern, while limiting more strictly the scope of their activities in directions bordering on wider national issues. The more important developments of the system have centred round the financial aspect, coupled with the question of lower education, the control of which remains the most distinctive function of the Provincial Councils. Commissions of inquiry appointed in 1915 (Jagger Commission), 1922 (Baxter Commission), and 1923 (Education Administration Commission), investigated and reported upon these and other aspects of provincial administration.

The fiscal organization of the provinces, as regulated by Union legislation from time to time, is outlined in Chapter XV of this *Year Book*.

Any Ordinance made by a Provincial Council has effect in and for the province as long and as far as it is not repugnant to any Act of Parliament. Assent to Ordinances passed by a Provincial Council must be obtained from the Governor-General-in-Council (Section 90 of the *South Africa Act*). Provincial Councils may recommend to Parliament the passing of any law relating to any matter in respect of which Councils are not competent to make Ordinances.

3. **Provincial Ordinances, 1938.**—The following is a list of Ordinances, excluding Appropriation Ordinances, passed in the several provinces during 1938:—

PROVINCIAL ORDINANCES, 1938.

(i) CAPE OF GOOD HOPE.

No. of Ordinance.	Title.	No. of Ordinance.	Title.
1	Transkeian Territories Road Tax Amendment.	13	Public Roads Traffic Control.
2	Valuation (Further) Amendment.	14	Cape Municipal Amendment.
3	Wild Flowers Protection (Amendment).	15	Motor Vehicle.
4	Douglas Bridge (Amendment).	16	Vermin Extermination Further Amendment.
5	Validation of Employment of Certain Hospital Nurses.	17	Local Authorities (Audit).
6	Nurses' Salaries Amendment.	18	Pounds.
7	Divisional Councils and Roads (Amendment).	20	City of Cape Town Trackless Tram Private Ordinance, 1934, Amendment.
8	Municipal and Divisional (Pension Scheme) Amendment.	22	Refund of Salary Deductions.
9	Roads Amendment.	23	Education Amendment.
10	Cape Hospitals Amendment.	24	Tax upon Persons and the Incomes of Persons and Companies Amendment.
11	Game Laws Amendment.		
12	Townships Amendment.		

PROVINCIAL ORDINANCES, 1938—(*continued*).

(ii) NATAL.

No. of Ordinance.	Title.	No. of Ordinance.	Title.
4	Motor Vehicle and Road Traffic Regulation Amendment.	8	Cremation.
5	City of Durban Extended Powers.	9	Licences (Control) Amendment.
6	City of Durban Electoral Amendment.	10	Wild Flower Reserves.
7	Margate Health Committee Powers and Loan.	11	Public Roads Motor Grid.
		13	Provincial Hospitals.
		14	Newcastle Corporation.
		15	Pensions (Supplementary).

(iii) TRANSVAAL.

No. of Ordinance.	Title.	No. of Ordinance.	Title.
5	Financial Adjustments.	11	Transvaal Hospital Nurses' Pensions Amendment.
6	Horse Racing and Betting Amendment.	12	Main Reef Road (Repeal).
7	Fish Preservation Amendment.	13	Companies Tax Amendment.
8	Licensing of Bookmakers and Taxation Amendment.	14	Personal and Income Taxes Amendment.
9	Education Act Amendment.	15	Agricultural Schools (Transfer).
10	Townships and Town-planning Amendment.	16	Motor Vehicle Amendment.
		17	Roads Amendment.

(iv) ORANGE FREE STATE.

No. of Ordinance.	Title.	No. of Ordinance.	Title.
4	Wheel Tax Amendment.	10	Roads Ordinance Amendment.
5	Dogs Ordinance Amendment.	11	Shop Hours and Half-Holiday Ordinance Amendment.
6	Licences (Control) Ordinance Amendment.	12	Hospitals Amendment.
7	Dogs Ordinance Further Amendment.	13	Tax on Persons and Companies Amendment.
8	Motor Vehicle Amendment.	14	Local Government Superannuation.
9	Local Government Amendment.	16	Township and Hamlet Ordinance Amendment.

§ 7. South Africa and the League of Nations.

1. **South Africa's Connexion with the League.**—The Union of South Africa's most important connexion with the League of Nations at present is its responsibility as Mandatory Power for South West Africa. As such, in terms of Article 22 of the Covenant of the League of Nations, the Union Government submits annually to the Council of the League a report on the administration of that territory. The resolutions of that body are communicated to the Union Government by the Secretary-General of the League, through the Union's Accredited Representative to the League of Nations at Geneva.

The League invites a representative of each Mandatory Power to be present at the meeting of the Permanent Mandates Commission at which its annual report is considered.

At the Assembly, the annual meeting of delegates from the States Members of the League, which is held at Geneva, the Union is entitled to three representatives. In September, 1933, the first delegate of the Union (Mr. C. T. te Water) was elected President of the fourteenth ordinary session of the Assembly.

The International Labour Office is the largest branch of the League. It holds an annual conference: twenty-three of these have hitherto been held, and South Africa has been represented at twenty. South Africa is entitled to send four delegates to this conference: one workers' delegate, one employers' delegate, and two government delegates. Each delegate may be accompanied by advisers. The conference is held at Geneva and considers conditions of employment and questions connected with the social welfare of the workers from an international aspect; it deals with the industrial and social problems of the day. Each conference has drafted conventions and recommendations, by means of which an endeavour is made to secure improved and uniform social and labour conditions in those States which are members of the League. (See Chapter V of this *Year Book*.)

The Union Government, as a member of the League, receives detailed documents from the Secretariat describing the work of the various committees, and constant correspondence is maintained with the Secretary-General, through the Union's Accredited Representative to the League, on matters in which the League is interested. Such subjects include disarmament, finance, commercial arbitration, customs facilities, freedom of communications and transit, traffic in drugs, traffic in women and children, and health and educational measures. All documents of importance are laid on the table of the House of Assembly.

At the request of the Economic and Financial Section of the League, the Union Office of Census and Statistics supplies the League with all desired statistical information in regard to the finances and economic conditions of the Union, the more important statistics being cabled monthly to the League for the purposes of its *Monthly Bulletin of Statistics*.

2. **Contribution of South Africa to the League.**—The following contributions to the League have been paid by South Africa:—

Year.	*Gold Francs.*	£	s.	d.
1919	—	16,234	0	0
1920	523,000	28,462	17	4
1921*	324,592	15,916	8	5
1922	332,388	14,353	6	11
1923	407,947·68	17,347	12	7
1924	347,613·12	15,061	17	2
1925	363,499·54	14,465	5	3
1926	367,035·91	14,596	13	10
1927	323,711·29	12,865	6	8
1928	333,626·67	13,184	14	4
1929	375,289·11	14,880	3	3
1930	403,598·96	16,016	12	3
1931	449,923·88	17,835	10	1
1932	484,417·81	19,489	3	4
1933	495,246·40	29,910	14	6
1934	456,482·80	29,728	12	2
1935	454,419·55	29,859	3	10
1936	431,656·15	27,975	2	6
1937	368,967·70	24,091	10	4
1938	356,623·60	24,135	18	6

* The total claim for 1921 amounted to 1,041,666 gold francs, which amount has now been paid in full, as follows:—

In 1921	Gold Francs	324,592
March, 1923	,,	109,378·77
March, 1924	,,	153,678·35
September, 1924	,,	26,318·79
March, 1925	,,	210,679·16
November, 1925	,,	217,013·93
TOTAL	,,	1,041,666

The following statement shows the actual expenditure of the League in the year 1937 and the estimates for the years 1937, 1938, and 1939:—

STATEMENT OF EXPENDITURE, LEAGUE OF NATIONS.

Statement of Expenditure.	Estimates. 1939.	Estimates. 1938.	Estimates. 1937.	Expenditure. 1937.
	Swiss Francs.	Swiss Francs.	Swiss Francs.	Swiss Francs.
Secretariat	16,188,063	15,929,331	14,842,103	12,280,737
International Labour Organisation	8,394,243	8,335,272	7,608,662	7,550,868
Permanent Court of International Justice	2,839,689	2,894,516	2,561,333	2,439,374
Permanent Central Opium Board	126,399	124,064	124,508	97,865
International Assistance to Refugees	269,506	280,277*	476,697*	449,134*
Buildings at Geneva—				
(1) Terminable Annuity	1,375,000	1,375,000	1,375,000	1,375,000
(2) Wireless Station: Trading Account and Technical Work	209,000	209,000	209,000	207,284
Pensions	1,710,118	1,713,791	1,686,825	1,627,750
Settlement of the Assyrians of Iraq	150,000	300,000	300,000	140,161
High Commissioner for League at Danzig	72,000	72,000	—	—
Currency Depreciation Fund	—	1,040,000	—	—
New York World's Fair: Participation of the League	900,000	—	—	—
Total Budget	32,234,012	32,273,251	29,184,128	26,168,173

* Including credits for (or expenditure of) The Nansen International Office for Refugees and the High Commission for Refugees coming from Germany, which were to be discontinued as from the 31st December, 1938, and which are therefore no longer shown separately in the budget statement.

§ 8. South African Diplomatic Representation Abroad.

During 1929 Union Legations were established in the following countries:—

THE NETHERLANDS	At The Hague.
ITALY	,, Rome.
UNITED STATES OF AMERICA	,, Washington, D.C.

and during 1934 in:—

GERMANY	At Berlin.
SWEDEN	,, Stockholm.
FRANCE	,, Paris.
PORTUGAL	,, Lisbon.
BELGIUM	,, Brussels.

Although there are eight Legations there are only six Ministers Plenipotentiary, as the Union Minister at The Hague is also accredited to Brussels, and the Minister at Berlin also to Stockholm.

The duties falling to Legations include keeping the Union Government advised in regard to political and commercial developments in the countries in which they are situated and in regard to international tendencies in general and their possible political and commercial effect on the Union, acting as the channel of communication between the Union Government and foreign Governments, negotiating agreements, investigating new channels of trade, assisting in the removal of difficulties hampering existing trade, disseminating reliable information in regard to the Union, and advising and assisting Union nationals abroad.

§ 9. Diplomatic Representation of Great Britain and Other Countries in South Africa.*

1. **The High Commissioner in the Union of South Africa for His Majesty's Government in the United Kingdom of Great Britain and Northern Ireland.**—In pursuance of the Resolution adopted by the Imperial Conference of 1926 as to the further development of the existing system of communication between His Majesty's Governments, His Majesty's Government in the United Kingdom

* See Chapter XXVIII for names.

in 1928 appointed a representative in Canada, with the title of High Commissioner. Arrangements were made at the same time whereby the Imperial Secretary in South Africa acted as a supplementary channel of communication between His Majesty's Governments in the United Kingdom and the Union of South Africa.

In 1930 a post of High Commissioner in the Union for His Majesty's Government in the United Kingdom was created; it was combined with the existing post of High Commissioner for South Africa (now His Majesty's High Commissioner for Basutoland, the Bechuanaland Protectorate, and Swaziland), which had been till then held by the Governor-General of the Union.

In 1931, His Majesty's Government in the United Kingdom announced its decision also to create the post of High Commissioner in the Commonwealth of Australia, but the first appointment to this post was not made until 1936. A post of High Commissioner has also now been created in New Zealand.

The Resolution of the Imperial Conference arose from the fact that, by reason of his constitutional position, the Governor-General of a Dominion was no longer the representative in that Dominion of His Majesty's Government in the United Kingdom and that there was therefore no one in the Dominion capitals in a position to represent with authority the views of His Majesty's Government in the United Kingdom. This affords an indication of the general nature of the duties of the High Commissioners; they are, shortly, to supplement, but not to replace, the earlier system of direct intercommunication between His Majesty's Governments and the reciprocal supply of information on affairs requiring joint consideration.

2. **Diplomatic Representatives of other Governments in the Union.**—Towards the end of 1929 the Netherlands opened a legation in the Union in consequence of the establishment of a Union legation at the Hague. Shortly afterwards Italy and the United States of America also established legations in the Union as a result of the establishment of Union legations in those countries. Other legations followed in the course of time and at the present moment the following countries, arranged according to the date of establishment of the legations concerned, have diplomatic representatives in the Union:—

The Netherlands (1929).	France (1934).
Italy (1930).	Portugal (1935).
United States of America (1930).	Japan (1937).
Germany (1933).	Belgium (1938).

§ 10. Electorate.

1. **Qualifications of Parliamentary Voters.**—A.—*General.*—Parliament, in terms of section 35 (i) of the *South Africa Act*, may by law prescribe the qualifications which entitle persons to vote at the elections of members of the House of Assembly: subject to the limitation that no such law shall disqualify, by reason of race or colour only, persons who are or may become registered voters under the law of the Cape of Good Hope, unless passed by a two-thirds majority of both Houses of Parliament sitting together. Act No. 12 of 1918, together with amending Acts Nos. 11 of 1926, 24 of 1928, and 35 of 1931, provides for the registration of voters for the House of Assembly and all Provincial Councils, and for contingent matters. Until the passing of Act No. 18 of 1930, which enfranchised adult white women, and Act No. 41 of 1931, which extended the franchise to all adult white males, the qualifications of voters remained unchanged and as they existed in the four provinces at the date of Union. The *Representation of Natives Act* (No. 12 of 1936) provides that native voters previously registered in the lists for the electoral divisions of the Cape of Good Hope and male natives who may become qualified and apply for registration now appear on a separate list, termed the Cape Native Voters' Roll.

B.—*European or White Franchise.*—By the promulgation of Act No. 18 of 1930, the franchise, which hitherto had been confined to males, was extended throughout the Union, as from the biennial registration of 1931, to adult white females who are Union Nationals. Act No. 41 of 1931 enfranchised in all provinces white males of or over the age of 21, thus removing certain wage and property qualifications previously imposed in the Cape and Natal Provinces.

No person is, however, entitled to be registered as a voter under the provisions of the *Electoral Act*, or if so registered, to vote at any election in the Union or in the mandated territory of South West Africa, if he has been convicted—

(i) of treason, if such conviction took place after the commencement of this Act, unless he has been granted a free pardon; or

(ii) of murder unless he has been granted a free pardon; or

(iii) of any other offence and sentenced therefor to a period of imprisonment without the option of a fine and such period of imprisonment has not expired at least three years before the day of commencement of any registration, as defined in section *four* or section *twenty-one* of the *Electoral Act*, at which he claims to be registered as a voter, unless he has been granted a free pardon.

A person who is subject to an order of court of law declaring him (or her) as of unsound mind, or mentally disordered or defective, or who is lawfully detained as a mentally disordered or defective person under the *Mental Disorders Act*, No. 38 of 1916, is disqualified from registration as a voter, or, if registered, is not entitled to vote.

C.—*Coloured and Native (i.e. non-white) Franchise.**—The following conditions apply to the exercise of the franchise by coloured and native persons resident in the provinces of the Cape of Good Hope and Natal. The conditions in regard to these races remain as they were at the time of Union, except that native voters in the Cape Province are registered in a separate roll in terms of Act No. 12 of 1936. Only *non-white male* adults may be registered as voters and the disqualifications mentioned in B above refer equally to them.

(i) *Cape of Good Hope Province.*—(*a*) *Education.*—Although qualified in every other respect, no non-white person may be registered as a voter, unless he is able to sign his name and write his address and occupation; such persons who were registered as parliamentary voters in any fiscal division of the Cape Province on the 1st January, 1893, are, however, exempt from this provision, provided they can show that they have since continued to reside in such division.

(*b*) *Occupation, Property, or Salary or Wages.*—It is further necessary for a non-white person to possess *either* of the following qualifications:—

(1) *Occupation*—i.e. occupation within the Union or mandated territory of South West Africa (either solely or jointly with other persons) for not less than twelve months next before the day on which the registration commenced, and for the last three months of such period within the electoral division for which such person claims to be registered, of a house, warehouse, shop, or other building which, either separately or jointly with any land within the electoral division, is of the value of £75. If there is more than one joint occupier, the share of each occupier claiming to vote must be of the value of £75.

* A summary of the *Representation of Natives Act*, 1936 which was passed at a Joint Sitting of both Houses of Parliament will be found in Chapter XI, § 2.

Note.—In the case of such persons as were registered on the 1st January, 1893, and have continued to reside in the fiscal division in which they were residing on that date, the value of the premises need be only £25.

Or,

(2) *Salary or Wages*—i.e. real and *bona fide* receipt for not less than twelve months of salary or wages at the rate of not less than £50 per annum. In order to possess this qualification, it is necessary that he shall have really and *bona fide* earned such salary or wages within the Union or the mandated territory of South West Africa for the space of twelve months next before the day on which the registration commenced and that for the last three months of such period he shall have resided within the electoral division for which he claims to be registered.

Note.—In the case of such persons as were registered on the 1st January, 1893, and have continued to reside in the fiscal division in which they were residing on that date, receipt of a salary of £25 per annum plus board and lodging is also a qualification.

(3) *Special provisions in force in the former Province of Griqualand West* (comprising the fiscal divisions of Kimberley, Barkly West, Hay, and Herbert):—

(*a*) *Occupation or salary or wages qualifications.*—In the case of a non-white person who at the date of the taking effect of Act No. 9 of 1892 was registered in any fiscal division formerly comprised in the Province of Griqualand West, and who has continued to reside in the fiscal division in which he was registered when the Act took effect, it is enough to show that—

(i) for the space of six months immediately preceding the day when the registration of voters commenced, he had occupied premises of the value of not less than £25; or

(ii) for the space of six months immediately preceding that date he was in receipt of salary at the rate of not less than £100 a year, or £50 a year in addition to his board and lodging.

(*b*) *Diggers' Qualification.**—Every person not otherwise disqualified by law who, for the space of six months immediately preceding the day when any registration of voters commences, was the duly registered holder of a licence to dig and search for diamonds in any claim or portion of a claim in the Province of the Cape of Good Hope, shall be entitled to be registered as a voter in the division in which such claim or portion of a claim is situate, if he has actually resided in such division during the last three months of the aforementioned six months or if he has during these three months retained his home in that division and was absent therefrom merely for some temporary purpose.

(*ii*) *Natal Province.*—Every male native resident in, or possessing the necessary qualification in, Natal is disqualified for registration as a voter under the provisions of the Natal franchise laws, unless he possesses a certificate from the Governor entitling him to be registered.

Persons, who (not being of European origin) are natives or descendants in the male line of natives of countries which had not, prior to the 23rd May, 1896, possessed elective representative institutions founded upon the parliamentary franchise, are disqualified from being registered as voters unless possessed of certificates of exemption granted by the Governor-General-in-Council.

The qualifications for registration of non-white male persons (other than natives) as voters are (*a*) ownership of property; (*b*) income; (*c*) residence within electoral division.

* Act No. 23 of 1926.

(*a*) *Ownership* of immovable property of the value of £50 or the *renting* of such property of the yearly value of £10 within any electoral division in Natal. In the case of joint occupation, the value or the rent of the property if equally divided among the joint occupiers must be sufficient to entitle each of them to be registered.

(*b*) *Income*, inclusive of allowances equal to £8 per month or £96 per annum, together with a total residence of three years in the Union. Only persons who do not possess the property or rental qualification may claim this qualification.

(*c*) *Residence* of three months out of the last seven months in the electoral division, immediately prior to and including the date of the commencement of registration.

(iii) *Transvaal and Orange Free State Provinces.*—The franchise is confined solely to European, or white persons.

2. **Parliamentary Representation.**—The *Electoral Quota Act*, No. 21 of 1937, amends section 34 of the *South Africa Act*, 1909, and provides that the quota for the Union shall be obtained by dividing the total number of European Union Nationals, both male and female, of and over the age of 21 years, as ascertained at the census taken in 1936 and the following censuses, by 150 (the maximum number of members at present allowed for the House of Assembly). In determining the Union quota, members of His Majesty's (non-Union) regular forces on full pay are excluded.

The quota referred to in the foregoing paragraph, when applied to the total number of adult European Union Nationals in each province of the Union gives the number of parliamentary representatives to be assigned to each province.

Subsequently the number of registered voters (native voters registered in the Cape Native Voters' Roll are not taken into account in this calculation) in each province is divided by the number of parliamentary representatives assigned to it, in order to arrive at a *provincial* quota, for the purpose of delimiting the seats proportionately, and the commissioners in the process of delimitation are required to give due consideration to the following points: (*a*) community or diversity of interests, (*b*) means of communication, (*c*) physical features, (*d*) existing electoral boundaries, and (*e*) sparsity or density of population, in such manner that, while taking the quota of voters as a basis of the division, they may, whenever they deem it necessary, depart therefrom, but in no case to any greater extent than fifteen per centum above or below the quota.

Provision is made for the continuation of the quinquennial census of population until 1951, and thereafter for a decennial census. The figures as ascertained at these censuses will be utilized by future Delimitation Commissions to arrive at the Union quotas.

At the Census of 1936 European adult Union Nationals numbered 1,114,598, distributed in the four provinces as follows:—

EUROPEAN ADULT UNION NATIONALS—CENSUS, 1936.

Province.	South African.		South African Naturalized.		Total Union Nationals.		
	M.	F.	M.	F.	M.	F.	P.
Cape of Good Hope.	209,416	218,077	7,361	5,361	216,777*	223,438*	440,215*
Natal.....	55,673	57,850	1,785	1,298	57,458	59,148	116,606
Transvaal.....	217,815	206,493	13,768	9,105	231,583	215,598	447,181
Orange Free State..	54,404	53,743	1,545	904	55,949	54,647	110,596
UNION.....	537,308	536,163	24,459	16,668	561,767*	552,831*	1,114,598*

* Includes 154 males and 114 females at Walvis Bay

The numbers of seats in the House of Assembly as determined from these figures are as follows:—

Cape of Good Hope	59
Natal	16
Transvaal	60
Orange Free State	15
TOTAL	150

3. **Delimitation Commissions.**—Under the provisions of the *South Africa Act*, 1909, a commission of three judges of the Supreme Court of South Africa is required to be appointed by the Governor-General-in-Council after every quinquennial census of population for the purpose of making any necessary re-division of the electoral divisions. The provision in the *South Africa Act* for the census of population to be taken quinquennially was amended by the *Electoral Quota Act*, 1937, which provides for the continuation of the quinquennial census until 1951, and thereafter for a decennial census. From 1951 onwards a period of ten years will elapse between each re-delimitation of the electoral divisions.

Particulars of the personnel of each commission appointed for this purpose from 1909 to 1932 appeared in *Year Book* No. 19. The personnel of the Seventh Delimitation Commission (1937) was as follows:—

Chairman	The Hon. C. W. H. Lansdown.
Members	The Hon. A. v. d. S. Centlivres.
	The Hon. C. L. Botha.

The seventh Commission in its work of delimitation was guided by certain factors shown in the following table:—

Province.	Number of Seats.	Number of Voters.	Quota.	Maximum.	Minimum.
Cape of Good Hope	59	417,536	7,077	8,139	6,015
Natal	16	93,604	5,850	6,728	4,972
Transvaal	60	359,749	5,996	6,895	5,097
Orange Free State	15	109,822	7,321	8,419	6,223
TOTAL	150	980,711	—	—	—

The final results of the seventh delimitation were published in *Government Gazette Extraordinary*, No. 2479, of the 25th November, 1937.

4. **Parliamentary Elections, 1938.**—The Seventh Parliament of the Union was dissolved on the 11th April, 1938, and the general election for the Eighth was held on the 18th May following.

The constitution of the House of Assembly in regard to party representation was as follows:—

Province.	United Party.	Nationalist Party.	Dominion Party.	Labour Party.	Socialist Party.
Cape of Good Hope	38	20	1	—	—
Natal	7	—	7	1	1
Transvaal	57	1	—	2	—
Orange Free State	9	6	—	—	—
Union	111	27	8	3	1

A statement containing details of the polling in the various constituencies was published in the Appendix to *Year Book* No. 19.

5. **Parliamentary By-elections.**—The following table gives particulars of parliamentary by-elections which have taken place since the general election held on the 18th May, 1938:—

Electoral Division.	Date of Election.	No. of Voters on Register.	No. of Candidates.	No. of votes cast.*	Percentage of votes cast to Voters on Register.	Successful Candidate.	
						Votes cast for.	Percentage of votes cast.
Bethal	22/2/39	5,810	2	5,075	87·35	2,793	55·03
Lichtenburg	4/4/39	5,204	2	4,404	84·63	2,344	53·22
Marico	12/10/38	5,353	2	4,694	87·69	2,358	50·23
Paarl	19/4/39	8,431	2	7,944	94·22	4,006	50·43
Pretoria City	8/3/39	7,133	3	4,952	69·42	2,193	44·29
South Peninsula	15/11/38	—	1	—	—	Unopposed.	

* Including spoilt papers and rejected votes.

6. **Registered Voters in Electoral Divisions.**—The following tables show for the last two biennial registrations the number of male and female voters registered in each parliamentary electoral division. The number of voters recorded at the 1937 registration have been re-allocated to the divisions as determined by the Seventh Delimitation Commission; consequently they do not coincide with the previously published figures.

(i) PROVINCE OF THE CAPE OF GOOD HOPE. NUMBER OF SEATS ALLOTTED BY THE SEVENTH DELIMITATION COMMISSION, 59. PROVINCIAL QUOTA OF VOTERS, 7,077; MAXIMUM QUOTA, 8,139; MINIMUM QUOTA, 6,015. [SEC. 40 (3), SOUTH AFRICA ACT.]

Electoral Division.	1935.			1937.		
	Men.	Women.	Total.	Men.	Women.	Total.
Albany	3,561	3,585	7,146	3,534	3,753	7,287
*Albert	3,156	2,968	6,124	—	—	—
†Albert-Colesberg	—	—	—	3,156	3,145	6,301
Aliwal	3,064	2,501	5,565	3,181	3,067	6,248
*Beaconsfield	2,967	2,625	5,592	—	—	—
Beaufort West	3,302	2,984	6,286	3,314	2,941	6,255
*Bechuanaland	3,264	2,706	5,970	—	—	—
*Bellville	4,225	3,223	7,448	—	—	—
Bredasdorp	3,767	3,281	7,048	4,129	3,592	7,721
Caledon	3,827	3,401	7,228	3,543	3,106	6,649
Calvinia	3,602	2,976	6,578	3,428	2,912	6,340
†Cape Flats	—	—	—	4,978	3,505	8,483
Capetown (Castle)	4,085	1,946	6,031	5,570	2,433	8,003
Capetown (Central)	3,823	2,962	6,785	4,276	3,732	8,008
Capetown (Gardens)	4,097	4,628	8,725	3,721	4,421	8,142
*Cathcart	3,477	2,456	5,933	—	—	—
Ceres	3,277	3,002	6,279	3,368	3,041	6,409
Claremont	4,463	3,754	8,217	4,638	3,853	8,491
*Colesberg	3,419	3,260	6,679	—	—	—
Cradock	3,244	3,147	6,391	3,073	3,012	6,085
†East Griqualand	—	—	—	3,460	3,000	6,460
East London (City)	3,780	3,854	7,634	4,124	4,273	8,397
East London (North)	4,416	3,940	8,356	4,028	4,242	8,270
Fort Beaufort	3,262	2,596	5,858	3,280	3,077	6,357
George	4,108	3,635	7,743	3,890	3,542	7,432
Gordonia	4,370	3,535	7,905	3,541	2,900	6,441
Graaff-Reinet	3,489	3,481	6,970	3,073	3,175	6,248

* Electoral division abolished by Seventh Delimitation Commission.

† Constituted electoral division by Seventh Delimitation Commission.

(i) PROVINCE OF THE CAPE OF GOOD HOPE—(*continued*).

Electoral Division.	1935.			1937.		
	Men.	Women.	Total.	Men.	Women.	Total.
*Griqualand	3,477	1,933	5,410	—	—	—
Hopetown	3,325	2,737	6,062	3,074	2,812	5,886
Hottentots-Holland	3,756	2,711	6,467	4,248	3,074	7,322
Humansdorp	4,022	3,407	7,429	3,355	2,890	6,245
*Kimberley	3,076	2,010	5,086	—	—	—
†Kimberley (City)	—	—	—	4,310	3,677	7,987
†Kimberley (District)	—	—	—	3,516	2,869	6,385
Kingwilliamstown	3,365	2,895	6,260	3,567	3,690	7,197
Kuruman	3,242	2,565	5,807	3,157	2,697	5,854
Maitland	4,635	2,664	7,299	4,881	3,490	8,371
Malmesbury	3,419	3,118	6,537	3,736	3,368	7,104
Moorreesburg	3,303	2,785	6,088	3,858	3,306	7,164
Mossel Bay	3,960	3,282	7,242	3,772	3,100	6,872
Mowbray	3,975	3,881	7,856	4,051	3,690	7,741
Namaqualand	4,000	2,920	6,920	3,678	2,694	6,372
Oudtshoorn	3,998	3,900	7,898	3,599	3,598	7,197
Paarl	3,360	3,212	6,572	4,003	3,504	7,507
Piquetberg	3,456	3,078	6,534	3,738	3,294	7,032
Port Elizabeth (Central)	4,331	4,476	8,807	4,094	4,439	8,533
†Port Elizabeth (District)	—	—	—	4,086	3,245	7,331
Port Elizabeth (North)	4,273	3,611	7,884	4,318	4,063	8,381
Port Elizabeth (South)	4,478	3,779	8,257	4,499	3,838	8,337
Prieska	2,688	2,319	5,007	3,423	2,997	6,420
Queenstown	3,366	2,985	6,351	3,356	3,569	6,925
Riversdale	3,774	3,388	7,162	3,489	3,064	6,553
Rondebosch	4,441	4,293	8,734	3,937	4,335	8,272
*Salt River	4,007	3,340	7,347	—	—	—
Sea Point	4,211	5,005	9,216	3,755	4,531	8,286
*Somerset	3,546	3,107	6,653	—	—	—
†Somerset East	—	—	—	3,345	3,041	6,386
South Peninsula	3,729	3,078	6,807	4,372	3,563	7,935
Stellenbosch	3,477	2,374	5,851	4,352	3,296	7,648
Swellendam	3,865	3,799	7,664	3,814	3,731	7,545
Tembuland	3,447	1,811	5,258	3,340	2,900	6,240
Uitenhage	4,299	3,273	7,572	3,791	3,472	7,263
Victoria West	3,208	2,994	6,202	3,236	3,046	6,282
†Vryburg	—	—	—	3,391	2,889	6,280
Willowmore	3,623	3,158	6,781	3,229	3,045	6,274
Wodehouse	3,410	3,081	6,491	3,171	3,198	6,369
Woodstock	3,830	1,414	5,244	4,465	3,560	8,025
Worcester	3,540	3,169	6,709	3,869	3,591	7,460
Wynberg	4,367	3,202	7,569	4,425	3,504	7,929
TOTAL	226,324	191,200	417,524	223,545	199,392	422,937

* Electoral division abolished by Seventh Delimitation Commission.
† Constituted electoral division by Seventh Delimitation Commission.

(ii) PROVINCE OF NATAL. NUMBER OF SEATS ALLOTTED BY THE SEVENTH DELIMITATION COMMISSION, 16. PROVINCIAL QUOTA OF VOTERS, 5,850; MAXIMUM QUOTA, 6,728; MINIMUM QUOTA, 4,972. [SEC. 40 (3), SOUTH AFRICA ACT.]

Electoral Division.	1935.			1937.		
	Men.	Women.	Total.	Men.	Women.	Total.
Durban (Berea)	3,320	3,947	7,267	3,235	3,801	7,036
*Durban (County)	2,822	2,866	5,688	—	—	—
Durban (Greyville)	2,854	2639	5,493	3,325	3,193	6,518
†Durban (North)	—	—	—	3,145	3,230	6,375
Durban (Point)	3,145	3,236	6,381	3,728	3,973	7,701
Durban (Stamford Hill)	3,206	3,744	6,950	3,192	3,966	7,158

* Electoral division abolished by Seventh Delimitation Commission.
† Constituted electoral division by Seventh Delimitation Commission.

(ii) PROVINCE OF NATAL—(*continued*).

Electoral Division.	1935.			1937.		
	Men.	Women.	Total.	Men.	Women.	Total.
Durban (Umbilo)	3,258	3,324	6,582	3,500	3,429	6,929
Durban (Umlazi)	2,932	2,905	5,837	3,226	3,152	6,378
Illovo	2,898	2,610	5,508	2,767	2,576	5,343
Klip River	2,589	2,274	4,863	2,840	2,499	5,339
*Natal Coast	3,107	2,961	6,068	—	—	—
Newcastle	2,589	2,489	5,078	2,908	2,822	5,730
†Pietermaritzburg (City)	—	—	—	3,210	3,367	6,577
Pietermaritzburg (District)	2,846	3,375	6,221	2,677	3,156	5,833
*Pietermaritzburg (North)	2,757	2,807	5,564	—	—	—
†South Coast	—	—	—	2,940	2,888	5,828
Vryheid	2,694	2,464	5,158	2,664	2,429	5,093
Weenen	2,599	2,440	5,039	2,694	2,496	5,190
Zululand	2,510	1,879	4,419	3,018	2,322	5,340
TOTAL	46,156	45,960	92,116	49,069	49,209	98,368

* Electoral division abolished by Seventh Delimitation Commission.
† Constituted electoral division by Seventh Delimitation Commission.

(iii) PROVINCE OF THE TRANSVAAL. NUMBER OF SEATS ALLOTTED BY THE SEVENTH DELIMITATION COMMISSION, 60. PROVINCIAL QUOTA OF VOTERS, 5,996; MAXIMUM QUOTA, 6,895; MINIMUM QUOTA, 5,097. [SEC. 40 (3), SOUTH AFRICA ACT.]

Electoral Division.	1935.			1937.		
	Men.	Women.	Total.	Men.	Women.	Total.
Barberton	3,434	2,627	6,061	2,893	2,327	5,220
Benoni	3,466	3,243	6,709	3,250	3,103	6,353
Bethal	2,694	2,459	5,153	2,906	2,636	5,542
Bezuidenhout	3,349	3,516	6,865	3,875	4,047	7,922
Boksburg	3,271	3,068	6,339	3,624	3,354	6,978
*Boksburg (North)	3,714	3,525	7,239	—	—	—
Brakpan	3,556	2,944	6,500	4,779	4,109	8,888
Brits	2,541	2,248	4,789	2,974	2,610	5,584
Carolina	2,756	2,469	5,225	2,643	2,444	5,087
Christiana	3,126	2,803	5,929	3,012	2,584	5,596
Delarey	2,611	2,303	4,914	2,783	2,421	5,204
Ermelo	2,819	2,641	5,460	2,829	2,583	5,412
Fordsburg	3,092	2,446	5,538	3,544	2,874	6,418
*Germiston	3,811	3,610	7,421	—	—	—
†Germiston (North)	—	—	—	4,052	3,755	7,807
†Germiston (South)	—	—	—	3,899	3,762	7,661
Gezina	3,530	3,544	7,074	3,536	3,607	7,143
Heidelberg	3,337	2,911	6,248	3,188	2,925	6,113
Hospital	3,631	3,903	7,534	4,157	4,605	8,762
Jeppes	3,346	3,326	6,672	3,919	3,899	7,818
Johannesburg (North)	3,938	3,829	7,767	4,016	4,104	8,120
†Johannesburg (West)	—	—	—	4,634	4,195	8,829
Kensington	3,602	3,799	7,401	3,504	3,729	7,233
Klerksdorp	2,840	2,676	5,516	3,003	2,756	5,759
Krugersdorp	3,832	3,577	7,409	3,890	3,686	7,576
Langlaagte	3,211	2,783	5,994	3,826	3,382	7,208
Lichtenburg	2,329	1,949	4,278	2,670	2,339	5,009
Losberg	2,918	2,618	5,536	2,934	2,679	5,613
Lydenburg	2,536	2,335	4,871	2,595	2,421	5,016
*Magaliesberg	2,774	2,557	5,331	—	—	—

* Electoral division abolished by Seventh Delimitation Commission.
† Constituted electoral division by Seventh Delimitation Commission.

(iii) PROVINCE OF THE TRANSVAAL—(*continued*).

Electoral Division.	1935.			1937.		
	Men.	Women.	Total.	Men.	Women.	Total.
Marico	2,633	2,440	5,073	2,734	2,528	5,262
Middelburg	2,760	2,549	5,309	2,731	2,470	5,201
†North East Rand	—	—	—	3,909	3,027	6,936
North Rand	3,432	3,151	6,583	3,750	3,448	7,198
†Orange Grove	—	—	—	3,993	4,135	8,128
Parktown	3,948	4,215	8,163	3,519	3,917	7,436
Pietersburg	2,534	2,317	4,851	2,645	2,485	5,130
Potchefstroom	2,953	3,209	6,162	2,888	3,189	6,077
Potgietersrust	2,626	2,232	4,858	2,829	2,347	5,176
Pretoria (Central)	3,633	3,795	7,428	3,125	3,595	6,720
†Pretoria (City)	—	—	—	3,546	3,109	6,655
Pretoria (District)	2,310	1,951	4,261	2,818	2,550	5,368
Pretoria (East)	3,475	3,851	7,326	3,522	3,768	7,290
Pretoria (West)	3,657	2,817	6,474	4,087	3,147	7,234
Roodepoort	3,627	3,271	6,898	4,298	3,667	7,965
Rosettenville	3,364	3,235	6,599	3,561	3,368	6,929
Rustenburg	2,640	2,454	5,094	2,797	2,491	5,288
Springs	4,273	3,309	7,582	4,876	3,804	8,680
Standerton	2,622	2,432	5,054	2,911	2,698	5,609
Troyeville	2,781	2,739	5,520	3,235	3,244	6,479
Turfontein	3,665	3,702	7,367	3,744	3,825	7,569
Ventersdorp	2,545	2,281	4,826	2,676	2,395	5,071
Vereeniging	3,674	3,166	6,840	3,610	3,077	6,687
Von Brandis	4,140	3,931	8,071	3,978	3,932	7,910
Vrededorp	3,815	3,743	7,558	4,432	4,251	8,683
Wakkerstroom	2,849	2,688	5,537	2,824	2,700	5,524
Waterberg	2,592	2,224	4,816	2,618	2,262	4,880
Witbank	2,818	2,491	5,309	3,122	2,768	5,890
Wolmaransstad	2,731	2,468	5,199	2,650	2,359	5,009
Wonderboom	3,618	3,394	7,012	3,179	3,008	6,187
Yeoville	3,712	3,871	7,583	3,703	3,950	7,653
Zoutpansberg	2,783	2,325	5,108	2,783	2,305	5,088
Zwartruggens	2,761	2,405	5,166	2,660	2,407	5,067
TOTAL	181,035	168,365	349,400	202,688	189,162	391,850

† Constituted electoral division by Seventh Delimitation Commission.

(iv) PROVINCE OF THE ORANGE FREE STATE. NUMBER OF SEATS ALLOTTED BY THE SEVENTH DELIMITATION COMMISSION, 15. PROVINCIAL QUOTA OF VOTERS, 7,321; MAXIMUM QUOTA, 8,419; MINIMUM QUOTA, 6,223. [SEC. 40 (3), SOUTH AFRICA ACT.]

Electoral Division.	1935.			1937.		
	Men.	Women.	Total.	Men.	Women.	Total.
Bethlehem	3,197	3,054	6,251	3,455	3,420	6,875
*Bloemfontein (City)	—	—	—	4,216	4,436	8,652
*Bloemfontein (District)	—	—	—	4,015	3,787	7,802
†Bloemfontein (North)	3,551	3,497	7,048	—	—	—
†Bloemfontein (South)	3,500	3,761	7,261	—	—	—

* New electoral division created by Seventh Delimitation Commission.
† Electoral division abolished by Seventh Delimitation Commission.

(iv) PROVINCE OF THE ORANGE FREE STATE—(*continued*).

Electoral Division.	1935.			1937.		
	Men.	Women.	Total.	Men.	Women.	Total.
Boshof	2,830	2,816	5,646	3,286	3,244	6,530
Fauresmith	2,687	2,865	5,552	3,132	3,386	6,518
Frankfort	3,250	3,018	6,268	3,556	3,379	6,935
Harrismith	3,166	2,881	6,047	3,615	3,310	6,925
Heilbron	3,393	3,075	6,468	3,428	3,396	6,824
Hoopstad	3,244	2,960	6,204	3,424	3,112	6,536
Kroonstad	3,296	3,161	6,457	3,872	3,707	7,579
Ladybrand	3,421	3,335	6,756	3,461	3,412	6,873
Senekal	3,229	3,127	6,356	3,311	3,316	6,627
*Smithfield	—	—	—	3,472	3,509	6,981
†Smithfield-Rouxville	2,950	2,918	5,868	—	—	—
Vredefort	3,104	3,024	6,128	3,587	3,395	6,982
†Wepener	3,125	3,151	6,276	—	—	—
Winburg	3,294	3,209	6,503	3,433	3,341	6,774
TOTAL	51,237	49,852	101,089	53,263	52,150	105,413

* New electoral division created by Seventh Delimitation Commission.
† Electoral division abolished by Seventh Delimitation Commission.

The following table shows the number of persons of various races registered as parliamentary voters in the Cape and Natal Provinces at certain specified years. From 1937 the names of natives registered as voters in the Cape Province are included in the Cape Native Voters' roll under the provisions of the *Representation of Natives Act*, 1936:—

NUMBER OF PERSONS OF VARIOUS RACES REGISTERED AS PARLIAMENTARY VOTERS IN THE CAPE AND NATAL PROVINCES AT SPECIFIED YEARS BETWEEN 1905 AND 1937.

Year.	European.			Bantu.	Asiatic*	Other and Mixed Races.
	Male.	Female.	Persons.			
CAPE PROVINCE.						
1905	119,906	—	119,906	8,198	504	14,332
1909	121,336	—	121,336	6,637	783	13,611
1921	156,501	—	156,501	14,282	2,429	24,361
1927	173,391	—	173,391	16,481	1,898	24,193
1929	167,184	—	167,184	15,780	1,737	23,881
1931	176,449	176,209	352,658	12,271	1,680	24,698
1933	185,031	184,151	369,182	10,776	1,471	23,534
1935	190,903	191,200	382,103	10,628	1,401	23,392
1937	196,845	199,392	396,237	—	1,462	25,238
NATAL PROVINCE.						
1911	29,259	—	29,259	186*		
1921	34,041	—	34,041	2	45	389
1927	45,772	—	45,772	3	18	284
1929	42,584	—	42,584	1	16	329
1931	44,976	42,698	87,674	1	15	326
1933	45,596	44,707	90,303	1	13	302
1935	45,802	45,960	91,762	1	10	343
1937	48,727	49,299	98,026	1	8	333

* No differentiation between these three races is shown prior to 1919.

7. **Parliamentary Representatives and Number of Registered Voters.**—The statement below shows, in respect of each province, the number of parliamentary representatives and registered voters at certain registrations, and the average number of registered voters to each representative:—

PARLIAMENTARY REPRESENTATIVES AND VOTERS AND AVERAGE NUMBER OF VOTERS TO EACH REPRESENTATIVE AT CERTAIN BIENNIAL REGISTRATIONS.

Province and Year.	Number of Representatives.	Number of Registered Voters.			Average Number of Voters to each Representative.
		Total.	European.	Other than European.	
Cape of Good Hope—					
1909	51	142,367	121,346	21,021	2,791
1919	51	186,405	153,266	33,139	3,655
1929	58	208,582	167,184	41,398	3,596
1931	58	391,307	352,658	38,649	6,747
1933	61	404,963	369,182	35,781	6,639
1935	61	417,524	382,103	35,421	6,846
1937	59	422,937	396,237	26,700†	7,168
Natal—					
1911	17	29,400	*	*	1,729
1919	17	32,072	32,624	348	1,939
1929	17	42,930	42,584	346	2,525
1931	17	88,016	87,674	342	5,177
1933	16	90,619	90,303	316	5,664
1935	16	92,116	91,762	354	5,757
1937	16	98,368	98,026	342	6,148
Transvaal—					
1908-09	36	97,742	97,742	—	2,715
1919	45	140,583	140,583	—	3,124
1929	55	151,604	151,604	—	2,756
1931	55	311,466	311,466	—	5,663
1933	57	326,514	326,514	—	5,728
1935	57	349,400	349,400	—	6,130
1937	60	391,850	391,850	—	6,530
Orange Free State—					
1909-10	17	38,261	38,261	—	2,250
1919	17	47,481	47,481	—	2,793
1929	18	49,357	49,357	—	2,742
1931	18	98,384	98,384	—	5,466
1933	16	100,586	100,586	—	6,286
1935	16	101,089	101,089	—	6,318
1937	15	105,413	105,413	—	7,027

* Information not available.
† Excluding natives.

8. **Electoral System for Provincial Councils.**—In the Cape and Transvaal Provinces the electoral divisions for members of the House of Assembly and members of the Provincial Council are coincident. In Natal and the Orange Free State, owing to the fact that only sixteen and fifteen members respectively are returned for the House of Assembly (eighth Parliament), whereas each of these provinces returns twenty-five members to the Provincial Council, the electoral divisions do not coincide, having been determined for each purpose by the Delimitation Commission. In other respects the law relating to elections for the House of Assembly applies to elections for Provincial Councils.

9. **Provincial Council Representatives and Number of Registered Voters.**—The statement below shows, in respect of each province, the number of Provincial Council representatives and registered voters at certain registrations and the average number of registered voters per representative:—

PROVINCIAL COUNCIL REPRESENTATIVES AND VOTERS AND AVERAGE NUMBER OF VOTERS TO EACH REPRESENTATIVE AT CERTAIN BIENNIAL REGISTRATIONS.

Province and Year.	Number of Representatives.	Number of Registered Voters.			Average Number of Voters to each Representative.
		Total.	European.	Other than European.	
Cape of Good Hope—					
1909	51	142,367	121,346	21,021	2,791
1919	51	186,405	153,266	33,139	3,655
1929	58	208,582	167,184	41,398	3,596
1931	58	391,307	352,658	38,649	6,747
1933	61	404,963	369,182	35,781	6,639
1935	61	417,524	382,103	35,421	6,846
1937	59	422,937	396,237	26,700†	7,168
Natal—					
1911	25	29,753	*	*	1,189
1919	25	32,972	32,624	348	1,319
1929	25	42,930	42,584	346	1,717
1931	25	88,016	87,674	342	3,521
1933	25	90,619	90,303	316	3,625
1935	25	92,116	91,762	354	3,685
1937	25	98,368	98,026	342	3,934
Transvaal—					
1908-09	36	97,742	97,742	—	2,715
1919	49	140,583	140,583	—	2,869
1929	55	151,604	151,604	—	2,756
1931	55	311,466	311,466	—	5,663
1933	57	326,514	326,514	—	5,728
1935	57	349,400	349,400	—	6,130
1937	60	391,850	391,850	—	6,530
Orange Free State—					
1909-10	25	38,261	38,261	—	1,530
1919	25	47,481	47,481	—	1,899
1929	25	49,357	49,357	—	1,974
1931	25	98,384	98,384	—	3,935
1933	25	100,586	100,586	—	4,024
1935	25	101,089	101,089	—	4,044
1937	25	105,413	105,413	—	4,216

* Information not available.
† Excluding natives.

10. **Provincial Council Elections.**—The last Provincial Council general elections in all four provinces were held on various dates in 1936, and the names of the representatives are shown in Chapter XXVIII.

Under the provisions of Act No. 43 of 1935, the life of future Provincial Councils is extended to five years. Previously each Council had a duration of three years only.

The following table shows the dates of the various Provincial Council general elections which have taken place since Union:—

No. of Election and Year.	Province and Date of Election.			
	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.
1st (1910)	15th September...	12th October.....	15th September...	12th October.
2nd (1914)	27th March.....	19th February....	18th March.....	25th February.
3rd (1917)	8th June.....	18th April.....	20th June.....	25th April.
4th (1920)	15th September...	9th June.....	25th August.....	9th June.
5th (1923)	14th November...	6th November...	7th November...	5th September.
6th (1927)	15th February....	16th February...	15th February....	26th October(1926).
7th (1930)	4th June.....	11th June.....	26th March.....	19th February.
8th (1933)	16th August.....	22nd August.....	7th June.....	6th July.
9th (1936)	21st October.....	20th October....	2nd September..	9th September.

11. **Provincial Council By-elections.**—The following are the results of by-elections for Provincial Council representation contested since the General Provincial Council Elections, 1936.

Electoral Division.	Date of Election.	No. of Voters on Register.	No. of Candidates.	No. of Votes Cast.*	Percentage of Votes cast to Voters on Register.	Successful Candidate.	
						No. of Votes Cast for.	Percentage of Votes Cast.
Cape—							
Cathcart	3/11/37	4,975	2	2,272	45·67	1,328	58·45
East London (North)	27/10/37	7,772	2	4,664	60·01	2,465	52·85
Fort Beaufort	27/10/37	5,256	2	3,388	64·46	1,890	55·79
Kingwilliamstown	27/10/37	5,450	2	3,740	68·62	1,921	51·36
South Peninsula	15/2/39	—	1	—	—	Unopposed.	
Tembuland	9/11/38	—	1	—	—	Unopposed.	
Willowmore	27/7/38	7,082	2	5,575	78·72	3,171	56·88
Wynberg	27/7/38	8,011	2	3,865	48·25	2,790	72·19
Natal—							
Durban (Point)	3/8/38	5,568	2	2,114	37·97	1,270	60·50
North Coast	28/10/37	3,035	2	1,852	61·02	965	52·11
Transvaal—							
Bethal	16/2/38	5,295	2	2,782	52·54	1,392	50·04
Bezuidenhout	24/8/38	—	1	—	—	Unopposed.	
Brakpan	24/8/38	—	1	—	—	Unopposed.	
Fordsburg	10/6/37	6,061	2	1,998	32·96	840	42·04
Heidelberg	19/5/37	6,601	2	3,046	46·14	1,900	62·38
Johannesburg North	14/9/38	10,793	2	3,583	33·20	1,805	50·38
Lydenburg	14/9/38	5,020	2	3,554	70·80	2,193	61·71
Middelburg	14/9/38	5,638	2	3,335	59·15	2,053	61·56
Pretoria East	24/8/38	—	1	—	—	Unopposed.	
Springs	14/9/38	12,211	2	4,397	36·01	2,679	60·93
Turffontein	1/6/38	8,506	2	3,517	41·35	2,033	57·80
Vrededorp	14/9/38	11,468	2	4,209	36·70	2,257	53·62
Waterberg	24/2/37	4,918	2	4,116	83·69	2,110	51·26
Witbank	3/11/37	5,256	2	2,177	41·42	1,539	70·69
Wonderboom	14/9/38	8,612	2	5,279	61·30	2,943	55·75
Yeoville	21/4/37	7,634	2	3,313	43·40	2,123	64·08
Orange Free State—							
Bloemfontein (District)	8/12/37	5,571	2	3,655	65·61	2,199	60·16
Wepener	18/2/37	4,341	2	3,669	84·52	1,935	52·74

* Including spoilt papers and rejected votes.

CHAPTER III.
LOCAL GOVERNMENT.

§ 1. Powers and Duties of Local Governing Bodies.

1. **General.**—The legislative control of local government is vested in the four Provincial Councils, and information is given hereunder in regard to the administration of local government in each province and the Ordinances under which each type of local authority functions.

Audit.—In each province the accounts of all local authorities are subject to annual audit by the Provincial Auditor.

Native Locations in Urban Areas.—All matters affecting natives in urban areas and urban locations are dealt with under the *Natives (Urban Areas) Act*, No. 21 of 1923, as amended by Act No. 25 of 1930.

Housing and Slum Clearance.—Particulars of legislation under which provision is made enabling local authorities to introduce house-building schemes and to undertake the elimination of slums are given in Chapter V.

2. **Cape of Good Hope.**—Local government in the Province of the Cape of Good Hope is administered primarily by divisional councils, municipal councils, village management boards, and local boards, these bodies being under the legislative control of the Provincial Council.

(i) *Divisional Councils.*—The powers and functions of divisional councils as most recently defined are chiefly embodied in Ordinance No. 13 of 1917 and amending Ordinances and Act No. 36 of 1919, and relate to the maintenance of roads, bridges, pontoons, and ferries, and the control of outspans and trekpaths; local rating; vehicle taxation; and public health. Divisional councils were first established in the year 1855.

(ii) *Municipal Councils.*—Municipal councils are empowered to act under Ordinance No. 10 of 1912 and amending Ordinances. Their functions comprise the rating of immovable property; the control of drainage, water supply, and sanitation; the upkeep of burial grounds, botanical gardens, municipal roads, streets, and bridges; the control of recreation grounds; and a number of other matters specified in those Ordinances. Further functions of municipal councils are set out in *Divisional Council Ordinance* No. 13 of 1917 and Act No. 36 of 1919.

(iii) *Village Management Boards.*—Village management boards are constituted under Ordinance No. 10 of 1921, and these bodies are concerned with the maintenance of public streets, the provision of water supply, the prevention or suppression of disease, the control of common lands, and similar matters. They are also affected by the provisions of Ordinance No. 13 of 1917 and Act No. 36 of 1919.

(iv) *Local Boards.*—Local boards are constituted under Ordinance No. 11 of 1921. They are constituted either in localities adjacent to large municipalities, where, by reason of their proximity to such bodies, it is not considered advisable to establish village management boards, or over small communities, which require some form of local government rather wider in scope than the "local areas" established under the control of divisional councils, and are not sufficiently advanced for the establishment of village management boards. One of the main differences between local boards and village management boards is that in the former case the membership is confined to three—two being appointed by the Administrator and one elected. In the case of village management boards, all members (either three or six) are elected. The functions of the boards are very similar to those of village management boards, and they are also affected by the provisions of Ordinance No. 13 of 1917 and Act No. 36 of 1919.

(v) *Local Areas.*—Local areas may be constituted in districts under the control of divisional councils for the regulation of water supply, the use of slaughter places, the management of burial grounds, the erection of buildings, etc. These areas are constituted under Ordinance No. 13 of 1917.

3. **Natal.**—(i) *Municipal Councils.*—In the Natal Province the municipalities are governed by the *Boroughs Ordinance*, No. 19 of 1924, as amended by Ordinances Nos. 13 of 1929, 4 of 1932, 20 of 1932, and 10 of 1936. Each borough has certain powers of sale, by public auction or in certain cases by private bargain, on freehold or leasehold of its town lands, subject in most instances to the consent of the Administrator. Town councils also have

similar powers with regard to leasing any portion of the town lands for periods not exceeding ninety-nine years. Each borough is divided into not fewer than four wards, each ward returning two town councillors, who are elected by the burgesses for a period of two years, one-half of the councillors retiring annually. The mayor is elected by the councillors from among their number. Town councils are in certain circumstances empowered to raise money by overdraft or otherwise, but in most instances special loan Ordinances are passed, under which the flotation of loans for specific purposes, on the security of the borough rates and revenues, is authorized. With a few exceptions government licences are granted by the Receivers of Revenue only upon a certificate of approval issued by the municipalities. A number of licences of a purely local character are issued by the municipalities. The issue of liquor licences is controlled by licensing boards appointed under Act No. 30 of 1928. Market rights vest absolutely in the municipalities. New by-laws and amendments of existing ones are subject to the consent of the Administrator.

(ii) *Town Boards.*—These boards are governed by the *Townships Ordinance*, No. 11 of 1926, as amended by Ordinances Nos. 14 of 1929, 5 of 1931, 5 of 1934, and 11 of 1936, and have powers similar in nature to those conferred on municipalities, but less extensive. In addition to all matters relating to the sale or lease of town lands, all new by-laws or amendments and particulars of the cancellation of existing ones must be referred to the Administrator for approval.

(iii) *Local Administration and Health Boards.*—These boards have been constituted under Ordinance No. 4 of 1926, mainly for certain areas adjacent to the borough of Durban. Within its area each board exercises the powers of a local authority and carries out the duties conferred or imposed on local authorities under the *Public Health Act*, etc. The Ordinance empowers them to levy rates and impose fees and charges for services rendered. The principal Ordinance has been amended by Ordinances Nos. 8 and 9 of 1927, No. 15 of 1928, Nos. 10 and 23 of 1929, No. 7 of 1931, No. 9 of 1932, No. 4 of 1934, and No. 15 of 1935.

(iv) *Health Committees.*—Ordinance No. 14 of 1930 enables the Administrator to constitute health committees for areas outside the jurisdiction of other local authorities, mainly with a view to the maintenance of healthy conditions in such areas. He may make regulations governing the various matters provided for, including the imposition of rates upon land or buildings or upon both land and buildings. The main Ordinance has been amended by Ordinances Nos. 7 of 1932, 3 of 1933, and 3 of 1934.

(v) *Malaria Committees.*—The duties of these committees are confined mainly to measures for stamping out and preventing malaria, but may be increased to include any of the powers contained in the *Health Committee Ordinance*, No. 14 of 1930, which, as extended by Ordinance No. 11 of 1932, provides for their constitution.

4. **Transvaal.**—The *Local Government Ordinance*, No. 11 of 1926, as amended at various times, consolidated the law relating to municipal government in the Transvaal Province. This Ordinance, a comprehensive measure defining in great detail the organization and functions of each form of local authority, provides for three grades of such authorities—town councils, village councils, and health committees. Two town councils, viz., Johannesburg and Pretoria, have now been designated city councils. Among other main laws affecting municipal government may be mentioned the *Municipal Elections Ordinance*, No. 4 of 1927; the *Local Authorities Rating Ordinance*, No. 20 of 1933, in terms of which all local authorities are empowered to levy an assessment rate; the *Local Authorities Roads Ordinance*, No. 44 of 1904, which is applicable to town and village councils only; the *Municipal Expropriation Ordinance*, No. 64 of 1903, is applicable generally to town councils only, although the provisions of sections 9 to 12 inclusive apply in the case of any arbitration proceedings in connexion with any works which may be undertaken by a village council under sections 81 and 84 of Ordinance No. 11 of 1926. Under section 143 (1) (*b*) of Ordinance No. 11 of 1926, the Executive Committee of the province has power, upon the application of a village council, to apply to such council the provisions of Ordinance No. 64 of 1903 for any specific purpose laid down in the last-mentioned Ordinance. The *Town Lands Ordinances* of 1904 and 1905 are applicable to town and village councils.

The *Local Government Ordinance*, No. 11 of 1926, distinguishes between the powers and duties of the bodies known as town councils and village councils respectively. The Ordinance confers upon town councils special powers enumerated in Parts I, II, and III of Chapter X; village councils cannot under any circumstances exercise the powers under Parts II and III (sewerage, drainage, tramways, etc.), but the powers mentioned in Part I (except the power to appoint additional auditors) may be assigned by the Administrator to village councils on good cause being shown. A form of local government by means of health committees is provided for, such committees to control matters of sanitation and public health. The Administrator may by regulation confer other powers and duties on these committees, and may by proclamation declare any health committee to be a body corporate.

5. **Orange Free State.**—The system of local government in the Orange Free State embraces municipalities and village boards of management. These are established under the powers of Ordinance No. 15 of 1935.

(i) *Municipalities.*—As soon as a community has shown that it is ripe for the grant of somewhat further powers of local self-government than are exercisable by a village board of management, it may be proclaimed by the Administrator as a municipality. The powers of town councils are similar to, but cover a much wider field than, those of village boards of management. No immovable property may be alienated by a town council without the consent of the Administrator.

(ii) *Village Boards of Management.*—In the case of village boards of management the boards are given power to deal with the more necessary matters appertaining to local government, e.g. the passing of regulations relating to grazing, sanitation, pounds, etc., and the raising of loans not exceeding a total of £3,000 for public works. Subject to the approval of the Administrator, boards are empowered to frame, amend, and repeal such regulations from time to time, and their rating powers are limited to a maximum "round sum" rate of £5 p.a. per erf or plot.

6. **Short-Term Borrowings.**—In the Natal and Orange Free State Provinces, provision is made by Local Government Ordinance for the acceptance by municipalities of moneys on deposit, pending the raising of the whole of authorized loans. Additional particulars concerning this provision will be found in *Official Year Books* Nos. 12 to 15.

§ 2. Municipal Rating.

The following tabular statement shows the incidence of rating, the amount leviable, the exemptions, and the Ordinances under which urban local authorities in the several provinces of the Union are empowered to levy taxation for the purpose of obtaining funds to carry out local government services.

Incidence of Rating.	Amount Payable in the £1 (Maximum).	Minimum Amount Payable.	Exemptions.	Ordinances.
Cape of Good Hope—				
*General rate.....	4d.	—	Property of the Crown or property occupied by the Union Government or Provincial Administration as follows:—	No. 10 of 1912 as amended by No. 12 of 1916, No. 17 of 1917, and No. 7 of 1926.
*When rateable valuation exceeds £1,000,000.....	6d.	—	Land which has not been built upon or upon which permanent improvements have not been made; docks, breakwaters, etc., or any immovable property (not being dwelling-houses or other buildings from which revenue is derived by any harbour authority) which forms part of, or is used for the purpose of, harbour works; railways or railway buildings; gaols or convict stations; immovable property occupied by the Crown for naval or military purposes, provided the property belongs to the Union Government or Provincial Administration.	
*Special rate..... Assessed upon the rateable value of immovable property (i.e. site and building valuations) in any particular area served by a special improvement	4d.	—	Places used for public worship and educational purposes, or cemeteries. Land used exclusively for public schools or colleges, public libraries or museums, art galleries, etc. Land used for hospitals, charitable institutions, etc.— (*a*) supported by the Union Government or Provincial Administration, or (*b*) supported by public charity.	

* Municipal councils in the Cape of Good Hope Province cannot exceed these rates nor levy a special rate, unless the enrolled voters on appeal to them have determined that a higher rate be levied.

MUNICIPAL RATING—*continued.*

Incidence of Rating.	Amount Payable in the £1 (Maximum).	Minimum Amount Payable.	Exemptions.	Ordinances.
Cape of Good Hope—(continued)—			Land and buildings used for hospitals, whereof the profits (if any) are devoted entirely to charitable purposes within the area of the local authority concerned.	No. 26 of 1929.
			Lines of telegraph and telephone, etc.	
			Land set out as a mining area.†	
			Land used as public slaughter-houses.	
			In Capetown, Houses of Parliament and immovable property under the control of the Railway Department (exclusive of dwelling-houses) in the docks area.	
			National botanical gardens and improved government forest lands, and land and buildings (other than those used for trading purposes) forming portions of Groot Schuur estate set aside as a park.	No. 12 of 1916.
			Land, together with buildings, vested in trustees on behalf of any sporting organizations and used solely for athletic sports and pastimes or leased from municipal councils or from the Imperial or Union Government or the Provincial Administration for such purpose (excluding racecourses). Land owned or occupied by agricultural societies, or used for the benefit of blinded S.A. ex-soldiers, and church properties subject to certain conditions.	No. 25 of 1920, No. 24 of 1921, No. 17 of 1925, No. 2 of 1928, No. 29 of 1929, and No. 8 of 1930.
			Immovable property owned or occupied by Boy Scouts, Girl Guides, or Voortrekker organizations.	No. 11 of 1931.
			Land or buildings vested in or belonging to municipalities or divisional councils, except where occupied at a rental.	No. 23 of 1931, as amended by No. 25 of 1932, No. 26 of 1933, and No. 29 of 1935.
			Land or buildings used for purposes of school boarding departments.	No. 12 of 1932.
			Lands and buildings owned by public utility companies or similar institutions, if—	No. 22 of 1937.
			(*a*) such company or institution does not distribute profits amongst the members;	
			(*b*) such lands and buildings have been acquired or erected under a scheme of a sub-economic nature approved by the Administrator in terms of the Housing Act, 1920 (Act No. 35 of 1920) as amended; and	
			(*c*) one half of the members of the Council concerned have adopted a resolution exempting such lands and buildings within its division.	
Emergency rate..... (Applicable to East London, Kimberley, and Port Elizabeth, or any other municipality, except Capetown, approved of by the Administrator.)	2d.	—	—	No. 13 of 1921.
Water rate..... Assessed upon the value of rateable property.	½d.	—	—	No. 7 of 1926.

† Ordinance No. 4 of 1913 provided that rates were to be recovered on houses and buildings within any mining area within the Municipality of Kimberley.

MUNICIPAL RATING—*continued.*

Incidence of Rating.	Amount Payable in the £1 (Maximum).	Minimum Amount Payable.	Exemptions.	Ordinances.
Natal— General rate..... Water rate..... Assessed upon immovable property as a whole or upon land and buildings separately.	Amount assessed annually according to the estimated amount of money required for service of municipal year	—	State-owned property, except when let to private tenants.	Law No. 19 of 1872 (Natal). Act No. 15 of 1910 (Natal). No. 19 of 1924. No. 13 of 1929, No. 16 of 1927, No. 20 of 1932, No. 10 of 1936, and Act No. 32 of 1931 (Union).
			Land and/or buildings solely appropriated to, or held in trust for, religious, educational, or charitable purposes, burial ground, infirmary, or hospital; land let under agricultural lease and used only for agricultural, pastoral, and like purposes.	
Transvaal— *Original* rate (compulsory) on the site value of land.	1d.	‡5s.	Any land or interest in land the property of the Crown; provided that all property vested in the Governor-General-in-Council for railway purposes shall be deemed to be rateable if used for residential purposes or let for residential, industrial, or commercial purposes by the South African Railways and Harbours.	No. 20 of 1933.
An *additional* rate may be levied upon the site value of land up to..	6d.	—	Any interest in land used exclusively for public worship or both public worship and education or for a charitable institution supported entirely by voluntary contributions or for a hospital in receipt of a subsidy or grant-in-aid from the Transvaal Provincial Administration in so far as such interest is held for such purposes.	
A rate of an amount in the £1 equal to or less than the additional rate may be levied upon the value of improvements, provided that— (1) where the rate, which is levied upon the value of improvements, is equal to the additional rate, the rate shall not exceed in the aggregate....	3d.	—	Any licence or right to dig for or prospect for precious stones or metals on any portion of land assigned for that purpose; and any portion of land held or occupied exclusively for the exercise of such rights; provided that no land or buildings used for residential purposes or for purposes not incidental to mining operations, whether by persons engaged in mining operations or otherwise, shall be deemed to come within the exception.	
(2) where the rate, which is so levied, is less than the additional rate, such additional rate shall not be of a greater amount in the £1 than is necessary, together with the rate upon the value of improvements, to produce a sum equal to the sum which would be produced by a rate of 3d. in the £1 on the site value of land and the whole value of the improvements thereon taken together.			Any interest in land laid out and used for the purpose of sport or recreation and controlled in accordance with rules approved by the local authority in so far as such interest is held for such purposes as aforesaid, provided that an interest in land used as a recreation ground conducted for profit or as a racecourse shall not be entitled to the benefit of this exemption.	
The Administrator may sanction an additional rate higher than that stipulated. (Special provision has been made in the Ordinance for rating of land held by power companies and for rating of improvements on mining title land, as also freeholders' licence interests.)			Land being not less than three morgen in extent *bona fide* and exclusively used for agricultural purposes as also land, irrespective of size, if laid out under the provisions of the Agricultural Holdings (Transvaal) Act, 1919, and any other land which the owner is precluded by any other law or servitude from using for any other purpose than agriculture, is rated on one-eighth of its site value.	
			Land within the jurisdiction of a health committee, held by the Governor-General or the Government in trust for any future municipal council, or reserved under law for the use and benefit of a health committee.	

‡ Minimum charge in respect of any property or interest in land.

MUNICIPAL RATING—*continued.*

Incidence of Rating.	Amount Payable in the £1 (Maximum).	Minimum Amount Payable.	Exemptions.	Ordinances.
Orange Free State—				
General rate	*1¼d.	†£1	Land or immovable property belonging to the Crown or the Government of the Union or the Provincial Administration; churches or other buildings used for religious worship or educational purposes; libraries, schools, etc.; any land or buildings owned, leased, or held by agricultural societies; burial grounds; hospitals or other buildings supported by public charity or used exclusively for charitable purposes; any land held in trust for religious purposes. These exemptions do not apply to private tenants of Crown or Government property.	No. 15 of 1935.
Water rate	*1¼d.	†£3		
Assessed upon immovable property (site and buildings) or on valuation of land only. *Special rates* may also be imposed by a meeting of registered owners to such amount and for such period as the meeting may lay down.				
Sanitary rate (Bloemfontein only)	*2d.	—	—	No. 15 of 1935.

* These are the maximum rates leviable by a town council without consulting the registered owners of immovable property; with the consent of registered owners the rates may be increased to any figures specified in such consent.

† The minimum amounts shown are leviable only when specially authorized by a meeting of registered owners.

§ 3. Local Governing Bodies.

1. **Municipalities.**—The following table gives a list of all municipalities proclaimed in each province, together with particulars as to area, population, revenue, expenditure, rateable valuation, and indebtedness. The information contained in the table is derived from returns furnished under the *Statistics Act*.

It should be observed that the revenue and expenditure accounts include such items as the gross earnings and payments of trading concerns and native revenue accounts.

The amount of housing loans granted to *individuals* is excluded from the municipal loan accounts in all provinces with the exception of Natal, but bank overdrafts, where they exist, are included.

(i) MUNICIPALITIES OF CAPE OF GOOD HOPE, 1937.*

Name.	Area in Square Miles.	Population—Census, 1936. European.	Population—Census, 1936. Non-European.	Revenue.	Expenditure.	Rateable Valuation.	Gross Indebtedness at End of Year.
				£	£	£	£
Aberdeen	27	1,840	1,576	4,999	5,203	158,139	10,368
Adelaide	16	1,364	2,362	13,003	12,269	199,595	55,481
Adendorp	3	252	410	679	697	33,709	—
Albertinia	2	851	367	1,600	1,209	67,839	1,500
Alice	10	748	2,217	7,544	7,427	142,015	30,534
Allwal North	14	2,566	5,081	29,859	28,233	487,128	102,005
Barkly East	6	1,043	1,572	10,023	7,794	171,086	22,971
Barkly West	28	455	1,364	3,545	2,675	56,925	8,077
Barrydale	4	474	418	576	511	47,730	—
Bathurst	18	179	655	603	663	37,745	—
Beaufort West	48	3,548	4,418	23,814	22,570	537,193	52,933
Bedford	5	797	1,662	6,029	6,089	96,789	17,799
Bredasdorp	5	1,590	1,521	9,785	8,803	243,020	15,414
Britstown	22	994	800	3,782	3,581	98,013	3,898
Burghersdorp	1	2,058	2,797	15,196	15,609	263,976	48,699
Butterworth	4	619	666	4,626	4,249	113,410	1,592
Cala	14	672	820	1,117	1,224	68,477	—
Caledon	6	1,867	1,355	15,415	15,030	421,725	50,408
Calitzdorp	8	1,192	801	2,334	2,713	151,627	12,182
Calvinia	4	1,193	1,476	8,751	8,370	189,812	20,548
Cambridge	8	7,782	2,743	63,661	57,084	1,400,842	180,798
Capetown	67	151,635	144,154	3,069,436	2,882,870	56,494,157	16,901,596
Carnarvon	40	1,116	1,467	4,216	3,740	136,495	1,669
Cathcart	12	772	1,702	7,251	6,041	127,230	24,670
Ceres	27	1,439	2,130	8,887	9,323	306,050	39,009
Clanwilliam	13	545	924	1,487	1,458	69,750	7,647
Colesberg	60	1,000	1,913	11,173	8,926	213,510	18,597
Cradock	47	3,690	5,570	37,619	39,127	664,632	98,137
De Aar	11	2,268	2,857	21,072	19,328	358,520	99,595

* Year ending 31st December.

(i) MUNICIPALITIES OF CAPE OF GOOD HOPE, 1937*—*continued.*

Name.	Area in Square Miles.	Population—Census, 1936. European.	Population—Census, 1936. Non-European.	Revenue.	Expenditure.	Rateable Valuation.	Gross Indebtedness at End of Year.
				£	£	£	£
Dordrecht	7	1,262	1,487	11,081	9,858	177,528	25,204
Douglas	27	1,257	1,458	5,735	5,851	98,625	16,025
Durbauville	3	586	557	3,325	2,963	132,440	9,555
East London	13	21,742	24,896	509,877	497,975	6,288,282	2,233,622
Elliot	11	1,074	1,201	5,176	5,001	139,610	7,386
Engcobo	10	329	311	1,617	1,955	57,144	2,812
Fort Beaufort	38	1,541	4,561	16,045	14,206	182,214	47,200
Franschhoek	12	568	463	2,465	2,656	123,130	12,227
Fraserburg	36	771	649	2,585	2,617	102,440	6,748
George	23	5,195	3,880	25,702	26,302	660,709	61,882
Goodwood†	1	4,633	2,220	14,718	15,239	699,614	14,112
Graaff-Reinet	73	4,448	7,536	32,474	24,448	719,050	118,296
Grahamstown	19	8,198	11,575	86,118	87,089	1,543,989	466,536
Greyton	6	486	558	1,131	1,185	63,425	4,076
Griquatown	30	771	873	3,486	3,846	61,250	9,770
Hankey	14	296	1,652	948	814	61,697	—
Hanover	32	610	681	2,261	2,627	77,515	3,129
Heidelberg	10	1,236	1,512	4,659	5,574	161,115	18,741
Hermanus	2	1,258	446	10,747	9,877	182,920	39,107
Hofmeyr	6	599	600	1,402	1,685	65,460	811
Hopefield	15	492	629	1,843	1,702	77,468	2,395
Hopetown	31	892	1,320	5,252	4,608	76,673	13,662
Humansdorp	6	1,331	821	6,223	6,264	204,995	13,577
Idutywa	8	379	509	3,118	3,047	88,090	8,196
Indwe	7	886	1,229	8,153	7,933	123,670	4,930
Jansenville	3	739	1,098	2,074	2,101	63,910	2,179
Keiskama Hoek	25	398	1,316	1,364	1,244	78,175	—
Kenhardt	61	628	731	2,355	2,480	76,990	6,138
Kimberley	15	15,016	23,927	218,702	209,745	3,197,258	595,721
Kingwilliamstown	9	5,840	4,829	70,819	72,023	971,873	364,266
Knysna	9	1,651	767	8,666	7,240	282,967	29,177
Kokstad	19	1,677	3,966	17,612	17,710	400,498	51,544
Komgha	4	437	556	1,337	1,279	54,800	588
Kuruman	36	1,329	1,267	7,335	7,315	122,040	24,133
Ladismith	9	316	503	4,212	3,875	128,590	10,803
Lady Frere	9	824	1,095	1,525	1,516	52,613	1,025
Lady Grey	24	1,060	666	4,407	4,160	105,458	22,359
Laingsburg	8	1,007	823	3,265	3,472	104,384	5,175
Loxton	45	430	303	1,890	1,328	61,620	6,860
Maclear	18	735	1,739	3,301	2,835	104,930	10,545
Mafeking	22	2,362	2,304	31,881	29,449	398,997	163,961
Malmesbury	6	2,574	2,282	33,648	27,630	618,540	118,211
Matatiele	31	1,078	1,581	12,429	12,318	239,322	19,562
McGregor	6	354	771	723	764	36,290	—
Middelburg	16	2,099	3,232	21,176	20,623	356,231	56,322
Molteno	3	1,150	2,538	10,792	10,277	204,953	24,713
Montagu	11	1,937	1,440	14,852	11,757	269,831	27,783
Moorreesburg	1	1,506	888	10,948	9,687	301,788	28,534
Mossel Bay	10	3,260	3,967	35,805	34,517	647,965	126,021
Murraysburg	24	812	905	1,423	1,700	105,665	1,061
Napier‡	4	881	441	4,902	4,743	103,020	9,131
New Bethesda	9	251	708	330	329	48,010	—
Oudtshoorn	10	6,512	6,717	49,216	46,760	916,667	91,383
Paarl	22	8,823	9,756	88,760	82,795	2,033,362	336,001
Pearston	12	529	994	1,689	1,607	99,350	3,047
Peddie	13	401	430	995	1,076	60,955	1,886
Petrusville	20	488	923	1,255	1,196	44,265	1,167
Philipstown	8	651	887	1,805	1,777	60,760	5,494
Piquetberg	14	983	1,053	3,244	3,187	100,971	19,988
Port Alfred	10	1,024	3,228	13,116	12,730	323,186	36,407
Port Elizabeth	35	48,608	50,096	742,581	698,958	13,755,763	4,322,463
Porterville	3	1,201	857	5,023	5,843	209,031	26,441
Port St. Johns	2	235	499	1,589	1,581	67,225	3,918
Postmasburg	20	879	765	1,280	1,210	105,395	68
Prieska	73	1,310	1,790	5,814	5,028	165,472	23,295
Prince Albert	17	1,332	1,141	3,319	3,267	149,347	9,104
Prince Alfred's Hamlet	5	301	413	809	739	53,890	3,578
Queenstown	21	6,723	11,532	74,925	72,333	1,174,990	288,870
Richmond	28	798	1,230	2,970	2,812	103,570	8,287
Riversdale	6	2,167	1,994	12,802	12,741	279,145	46,474
Robertson	5	3,012	1,933	23,441	21,542	499,340	67,589
Seymour	1	176	604	734	854	26,110	707
Simonstown	6	1,999	2,750	18,919	17,520	371,321	36,404
Somerset East	21	2,174	3,859	17,276	16,934	409,035	57,615
Somerset West	4	1,777	2,149	20,615	21,016	593,326	65,115
Springbok	12	741	969	2,684	2,454	131,735	6,576
Stanford	1	453	290	457	381	63,159	770
Stellenbosch	17	4,995	3,787	52,579	54,835	1,245,373	192,079
Sterkstroom	10	1,060	1,794	7,400	6,852	131,466	13,185
Steynsburg	5	1,288	1,574	6,668	8,832	160,250	15,404

* Year ending 31st December.
† Constituted a municipality, 26th October, 1938.
‡ Constituted a municipality, 4th March, 1938.

(i) MUNICIPALITIES OF CAPE OF GOOD HOPE, 1937*—*continued.*

Name.	Area in Square Miles.	Population—Census, 1936. European.	Population—Census, 1936. Non-European.	Revenue.	Expenditure.	Rateable Valuation.	Gross Indebtedness at End of Year.
				£	£	£	£
Steytlerville	9	689	794	1,311	1,290	77,692	1,038
Strand	3	3,367	2,560	34,206	33,296	888,795	116,563
Strydenburg	13	456	338	630	477	27,630	83
Stutterheim	47	1,194	3,040	5,556	6,391	161,687	15,124
Sutherland	14	537	367	1,126	1,082	80,630	2,832
Swellendam	43	2,147	1,637	12,068	11,610	305,786	34,502
Tarkastad	6	949	1,843	9,647	9,211	160,906	16,067
Tulbagh	1	672	330	3,084	2,906	120,570	6,816
Ultenhage	26	9,437	11,147	96,420	91,976	1,248,698	301,284
Umtata	15	2,350	3,192	32,656	31,796	576,122	169,219
Uniondale	1	619	700	2,048	2,432	70,055	3,264
Upington	163	2,416	3,964	15,805	14,506	428,678	30,247
Van Rhynsdorp	3	828	739	960	865	49,112	—
Venterstad	7	419	801	1,693	1,511	60,578	3,613
Victoria West	30	1,073	1,219	6,426	6,055	155,466	12,319
Villiersdorp	1	961	311	3,755	3,919	117,860	12,595
Vosburg	25	343	248	1,101	951	28,269	1,006
Vryburg	1	595	269	1,405	1,314	105,465	3,972
Walmer	32	2,029	2,998	17,389	17,012	301,140	56,141
Wellington	10	4,853	6,284	35,048	34,873	1,173,915	87,922
Williston	5	2,936	3,907	25,143	23,919	657,807	66,393
Willowmore	29	574	719	3,269	3,388	48,735	1,782
Windsorton	2	1,020	1,059	2,620	2,785	97,634	5,691
Worcester	18	480	1,936	1,519	1,187	38,831	2,059
	20	5,631	6,855	41,007	40,397	957,381	203,434

(ii) MUNICIPALITIES OF NATAL, 1936-37.†

				£	£	£	£‡
Dundee	5	1,636	3,959	28,442	28,271	521,134	136,776
Durban	50	88,062	151,450	2,220,215	2,130,916	37,523,800	11,277,418
Estcourt	1	1,180	1,497	24,032	22,274	317,011	154,602
Glencoe	1	1,256	2,083	10,476	10,143	200,520	46,733
Greytown	16	1,152	3,259	22,988	23,223	290,965	83,058
Ladysmith	27	3,660	6,042	43,759	44,164	859,221	220,576
Newcastle	28	1,908	3,037	19,829	19,373	438,075	86,023
Pietermaritzburg	46	21,865	25,545	358,119	354,081	6,390,957	2,221,448
Port Shepstone	1	829	876	13,025	13,074	268,520	59,841
Utrecht	22	712	2,736	7,521	7,373	163,851	15,789
Vryheid	18	3,127	3,309	36,280	34,056	798,120	200,198

(iii) TOWN COUNCILS OF TRANSVAAL, 1936-37.§

				£	£	£	£
Barberton	11	1,441	2,401	18,133	16,006	195,460	41,305
Benoni	42	21,071	62,921	223,576	193,018	4,901,446	273,186
Bethal	18	1,293	1,548	16,006	14,737	237,745	9,470
Boksburg	33	15,916	34,210	147,419	146,373	2,602,356	244,725
Brakpan	40	17,355	37,456	159,716	119,737	2,784,886	166,516
Ermelo	5	2,561	2,273	23,115	20,362	552,310	9,526
Germiston	20	25,779	42,363	233,544	234,590	5,620,328	814,795
Heidelberg	10	2,332	3,493	27,127	23,329	476,030	—
Hercules	7	5,461	10,650	26,598	24,460	703,639	32,161
Johannesburg	84	252,718	222,316	4,480,789	4,383,895	87,499,734	10,584,161
Klerksdorp	37	4,561	4,382	50,461	44,065	577,376	54,095
Krugersdorp	40	18,066	36,744	171,157	155,597	3,197,121	154,625
Lichtenburg	21	3,237	2,574	14,107	13,876	350,314	11,027
Louis Trichardt	18	1,999	2,530	13,433	11,829	287,353	22,165
Lydenburg	29	2,051	1,795	12,841	11,018	226,274	27,164
Middelburg	41	2,901	2,878	24,236	22,269	348,925	65,000
Nigel	3	4,095	17,637	80,269	60,601	1,857,849	170,813
Pietersburg	9	4,240	4,895	46,401	43,116	843,056	79,163
Piet Retief	24	1,169	1,900	9,147	9,178	190,887	6,106
Potchefstroom	104	10,774	8,325	76,579	66,305	1,266,624	73,790
Potgietersrust	20	1,926	1,490	8,899	8,202	274,160	40,123
Pretoria	59	68,431	39,892	991,303	1,002,290	17,708,465	5,279,514
Randfontein	28	5,232	23,531	67,484	68,099	1,110,434	137,666
Roodepoort-Maraisburg	30	10,693	30,879	103,036	95,813	2,284,754	141,925
Rustenburg	29	3,154	2,949	23,319	19,469	567,467	15,921

* Year ending 31st December. † Year ending 31st July.
‡ Housing loans to individuals included. § Year ending 30th June.

(iii) TOWN COUNCILS OF TRANVAAL, 1936-37*—*continued.*

Name.	Area in Square Miles.	Population—Census, 1936. European.	Population—Census, 1936. Non-European.	Revenue.	Expenditure.	Rateable Valuation.	Gross Indebtedness at End of Year.
				£	£	£	£
Springs	55	18,436	68,438	273,097	224,558	5,077,920	572,958
Standerton	5	2,350	3,245	30,749	30,250	449,808	58,435
Vereeniging	22	4,718	14,149	68,463	69,243	1,575,335	118,145
Volksrust	10	3,003	1,807	15,599	15,591	408,878	15,539
Witbank	23	2,772	5,487	31,172	29,709	1,032,700	64,671
Wolmaransstad	16	1,563	1,324	7,600	7,574	161,857	14,732
Zeerust	10	1,844	2,203	8,836	7,928	222,415	13,936

(iv) MUNICIPALITIES OF THE ORANGE FREE STATE, 1936-37.†

				£	£	£	£
Bethlehem	9	5,011	5,368	56,074	52,411	847,945	110,300
Bethulie	20	1,464	1,822	4,729	6,100	175,365	62,578
Bloemfontein	52	24,110	28,927	429,407	376,359	6,091,506	2,013,334
Boshof	35	1,088	1,180	4,428	4,393	177,355	8,049
Bothaville	7	897	1,145	7,099	6,814	129,875	25,454
Brandfort	13	1,334	1,620	12,615	11,442	230,956	9,174
Bultfontein §	13	735	713	1,462	998	‡	2,966
Clarens	4	230	216	731	534	28,054	583
Clocolan	8	1,113	1,507	12,271	11,888	247,532	43,227
Cornelia	4	168	171	745	635	30,250	1,521
Dealesville	8	361	461	939	894	42,129	1,195
Dewetsdorp	10	1,040	1,388	6,633	6,217	155,189	16,808
Edenburg	16	934	1,439	5,455	3,959	138,487	5,561
Edenville	4	422	431	1,177	991	69,655	329
Excelsior	5	570	698	2,874	2,475	93,187	4,718
Fauresmith	21	764	1,152	6,608	5,996	127,030	14,635
Ficksburg	22	2,506	2,630	22,526	20,837	288,640	52,975
Fouriesburg	5	580	699	2,761	2,769	66,049	7,735
Frankfort	15	1,326	1,797	15,845	14,965	287,450	44,842
Harrismith	54	3,138	6,075	35,506	32,091	631,182	81,539
Heilbron	8	1,545	2,456	14,650	13,940	298,893	33,781
Hertzogville	9	352	220	564	449	50,737	1,738
Hobhouse	5	540	398	1,011	889	39,145	1,344
Hoopstad	11	340	537	922	931	43,998	5,583
Jacobsdal	23	406	458	1,164	1,143	48,623	2,838
Jagersfontein	18	977	1,458	3,663	3,385	174,568	1,395
Kestell	5	635	616	3,065	2,585	78,372	6,136
Koffiefontein	1	1,261	1,260	3,875	3,580	124,036	1,434
Kopjes	4	507	1,054	4,834	4,885	89,635	16,019
Kroonstad	21	5,333	8,045	82,049	79,810	1,181,446	252,709
Ladybrand	17	2,314	2,439	18,122	17,063	348,208	58,633
Lindley	9	1,040	1,187	7,492	7,196	179,663	22,802
Luckhoff	12	358	360	1,090	1,018	34,814	2,331
Marquard	4	903	1,115	7,287	6,870	147,573	10,416
Memel	3	298	394	1,656	1,144	65,404	1,024
Odendaalsrust	8	343	569	1,350	1,102	30,410	220
Parys	16	2,905	2,271	28,799	26,621	450,284	72,146
Paul Roux	5	580	589	2,409	2,453	63,320	10,427
Petrusburg	7	712	523	1,907	1,771	66,934	1,809
Petrus Steyn	4	762	831	6,102	5,233	140,333	14,806
Philippolis	15	842	851	3,231	2,869	111,255	9,868
Reddersburg	8	624	666	3,283	2,905	114,614	3,700
Reitz	9	1,202	1,573	10,402	9,505	204,681	10,547
Rosendal	3	354	329	1,701	1,857	41,398	4,903
Rouxville	8	946	1,208	6,018	5,859	169,761	19,821
Senekal	15	1,795	2,007	19,089	17,835	289,737	29,471
Smithfield	14	1,260	1,124	11,045	10,608	181,623	30,132
Springfontein	6	916	1,139	7,570	6,918	114,344	13,417
Steynsrust	3	514	511	3,866	3,359	89,474	12,147
Thaba 'Nchu	4	650	169	2,942	2,968	101,440	10,366
Theunissen	4	780	1,411	5,102	4,812	133,560	30,320
Trompsburg	6	733	711	2,910	2,779	133,054	7,900
Tweeling ‖	3	451	575	1,092	980	73,670	606
Ventersburg	7	879	792	3,974	3,320	118,413	6,768
Verkeerdevlei	3	138	152	597	538	21,820	4,850
Viljoenskroon	4	595	721	2,561	3,370	72,175	5,055
Villiers	10	639	938	2,198	1,923	103,337	2,559
Vrede	19	1,712	2,586	17,520	14,956	352,530	11,431
Vredefort	10	426	768	2,236	1,902	82,990	2,182
Warden	5	875	770	2,713	2,463	150,205	—
Wepener	15	1,292	1,552	8,560	8,871	182,915	19,945
Wesselsbron	6	342	446	755	868	38,320	558
Winburg	27	1,484	2,239	13,165	12,508	263,965	21,692
Zastron	9	1,726	1,751	11,145	9,313	233,220	16,855

* Year ending 30th June. † Year ending 31st March.
‡ No valuation. § Constituted a municipality, 20th May, 1938.
‖ Constituted a municipality, 13th May, 1938.

2. **Other Local Governing Bodies.**—The subjoined lists give the names of all local governing bodies in the Union, other than municipalities, which are enumerated separately in paragraph 1.

CAPE OF GOOD HOPE.

VILLAGE MANAGEMENT BOARDS.

(a) *Cape Province Proper.*

Alexandria.	Garies.	Merweville.	Rivier Zonder End.
Alicedale.	Gordon's Bay.	Naauwpoort.	Roolgrond.
Amalinda.	Gouda.	Nickerks Hope.	Rossouw.
Bellville.	Grabouw.	Nieuwoudtville.	Salem.
Berlin.	Haarlem.	Olifants Hoek.	Tylden.
Blinkwater.	Hanover.	Onrustrivier.	Ugie.
Bonnievale.	Herbertsdale.	Onseepkans.	'Umnxesha.
Brandvlei.	Hoedjes Bay.	Pacaltsdorp.	Upper Kubusi.
Braunschweig.	Hooikraal.	Parow.	Van Wyksdorp.
Breidbach.	Jamestown.	Paterson.	Warrenton.
Citrusdal.	Jeffrey's Bay.	Pofadder.	Waterdale.
Daniels Kuil.	Joubertina.	Port Nolloth.	Whittlesea.
Darling.	Keimoes.	Potsdam.	Willemsmit.
De Doorns.	Kei Road.	Rawsonville.	Wolseley.
Delports Hope.	Kirkwood.	Rhodes.	Woodbrook.
De Rust.	Lambert's Bay.	Riebeek East.	Wooldridge.
Eastcliff-Hermanus.	Loeriesfontein.	Riebeek Kasteel.	
Fish Hoek.	Loganda.	Riebeek West.	
Frankfort.	Maclcantown.	Rietbron.	
Gansbaai.	Marydale.	Ritchie.	

(b) *Transkeian Territories.*

Bizana.	Libode.	Mqanduli.	Tsolo.
Cedarville.	Lusikisiki.	Ngqeleni.	Tsomo.
Cofimvaba.	Mount Ayliff.	Nqamakwe.	Umzimkulu.
Flagstaff.	Mount Fletcher.	Qumbu.	Willowvale.
Kentani.	Mount Frere.	Tabankulu.	

LOCAL BOARDS UNDER SECTION 1 (2) OF ORDINANCE NO. 11 OF 1921.

Abbotsford.	Gonubie Mouth.	Klipplaat.	Schoenmakers Kop.
Bell and Bodiam.	Hamburg.	Kruisfontein.	Waterford.
Bethelsdorp.	Karreedouw.	Langebaan.	Zuurbrak.
Blanco.	Kei Mouth.	Middeldrift.	
Boesmansriviermond.	Kidds Beach.	Milnerton.	
Campbell.	Kleinmond.	Pinelands Garden City.	

DIVISIONAL COUNCILS.

Aberdeen.	Elliot.	Maclear.	Robertson.
Albany.	Fort Beaufort.	Mafeking.	Somerset East.
Albert.	Fraserburg.	Malmesbury.	Stellenbosch.
Alexandria.	George.	Maraisburg.	Sterkstroom.
Aliwal North.	Gordonia.	Matatiele.	Steynsburg.
Barkly East.	Graaff-Reinet.	Middelburg.	Steytlerville.
Barkly West.	Hanover.	Molteno.	Stockenstrom.
Bathurst.	Hay.	Montagu.	Stutterheim.
Beaufort West.	Heidelberg.	Mossel Bay.	Sutherland.
Bedford.	Herbert.	Mount Currie.	Swellendam.
Bredasdorp.	Hopetown.	Murraysburg.	Tarka.
Britstown.	Humansdorp.	Namaqualand.	Tulbagh.
Caledon.	Indwe.	Oudtshoorn.	Uitenhage.
Calitzdorp.	Jansenville.	Paarl.	Uniondale.
Calvinia.	Kenhardt.	Pearston.	Van Rhynsdorp.
Cape.	Kimberley.	Peddie.	Venterstad.
Carnarvon.	Kingwilliamstown.	Philipstown.	Victoria East.
Cathcart.	Knysna.	Piquetberg.	Victoria West.
Ceres.	Komgha.	Port Elizabeth.	Vryburg.
Clanwilliam.	Kuruman.	Prieska.	Williston.
Colesberg.	Ladismith.	Prince Albert.	Willowmore.
Cradock.	Lady Grey.	Queenstown.	Wodehouse.
De Aar.	Laingsburg.	Richmond.	Worcester.
East London.	Loxton.	Riversdale.	

CAPE OF GOOD HOPE—(*continued*).

LOCAL AREAS UNDER ORDINANCE NO. 13 OF 1917.

Amsterdam Hoek.	Die Erwe.	Herolds Bay.	Kuils River.
Arniston.	Ferreira Town.	Hoogekraal.	Little Brak River.
Bellville South.	Elsies River.	Hout Bay.	Melkbosch Strand.
Berghville.	Goodwood Estate.	Ida's Valley.	Onderste Doorns.
Bitterwater.	Grassy Park.	Kensington Estate (Windermere).	Plettenberg Bay.
Blaauwberg Strand.	Great Brak River Mouth.	Klaarstroom.	Reivilo.
Constantia.	Hawston.	Kommetjie.	Tiervlei.
Deben.			Van Wyksvlei.

NATAL.

TOWNSHIP BOARDS.

Charlestown.	Eshowe.	Louwsburg.	Stanger.
Colenso.	Harding.	Mooi River.	Umkomaas.
Dannhauser.	Howick.	Paulpietersburg.	Verulam.
Empangeni.	Isipingo Beach.	Richmond.	Weenen.

LOCAL ADMINISTRATION AND HEALTH BOARDS.

Amanzimtoti.	Malvern.	Southern Umlazi.	Westville.
Hattingspruit.	Pinetown.	Umbogintwini.	
Kloof.			

HEALTH COMMITTEES.

Anerley.	Kranskop.	New Hanover.	Sunwich Port.
Bergville.	Lennoxton-Fairleigh.	North Shepstone.	Tongaat.
Ginginhlovu.	Marburg.	Park Rynie.	Umhlanga Rocks.
Ixopo.	Margate.	Scottburgh.	Umzinto.
Isipingo Rail.	Melmoth.	Sea Park.	Underberg.
		Southport.	

MALARIA COMMITTEES.

Malaria committees were established in Natal in 1932, with duties restricted to measures for stamping out and preventing malaria. These committees will operate only for such period as the incidence of malaria may demand.

Amatikulu-Umlalazi.	Mount Edgecombe.	Stanger-New Guldenland.	Umgeni.
Esperanza-Sezela.	Muden.	Tongaat-Frasers.	Umhlali.
Kearsney-Doornkop.	Nkwaleni.	Tugela-Amatikulu.	Umhlatuzi-Ensleni.
Kwambonambi-Mposa.	Nonoti-Fort Pearson.	Umfolosi.	Umkomanzi.
	Renishaw.		Umzumbi.

TRANSVAAL.

VILLAGE COUNCILS.

Alberton.	Bronkhorstspruit.	Greylingstad.	Rodeon.
Amersfoort.	Carolina.	Hendrina.	Sable.
Amsterdam.	Christiana.	Koster.	Schweizer-Reneke.
Balfour.	Coligny.	Machadodorp.	Ventersdorp.
Belfast.	Duivelskloof.	Morgenzon.	Wakkerstroom.
Bloemhof.	Dullstroom.	Naboomspruit.	Warmbaths.
Breyten.	Edenvale.	Nelspruit.	White River.
Brits.	Elsburg.	Nylstroom.	

HEALTH COMMITTEES.

Alexandra.	Eendracht.	Lake Chrissie.	Pretoria North.
Amalia.	Evaton.	Leeuwdoornsstad.	Ravensklip.
Bedford View.	Fochville.	Leslie.	Rensburg.
Biesjesvlei.	Graskop.	Maquassi.	Roosville.
Charl Cilliers.	Groot Marico.	Messina.	Silverton.
Davel.	Hartebeestfontein.	Meyerton.	Trichard.
Delareyville.	Kempton Park.	Ottosdal.	Tzaneen.
Delmas.	Kinross.	Paardekop.	Witpoort.
Devon.	Klipfontein.	Pilgrims Rest.	Zoekmekaar.

ORANGE FREE STATE.

VILLAGE BOARDS OF MANAGEMENT.

Arlington.	Van Stadensrust.	Waterkloof.
Oranjeville.		

3. **Statistics.**—Owing to the absence in the past of a compulsory system for the collection of detailed information in regard to local authorities, statistics in this connexion are necessarily incomplete for years prior to 1920. In the exercise of powers conferred by the *Statistics Act* of 1914, regulations were issued in 1920 making it obligatory to render returns of this nature and ensuring full and reliable statistics for future years.

(a) *Revenue, Expenditure, Indebtedness, and Rateable Valuation—Urban Authorities.*—The following tables give for a series of years particulars of the revenue, expenditure, indebtedness, rateable valuation of property, etc., of urban local authorities in the four provinces:—

(i) REVENUE AND EXPENDITURE OF EACH CLASS OF URBAN AUTHORITY, 1934-35 TO 1936-37.

Class.	Revenue.			Expenditure.		
	1934-35.	1935-36.	1936-37.	1934-35.	1935-36.	1936-37.
	£	£	£	£	£	£
Cape of Good Hope—						
Municipalities	5,329,255	5,709,560	6,180,173	5,236,390	5,501,623	5,862,282
Village Management Boards	90,106	100,526	104,721	87,283	97,943	107,716
Local Boards	18,123	19,127	20,251	17,715	17,587	19,264
Natal—						
Municipalities	2,598,222	2,692,802	2,784,716	2,555,363	2,572,272	2,686,978
Townships	60,563	64,682	65,340	59,294	58,879	64,202
Health Committees	6,395	7,317	9,443	5,155	6,502	8,394
Health Boards	9,618	10,936	12,897	9,005	9,816	11,508
Malaria Committees	9,321	8,118	7,953	8,709	8,207	8,157
Transvaal—						
Town Councils	6,188,352	6,698,816	7,484,211	5,492,169	6,065,901	7,193,087
Village Councils	127,515	113,205	120,824	117,611	103,966	105,322
Health Committees	53,754	59,145	62,271	53,716	57,576	60,139
Orange Free State—						
Municipalities	888,275	927,347	963,017	823,826	853,294‡	876,144
Village Management Boards	4,467	4,770	5,000	4,591	4,211	3,598
TOTAL.....£	15,383,966	16,416,351	17,820,817	14,470,827	15,357,777‡	17,006,791

(ii) REVENUE OF MUNICIPALITIES, 1934-35 TO 1936-37.

Heading.	Union.			Provinces—1936-37.			
	1934-35.	1935-36.	1936-37.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.
	£	£	£	£	£	£	£
Rates	3,732,197	3,859,873	4,157,203	2,035,516	593,446	1,300,869	227,372
Sanitary Fees	1,132,555	1,188,438	1,288,331	184,950	62,386*	970,101	70,894
Water	1,959,701	2,074,525	2,237,230	838,834	342,471	899,874	156,051
Licences	417,284	471,901	528,722	49,956	96,465	366,666	15,635
Abattoirs	246,077	282,224	309,899	90,956	40,144	164,484	14,315
Building Plans, Fees	37,637	61,734	71,335	6,804	5,505	57,775	1,251
Cemeteries	44,395	52,050	53,718	8,734	6,744	36,327	1,913
Estate (including Town Hall)	453,261	500,821	505,758	260,227	135,111	52,549	57,871
Fines	39,322	52,913	88,564	17,469	12,215	57,872	1,008
Fire Brigades and Ambulances	31,391	34,579	38,400	13,520	6,525	15,817	2,538
Locations	427,893	471,421	529,347	128,262	91,343	236,771	72,971
Markets	223,721	234,222	241,221	71,983	70,068	82,367	16,803
Pounds	9,007	10,730	11,176	3,377	279	5,155	2,365
Forestry	32,511	24,449	22,053	3,620	13,446	4,158	829
Parks, Gardens, Recreation Grounds, Swimming Baths, Bathing and Washhouses	120,919	130,616	141,840	55,748	33,012†	43,063	10,017
Interest on Investments	113,777	125,978‡	108,373	49,729	8,279	33,140	17,225
Electricity Supply	3,917,394	4,230,177‡	4,646,655	1,840,675	768,515	1,800,877	236,588
Gas Supply	101,435	126,186	146,862	—	—	146,862	—
Tramways and Bus Services	1,222,894	1,272,317	1,436,845	35,195	283,500	1,094,735	18,415
Native Beer	44,527	60,145	62,702	—	62,702	—	—
Other Revenue	696,206	763,226	790,883	484,618	152,560	114,749	38,956
TOTAL.....£	15,004,104	16,028,525	17,412,117	6,180,173	2,784,716	7,484,211	963,017

* Including Public Health. † Including Town Hall. ‡ Revised figure.

(iii) EXPENDITURE OF MUNICIPALITIES, 1934-35 TO 1936-37.

Heading.	Union.			Provinces—1936-37.			
	1934-35.	1935-36.	1936-37.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.
	£	£	£	£	£	£	£
Administration	554,314	590,370	679,867	268,447	96,838	249,386	65,194
Sanitary	1,062,234	1,175,238	1,252,571	390,478	172,364	624,646	65,083
Public Health	345,635	364,827	412,764	219,492		173,751	19,521
Streets and Bridges	846,733	868,219	901,497	271,946	135,400*	439,517	54,634
Street Lighting	234,718	239,435	253,850	76,865	14,699	148,055	14,231
Water Supply	827,337	819,537	917,900	278,591	89,478	479,514	70,317
Electricity Supply	2,479,616	2,695,514	3,009,017	1,276,052	539,448	1,083,479	110,038
Gas Supply	64,965	81,949	97,258	—	—	97,258	—
Tramways and Bus Services	1,062,029	1,141,830	1,323,395	30,458	289,232	980,486	23,219
Abattoirs	175,728	200,566	221,763	58,323	26,244	125,101	12,095
Cemeteries	65,670	70,328	73,519	13,967	7,836	49,310	2,406
Estate	119,753	121,730	143,328	86,281	18,435	19,777	18,835
Fire Brigades and Ambulances	167,959	185,286	192,104	66,616	28,243	91,359	5,886
Locations	349,917	380,838†	415,129	93,612	79,937	182,206	59,344
Markets	167,919	168,441	178,422	49,819	54,818	61,480	12,305
Pounds	13,053	12,102	13,464	4,107	204	7,330	1,823
Forestry	34,842	33,442	33,646	9,850	13,697	8,875	1,224
Town Halls, Parks, Gardens, Recreation Grounds, Swimming Baths, Bathing and Washhouses	499,448	529,943	567,862	166,088	126,510	247,581	27,683
Mayoral Allowances	27,544	29,626	30,974	8,097	3,304	15,380	4,193
Public Entertainments	54,748	25,732	123,992	20,524	16,339	85,643	1,486
Grants to Hospitals and other Institutions	327,545	298,267	465,322	126,448	41,399	284,162	13,313
Elections	12,893	6,179	13,774	1,474	128	11,616	556
Valuation	21,271	26,304	34,156	14,062	4,627	14,133	1,334
Legal and Audit	51,519	49,974	55,958	16,510	8,592	24,396	6,460
Insurance	40,160	51,992†	68,342	18,196	3,904	40,756	5,486
Pensions and Gratuities	176,892	191,662†	200,291	105,621	19,439	70,198	5,033
Police	88,611	81,594	37,724	1,306	25,778	10,640	—
Loan Charges—							
Interest	2,590,250	2,665,187	2,777,794	1,233,698	583,767	808,643	151,686
Redemption	852,523	922,655	982,750	480,277	96,863	327,849	77,761
Other	6,433	7,834	9,603	1,906	4,367	1,196	2,134
Maintenance and Depreciation	196,861	226,771	235,830	52,570	60,019	111,736	11,505
Native Beer	16,034	18,524	22,150	—	22,150	—	—
Other Expenditure	572,594	711,194	872,475	420,571	102,919	317,626	31,359
TOTAL.....£	14,107,748	14,993,090†	16,618,491	5,862,282	2,686,978	7,193,087	876,144

* Public works. † Revised figure.

(iv) LOAN INDEBTEDNESS AND RATEABLE VALUATION OF PROPERTY IN EACH CLASS OF URBAN AUTHORITY, 1934-35 TO 1936-37.

Class.	Indebtedness.*			Rateable Value of Property.		
	1934-35.	1935-36.	1936-37.	1934-35.	1935-36.	1936-37.
	£	£	£	£	£	£
Cape of Good Hope—						
Municipalities	26,476,858	26,782,307	29,486,029	110,221,258	112,670,522	115,139,468
Village Management Boards	194,137	210,896	216,137	5,397,503	5,704,487	6,224,156
Local Boards	10,765	12,103	11,208	†	†	†
Natal—						
Municipalities	13,659,741‡	14,029,520‡	14,502,742‡	46,001,320	46,700,354	47,772,204
Townships	146,003	156,896	165,348	2,045,682	2,065,971	2,108,343
Health Committees	266	2,105	3,225	379,535	177,238	429,603
Health Boards	135	432	394	41,115	266,565	266,565

* Gross loan indebtedness (sinking funds not deducted).
† No record.
‡ Housing loans to individuals included.

(iv) LOAN INDEBTEDNESS AND RATEABLE VALUATION OF PROPERTY—*(continued)*.

Class.	Indebtedness.*			Rateable Value of Property.		
	1934-35.	1935-36.	1936-37.	1934-35.	1935-36.	1936-37.
	£	£	£	£	£	£
Transvaal—						
Town Councils	15,219,246	17,108,568	19,313,358	122,041,600	131,354,993	145,593,906
Village Councils	143,848	116,795	178,081	4,769,359	3,288,003	3,164,274
Health Committees	37,424	43,109	35,709	1,018,265	1,422,602	1,294,988
Orange Free State—						
Municipalities	3,641,762	3,295,791	3,296,645	16,443,932	16,574,650	16,819,063
Village Management Boards	3,427	3,880	5,422	131,762	152,062	131,852
TOTAL £	59,533,612	61,762,402	67,214,298	308,491,331	320,377,447	338,944,422

* Gross loan indebtedness (sinking funds not deducted).

(v) SINKING FUNDS OF MUNICIPALITIES, PROVINCIAL TOTALS, 1934-35 TO 1936-37.

Province.	1934-35.	1935-36.	1936-37.
	£	£	£
Cape of Good Hope	5,016,891	5,518,242	6,048,354
Natal	2,786,247	3,004,998	3,252,977
Transvaal	2,798,712	3,114,694	3,528,385
Orange Free State	654,462	680,149	726,889
TOTAL £	11,256,312	12,318,083	13,556,605

(vi) CAPITAL EXPENDITURE OF MUNICIPALITIES, SHOWN UNDER SPECIFIC HEADINGS FOR EACH OF THE PROVINCES AND THE UNION, 1934-35 TO 1936-37.

Year.	Roads and Bridges. £	Public Health. £	Electricity Supply. £	Water Supply. £	Properties. £	Other. £	Total. £
CAPE OF GOOD HOPE.							
1934-35	221,138	148,893	485,306	137,062	124,184	220,042	1,336,625
1935-36	385,044	168,149	575,286	230,935	74,396	169,958	1,603,768
1936-37	460,202	161,324	1,526,870	396,668	210,502	228,587	2,984,153
NATAL.							
1934-35	191,515	30,792	67,463	84,821	38,725	409,050	822,366
1935-36	152,352	39,899	83,344	84,028	21,832	276,770	658,225
1936-37	124,402	45,321	86,158	79,427	16,473	305,051	656,832
TRANSVAAL.*							
1934-35	580,810	528,715	630,542	176,957	677,309	253,030	2,847,363
1935-36	562,980	502,757	807,563	242,527	782,851	412,377	3,311,055
1936-37	594,093	633,333	929,974	342,911	573,735	783,450	3,857,496

* Including village councils.

(vi) CAPITAL EXPENDITURE OF MUNICIPALITIES—*(continued)*.

Year.	Roads and Bridges. £	Public Health. £	Electricity Supply. £	Water Supply. £	Properties. £	Other. £	Total. £
ORANGE FREE STATE.							
1934-35	21,759	2,364	75,647	64,982	82,223	9,512	256,487
1935-36	25,649	1,402	16,209	24,612	101,193	15,272	184,337
1936-37	28,333	9,486	55,444	34,900	91,139	24,106	243,408
UNION.							
1934-35	1,015,222	710,764	1,258,958	463,822	922,441	891,634	5,262,841
1935-36	1,126,025	712,207	1,482,402	582,102	980,272	874,377	5,757,385
1936-37	1,207,030	849,464	2,598,446	853,906	891,849	1,341,194	7,741,889

(*b*) *Revenue, Expenditure, and Indebtedness—Rural Authorities.*—(i) *Cape Divisional Councils.*—Particulars are given below of receipts, expenditure, etc., of divisional councils in the Cape Province for a period of years:—

CAPE DIVISIONAL COUNCILS—RECEIPTS, EXPENDITURE, LOAN INDEBTEDNESS, AND RATEABLE VALUATION, 1935 TO 1937.

Heading.	1935.	1936.	1937.
	£	£	£
*(a) Receipts.**			
General Rates	483,797	519,530	528,010
Vehicle Tax	33,643	31,786	26,104
Dog Tax	18,363	18,686	19,656
Location Rents, Hut Tax, etc	2,779	3,284	2,614
Health Rate	3,062	2,161	2,270
Pontoons and Ferries	472	454	381
Interest on Rates	6,000	6,390	5,596
Proceeds of Outspans	5,367	5,285	5,041
Contributions from other Councils	751	589	202
Other	35,728	99,014	72,482
Government Grants	446,771	505,780	467,735
TOTAL £	1,036,733	1,192,959	1,130,091
*(b) Expenditure.**			
Salaries of Officers	49,348	52,910	55,448
Main Roads	419,337	408,982	407,996
Divisional Roads	184,777	199,372	231,619
Public Roads	17,630	14,047	15,190
Extermination of Vermin	14,751	15,602	25,525
Public Health	25,149	28,497	31,816
Sundry	325,495	341,669	383,616
TOTAL £	1,036,487	1,061,079	1,151,210
(c) Loan Indebtedness and Rateable Valuation.			
Loan Indebtedness *	£ 1,334,107	£ 1,553,605	£ 1,789,146
Rateable Value of Property	198,529,626	204,657,065	207,750,955

* Exclusive of local areas.

(ii) *Cape Local Areas.*—The following table shows the revenue, expenditure, and outstanding indebtedness of these areas at the 31st December, 1935 to 1937:—

CAPE LOCAL AREAS—RECEIPTS, PAYMENTS, LOAN INDEBTEDNESS, 1935 TO 1937.

Heading.	1935.	1936.	1937.
	£	£	£
Receipts	6,746	9,275	13,257
Payments	4,224	4,505	6,817
Loan Indebtedness	29,238	35,029	37,221

(c) *Electric Light and Power—Urban Authorities.*—Tables giving particulars of electric light and power stations will be found in a section dealing entirely with electrical services in Chapter XXIII.

(d) *Roads and Bridges—Urban Authorities.*—A table showing the mileage of streets and roads and the number of bridges under the control of urban authorities will be found in Chapter XIII.

(e) *Fire Brigades—Municipalities.*—Particulars are given below as to fire brigades in certain municipalities in 1936-37.

FIRE BRIGADES, 1936-37.

Municipality.	Staff.			Engines.	Calls.	Revenue.	Expenditure.
	European.	Other.	Total.				
	No.	No.	No.	No.	No.	£	£
Capetown	116	6	122	14	365	8,499	50,081
East London	15	1	16	4	35	993	7,624
Kimberley	13	1	14	2	38	789	4,916
Port Elizabeth	17	—	17	5	94	2,187	9,496
Durban	57	1	58	9	128	5,385	28,424
Pietermaritzburg	12	1	13	4	38	1,941	5,698
Benoni	7	1	8	2	25	784	5,317
Boksburg	10	—	10	3	34	547	2,836
Brakpan	11	—	11	2	21	251	1,576
Germiston	11	—	11	2	56	1,750	5,375
Johannesburg	100	—	100	14	620	4,893	58,924
Krugersdorp	10	—	10	2	19	728	2,910
Potchefstroom	9	1	10	1	8	151	530
Pretoria	28	1	29	4	133	5,059	15,345
Roodepoort	3	1	4	1	17	499	1,913
Springs	13	1	14	2	37	713	5,409
Bloemfontein	15	1	16	9	93	2,414	7,433
Other Towns	120	12	132	16	135	1,170	7,357

(f) *Employees, Salaries, and Wages—Local Authorities.**—The following table gives particulars regarding the number of persons employed by all local authorities at the end of the financial years, and the amount of salaries and wages paid during the financial years, 1934-35 to 1936-37:—

* Excluding Cape local boards.

LOCAL AUTHORITIES*—EMPLOYEES, SALARIES, AND WAGES, 1934-35 TO 1936-37.

Local Authorities and Provinces.	Employees.†			Salaries and Wages Paid.		
	European.	Other.	Total.	European.	Other.	Total.
1936-37.	No.	No.	No.	£	£	£
Municipalities—						
Cape of Good Hope	5,847	10,773	16,620	1,256,902	799,648	2,056,550
Natal	2,712	7,693	10,405	796,163	242,109	1,038,272
Transvaal	8,929	22,130	31,059	2,762,323	733,137	3,495,460
Orange Free State	1,070	2,691	3,761	231,336	81,849	313,185
TOTAL	18,558	43,287	61,845	5,046,724	1,856,743	6,903,467
Other Urban Authorities—						
Cape of Good Hope	531	512	1,043	21,806	9,283	31,089
Natal	122	467	589	21,436	13,586	35,022
Transvaal	323	858	1,181	43,077	22,698	66,675
Orange Free State	24	12	36	1,761	301	2,062
TOTAL	1,000	1,849	2,849	88,980	45,868	134,848
Divisional Councils—						
Cape of Good Hope	1,842	7,800	9,642	264,137	253,691	517,828
GRAND TOTAL—						
1936-37	21,400	52,936	74,336	5,399,841	2,156,302	7,556,143
1935-36	19,813	51,181	70,994	4,853,980	1,918,238	6,772,218
1934-35	18,833	44,735	63,568	4,383,145	1,732,406	6,115,551

* Excluding Cape local boards.
† Exclusive of relief workers.

§ 4. Statistics of Principal Municipalities.

1. **City of Capetown.**—In the subjoined tables are shown the financial results of the Corporation's activities for a series of years.

(i) CITY OF CAPETOWN—GENERAL STATISTICS, 1935 TO 1937.

Description.	1935.	1936.	1937.
	£	£	£
Total Loans Raised	15,537,068	15,602,248	17,768,401
Loans Repaid	615,202	678,105	724,509
Total Loan Indebtedness at 31st December	14,921,866	14,924,143	17,043,892
Sinking Fund	3,284,098	3,549,521	3,846,473
Net Loan Indebtedness at 31st December	11,637,768	11,374,622	13,197,419
Loans Raised during Year	20,675	65,180	2,166,153
Unexpended Loan Balance at End of Year	822,093	800,219	1,472,751
Amounts Temporarily Charged to Loan Fund	840,533	1,260,449	1,523,848
Unused Loan Authorities	1,254,550	1,679,661	281,764
Capital Expenditure during Year	739,155	882,478	1,940,488
Contributions to Capital Account from Revenue	167,443	203,540	152,076
Total Capital Expenditure	20,696,666	21,579,144	23,519,632
Assets*	18,940,575	19,287,784	21,678,361
Surplus of Assets over Liabilities†	6,031,925	6,527,601	7,044,089
Gross Revenue for Year (including Trading Concerns)	2,669,564‡	2,804,231‡	3,069,435
Gross Expenditure for Year (including Trading Concerns)	2,684,674‡	2,816,821‡	2,982,628
Total Value of Immovable Property	72,720,627	74,601,602	76,089,195
Rateable Value of Immovable Property	54,026,859	55,313,006	55,961,139

* Excluding balance of Sinking Fund.
† Including balance of Sinking Fund.
‡ Revised figure. Deficit excluded.

(ii) CITY OF CAPETOWN—TOTAL CAPITAL EXPENDITURE AT THE END OF EACH FINANCIAL YEAR (31st DECEMBER), 1935 TO 1937.

Heading.	1935.	1936.	1937.
	£	£	£
Markets and Slaughterhouses Committee—			
Markets	160,208	162,805	175,303
Fishing Harbour Buildings	15,266	15,266	15,266
Maitland Outspan	2,674	2,674	2,671
Slaughterhouses	139,097	143,738	145,557
Improvements and Parks Committee—			
Baths, Pavilions, and Tea Rooms	261,623	263,303	265,678
Beach Improvements	146,442	151,331	155,378
Pier and Sea Promenade	116,193	116,193	116,193
Parks, Gardens, Recreation Grounds, and Tree Planting	180,488	186,368	241,031
Sundry Works	3,914	3,914	3,914
Streets and Drainage Committee—			
Street Improvements	4,139,890	4,304,861	4,531,382
Marine Drive	46,681	46,681	46,681
Sea Wall	41,950	44,163	47,124
Sewers	3,136,078	3,218,574	3,279,966
Plant and Buildings (Streets Depots)	311,319	312,942	333,489
Health and Building Regulations Committee—			
Public Health	72,871	74,305	76,503
Hospitals	134,235	168,969	203,528
Washhouses	35,130	37,011	38,587
House Drainage Connexions	353,331	358,571	364,381
Fire Brigade Committee—			
Fire Brigade	171,679	173,254	177,358
Housing and Estates Committee—			
Workmen's Dwellings and Flats	387,018	393,907	437,519
Assisted Housing Loans	665,269	665,211	665,656
Land and Buildings	286,015	286,015	286,015
Sundry Works	9,088	9,088	9,088
Traffic Control Committee—			
Traffic Depot Equipment	10,967	10,967	10,967
Traffic Signals	156	1,925	15,250
Native Affairs Committee—			
N'dabeni Location	8,880	8,880	8,880
Langa Native Township	306,266	310,627	316,466
Finance and General Purposes Committee—			
Municipal Halls	316,842	322,553	327,921
Public Gardens and Art Gallery	30,836	30,836	30,836
Airport	58,308	58,308	60,235
Land and Buildings	79,140	172,072	228,464
Sundry Works	25,935	25,935	25,935
Flotation Charges	116,220	116,320	116,320
Electricity Committee—			
Electricity Works	3,974,216	4,362,381	5,634,454
Waterworks Committee—			
Waterworks	4,952,341	5,019,196	5,125,629
TOTAL £	20,696,666	21,579,144	23,519,632

(iii) CITY OF CAPETOWN—REVENUE AND EXPENDITURE, 1935 TO 1937.

Item.	Revenue.			Expenditure.		
	1935.	1936.	1937.	1935.	1936.	1937.
	£	£	£	£	£	£
Markets	22,255	23,536	23,352	22,541	22,284	24,087
Slaughterhouses	30,899	34,314	37,244	26,992	27,951	30,153
Improvements and Parks	27,347	24,986	29,550	113,722	114,526	116,733
Streets and Drainage	174,028	190,111	213,379	734,755	773,180	806,594
Street Lighting	—	—	—	23,400	23,400	23,400
Health, Hospitals, & Washhouses	25,543	28,630	47,079	138,130	142,728	169,030
Building Regulations	8,269	12,302	12,619	21,987	21,368	22,233
Fire Brigade	7,285	7,711	8,499	44,827	51,485	53,018
Housing and Estates	98,336	101,014	108,939	103,335	102,400	109,377
Traffic Control	24,958	29,122	32,560	26,829	33,394	37,837
Native Affairs	16,681	19,196	20,660	27,594	25,365	26,702
Finance and General Purposes	104,302	91,354	81,364	273,151	263,494	284,682
Orchestra	6,358	7,967	7,093	19,802	21,802	21,069

(iii) CITY OF CAPETOWN—REVENUE AND EXPENDITURE, 1935 TO 1937—(*continued*).

Item.	Revenue.			Expenditure.		
	1935.	1936.	1937.	1935.	1936.	1937.
	£	£	£	£	£	£
Special Grants under Ordinances, etc	—	—	—	45,025	42,818	51,877
Electricity	760,678	829,337	923,171	710,678	779,337	823,171
Waterworks	351,906	371,289	382,665	351,906	371,289	382,665
Rates (including payments in lieu of rates)	1,010,719	1,033,362	1,141,261	—	—	—
TOTAL £	2,669,564	2,804,231	3,069,435	2,684,674*	2,816,821*	2,982,628*
EXCESS £	—	—	86,807	15,110	12,590	—

* Including waterworks surplus and contributions to capital expenditure amounting to £110,538 in 1935; £153,270 in 1936; and £99,758 in 1937.

(iv) CITY OF CAPETOWN—SUMMARY OF TRANSACTIONS OF TRADING DEPARTMENTS, 1935 TO 1937.

Year.	Income.	Working Expenses.	Gross Profit.	Capital and Loan Charges, etc.	Net Profit.	Contributions in Aid of Rates.
	£	£	£	£	£	£
(a) *Electricity Department.*						
1935	760,678	488,351	272,327	222,327	50,000	50,000
1936	829,337	529,935	299,402	249,402	50,000	50,000
1937	923,171	625,046	298,125	198,125	100,000	100,000
(b) *Water Department.*						
1935	351,906	89,473	262,433	252,906	9,527	—
1936	371,289	87,414	283,875	260,406	23,469	—
1937	382,665	93,581	289,084	262,370	26,714	—

2. **City of Durban.**—The following tables give, for a series of years, particulars of the financial activities of the City Council.

(i) CITY OF DURBAN—GENERAL STATISTICS, 1934-35 TO 1936-37.

Item.	1934-35.	1935-36.	1936-37.
	£	£	£
*Loan Indebtedness at 31st July	9,782,961	10,097,438	10,481,153
Sinking Funds at 31st July	1,981,335	2,158,732	2,345,422
†Net Loan Indebtedness at 31st July	7,801,626	7,938,706	8,135,731
Loans Raised during Financial Year	—	500,000	1,000,000
Government Housing Loans—			
Advances from Provincial Administration	463,788	451,440	442,677
Unused Borrowing Powers	4,939,000	4,939,000	8,696,000
Capital Expenditure during Year	695,884	566,317	612,671
Total Capital Expenditure	12,371,695	12,781,158	13,234,112
Value of Assets	18,398,551	19,145,541	19,973,945
Surplus of Assets over Liabilities	7,466,089	7,838,457	8,209,271
‡Gross Revenue for Year (excluding Trading Concerns)	811,296	846,397	894,495
Gross Expenditure for Year (excluding Trading Concerns)	806,749	826,483	891,716
Revenue from Trading Concerns Applied to Relief of Rates	134,588	140,729	160,366
Gross Valuation	39,088,480	40,630,510	41,806,260
Net Rateable Valuation	36,104,750	36,678,790	37,523,800

* Including government housing loans and short dated loans, both of which may be increased or decreased during the year.
† Excluding debit balance on banking accounts.
‡ Including the net amount contributed to the relief of rates from the operation of trading concerns.

(ii) CITY OF DURBAN—TOTAL CAPITAL EXPENDITURE AT THE END OF EACH FINANCIAL YEAR, 1934-35 TO 1936-37.

Account.	1934-35.	1935-36.	1936-37.
	£	£	£
City Fund Capital Account—			
Art Gallery	43,655	43,864	44,019
Clarendon Home	9,755	10,035	10,035
Durban Home	10,066	10,066	10,066
Fire Stations	27,090	27,598	27,598
Ocean Beach	373,160	382,421	315,036
Parks, Gardens, etc.	60,177*	77,593	90,979
Public Health	108,179	114,581	123,682
Police Stations	71,979	71,979	63,163
Public Improvements and Drainage	4,156,533	4,393,714	4,758,231
Statues and Fountains	8,877	8,877	8,877
Sundry Properties	214,747	230,830	233,571
Stores, Buildings, and Stables	45,337	45,890	45,891
City Hall	380,293	380,976	381,229
Zoological Gardens	13,195	13,195	13,195
£	5,523,043	5,811,628	6,135,623
Trading Departments—			
Abattoirs	124,993	126,326	130,980
City Market	73,040	78,149	79,110
Indian Market	58,975	59,713	60,253
Electricity Supply	1,781,228	1,824,005	1,908,066
Telephones	543,273	586,352	646,238
Tramways	940,142	893,674†	905,495
Water Supply	2,310,441	2,370,604	2,433,281
£	5,832,092	5,948,823	6,063,148
Miscellaneous—			
Native Fund	377,861	379,094	389,701
Housing	579,478	582,392	586,481
Public Baths	59,221	59,221	58,859
£	1,016,560	1,020,707	1,035,041
TOTAL.....£	12,371,695	12,781,158	13,234,112

* Reduced by credits.
† Certain assets written off.

(iii) CITY OF DURBAN—REVENUE AND EXPENDITURE, 1934-35 TO 1936-37.

Description.	Revenue.			Expenditure.		
	1934-35.	1935-36.	1936-37.	1934-35.	1935-36.	1936-37.
	£	£	£	£	£	£
Aerodrome, Municipal	683	906	1,084	4,125	7,559	9,365
Art Gallery	29	26	59	1,753	1,616	1,746
Audit	—	—	—	2,364	375	—
City Engineer's Department	—	—	—	555	1,768	3,032
Building Fees	2,817	2,770	5,402	—	—	—
Cemetery Department	4,107	4,280	4,982	5,781	6,199	7,719
Council's General Expenses	—	—	—	11,056	11,153	11,593
Estates Department	104,546	104,988	107,380	3,305	10,012	27,036
Fire Department	4,623	5,011	5,385	25,496	27,556	28,424
General Stores	—	—	—	—	—	—
Grants-in-Aid	—	—	—	22,146	20,702	26,900
Housing Scheme	—	—	—	4,524	4,655	4,898
Library	3,280	2,871	1,961	9,136	9,366	10,145
Licensing Department	52,221	58,777	75,613	6,031	7,438	11,418
Miscellaneous	3,348	1,384	2,146	28,035	39,881	94,405
Museum	10	4	3	3,263	3,214	3,395
Music and Gala	3,604	4,493	7,584	16,353	17,978	24,023
Ocean Beach	8,795	9,275	8,355	36,288	38,570	33,336
Parks and Gardens	1,995	1,982	4,300	20,840	21,560	20,273
Pensions	—	—	—	4,563	4,635	6,273
Police Department	10,727	9,033	10,079	91,320	90,335	28,787
Publicity	—	—	—	1,918	1,858	2,276
Public Health Department	11,139	18,175	19,002	44,086	47,059	74,389

(iii) CITY OF DURBAN—REVENUE AND EXPENDITURE—(*continued*).

Description.	Revenue.			Expenditure.		
	1934-35.	1935-36.	1936-37.	1934-35.	1935-36.	1936-37.
	£	£	£	£	£	£
Sanitary Department	2,651	2,659	3,698	39,914	42,285	59,882
Sewerage Department	14,687	15,072	14,115	62,296	60,495	66,664
Street Lighting	—	—	—	11,000	*	*
Town Clerk's Department	1	—	1	8,999	9,752	11,688
City Hall	2,414	1,794	1,869	24,382	24,261	25,170
City Solicitors	—	—	—	1,776	1,733	1,611
City Treasurer's Department	3,585	3,163	4,266	19,644	20,456	25,966
Works Department	1,595	1,555	3,716	212,972	203,997	262,202
Trading Contributions	134,588	140,729	160,367	—	—	—
General Rate	366,527	379,575	453,128	—	—	—
Government De-rating Grant	4,007	—	—	—	—	—
Incorporated Areas—General	22,457	21,458	—	76,828	90,016	—
Incorporated Areas—General Rate	46,860	56,417	—	—	—	—
TOTAL.....£	811,296	846,397	894,495	806,749	826,484	891,716
EXCESS.....£	4,547	19,913	2,779	—	—	—

* Cost of street lighting borne by Electricity Supply Department.

(iv) CITY OF DURBAN—SUMMARY OF TRANSACTIONS OF TRADING DEPARTMENTS, 1934-35 TO 1936-37.

Year.	Abattoir.	City Market.	Indian Market.	Electricity Supply.	Telephones.	Tramway Department.	Water Supply.	TOTAL.
	£	£	£	£	£	£	£	£
Income—								
1934-35	28,880	31,563	21,243	570,803	104,764	261,074	239,496	1,257,823
1935-36	31,652	31,526	22,110	597,298	107,918	254,184	247,521	1,292,209
1936-37	31,298	32,693	22,715	570,403	127,195	260,877	256,989	1,302,171
Working Expenses—								
1934-35	16,754	30,087	14,052	339,210	47,254	208,555	53,127	709,039
1935-36	17,170	29,479	11,883	353,886	54,554	213,035	53,570	733,677
1936-37	18,538	30,233	12,443	376,220	45,306	233,208	56,548	772,496
Gross Profit—								
1934-35	12,126	1,476	7,191	231,593	57,510	52,519	186,369	548,784
1935-36	14,482	2,047	10,127	243,412	53,364	41,149	193,951	558,532
1936-37	12,760	2,460	10,273	194,183	81,889	27,669	200,441	529,675
Capital Charges—								
1934-35	7,057	1,182	4,181	152,894	39,759¶	52,519	141,292§	398,884
1935-36	7,486	1,675	3,078	118,447	39,324¶	51,183	134,133§	355,326
1936-37	7,365	1,886	2,571	115,641	51,961¶	69,715	134,533	383,672
Net Profit—								
1934-35	5,069	294	3,010	78,699	17,751	—	45,077	149,900
1935-36	6,996	372	7,049	124,965	14,040	—10,034*	59,818	203,206
1936-37	5,395	574	7,702	78,542	29,928	—42,046*	65,908	146,003
Payments to Borough Fund								
1934-35	4,040	1,688†	1,760	67,400	15,600	—	44,100	134,588
1935-36	—	844†	1,760	67,400	15,600‡	—	55,125	140,729
1936-37	—	844†	1,760	71,400	21,600	—	64,762	160,366

* Loss.
† The difference between this amount and net profit was made up by a transfer from Borough Fund Account.
‡ The difference between this amount and net profit was made up by a transfer from working balance reserve.
§ Including deficit balance brought forward from previous year.
¶ Including contribution to Union Government in terms of Telephone Agreement.

(v) CITY OF DURBAN—NATIVE ADMINISTRATION ACCOUNT,* 1934-35 TO 1936-37.

Description.	1934-35.	1935-36.	1936-37.
	£	£	£
Revenue	77,484	94,915	127,033
Working Expenses	70,730	76,645	76,149
BALANCE £	6,754	18,270	50,884

* This fund, the revenue for which is obtained from the sale of native beer, lodging-house fees, etc., is held in trust by the Council to be utilized for the benefit of the natives, including the administration and maintenance of a location, the provision of hospital accommodation, schools, etc.

3. **City of Johannesburg.**—The City of Johannesburg acquired augmented municipal institutions in 1897 through the foundation, under a Law enacted in that year, of a *Stadsraad* of twelve members, with a Burgomaster appointed by the Government. This body virtually ceased to exist on the outbreak of war in 1899, but was reconstituted as a nominated council after the occupation of the town by the British. An Ordinance passed two years later gave authority for the election of a Town Council, which met for the first time in December, 1903. Since that date the European population of Johannesburg has increased from 83,902 (Census of April, 1904) to 137,873 in 1918, 150,286 in 1921, 168,545 in 1926, 199,507 in 1931, and 252,718 in 1936, and the non-European population, which in 1904 was 74,678, numbered 117,151 in 1911, 132,685 in 1921, and 222,316 in 1936. The progress recorded in other directions, and particularly in the development of municipal enterprises, has been equally great. Johannesburg received its charter as a city as from 5th September, 1928. The tables hereunder contain details, for a period of years, as to the financial position of the Municipality:—

(i) CITY OF JOHANNESBURG—GENERAL STATISTICS, 1934-35 TO 1936-37.

Item.	1934-35.	1935-36.	1936-37.
	£	£	£
*Loan Indebtedness at 30th June	8,728,000	9,484,698	10,528,000
Sinking Fund at 30th June	1,188,973	1,335,490	1,592,346
Net Loan Indebtedness at 30th June	7,539,027	8,149,208	8,935,654
Loans Raised during Year	2,000,000	2,000,000	—
Unused Borrowing Powers	2,737,716	3,283,097	6,365,404
Capital Expenditure during Year	1,677,033	1,986,074	2,329,883
Total Capital Expenditure	15,643,101	17,629,175	19,959,058
Value of Assets	18,974,148	20,275,995	22,355,360
Surplus of Assets over Liabilities	10,522,551	11,291,832	11,940,888
†Gross Revenue during Year	3,764,918	3,982,708	4,480,789
†Gross Expenditure during Year	3,692,426	3,922,305	4,678,500
Contributions from Trading Concerns to Reduction of Rates	415,336	389,610	394,635
Rateable Value of Property	75,146,086	78,205,638	87,499,734

* Including temporary loans.

† Including trading concerns.

(ii) CITY OF JOHANNESBURG—TOTAL CAPITAL EXPENDITURE AT THE END OF EACH FINANCIAL YEAR, 1934-35 TO 1936-37.

Account.	1934-35.	1935-36.	1936-37.
	£	£	£
Public Health—	354,225	370,132	410,743
Cleansing System	2,556,568	2,789,407	3,003,257
Sewerage System	17,004	18,085	20,486
Disinfecting Station	73,233	73,233	73,233
Fever Hospital			
Road Construction and Improvements—	1,950,903	2,183,293	2,410,795
Road Construction (including Kerbing, Guttering, and Pavements)	1,152,812	1,235,946	1,314,408
Stormwater Drainage	69,109	166,767	270,815
Bridges and Subways			
Sundry Properties—	173,389	214,389	221,683
Fire Brigade	945,897	1,004,010	1,030,405
Parks Department	138,329	139,237	140,961
Cemeteries	171,083	171,060*	176,312
Swimming Baths	92,920	103,777	107,212
Zoological Branch	208,554	206,255*	204,731*
Estate Department	244,433	277,872	323,587
City Engineer's Plant and Workshops	940,766	1,006,252	1,053,912
Non-European Housing, etc.	636,951	638,169	638,696
City Hall	48,838	48,851	50,258
Art Gallery	368,721	412,294	421,733
Public Library	58,911	75,893	95,325
Rand Airport	66,077	71,278	77,754
Traffic and Licensing Department	30,695	34,255	65,909
Miscellaneous			
Trading Departments—	508,550	661,638	813,555
Gas Department	2,037,667	2,596,575	3,263,094
Electricity Department	1,389,592	1,557,527	1,954,580
Tramway Department	833,733	955,248	1,163,178
Water Department	231,886	243,827	248,156
Produce Market Department	342,255	343,905	344,280
Abattoir and Live Stock Market Department	—	30,000	*
Flotation Expenses, £2,000,000 Loan (1936)			
TOTAL £	15,643,101	17,629,175	19,959,058

* Reduced by credits.

(iii) CITY OF JOHANNESBURG—REVENUE AND EXPENDITURE, 1934-35 TO 1936-37.

Description.	Revenue.			Expenditure.		
	1934-35.	1935-36.	1936-37.	1934-35.	1935-36.	1936-37.
	£	£	£	£	£	£
Rates	690,031	692,808	706,287	—	—	—
Interest	17,210	32,776	25,455	—	—	—
Exchange on Transfers	—	—	—	1,304	1,418	1,505
City Treasurer's Department	2,370	1,540	1,763	32,545	33,373	41,747
Valuation Office	728	112	15	5,531	6,139	9,629
Stores Department	7,181	8,050	8,770	7,182	8,050	8,770
Loan Charges not Charged Out	—	—	—	25,022	20,185	17,669
Town Clerk's Department	28	9	20	15,908	16,570	19,627
Council's General Expenses	80	55	39	38,216	23,774	113,723
Grants-in-Aid and Gratuities	—	—	—	134,379	101,634	207,811
City Hall and Selborne Hall	4,271	4,556	4,370	9,486	9,934	11,210
Art Gallery	14	19	22	3,626	3,554	4,230
Rand Airport	2,619	4,022	5,882	7,417	9,454	11,552
Parks and Estate Department	40,602	45,856	46,636	121,945	138,863	137,334
Swimming Baths	9,775	9,890	9,267	29,018	30,144	32,265
Produce Market	38,935	41,735	43,996	29,603	32,344	37,060
Non-European Housing and Native Administration Department	113,939	126,985	134,473	114,793	132,600	154,369
Cleansing Department	—	—	—	161,617	175,323	183,376
Sanitary Fees	195,364	200,892	216,162	—	—	—
Public Health Department, Licences, etc.	12,122	13,987	16,094 590	84,360	91,538	107,192
Municipal Pounds	495	645		1,009	1,046	971
White Housing	—	—	4,129	—	—	4,726
Abattoir and Live Stock Market	77,221	88,518	98,530	77,657	88,202	98,324
Public Library	1,442	1,747	1,990	32,064	37,223	43,260
Africana Museum	—	—	4	—	—	5,224
Electricity Department	868,001	930,240	1,107,241	612,837	715,343	873,034
Public Street Lighting	—	—	—	72,408	83,576	90,572
Tramway Department	744,402	781,398	919,247	715,248	772,631	936,518
Water Department	418,473	434,346	497,152	301,045	283,292	330,154

(iii) CITY OF JOHANNESBURG—REVENUE AND EXPENDITURE—(*continued*).

Description.	Revenue.			Expenditure.		
	1934–35.	1935–36.	1936–37.	1934–35.	1935–36.	1936–37.
	£	£	£	£	£	£
Fire Department	4,302	4,929	5,090	49,721	54,304	58,924
Gas Department	101,525	126,286	147,114	96,195	119,993	142,084
Roads Branch	69	49	87	248,440	232,427	249,152
Street Watering Service	214	255	205	12,982	14,378	12,750
Industria	—	—	—	2	10	1
Town Planning	—	—	—	2,725	6,372	4,110
Stormwater Drainage	—	—	—	53,037	55,363	66,940
Sewerage and Sewage Farm	245,072	226,391	247,520	201,594	253,319	271,974
Building Survey	24,429	38,261	43,767	12,704	15,165	18,891
Traffic and Licensing Department	147,380	168,862	191,341	42,911	60,079	91,207
Transfers to Capital	—	—	—	237,865	191,041	175,503
Transfer to Road Construction from Special Road Rate	—	—	—	100,000	103,639	105,480
Less—Bad Debts written off and Provision for Doubtful Debts	— 3,976	— 2,421	— 2,469	—	—	—
Total for the Year.....£	3,764,918	3,982,798	4,480,789	3,692,126*	3,922,305*	4,487,590*
EXCESS.....£	72,492	60,493	—	—	—	107,711

* Including repayment of inter-departmental loans amounting to £28,302 in 1934–35; £14,292 in 1935–36; and £14,302 in 1936–37.

(iv) CITY OF JOHANNESBURG—TRADING DEPARTMENTS.

(*a*) LOAN INDEBTEDNESS, ETC., AND PAYMENTS IN AID OF RATES AT 30TH JUNE, 1937.

Department.	Capital Expenditure to 30/6/37.	Capital Votes to 30/6/37.	Loan Debt.	Redemption Fund.	Renewals Fund.
	£	£	£	£	£
Gas Department	813,555	919,626	801,526	84,874	40,975
Electricity Department	3,263,094	5,698,421	2,405,555	291,989	435,856
Tramway Department	1,954,580	2,273,743	1,265,719	246,710	263,447
Water Department	1,163,178	1,392,670	477,581	56,301	40,722
Produce Market Department	248,156	256,515	28,355	4,160	7,326
Abattoir and Live Stock Market Department	344,280	350,366	287,281	107,495	6,640
TOTAL.....£	7,786,843	10,891,341	5,266,017	791,529	794,966

(*b*) SUMMARY OF TRANSACTIONS OF TRADING DEPARTMENTS, 1934-35 TO 1936-37.

Year.	Gas Department.	Electricity Department.	Tramway Department.	Water Department.	Produce Market Department.	Abattoir and Live Stock Market Department.	Total.
	£	£	£	£	£	£	£
Income.							
1934–35	101,434	867,560	744,402	417,767	38,035	77,821	2,247,019
1935–36	126,186	929,758	781,399	433,841	41,725	88,512	2,401,421
1936–37	146,862	1,106,610	919,248	496,575	43,988	98,525	2,811,808
Working Expenses.							
1934–35	58,996	432,245	578,055	286,668	27,317	57,434	1,440,715
1935–36	74,260	485,637	616,381	265,387	29,365	67,233	1,538,263
1936–37	90,011	568,011	770,423	302,976	33,813	77,115	1,842,349
Gross Profit.							
1934–35	42,438	435,315	166,347	131,099	11,618	20,387	807,204
1935–36	51,926	444,121	165,018	168,454	12,360	21,279	863,158
1936–37	56,851	538,599	148,825	193,599	10,175	21,410	969,459

(iv) CITY OF JOHANNESBURG—TRADING DEPARTMENTS—(*continued*).

(*b*) SUMMARY OF TRANSACTIONS OF TRADING DEPARTMENTS—(*continued*).

Year.	Gas Department.	Electricity Department.	Tramway Department.	Water Department.	Produce Market Department.	Abattoir and Live Stock Market Department.	Total
	£	£	£	£	£	£	£
Capital Charges.							
1934–35	37,198	131,511	115,503	14,376	2,286	20,223	321,097
1935–36	43,333	154,295	133,543	17,905	2,979	20,968	373,023
1936–37	51,135	200,807	152,419	27,177	3,247	20,898	455,683
Profits.							
1934–35	5,240	254,723†	29,154‡	116,723	9,332	164	415,336
1935–36	6,188*	214,414†	8,767‡	150,549	9,381	311	389,610
1936–37	4,778*	233,577†	— 17,271¶	166,422	6,928	201 §	394,635
Payments to General Fund.							
1934–35	5,240	254,723	29,154	116,723	9,332	164	415,336
1935–36	6,188	214,414	8,767	150,549	9,381	311	389,610
1936–37	4,778	233,577	—	166,422	6,928	201	394,635‖

* Profit after deducting sundry expenditure as follows: £2,405 in 1935–36; £938 in 1936–37.

† Profit after deducting sundry expenditure as follows: £49,081 in 1934–35; £75,412 in 1935–36; £104,215 in 1936–37.

‡ Profit after deducting special expenses as follows: £21,690 in 1934–35; £22,708 in 1935–36.

§ Profit after deducting £311 appropriation for capital expenditure.

‖ Total after deducting losses.

¶ Loss after deducting £13,677 special expenses.

4. City of Pretoria.—The following tables give information as to the financial progress of Pretoria over a series of years. The town of Pretoria received its charter as a city on the 14th October, 1931. At the same time the Innesdale Village Council was incorporated with Pretoria.

(i) CITY OF PRETORIA—GENERAL STATISTICS, 1934-35 TO 1936-37.

Item.	1934–35.	1935–36.	1936–37.
	£	£	£
*Loan Indebtedness at 30th June	4,598,542	5,061,169	5,244,744
Sinking Fund at 30th June	1,561,012	1,680,452	1,806,648
Net Indebtedness at 30th June	3,037,530	3,380,717	3,438,096
Loans Raised during Year ended 30th June	245,875	464,900	195,100
Housing Loans Advanced from Provincial Administration	171,292	158,439	103,197
Unexpended Balance of Capital Expenditure	30,147	122,669	50,363
Capital Expenditure	509,961	436,207	321,845
Total Capital Expenditure	5,739,781	6,156,163	6,433,836
Value of Assets	8,098,264	8,706,871	9,001,067
Surplus of Assets over Liabilities	2,904,996	3,074,925	3,219,068
Gross Revenue for Year (including Trading Concerns)	858,866	914,254	991,302
Gross Expenditure for Year (including Trading Concerns)	848,452	922,659	1,002,289
Revenue from Trading Concerns Applied to Reduction of Rates	63,353	56,050	64,077
Rateable Value of Land and Buildings	15,905,325	16,589,977	17,708,465
Gross Valuation	22,629,924	23,811,662	24,962,655

* Excluding housing loans

(ii) CITY OF PRETORIA—TOTAL CAPITAL EXPENDITURE AT END OF EACH FINANCIAL YEAR, 1934-35 TO 1936-37.

Account.	1934-35.	1935-36.	1936-37.
	£	£	£
Public Health—			
Sewerage Schemes	634,470	665,457	702,914
Washhouses	2,396	2,335	2,285
Isolation Hospital, etc	41,392	41,513	43,309
Plant and Public Conveniences	7,144	7,170	7,040
Sanitary Department	17,820	17,820	17,820
Roads and Improvements—			
Stormwater Drainage	282,764	284,173	286,508
Canalization	102,050	123,747	121,768
Streets and Improvements	486,536	597,741	676,116
Property—			
City Hall and Offices	269,496	338,311	353,339
Swimming Baths	46,727	47,004	59,461
Parks and Recreation Grounds	126,337	127,305	130,859
Cemeteries	6,307	9,376	10,426
Other Movable and Fixed Property	123,396	164,303	178,494
Afforestation	4,448	4,670	4,620
Miscellaneous Undertakings—			
Fire Department	39,033	41,710	42,287
City Engineer's Plant, etc	84,952	88,314	90,820
Native Revenue Account	96,828	96,669	97,595
Loan Flotation Expenses	62,627	69,249	67,186
Trading Departments—			
Abattoir	80,976	82,411	82,525
Live Stock Market	8,207	8,176	8,146
Water Supply	1,235,345	1,300,946	1,329,805
Produce Market	59,045	60,436	60,268
Electricity Supply	1,439,868	1,592,329	1,671,207
Tramways	308,147	349,914	354,652
Bon Accord Quarry	34,953	35,084	34,386
Innesdale Ward	138,517	*	*
TOTAL £	5,739,781	6,156,163	6,433,836

* Included above.

(iii) CITY OF PRETORIA—REVENUE AND EXPENDITURE, 1934-35 TO 1936-37.

Description.	Revenue.			Expenditure.		
	1934-35.	1935-36.	1936-37.	1934-35.	1935-36.	1936-37.
	£	£	£	£	£	£
City Treasurer's Department	—	—	—	11,264	13,186	15,594
Locations	4,502	5,419	4,519	4,794	5,607	8,640
Public Functions and Mayoral Allowances	—	—	—	6,752	4,284	9,262
Town Clerk's Department	—	—	—	8,104	8,142	8,637
City Engineer's Department	—	—	—	10,421	8,958	10,435
Streets (Cleaning and Lighting)	—	—	—	14,018	16,421	17,279
City Hall and Maintenance of Offices	—	—	—	6,403	8,953	12,217
General Works	—	—	—	76,244	84,159	88,124
Charitable and Relief Works	—	—	—	1,727	2,276	877
Fire Department	4,739	5,507	5,059	17,234	17,893	15,345
Public Health	4,132	4,582	3,879	18,115	21,905	21,277
Sanitary Department	72,086	87,816	85,672	36,185	49,734	53,181
Sewerage	26,387	28,401	32,733	32,448	36,681	39,745

(iii) CITY OF PRETORIA—REVENUE AND EXPENDITURE—(*continued*).

Description.	Revenue.			Expenditure.		
	1934-35.	1935-36.	1936-37.	1934-35.	1935-36.	1936-37.
	£	£	£	£	£	£
Washhouses and Baths	3,554	3,961	3,518	8,218	8,652	9,310
Parks and Plantations	6,768	6,303	6,302	32,566	32,265	31,979
Cemeteries	3,393	4,381	3,865	3,898	3,476	4,997
Pensions and Gratuities	—	—	—	6,946	5,529	7,763
Grants-in-Aid	2,700	—	—	16,571	19,977	22,874
Licence Department and Traffic Control	31,538	38,506	42,441	8,067	12,415	14,786
Rents	3,035	3,607	4,222	—	—	—
Town Lands	403	182	159	916	978	974
Traffic Fines	—	4,459	7,983	—	—	—
Fines from Magistrate's Court	637	770	442	—	—	—
Building and Hoarding Fees	1,323	1,852	2,464	—	—	—
Interest	7,676	643	2,626	5,970	6,588	6,555
Assessment Rate	124,108	132,783	158,498	—	—	—
Redemption	—	—	—	358	532	533
Insurance	—	—	—	1,000	2,530	2,313
Valuation and Audit	—	—	—	2,762	2,880	2,368
Fountains Valley Kiosk	2,990	2,759	3,157	4,086	3,598	3,528
Agricultural Show Grounds	—	—	—	2,081	2,561	2,528
Publicity	—	—	—	1,034	1,934	19,693
European Relief Labour Subsidy	—	—	4,063	—	—	—
Miscellaneous	2,415	3,743	2,966	15,408	14,088	15,626
Trading Departments—						
Abattoir	16,341	16,851	18,782	19,051	19,709	19,196
Livestock Market	1,753	1,652	1,899	1,321	1,537	1,432
Produce Market	13,373	13,569	13,494	9,759	9,777	10,231
Water Supply	118,057	136,460	148,916	97,885	107,051	111,867
Electricity Supply	249,779	276,418	293,719	198,776	238,869	255,296
Tramways and Buses	90,241	95,315	105,463	99,442	107,311	120,210
Dipping Tanks	80	55	65	37	17	30
Bon Accord Quarry	24,561	28,250	23,811	24,377	28,250	23,811
Native Revenue Account	9,721	10,010	10,585	12,142	13,936	13,776
Innesdale Ward	32,574	†	†	32,072	†	†
TOTAL £	858,866*	914,254	991,302	848,452*	922,659	1,002,289
EXCESS £	10,414	—	—	—	8,405	10,987

* Including inter-departmental payment amounting to £648.

† Included above.

(iv) CITY OF PRETORIA—SUMMARY OF TRANSACTIONS OF TRADING DEPARTMENTS, 1934-35 TO 1936-37.

Year.	Abattoir.	Live Stock Market and Dipping Tanks.	Water Supply.	Produce Market.	Electricity Supply.	Tramway Department.	Total.
	£	£	£	£	£	£	£
Income.							
1934-35	16,341	1,833	118,057	13,373	249,779	90,241	489,624
1935-36	16,851	1,708	136,460	13,569	276,418	95,315	540,321
1936-37	18,782	1,964	148,916	13,494	293,719	105,463	582,338
Working Expenses.							
1934-35	14,053	909	31,279	6,712	104,310	79,387	236,650
1935-36	14,100	1,047	36,007	6,706	126,248	83,762	267,870
1936-37	13,558	1,034	37,733	7,230	128,806	92,232	280,593
Gross Profit.							
1934-35	2,288	924	86,778	6,661	145,469	10,854	252,974
1935-36	2,751	661	100,453	6,863	150,170	11,553	272,451
1936-37	5,224	930	111,183	6,264	164,913	13,231	301,745
Capital Charges.							
1934-35	4,998	449	66,606	3,048	94,466	20,054	189,621
1935-36	5,609	507	71,044	3,071	112,621	23,549	216,401
1936-37	5,638	427	74,134	3,001	126,490	27,978	237,668

(iv) CITY OF PRETORIA—TRADING DEPARTMENTS—(*continued*).

Year.	Abattoir. £	Live Stock Market and Dipping Tank. £	Water Supply. £	Produce Market. £	Electricity Supply. £	Tramway Department. £	Total. £
Net Profit.							
1934–35	— 2,710*	475	20,172	3,613	51,003	— 9,200*	63,353
1935–36	— 2,858*	154	29,409	3,792	37,549	— 11,996*	56,050
1936–37	— 414*	503	37,049	3,263	38,423	— 14,747*	64,077
Payments in Relief of Rates.							
1934–35	—	475	20,172	3,613	51,003	—	63,353†
1935–36	—	154	29,409	3,792	37,549	—	56,050†
1936–37	—	503	37,049	3,263	38,423	—	64,077†

* Loss. † Total after deducting losses.

5. **Other Large Municipalities.**—The following tables give a summary of the revenue and expenditure of a number of other large municipalities in respect of the year 1936-37:—

REVENUE AND EXPENDITURE OF CERTAIN MUNICIPALITIES, 1936-37.

(*a*) EAST LONDON, GRAHAMSTOWN, KIMBERLEY, PORT ELIZABETH, UITENHAGE, PIETERMARITZBURG, AND BLOEMFONTEIN.—REVENUE AND EXPENDITURE, 1936-37.

Heading.	East London.	Grahamstown.	Kimberley.	Port Elizabeth.	Uitenhage.	Pietermaritzburg.	Bloemfontein.
(i) REVENUE.							
	£	£	£	£	£	£	£
Rates	146,229	19,633	64,106	256,199	21,344	92,259	118,756
Sanitary Fees	598	9,729	6,284	2,856	9,170	13,263†	2,215
Water Supply	65,745	18,371	63,910	93,409	15,044	41,284	68,201
Licences	4,150	118	2,284	3,484	1,194	13,183	4,784
Abattoirs	6,851	1,205	—	13,784	1,333	4,003	5,648
Building Plans, Fees	—	—	—	—	—	—	1,173
Cemeteries	1,535	209	1,299	2,201	630	1,224	1,005
Estate (including Town Hall)	16,796	2,273	4,301	54,637	2,573	9,589	7,117
Fines	543	—	—	24	55	1,631	835
Fire Brigades and Ambulances	993	84	789	2,187	60	1,941	2,415
Locations	25,014	1,203	9,902	17,116	4,498	8,170	31,473
Markets	10,550	2,507	4,223	11,939	1,829	10,587	11,267
Pounds	271	297	94	192	420	57	266
Forestry	5	1,204	—	—	—	6,965	—
Parks, Gardens, etc	4,618	940	1,398	6,850	746	3,870*	5,304
Interest on Investments	3,415	—	179	17,532	—	2,930	27,012
Electricity Supply	128,283	26,831	50,102	241,186	34,039	107,150	114,013
Tramways and Buses	33,687	—	—	—	—	18,575	18,415
Native Beer	—	—	—	—	—	5,749	—
Other Revenue	60,594	1,514	9,831	18,985	3,485	15,689	9,478
TOTAL £	509,877	86,118	218,702	742,581	96,420	358,119	429,407

* Including Town Hall. † Including Public Health.

REVENUE AND EXPENDITURE OF CERTAIN MUNICIPALITIES, 1936-37—*continued*.

(*a*) EAST LONDON, GRAHAMSTOWN, KIMBERLEY, PORT ELIZABETH, UITENHAGE, PIETERMARITZBURG, AND BLOEMFONTEIN.—REVENUE AND EXPENDITURE, 1936-37—(*continued*).

Heading.	East London.	Grahamstown.	Kimberley.	Port Elizabeth.	Uitenhage.	Pietermaritzburg.	Bloemfontein.
(ii) EXPENDITURE.							
	£	£	£	£	£	£	£
Administration	16,128	3,965	10,976	18,028	5,445	10,035	18,850
Sanitary	18,254	7,276	16,891	39,998	8,812	26,920	9,319
Public Health	15,830	1,149	3,674	30,058	2,583		15,111
Streets and Bridges	16,645	7,502	20,455	18,580	3,573	11,568*	11,392
Street Lighting	6,600	1,700	3,936	5,221	1,081	10,087	4,853
Water	40,048	7,397	29,343	25,886	3,633	10,434	27,589
Electricity Supply	86,183	17,224	29,283	168,169	29,409	69,043	41,966
Tramways and Buses	30,458	—	—	—	—	22,258	23,219
Abattoirs	4,494	888	—	8,900	720	2,430	6,618
Cemeteries and Pauper Burials	1,864	397	3,057	3,548	569	751	1,288
Estate	6,073	85	595	14,964	751	1,583	6,135
Fire Brigades and Ambulances	6,327	504	4,916	7,352	125	4,324	4,969
Locations	18,556	2,544	9,279	9,517	1,953	8,953	25,046
Markets	7,220	1,631	3,546	6,089	1,213	8,099	8,765
Pounds	241	885	83	505	300	7	425
Forestry	951	1,555	—	860	—	7,953	776
Town Hall, Parks, etc	13,943	2,141	9,312	25,609	2,293	8,138	11,420
Mayoral Allowance	500	254	825	850	300	600	900
Public Entertainments	1,000	—	1,633	6,003	295	2,090	991
Grants to Hospitals, etc	6,752	897	2,077	27,100	1,186	12,146	7,280
Elections	74	62	206	345	52	22	221
Valuation	2,114	20	—	266	30	1,431	460
Legal and Audit	1,154	300	731	1,315	426	1,482	1,222
Insurance	—	233	470	1,845	308	966	1,091
Pensions and Gratuities	8,617	514	6,124	9,995	2,084	6,363	3,002
Police	—	—	946	—	—	300	—
Loan Charges—							
Interest	93,029	17,224	29,849	177,621	14,631	89,777	89,481
Redemption	31,043	9,442	14,909	59,593	9,109	15,454	24,181
Other	—	—	355	—	—	1,656	2,050
Maintenance and Depreciation	23,403	400	—	16,457	968	11,895	4,859
Native Beer	—	—	—	—	—	4,706	—
Other Expenditure	40,474	900	6,274	14,284	147	2,550	22,979
TOTAL £	497,975	87,089	209,745	698,958	91,976	354,081	376,359

* Public works.

(*b*) BENONI, BOKSBURG, BRAKPAN, GERMISTON, KRUGERSDORP, RANDFONTEIN, ROODEPOORT-MARAISBURG, AND SPRINGS.—REVENUE AND EXPENDITURE, 1936-37.

Heading.	Benoni.	Boksburg.	Brakpan.	Germiston.	Krugersdorp.	Randfontein.	Roodepoort–Maraisburg.	Springs.
(i) REVENUE.								
	£	£	£	£	£	£	£	£
Rates	44,466	24,850	32,446	48,270	22,490	10,862	22,742	64,835
Sanitary Fees	37,272	30,798	35,168	58,607	42,720	19,906	24,224	56,247
Water	22,734	19,614	17,098	35,650	26,679	8,227	15,919	24,250
Licences	17,397	10,637	12,577	16,333	12,271	4,841	6,771	17,561
Abattoirs	8,252	2,555	3,054	5,039	4,613	1,757	3,445	5,485
Building Plans, Fees	796	465	969	1,411	749	402	837	2,707
Cemeteries	1,167	1,254	807	2,220	690	324	212	323
Estate (including Town Hall)	517	544	699	2,341	1,903	1,150	1,613	1,482
Fines	3,600	3,283	3,131	1,670	3,388	477	289	252
Fire Brigades and Ambulances	784	547	251	1,750	728	55	499	713
Locations	2,246	7,028	8,202	12,087	8,419	5,788	3,014	13,435
Markets	4,331	1,864	3,211	2,350	3,806	274	51	5,226
Pounds	251	225	300	355	292	220	215	392
Forestry	—	—	—	—	—	—	117	—
Parks, Gardens, etc	871	2,867	766	3,564	685	670	1,270	1,204
Interest	1,244	—	926	3,639	662	—	—	2,788
Electricity Supply	58,615	28,714	35,255	• —	38,820	12,492	19,631	51,117
Tramways and Buses	18,781	9,564	4,398	11,210	—	—	—	21,161
Other Revenue	252	2,610	437	27,048	2,242	39	2,187	3,919
TOTAL £	223,576	147,419	159,716	233,544	171,157	67,484	103,036	273,097

REVENUE AND EXPENDITURE OF CERTAIN MUNICIPALITIES, 1936-37—*continued.*

(*b*) BENONI, BOKSBURG, BRAKPAN, GERMISTON, KRUGERSDORP, RANDFONTEIN, ROODEPOORT-MARAISBURG, AND SPRINGS.—REVENUE AND EXPENDITURE, 1936-37—(*continued*).

Heading.	Benoni.	Boksburg.	Brakpan.	Germiston.	Krugersdorp.	Randfontein.	Roodepoort-Maraisburg.	Springs.
(ii) EXPENDITURE.								
	£	£	£	£	£	£	£	£
Administration	13,332	8,695	9,286	17,936	10,350	6,226	5,585	15,646
Sanitary	24,774	23,235	17,299	31,102	28,156	10,154	12,767	27,887
Public Health	8,762	4,798	3,000	5,574	3,872	2,056	3,626	4,249
Streets and Bridges	14,057	17,460	3,051	27,865	21,741	6,953	13,132	7,274
Street Lighting	4,311	2,668	3,883	4,662	5,542	2,969	2,760	7,620
Water Supply	12,458	8,700	7,553	18,457	10,997	2,900	7,070	16,308
Electricity Supply	25,824	15,953	14,101	—	21,236	8,092	10,446	25,755
Tramways and Buses	13,581	8,660	4,353	7,740	104	—	—	19,009
Abattoirs	8,859	1,469	2,075	2,920	4,162	1,508	2,054	2,641
Cemeteries and Pauper Burials	1,434	1,390	1,139	2,077	826	515	1,332	795
Estates	3,087	—	—	—	758	—	305	—
Fire Brigades and Ambulances	4,354	2,836	1,216	4,097	2,797	569	1,877	5,019
Locations	977	4,557	5,037	10,617	8,215	4,439	2,790	8,537
Markets	3,254	1,566	2,221	1,856	3,798	329	127	3,517
Pounds	371	502	578	792	486	160	748	445
Forestry	—	—	1,909	—	—	—	1,611	—
Town Hall, Parks, etc.	10,431	8,337	7,347	11,739	6,737	4,210	8,151	16,430
Mayoral Allowance	750	1,156	900	800	1,409	892	500	615
Public Entertainments	692	—	323	176	1,223	614	102	2,197
Grants to Hospitals, etc.	3,767	1,628	2,096	3,220	9,692	291	638	2,398
Elections	710	181	267	121	207	191	135	340
Valuations	121	457	93	341	810	309	422	254
Legal and Audit	1,074	867	1,315	1,012	1,028	313	887	1,267
Insurance	1,153	758	—	1,244	—	30	602	829
Pensions and Gratuities	3,322	2,505	1,530	3,917	—	250	2,562	3,817
Loan Charges—								
Interest	9,247	9,036	5,745	29,758	5,691	5,792	4,740	18,668
Redemption	5,307	8,203	7,064	8,550	2,360	5,855	4,774	5,190
Maintenance and Depreciation	9,504	—	5,901	9,948	—	—	—	16,417
Other Expenditure	7,505	10,756	10,455	28,069	3,400	2,482	6,070	11,434
TOTAL £	193,018	146,373	119,737	234,590	155,597	68,099	95,813	224,558

CHAPTER IV.

PUBLIC HEALTH AND HOSPITALS.

§ 1. Public Health.

1. **Public Health prior to the Constitution of the Union.**—Except in regard to epidemics (mainly of smallpox) the early records contain little information about public health. This is to be expected in a country with a sparse and largely pastoral population. It is only when population increases, and especially as a consequence of its aggregation into towns and villages, that matters of public health assume greater importance and attract increased attention from the writers of the time.

Shortly after the landing of van Riebeeck and his companions in 1652 a hospital was established on the shores of Table Bay. It is recorded that in 1699 a new hospital was completed at Capetown, and " the sick were moved into it from the old building on the beach ". This hospital did duty until 1772, when a new one, accommodating 1,450 patients, was erected on the site which subsequently became known as Caledon Square. This hospital was replaced in 1817 by an institution named later the Old Somerset Hospital, the buildings in Caledon Square being thereafter converted into military barracks.

Responsibility for dealing with outbreaks of infectious disease and other health matters at first rested with the Government, the duties being carried out by the district surgeons in addition to their medical and medico-legal duties. In 1836, the year of the *Great Trek* from the Cape, an Ordinance was passed authorizing the establishment of municipalities. These bodies, and later, in the Cape, the divisional councils (established in 1885, but not vested with public health powers until 1897), largely took over the care of the public health within their areas. The duties continued, however, to be undertaken either by the district surgeons or by other local medical practitioners.

From the establishment of an administration at the Cape, health matters on vessels entering port and at the ports themselves were dealt with by the Government through its district surgeons, and later—in the case of the larger ports—by special port health officers. The first *Quarantine Law* was passed in Natal in 1858, and between that date and 1899 eight amending *Quarantine Laws* were enacted.

In 1883, following a severe epidemic of smallpox, the Cape Parliament passed a *Public Health Act* dealing with infectious disease, vaccination, quarantine, and disinfection. This was supplemented by an amending Act in 1897, which provided for the appointment of a Medical Officer of Health for the Colony and contained important provisions regarding water supply, drainage, housing, and sanitation.

In Natal a *Public Health Act* dealing with infectious disease and sanitation was passed in 1901, and a *Vaccination Act* in 1906. In the Transvaal a Law relating to infectious and contagious diseases and vaccination was passed in 1895. In the Orange Free State a Law was passed in 1899 dealing with plague and other infectious diseases, and another dealing with contagious diseases. A *Vaccination Ordinance* was passed in 1903; but its application was postponed, and in 1909 it was amended in material respects. A comprehensive *Public Health Act* was passed by the Orange River Colony Parliament in 1907, but its adoption was discretionary and few local authorities availed themselves of the privilege.

Whole-time government health officers were first appointed for the Cape in 1892; for the Transvaal in 1900; and for Natal and the Orange River Colony in 1901. About the same dates Public Health and Bacteriological Laboratories were established in Capetown, Durban, Pretoria (transferred to Johannesburg in 1904), and Bloemfontein. The government health officers acted mainly or entirely as advisers and inspectors, the administration of public health being carried out by a government department, usually that of the Colonial Secretary, which also dealt with local government and other matters.

In 1906 a conference of government health officers of the Cape, Natal, Transvaal, Orange River Colony, Southern Rhodesia, Basutoland, and the Bechuanaland Protectorate was held in Capetown, and made important recommendations which were submitted to the several Governments concerned.

2. History of Health Administration from 1910.—The *South Africa Act*, 1909, assigned to the Provincial Councils the administration of all local government matters, of hospitals and charitable institutions, and also of elementary education, which has since been interpreted as including school medical inspection and hygiene. Public health is not mentioned in the Act (indeed it does not appear to have been mentioned during the discussions at the convention), but it was considered to be a matter under the control of the Union Government. After the constitution of the Union, administration was carried on by the Department of the Interior, with an Advisory Medical Officer of Health for the Union at Pretoria, and three assistant health officers, with headquarters at Capetown, Durban, and Bloemfontein, respectively.

Short amending *Public Health Bills* were introduced in the Union Parliament in 1911 and 1912, but were not proceeded with. On 1st December, 1917, following a conference of government health officers held at Capetown in May preceding, a separate sub-Department of Public Health in the Department of the Interior was constituted, under the direction of the Medical Officer of Health for the Union.

A comprehensive consolidating and amending *Public Health Bill*, designed to replace the existing public health legislation of the several provinces, was drafted in 1913; this draft Bill was published and distributed to local authorities for their information and criticism in the following year, but owing to the war and other circumstances it was not proceeded with. Meanwhile, owing to the indefiniteness of the *South Africa Act* in respect of public health and cognate matters, the Administrations of the several provinces had proceeded on lines which were in certain respects divergent, so that a full discussion by all parties concerned had become highly desirable. A conference between the Administrators of the several provinces, representatives of the Government, the provincial municipal associations and divisional councils, and other bodies concerned, was accordingly convened by the Minister of the Interior and met at Bloemfontein in September, 1918, under the chairmanship of the Minister, Sir Thomas Watt. The conference discussed most of the important questions at issue, and unanimously passed a series of resolutions regarding general policy and the respective spheres of the Government and the Provincial Administrations.

Subsequently the draft Bill was revised so as to embody or harmonize with these resolutions. The Bill, so revised, was introduced in January, 1919; and was, with certain amendments, passed by Parliament, receiving assent of His Excellency the Governor-General on 20th June, 1919. Sections 2 to 5 of the Act, relating to the establishment of a Department of Public Health with separate portfolio, the functions and duties of the Department, the establishment of a Council of Public Health, and the appointment and duties of officers of the Department, were proclaimed in force on 1st July, 1919. Gazette Notices were simultaneously published notifying the appointment of the Honourable Sir Thomas Watt, K.C.M.G., as Minister of Public Health, and the establishment of a Department of Public Health, to administer all matters relating to public health, adulteration of food or drugs, district surgeons, medical councils, and pharmacy boards. The remainder of the Act came into force on 1st January, 1920. Matters relating to leper institutions were transferred to the Department in 1924, but the administration of mental institutions and mental patients continues under the Department of the Interior. A further advance was the housing legislation of 1920, which established, within the Department of Public Health, the Central Housing Board. Legislation affecting public health is now complex and is to be found in such enactments as:—

The Public Health Act of 1919.
The Food, Drugs and Disinfectants Act of 1929.
The Medical, Dental and Pharmacy Act of 1928. (Amended 1937.)
The Public Health Amendment Acts of 1927, 1928, 1935, and 1938.
The Native Labour Regulations.
The Mines, Works and Machinery Regulations.
The Factories Act of 1918.
The Natives (Urban Areas) Act of 1923.
The Aviation Health Act of 1935.
The Slaughter of Animals Act of 1934.
The Slums Act of 1934.
The Housing Act of 1920.
The Additional Housing Act, 1937.

3. The Present Public Health System.—The evolutionary processes reviewed above have thus produced a central Department of Public Health, four Provincial Councils possessed of important health duties, local urban and rural authorities concerned with the application of the principle of local responsibility for health conditions, and numerous other organizations, official, semi-official, and private, contributing to medical and health services.

The Department of Public Health undertakes advisory and executive duties laid down by the Act, including the prevention of the entrance of infectious disease, the promotion of the public health, the control of communicable and preventable disease, the advising of provincial and local authorities on health matters, and the investigation and issue of reports on health subjects. The head office is in Pretoria, and through a Senior Assistant Health Officer, who is also Director of Medical Services in the Department of Defence, it is brought into close co-operation with that Department. The Capetown office supervises the Cape area and includes the Biological Control Laboratories, the Vaccine Institute, and one of the pathological laboratories. The Durban office, where there is also a laboratory, undertakes similar charge of Natal. Some of the main functions of the Department will receive reference in later sections.

Mention is made hereunder of other government departments and their activities in regard to the provision of services appertaining to public health:—

(i) The mental hospitals and institutions of the Department of the Interior.

(ii) The health services of the South African Railways and Harbours.

(iii) The South African Medical Corps.

(iv) The Department of Labour which administers the *Workmen's Compensation Act*, the *Factories Act*, and the *Unemployment Benefit Act*.

(v) The Department of Social Welfare with its interest in the health and social conditions of the Poor Whites on the diamond diggings and on forestry and other settlements, and the rehabilitation of the poor. It also administers the *Children's Act* and the *Blind Persons Act*.

(vi) The Veterinary Division, with its magnificent Onderstepoort Laboratories, and the agricultural extension officers, who do much to improve rural social and economic conditions.

(vii) Reformatories and industrial schools of the Department of Education.

(viii) The Miners' Phthisis Bureau and Board of the Department of Mines.

The Provincial Councils are interested in health functions in connexion with local government, hospitals, primary and secondary education, and poor relief. The difficulties which have resulted from certain health activities being administered by the Department of Public Health and others by the Provincial Administrations are being overcome to some extent by co-operation through the Provincial Consultative Committee.

Local authorities number over 700 and, following the principle of local responsibility in health, they are the very foundation of the public health organization. Their health services vary enormously. On the one hand, there are the larger municipalities such as Capetown, Johannesburg, Durban, Pietermaritzburg, Bloemfontein, Port Elizabeth, East London, Kimberley, Pretoria, and the Reef towns, which possess highly organized health departments under the direction of full-time medical officers, and, on the other, health committees and village councils exist with but skeleton organizations.

In addition to the official health organizations there are numerous other bodies contributing effort in public health fields, and subsidized in many instances by the Government. There are the South African Red Cross Society, the St. John Ambulance, the South African National Council for Child Welfare, mission hospitals and church associations, and the various mine medical and health services. A considerable volume of research in epidemiological and health fields is undertaken by the South African Institute for Medical Research, Johannesburg, which is also occupied in performing much of the routine laboratory work required by the public health services. Finally the great medical and nursing professions, as individuals and as corporate associations, are of supreme significance in the public health organization of the country.

4. **Council of Public Health.***—The functions of the Council of Public Health as laid down in section 4 of the *Public Health Act*, No. 36 of 1919, are to advise the Minister and the Department of Public Health on matters described or referred to in section 3 of the Act. The Council consists of:—

(*a*) The Minister (who shall be chairman);

(*b*) the Chief Health Officer;

(*c*) the Director of Veterinary Services; and

(*d*) seven persons (not being officers in the public service) who shall be appointed by the Governor-General. Four of those seven persons shall be medical practitioners, and of those four medical practitioners two shall be selected on account of special knowledge of or practical experience in matters relating to public health or medical research. Three of the seven persons to be appointed shall not be medical practitioners. Subject to regulations as to the circumstances in which office shall be vacated, the seven persons so to be appointed shall hold office for three years and shall be eligible for reappointment for a like term.

5. **Leprosy Advisory Committee.***—The functions of the Leprosy Advisory Committee are to advise the Department of Public Health in respect of matters relating to leprosy.

6. **Central Housing Board.***—The Board is appointed by the Minister of Public Health and consists of not more than five members, including as far as practicable an architect and a municipal or a sanitary engineer. It is appointed for a period of two years or for such longer period as the Minister may decide.

It is the duty of the Board, when required by the Minister, an Administrator, or a local authority, to inquire into and report as to the necessity for the provision of dwellings in the area of a local authority, and it may upon its own initiative institute such an inquiry and make a report thereon to the Minister, the Administrator, or the local authority, as the case may demand. It advises and assists local authorities in the preparation of proposals for dwellings and schemes, and transmits such proposals to the Administrator with its recommendations in regard to the merits, cost, and proposed methods of execution of such proposals.

The duty of the Board is generally to advise the Minister and Administrators in the carrying out of the provisions of the *Housing Act*, No. 35 of 1920, the *Slums Act*, No. 53 of 1934, and the *Additional Housing Act*, No. 41 of 1937, and amendments thereto.

The Board prepares an annual report which is published and laid upon the tables of both Houses of Parliament.

7. **District Surgeons.**—For the carrying out of the health and medical work devolving on the Government in the various districts, medical officers known as district surgeons are employed. A few in large centres devote the whole of their time to the work, but the large majority undertake government work concurrently with their private practice. At the end of June, 1938, there were, in all, 367 district surgeons, of whom 17 were whole-time officers, 7 were whole-time but were employed jointly with local authorities or public bodies, and 343 were part-time.

8. **Port Health Work.**—A port health officer is appointed by the Union Department of Public Health at each port of the Union to carry through the usual inspection and control for public health purposes of vessels arriving at and leaving the Union. Such officers act with the immigration officers in an advisory capacity in determining the physical fitness of immigrants into the Union. Entry is debarred, except under approved conditions, in the case of such persons as are suffering from mental or physical defects, or are afflicted with disease. Tuberculosis is a disease specially cited as a disqualification in the case of an immigrant, and special authority is necessary for a person suffering from the disease to enter the Union. [See section 4 (1) (*g*) and (*h*) of Act No. 22 of 1913; section 19 of that Act, as amended by section 8 of Act No. 37 of 1927; and regulations promulgated under Government Notice No. 1055 of 1928.]

* For personnel see Chapter XXVIII.

9. **Health Inspection of Aircraft.**—Regulations have been framed in terms of Government Notice No. 485 of the 25th March, 1938, in regard to the health inspection of aircraft entering or leaving the Union and the medical examination of crew and passengers. Aircraft entering the Union from beyond the borders of the Union are required to make a first landing at a customs aerodrome, and any aircraft entering the Union from certain specified areas beyond the borders of the Union are required to proceed to a sanitary aerodrome for the medical examination of the crew and passengers and the granting of pratique. The sanitary aerodromes designated as such to date are Rand Airport (Germiston), Durban Bay, and Walvis Bay.

The danger of the introduction of yellow fever into the Union by aircraft is a real one. It has been necessary for the Department therefore to investigate methods of preventing such an occurrence. During 1938 the matter received careful consideration and with the co-operation of Imperial Airways a method has been devised whereby aircraft can be rapidly freed of mosquitoes by an automatic apparatus incorporated in the structure of the machine. This enables disinsectization to be undertaken during flight, and eliminates the delay which previously occurred when machines landed and were subjected to inspection and disinfection processes before evacuation of passengers and baggage.

For a full and detailed account of this work reference should be made to the memorandum entitled "Automatic Emoustication of Aircraft and the Yellow Fever Vector in African Air Travel", presented by Dr. G. Park Ross of the Union Health Department to the Office International d'Hygiène publique.

10. **Food, Drugs and Disinfectants Act.**—Until 1929, the laws in force on the subject of food and drugs adulteration were old, obsolete, and inadequate; those in the Cape Province dated from 1890, in Natal from 1901, and in the Orange Free State from 1906—the last two being based on the Cape Act which, in turn, was based on the English Act of 1875. In the Transvaal there were practically no general laws, but municipalities had power to make regulations under an Ordinance of 1912.

The need for an up-to-date and uniform law for the whole Union had long been recognized, and after some delay Act No. 13 of 1929 was passed during the first session of the sixth Parliament. Regulations framed thereunder were promulgated under Government Notice No. 575 in the *Government Gazette* of the 28th March, 1930, and amended in various respects up to 1938; during 1937 they were consolidated and reprinted in pamphlet form. The Act and the regulations came into force on 1st April, 1930, and provided for regulating the labelling and preventing the importation or sale of food and drugs which are unwholesome or adulterated, or incorrectly or falsely described, and similarly for regulating the labelling and preventing the importation or sale of disinfectants which are incorrectly or falsely described.

The administration and enforcement of the Act vests in the Minister of Public Health and the Health Department, but local authorities are required to co-operate generally, and the Minister may, on the request of a local authority, delegate to it the carrying out and enforcement of the Act and regulations within its area, in respect of such articles or classes of articles as may be specified therein, provision being made for the free examination of a yearly number of samples in the government chemical laboratories.

11. **Biological Control Laboratories.**—An officer was appointed in 1934 to undertake the examination of biological products, and new laboratories under his direction have recently been erected in Capetown. Regulations for the control of therapeutic substances, as laid down under section 83 of the *Medical, Dental and Pharmacy Act*, 1928, have been promulgated and will enable the Department to control the manufacture and import of vaccines, sera, insulin, posterior pituitary, organic arsenicals for treatment of venereal disease, and surgical ligatures. Certain drugs, such as digitalis, strophanthin, and tinctures thereof, will also be controlled, powers to examine these substances being obtained under the *Food, Drugs and Disinfectants Act*, 1929. The staff of the laboratories has been strengthened by the appointment of a pharmacologist. This has made it possible to extend considerably the control which it is necessary to exercise in respect of various biological substances.

12. **Sanitation and Environmental Hygiene.**—In a country of great distances and of sparse, largely primitive population, sanitation is liable to be neglected. The smaller urban communities and rural districts are inspected regularly, and advice and assistance are rendered by officers of the Union Health Department. The larger urban areas are possessed of such technical officers as medical officers of health and sanitary and health inspectors. As a result proper care is given to the provision and maintenance of pure water and milk supplies and adequate sanitary services, and the prevention of nuisances. Water-borne sewage, public slaughterhouses, and piped purified water supplies are now to be found in the larger communities.

13. **Maternity and Child Welfare and District Nursing.**—The training of nurses and midwives is undertaken in provincial and provincial-aided hospitals, while the Union Health Department is responsible for the subsidizing of district nursing and midwifery services. Under section 13 of the *Public Health (Amendment) Act* of 1935, the Department refunds one-half of the expenditure incurred by a Provincial Administration in district nursing or midwifery services connected with one of its hospitals or in subsidizing a hospital board for such services. Under section 14, the Department is authorized to refund in other areas one-third of the salary of any registered nurse or midwife employed by a charitable institution or a local authority, or to subsidize registered nurses or midwives in private practice in any area so as to retain them in practice in such area. Further, under section 15, similar authority is given to the Department to assist to the same extent in native areas, and refunds can now be made on the salaries of any certificated nurse or midwife or uncertificated native nursing assistant employed by any charitable organization, or any body controlling any mission hospital, or any statutory native body which makes provision for such a service, or, alternatively, the Department may similarly subsidize private nurses and midwives and native nursing assistants engaged in private practice, or it may appoint and itself employ nurses and midwives and nursing assistants to undertake district work in such areas. A woman health officer is in charge of this subdivision of the work of the Department, while nurse-lecturers undertake survey and propaganda tours and give advice and assistance. At the end of June, 1938, 306 nurses were being subsidized in the country under this Act. A further work undertaken by this subdivision has been the inspection and registration of nursing and maternity homes, and the supervision of persons practising midwifery in the smaller urban and all rural areas.

The infantile mortality rate is known only for Europeans; for 1937 it was 56·57 per thousand births. Maternal mortality is also calculated only for Europeans, the 1937 rate being 4·38 per thousand live births.

14. **Industrial Hygiene.**—Apart from those associated with gold mining on the Witwatersrand, industrial hygiene problems can hardly be considered to have arisen in South Africa. Compensation for disabilities contracted on the mines is a heavy drain on the resources of the mining companies, and had not considerable strides been made in mining industrial hygiene the compensation payments would have crippled the industry seriously. As would be expected, industrial hygiene legislation has, therefore, been concerned chiefly with gold mining and the phthisis produced thereby. This legislation is more fully treated of in another chapter of this volume.

The Department of Public Health has a health officer stationed in Johannesburg, whose duties are largely composed of investigations, surveys, and reports on the conditions of the mine compounds, and health conditions generally on the Reef.

15. **Health Education and Propaganda.**—During 1938 the Department inaugurated a new policy in regard to health education in an attempt to put this very important subject upon a sound national basis.

The principle of delegation was adopted, as it is considered that South African conditions are such that voluntary agencies have a wider appeal and a better chance of success than departmental efforts, which have necessarily a colder and less intimate attraction. The South African Red Cross Society was approached to undertake this work as by constitution, aims, interests, and distribution, it is considered the body most appropriate and most likely to appeal to all sections, classes, and races of the nation. This organization has established a National Health Education Committee on

which are now represented practically all organizations interested in the matter. Various sub-committees have been constituted to prepare health films, posters, lectures, and health weeks, and to assist in propaganda campaigns throughout the country.

The work being undertaken by the National Committee is most important, as health education is essential to securing the improvement of the health of the nation. However, in addition to the popular health propaganda so undertaken, it is necessary for instruction and education in more technical fields of public health and medicine to be given. This is being achieved by various bulletins and lectures prepared by the Department.

A further important field, which cannot be neglected, is that of the education of the school child. At every opportunity the Department insists on the importance of including health subjects in the general school curriculum.

16. **Health Investigation and Research.**—Many fields have received some attention, but none exhaustively. Such organizations as the South African Institute for Medical Research, the Rand Mines, and various government departments have singly, or in co-operation with the Union Health Department, investigated tuberculosis, malaria, plague, typhus, and other subjects. The Carnegie Commission issued a most valuable social and health report on the Poor White problem. Nevertheless there is a pressing need for study of health problems, especially those of the non-European population. The almost entire absence of medical and vital statistical data concerning this section of the community has a most crippling effect upon the planning of public health policies for the country. Vital statistics are essential for the administration of a national public health department. In the Union fairly complete information concerning the European population has been collected at the various censuses and through the operation of the *Births, Marriages and Deaths Registration Act.* Statistical information regarding the non-European population cannot yet be compiled, as under the above Act registration of non-European births and deaths is compulsory only in urban areas, and in many of these, owing to the large proportion of non-European male adults temporarily resident, computations of death rates and similar statistics are useless and misleading.

In 1937 an inter-departmental committee was appointed to consider the practicability of instituting a complete system of registration of native births and deaths. Its report is still receiving the consideration of the Government.

17. **Nutrition Survey.**—The nutrition survey of European scholars, the initiation of which was mentioned in the last edition of the *Year Book*, was launched in May, 1938. This survey, which was based on the Type 1 method as recommended by the League of Nations, has resulted in the collection of over 140,000 records of school children. The records include simple items giving height, weight, clinical assessment, and a few facts about the diet. The analysis of this material is now proceeding.

In order to collect information of the Bantu section, a second survey is now being conducted. An itinerant team consisting of a medical officer and an anthropologist is visiting the following areas: Pretoria, Bloemfontein, Witzieshoek, Qumbu, Tzaneen, and Balfour. In each area approximately 800 Bantu school children are being medically and anthropologically examined.

Further investigations complementary to the survey of European scholars are under discussion. In these additional investigations it is hoped to undertake in South Africa work similar to that done in such countries as England, Australia, and Ceylon, where careful examination of various factors relating to the incidence of malnutrition, such as production of foodstuffs, economic conditions of various levels of society, the accessibility of foodstuffs, and the ability of families to secure the best dietetic value for their money, have been made.

Before a final and considered opinion on the malnutrition problem in South Africa can be given, it is very necessary to have accurate information on these subjects. The collection of this information, it is hoped, will be commenced during 1939.

18. **Solar Radiation Survey.**—The sunlight survey, which was made possible by the munificence of Dr. Hans Merensky, was reported on in June, 1938, by an Inter-departmental Committee presided over by Sir Spencer Lister of the South African Institute for Medical Research. This committee strongly urged the continuation of the survey because of the important bearing of the findings on human health and agricultural problems. The collection of

data at the following six stations has been continued: Johannesburg, Bloemfontein, Nelspoort, Capetown, Port Elizabeth, and Durban.

The committee found that this data when analysed would be of direct importance in determining the content of ultra violet rays, and so should enable accurate dosage for each type of patient to be prescribed. It further considered that the determination of the nature of solar radiation was of importance in studies of South African grasses and other constituent plants of the veld. The effects of exposure to sunlight, whether beneficial or harmful to animals and human beings, is largely unknown, except that in certain cases disease which may be attributed to sunlight, has made its appearance in animals, e.g. a disease of sheep known in the Karroo as Geeldikkop.

The consideration of the benefit that a fuller knowledge of solar radiation would give in the study of these and similar problems decided the committee to recommend the continuation of the survey for a further period.

19. **Housing and Slums.**—The administration of the *Housing Act* and the *Slums Act* is the particular function of the Central Housing Board, which is incorporated in the Health Department. Under these Acts the Government is providing large sums at extremely low interest rates to stimulate the supply of new houses, especially of the sub-economic class, and, through the adoption by the larger municipalities of the expeditious procedures of the *Slums Act*, slum areas are being materially reduced.

The active enforcement of the *Slums Act*, No. 53 of 1934, is proceeding steadily and apart from its application to the eight centres included in the First Schedule of the Act (viz., Bloemfontein, Capetown, Durban, East London, Johannesburg, Pietermaritzburg, Port Elizabeth, and Pretoria), the provisions have been extended to Kingwilliamstown, George, Randfontein, Mossel Bay, Beaufort West, Germiston, Roodepoort-Maraisburg, Grahamstown, Graaff-Reinet, Oudtshoorn, Barberton, Paarl, Somerset West, Springs, Worcester, Benoni, Boksburg, Steynsburg, Queenstown, Stellenbosch, and Middelburg (Cape).

Further information regarding the Government's loan facilities under the *Housing Act*, No. 35 of 1920, and particulars as regards house construction and loans authorized under the Act will be found in Chapter V.

20. **History and Prevalence of Certain Diseases.**—Particulars are given hereunder as to the occurrence of certain diseases in the Union and the history of past occurrences.

(i) *Acute Poliomyelitis* (Infantile Paralysis).—Occasional sporadic cases occur throughout the Union.

(ii) *Bilharziasis or Human Schistosomiasis.*—Human *Schistosomiasis* has been known in South Africa for nearly a century. In 1864 Dr. John Harley showed that the disease in this country was due to the same parasites as had previously been described in Egypt. In South Africa the type of disease generally found is that due to *Schistosoma haematobium*, though isolated cases due to *Schistosoma mansoni* have been reported.

As far as is at present known, all slow-flowing streams and stagnant pools, especially those with muddy bottoms or sides and with vegetation, in the following areas of South Africa may be considered actually or potentially infested with urinary bilharziasis:—

Cape Province.—The southern and eastern coastal belts, commencing from about Knysna eastwards to the Natal border and varying from 50 to 100 miles in width.

Natal.—Practically the whole of Natal and Zululand, excepting areas at an altitude of more than 4,500 feet.

Transvaal.—All the Low Veld and all the area north of a line drawn from Delagoa Bay to Lichtenburg and beyond, excepting regions over 5,000 feet in altitude.

The commonest snail host of the disease is the fresh water snail *Physopsis africana*, and other intermediaries are *Isidora tropica* and *Limnaea natalensis*.

There is no racial immunity to the disease and natives, Asiatics, and Europeans are all equally liable to infestation. The earliest attempt to carry out mass treatment of infected school children was at Zeerust in 1926. Since that time, through the co-operation of the Department and the Red Cross with the educational authorities, camps for treatment have been held and active propaganda has been pursued in all areas. A Transvaal Bilharzia Committee has been constituted to co-ordinate these activities.

(iii) *Cholera.*—In 1888 the *Quathlamba*, with immigrants from Indian ports, arrived at Durban and reported having had, among the Indians on board, 27 cases of cholera with 9 deaths during the voyage. She was refused pratique, but this was subsequently given when it was ascertained that the disease had died out. In 1890 the *Congella*, with some 400 Indians on board, arrived at Durban from Madras, and reported 9 deaths from "acute diarrhoea" (attributed to fish-poisoning) during the voyage; five persons were still sick. The sick were landed for isolation at the General Hospital; one of them died before reaching the shore and another died on the following day. The immigrants were landed and removed to a depot on shore, where five of them were, on the following day, taken suddenly ill with vomiting and purging; one of them died on the same day and another on the day following. The remainder of the immigrants were then removed to the quarantine station on the Bluff. No further spread of the disease occurred. The outbreak and the circumstances attending the arrival of the vessel were investigated by a committee of inquiry, comprising the Magistrate, the Chairman of the Harbour Board, the Senior Medical Officer of the Imperial troops in Natal, and the Port Health Officer. This Committee reported that they had no doubt that the disease was Asiatic cholera. No other outbreaks of the disease in the Union are recorded.

(iv) *Diphtheria.*—This disease occurs throughout the Union; during the year ended June, 1938, 2,673 cases were notified. Shick tests carried out at Capetown revealed that practically one-half of those tested gave positive reactions, and the municipality has undertaken active immunization for some years past. In 1937 the Department of Public Health in its annual report made a special plea for the more general adoption by local authorities of active immunization against the disease. To secure acceptance of this plea, the *Public Health Act* has been amended to allow of the acceptance for part refund purposes of expenditure incurred by local authorities on such measures.

(v) *Dysentery.*—This disease is not prevalent in any part of the Union, but in some places bacterial dysentery of mild type is not uncommon during the summer months. Amoebic dysentery is comparatively rare.

(vi) *Enteric or Typhoid Fever.*—This disease was formerly very prevalent. With the improvement of water supplies and general sanitation prior to the Anglo-Boer War its prevalence had considerably decreased, but during that war serious mortality from the disease occurred among the troops, and concurrently there was a great increase of prevalence among the civil population. Serious outbreaks are uncommon, the disease chiefly occurring sporadically in the larger centres and in certain areas where the water supplies are specially exposed to pollution. In recent years the number of notifications has been about 4,000 to 5,000 annually. Several urban outbreaks have been traced to "carriers", and urban authorities are increasingly taking measures to protect dairies from such sources of infection. The routine health and sanitary inspections conducted by the Department's officers also direct attention to the radical improvement required in refuse, manure, and night-soil disposal in order to prevent fly breeding, which is undoubtedly contributory to the spread of enteric in many areas.

The appointment of full-time medical officers of health and of sanitary inspectors to local authorities is having marked success in the reduction of incidence of enteric fever, especially as demonstrated in the smaller Reef municipalities during the last two years.

(vii) *Epidemic Cerebro-Spinal Meningitis.*—This disease occurs sporadically, chiefly amongst Indians in Natal and natives on the Rand mines. No serious prevalence of the disease has occurred. During the year ended June, 1938, the number of cases reported was 796.

(viii) *Influenza.*—An epidemic occurred in South Africa in 1890 during the pandemic prevalence of the disease throughout the world. The epidemic began at the ports, the infection having apparently been introduced by passengers from Europe. The disease was of mild type and the mortality trifling.

During the last quarter of 1918, and concurrently with the further world wide pandemic, a devastating wave of the disease swept through South Africa. The infection was introduced by sea—first at Durban *via* the East Coast, and a little later at Capetown by vessels from the West Coast and Europe. On this occasion the disease developed great virulence, with a frequent tendency to pneumonia and other complications, and the mortality was high. Capetown, Kimberley, Bloemfontein, and indeed most of the larger centres, suffered very

heavily. Up to the end of November, 1918, 2,616,805 cases (454,653 European and 2,162,152 coloured and native) were reported, with 139,471 deaths (11,726 European and 127,745 coloured and native). Since 1919 there has been no similar major epidemic, though in 1926 severe cases occurred in several districts.

(ix) *Leprosy.*—This disease existed among the Hottentots of the Cape before the arrival of Europeans. The earliest record of the recognition of the disease in Europeans occurs in 1756. Theal in his *History of South Africa* states: "The coloured races of South Africa, though singularly free from disease, were subject to one of the most dreadful maladies with which mankind is afflicted. There is no means of ascertaining the ravages made by leprosy among the Hottentots, but it is tolerably certain that though they were acquainted with the disease, the number of individuals affected was very small. It is not once named in the early records, and it is only from tradition that it is known to have existed among these people before their intercourse with strangers. Whether the Bushmen were liable to be attacked by it is uncertain. Among the Bantu tribes it was by no means rare, and the slaves of all nationalities who were brought into the colony were subject to it. It was now proved that Europeans also were liable to its attacks. Some cases having been suspected, in May, 1756, a commission of medical men was appointed, who examined the sufferers, and reported that one man, who had been eighteen years ill, was afflicted with leprosy, that his eldest daughter was showing symptoms, and that another man, who had been nine years ill, was suffering from the same disease. The Government recommended isolation of the sufferers, but did nothing more."

A leper asylum was established by the Government of the Cape at Hemel-en-Aarde, in the Caledon district, in 1818. The early records of this institution are scanty, but in 1823, when a Moravian missionary from Genadendal was appointed to administer it, there were 104 inmates, with some 50 healthy persons—wives and children of the patients. These healthy persons were removed from the institution later in the same year, on the orders of the famous Dr. Barry, who was for a time in medical charge. Subsequently the inmates averaged about 100, and the deaths 22, annually. Altogether about 400 lepers died at Hemel-en-Aarde. The asylum was closed in 1845, and the patients were transferred to Robben Island in Table Bay, where a new asylum was established. This asylum was closed in April, 1931.

A leper asylum for natives was established at Emjanyana in the Engcobo district of the Transkei in 1892. At first the inmates were accommodated in huts of the ordinary kaffir type, and the sexes mixed freely. In 1896 the huts were demolished, and separate compounds, about a mile apart, were established for male and female patients respectively. During the fourteen years 1897-1910, the admissions numbered 1,079 males and 717 females, and the deaths 537 males and 339 females.

In the Transvaal, a leper asylum existed at Daspoort, Pretoria, from about 1880. There was another asylum, for natives only, at Pankop, near Pienaars River. In 1898 a third asylum was established at Rietfontein, near Johannesburg. In 1899 a new asylum was established at West Fort, Pretoria, and during the three following years the patients at Daspoort, Rietfontein, and Pankop were removed there, and the old asylums closed.

Up to 1909 leper patients from the Orange Free State were accommodated at Robben Island, but in that year a new asylum was completed at Sydenham, near Bloemfontein, and the Orange Free State patients were removed there. The Sydenham asylum was closed in 1912, the patients having been removed to the Pretoria asylum.

Further leper asylums have since been established at Amatikulu, Zululand, in 1903; at Bochem, northern Transvaal, in 1914; and at Mkambati, Pondoland, in 1922.

In 1924 the administration of the leprosy laws was transferred to the Department of Public Health. Less rigorous interpretation of segregation has resulted in an increase in the number of lepers voluntarily seeking treatment and in cases appearing in the institutions in the earlier stages. During the year ended June, 1938, there were 95 Europeans and 2,170 non-Europeans in the various institutions.

(x) *Malaria.*—Malaria is endemic in the river valleys and coastal belt of Zululand and in the river valleys and the Low Veld of the northern and eastern Transvaal. At intervals of several years, under favourable conditions of season and rainfall, the disease becomes epidemic over wider areas, sometimes involving the whole coastal belt of Natal, or the greater part of the Transvaal (all except the High Veld), or the river valleys of the northern part of the Cape Province.

In 1930 Professor N. H. Swellengrebel reported on the malaria problems of the Union. The senior malaria officer of the Department is stationed at a field station at Tzaneen, and he is in charge of malaria work for the Transvaal; while in Natal an organization has been developed employing a malaria officer assisted by field assistants and Malaria Committees. The last serious epidemics reported were those occurring in Natal and Zululand in 1932, and in the northern Transvaal in 1936 and 1937. During 1938 the personnel dealing with the disease in the northern Transvaal was increased. Especially valuable has been the adoption of a system of native malaria assistants, previously so successful in Natal, for the extension of preventive work in native territories of the Transvaal.

(xi) *Malta Fever.*—Twenty or thirty years ago a form of fever called "Kimberley fever" was of frequent occurrence in the diamond fields and neighbouring parts of the Cape Province, and subsequently, with the development of goat-farming, the disease spread to many other districts. In 1902, following on the discoveries of Sir David Bruce in Malta, the disease was proved by clinical and bacteriological investigation to be Malta, Mediterranean, or undulant fever. Although there has been no considerable prevalence of the disease for many years past, sporadic cases occur from time to time in all districts where goat-farming is carried on. In recent years the notifications have been fewer than 100 annually, but doubtless many cases escape recognition or notification.

(xii) *Measles.*—This disease has existed in the Cape from the earliest times. The natives and coloured people are highly susceptible to it, and the early epidemics caused great mortality amongst them. One serious epidemic occurred in 1839. In recent years the disease has been almost invariably of a mild type.

(xiii) *Pellagra.*—It is curious that in spite of the Bantu's almost exclusive diet of maize so little has been seen of this disease. Only three outbreaks of any importance are known to have occurred: One in 1906, when some 150 pellagrins were found among Zulu rebel prisoners; another in 1912-13 in the Pretoria Mental Hospital, affecting about 60 native inmates; and the third in the Durban prison command during 1927-28. Occasional isolated cases have also been seen amongst the Poor Whites.

(xiv) *Plague.*—Plague was unknown in South Africa prior to 1899, when a small outbreak occurred at Delagoa Bay, with an extension to Middelburg, Transvaal. Infection was introduced from India. In the same year another small outbreak occurred at Mochudi, in Portuguese territory, near Lourenco Marques. During the Anglo-Boer War, large quantities of forage and other articles were imported for military purposes from plague-infected ports in South America and India, with the result that during 1900 and succeeding years the disease was introduced several times. The history of the disease in South Africa, apart from the small outbreaks already mentioned, is summarized in the following table:—

SUMMARY OF OUTBREAKS OF PLAGUE.

(*a*) *Prior to* 1910.

Province.	European.		Non-European.		Total.	
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Cape Colony	328	99	979	566	1,307	665
Natal	*	*	*	*	264	196
Transvaal	*	*	*	*	123	86
TOTAL	*	*	*	*	1,694	947

* No information available.

SUMMARY OF OUTBREAKS OF PLAGUE—(*continued*).

(*b*) *Union* (*from* 1910).

Year.	Province.	European.		Non-European.		Total.	
		Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
1912	Natal	2	1	30	25	32	26
1914	Cape	2	2	33	29	35	31
1915	Cape	8	5	37	21	45	26
1916	Cape	—	—	24	13	24	13
	Orange Free State	7	3	30	20	37	23
1917	Cape	—	—	2	2	2	2
	Transvaal	—	—	15	14	15	14
	Orange Free State	—	—	29	21	29	21
1918	Transvaal	2	2	—	—	2	2
	Orange Free State	—	—	2	2	2	2
1920	Orange Free State	1	—	11	4	12	4
1921	Orange Free State	7	4	26	12	33	16
1922	Cape	—	—	2	1	2	1
	Orange Free State	1	—	8	7	9	7
1923	Cape	—	—	7	7	7	7
	Orange Free State	5	2	15	10	20	12
1924	Cape	—	—	27	19	27	19
(1st Jan. to 30th June)	Transvaal	1	—	8	5	9	5
	Orange Free State	45	25	249	159	294	184
1924–25	Cape	1	1	42	26	43	27
	Transvaal	—	—	1	1	1	1
	Orange Free State	21	7	47	33	68	40
1925–26	Cape	6	5	20	10	26	15
	Orange Free State	9	9	36	22	45	31
1926–27	Cape	14	11	32	25	46	36
	Orange Free State	5	3	24	17	29	20
1927–28	Cape	1	1	4	3	5	4
	Orange Free State	—	—	34	27	34	27
1928–29	Cape	2	—	7	6	9	6
	Transvaal	—	—	11	7	11	7
	Orange Free State	4	1	41	28	45	29
1929–30	Cape	8	8	30	19	38	27
	Transvaal	8	4	88	54	96	58
	Orange Free State	1	1	10	3	11	4
1930–31	Cape	6	2	13	8	19	10
	Orange Free State	7	5	45	29	52	34
1931–32	Orange Free State	—	—	22	16	22	16
1932–33	Orange Free State	7	5	24	11	31	16
1933–34	Cape	—	—	16	12	16	12
	Transvaal	—	—	1	1	1	1
	Orange Free State	2	2	20	14	22	16
1934–35	Cape	—	—	59	31	59	31
	Transvaal	1	1	33	11	34	12
	Orange Free State	25	16	172	125	197	141
1935–36	Cape	4	3	34	27	38	30
	Transvaal	—	—	23	19	23	19
	Orange Free State	14	5	178	111	192	116
1936–37	Cape	2	1	18	16	20	17
	Transvaal	1	1	—	—	1	1
	Orange Free State	6	6	25	13	31	19
1937–38	Cape	1	—	54	45	55	45
	Orange Free State	—	—	15	13	15	13

At the ports and in the larger centres, rodents are systematically trapped and poisoned, and specimens are submitted each week for bacteriological examination. The Department of Public Health employs rodent inspectors, who supervise preventive measures and undertake propaganda in infected districts.

In 1938 an ecologist was appointed to the staff of the Department, and a more thorough investigation of the various factors concerned in the transmission of plague from rodent populations to human beings is now possible. This officer has a field station in the Orange Free State, where observations are being made on the behaviour of gerbille colonies and those rodents concerned in transmitting plague from gerbilles to domestic rodents, and on the flea vectors of the disease.

(xv) *Rabies.*—Rabies has manifested itself at intervals in South Africa for over a century. Thunberg in his *Travels* refers to an outbreak in 1772, and Sir Theophilus Shepstone reported one in 1828. In 1857 there was an outbreak at Elmsdale in Natal, when several natives were bitten by mad dogs and died. Many dogs died of the disease in Witteberge in the Orange Free State in 1861. In 1892 rabies was introduced into the country by an Airedale terrier which was landed at Port Elizabeth in September. It became rabid soon after landing and attacked every dog it met. The disease began to appear in dogs the following January. The Cape Government took immediate action after the diagnosis had been confirmed: Parliament passed a *Rabies Act*, and regulations were issued prescribing the measures to be enforced. At least two human deaths from rabies are known to have occurred during this outbreak.

Thereafter no cases of rabies were recorded until from 1916 onwards disquieting evidence of the disease in wild carnivores began to accumulate. Since that date cases have been reported of persons who have died from a condition clinically indistinguishable from rabies some weeks after having been bitten by a yellow mongoose or genet cat. These cases occurred at wide intervals of time and space, and not until 1928 was it possible to obtain brain material suitable for laboratory examination. In November of that year the brains of two boys who had been bitten by a sick mongoose in the Wolmaransstad district were examined at the Veterinary Research Laboratories at Onderstepoort. Typical negri bodies were demonstrated.

Rabies now occurs over a wide area, extending roughly from a line joining Carolina and Vryburg in the north to one joining Cradock and Carnarvon in the South. This area will be seen to include the whole of the Orange Free State, and coincides with the area of distribution of those small wild carnivorous animals, particularly the yellow mongoose, which are mainly concerned in the perpetuation and transmission of the disease.

The Departments of Public Health and of Agriculture and Forestry have prepared jointly a pamphlet setting forth the requirements of both departments in their efforts to control the disease.

(xvi) *Relapsing Fever.*—The insect "carrier" of this disease, the tampan tick, is to be found in many parts of the Union, especially in Zululand, the Transvaal, and the north-western part of the Cape Province. The disease occurs in Zululand, especially in the sandy coastal belt, and in parts of the Transvaal. It is probably of more frequent occurrence in tampan-infested localities than has hitherto been recognized.

(xvii) *Scarlet Fever.*—This has been known in South Africa since the early days of European settlement, and outbreaks from time to time occur in the principal centres. Ordinarily the disease is of a mild type, but virulent outbreaks with a tendency to dangerous complications occasionally occur. A curious circumstance is that the native races are largely immune from the disease, whilst the susceptibility of the Cape Coloured and other classes of mixed European race is much less than that of pure Europeans.

(xviii) *Scurvy and Beriberi.*—Scurvy was formerly of frequent occurrence amongst natives employed on certain mines and diamond diggings, especially where samp or kiln-dried mealies formed their staple diet. In recent years it has been comparatively rare.

Small outbreaks of a form of beriberi occurred in the past in certain institutions, such as the Pretoria and Robben Island Mental Hospitals, but there have been none in recent years. Cases of beriberi are of frequent occurrence on ships at the ports.

(xix) *Sleeping sickness.*—This is unknown in the Union, except for two or three "imported" cases, infected in other parts of Africa. Throughout the greater part of Zululand there is a species of tsetse fly (*Glossina pallipides*) which is associated with Nagana in cattle. The parasite of this disease is very similar to—indeed according to some authorities identical with—that of one variety of sleeping sickness (*Trypanosomiasis rhodesiense*). Up to the present, however, no case of sleeping sickness has been found in the "fly" areas of Zululand where Nagana is prevalent.

(xx) *Smallpox.*—The first invasion of South Africa by smallpox occurred in 1713, when the infection was introduced by infected clothing from a vessel on which cases had occurred on the voyage from India. These had, however, recovered before reaching Table Bay. Clothing from the vessel was washed at the Dutch East India Company's slave lodge, where, out of 570 slaves, nearly 200 died of the disease. The disease rapidly spread to the European population, and a widespread epidemic with high mortality resulted. The death rate was especially high amongst the Hottentots, some of whom fled to the mountains, carrying the infection with them. In some instances these refugees were attacked and killed by their people, with the object of prevent-

ing the spread of the disease. It is recorded that the entire population of many kraals died, and the very names of tribes for a great distance inland disappeared.

A second outbreak occurred in 1755, when the infection was introduced by vessels from Ceylon. The disease was of a virulent type, and it is recorded that in Table Valley, during six months, 963 Europeans and 1,109 natives died of it. The epidemic spread far and wide, and caused great havoc among the Hottentots. A third outbreak occurred in 1767, the disease being introduced by a Danish vessel from Europe. Active precautions were taken, and the spread was limited. It had been noticed in the two previous outbreaks that the disease died out entirely when the hot weather set in, but in this outbreak it persisted, cases occurring up to April, 1769. Some 1,900 persons in all were attacked, of whom 179 Europeans and 396 natives died. Further outbreaks, of a milder type, occurred in 1807, 1812, 1839, and 1868.

Another severe epidemic occurred in 1881 and 1882. Prior to its commencement the steamers *Garonne* and *Drummond Castle* had arrived at Capetown with cases of smallpox on board, or having had smallpox during the voyage. Precautions were instituted, and the vessels sent to Saldanha Bay in quarantine; but by some means the infection had already been conveyed ashore. A devastating epidemic followed, and the large Malay population of Capetown, who on religious grounds were conscientious objectors to vaccination, suffered most severely. The *Public Health Act*, passed by the Cape Parliament in the following year, made vaccination compulsory on all. Since then, although the disease has never been absent from some part or other of the Union, and although considerable local outbreaks have from time to time occurred, there has been no severe or widespread epidemic. These outbreaks have almost all been of a mild type, which has come to be known as "amaas" or "kaffir-pox," natives being principally affected. In this type of the disease the skin symptoms are often fairly well marked, and conform to the classic descriptions of smallpox, but the initial and constitutional symptoms are generally mild, and the death rate is low—as a rule only about 2 per cent. to 5 per cent. Most of the fatalities occur in weak or badly nourished patients. A considerable prevalence of this type of the disease occurred in British Bechuanaland and in the northern and north-western parts of the Union in 1917, with small scattered outbreaks in various other parts.

During 1938 a mild form of smallpox was unduly prevalent in the Transvaal and Orange Free State. Over 600 cases occurred, with seven deaths, the vast majority being non-Europeans. Several cases appeared in the Witwatersrand area, but the prompt action taken by the Union Health Department in co-operation with the municipal health departments in this area prevented any alarming spread of the disease. Both on the Witwatersrand and throughout the country extensive vaccination campaigns were undertaken, as a result of which over two million persons were vaccinated.

The modification in virulence of the disease is probably due in part to the fairly thorough vaccination of the population for several generations, similar mildness of type having been noted in recent years in European countries, even where the patients themselves were unvaccinated. Smallpox is essentially a disease of cold or temperate climates, and in warmer countries is apt to spread during the cool season, and to tail off or disappear when the hot weather sets in. Vaccination is an effective remedy against the disease, and outbreaks can always be limited and arrested by it.

(xxi) *Tuberculosis.*—Very little information exists as to tuberculosis in South Africa up to about forty years ago. Prior to this, although doubtless the disease existed, it certainly was not common either amongst Europeans or natives. References to its existence occur in the records of travellers and historians in 1781, 1796, 1798, and 1820. Moodie (1820-1830) says that the disease was uncommon among the Dutch and English, but frequent among Hottentots. He observes: "The climate of the Cape is found beneficial to incipient consumption, but not in the more advanced stages of the malady." Dr. Livingstone (1857) says: "Pulmonary diseases, in comparison with European statistics, exhibit a remarkably low figure, as, amongst upwards of 1,000 observed cases, only three of confirmed tuberculosis occurred." Writing in 1881, Hirsch says: "In Cape Colony phthisis is oftenest met with among Hottentots inhabiting the plains nearest the coast. In other classes of the population it is much rarer than in the East African Islands within the tropics, whilst in the interior plateaux of southern Africa it hardly occurs at all."

From about 1880 consumptive patients began to come out to South Africa from Europe. The majority of these proceeded to the towns and villages in the dry, elevated areas of the interior. Within the next two decades the infection was widely disseminated, and the disease had taken a firm hold on the coloured and native population in whom it found a virgin and congenial soil. In them it generally runs an acute course, and the percentage of recoveries, even under favourable conditions, is small. The disease is now widely prevalent amongst the coloured and native population, especially in the Cape Peninsula and south-western districts of the Cape Province, and in the other towns of the Union. In some districts it is becoming increasingly prevalent among the natives of the rural areas.

The first Tuberculosis Commission, appointed in 1912, drew attention to the difficulties in devising a scheme for the Union—the vast extent of the country, the different and divergent races to be dealt with, the ignorance of the native population, the absence of organized bodies dealing with local affairs in many parts, and the divided and dual control exercised over matters relating to public health by the Union and Provincial Governments. It suggested a scheme including machinery for the discovery of cases, the care of the patient at his own home, the prevention of spread, the diffusion of information concerning the disease, the improvement of general health conditions, short period treatment, educative training of early cases at a sanatorium, and the farm colony for the continuation treatment of suitable cases. No action, however, resulted.

The *Immigrants Regulation Act* of 1913 prohibits the entrance of persons suffering from tuberculosis in a clinically recognizable form, except by permit and subject to certain conditions.

In 1920 the Nelspoort Sanatorium was established. Funds for this purpose were provided by Mr. John Garlick of Capetown, the Cape local authorities, and the Government. Nelspoort is situated at an altitude of 3,260 feet, has a cool, dry, bracing climate, and is fairly well sheltered from prevailing winds. The sanatorium is administered and managed by the Government, but under the agreement concluded between the trustees and the Government an advisory committee is appointed. The general scheme and layout provided for a total of some 300 beds, but the part first proceeded with comprised a central hospital block of 24 beds, with two detached blocks—one for Europeans, of 32 beds, and one for coloureds, of 36 beds—and a nurses' home for a matron and 15 nurses. The sanatorium was actually opened in 1924. There are two classes of patients, viz., local authority and private. The rate fixed for the first-mentioned as from 1st January, 1938, has been reduced to 10s. per diem for Europeans and 7s. 6d. per diem for non-Europeans. Private patients are admitted at a rate of 12s. 6d. per diem. As a result of the recent intensified campaign adopted by the Health Department, the sanatorium has been further enlarged by the addition of accommodation for 32 beds for Europeans and a new block containing 36 beds for non-Europeans.

A Tuberculosis Research Committee was founded in 1925 through the co-operation of the Government and the Chamber of Mines, and its report was published by the South African Institute for Medical Research in 1932.

A more vigorous attack on tuberculosis was launched in 1934, and, in addition to the expansion of Nelspoort Sanatorium, the accommodation at the Springkell Institution, a sanatorium established by the Chamber of Mines for the treatment of miners affected with miners' phthisis, has been opened to patients from local authorities, and wards for non-European patients have been provided at the Rietfontein Hospital.

At Durban a large tuberculosis hospital has been erected. The site is at Springfield and was given by the Corporation of Durban. An amount of approximately £110,000 was provided by the Government for the construction, equipment, and furnishing of the hospital, which provides accommodation for all races. There are 139 beds and the hospital is equipped on modern lines complete with operating theatre for the surgical treatment of tuberculosis.

Schemes have been put in hand for meeting the urgent needs of the Transkei and Ciskei population, which are suffering to an increasing extent from the disease, and arrangements are also under way providing increased accommodation for tuberculous patients at Capetown and Port Elizabeth.

The King George V Silver Jubilee Fund for Combating Tuberculosis is a national fund administered by a board of trustees. Up to the end of 1938 the fund totalled £104,753, the annual income from which will amount to approximately £3,600. The board has arranged with the provincial branches of the South African Red Cross Society to act as distributors of its funds in the Provinces of the Transvaal and Orange Free State, and with the Natal Anti-Tuberculosis Association and the Cape Province Tuberculosis Council to perform similar functions in Natal and the Cape Province respectively. The board has decided to devote, for the present, its annual income to the relief of dependants of sufferers from tuberculosis who are undergoing treatment in institutions.

(xxii) *Typhus Fever.*—In 1867 an epidemic of what was described as "low fever" occurred in several districts of the Cape Colony, and was worst in Capetown. It was estimated that one in five of the population was attacked. The disease was especially severe amongst the coloured people and the class of European person that consorted with them. Medical men and others in close contact with the sick were frequently attacked. The rate of mortality was high, particularly where overcrowding and underfeeding existed. Fully 1,000 persons died in Capetown alone, and there was considerable loss of life in other parts of the Colony. The outbreak was investigated by a medical committee, which attributed the disease to dirt, want, and overcrowding. The records of symptoms of the disease are scanty, but strongly suggest that it was typhus fever.

Somewhat similar outbreaks, variously referred to as low fever, typho-malarial fever, and Cape typhus, subsequently occurred in several parts of the Cape Colony and Transkei. One medical man in practice in the Transkei for many years first came across the disease in the Tsomo district about 1887. It was first investigated by government health officers in the Kingwilliamstown district of the Cape Province in 1900, and its similarity to typhus was recognized, but none of the cases then seen had any rash. The natives termed the disease "ifiva-mnyama" (black fever), owing to the fact that the tongue often becomes covered with a dark brown fur, or "mbatelala" ("knock-down disease"). Thereafter small outbreaks from time to time occurred in certain Transkeian and Ciskeian districts, but mostly in remote and inaccesible localities.

In 1916 a serious outbreak of fever occurred in the Queenstown native location, with a certain number of cases among Europeans. This was at first considered to be enteric, but further investigation showed that the disease was not enteric; that its course and clinical symptoms (apart from skin symptoms) were identical with those of typhus; and that in a small percentage of native cases and in a large percentage of European cases the typical rash of typhus was present. Several nurses were attacked, and also Dr. D. C. Rees, one of the government medical officers sent to investigate the nature of the disease. The latter had characteristic skin symptoms and a severe and in all respects typical attack of typhus, which unfortunately proved fatal.

From 1919 to 1923 virtually epidemic conditions prevailed, the average number of cases reported annually exceeding 8,000. The great bulk of these cases occurred in the eastern Cape. During this period a large proportion of the susceptible native population must have become immunized.

In 1934 outbreaks occurred in the Orange Free State, where 30 districts were affected and a total of 3,636 cases with 300 deaths was reported. This prevalence is to be ascribed in large measure to the pauperization process affecting the non-European, especially during the depression years. Typhus will disappear in the Union as elsewhere with advancing civilization, when the economic conditions of the native are raised and he is able and willing to adopt standards of hygiene and cleanliness. Combating lousiness at present in the primitive, poverty-stricken Bantu is a formidable proposition. The Health Department employs typhus officers to investigate outbreaks, to deverminize affected groups, and to educate the people in methods of cleanliness.

The type of typhus responsible for the wide-spread epidemics is louse-borne, but evidence has been recently provided that sporadic cases occur where the infection is conveyed by the rat flea.

TYPHUS FEVER—NUMBER OF CASES AND DEATHS REPORTED, HEALTH YEARS ENDED JUNE, 1929 TO 1938.

Year.	European.		Non-European.		Total.	
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
1928-29	45	—	1,435	193	1,480	193
1929-30	74	5	1,708	207	1,782	212
1930-31	53	2	1,488	214	1,541	216
1931-32	33	2	1,517	290	1,550	292
1932-33	54	3	2,071	299	2,125	302
1933-34	45	3	5,911	659	5,956	662
1934-35	97	5	6,729	993	6,826	998
1935-36	40	2	1,565	282	1,605	284
1936-37	36	6	971	162	1,007	168
1937-38	37	1	945	167	982	168

(xxiii) *Venereal Diseases.*—It is probable that venereal disease has existed in South Africa since the early days of European settlement, but up to comparatively recent times the references to it are exceedingly scanty. Whether syphilis existed previous to the arrival of Europeans is uncertain. It was doubtless introduced first at Capetown and other ports, and later became disseminated inland. Writing of it in 1857, Livingstone states: "It seems incapable of permanence in any form in persons of pure African blood anywhere in the centre of the country. In persons of mixed blood it is otherwise . . . Among the Korannas and Griquas of mixed breed it produces the same ravages as in Europe". The tradition amongst the Bechuanas is that the disease was first introduced among them by women captured in wars with Korannas, Hottentots, Griquas, and other bastard tribes, from or in touch with the coastal areas. It would appear, however, that the disease was not seriously prevalent in Bechuanaland until after the diamond discoveries at Kimberley. For the development of the diamond fields native labour was procured from all over South Africa, and there was a rush of Europeans from all parts. Immorality was rife, and no regard whatever was paid to the health conditions under which the natives lived and worked. Large numbers of them contracted syphilis and carried it back to their kraals. The official reports in connexion with Warren's expedition in 1885 showed that the natives of Bechuanaland were then badly infected, and the diseased condition of prisoners taken in the Langeberg campaign is historical. The disease rapidly became disseminated among the natives throughout Bechuanaland and the western and northern Transvaal.

At present the disease is especially common in the areas mentioned, and also amongst the coloured and native population of the Cape Peninsula and most of the larger towns. In 1910 it was estimated that at least 5 per cent. of the entire native population of Bechuanaland were suffering from active syphilis, and that a further considerable percentage were tainted with the disease. In certain locations it was estimated that as many as 25 per cent. were infected. Somewhat similar estimates of prevalence were made in respect of a number of Transvaal districts in 1909. Active measures to deal with the disease have been taken by the Government, both before and since the constitution of the Union, and it is believed that in some districts at least prevalence has been appreciably reduced. It is noteworthy that the later sequelae of syphilis, such as locomotor ataxy and general paralysis of the insane, are exceedingly rare in natives. Among Europeans the prevalence of the disease in the coastal towns and large inland centres is probably about the same as that in towns in other countries. In some rural areas Europeans, especially children, have been infected through the agency of infected native or coloured nursemaids or domestic servants. Gonorrhoea is common amongst the natives and coloured population at the ports and in the larger centres, and sometimes considerable prevalences of the disease occur in natives in other parts of the Union.

(xxiv) *Yellow Fever.*—This is unknown in South Africa. Recent discoveries having demonstrated extensive endemic areas of infection in West Africa and the danger of the spread to East Africa, the subject was discussed very fully at the Pan-African Conferences organized by the Health Committee of the

League of Nations in Capetown in 1932, and in Johannesburg in 1935. The last Conference made several important recommendations which included the following:—

(1) That investigation as to the existence of yellow fever be carried out in all endemic regions in Africa.

(2) That an intensive study of the possibility of the existence of jungle yellow fever in Africa should be made in view of the presence of the condition in South America.

(3) That further investigations be made regarding the distribution of *Aëdes aegypti.*

(4) That consideration be given to the organization of measures for the control of *Aëdes aegypti* in all territories included within and bordering upon endemic areas.

(5) That the decision to suspend traffic in an aerodrome which, situated in a region in which yellow fever has appeared, is not organized in accordance with the provisions of Article 38 of the International Sanitary Convention for Aerial Navigation of 1933, and the decision to re-open the aerodrome to traffic be similarly notified direct to the Office International d'Hygiène publique.

(6) That the personnel of aircraft operating in endemic areas be protected by vaccination against yellow fever.

(7) That investigations be made as to the practicability of mosquito-proofing of aircraft used in endemic areas or of taking other measures against mosquito infestation of aircraft.

If yellow fever were to reach the East coast of Africa the Union would be almost bound to become infected as *Aëdes aegypti* are plentiful at most centres in the coastal belt of East Africa down to the north-eastern portion of the Cape Province. All necessary steps are also being taken to prevent the introduction into the Union of yellow fever from Northern African territories through the agency of the Imperial Airways airboat service.

21. **Notifiable Diseases.**—The tables given below show the number of cases of notifiable diseases reported by medical practitioners during a series of years. It is a matter of regret that the prevalence of these diseases among the non-European population is impossible to assess at present.

NOTIFIABLE DISEASES—NUMBER OF CASES REPORTED, 1st JULY, 1933, TO 30th JUNE, 1938.

Diseases.	1933–34.	1934–35.	1935–36.	1936–37.	1937–38.
Anthrax	61	54	79	75	110
Diphtheria	1,780	1,749	1,741	1,847	2,673
Encephalitis, Infective	16	42	32	40	44
Enteric or Typhoid Fever	8,267	4,377	4,404	4,205	4,103
Erysipelas	398	434	532	537	523
Lead Poisoning	3	4	11	1	2
Leprosy	105	112	755	688	662
Malta Fever	—	36	15	4	8
Meningitis, Epidemic Cerebro-spinal	286	532	630	677	796
Ophthalmia, Gonorrhoeal	50	72	79	72	94
Ophthalmia Neonatorum	351	415	410	440	568
Plague	39	290	253	52	70
Poliomyelitis, Acute	64	61	26	82	18
Puerperal Fever, including Puerperal Sepsis	355	438	469	462	476
Rabies	3	3	9	31	25
Scarlatina or Scarlet Fever	1,283	1,964	2,569	1,998	1,782
Smallpox	29	29	24	27	653
Trachoma	30	48	66	68	83
Tuberculosis	7,693	8,896	8,755	10,551	12,338
Typhus Fever	5,956	6,826	1,605	1,007	982
TOTAL	26,769	26,382	22,464	22,864	26,010

(ii) NOTIFIABLE DISEASES—NUMBER OF CASES REPORTED, 1st JULY, 1937, TO 30th JUNE, 1938—(*continued*).

Disease.	Union.	Cape of Good Hope.*		Natal.		Transvaal.		Orange Free State.	
	Total.	E.	O.	E.	O.	E.	O.	E.	O.
Anthrax	110	21	26	1	13	4	8	—	37
Diphtheria	2,673	1,204	545	238	82	426	48	95	35
Encephalitis, Infective	44	9	16	3	1	8	7	—	—
Enteric or Typhoid Fever	4,103	628	1,020	86	365	419	956	132	497
Erysipelas	523	89	75	19	7	204	109	15	5
Lead Poisoning	2	2	—	—	—	—	—	—	—
Leprosy	662	4	291	1	104	5	208	4	45
Malta Fever	8	1	—	—	—	6	1	—	—
Meningitis, Epidemic Cerebro-spinal	796	45	111	14	22	91	500	1	12
Ophthalmia, Gonorrhoeal	94	8	46	1	18	2	12	2	5
Ophthalmia Neonatorum	568	39	273	2	31	89	119	2	13
Plague	70	1	54	—	—	—	—	—	15
Poliomyelitis, Acute	18	4	2	—	—	4	5	1	2
Puerperal Fever, including Puerperal Sepsis	476	51	133	6	42	97	125	9	13
Rabies	25	1	1	—	—	15	3	4	1
Scarlatina or Scarlet Fever	1,782	424	27	78	1	1,045	10	194	3
Smallpox	653	5	18	2	1	19	583	—	25
Trachoma	83	13	25	—	5	1	39	—	—
Tuberculosis	12,338	599	8,009	122	1,551	125	1,704	9	219
Typhus Fever	982	20	802	8	11	5	48	4	84
TOTAL	26,010	3,168	11,474	581	2,254	2,565	4,485	472	1,011

* Including Transkei.

E. = European. O. = Other.

22. **Vaccination against Smallpox.**—Provision is made in the *Public Health Act*, No. 36 of 1919, for the vaccination of children born in the Union and for the registration of their vaccination certificates within thirteen months of birth; in the case of unvaccinated persons entering the Union, whether children or adults, a period of twelve months from date of entry into the Union is allowed for vaccination and submission of the required vaccination certificates for registration.

One or other of the following medical certificates is required to be submitted to the Registrar of Vaccination: (*a*) certificate of successful vaccination; (*b*) certificate of insusceptibility to vaccination; (*c*) certificate of unfitness for vaccination; (*d*) certificate that the person concerned has suffered from smallpox. A medical certificate to the effect that three unsuccessful attempts at vaccination have been made at intervals of not less than one month is required for proof of insusceptibility to vaccination. A certificate of unfitness for vaccination issued by a medical practitioner may postpone vaccination for a period not exceeding three months and a like certificate for a further period of three months. In special circumstances the Minister may authorize postponement of vaccination for a further specified period exceeding three months.

Under the *Public Health (Amendment) Act*, No. 15 of 1928, provision is made for exemption from vaccination to be granted to *bona fide* conscientious objectors. In order to obtain such exemption in the case of a child, an application to the District Registrar of Births and Deaths must be made by the father personally before the child is six months old, or within six months of its entry into the Union. In the case of an adult, similar procedure must be followed by the applicant himself within six months of entry into the Union.

In the event of the occurrence or threatened outbreak of smallpox, any person who is suspected of having been exposed to infection may be required to be forthwith vaccinated, whether previously exempted or not.

23. **Habit-forming Drugs.**—The Union as signatory to the Versailles Peace Treaty (Article 295) became a party to the International Opium Convention of 1912, and undertook to enact legislation bringing into force the provisions

of the Treaty in respect of opium and other dangerous narcotic drugs. Pending the enactment of specific legislation on the subject, wide powers to make regulations were conferred by section 10 of Act No. 35 of 1922, and a comprehensive series of regulations framed under that section was promulgated under Proclamation No. 181 of 1922, which remained in force until superseded by Act No. 13 of 1928 and the regulations thereunder.

The *Medical, Dental and Pharmacy Act*, No. 13 of 1928, was passed in the 1927-28 session of Parliament, and became law on the 1st January, 1929: Chapter VI thereof (sections 61 to 72) makes effective provision for the regulation of the importation, sale, and use of opium and other habit-forming drugs. That chapter, together with regulations made under section 72 (Government Notice No. 1303 of 27th August, 1937), prohibits the importation of any habit-forming drug, except under special permit issuable only to medical practitioners, dentists, pharmacists, or authorized veterinarians, and also prohibits the sale, supply, or use of any such drug except for medicinal or scientific purposes. The Union Government is also a party to the International Convention of 1925, and the Limitation Convention of 1931 relating to Dangerous Drugs.

24. **International Health Organization and South African Health Intelligence System.**—The Union is a party to the International Health Convention of Rome signed in 1912, and is represented on the committee of that organization by one of the health officers of the Ministry of Health, who has had extensive experience of public health work in South Africa. That office has recently been linked up with the health organization established at Geneva under the League of Nations. Periodical reports and bulletins on matters of international health concern are furnished to the Health Department by these two organizations. Health cablegrams are exchanged fortnightly between the Health Department and the British Ministry of Health, and there is a reciprocal arrangement between the Union and Australia, New Zealand, and India, under which health information of urgent importance is cabled as occasion requires. By arrangement with the British Government, British consuls in foreign countries cable the Union Government, at its cost, information regarding outbreaks of formidable epidemic disease, or other matters likely to be of use to South Africa.

In February, 1925, a conference representing governments and sanitary organizations in the Far East was held at Singapore under the auspices of the League of Nations, and arrangements were made for opening an Epidemic Intelligence Bureau at Singapore. These arrangements have since been completed with the aid of a grant of $25,000 (approximately £5,000) from the Rockefeller Foundation towards the expenses of the Bureau for a period of five years. The Bureau receives telegraphic reports regarding epidemic diseases from all countries in the "Eastern Area," including the East Coast of Africa and the Union of South Africa, and transmits—by telegraph or wireless—from Saigon a weekly summary in code to all countries concerned. This system is of great value in connexion with the port health administration of the Union.

The Union was represented at the International Sanitary Conference held at Paris in 1926, and has since ratified and is a party to the convention. The new convention is a great advance on that of 1912, and goes far to bring international health provisions with regard to shipping and other matters into line with modern conditions and modern knowledge of the epidemiology of disease.

Weekly bulletins, stating the incidence of formidable epidemic disease and particulars as to any undue prevalence of other infectious disease in the Union, together with the latest available data as to the occurrence or prevalence of formidable epidemic diseases in other countries, are published by the Health Department and widely distributed. Weekly abstracts of returns of notification of infectious diseases throughout the Union are also distributed by the Department to the medical officers of health of the major municipalities in the Union and to others specially concerned. Monthly returns of outbreaks and cases of, and deaths from, formidable epidemic diseases are also published by the Health Department.

§ 2. General Hospitals.

1. **Cape of Good Hope Hospitals.**—Under Ordinance No. 5 of 1912, as amended, all divisional council areas in which there is a state-aided hospital, dispensary, or convalescent home, are constituted hospital districts. In every hospital district there is a hospital board, and these boards have control and management of every State-aided hospital, dispensary, or convalescent home within the area for which the board is constituted. The boards are financed by provincial subsidies, calculated on the amount of their revenue derived from patients' fees and voluntary contributions and bequests. Boards may establish, with the approval of the Administrator of the province, any of the following kinds of institutions: (*a*) hospitals for the reception or relief of persons requiring medical treatment; (*b*) dispensaries; (*c*) maternity homes; (*d*) convalescent homes; (*e*) sanatoria; (*f*) institutions established for any other purpose which the Administrator by proclamation in the *Gazette* declares to be a public charitable purpose within the provisions of the Ordinance; (*g*) institutions established for any two or more of the abovementioned purposes.

Committees of management may be established from among the members of a board for the administration of any matters within the power of the board. A board may make regulations in respect of any institutions under its control on certain matters provided for in the Ordinance.

Particulars relating to the hospitals administered by the Cape Hospital Board, and to the Frere Hospital, East London, and the Port Elizabeth Hospital appeared in *Year Book* No. 19.

The following table summarizes certain available statistics in regard to general hospitals which are under the control or supervision of the Cape Provincial Administration:—

GENERAL HOSPITALS—CAPE OF GOOD HOPE, 1933 TO 1937.

Year.	Daily Average Number of Patients.†	Ordinary Revenue.	Provincial Subsidies, Donations, etc.*	Ordinary Expenditure.	Daily Average Cost per Patient.
		£	£	£	s. d.
1933	2,060	175,761‡	184,346	360,241	10 6‡
1934	2,801	198,186	199,194‡	397,986‡	9 10‡
1935	2,403	206,947	217,577	426,036	10 3‡
1936	2,560	225,663‡	233,249‡	459,700‡	11 3
1937	2,742	254,877	268,522	523,925	10 4

* For period ending 31st March of following year.
† A division as between European and non-European is not possible.
‡ Amended figure.

2. **Natal Hospitals.**—There are nine hospitals in Natal directly controlled by the Provincial Administration, viz., Addington Hospital, Durban; King Edward VIII Hospital, Durban; Grey's Hospital, Pietermaritzburg; hospitals at Newcastle, Dundee, Eshowe, Port Shepstone, and Vryheid; and a chronic sick hospital at Hill Crest.

In addition there are other institutions, which receive financial assistance from provincial funds, but are controlled by other than government authority. These are as follows: Pietermaritzburg, Ladysmith, Ixopo, and Estcourt Sanatoria; native mission hospitals at Dundee, Durban, Maputa, Nhlopenkulu, Kwamagwaza, Nkonjeni, Mangwazana, Mlazi, Harding, Hlabisa, Weenen, Hartland (Paulpietersburg), Umtwalumi, Ceza, Nqutu, Emmaus, Mariannhill, Centocow (Bulwer), Mbongolwane, Nongoma, Magut, and Mahlabatini; a hospital at Empangeni and the Church of Scotland Hospital (Tugela Ferry); St. Aidan's Indian Mission Hospital, Durban; King Edward Order of Nurses; Krantzkloof Convalescent Home; Natal Radium and Anti-cancer Fund, Isipingo Beach School of Recovery, and Native Nursing Associations at Howick, Winterskloof, and Mooi River.

Grey's Hospital, Pietermaritzburg, was established under Law No. 4 of 1877, and was taken over by the Provincial Administration under Ordinance No. 9 of 1922. An advisory board of eight members advises the administration in matters concerning the management of the hospital, which contains 413 beds, including the maternity department.

The Addington Hospital, Durban, which deals with European and coloured patients only, is under the control of the Provincial Administration assisted by a hospital board, which is representative of various interests and is appointed annually. The institution was opened in 1879, and contains 500 beds.

The King Edward VIII Hospital, Durban, which deals with native and Indian patients only, is under the control of the Provincial Administration. This hospital has accommodation for approximately 800 patients.

A chronic sick hospital has been established at Hill Crest for the care of persons who are in destitute circumstances, have no relatives or friends who can support them, and are absolutely incapacitated from earning a livelihood by reason of a chronic disease, the treatment of which necessitates constant skilled nursing and medical attendance. The beds available number 184.

The five hospitals at Dundee, Newcastle, Eshowe, Vryheid, and Port Shepstone serve the interior and surrounding districts and are maintained solely at government expense. A local practitioner is in medical charge at each place, and a matron assisted by an adequate nursing staff is in residence.

The following table summarizes certain available statistics in regard to general hospitals which are under the control or supervision of the Provincial Administration:—

GENERAL HOSPITALS AND AIDED INSTITUTIONS—NATAL, 1933-34 TO 1937-38.

Year Ending 31st March.	Average Daily Number of Patients.		Ordinary Revenue (Fees Collected).	Provincial Subsidies, Donations, etc.	Maintenance Expenditure.	Net Daily Average Cost per Patient (General).
	European.	Non-European.	£	£	£	s. d.
1934.....	554	799	45,568	4,122	182,275	6 10·62
1935.....	574	851	48,686	4,498	198,486	7 0·67
1936.....	666	1,042	58,211	5,950	212,769	6 5·16
1937.....	712	1,403	61,340	9,206	255,758	7 6·87
1938.....	822	1,574	71,617	10,040	303,359	7 2·15

3. **Transvaal Public Hospitals.**—Since the coming into operation of the *Public Hospitals Ordinance*, No. 18 of 1928, on 1st January, 1929, there has been a change in the control and management of certain hospitals in this province. The eight hospitals at Barberton, Boksburg, Germiston, Johannesburg, Klerksdorp, Krugersdorp, Pietersburg, and Pretoria, which were formerly provincial hospitals under the *Hospitals Committees Ordinance*, 1917, together with the 14 hospitals formerly in receipt of grants-in-aid from the Provincial Administration, are now all State-aided public hospitals under the Ordinance. A hospital board has been constituted for the control and management of each of these hospitals. Every hospital board is a body corporate, and the number of its members must be either six or twelve, except in the case of the Johannesburg Hospital Board, which has eighteen members. One-third of the members of a board is appointed by the Administrator, one-sixth by the honorary visiting medical officers, one-sixth by approved public bodies (this does not apply to Johannesburg, in which case two are appointed by the Johannesburg City Council, one by the Transvaal Chamber of Mines, one by the Johannesburg Chamber of Commerce, one by the Council of the University of the Witwatersrand, and one by the Transvaal Agricultural Union), and one-third (in the case of Johannesburg one-sixth) is elected by registered contributors.

Public hospitals are classified as:—

(*a*) Central hospitals.
(*b*) First grade hospitals.
(*c*) Second grade hospitals.
(*d*) First class clearing hospitals.
(*e*) Second class clearing hospitals.

The following are the public hospitals in the province, in respect of which hospital boards have been constituted under the Ordinance, classified in accordance with the provisions of section 5 (1) of Ordinance No. 18 of 1928:—

Central Hospitals.—

Johannesburg General Hospital (together with the hospitals placed under the management of the Johannesburg Hospital Board).
Pretoria General Hospital.

First Grade Hospitals.—

Boksburg.
Far East Rand.
Germiston.
Krugersdorp.
Nigel.

Second Grade Hospitals.—

Barberton.
Heidelberg.
Klerksdorp.
Middelburg.
Pietersburg.
Potchefstroom.
Roodepoort.
Rustenburg.
Witbank.

First Class Clearing Hospitals.—

Bethal.
Ermelo.
Lydenburg.
Standerton.
Vereeniging.
Volksrust.

Second Class Clearing Hospitals.—

Duivelskloof.
Leydsdorp.
Lichtenburg.
Piet Retief.
Potgietersrust.
Sabie.
Schweizer Reneke.
Ventersdorp.
Wolmaransstad.

Subsidies are paid to every board from moneys appropriated by the Provincial Council on the following basis:—

1. *Free Patients* (treated during the preceding calendar year):—
   Europeans ..... 12s. 6d. per patient day.
   Non-Europeans ..... 5s. 0d. per patient day.

2. *Part-paying Patients* (treated during the preceding calendar year):—
   Europeans.—The difference between the total number of patient days in respect of such patients multiplied by 12s. 6d. and the amount of fees actually received from them during that period.
   Non-Europeans.—The difference between the total number of patient days in respect of such patients multiplied by 5s. and the amount of fees actually received from them during that period.

3. *Out-patients* (treated during the preceding calendar year):—
   6d. for every out-patient attendance.

4. *Fees* (received during the preceding calendar year):—25 per cent. on all fees collected, provided the total number of free European patient days is not less than 25 per cent. of the total European patient days. If the number of free European patient days is less than 25 per cent. of the total European patient days, then the subsidy on European patients' fees is reduced by one-twenty-fifth for every 1 per cent. that the free European patient days fall short of such 25 per cent.

5. *Donations, Subscriptions, and Bequests for Maintenance Purposes:*—£1 for every £1 so received. Subsidies are also paid on the 10s. for £1 basis in respect of bequests for expenditure on specific purposes other than for the maintenance of the hospital. In the case of newly established hospitals the Administrator is empowered to determine the amount of the subsidy during the first, and if necessary the second, year of the existence of such hospital "in such manner as he may decide." The Transvaal Provincial Home at Rietfontein near Johannesburg is managed directly by the Provincial Administration.

The following hospitals are supported by grants-in-aid:—

Bochem Hospital.
Bridgman Memorial Hospital.
Elim Hospital.
Endhlosaan Mission Hospital.
Gooldville Native Hospital.
Hope Convalescent Home for Children.
Jane Furse Memorial Hospital.
League of South African Mothers.
Lichtenburg Diggings Hospital.
Moletzies Location Hospital.
Mphahlele Native Hospital.
South African Hospital.
Warmbaths Mission Native Hospital.

The sums paid as grants-in-aid to these institutions amounted to:—£7,159, 1933; £8,290, 1934; £9,892, 1935; £9,404, 1936; and £11,911, 1937.

Particulars relating to the hospitals administered by the Johannesburg Hospital Board and to the Pretoria Hospital appeared in *Year Book* No. 19.

The following table summarizes certain available statistics in regard to public hospitals which are under the control or supervision of the Transvaal Provincial Administration:—

PUBLIC HOSPITALS—TRANSVAAL, 1933 TO 1937.

Year.	Average Daily Number of Patients.		Ordinary Revenue (Fees).	Provincial Subsidies, Donations, etc.	Maintenance Expenditure.	Daily Average Cost per Patient.
	European.	Non-European.	£	£	£	s. d.
1933	1,474	764	126,772	386,173	460,927	11 3·00
1934	1,514	933	147,456	407,407	510,361	11 5·00
1935	1,602	1,063	170,830	446,355	561,102	11 2·00
1936	1,696	1,191	194,243	478,216	625,144	11 0·00
1937	1,793	1,405	211,189	503,800	680,483	10 11·00

4. **Orange Free State Hospitals.**—In 1933 the Provincial Council of the Orange Free State passed an Ordinance (No. 13 of 1933) having as its object the consolidation and amendment of the law relating to the establishment, maintenance, and management of public hospitals and kindred charitable institutions. The Ordinance came into force as from the 1st April, 1934, and deals with the various aspects of hospital administration, control committees, property, finance, staff, pensions, emoluments, etc.

Under the provisions of the Ordinance the province is divided into two central areas, one styled the Bloemfontein Hospital Area, the other the Kroonstad Hospital Area. These areas are divided into hospital districts, conforming largely to the established magisterial districts, each controlled by a hospital board. The Administrator may, on the presentation of a petition signed by not fewer than 25 persons registered as voters in any town in a proposed district, constitute any magisterial district or part of a magisterial district a hospital district. Every board established under the Ordinance is a body corporate, and may sue and be sued. Its membership may consist of six, twelve, eighteen, or such further number of members as the Administrator may determine. Of the members, one-sixth is appointed by the town council or town councils of the town or towns situated within the hospital district, one-sixth is elected by the registered contributors of specified amounts to hospital funds, three-sixths are appointed by the Administrator, and the remaining one-sixth is chosen by the honorary visiting medical staff. The members hold office for certain specified periods.

A board has control over, and the management of, every public hospital or kindred charitable institution existing in its district at the date of promulgation of the Ordinance, and of such institutions as may later be established; it is charged with the duty of appointing members of the staff, subject in certain cases to the ultimate approval of the Administrator, and with the Administrator's consent may close any institution which it controls. In such an event, all property, movable or immovable, becomes vested in the Administrator, who may, after a specified time has elapsed, dispose of such property.

The hospitals are financed by subsidies paid out of moneys appropriated for such purpose by the Provincial Council, from amounts received from investments of trust moneys, from bequests or gifts, and from fees received from patients. The provincial subsidy is calculated on the basis of 5s. in the £1 in respect of fees collected from patients, and at the rate of 12s. 6d. per patient per diem in the case of European non-paying patients, whose admittance to hospital has been authorized by the Provincial Secretary or other person appointed by the Administrator to issue certificates that the persons admitted free are not in a position to contribute towards the cost of hospital treatment. Non-European non-paying patients are subsidized at the rate of 5s. per diem per person. In the case of part-paying European patients, the hospital is subsidized to the extent of the difference between 12s. 6d. per diem and the amount received from the patient in part-payment.

Non-European part-paying patients admitted are subsidized to the extent of the difference between the amount paid and a maximum of 5s. per diem. Out-patients' subsidies are at the rate of sixpence for each attendance.

The Provincial Council further subsidizes from provincial funds at the rate of £1 for each £1 in cash received during the year in the way of subscriptions, donations, and bequests, where the moneys contributed are intended for the maintenance of the hospitals, but in regard to moneys received as a gift or bequest for purposes of endowment no subsidy is paid on the capital amount, except only on the annual sum received by the board as income from the property or as interest from investment. Bequests for expenditure on purposes other than maintenance are subsidized to the extent of 10s. in each pound, subject to a limitation of £1,000 in respect of any single bequest made to a central hospital, and of £500 in the case of other hospitals. All subsidies are payable in such manner as the Administrator may determine.

Funds collected for the specific purpose of meeting the cost of erection or of equipment of buildings may be subsidized on the £1 for £1 basis to the extent of one-half of the actual cost of erection and equipment.

With the approval of the Administrator, a board may raise loans for building, equipment, purchase of land, or for purposes of a capital nature, and the Provincial Council is empowered to grant loans to hospital boards for relatively similar purposes. The repayment of and interest charges on such approved loans are borne in equal proportions by the Administration and the hospital board, with the exception of cases where the amounts raised are for the extension and equipment of buildings intended for full-paying patients.

In regard to other matters of administration, staff regulations, etc., provided for in the enactment, reference should be made to the Ordinance.

Particulars relating to the National Hospital, Bloemfontein, and the Northern Free State General Hospital (now the Voortrekker Hospital), Kroonstad, appeared in *Year Book* No. 19.

The following table shows the expenditure, the revenue, and other particulars of hospitals and kindred institutions under the supervision of the Provincial Administration for a series of years:—

GENERAL HOSPITALS—ORANGE FREE STATE, 1933-34 TO 1937-38.

Year Ending 31st March.	Average Daily Number of Patients.		Ordinary Revenue (Fees Collected).	Provincial Subsidies, Donations, etc.	Maintenance Expenditure.	Daily Average Cost per Patient.
	European.	Non-European.	£	£	£	s. d.
1934	234	161	32,904	48,969	80,133	14 6·1
1935	195	261	37,141	80,639	114,281	15 4·1
1936	289	203	38,682	86,711	122,762	12 10·1
1937	324	248	46,268	92,782	130,926	12 10
1938	346	272	51,112	98,662	149,915	12 0·5

5. **Statistics of Hospitals.**—Since the 1st January, 1924, all hospitals and nursing and maternity homes have been required to render an annual statistical statement to the Census Office. The following tables give comparative figures for the years 1934 to 1938 in respect of these hospitals. All private nursing and maternity homes must be registered with the Secretary for Public Health and, with a few exceptions, the tables cover all such private institutions; the exceptions, which are few in number, are those where the number of patients treated during the year averages less than six for the year. The general hospitals include all government or government-aided hospitals and chronic sick homes; infectious disease hospitals are all government or municipal institutions.

STATISTICS OF HOSPITALS, 1934 TO 1938.

(i) NUMBER AND CLASS OF HOSPITALS, PROVINCES.

Year.	Total all Hospitals.	Class of Hospital.				
		General Hospitals.	Private Nursing Homes.	Maternity Homes.	Infectious Disease Hospitals.	Mine and Factory Hospitals.
CAPE OF GOOD HOPE.						
1934	163	57	49	27	27	3
1935	180	58	51	40	26	5
1936	199	66	50	50	28	5
1937	208	70	54	52	27	5
1938	219	70	58	59	27	5
NATAL.						
1934	74	24	24	10	4	12
1935	77	23	26	13	4	11
1936	86	31	28	11	4	12
1937	90	32	29	13	4	12
1938	94	37	28	13	4	12
TRANSVAAL.						
1934	174	37	47	40	5	45
1935	187	37	42	60	4	44
1936	192	37	46	60	5	44
1937	196	39	43	64	5	45
1938	200	40	48	62	5	45
ORANGE FREE STATE.						
1934	35	8	20	1	4	2
1935	39	8	23	2	4	2
1936	47	10	24	7	4	2
1937	50	9	24	10	4	3
1938	53	10	24	12	4	3

(ii) NUMBER OF HOSPITALS, EUROPEAN AND NON-EUROPEAN.

Year.	Total all Hospitals.	Class of Hospital.				
		General Hospitals.	Private Nursing Homes.	Maternity Homes.	Infectious Disease Hospitals.	Mine and Factory Hospitals.
(a) ALL HOSPITALS.						
1934	446	126	140	78	40	62
1935	483	126	142	115	38	62
1936	524	144	146	128	41	63
1937	544	150	150	139	40	65
1938	566	157	158	146	40	65

STATISTICS OF HOSPITALS, 1934 TO 1938—(*continued*).

(ii) NUMBER OF HOSPITALS, EUROPEAN AND NON-EUROPEAN—(*continued*).

Year.	Total all Hospitals.	Class of Hospital.				
		General Hospitals.	Private Nursing Homes.	Maternity Homes.	Infectious Disease Hospitals.	Mine and Factory Hospitals.
(b) EUROPEANS ONLY [INCLUDED IN (i)].						
1934	191	14	101	70	6	—
1935	227	14	105	106	2	—
1936	246	13	110	119	4	—
1937	260	14	113	129	4	—
1938	277	14	126	134	2	1
(c) NON-EUROPEANS ONLY [INCLUDED IN (i)].						
1934	101	14	8	5	18	56
1935	105	14	9	4	21	57
1936	117	18	13	6	20	60
1937	122	19	12	7	21	63
1938	122	20	12	6	24	60

(iii) NUMBER OF PATIENTS AND BEDS.

Year.	Total all Hospitals.	Class of Hospital.				
		General Hospitals.	Private Nursing Homes.	Maternity Homes.	Infectious Disease Hospitals.	Mine and Factory Hospitals.
(a) PATIENTS.						
(i) *European.*						
1934	139,449	92,660	36,294	6,443	3,925	127
1935	151,236	96,707	41,954	8,373	4,021	181
1936	156,953	101,778	42,342	8,171	4,508	154
1937	172,555	109,298	47,357	9,829	4,787	1,284*
1938	183,273	107,972	58,490	10,807	4,461	1,543
(ii) *Non-European.*						
1934	278,119	79,705	3,185	2,613	10,256	182,360
1935	288,125	83,197	4,144	2,797	10,158	187,829
1936	289,263	92,317	2,527	3,107	10,876	180,436
1937	326,128	110,082	2,445	3,527	11,897	198,177*
1938	328,806	113,998	2,885	3,206	12,629	196,088
(b) BEDS.						
(i) *European.*						
1934	9,250	5,696	2,070	588	859	37
1935	9,135	5,508	2,135	661	794	37
1936	9,700	5,732	2,192	750	989	37
1937	9,413	5,148	2,332	804	1,041	88
1938	11,140	6,426	2,868	888	858	100
(ii) *Non-European.*						
1934	12,826	4,684	384	138	1,243	6,377
1935	13,302	4,799	439	124	1,206	6,734
1936	14,571	5,800	390	155	1,388	6,829
1937	15,372	6,332	352	185	1,257	7,246
1938	16,323	7,068	273	141	1,547	7,294

* Includes the patients of a hospital formerly treated as a nursing home, but now classed as a mine hospital.

STATISTICS OF HOSPITALS, 1934 TO 1938—(*continued*).

(iv) HOSPITAL STAFF.

Year.	Total all Hospitals.	Class of Hospital.				
		General Hospitals.	Private Nursing Homes.	Maternity Homes.	Infectious Disease Hospitals.	Mine and Factory Hospitals.
(*a*) MATRONS AND TRAINED NURSES (EUROPEAN).						
1934	1,979	1,064	542	173	106	94
1935	2,083	1,069	552	240	113	109
1936	2,288	1,208	567	270	131	112
1937	2,372	1,235	602	271	139	125
1938	2,700	1,395	708	302	161	134
(*b*) PROBATIONERS (EUROPEAN).						
1934	2,157	1,575	346	139	47	50
1935	2,325	1,659	369	158	82	57
1936	2,619	1,934	345	171	107	62
1937	2,768	2,019	439	140	100	70
1938	2,860	2,011	492	167	119	71

(*c*) CLERICAL (EUROPEAN AND NON-EUROPEAN).

	General Hospitals.		Private Nursing Homes.		Maternity Homes.		Infectious Disease Hospitals.		Mine and Factory Hospitals.		Total.	
	E.	N.E.	E.	N.E.	E.	N.E.	E.	N.E.	E.	N.E.	E.	N.E.
1934	399	64	303	7	49	1	9	1	13	—	25	55
1935	380	70	274	9	54	2	11	3	14	—	27	56
1936	404	71	297	16	42	5	15	2	14	1	36	47
1937	444	81	329	6	51	7	11	1	19	—	34	67
1938	455	76	336	14	50	—	13	—	19	—	37	62

(*d*) DOMESTIC (EUROPEAN AND NON-EUROPEAN).

	General Hospitals.		Private Nursing Homes.		Maternity Homes.		Infectious Disease Hospitals.		Mine and Factory Hospitals.		Total.	
	E.	N.E.	E.	N.E.	E.	N.E.	E.	N.E.	E.	N.E.	E.	N.E.
1934	761	3,037	525	1,992	115	514	64	168	62	161	5	202
1935	856	3,439	574	2,244	152	584	73	218	52	205	5	188
1936	883	3,585	602	2,389	113	557	96	233	60	203	12	204
1937	944	4,069	616	2,733	164	652	85	259	74	211	5	214
1938	934	4,455	603	2,912	145	772	91	288	73	233	22	250

§ 3. Mentally Disordered or Defective Persons.

1. **Legislation.**—Act No. 38 of 1916 repeals all previous Acts in force in the provinces of the Union on this subject, and covers all cases of mental disorder or defect where, as a result of such disorder or defect, the patient is incapable of managing himself or his affairs, is a danger to himself or others, or requires care, treatment, and control. The provisions of the Act apply to and the procedure is the same for persons of all ages. Detention of patients, whether in public institutions, single care, licensed institutions, general hospitals, or elsewhere, is, with certain exceptions specially provided for, legal only when authorized by a magistrate, a court, or a judge. The Act authorizes the appointment of a commissioner of mentally disordered or defective persons, styled Commissioner for Mental Hygiene, and of boards to visit and report on the institutions and the welfare of the patients. The care and administration of the property of mentally disordered or defective persons is placed in the hands of the Master of the Supreme Court. Other provisions of the Act cover mentally disordered or defective persons under detention in respect of criminal offences, the admission of patients from other states or territories of Africa, voluntary boarders, patients residing in private dwellings, the establishment of licensed institutions, reception of patients in general hospitals and similar institutions, offences and penalties, use of mechanical restraint, recovery of cost of maintenance, and other matters relative to the care and control of mentally disordered persons.

2. **The South African National Council for Mental Hygiene.**—Information regarding this organization is given in Chapter V, § 6, 3.

3. **Mental Hospitals and Institutions for the Feebleminded.**—There are nine mental hospitals and two institutions for the feebleminded. The names and other particulars are given below:—

MENTAL HOSPITALS AND INSTITUTIONS FOR FEEBLEMINDED—CLASS OF ACCOMMODATION, 1937.

Name of Institution.	Province.	Races Treated.
Mental Hospitals—		
Valkenberg	Cape of Good Hope	All races.
Grahamstown	Cape of Good Hope	Europeans only.*
Port Alfred	Cape of Good Hope	Coloured races only.
Fort Beaufort	Cape of Good Hope	Coloured races only.
Queenstown	Cape of Good Hope	All races.
Pietermaritzburg	Natal	All races.
Fort Napier (Pietermaritzburg)	Natal	All races.
Pretoria	Transvaal	All races.
Bloemfontein	Orange Free State	All races.
The Alexandra Institution for Feebleminded	Cape of Good Hope	Europeans only.
The Witrand Institution for Feebleminded	Transvaal	Europeans only.*

* A few native male patients are maintained at these institutions as workers.

4. **Patients and Staff (Mental Hospitals and Institutions).**—Particulars of mental hospitals and institutions for the feebleminded are given in the subjoined tables.

(i) MENTAL HOSPITALS AND INSTITUTIONS FOR FEEBLEMINDED—STAFF, PATIENTS, EXPENDITURE, AND RECEIPTS, 1933 TO 1937.

Particulars.	1933.	1934.	1935.	1936.	1937.
Number of Institutions	11	11	11	11	11
Staff—					
Medical	42	40	45	46	49
Nurses (Male and Female)	1,614	1,633	1,670	1,701	1,764
Clerical and Administrative	90	89	97	88	100
Other Employees	683	694	704	727	795
TOTAL	2,429	2,456	2,516	2,562	2,708
Per 100 Patients	21	20	19	20	20
Patients—					
First Admissions	1,939	2,174	2,351	2,514	2,407
Re-admissions	342	316	407	374	341
Discharges (recovered)	519	712	671	742	801
Discharges (not improved)	145	130	141	142	180
Discharges (relieved)	284	305	291	315	385
Transferred	333	282	374	230	679
Deaths	622	692	836	740	801
Remaining 31st December	11,475	11,946	12,597	13,295	13,699
Expenditure £	519,901	556,165	587,585	610,608	642,719
Receipts from Paying Patients £	68,967	76,170	76,991	77,988	76,213

(ii) MENTAL HOSPITALS AND INSTITUTIONS FOR FEEBLEMINDED—GROSS COST PER PATIENT PER DIEM, 1933 TO 1937.

Institution.	1933.	1934.	1935.	1936.	1937.
	s. d.	s. d.	s. d.	s. d.	s. d.
Cape of Good Hope—					
Valkenberg	2 7	2 7	2 8	2 8	2 10
Grahamstown	3 10	3 10	4 2	3 11	4 0
Port Alfred	2 0	1 10	1 11	1 11	1 10
Fort Beaufort	2 3	2 0	2 0	2 1	2 1
Queenstown	2 3	2 2	2 2	2 4	2 7
Alexandra	2 10	3 0	3 0	3 2	3 1
Natal—					
Pietermaritzburg	2 8	2 8	2 6	2 6	2 6
Fort Napier	2 5	2 5	2 4	2 5	2 6
Transvaal—					
Pretoria	2 8	2 8	2 7	2 10	3 0
Witrand	3 1	3 2	3 2	3 0	3 1
Orange Free State—					
Bloemfontein	2 8	2 7	2 8	2 7	2 5
Institutions—					
Average Cost per Patient per Diem	2 11	2 9	2 8	2 9	2 10

(iii) MENTAL HOSPITALS AND INSTITUTIONS FOR FEEBLEMINDED—DISTRIBUTION OF PATIENTS AS AT 31st DECEMBER, 1937 (INCLUDING VOLUNTARY BOARDERS).

Institution.	European.		Native.		Coloured.		Asiatic.		Total all Races.
	M.	F.	M.	F.	M.	F.	M.	F.	
CAPE OF GOOD HOPE—									
Valkenberg	511	460	66	17	528	418	7	2	2,009
Grahamstown	307	258	67	—	14	—	—	—	646
Port Alfred	—	—	212	166	44	41	1	—	464
Fort Beaufort	—	—	660	359	177	77	32	2	1,307
Queenstown	195	280	360	243	35	24	1	—	1,138
Alexandra	341	415	—	—	—	—	—	—	756
NATAL—									
Pietermaritzburg	206	147	360	198	33	34	102	45	1,125
Fort Napier	393	359	632	—	27	—	—	—	1,411
TRANSVAAL—									
Pretoria	560	461	543	197	30	27	5	8	1,831
Witrand	604	585	143	—	4	—	—	—	1,336
ORANGE FREE STATE—									
Bloemfontein	318	294	690	282	56	32	4	—	1,676
TOTAL	3,435	3,259	3,733	1,462	948	653	152	57	13,699

5. **Mentally Disordered and Defective Persons.**—The subjoined tables show for a period of years particulars of mentally disordered and defective persons.

(i) MENTALLY DISORDERED AND DEFECTIVE PERSONS, PER 100,000 OF ESTIMATED* POPULATION, 1933 TO 1937.

Race.	1933.	1934.	1935.	1936.	1937.
European	327	328	333	336	336
Native	65	67	71	75	77
Mixed and Other Non-European (including Asiatics)	166	166	172	181	180
ALL RACES	130	132	133	140	142

* At 30th June.

(ii) MENTALLY DISORDERED PERSONS—RACE AND SEX, 1933 TO 1937.

Race and Sex.	1933.	1934.	1935.	1936.	1937.
Number of Patients on Mental Hospital and Institution Registers at 31st December—					
European— Male	3,045	3,128	3,249	3,348	3,435
Female	2,865	2,967	3,103	3,218	3,259
Native— Male	2,879	3,059	3,300	3,576	3,733
Female	1,146	1,227	1,277	1,366	1,462
Coloured— Male	804	817	852	913	948
Female	578	576	633	670	653
Asiatic— Male	117	129	132	145	152
Female	41	43	51	59	57
TOTAL—ALL RACES	11,475	11,946	12,597	13,295	13,699
Number of Mentally Disordered and Defective Persons in Licensed Houses, Single Care, Gaols, and Institutions other than Mental Hospitals at 31st December—					
European— Male	102	74	60	54	53
Female	176	151	131	136	129
Native— Male	8	8	6	8	11
Female	1	2	2	3	7
Coloured— Male	6	12	4	2	5
Female	8	8	4	3	4
Asiatic— Male	1	1	1	1	—
Female	—	—	—	—	—
TOTAL—ALL RACES	302	256	208	207	209
GRAND TOTAL	11,777	12,202	12,805	13,502	13,908

§ 4. Venereal Diseases Hospitals.

Institutions, Patients, and Expenditure.—Particulars are given in the subjoined tables as to the venereal diseases hospitals administered by the Department of Public Health, the number of patients treated, and the expenditure incurred. Hospital accommodation for cases of venereal disease is also provided at a number of State-aided general and private hospitals, as well as at certain isolation hospitals managed by local authorities.

(i) VENEREAL DISEASES HOSPITALS, ACCOMMODATION AND STAFF, 1933-34 TO 1937-38.

Heading.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Number of Institutions*	4	4	4	4	5
Accommodation—					
European	75	75	75	75	75
Other	446	446	446	451	455
TOTAL	521	521	521	526	530
Staff—					
Medical†	4	6	7	7	8
Nursing—					
European	18	18	17	18	18
Clerical—					
Male	2	3	3	4	4
Domestic and Other Staff—					
European—Male	8	8	8	8	8
Female	5	5	6	5	5
Non-European—Male	37	40	42	42	44
Female	4	4	2	3	3
TOTAL	78	84	85	87	90

* Excluding Bochem and Elim State-aided private hospitals; including Rietfontein.
† Part-time: 2 full-time.

(ii) VENEREAL DISEASES HOSPITALS—PATIENTS TREATED, 1st JULY, 1933, TO 30th JUNE, 1938.

Institution.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Kingwilliamstown	102	118	154	156	237
Kuruman	30	29	25	18	30
Vryburg	122	121	131	138	128
Bochem*	703	927	548	689	934
Elim*	640	568	526	549	592
Rietfontein	3,724	4,550	5,145	5,492	5,516
Zeerust	—	—	—	—	8
TOTAL	5,321†	6,313†	6,529†	7,042†	7,445

* State-aided private hospital. † Amended figure.

(iii) VENEREAL DISEASES HOSPITALS—EXPENDITURE, 1st JULY, 1933, TO 30th JUNE, 1938.

Institution.	1933-34.	1934-35.	1935-36.	1936-37.			1937-38.		
	Total.	Total.	Total.	Total.	Salaries, Wages, and Allowances.	Maintenance Charges.	Total.	Salaries, Wages, and Allowances.	Maintenance Charges.
	£	£	£	£	£	£	£	£	£
Kingwilliamstown	395	388	472	442	208	234	554	229	325
Kuruman	146	171	164	153	48	105	211	48	163
Vryburg	452	476	481	542	155	387	581	175	406
Rietfontein	13,830	15,656	14,598	15,688	7,078	8,610	14,664	6,300	8,364
Zeerust	—	—	—	—	—	—	77	28	49
TOTAL....£	14,823	16,691	15,715	16,825	7,489	9,336	16,087	6,780	9,307

§ 5. Lepers.

1. **General.**—Information relating to the history and prevalence of leprosy in the Union is given in § 1, paragraph 21 (ix) of this chapter.

A Leprosy Advisory Committee was constituted in 1924. Its functions are to advise the Department of Public Health on matters relating to leprosy.

2. **Legislation.**—Compulsory segregation of lepers is enforced by pre-Union legislation in each province. All cases of leprosy are reported to the Department of Public Health, and when the nature of the disease has been fully established the patients are removed to one of the leper institutions. No uniform legislation for the Union has yet been introduced.

The legislative enactments dealing with the control of lepers in the various provinces are as follows:—

Cape of Good Hope.—Act No. 8 of 1884 as amended by Act No. 31 of 1894. Proclamation No. 180 of 1907.

Natal.—Persons other than natives:—Natal Law No. 44 of 1901, as amended by Laws Nos. 43 of 1903 and 39 of 1906 (Natal), and Acts Nos. 11 of 1914 and 36 of 1919.
Natives:—Section 8 (*bis*) of Proclamation No. 162 of 1933, amending the Natal Code of Native Law.

Transvaal.—Ordinance No. 23 of 1904, as amended by Acts Nos. 5 of 1907 and 2 of 1908. Act No. 4 of 1908.

Orange Free State.—Act No. 26 of 1909.

Union.—Act No. 14 of 1914, amending in certain respects certain laws in force in the several provinces relating to lunatics and persons affected with leprosy.

3. **Leper Institutions.**—The subjoined tables give particulars as to the various leper institutions and as to the number of patients in segregation:—

(i) LEPER HOSPITALS—CLASS OF ACCOMMODATION, TOTAL STAFF, NUMBER OF PATIENTS, 1937 AND 1938.

Institution.	Accommodation.	Staff.		Patients for Year ended 30th June.*	
		1937.	1938.	1937.	1938.
Emjanyana	Natives only	108	109	650	663
Mkambati (Pondoland)	Natives only	79	79	222	215
Amatikulu	Natives only	65	66	421	420
Pretoria	All races	127	127	865	837
Bochem	Natives only	9	9	80	80

* Average daily number resident.

(ii) LEPER HOSPITALS—STAFF, PATIENTS, AND EXPENDITURE, 1934 TO 1938.

Particulars.	1934.	1935.	1936.	1937.	1938.
Staff—					
Medical*	7	7	8	8	8
Nursing	47	48	50	59	59
Clerical	9	10	10	11	11
Other—European	34	37	37	40	41
Non-European	255	256	263	270	271
TOTAL	352	358	368	388	390
Patients—					
First Admissions†	587	545	699	683	626
Readmissions†	80	76	91	87	71
Discharges and Escapes†	436	428	422	466	456
Deaths†	305	243	299	238	257
Remaining‡	2,155	2,144	2,218	2,270	2,265
Average Daily Number of Patients Resident†	2,165	2,117	2,137	2,238	2,215
Expenditure§ £	77,036	80,053	82,827	85,679	87,678

* Including three visiting medical officers.
‡ As at 30th June.
† Year ending 30th June.
§ Financial year ending 31st March.

(iii) LEPER HOSPITALS—GROSS COST PER PATIENT PER DIEM, 1934 TO 1938.

Institution.	1934.	1935.	1936.	1937.	1938.
Cape of Good Hope—	s. d.	s. d.	s. d.	s. d.	s. d.
Emjanyana	1 8	1 11	2 0	2 0	1 11
Mkambati (Pondoland)	1 8	1 8	2 5	2 2	2 5
Natal—					
Amatikulu	1 4	1 4	1 4	1 3	1 4
Transvaal—					
Pretoria	2 4	2 6	2 7	2 8	2 8
Bochem	1 3	1 2	1 6	1 8	1 9
Union—All Institutions— Average net cost per patient per diem..	1 11	1 9	2 0	2 0	2 0

(iv) CERTIFIED LEPERS—RACE AND SEX, 1st JULY, 1933, TO 30th JUNE, 1938.

Year.	European.			Non-European.			Grand Total.
	Male.	Female.	Total.	Male.	Female.	Total.	
1933-34	64	31	95	1,196	864	2,060	2,155
1934-35	65	33	98	1,165	881	2,046	2,144
1935-36	70	34	104	1,222	892	2,114	2,218
1936-37	66	32	98	1,286	886	2,172	2,270
1937-38	64	31	95	1,307	863	2,170	2,265

§ 6. Registration of Medical Practitioners, Dentists, Nurses, and Chemists and Druggists.

1. **Legislation.***—Under the provisions of the *Medical, Dental and Pharmacy Act* of 1928, the South African Medical Council is constituted of twenty-five members, of whom four medical practitioners, one dentist, and two persons not registered under the Act are appointed by the Minister of Public Health. Ten medical practitioners and three dentists are elected by their professional brethren, and two members by the nurses, midwives, and masseurs, while each university in the Union at which a medical faculty is established appoints one member. The mandated territory of South West Africa, to which the provisions of the Act were extended early in 1929, also appoints one member. The South African Pharmacy Board consists of nine members, of whom two chemists and druggists and one medical practitioner are appointed by the Minister, while six chemists and druggists are elected by their colleagues. Provision is made in the Act for each province to receive representation on both bodies. Members, whether appointed or elected, hold office for a term of five years.

Under the Act all registrations of the classes of persons appearing in the tables below are effected by the council and the board, and these bodies keep the necessary registers. The Governor-General may from time to time, after considering a recommendation of the council or the board, prescribe what degrees, diplomas, or certificates shall be recognized for registration of medical practitioners, dentists, and chemists and druggists. These must be of a standard of professional education not lower than that prescribed by the council or the board for medical practitioners, dentists, or chemists and druggists within the Union, and the countries in which they are granted must reciprocate by giving full rights of practice to students who have qualified in South Africa.

In addition to the above degrees, diplomas, or certificates the Governor-General may prescribe others which will entitle the holders to practise, but only if such holders are British subjects who (*a*) were born in any part of the Union, or (*b*) were domiciled in the Union when they commenced their professional studies and proceeded therefrom for the purpose of prosecuting those studies. In regard to such recognition, it is not necessary that the country issuing the degrees, diplomas, or certificates should give rights of practice to students qualified in South Africa.

* A more comprehensive article on the subject by Mr. E. Herbert appeared in the Appendix to the tenth issue of the *Year Book*.

No medical or dental degree, diploma, or certificate is recognized for registration, unless the last three years or two years respectively of professional study to obtain such qualification were taken in the country or state in which it was granted.

The board conducts examinations for chemists and druggists, while the council conducts examinations for nurses and midwives, and may also conduct examinations for masseurs and other classes of persons, such as sanitary inspectors, for whom it may decide to open registers. A person on passing the examination for nurses or midwives is granted a registration certificate.

The penalty for practising as a medical practitioner, dentist, or chemist and druggist, if not registered, is a fine not exceeding one hundred pounds. Any person not registered as a nurse, midwife, or masseur, who holds herself or himself out to be so registered, is liable to a fine not exceeding twenty pounds. The Governor-General may, on the recommendation of the council, proclaim certain areas in which no one but a registered nurse or midwife shall practise in those capacities. The municipal areas of Pretoria, East London, and Bloemfontein have been so proclaimed in regard to the practice of midwifery.

In case of information reaching the council or the board of improper or unprofessional conduct on the part of a registered person, the council or the board shall hold an inquiry into the conduct of such person and, if he be found guilty, may reprimand and caution him under the hand of the president, or suspend him for a specified period from practising or performing acts specially pertaining to his calling or profession, or erase his name from the register. An appeal lies to the Supreme Court against such a decision.

The fees payable under the Act are as appear below, but in addition other fees, e.g. for examinations, may be fixed by the council and the board with the approval of the Minister of Public Health:—

Medical practitioner or dentist, registration of	£25 0 0
Chemist and druggist, registration of	12 10 0
Managing director of a corporate body carrying on business as chemist and druggist, registration of	12 10 0
Nurse, midwife, or masseur, registration of (otherwise than under section *thirty-one*)	2 10 0
Registration of additional degree, diploma, or certificate; restoration of name to register after erasure under section *seventeen*; duplicate certificate of registration or certified extract from a register or certificate by the registrar under section *twenty-one*:—	
Medical practitioner, dentist, or chemist and druggist	1 0 0
Nurse, midwife, or masseur	0 5 0

2. **Number of Registrations.**—The following table shows the number of medical practitioners, dentists, chemists and druggists, nurses, midwives, mental nurses and male nurses registered in the Union during the years indicated. The reduction in the number of nurses, midwives, mental nurses, and male nurses on the register in 1937 is the result of erasures in terms of section 17 (1) (*b*) of Act No. 13 of 1928.

MEDICAL PRACTITIONERS, DENTISTS, NURSES, MIDWIVES, ETC., REGISTERED, 1934 TO 1938.

Year.	Medical Practitioners.	Dentists.	Chemists and Druggists.	Nurses.	Midwives.	Mental Nurses.	Male Nurses.
1934*	2,609	715	1,267	4,053	3,242	876	110
1935*	2,746	731	1,301	4,404	3,558	973	117
1936*	2,822	710	1,329	4,841	3,900	1,059	126
1937*	2,896	718	1,403	4,023	3,372	831	110
1938*	3,098	724	1,440	4,673	3,994	771	127

* In addition—

	Medical Students.	*Dental Students.*	*Masseurs.*	*Chemist and Druggist Apprentices.*
1934	783	34	39	239
1935	877	27	43	247
1936	961	22	48	142†
1937	877	19	46	156
1938	950	14	73	150

† Reduction due to completion of indenture.

§ 7. Medical Inspection of Schools.

1. **Cape Province.**—Medical inspection in the schools of the province began in 1918. The method of inspection at present adopted is to inspect certain age groups each year, that is, all children born in certain years are inspected at each visit. These years are so chosen that children of 7-8 years and children of 14-15 years are inspected at a visit, that is, children just entering on their school life and those nearing its end. This ensures that each child is seen twice during its school course. In addition to these age groups, cases specially selected by the teachers are inspected, and those children found to require medical treatment at the last visit are reinspected to see if defects have been remedied.

Parents are notified of the time of the inspection, and are invited to be present, as it is possible to do much educative and preventive work, if the medical inspector can discuss the child with the parent. The medical inspector has legal authority to inspect any child in school, and this power has been used in cases where there was a suspicion of infectious disease or any other urgent reason for the inspection.

Treatment for defects of the teeth, nose and throat, and vision, as well as for minor ailments, is carried out by various services. School clinics have been established at municipal centres in Capetown and Port Elizabeth and are subsidized by the Provincial Administration. Aid on the pound for pound basis is also granted to various charitable agencies undertaking to arrange for medical treatment of necessitous children. In addition funds have been provided by the Administration for the treatment of children throughout the province. This is carried out by local doctors in the case of diseases of the nose and throat and minor ailments, by local dentists in the case of dental caries, and by part-time eye specialists sent to various parts of the province for children suffering from defective vision. The Cape Hospital Board runs a dental clinic for school children, both European and non-European; this clinic does conservative work, as well as extractions.

The Cape Province covers such a wide area and varies so much in climate and conditions of living, that it is very difficult to give a general summary of the physical condition of the children which would be true of all areas. Briefly, it may be said that dental decay is much commoner along the coastline than inland, while rheumatism, chorea, and diseases of the nose and throat are commoner at higher altitudes, being associated with the increased amount of dust inland. Malnutrition is much commoner than is usually credited, and, though in many instances it is due to poverty, it is also largely due to ignorance of food values, an unbalanced diet, and in times of drought and scarcity to a lack of milk and fresh foods. Bilharziasis is found in some of the eastern districts of the province only and malaria rarely occurs, except for occasional outbreaks along the Orange River, owing to the exceptional floods experienced there. Malta fever occurs in certain areas, and trachoma is found in some parts, usually where the Poor White problem is acute. On the whole the children come from healthy stock, and under good conditions develop well. But there is in all classes widespread ignorance as to the essentials for healthy living. With better knowledge of hygiene, an educated public opinion to raise the standard of health, and the provision of a complete service aiming at the prevention of defects, the number of children found defective at medical inspections would diminish rapidly, and the general level of health and efficiency would rise correspondingly.

Special attention is now being paid to the establishment of classes for children suffering from various types of deviation from the normal. There were, at the end of 1938, 82 special classes for subnormal and backward children with a total enrolment of 1,137. There were two schools for children who are crippled, and special teachers have been appointed to deal with the problem of the education of children who suffer from defects of hearing and speech.

The following tables show the number of children examined and the principal defects observed. A large percentage of children examined are handicapped by physical defects, even if minor cases and cases of early dental decay are omitted. It must be emphasized, however, that the figures contained in these tables include the children specially picked out by the teachers, and consequently reflect a higher number and percentage of defects than actually exist in the child population as a whole.

CAPE OF GOOD HOPE—MEDICAL INSPECTION OF SCHOOLS, 1934 TO 1938.

(*a*) NUMBER OF SCHOOLS VISITED, CHILDREN EXAMINED, AND CHILDREN SHOWING DEFECTS.

Year.	Number of Schools Visited.	Number of Children Examined.			Number of Children Showing Defects.			Percentage Defective.
		Boys.	Girls.	Total.	Boys.	Girls.	Total.	
Europeans.								
1934...	420	11,368	10,826	22,194	4,335	4,324	8,659	39·02
1935...	405	10,652	9,334	19,986	4,322	3,930	8,252	41·29
1936...	310	9,726	9,769	19,495	3,661	3,824	7,485	38·39
1937...	293	8,348	9,067*	17,415*	4,152	4,332	8,484	48·72*
1938...	293	6,349	6,739	13,088	3,178	3,150	6,328	48·35
Non-Europeans.								
1934...	26	1,099	1,000	2,099	565	510	1,075	51·21
1935...	17	740	676	1,416	338	295	633	44·70
1936...	18	915	727	1,642	485	347	832	50·67
1937...	15	677	650	1,327	367	329	696	52·45
1938...	23	856	673	1,529	548	392	940	61·48

* Amended figure.

(*b*) PRINCIPAL DEFECTS OBSERVED.

Year.	Malnutrition.	Teeth.	Nose and Throat.	Eye and Vision.	Ear and Hearing.	Skin.	Heart.	Anaemia.	Other Defects.
Europeans.—Boys.									
1934..	365	2,167	582	829	216	181	182	148	782
1935..	426	2,336	656	683	268	181	124	138	659
1936*.	405	1,792	476	864	172	178	57	72	519
1937*.	978	2,016	779	540	155	158	55	197	995
1938..	876	1,547	539	576	158	85	87	72	703
Europeans.—Girls.									
1934..	263	2,134	623	1,133	189	159	159	167	615
1935..	278	2,059	693	820	200	140	123	127	477
1936*.	243	1,874	573	1,142	119	165	67	115	492
1937*.	639	1,857	864	820	142	162	76	224	1,195
1938..	606	1,553	568	761	137	128	82	69	714
Non-Europeans.—Boys.									
1934..	116	313	47	106	54	30	15	25	116
1935..	72	189	24	68	28	7	5	14	50
1936*.	128	267	62	85	26	20	12	14	75
1937*.	87	206	40	46	24	13	8	12	76
1938..	223	282	42	99	47	16	7	18	114
Non-Europeans.—Girls.									
1934..	68	264	38	124	45	29	10	18	107
1935..	37	186	19	54	16	4	3	10	55
1936*.	57	185	28	75	18	13	3	11	50
1937*.	97	187	33	41	7	11	5	12	78
1938..	121	223	32	89	21	10	6	6	72

* Amended figures.

2. **Natal.**—From August, 1916, medical inspection was carried on as a voluntary service until the *Medical Inspection Ordinance*, No. 4 of 1918, was passed by the Provincial Council. The necessity for this Ordinance was apparent at a very early stage, as permission to examine verminous children and children suffering from contagious and infectious diseases, etc., i.e. those children who, from the point of view of public health, most needed medical inspection, was very frequently refused. There are two medical inspectors, with headquarters in Pietermaritzburg, and there are three school clinics, one in Pietermaritzburg, one in Durban, and one in Ladysmith. These clinics are attended by six school nurses: two in Pietermaritzburg, three in Durban, and one in Ladysmith. There is also a certificated masseuse in charge of the treatment at the Open Air School in Durban.

In the scheme of the medical inspection of schools are included periodical visits to all the government schools of the province, where about 12,000 children are examined annually. All parents are warned prior to medical inspection and may consult the medical inspector at the school regarding their children's health, free of charge. A notice is forwarded to parents regarding all children found to be defective, and where necessary a note to a family doctor is also included. No treatment or prescriptions, with the exception of minor dressings, are given at the schools. Children who require treatment are referred to their own family doctor or to a school clinic or a hospital. A record is kept of the defective children, and they are followed up by the school nurse at subsequent visits. The head teacher is also advised as to the limitations, etc., which should be placed on the school life of defective children.

Mentally defective children are referred wherever possible to the psychiatrist. A psychiatric clinic is held every week, if necessary, in Durban and once a month in Pietermaritzburg. School buildings and hostels are also inspected from a public health point of view at each visit.

Infectious diseases occurring in schools are notifiable to the Education Department, and after receipt of notification, the medical inspector or the school nurse pays a visit of inspection, if possible, and gives advice to the head teacher.

NATAL—MEDICAL INSPECTION OF SCHOOLS FOR EUROPEANS, 1934 TO 1938.

(*a*) NUMBER OF SCHOOLS VISITED, CHILDREN EXAMINED, AND CHILDREN SHOWING DEFECTS.

Year.	Schools Visited.	Children Examined.	Children Showing Defects.	Percentage Defective.
	No.	No.	No.	%
1934	52	7,861	2,342	29·8
1935	112	13,449	4,568	34·0
1936	97	10,874	3,523	33·4
1937	51	8,938	2,593	29·0
1938	77	10,810	4,082	37·7

(*b*) PRINCIPAL DEFECTS OBSERVED.

Year.	Malnutrition.	Verminous.	Teeth.	Eyes.	Ears.	Nose and Throat.	Intelligence.	Other Defects.
1934...	295	41	1,218	211	22	636	222	891
1935...	619	260	1912	823	69	1,819	213	1,043
1936...	258	132	1,191	321	27	1,780	83	1,385
1937...	284	96	1,034	360	35	2,028	151	982
1938...	339	87	1,992	459	58	826	136	1,061

3. **Transvaal.**—Medical inspection of schools was introduced in this province in 1914, but was interrupted on account of the war. In 1915 inspection of schools was resumed and the personnel has since been gradually increased. At the end of 1938 there were 5 full-time medical officers and 28 nurses in the service.

The medical inspectors of schools are stationed in Johannesburg, Boksburg, Potchefstroom, and Pretoria (2), and the school nurses have their headquarters in Pretoria, Johannesburg, Rustenburg, Ermelo, Lichtenburg, Potchefstroom, Wolmaransstad, Heidelberg, Middelburg, Pietersburg, and at the Merensky, Happy Rest, and Kuschke school farms.

The headquarters of the school medical service is in Pretoria. The service makes provision for inspection and treatment; the inspections are carried out

by the medical officers and treatment facilities are supplied by three school clinics. These clinics are situated in Johannesburg, Pretoria, and Potchefstroom. The Johannesburg and Pretoria clinics supply ophthalmological, otological, and psychological services in addition to the ordinary school clinic minor ailment work, while at the Potchefstroom clinic the usual clinic work only is carried out.

The Johannesburg clinic is still the main treatment centre for the Transvaal, but as soon as the clinic now in course of erection at Pretoria is completed, the cases from the northern areas will receive treatment there. At Johannesburg the specialistic services are performed by 2 ear, throat, and nose specialists, 2 eye specialists, 2 medical officers for minor ailments, and 2 anaesthetists; at Pretoria by 1 eye specialist; and at Potchefstroom by 1 medical officer for minor ailments. These are all part-time officers.

Through the close co-operation between the local hospitals and the School Medical Service, numerous cases are receiving attention at the various hospitals. The recent establishment of the Hope Home for Crippled Children in Johannesburg greatly facilitates the treatment and education of physically handicapped children. The speech clinic attached to the Department of Phonetics of the Witwatersrand University aids considerably in the correction of speech defects in school children.

The school dental work is performed by: Subsidized clinics; part-time dental surgeons in the smaller country towns; full-time travelling dentists in the rural schools.

The subsidized clinics are under the control of a board, on which the Provincial Administration is represented, and at present three such clinics are in operation, viz., at Johannesburg, Pretoria, and Springs. The clinics in Johannesburg and Pretoria each have two full-time dentists on the staff, while the practising dentists in each town render honorary services at regular hours. The Pretoria dental clinic has recently moved into a new building fully equipped with modern apparatus. New premises for the Johannesburg dental clinic are under construction and when these are completed the clinic, which will bear the title of "The Coronation Dental Infirmary", will be the largest institution of its kind in South Africa. The Springs dental clinic is staffed by the local dental practitioners who act for the most part in an honorary capacity.

The small country towns and their immediate surroundings are served by a part-time dental panel, while the rural schools are attended by full-time travelling dentists. This system has proved a great success. The full-time dental officers of the subsidized dental clinics and the full-time travelling dentists do regular inspections and lecture on oral hygiene. The full-time travelling dentists are supplied with motor transport and a portable equipment which enables them to perform the necessary treatment at the schools.

The method of routine medical inspection of schools employed is based on the group system. This system allows for the regular inspection of the *entrant* and *leaver* groups, and, when necessary, of special cases that may be presented for inspection by teachers, parents, or nurses. As far as possible groups are re-inspected during the year in order to determine the results of any treatment that may have been received since the last inspection.

The group system is, and can only be, followed in the larger urban schools. The inadequate staff and the smaller numbers of children in the rural schools, which are scattered over a wide area and are served by very indifferent roads, do not permit of its introduction into these schools. Where the group system cannot be followed the whole school is inspected at each visit.

The Transvaal Education Department has appointed a psychologist to assist in the examination of backward children and the organization of special classes for their education. It is hoped that the services of a psychiatrist may soon also be available for this work.

The school nurses supervise the personal cleanliness in the schools and report any undesirable condition in the children or on the premises which they may discover on their regular visits. They assist at inspections and pay home visits to parents when these are considered necessary. In the clinics the nurses give talks on general personal hygiene and demonstrate the essentials of home nursing and mothercraft to girls in the upper classes of the

schools. On the school farms the nurses supervise the health of the community and lecture, according to a fixed syllabus, on hygiene, nursing, and dietetics to the children. When necessity arises they nurse the sick and also inspect schools in the neighbourhood.

School hostels and school farms are now placed under the supervision of the school medical staff, and advice is given to the Department in respect of hygiene, diet, etc., at these institutions. The medical inspectors of schools also actively participate in the work of the Transvaal Bilharzia Committee and in cases of national emergency they co-operate with the Department of Public Health in dealing with outbreaks of epidemics.

During the first term of each year prospective candidates for the four normal colleges are examined by the school medical officers before they are finally accepted for training as teachers.

TRANSVAAL—MEDICAL INSPECTION OF SCHOOLS FOR EUROPEANS, 1934 TO 1938.

(*a*) NUMBER OF SCHOOLS VISITED, CHILDREN EXAMINED, AND CHILDREN SHOWING DEFECTS.

Year.	Number of Schools Visited.	Number of Children Examined.			Number of Children showing Defects.			Per-centage Defective.
		Boys.	Girls.	Total.	Boys.	Girls.	Total.	
1934...	53	2,451	2,196	4,647	1,087	977	2,064	44·4
1935...	198	4,803	4,505	9,308	2,522	2,448	4,970	53·4
1936...	203	6,952	6,406	13,358	4,068	4,035	8,103	60·7
1937...	112	6,138	5,420	11,558	3,085	2,877	5,962	51·6
1938...	95	3,026	2,708	5,734	1,642	1,479	3,121	54·4

(*b*) PRINCIPAL DEFECTS OBSERVED.

Year.	Malnu-trition.	Ears, Nose, and Throat.	Eyes and Vision.	Teeth.	Spleen.	Heart.	Bil-harziasis	Skin.	Other.
1934.....	323	343	163	896	15	26	84	15	374
1935.....	1,119	1,212	436	2,179	10	67	84	59	1,238
1936.....	1,611	1,039	519	3,974	70	101	367	223	3,495
1937.....	792	986	429	3,434	198	107	62	83	2,050
1938.....	1,008	501	284	1,771	23	46	28	48	459

4. **Orange Free State.**—A school medical service was instituted in July, 1920. There was one inspector until 1926, when an assistant was appointed. Two nurses were appointed in February, 1929. The staff was increased in 1938 to 3 inspectors and 3 nurses.

The existing methods of medical inspection and treatment are the natural outcome of a necessity to observe economy. The attendance of about one-third of the total school population of 43,000 is spread over some 565 small district schools and 94 town schools. It is estimated that a staff of at least 4 doctors and 8 nurses would be necessary to inspect each pupil three times during its school life.

Much has been achieved in securing the practical interest and co-operation of teachers, welfare workers, charitable organizations, local authorities, and the medical and dental professions. Teachers form the first line of contact with pupils and parents. Indigent parents apply to the magistrate for free treatment, which is as a rule carried out by the district surgeon. For special treatment, indigent pupils are conveyed to the provincial hospitals at the Provincial Administration's expense. During 1937 an agreement was arrived at between the Education Department and the Free State Dental Society, which made possible the institution of a scheme for dental treatment of indigent pupils similar to that existing in the Transvaal Province. A definite co-operative scheme will replace the sporadic efforts of charitable organizations.

To combat malnutrition, school feeding is provided by local committees at most schools. Milk and cheese are available through the scheme introduced by the Department of Agriculture and Forestry.

The estimate of the number of mentally defective children of the primary school population is based upon the examination mainly of a number of children selected by teachers on the ground of alleged mental deficiency, and is the mean average of widely divergent extremes, as the incidence of mental defects varies considerably in different parts of the country.

Seven special classes have recently been formed in Bloemfontein for the education of defective children.

ORANGE FREE STATE—MEDICAL INSPECTION OF SCHOOLS, EUROPEANS, 1934 TO 1938.

(*a*) NUMBER OF SCHOOLS INSPECTED, PUPILS EXAMINED, AND PUPILS SHOWING DEFECTS.

Year.	Schools Inspected.	Pupils Partially Examined.*	Pupils who Received Full Routine Examination.	Pupils with Defects Requiring Medical or Dental Treatment.	Percentage Defective of Pupils who Received full Routine Examination.
	No.	No.	No.	No.	
1934	68	5,927	3,141	2,270	[illegible]
1935	44	2,178	1,238	894	72·3
1936	86	4,880	2,923	2,041	69·8
1937	114	5,120	3,174	2,101	66·2
1938	91	17,500	935	848	90·7

* For malnutrition, infectious disease, etc., not referred to in (*b*).

(*b*) DEFECTS REQUIRING TREATMENT, OBSERVED AT FULL MEDICAL INSPECTION.

Year.	Malnutrition.	Teeth.	Nose and Throat.	Ears and Hearing.	Eyes and Vision.	Infectious Disease.	Miscellaneous.
1934	357	1,233	1,017	346	350	199	345
1935	156	488	365	171	196	110	187
1936	88	1,211	905	203	361	78	73
1937	234	1,408	904	183	349	167	98
1938	133	546	241	36	138	18	691

CHAPTER V.
SOCIAL CONDITION.

§ 1. Social Welfare.

1. **General.**—Social Welfare is the concern of the Union Government, the Provincial Administrations, local authorities, and private organizations. There is a separate Department of Social Welfare in the Union Government which administers certain Acts and administrative measures of a welfare nature and co-operates with private welfare bodies in carrying out these measures, but there are in addition various other departments, principally Labour, Education, Pensions, Public Health, and Native Affairs, which also concern themselves with certain specific aspects of the work. The Provincial Administrations deal with social welfare in so far as hospital services, education, poor relief, and the subsidizing of charitable institutions are concerned, but at present consideration is being given to the transfer of the functions of poor relief and the subsidizing of charitable institutions to the Department of Social Welfare. The extent to which local authorities interest themselves in social welfare matters differs from place to place. Some municipalities such as Johannesburg and Capetown are participating to an increasing degree in the work, and in the Cape Province a provincial ordinance requires that all local authorities should bear their share of additional and special poor relief. In so far as private organizations are concerned, nearly every field of social welfare is represented by a national body, which has local branches or affiliated societies. Some of these national bodies receive legislative or administrative recognition and co-operate closely with government machinery in the application of State provisions for social welfare.

2. **Department of Social Welfare.**—(i) *Organization.*—The Department of Social Welfare administers certain Acts such as the *Rents Act*, 1920, the *Work Colonies Act*, 1927, and with certain exceptions the provisions of the *Children's Act*, 1937, and the *Blind Persons Act*, 1936. It is also responsible for certain administrative schemes, such as invalidity grants for needy physically unfit European persons, the Girl's Training Scheme (Kappie Commando), two old age settlements, and welfare work on the alluvial diamond diggings. In addition the Department subsidizes private organizations in respect of crèches, hostels for low-paid wage earners, inebriate retreats, and domestic training schools. The Department makes grants towards the work of certain national welfare bodies, such as the National Councils for Child Welfare, for the Deaf, and for the Blind, and Social Services of South Africa, and subsidizes approved societies in respect of the employment by them of qualified social workers.

(ii) *Probation Service.*—The probation service, which is administered by the Department of Social Welfare, serves a dual purpose. It acts as district representative of the Department, keeping in touch with local welfare needs in each area and assisting the Department in the administration of the work, but principally it is concerned with the rehabilitation of children and young persons who come in conflict with the law, and with the protection of destitute, neglected, and uncontrollable children who are eligible for disposal under the *Children's Act*. To a limited extent probation officers co-operate further in connexion with the supervision of adult offenders who are placed on probation or released from prison.

The work includes the prevention of juvenile delinquency and neglect, the removal of social factors leading to maladjustment, investigation of cases for the courts and children's institutions, the supervision of probation cases and licencees from institutions, co-operation with private welfare organizations and inspections, and reports in connexion with the local administration of the Acts and other measures dealt with by the Department of Social Welfare.

At present there are 10 centres at which probation officers have headquarters, namely, Pretoria, Johannesburg, Benoni, Capetown, Durban, Pietermaritzburg, Port Elizabeth, East London, Kimberley, and Bloemfontein. The personnel consists of 26 probation officers, two native probation assistants, and 11 clerks.

The main private bodies co-operating with the courts and the probation services in connexion with their probation work are Social Services of South Africa, the child welfare societies and societies affiliated to the Nasionale Raad van Vroue Verenigings, and the Salvation Army. These organizations are subsidized by the Department to enable them to co-operate fully in the work.

Social Services of South Africa is an incorporation of the South African Prisoner's Aid Association and the Probation Association of South Africa and was formed at the end of 1935. The headquarters are in Johannesburg (Chairman of Central Council, P.O. Box 1331). The branches of these two constituent organizations exist in all the larger towns and in most cases the local branches have merged their identity and adopted the new name of Social Services of South Africa.

The objects of the Association are to provide for the social rehabilitation of persons and families who have displayed or are in danger of displaying anti-social or delinquent tendencies, or otherwise becoming a charge upon the community; to co-ordinate the activities of persons and organizations interested in social welfare problems and social work; to raise funds to be expended for the purposes of the Association; and to educate public opinion in the problem of social welfare, including delinquency.

The *Salvation Army* was established in South Africa in 1883. Its territorial headquarters, which supervises the work in the Union, is at Johannesburg (131, Commissioner Street). Its centres of work amongst European, Coloured, and native peoples throughout the Union number 317, embracing evangelistic, missionary, educational, and social operations. In the larger cities and towns, homes and hostels for men, youths, women, and girls have been established. There are two large farms for men, two splendidly equipped hospitals, and six homes for children. There are also native hospitals and dispensaries in the reserves.

Spiritual and social aid is rendered to all in need, regardless of race or creed, and the rehabilitation of the destitute, delinquent, and criminal sections of the community is one of the main features of the work of the organization.

(iii) *Welfare Work on Forestry Settlements.*—The welfare work on 18 out of 20 forestry settlements is administered by the Department of Social Welfare. There are 14 welfare officers and 18 nurses caring for an average of 1,131 settlers and their families, a total of 4,767. Some of these officials are responsible for the welfare work on more than one settlement where these are in close proximity to one another.

The services for which the Department is responsible include: Repair and maintenance of buildings; fencing of gardens; development of sports grounds and the organization of recreation and libraries; provision of additional water supplies; medical and nursing services; transport and supply of free firewood; transport of settlers to and from their working places; control of trading rights; administration of thrift and mutual benefit societies; organization of lectures and demonstrations in household economy; and general family and child welfare, including the placement of children in vocational training and work.

FORESTRY SETTLEMENTS AND NUMBER OF SETTLERS, 31st DECEMBER, 1938.

Name of Settlement.	Situation.	Number of Settler Families.	
		Provided for.	In residence.
Bergplaats	George District, C.P.	44	48
Bergplaats Extension	" "	32	28
Bergvliet	Eastern Transvaal	80	57
Berlin	" "	102	80
Blyde	" "	70	49
Brooklands	" "	50	32
Ceylon	" "	110	73
Coetzeestroom	" "	100	79
Jonkersberg	Eastern Cape Province	60	58
*Jonkershoek	Western " "	19	14
La Motte	" " "	65	58
Longmore	Eastern " "	50	42
Malieveld	Eastern Transvaal	19	15
Nelshoogte	" "	100	74
Nelsrivier	" "	50	38
Otterford	Eastern Cape Province	40	37
Spitskop	Eastern Transvaal	98	75
*Witklip	" "	40	20
Tweefontein	" "	100	78
Weza	Harding, Natal	118	79
	TOTAL	1,347	1,034

* The Department of Social Welfare is not responsible for welfare work at Jonkershoek and Witklip.

(iv) *Compulsory Work Colonies.*—The *Work Colonies Act*, 1927, provides for the detention in work colonies of (*a*) any person over the age of 21 years who, being a habitual beggar or failing to support his family and having no adequate means of support, refuses work offered him, and (*b*) persons over the age of 19 years who are convicted of vagrancy, illegal supply of intoxicating liquor, contravention of sub-section (2) of section 16 of the *Children's Act*, 1937, or theft.

The period of detention is from one to five years and provision is made for the admission of inmates' wives and children.

Work colonies have been established at Simonstown and Swartfontein; the former, which is for coloured persons, was opened on the 1st March, 1938, and the latter, which is for Europeans, on the 1st December, 1938. At Simonstown provision was at the outset made for 20 inmates, but it was found necessary during the course of the year to increase the number to 40. At Swartfontein provision has been made for 25 inmates.

The main value of these institutions is not to be sought in the number of "won't works" accommodated, but rather in the salutary moral effect they have upon persons who would otherwise refuse employment offered. It would appear that the establishment of the Simonstown work colony has had this effect, and it is anticipated that the Swartfontein Colony will similarly act as a deterrent to Europeans.

(v) *Special Battalion for Girls.*—A Girls' Training Centre was established at Pretoria as from the 1st March, 1939, to tide young European women over the period between leaving school and obtaining employment. Instruction is given in domestic science, hygiene, and physical culture, and where some special aptitude is shown arrangements will be made for a transfer to a suitable institution.

Applicants must be South African nationals of strictly European descent, not less than 16 or more than 22 years of age, and unmarried. Enrolment is for a period of one year, which may in certain circumstances be reduced to six months. Board and lodging, clothing, medical attendance, and transport are provided free of charge. In addition there is an allowance of 1s. per day, half of which is payable on discharge.

3. Social Welfare Functions of Provincial Administrations.—The four Provincial Administrations are responsible for poor relief, the subsidization of charitable institutions, and the provision of those medical and educational services which are free. Particulars regarding their expenditure under these heads may be found in Chapter XV.

The Cape and Transvaal Provincial Administrations have accomplished a degree of co-ordination of private welfare work within their respective provinces. In the Cape this has been achieved through the registration of approved agencies, while in the Transvaal provision has been made for the establishment of boards of charities in certain centres.

The Charitable Institutions (Control) Ordinance, No. 5 of 1926, as amended in 1931 and 1933, gives the Administrator of the Transvaal power to constitute advisory boards or boards of control relating to charitable institutions. The Johannesburg Board of Charities is established under this Ordinance. Its functions and duties include:—

(*a*) Directing, stimulating, and controlling social, philanthropic, and charitable effort, and securing co-operation and co-ordination in public assistance.

(*b*) Co-ordinating the activities of charitable institutions so as to prevent overlapping.

(*c*) Establishing an exchange of information between such institutions and combating mendicancy.

(*d*) Advising the Administrator regarding the administration of the Ordinance and the making of grants-in-aid to institutions within its area.

(*e*) Keeping a register of all charitable institutions situated within its area.

In carrying out its duties, the Board has powers of enforcing the giving of information, inspecting the premises owned or occupied by institutions, and of requiring bodies to make use of prescribed forms; it may also prohibit or grant certificates for appeals to the public for funds, and may from time to time make regulations in regard to matters falling within its mandate.

One of the Board's most significant achievements is the establishment of a Social Service Exchange, where records are kept of all cases receiving attention from registered agencies. This service brings various agencies in touch with one another where more than one is concerned with the same case, and thereby promotes co-operative work.

A *Social Welfare Committee*, consisting of two representatives elected by each charitable institution in possession of a certificate issued under Ordinance No. 5 of 1926, was established by the Board in June, 1933. Its functions and duties are to advise the Board as to methods for the co-ordination of the work of all existing charitable institutions and for widening and extending their incidence. The executive of this committee is acting as the district committee for the administration of the government scheme for assistance to needy physically unfit European persons.

The *Jackhammer Work Committee*, consisting of representatives of the City Council, the Department of Labour, and the Board of Charities, was established by the Board in January, 1938, for the purpose of supervising the administration of a fund allocated by the City Council for *ex gratia* payments to the dependants of workmen who contracted silicosis whilst employed by contractors on sewerage works for the City Council.

4. **Private Welfare Organizations.**—The number of private welfare organizations may be estimated at approximately 1,000, not including the social welfare committees of ecclesiastical bodies. Some are purely local, while others have provincial and national ramifications. Their functions are by no means mutually exclusive; indeed, some of these organizations concern themselves with every aspect of social welfare, while others specialize in one particular field. The importance of their work can hardly be over-estimated, including as it does the financing of social welfare undertakings, assistance with the administration of social legislation, provision of poor relief, the rehabilitation of maladjusted families and persons, the formulation of policy with regard to the treatment of social problems, and the co-ordination of social welfare effort. The most important of these organizations are those that have attained national proportions. They include the following: Die Federale Raad van Vroue Verenigings, the National Council for Child Welfare, the National Council for the Blind, the National Council for the Deaf, Social Services of South Africa, the Salvation Army, the Institute of Race Relations, Die Volkskongres Continuation Committee, the Women's Agricultural League, the South African Red Cross Association, the South African Temperance Alliance, the South African National Council for Maternal and Family Welfare, the South African National Council for Mental Hygiene, and the British Empire Service League. Details regarding the work of some of these organizations are given under the appropriate sections later in this chapter.

5. **The Training of Social Workers.**—The distribution of poor relief was at one time looked upon as the main function of charitable bodies; but, while this aspect of the work still receives a great deal of attention, it is gradually being recognized that the emphasis should be upon family reconstruction in preference to mere amelioration of distress and upon the improvement of social conditions, with a view to the prevention of deterioration. Social reconstruction is an exacting task requiring a thorough knowledge of social and economic conditions and individual psychology. It is, therefore, not surprising that charitable organizations are looking increasingly to trained social workers for guidance, while the universities have turned their attention to the provision of the necessary training facilities.

Professional training for social work is now provided at the universities of Stellenbosch, Capetown, Pretoria, and Johannesburg, and at Potchefstroom University College. Other colleges are at present considering the introduction of similar courses: in addition, the Dutch Reformed Church has established a course for church welfare workers at Friedenheim, Wellington, and a school for coloured social workers at Capetown.

The field of employment for professionally qualified social workers includes government service, universities, children's institutions, and private welfare organizations. In the last named sphere trained workers are usually employed as organizers, secretaries, and investigators. The Department of Social Welfare has a scheme whereby national welfare organizations and their affiliated societies or branches may be subsidized in respect of 75 per cent. of the salaries of approved social workers appointed by them. The scheme provides at present for 30 such subsidized workers, but is being extended. This provision has given a needed stimulus to the appointment of qualified persons by societies and has made possible better scales of remuneration than was previously the case where societies were obliged to meet the entire salaries out of their own limited funds.

§ 2. Charitable Institutions.

The following particulars are furnished in respect of government, government-aided, and private institutions, the object of which is to afford relief, protection, or shelter to those persons who are in distress, in need of succour, or homeless. Such institutions include orphanages, children's homes, boarding houses for indigent school children, crèches, homes for convalescents, inebriates and drug addicts, aged, or infirm persons, institutions for deviates, decrepit and chronic sick persons, rescue homes, social farms, shelters for men and women, almshouses, and kindred institutions, but do not include benevolent or friendly societies, charity organizations, hospitals, maternity homes, sanatoria, lazarettos, or infectious diseases hospitals.

(i) CHARITABLE INSTITUTIONS, 1933-34 TO 1937-38.

Year.	Number of Institutions.	Staff.		Accommodation. Number of Beds.		Inmates at end of Year.		Revenue.	Expenditure.
		European.	Non-European.	European.	Non-European.	European.	Non-European.		
								£	£
1933-34	188	1,226	577	12,349	1,351	11,167	1,326	462,297	460,671
1934-35	186	1,246	617	12,605	1,446	11,536	1,338	477,894	467,989
1935-36	230	1,430	831	14,727	1,727	13,276	1,734	555,605	541,146
1936-37	231	1,456	873	14,934	1,798	13,389	1,880	588,224	566,408
1937-38	237	1,549	981	15,403	2,286	13,608	2,137	723,493	706,117

(ii) CLASS OF INSTITUTION, 1937-38.

Class of Institution.	Number of Institutions.	Staff.		Accommodation. Number of Beds.		Inmates at End of Year.		Revenue	Expenditure.
		European.	Non-European.	European.	Non-European.	European.	Non-European.		
								£	£
Orphanages and Children's Homes	106*	881	483	8,729	1,301	8,005	1,330	333,225	329,415
Boarding Houses for Indigent School Children.	48	118	147	2,745	—	2,546	—	49,647	48,553
Homes for Aged Persons	30	239	171	1,899	447	1,541	301	214,770	205,320
Rescue Homes	16	103	36	636	125	507	113	33,877	34,245
Men's and Women's Shelters	19	81	36	864	80	664	62	30,383	29,801
Convalescent Homes	5	41	41	221	62	148	62	18,416	17,509
Social Farms	2	38	15	66	—	53	—	18,480	18,081
Institutions for Deviates	8	41	48	168	271	85	269	20,863	20,041
Homes for Inebriates and Drug Addicts	2	4	2	51	—	34	—	2,486	2,070
Health Institutions	1	3	2	24	—	25	—	1,352	1,082
TOTAL	237	1,549	981	15,403	2,286	13,608	2,137	723,493	706,117

* Six children's homes are also homes for the aged.

(iii) CHARITABLE INSTITUTIONS—REVENUE, 1933-34 TO 1937-38.

Year.	Government and other Grants.	Fees from Inmates.	Collections, Subscriptions, and Donations.	Other Revenue.	Total Revenue.
	£	£	£	£	£
1933-34	172,465	49,693	140,537	99,602	462,297
1934-35	188,149	55,340	134,186	100,219	477,894
1935-36	222,570	67,267	138,328	127,440	555,605
1936-37	238,303	65,792	161,692	122,437	588,224
1937-38	360,727	81,704	155,195	125,867	723,493

(iv) REVENUE FOR EACH CLASS OF INSTITUTION, 1937-38.

Class of Institution.	Government and other Grants.	Fees from Inmates.	Collections, Subscriptions, and Donations.	Other Revenue.	Total Revenue.
	£	£	£	£	£
Orphanages and Children's Homes	136,884	27,343	109,300	59,698	333,225
Boarding Houses for Indigent School Children	45,157	2,534	660	1,296	49,647
Homes for Aged Persons	150,524	27,277	21,270	15,699	214,770
Rescue Homes	9,458	2,492	8,528	13,399	33,877
Men's and Women's Shelters	4,119	17,363	4,710	4,191	30,383
Convalescent Homes	2,367	1,568	2,921	11,560	18,416
Social Farms	345	1,231	623	16,281	18,480
Institutions for Deviates	9,411	1,372	6,411	3,669	20,863
Homes for Inebriates and Drug Addicts	1,912	504	—	64	2,480
Health Institutions	550	20	772	10	1,352
TOTAL.....£	360,727	81,704	155,195	125,867	723,493

(v) CHARITABLE INSTITUTIONS—EXPENDITURE, 1933-34 TO 1937-38.

Year.	Salaries and Wages.	Maintenance of Inmates.	Buildings.	Other Expenditure.	Total Expenditure.
	£	£	£	£	£
1933–34..	105,621	214,702	26,271	114,077	460,671
1934–35..	105,482	229,637	27,926	104,944	467,989
1935–36..	118,899	266,472	50,035	105,740	541,146
1936–37..	123,812	291,062	52,100	99,434	566,408
1937–38..	145,662	322,717	134,755	102,983	706,117

(vi) EXPENDITURE FOR EACH CLASS OF INSTITUTION, 1937-38.

Class of Institution.	Salaries and Wages.	Maintenance of Inmates.	Buildings.	Other Expenditure.	Total Expenditure.
£					
Orphanages and Children's Homes	£ 76,482	£ 171,696	£ 24,214	£ 57,023	£ 329,415
Boarding Houses for Indigent School Children	8,428	29,984	6,513	3,628	48,553
Homes for Aged Persons	31,366	63,124	92,822	18,008	205,320
Rescue Homes	5,544	17,364	6,989	4,348	34,245
Men's and Women's Shelters	7,162	19,433	1,638	1,568	29,801
Convalescent Homes	5,961	7,869	627	3,052	17,509
Social Farms	2,935	3,786	27	11,333	18,081
Institutions for Deviates	7,007	7,946	1,529	3,559	20,041
Homes for Inebriates and Drug Addicts	582	922	337	229	2,070
Health Institutions	195	593	59	235	1,082
TOTAL.....£	145,662	322,717	134,755	102,983	706,117

§ 3. Family Welfare.

1. **Family Welfare Organizations.**—Apart from the financial relief given to destitute families and individuals by the State, family welfare work is largely conducted by private welfare bodies. Indeed, individual family case-work may be said to be almost entirely in their hands. Two national bodies which are of a non-sectarian nature are the Suid-Afrikaanse Federale Vroue-raad and the South African Women's Agricultural Union. In addition there are church organizations which carry out relief and family welfare wo.. within specific denominational groups. These include the Algemene Armesorg-kommissies of the Dutch Reformed Church; Jewish Benevolent Societies (no national organization); the Catholic Women's League and the Society of St. Vincent de Paul (no national headquarters, but attached to the Vicariate of the Roman Catholic Church in each province); and the Mothers' Unions of the various churches. The Salvation Army is a religious body which does not confine its work to any specific creed.

The *Suid-Afrikaanse Federale Vroueraad* was established in 1921 and is a federation of the four provincial charitable organizations known as the Oranje-Vrouevereniging (O.V.V.); Afrikaanse Christelike Vrouevereniging (A.C.V.V., Cape Province); Suid-Afrikaanse Vroue Federasie (S.A.V.F., Transvaal); and Natalse Christelike Vrouevereniging (N.C.V.V.). Two of these constituent bodies—the A.C.V.V. and the S.A.V.F.—were formed in 1902, the others subsequently. Each of them is composed of a large number of branch societies, both urban and rural. The main functions of the Federation are to co-ordinate the work of the four provincial organizations and when necessary to undertake unified representations to the Government, as well as to co-operate with other national organizations.

The Federale Vroueraad holds conferences at regular intervals. It has sponsored many phases of social work, such as rural and urban nursing services, training of midwives and social workers, child welfare, mothercraft training, rehabilitation of poor white families, housecraft training centres, bursaries for lower and higher education, clinics, clubs and hostels for young people, and fund raising.

There are two publications issued by branches of the Federale Vroueraad, viz., *Vrou en Moeder* by the northern branches and *Eendrag* by the Cape Province branches.

The *South African Women's Agricultural Union* was formed in 1931 and consists of the four provincial women's agricultural organizations: The Women's Section of the Transvaal Agricultural Union, formed in 1925; the Federation of Women's Institutes of Natal, East Griqualand, Zululand, and Pondoland, formed in 1928; the Cape Province Women's Agricultural Association, formed in 1929; and the Orange Free State Women's Agricultural Association, formed in 1930. Each of these provincial bodies is composed of a large number of affiliated branches or institutes, which have the following common objects:—

(*a*) To develop initiative and latent talent in members;

(*b*) to bring expert instruction in home economics, agriculture, co-operation, marketing, handicrafts, health, hygiene, social welfare, etc., to members;

(*c*) to encourage the establishment of rural libraries and other educative aids;

(*d*) to study national economics and other matters of general interest;

(*e*) to assist in establishing depots or market stalls for the sale of members' products;

(*f*) to promote social intercourse and recreation among country women;

(*g*) to establish centres in towns where demonstrations in labour-saving devices, lectures, exhibitions of work, etc., may be held.

Each year the organization stages an inter-provincial handicrafts exhibit at one of the four leading shows of South Africa, viz., the Witwatersrand, Rosebank (Capetown), Bloemfontein, and Pietermaritzburg Shows.

Conferences are held annually by the Agricultural Union and also by its constituent bodies. The Honorary Secretary's address is: Stettyn, Worcester, Cape Province.

2. **Friendly Societies.**—There is no existing legislation governing friendly societies except the *Friendly Societies Act*, No. 5 of 1892 (Cape). A parliamentary Select Committee in 1937 recommended that funeral companies and burial societies should come under the *Insurance Act*, No. 37 of 1923. The subjoined tables contain particulars of friendly societies. The figures relate to all societies, lodges, clubs, and other associations established primarily

for the purpose of granting financial assistance to members or their dependants in case of incapacitation, sickness, death, unemployment, or other causes; insurance companies are not included.

FRIENDLY SOCIETIES, 1933-34 TO 1937-38.

(i) NUMBER OF SOCIETIES, BENEFIT MEMBERS, ETC.

Year.	Number of Societies.	Funds.†				Benefit Members.	
		Cash.	Securities.	Other.	Total.	Admitted during Year.	At End of Year.
Friendly Societies Proper.							
		£	£	£	£		
1933-34	95	—	—	—	360,589	2,545	35,473
1934-35	96	—	—	—	360,734	3,511	37,166
1935-36	97	—	—	—	371,184	6,321	41,072
1936-37	96	—	—	—	350,247	3,143	32,962
1937-38	94	76,687	235,647	23,623	335,957	4,724	34,762
Mine Benefit Societies.							
		£	£	£	£		
1933-34	36	—	—	—	178,645	10,503	28,478
1934-35	37	—	—	—	179,763	11,696	31,265
1935-36	43	—	—	—	177,764	14,390	35,157
1936-37	45	—	—	—	185,025	13,819	38,643
1937-38	44	71,348	117,687	9,661	201,696	14,498	40,869
Friendly Insurance Societies.							
		£	£	£	£		
1933-34	11	—	—	—	346,344	3,565	35,601
1934-35	12	—	—	—	395,497	3,825	38,150
1935-36	13	—	—	—	548,541	7,033	71,205
1936-37	8	—	—	—	487,802	2,510	38,254
1937-38	8	37,077	480,908	29,686	547,671	3,298	39,561
Railway Friendly Societies.							
		£	£	£	£		
1936-37*	17	—	—	—	432,741	19,757	123,668
1937-38	19	150,765	319,943	6,068	476,776	25,038	138,493
Total.							
		£	£	£	£		
1933-34	142	—	—	—	885,578	16,613	99,552
1934-35	145	—	—	—	935,994	19,032	106,521
1935-36	153	—	—	—	1,097,489	27,744	147,434
1936-37	166	—	—	—	1,455,815	39,229	233,527
1937-38	165	338,877	1,154,185	69,038	1,562,100	47,558	253,425

* Figures for 13 societies in this section not obtained prior to 1936-37. The other 4 societies included in above sections for previous years.

† New classification from 1937-38.

FRIENDLY SOCIETIES, 1933-34 TO 1937-38—(*continued*).

(ii) DEATHS AND SICK BENEFITS.

Year.	Deaths.		Sick Benefits.	
	Members.	Registered Wives of Members.	Recipients. Number.	Period. Weeks.
Friendly Societies Proper.				
1933-34	285	115	7,669	23,928
1934-35	293	127	8,617	25,365
1935-36	308	150	10,298	29,827
1936-37	228	43	3,495	15,134
1937-38	218	92	4,140	14,606
Mine Benefit Societies.				
1933-34	310	89	5,876	10,851
1934-35	330	89	7,206	13,405
1935-36	420	119	8,905	16,361
1936-37	371	75	9,487	18,053
1937-38	395	97	10,452	19,597
Friendly Insurance Societies.				
1933-34	313	17	—	—
1934-35	347	21	—	—
1935-36	552	6	—	—
1936-37	284	5	—	—
1937-38	311	1	—	—
Railway Friendly Societies.				
1936-37*	665	274	8,856	18,200
1937-38	708	172	18,611	27,283
Total.				
1933-34	908	221	13,545	34,779
1934-35	970	237	15,823	38,770
1935-36	1,280	275	19,203	46,188
1936-37	1,548	397	21,838	51,387
1937-38	1,662	362	33,203	61,486

(iii) REVENUE AND EXPENDITURE.

Year.	Revenue.			
	Entrance Fees.	Members' Contributions and Levies.	Other.	Total.
Friendly Societies Proper.				
	£	£	£	£
1933-34	554	148,080	34,083	182,717
1934-35	569	160,433	33,026	194,028
1935-36	1,450	163,464	43,026	207,940
1936-37	578	129,552	40,589	170,719
1937-38	585	130,503	42,715	173,803
Mine Benefit Societies.				
	£	£	£	£
1933-34	259	263,485	24,090	287,834
1934-35	615	298,574	28,516	327,705
1935-36	1,692	345,171	32,885	379,748
1936-37	355	380,097	33,045	414,397
1937-38	437	412,994	43,901	457,332

* Figures for 13 societies in this section not obtained prior to 1936-37. The other 4 societies included in above sections for previous years.

FRIENDLY SOCIETIES, 1933-34 TO 1937-38—(*continued*).

(iii) REVENUE AND EXPENDITURE—(*continued*).

Year.	Revenue.			
	Entrance Fees.	Members' Contributions and Levies.	Other.	Total.
Friendly Insurance Societies.				
1933-34	£ 162	£ 71,778	£ 17,834	£ 89,774
1934-35	136	82,004	17,336	99,476
1935-36	408	135,561	19,320	155,289
1936-37	33	67,443	17,899	85,375
1937-38	29	83,743	23,321	107,093
Railway Friendly Societies.				
1936-37*	£ 1,634	£ 273,781	£ 8,696	£ 284,111
1937-38	2,477	298,660	11,783	312,920
Total.				
1933-34	£ 975	£ 483,343	£ 76,007	£ 560,325
1934-35	1,320	541,011	78,878	621,209
1935-36	3,550	644,196	95,231	742,977
1936-37	2,600	851,773	100,229	954,602
1937-38	3,528	925,900	121,720	1,051,148

Year.	Expenditure.							
	Sick Pay.	Medical Attention.	Amount Paid at Death of—		Other Benefits Paid.	Administration.	Other.	Total.
			Members.	Registered Wives of Members.				
Friendly Societies Proper.								
1933-34.	£ 28,653	£ 79,208	£ 14,857	£ 3,353	£ —	£ 19,302	£ 23,283	£ 168,656
1934-35.	32,578	86,294	13,567	5,249	—	19,071	22,959	179,718
1935-36.	37,878	84,764	14,794	3,266	—	20,032	36,440	197,174
1936-37.	15,363	89,332	8,438	978	—	15,316	21,255	150,682
1937-38.	16,516	99,376	7,249	1,101	1,406	15,777	20,507	161,932
Mine Benefit Societies.								
1933-34.	£ 26,302	£ 164,816	£ 28,422	£ 22	£ —	£ 20,628	£ 52,957	£ 293,147
1934-35.	30,446	188,582	28,935	40	—	16,042	58,429	322,474
1935-36.	37,150	192,036	40,373	—	—	16,427	89,247	375,233
1936-37.	40,565	199,792	34,167	—	—	16,290	97,500	388,314
1937-38.	46,256	223,261	47,101	—	2,930	17,963	111,499	449,010
Friendly Insurance Societies.								
1933-34.	£ —	£ —	£ 33,848	£ 1,845	£ —	£ 4,419	£ 8,129	£ 48,241
1934-35.	—	—	36,605	1,700	—	4,564	7,017	49,886
1935-36.	—	—	75,738	400	—	8,159	6,315	90,612
1936-37.	—	—	29,908	150	—	3,781	5,401	39,240
1937-38.	—	—	36,962	50	6,120	4,179	800	48,111
Railway Friendly Societies.								
1936-37*	£ 69,959	£ 7	£ 84,294	£ 6,475	£ 27,990	£ 27,304	£ 2,423	£ 218,452
1937-38.	92,376	9	95,779	7,789	28,970	30,631	3,179	258,733
Total.								
1933-34.	£ 54,955	£ 244,024	£ 77,127	£ 5,220	£ —	£ 44,349	£ 84,369	£ 510,044
1934-35.	63,024	274,876	79,107	6,989	—	39,677	88,405	552,078
1935-36.	75,028	276,800	130,905	3,666	—	44,618	132,002	663,019
1936-37.	125,887	289,131	156,807	7,603	27,990	62,691	126,579	796,688
1937-38.	155,148	322,646	187,091	8,940	39,426	68,550	135,985	917,786

* Figures for 13 societies in this section not obtained prior to 1936-37. The other 4 societies included in above sections for previous years.

3. **South African Railways and Harbours Sick Fund.**—This fund has been inaugurated entirely for the benefit of the Railways and Harbours staff. The members are required to contribute to the fund in accordance with their marital liabilities, and the Department makes a large annual contribution towards its maintenance. The membership, including dependants, at the last enumeration at the 1st October, 1936, numbered: Europeans, 183,534; and non-Europeans, 20,106. The following tables give information relating to the revenue, expenditure, and credit balances of the fund over a series of five years:—

SOUTH AFRICAN RAILWAYS AND HARBOURS SICK FUND, 1933-34 TO 1937-38.

Particulars.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
(i) REVENUE.					
Members' Contributions	£ 202,801	£ 210,291	£ 221,925	£ 233,258	£ 248,724
Administration's Contributions	212,610	222,608	241,626	257,323	275,049
Interest	1,081	1,263	1,313	1,316	1,164
Miscellaneous	127	109	118	233	3,996
TOTAL £	416,619	434,271	464,982	492,130	528,933
(ii) EXPENDITURE.					
Sick Pay	£ 77,179	£ 88,408	£ 109,209	£ 111,329	£ 144,295
Medical Attendance	220,462	232,577	235,765	252,349	267,205
Hospital Expenses	88,411	91,797	93,864	104,184	111,632
Dental Services	5,895	6,729	7,070	7,441	7,325
Administration	14,072	15,020	16,611	20,275	20,563
Extraordinary Expenditure	—	144	214	141	49
TOTAL £	406,019	434,675	462,733	495,719	551,069
(iii) FUNDS.					
Invested	£ 29,950	£ 29,950	£ 29,950	£ 29,985	£ 9,995
Not Invested	9,882	10,169	10,328	5,361	—
TOTAL £	39,832	40,119	40,278	35,346	9,995

4. **National Health Insurance.**—A committee of inquiry was appointed in November, 1935, under the chairmanship of Mr. James Collie, O.B.E., to consider and report upon the practicability of the introduction in South Africa of a scheme of National Health Insurance for the purpose of providing adequate medical advice and assistance to any section of the population for which at present inadequate provision is made. The committee's report was published in March, 1937 (U.G. No. 41, 1936).

5. **Unemployment Benefit Act.**—The provisions of the Act, No. 25 of 1937, were outlined in *Official Year Book* No. 18 (see pages 226-228), and a summary of the main features of the regulations framed thereunder appeared on pages 216 and 217 of No. 19 of this publication. The Act and regulations came into operation on the 1st January, 1938, and in terms of section 24 the Minister of Labour appointed the following persons as members of the central authority for unemployment benefit funds:—

W. D. Norval, Under-Secretary for Labour, Chairman.
H. L. Parker, Accountant, Department of Labour.
Ex officio, the Industrial Registrar, Department of Labour.

During the year applications for the establishment of funds were received from a number of organizations registered in respect of the eight scheduled industries, and these received the attention of the Department and the central authority. Although in terms of section 4 (2) of the Act the Minister has authority to establish a fund without reference to the industry, this method of procedure has to date not been resorted to, the method adopted being to interest all bodies concerned in the legislation and to secure applications from

them in terms of sub-section (1) of this section, before the establishment of funds is proceeded with. One fund has so far been established—that for the motor engineering industry in the Transvaal with effect from 1st September, 1938. Contributions to this fund became due with effect from the 3rd October, 1938.

6. **Housing and Slum Clearance.**—(i) *Housing Loan Funds.*—In 1920 a *Housing Act* (No. 35) was passed by the Legislature, which empowered local authorities to borrow money from the State for the purpose of themselves constructing dwellings of limited size or cost or lending to approved borrowers for building. The rate of interest chargeable on the money is determined by the Treasury. The Central Housing Board, constituted under section 18, is required to examine all plans and detailed proposals and to report thereon to the Administrator of the province concerned, who is the approving authority under the Act. A brief summary of the three schemes in operation is given in (*a*), (*b*), and (*c*) hereunder:—

(*a*) *Economic Housing.*—The Government's commitment for this class of housing stands at £5,000,000. To this must be added sums totalling £1,790,553, which represents repayments of capital made by local authorities to Provincial Administrations from the commencement of the Act up to 31st December, 1938, and became available for re-issue. Advances made to local authorities may be utilized for financing their own schemes for the erection of dwellings for sale or letting, or for granting housing loans to approved individuals for the construction of their own houses, or to approved utility companies or societies for building houses for sale or letting. The interest, originally fixed at ¼ per cent. per annum, was increased to 5 per cent., reduced to 4 per cent., and subsequently reduced to 3½ per cent., at which rate it stands at present. On this basis up to the 31st December, 1938, municipal housing schemes and housing loan applications approved on the recommendation of the Central Housing Board involved a total commitment of £5,923,799. Particulars are given hereunder.

HOUSING ACT: CONSTRUCTION AND LOANS AUTHORIZED AND ISSUES MADE FROM ECONOMIC HOUSING LOAN FUNDS TO 31st DECEMBER, 1938.

Province.	Municipal Schemes and Dwellings.	Individual Housing Loans.	Total Loans.	Total Issues.	Dwellings for Occupation by—		Total Dwellings.
					Europeans.	Non-Europeans.	
	£	£	£	£			
Cape of Good Hope	1,491,204	774,038	2,265,242	2,163,227	2,576†	5,072‡	7,648
Natal	615,145	86,269	701,414	641,806	581	636§	1,217
Transvaal	992,530	1,341,597	2,334,127	2,144,003	2,678	2,488¶	5,166
Orange Free State	123,085	499,931	623,016	588,074	771†	1,640‖	2,411
TOTAL	3,221,964	2,701,835	5,923,799	5,537,110*	6,606	9,836	16,442

* Includes a sum of £1,790,553 re-issued out of capital repayments.
† Includes one hostel for European girl employees.
‡ Includes 1,255 single rooms in blocks, 6 barracks, 160 flats, and 1 hostel.
§ Includes 3 barracks and 36 single rooms in blocks.
‖ Includes 1,148 dwellings (representing the number it is estimated to complete out of loans authorized for use exclusively in purchasing materials to be advanced to coloured persons and natives building their own homes) and 24 single rooms in blocks.
¶ Includes 13 hostels, 3 compounds, and 338 single rooms in blocks.

The *Additional Housing Act* (No. 41 of 1937) was passed during the 1937 Session of Parliament and enables assistance to be rendered to persons desirous of constructing houses by means of a loan raised through the medium of a building society. The loan may not exceed 90 per cent. of the cost of the land and the house to be erected thereon. The building society may advance out of its own funds two-thirds of the loan, and the Government will advance one-third, the rate of interest on the loan being determined at two-thirds of the rate charged by the society for loans in the area or locality in which the property tendered as security is situate, together with one-third of the rate payable on the amount advanced by the Government. The rate of interest on amounts advanced by the Government is as fixed by the Treasury and is at present 3½ per cent. The period of the loan may not exceed 20 years. All applications for loans must be made through a building society, which will make advances to the applicant, who will be required to make

all payments of interest and redemption to the society. The maximum building loan and the maximum income of persons who may be assisted under this scheme are as follows:—

(*a*) At all centres in which the wages of the building industry are prescribed in terms of the *Industrial Conciliation Act*, No. 11 of 1924, or the *Wage Act*, No. 27 of 1925 — Maximum loan, £1,350. Maximum income, £500 with an additional £50 for each dependant in excess of three.

(*b*) At other centres — Maximum loan, £1,100. Maximum income, £400 with an additional £30 for each dependant in excess of three.

Every person who obtains a loan under this scheme will be required to complete a mortgage bond covering the land and all improvements thereon and to sign an irrevocable power of attorney in favour of the building society. The Regulations made under the Act provide for certain inspections to be carried out during the progress of construction and on completion of the house.

From March, 1938, when the first applications under this Act were received, to 31st December, 1938, loans totalling £523,682 were approved, of which the Government advances amounted to £174,561. The number of houses erected under this scheme up to the end of 1938 was 478.

(*b*) *Sub-economic Housing.*—The sub-economic housing scheme is designed to assist low-paid workers in receipt of wages too small to permit of their participating under Scheme (*a*). A sum of £13,000,000 has been set aside for this class of housing, the interest originally being fixed at 3 per cent. per annum with subsequent reductions to 2 per cent. and then to the present rate of ¾ of one per cent. Loans are restricted to the building, either by the local authority itself or by an approved utility company or society out of a housing loan received from a local authority, of houses solely for letting purposes. On introduction of this scheme in July, 1930, the condition was laid down that in the case of houses built by a local authority the rentals be fixed at a figure involving the local authority in a loss equal to the Government's loss in advancing the money at the sub-economic rate of interest, this condition being subsequently modified so as to require that the local authority's loss equals half that of the Government. No such loss is required to be borne by utility companies building houses, but, whereas in the case of a local authority scheme an advance covering the full cost thereof may be made, a housing loan for financing a utility company scheme may not exceed 80 per cent. of the cost thereof. Particulars of loans authorized and house construction under these proposals in each province are included in the appended table.

HOUSING ACT: CONSTRUCTION AND LOANS AUTHORIZED AND ISSUES MADE FROM SUB-ECONOMIC HOUSING LOAN FUNDS IN EACH PROVINCE TO 31st DECEMBER, 1938.

Province.	Loan Applications Approved.			Loan Issues.	Dwellings for Occupation by—		Total Dwellings.
	European.	Non-European.	Total.		Europeans.	Non-Europeans.	
	£	£	£	£			
Cape of Good Hope	764,079	1,969,166	2,733,245	1,033,765	1,787	6,963	8,750
Natal	—	265,282	265,282	112,021	—	700	700
Transvaal	4,000	—	4,000	3,708	10	—	10
Orange Free State	925,298	1,516,375	2,441,673	1,355,308	1,174	5,222	6,396
TOTAL	1,694,277	3,750,823	5,445,100	2,504,802	2,971	12,885	15,856

(*c*) *Housing of the Aged Poor.*—A sum of £100,000, of which £50,000 was provided as a first instalment on the Loan Estimates for the financial year 1936-37, is earmarked for granting loans for assisting the housing of the aged poor. Interest is fixed at the nominal rate of 1s. per cent. per annum with redemption (calculated on an investment return of 3¼ per cent. per annum) spread over a period not exceeding 40 years. Loans are made to a local authority, or through a local authority to an approved utility company or society, for the erection of dwellings or other suitable accommodation as local circumstances may dictate solely for letting purposes. The local authority (or utility company as the case may be) is responsible for the maintenance and upkeep of the dwellings and also for the loan charges covering interest and redemption, the intention being that, where feasible, the management of the dwellings, including the selection of tenants and the collection of rentals, be

left in the hands of local charitable organizations in consultation with the local authority. No hard and fast rule is laid down as to persons who may be regarded as falling under the designation "aged poor", except that persons who are still capable of doing an ordinary full day's work on an economic basis are excluded from the benefits of the scheme as are also those who, by reason of infirmity or physical or mental disability, are eligible for admission to institutions or for whom other adequate provision is made.

Since the inception of the scheme loans totalling £91,945 have been approved and the balance of £8,055 has been allocated to three local authorities for schemes now under consideration. A sum of £35,603 has been advanced for work done and materials supplied.

(ii) *Slum Clearance.*—The *Elimination of Slums Act*, No. 53 of 1934, places upon the local authority the responsibility of dealing with slum clearance and ensuring the provision of adequate housing. Its provisions were applied to the eight large centres included in the First Schedule of the Act with effect from 25th June, 1934, but application of the Act may be extended by the Governor-General to other local governing bodies after consultation with the Administrator of the province concerned and the councils of such bodies. Under the power referred to, the Act has been extended to the municipalities of Beaufort West, George, Graaff-Reinet, Grahamstown, Kingwilliamstown, Mossel Bay, Oudtshoorn, Paarl, Somerset West, Worcester, Barberton, Germiston, Randfontein, Roodepoort-Maraisburg, Springs, Benoni, Boksburg, Steynsburg, Queenstown, Stellenbosch, and Middelburg (Cape). The chief purpose of the Act was the removal of legislative deficiencies which had previously hindered slum clearance. The more important provisions of the Act include the conferring of increased powers on local authorities for dealing with nuisances as defined in the Act; the laying down of ready, effective, and cheap methods for enforcing the evacuation of slum properties; and the empowering of local authorities to acquire for slum clearance purposes, either voluntarily or by expropriation, both land on which slum properties are situated and land adjacent thereto.

7. **Hostels for Low-paid Wage Earners.**—In spite of the elimination of slums and the provision of suitable housing for low-paid workers at sub-economic rentals and of ample funds at low rates of interest to meet the housing needs of low-paid wage earners, it has been found that a shortage of housing accommodation and consequent overcrowding still exist amongst low-paid wage earners in urban areas. The wages paid, especially to beginners, are low, and in many instances young workers who have migrated from the rural areas and are away from home cannot meet the cost of board and lodging under satisfactory conditions.

In order to remedy this state of affairs the Union Education Department paid grants-in-aid to certain hostels conducted by charitable institutions for the accommodation of working boys and girls. These hostels were taken over by the Department of Labour and Social Welfare in 1937, and the scheme was considerably expanded. The scheme is now administered by the Department of Social Welfare. The co-operation of local authorities and other organizations has been obtained in the direction of providing suitable hostel accommodation for low-paid workers engaged in industry and commerce. The aim is to provide lodging and wholesome board at sub-economic fees and social and recreational amenities for non-resident as well as resident workers, and to give special attention to the social uplift of the residents and members.

Hostels of this description cannot be self-supporting, and the Department of Social Welfare therefore makes grants which should as far as possible be supplemented by contributions from local authorities, employers' and employees' organizations, and charitable societies. Grants are also made to co-operative societies which provide adequate hostel facilities for seasonal female workers.

The basis of subsidy is 2s. 6d. per week per boarder earning not more than 42s. 6d. per week; 50 per cent. of rental or amount paid as interest and redemption, provided interest charges are reasonable; and a grant for the purchase of furniture and fittings on the £ for £ basis to a maximum of £10 per inmate. The number of inmates which hostels can reasonably accommodate is to be fixed.

There are at present 10 subsidized hostels which provide a total authorized accommodation for 528 boarders. In addition there are two co-operative societies subsidized for hostel accommodation of seasonal workers.

8. **Rural Rehabilitation and Housing Scheme.**—The object of the scheme is to assure reasonable living conditions to small-farm owners, bywoners, overseers, and farm assistants, and to encourage the employment of Europeans on the land.

Any registered farm owner who is prepared to engage Europeans under approved conditions of employment may be assisted with a free grant not exceeding £50 (or £60 in certain malarial areas) for the purchase of building material to be used for the construction, enlargement, or repair of dwellings for the employees. The grant is made subject to the condition that the bywoner, farm overseer, farm assistant, or a substitute, be retained on the farm for a minimum period of five years. In addition a subsistence allowance not exceeding £2 per month for a maximum period of twelve months may be granted. Free rail facilities may also be granted to bywoners, farm overseers, or farm assistants to enable them to proceed to the farms on which they are to be employed. The scheme applies to needy small-farm owners only in so far as the building grants are concerned. It must be noted that the scheme ceased to operate with regard to new applications as from 31st December, 1938.

The number of applications under the Rural Rehabilitation and Housing Scheme approved up to 31st December, 1938, was as follows:—

Form of Grant.	Applications approved.		
	Bywoners.	Farm-owners.	Total.
Building grant	6,185	7,419	13,604
Subsistence	3,094	—	3,094
Rail warrants	161	—	161

9. **Divorces, etc.**—Particulars of divorces, judicial separations, and decrees of nullity are given in the tables hereunder.

(i) DECREES OF DIVORCE, JUDICIAL SEPARATION, AND NULLITY OF MARRIAGE GRANTED—EUROPEANS ONLY, 1934 TO 1938.

Year.	Divorce.	Judicial Separation.	Decree of Nullity.	Total.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.
1934	1,314	36	4	1,354	347	146	809	52
1935	1,369	28	12	1,409	356	134	856	63
1936	1,611	44	3	1,658	420	153	971	114
1937	1,687	24	4	1,715	447	170	1,010	88
1938	1,793	22	8	1,823	469	164	1,092	98

(ii) DECREES OF DIVORCE, JUDICIAL SEPARATION, AND NULLITY OF MARRIAGE, CLASSIFIED ACCORDING TO SEX OF PETITIONER—ALL RACES, 1938.

Province.	Divorce.		Judicial Separation.		Nullity.		Total.		Grand Total.
	Husband.	Wife.	Husband.	Wife.	Husband.	Wife.	Husband.	Wife.	
Cape of Good Hope	249	319	1	3	—	—	250	322	572
Natal	65	99	—	7	1	—	66	106	172
Transvaal	518	579	1	10	1	6	520	595	1,115
Orange Free State	55	55	—	2	—	—	55	57	112
TOTAL	887	1,052	2	22	2	6	891	1,080	1,971

(iii) DECREES OF DIVORCE, JUDICIAL SEPARATION, AND NULLITY OF MARRIAGE, CLASSIFIED ACCORDING TO RACE AND SEX OF PETITIONER—ALL RACES, 1938.

Decree.	European.		Native.		Asiatic.		Other Non-European.		All Races.		
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Total.
Divorce	821	972	10	5	5	3	51	72	887	1,052	1,939
Judicial Separation	2	20	—	—	—	—	—	2	2	22	24
Nullity	2	6	—	—	—	—	—	—	2	6	8
TOTAL	825	998	10	5	5	3	51	74	891	1,080	1,971

(iv) NUMBER OF CHILDREN OF PETITIONERS—ALL RACES, 1934 TO 1938.

Year.	Number of Children.						Number of Petitioners.
	None.	One.	Two.	Three.	Four or More.	Unspecified.	
1934	531	389	244	130	95	41	1,430
1935	566	391	262	125	120	23	1,487
1936	621	479	288	141	167	84	1,780
1937	738	486	314	154	125	33	1,850
1938	791	501	347	174	148	10	1,971

(v) AGE OF PETITIONER IN RELATION TO AGE OF DEFENDANT—EUROPEANS ONLY, 1938.

Age of Petitioner.	Age of Defendant.					
	Under 21 Years.	21–29 Years.	30–39 Years.	40–49 Years.	50 Years and Over.	Unspecified.
(1) MALE PETITIONER.						
Under 21 years	—	—	—	—	—	—
21–29 years	27	137	15	—	—	—
30–39 years	6	156	143	6	—	—
40–49 years	1	19	95	61	4	—
50 years and over	—	7	18	44	58	—
Unspecified	—	—	—	—	—	28
(2) FEMALE PETITIONER.						
Under 21 years	1	30	1	—	—	—
21–29 years	1	173	143	14	3	—
30–39 years	—	18	212	129	20	—
40–49 years	—	—	8	96	58	—
50 years and over	—	—	1	8	54	—
Unspecified	—	1	1	—	—	26

(vi) DURATION OF MARRIAGE IN RELATION TO GROUNDS OF ACTION—EUROPEANS ONLY, 1938.

Grounds of Action.	Duration of Marriage.						Total.
	Under 5 Years.	5–9 Years.	10–14 Years.	15–19 Years.	20 Years and over.	Unspecified.	
(1) MALE PETITIONER.							
Desertion	231	195	129	81	101	—	737
Adultery	7	15	25	15	14	—	76
Impotency	—	—	—	—	—	—	—
Incompatibility of Temper	—	—	—	—	—	—	—
Bigamous Marriage	—	—	—	—	—	—	—
Insanity	1	—	—	—	—	—	1
Other Grounds	2	1	—	2	6	—	9
					—	—	3
(2) FEMALE PETITIONER.							
Desertion	253	221	184	99	123	—	880
Adultery	22	22	12	18	20	—	94
Impotency	1	—	—	—	—	—	1
Incompatibility of Temper	1	—	—	—	—	—	1
Bigamous Marriage	—	—	—	—	—	—	—
Insanity	—	—	—	—	—	—	—
Other Grounds	8	3	1	1	3	—	4
				4	2	—	18

§ 4. The Dependent Child.

1. **The Children's Act.**—The *Children's Act*, No. 31 of 1937, came into force on 18th May, 1937. It is a consolidating measure embodying *mutatis mutandis* the provisions of:—

(*a*) The *Children's Protection Act*, No. 25 of 1913, as amended.
(*b*) The *Adoption of Children Act*, No. 25 of 1923.
(*c*) Chapter VII of the *Prisons and Reformatories Act*, No. 13 of 1911.
(*d*) The *Prisons and Reformatories Amendment Act*, No. 46 of 1920, in so far as it affects juvenile offenders and the establishment of certified hostels.

The provisions under (*c*) and (*d*) have been partly embodied in the Act as amendments to the *Criminal Procedure and Evidence Act*, No. 31 of 1917.

The Act provides for the appointment of commissioners of child welfare and the establishment of children's courts; for the protection of infants, the prevention of neglect, ill-treatment, and exploitation of children; for the supervision and probation of children who are in need of care, uncontrollable, or delinquent; for the establishment or recognition of institutions for the reception of destitute, neglected, or delinquent children; for the treatment of children in such institutions and for their after-care supervision. The Act further provides for the adoption of children and for contributions by persons responsible for the maintenance of children dealt with under the Act. It amends the law of criminal procedure in so far as the latter relates to juveniles and provides for matters incidental to the above-mentioned subjects.

The new Act, which may be looked upon as a Children's Charter for the Union, reflects certain general principles underlying modern methods of the protection of children and young persons. One of these principles is that there is no essential psychological difference between the child who has actually come in conflict with the law and the child who has developed anti-social tendencies as a result of neglect and destitution. The behaviour of both may be and often is symptomatic of similar environmental factors and requires similar forms of treatment.

The Act is based upon the principle that the treatment of juvenile delinquency cannot be wholly met by purely penal or deterrent measures, but that it must, as in the case of destitution and neglect, emphasize the constructive principles of re-education and social rehabilitation. To attain this object, probation services must be extended in close co-operation with social welfare agencies, and increasing use must be made of trained and enlightened persons capable of approaching the problem scientifically.

Emphasis is also laid upon the causal-preventive aspect of treatment measures. Concentration on origins rather than effects is aimed at throughout, and the centre of gravity is shifted as far as possible from the courts to the home, the school, and the community.

One of the most important features of the new Act is the raising of the maximum age of "a child" from the 16th to the 19th birthday. Psychologically it is not possible to draw a distinct dividing line between childhood and adulthood, and there can be no doubt that the period of transition varies from case to case. The 19th birthday has been accepted as the maximum age, because below that age persons are most susceptible to influences of various kinds in their homes and in their environment. Thereafter they are generally looked upon as being capable of caring for themselves as adults.

The Act also raises the maximum age of "an infant" from seven to ten years. It is impossible to determine scientifically a period of emergence from infancy to childhood which will apply equally well in all cases. It would seem, however, that the helplessness of infancy, which makes special protective measures necessary, extends beyond the seventh year, and the tenth year has been accepted for the purposes of the Act as the stage at which a child may be expected to act, in regard to its own interests, in a more or less independent manner.

Finally mention must be made of the innovation of children's courts and commissioners of child welfare. By the establishment of the courts the Act seeks to dissociate inquiries concerning "children in need of care" from criminal trials and to prevent the stigma which attaches to criminal courts from being associated with proceedings under the *Children's Act*. It also serves to emphasize the educational and rehabilitative aims of that Act.

The following table indicates the extent to which prosecutions in respect of offences under the *Children's Act*, No. 31 of 1937, were carried out in the courts during the year 1937.

PROSECUTIONS UNDER THE CHILDREN'S ACT (No. 31 of 1937), 1937.

Offences.	European.	Non-European.	TOTAL.	
			No.	Per cent.
Cruelty, neglect, and abandonment	615	1,093	1,708	36·83
Failure to give notice in respect of protected infant	19	2	21	1·19
Failure to comply with maintenance orders	23	1	24	1·36
Inducing committed children to desert from institutions	10	1	11	0·62
TOTAL	667	1,097	1,764	100·00

Children who are found to be in need of care may be ordered to remain in their own homes, removed to foster homes, or placed in institutions. Where children are placed in their own or foster homes, supervision may be carried out by probation officers or child welfare societies, and a grant may be paid towards their maintenance and training. If they are committed to an institution, commitment may be to an industrial school or to a certified or non-certified institution, and a maintenance order may be made against the parent. In the case of the industrial school the Union Education Department takes charge of the child, while certified and non-certified institutions are subsidized by the Department of Social Welfare in respect of the children committed to their care.

The frequency of each type of disposal during the year 1937 is presented hereunder. Institutions in which the children are placed include certified and non-certified institutions and industrial schools.

DISPOSAL OF CHILDREN "IN NEED OF CARE" BY CHILDREN'S COURTS, 1937.

Nature of Disposal.	Number of Children.			
	European.	Non-European.	Total.	Per cent.
Returned to own Home	4,627	1,363	5,990	78·97
Placed in Foster Home	118	47	165	2·18
Placed under Control of approved Agency	145	180	325	4·28
Placed in Institution	941	164	1,105	14·57
TOTAL	5,831	1,754	7,585	100·00

2. **The Adoption of Children.**—Provision for the adoption of children is made in the *Children's Act*, No. 31 of 1937, and the registration of adoptions is the function of the Department of Social Welfare.

On 31st December, 1938, there were 8,656 orders of adoption of children registered in the Department of Social Welfare under the provisions of the *Adoption of Children Act*, No. 25 of 1923 (since repealed), and the *Children's Act*.

The following tables give particulars of registrations in each of a series of years.

(i) NEW ORDERS OF ADOPTION REGISTERED, 1934 TO 1938.

Year of Registration.	European Cases.	Non-European Cases.	Total.
1934	379	168	547
1935	459	175	634
1936	472	226	698
1937	446	225	671
1938	574	218	792

(ii) NEW ORDERS OF ADOPTION REGISTERED, 1937 AND 1938.

Age Group.	European.			Non-European.			Total.		
	Legitimate.	Illegitimate.	Total.	Legitimate.	Illegitimate.	Total.	Legitimate.	Illegitimate.	Total.
1937.									
Under 1 year	23	88	111	4	45	49	27	133	160
1–5 years	81	100	181	26	109	135	107	209	316
6–9 years	49	21	70	15	9	24	64	30	94
10 years and over	63	21	84	9	8	17	72	29	101
TOTAL	216	230	446	54	171	225	270	401	671
1938.									
Under 2 years	64	183	247	19	90	109	83	273	356
2–5 years	62	91	153	12	52	64	74	143	217
6–9 years	61	26	87	11	14	25	72	40	112
10 years and over	65	22	87	13	7	20	78	29	107
TOTAL	252	322	574	55	163	218	307	485	792

Chapter VII of the *Children's Act*, which came into force on 18th May, 1937, and which repeals the *Adoption of Children's Act*, No. 25 of 1923, deals with the adoption of children and makes *inter alia* the following provisions.

A child under 19 years may be adopted by—

(*a*) a husband and his wife jointly;

(*b*) a widower or widow or unmarried or divorced person;

(*c*) a married person whose spouse is at the time of the adoption, and has been for a continuous period of not less than seven years immediately preceding that time, mentally disordered or defective within the meaning of section 2 of the *Mental Disorders Act*, 1916;

(*d*) a married person who is separated from his or her spouse by judicial decree.

Generally speaking no person under the age of twenty-five years shall (whether alone or jointly with his or her spouse) adopt any child. Certain other restrictions concerning the difference in age and sex between the adopting parents and the child are laid down.

The adoption of a child shall be effected by order of the children's court of the district in which the adopted child resides.

Provision exists under which disclosure to the parents of the identity of persons adopting a child can be withheld. Since the Act came into force the Minister's consent was given in 17 cases of non-disclosure of identity of the applicants to the parents.

An order of adoption shall, unless otherwise thereby provided, confer the surname of the adoptive parent on the adopted child who shall, subject to certain provisos, for all purposes whatsoever be deemed in law to be the legitimate child of the adoptive parent.

The court may direct that a parent or the guardian of the child (other than a parent or guardian whose consent to the non-disclosure to him of the identity of the adoptive parents has been accepted) shall during a period of not exceeding two years as from the date of adoption have access to the child at such times and places and under such conditions as the court may determine. The directions so given may be rescinded or varied under certain conditions.

An adoptive parent or the Minister may apply to the court by which the order was made for its rescission thereof on one or more grounds. Only one case has been rescinded since the Act came into force.

An order of adoption and a rescission of an order of adoption and the refusal of an application for the rescission of an order of adoption are subject to an appeal to the competent division of the Supreme Court as if the order, rescission, or refusal were a judgment of a magistrate's court. There has so far been no case of appeal under this provision of the Act. An adopted child may not be removed from the Union before the expiration of a period of twelve months from the date of the order for its adoption, without the consent in writing of the Minister.

It is an offence under the Act if any person who has obtained or applied for an order of adoption of a child gives or undertakes to give or, save with the consent of the court, receives or contracts to receive any consideration in respect of the adoption or if any parent or guardian of a child receives or contracts to receive or, save with the consent of the court, gives or undertakes to give any consideration in respect of the adoption of that child. Provision is made for the fact of adoption to be recorded on the original birth information form and the birth register.

3. **Organizations concerned with Child Welfare.**—In addition to the provision made by the Union Government and the Provincial Administrations in respect of child welfare, there are 91 officially recognized child welfare societies, which carry out various functions in connexion with children and assist with the administration of the *Children's Act;* of these the South African Council for Child Welfare is the official representative body. Many family welfare societies and church organizations also interest themselves in this field.

Mention must also be made here of the so-called character-building organizations, which make an important contribution to child welfare. These include the Young Men's Christian Association and the Young Women's Christian Association, the Boy Scouts and Girl Guides, the Voortrekkers, the Wayfarers, and boys' and girls' clubs. The club movement has expanded considerably during the last few years and a provincial body, the Transvaal Association of Boys' Clubs, has recently been established.

4. **Institutions for Dependent Children.**—Institutions for dependent children include industrial schools, orphanages, children's homes, crèches, lying-in homes, and places of safety. They are in the majority of cases established and maintained by churches and charitable organizations, but are usually not entirely dependent upon private contributions, being subsidized by the Union Government and the Provincial Administrations. At the end of 1937 there were seven government industrial schools and seventy-three certified and forty-two non-certified institutions.

Certified and non-certified institutions accept children who are committed to them under the provisions of the *Children's Act*, as well as those placed by private arrangement. The relative numbers of European and non-European pupils of both types in all these institutions at the end of 1937 were as follows:—

NUMBER OF CHILDREN IN INDUSTRIAL SCHOOLS AND IN CERTIFIED AND NON-CERTIFIED INSTITUTIONS ON 31st DECEMBER, 1937.

Status.	Number of Children.				Total.
	European.		Non-European.		
	Boys.	Girls.	Boys.	Girls.	
Children committed under Act No. 31 of 1937—					
Certified Institutions	2,213	1,938	342	275	4,768
Uncertified Institutions	134	143	11	32	320
Industrial Schools	141	46	—	—	187
TOTAL	2,488	2,127	353	307	5,275
Private Admissions—					
Certified Instutions	552	582	287	283	1,704
Uncertified Institutions	1,030	955	29	117	2,131
TOTAL	1,582	1,537	316	400	3,835
GRAND TOTAL	4,070	3,664	669	707	9,110

The main grounds upon which children in need of care were committed to certified and non-certified institutions during 1937 are classified in the following table, from which it appears that the majority was committed for reasons of destitution.

GROUNDS OF COMMITTAL OF CHILDREN COMMITTED TO INDUSTRIAL SCHOOLS AND TO CERTIFIED AND NON-CERTIFIED INSTITUTIONS, 1937.

Grounds of Committal.	European.			Non-European.			Total.	
	Boys.	Girls.	Total.	Boys.	Girls.	Total.	No.	Per Cent.
Destitution	334	312	646	48	29	77	723	55·87
No Parent or Guardian	95	87	182	12	16	28	210	16·23
Found in Custody of Person convicted of an Offence against the Child	34	26	60	—	—	—	60	4·64
Uncontrollability	114	34	148	21	20	41	189	14·61
Truancy	12	3	15	10	2	12	27	2·09
Association with immoral or bad Persons	5	11	16	3	5	8	24	1·85
Begging and engaging unlawfully in street-hawking	1	—	1	4	2	6	7	0·54
Being maintained away from Parents because of Harmful Home Circumstances	22	20	42	6	6	12	54	4·17
TOTAL	617	493	1,110	104	80	184	1,294	100·00

Certified and non-certified institutions cater for the needs of children of all ages, some specializing in the care of infants. Industrial schools on the other hand accept no children under twelve years of age, and only a small percentage of children is committed direct from the courts, the majority being transfers from certified and non-certified institutions. This transfer takes place when the child is old enough to undertake trade training, usually at the age of 14 or 15 years. An analysis of the age and school standard distribution of children in the institutions under consideration in June, 1936, showed that 25 per cent. of European children in Standards III to VI inclusive are educationally retarded. The position as regards non-European children is very much more acute. In so far as European committed pupils are concerned the percentage of retarded pupils is almost double that of the general school population. This is partly to be explained by the fact that all these children have suffered through lack of proper home care, and partly by the fact that the percentage of subnormality in this group is above the average.

The circumstances of the release of pupils from these institutions during 1937 are given in the following table.

RELEASE OF COMMITTED CHILDREN FROM CERTIFIED AND NON-CERTIFIED INSTITUTIONS, 1937.*

Particulars of Release.	European.	Non-European.	Total.	Per cent.
Unconditional release	174	24	198	23·08
Released on Adoption	19	—	19	2·21
Released on Licence to 21st year	163	28	191	22·26
Released on Licence to 23rd year	—	1	1	0·12
Transferred to Industrial Schools	326	—	326	38·00
Transferred to Certified Hostels	5	3	8	0·93
Transferred to Reformatories	3	6	9	1·05
Transferred to other Institutions	51	6	57	6·64
Absconders after 31/12/36 not in Institution on 31/12/37	8	33	41	4·78
Deaths	6	2	8	0·93
TOTAL†	755	103	858	100·00

* Particulars regarding children released from industrial schools during 1937 are not available.
† In addition 88 European and 2 non-European children were transferred from one type of institution to another.

§ 5. The Delinquent Child.

1. **Trial of Children and Juveniles.**—(†) *Custody pending trial.*—Under the provisions of the *Children's Act*, No. 31 of 1937, no person under the age of 19 years of age, when accused of any offence, is to be detained in any prison, gaol, or police lock-up, unless a place of safety, approved by the Minister

of Education in terms of section 37 of the Act, is not available, nor may such person associate with any person over the age of 21 who is in custody, whether in any prison, gaol, or lock-up, or in transit to or from the court, or in the court. A female under the age of 19 years must be placed in the care of a woman and, except in the case of a charge of murder, may be detained in a suitable place determined by the Director of Prisons or in the custody of a temporary custodian approved by the magistrate of the district, or released on recognizance with or without sureties for appearance at the trial. In the case of offences other than treason, murder, or rape, the magistrate may release the accused and warn him to attend before the court at a fixed date, or release him to the care of the person in whose custody he is and warn the latter to bring him before the court on the appointed date or place him in a place of safety appointed by the Minister as mentioned above.

(ii) *Preparatory examination.*—Members of the public are excluded from any preparatory examination where the accused is a person under 19 years of age, unless professionally interested or required to be present or authorized by the presiding magistrate to be present, and no person under the age of 19 may attend any preparatory examination unless his presence is required as the accused or as a witness, or his presence at such trial is authorized by the presiding magistrate. No particulars regarding the identity of any person under the age of 19 years against whom a preparatory examination is being held may be published in any way, unless the Minister of Justice authorizes such publication as being just and equitable. The presiding magistrate may also require all persons to leave the court, except the parents or guardians of the accused and his counsel, while a person under the age of 19 is giving evidence. In addition there is a general provision prohibiting publication without the authority of the presiding magistrate of any information disclosed in the preparatory examination relating to offences of indecency or extortion.

(iii) *Trial.*—Where a summons or indictment is being served on a person under the age of 19 or such person has been arrested, the parent or guardian is served with a copy of the summons, indictment, and notice of trial, or is warned to appear at the trial and is guilty of an offence if he fails to attend, unless the Commissioner of Child Welfare for the district has given him written exemption. A superior court may, whenever it thinks fit, direct that a trial be held with closed doors, and so may a magistrate's court, whenever it appears to the latter that it is in the interests of good order or public morals or the administration of justice; nor may any person be present at the trial in any court of persons under the age of 19 years, unless such person is the parent or guardian or his presence is necessary in connexion with the trial, or unless the judge or presiding officer authorizes his presence at the trial. No person under the age of 19 years is allowed to be present at any criminal trial in any court, unless the presiding judge or magistrate has authorized his presence, and the judge or presiding officer in any criminal trial may direct that no person shall be present, except with the authority of such judge or presiding officer, while a person under 19 years of age is giving evidence, unless such person is the parent or guardian of the witness or his presence at the trial is necessary.

(iv) *Sentence.*—A judge or magistrate is authorized, where a person under 19 years of age is charged with an offence other than murder or rape and he is satisfied that the accused is a child in need of care, to stay the trial and order the accused to be brought before a children's court and dealt with in terms of sections 28 and 29 of the *Children's Act*, 1937.

Any person convicted of murder by a superior court must be sentenced to death, except where the offender is under the age of 16 years, or a jury or a court is of opinion that there are extenuating circumstances, in which cases the court may pass any other lawful sentence. In the case of persons under 19 years of age, however, the court, on conviction for any offence, may order such person to be detained in a certified hostel or reformatory or to be placed under the supervision of a probation officer or other suitable person. The term of such detention is then determined by the Minister of Education, who is given wide powers of transferring from one reformatory or hostel to another the persons detained, of releasing these persons on licence, and of apprenticing them until they reach the age of 23. Criminal sanctions are provided for enforcing the arrangements made by the Minister. Further, wide powers to suspend a sentence of imprisonment or payment of a fine,

on condition of good behaviour or payment of compensation, in the case of all offences except certain specified offences, such as murder, robbery, rape, etc., are conferred upon the courts.

When a person under 21 years of age is convicted of any offence, the court before which he is convicted may, in lieu of any other punishment and as well in the case of a first conviction as of any subsequent conviction, sentence such person to receive, in private, a moderate correction of whipping, not exceeding 15 cuts, such correction to be administered by such a person and in such a place as the court may appoint. The parent or guardian of the offender has the right to be present. No female may be whipped.

A child under the age of 7 is conclusively presumed to be *doli incapax*, and a child under the age of 14 is similarly presumed to be *doli incapax*. Such presumption, however, is capable of rebuttal.

2. **Extent and Nature of Juvenile Delinquency.**—Particulars regarding the extent and nature of juvenile crime will be found in the tables in paragraph 4, § 8, and in regard to the number of juvenile offenders admitted to penal establishments in Table (viii). paragraph 6, § 10, of Chapter IX.

3. **The Rehabilitation of Delinquents.**—There is an essential unity in the problems of destitution, neglect, and maladjustment on the one hand, and delinquency on the other hand. If allowed to develop unchecked, the former conditions may lead to delinquency. They may, therefore, not improperly be regarded as constituting pre-delinquent conditions. On the other hand, if the importance of the prevention of delinquency is emphasized, as it should be, it makes the one problem, in a sense, indistinguishable from the other.

The treatment of juvenile delinquency cannot be wholly met by purely penal or deterrent measures, but the constructive principles of re-education must be emphasized. This attitude towards the problem is already implied in the term "reformatory" and is in keeping with the spirit of the *Children's Act*. It is revealed in the existing practice of special juvenile courts and in the allocation of the administration of reformatories and probation services to the Departments of Union Education and Social Welfare respectively, and is in accordance with the practice of some overseas countries. It is significant that 72 per cent. of young offenders who appear before the Johannesburg Juvenile Court come from unfavourable home environment. If maladjustment arises from wrong home and community environment, the surest means of combating it is the removal of the causative factors. It is further necessary to deal with symptoms of maladjustment in their early stages before they have had an opportunity of development. This indicates the need for close co-operation with the school system, because children frequently show during their school career tendencies which may develop into delinquent conduct.

In addition to preventive measures, there should be sustained attempts at the restoration and rehabilitation of those who have become dependent or delinquent. While this principle is generally accepted, social service practice is often predominantly concerned with palliatives and measures of immediate relief. The probation services are doing useful work in this respect, but their efforts need to be greatly extended, in close co-operation with social welfare agencies.

4. **Institutions for Delinquents.**—(i) *Reformatories.*—The Government is authorized to establish reformatories (this term may include training ships in territorial waters) for the reception of young offenders under the age of 21 years. Heads of reformatories are styled principals, and in them are vested, for such time as these young offenders remain under the provisions of the *Children's Act*, the parents' ordinary disciplinary powers, but not the more important powers, e.g., administration of property and consent to marriage.

Instead of imposing any punishment, superior or magistrates' courts may order young offenders to be sent to reformatories. The periods of retention of pupils in reformatories are determined by statute in accordance with their age on admission. The following scale applies:—

Age on Committal.	*Expiration of Retention.*
Under 16 years	18th year.
16 years and over, but under 19	21st year.
19 years and over, but under 21	23rd year.

An important provision of the *Children's Act*, 1937, is the period of further supervision to be exercised by the institutions when pupils leave on expiration of their period of retention. Where the period of retention expires when the pupil attains the age of 18 years, the period of supervision is three years; otherwise the period is two years.

Boards of management of reformatories may grant licences for the release of pupils prior to the expiration of their period of retention, if the behaviour and progress of the pupils concerned justify such an important concession. In addition to release on licence, they may be apprenticed to a suitable trade. Licencees who abscond or otherwise misbehave may be recalled to the institutions.

Young offenders who have been sentenced to imprisonment for a term not less than four months may be transferred to reformatories by the Minister of Justice, after consultation with the Minister of Education. On the other hand, pupils who continually abscond from the institutions may be charged before a competent court and may, on conviction, be sentenced to imprisonment for a term not exceeding six months, and may in addition be discharged from the provisions of the *Children's Act*.

The Minister may, when it is deemed necessary, extend the period of retention of any pupil, but such extension shall not exceed the period of further supervision as determined by statute for that particular case.

The reformatories in existence at present are:—

(1) Tokai Reformatory, Retreat, Cape, consisting of two sections, (*a*) for European male pupils, sixteen years of age and over, and (*b*) for coloured male pupils, for whom there is no minimum age limit.
(2) Houtpoort Reformatory, Heidelberg, Transvaal, for European male pupils under sixteen years of age on admission.
(3) Durbanville Institute, Durbanville, Cape, for European female pupils.
(4) Diepkloof Reformatory, Johannesburg, for Asiatic and native male pupils.
(5) Eshowe Reformatory, Eshowe, Natal, for coloured and native female pupils.

(ii) *Certified Hostels.*—In addition to prisons and reformatories, there is another class of institution, viz., certified hostels, for the treatment of delinquents. These hostels, which are private institutions, certified by the Minister of Social Welfare for the reception, maintenance, and training of young offenders from seven to twenty-one years of age, receive a subsidy on a per head per day basis. As they provide intensive individual treatment, the maximum number of young offenders accommodated at any one of them does not ordinarily exceed twenty.

Admission is granted on order of court or by way of transfer from certified institutions or reformatories. Transfers from hostels to reformatories or certified institutions may also be made under certain circumstances.

There are 18 hostels established in the larger centres: of these 6 are for European boys, 4 for European girls, 2 for non-European boys, 5 for non-European girls, and one mixed for non-European boys and girls. Three of these hostels, one for Europeans and two for non-Europeans, deal with confinement cases only.

PUPILS, CLASSIFIED ACCORDING TO RACE AND AGE, IN REFORMATORIES AND CERTIFIED HOSTELS, 31st DECEMBER, 1937.

Age.	Pupils in Reformatories.			Pupils in Hostels.			Grand Total.
	European.	Non-European.	Total.	European.	Non-European.	Total.	
Under 12 years	3	23	26	2	9	11	37
12 years	—	42	42	1	8	9	51
13 „	3	59	62	3	11	14	76
14 „	4	107	111	6	23	29	140
15 „	12	119	131	9	28	37	168
16 „	48	140	188	13	17	30	218
17 „	56	178	234	18	13	31	265
18 „	54	110	164	18	8	26	190
19 „	46	59	105	8	4	12	117
20+ „	60	40	100	20	1	21	121
TOTAL	286	877	1,163	98	122	220	1,383

The offences for which juveniles and juvenile adults were sentenced to certified hostels during the year 1937 are given in the following table from which it appears that the majority were sentenced for some form of theft, robbery, or housebreaking.

OFFENCES FOR WHICH PUPILS WERE SENTENCED TO REFORMATORIES AND CERTIFIED HOSTELS, 1937.

Offences.	European.			Non-European.			Grand Total.
	M.	F.	Total.	M.	F.	Total.	
Concealment of Birth	—	1	1	—	1	1	1
Public Violence	—	—	—	—	1	1	1
Prostitution and Soliciting	—	3	3	—	3	3	6
Crimen Injuria	1	—	1	1	—	1	2
Vagrancy	1	—	1	10	—	10	11
Assault (Common)	1	—	1	10	1	11	12
Assault (Indecent)	—	—	—	2	—	2	2
Assault with Intent	1	—	1	1	2	3	4
Culpable Homicide	1	—	1	7	1	8	9
Murder	—	—	—	4	1	5	5
Murder (Attempted)	—	—	—	1	—	1	1
Bestiality	—	1	1	—	—	—	1
Incest	1	—	1	9	—	9	10
Rape	—	—	—	3	—	3	3
Rape (Attempted)	5	—	5	2	1	3	8
Forgery and Uttering	67	8	75	193	54	247	322
Theft (Common)	—	—	—	2	—	2	2
Theft (Attempted)	27	—	27	—	—	—	27
Theft of Motor Vehicle	11	—	11	—	—	—	11
Theft of Motor Cycle	19	1	20	21	—	21	41
Theft of Bicycle	4	—	4	—	—	—	4
Theft by Conversion	2	—	2	—	—	—	2
Theft by False Pretences	4	—	4	18	—	18	22
Theft of Stock	5	—	5	97	—	97	102
Housebreaking and Theft	3	—	3	—	—	—	3
Robbery	1	—	1	5	1	6	7
Malicious Injury to Property	—	—	—	1	—	1	1
Arson	4	—	4	2	5	7	11
Liquor Act No. 30 of 1928	—	—	—	5	—	5	5
Habit-forming Drugs	—	—	—	2	—	2	2
Masters and Servants Act	1	—	1	1	—	1	2
Railways and Harbours Act	1	—	1	1	—	1	2
Act No. 3 of 1916, Section 2 (i)	2	—	2	1	—	1	3
Police Act No. 14 of 1912	—	—	—	12	—	12	12
Police Offences Act	2	—	2	1	—	1	3
Driving Motor Vehicle without consent of Owner	1	—	1	2	—	2	3
Municipal Offences	—	1	1	7	3	10	11
Unspecified	9	—	9	—	—	—	9
Unsuitable for detention in Industrial School							
TOTAL	175	15	190	420	73	493	683

The educational programme at these institutions must depend to a large extent upon the educational achievements and the mental abilities of pupils. In the case of non-Europeans, 65 per cent. are entirely without education when admitted, while 69 per cent. of the European pupils are still in the primary school. Some indication of the mental ability of the European pupils may be obtained from the results of a psychological survey of pupils at Tokai and Houtpoort Reformatories undertaken in 1935. Of 116 cases tested, the median intelligence quotient was 88·2. This figure is somewhat lower than that obtained at industrial schools, though there is considerable overlap.

The following table gives particulars relating to the release of reformatory and hostel inmates. Placing out on licence is the most usual form of release and should, if proper supervision is assured, have beneficial results in bridging the difficult period during which the delinquent must readjust himself to the community.

Apprenticeship is applied mostly in the case of non-Europeans, for whom it is an important means of disposal.

Transfers occur usually because of uncontrollability of the pupil, but may also be necessary where the pupil becomes too old for the group, or where he has adjusted well in a reformatory but further hostel treatment is required as a stepping stone to complete freedom later.

RELEASE OF INMATES WHO LEFT REFORMATORIES AND CERTIFIED HOSTELS, 1937.

Conditions of Release.	European.			Non-European.			Grand Total.
	Reformatories.	Certified Hostels.	Total.	Reformatories.	Certified Hostels.	Total.	
Unconditional	12	4	16	42	4	46	62
On Licence—							
To 21st Year	32	6	38	203	28	236	274
To 23rd year	37	16	53	84	1	85	138
To 25th year	18	7	25	49	1	50	75
Transferred to Certified Hostel	11	7	18	10	1	11	29
Transferred to Reformatory	14	6	20	1	15	16	36
Transferred to Gaol	—	—	—	3	—	3	3
Transferred to other Institutions	20	4	24	2	—	2	26
Absconders after 31/12/36 who were not in Institution on 31/12/37	5	28	33	69	30	99	132
Deaths	1	—	1	8	—	8	9
TOTAL	150	78	228	476	80	556	784

§ 6. Social Hygiene.

1. **Organizations Concerned.**—Social hygiene, which includes preventive health services and mental hygiene, is the concern of the Departments of Public Health and of Interior, the Provincial Administrations, municipalities, and local authorities. There is, however, a number of professional bodies, such as the South African Medical Council and the South African Trained Nurses' Association, which play an important part in advising as to policy in this field, and in addition there is a number of charitable organizations which specialize in health work generally or some specific aspect of it. It should, further, be pointed out that all charitable bodies, particularly family and child welfare societies, give some attention to health problems, either by supplying medical relief to their cases or by actually training and employing rural health nurses.

The *St. John Ambulance Association* was established in Capetown in 1891, and subsequently in the other provinces. Its main objectives are the organization of classes for training in first-aid, home nursing, ambulance work, home hygiene, and sanitation; rendering of voluntary services in first-aid; providing relief in national and other grave calamities; organizing and training voluntary aid detachments; organizing voluntary service for assistance of medical departments. Its South African headquarters are in Capetown (P.O. Box 2366).

The *South African Red Cross Society* was established in South Africa in 1913 and is linked to the International Committee at Geneva. It aims at combating disease and suffering; providing relief in national and other grave calamities; promoting instruction in first-aid, home nursing, and ambulance work; organizing and training a voluntary aid corps and Junior Red Cross links among school children. The certificates issued by the society are recognized by the Union Government as required by section 277 (5) (*a*) of the *Mines and Works Regulations* and Chapter VI of the *Factories Act Regulations*, and by the South African universities and teachers' training colleges. The headquarters of the Society are in Johannesburg (P.O. Box 3266).

In addition to the organizations whose functions are of a generalized nature, there are three national bodies which interest themselves in certain specific phases of health work, namely, the South African National Council for Mental Hygiene, the South African National Council for Maternal and Family Welfare, and the South African Temperance Alliance.

2. **Birth Control Clinics.**—The *South African National Council for Maternal and Family Welfare* was established in 1935. It consists of affiliated birth control clinics at Benoni, Capetown, East London, Johannesburg, Pietermaritzburg, Port Elizabeth, and Pretoria. At these centres married women in poor health and/or circumstances are given professional advice by qualified medical practitioners. Sound contraceptive instruction is given where family spacing is needed; practical advice also is given to those women who have not borne children and who are anxious to have a family; and many women are referred for medical treatment for gynaecological and other disorders to specialists at hospitals and other institutions.

All clinics are in receipt of support from local authorities, in the form of either grants-in-aid or rent-free use of municipal premises. Two centres receive provincial grants-in-aid, and one receives a grant and rent-free use of premises from the Divisional Council of the Cape. The Department of Public Health has expressed itself strongly in favour of the establishment of further clinics, preferably in conjunction with the health services of local authorities. In 1938 the Department provided a grant-in-aid to the Council. The work of the clinics, two of which have been conducted since 1932, has been recorded in the Reports of the Public Health Department from 1935.

3. **Mental Hygiene.**—The establishment and administration of mental hospitals, the licensing and inspection of private homes for mental patients, and the granting of financial aid to mental hygiene societies, are functions of the Department of the Interior and are under the control of a Commissioner for Mental Hygiene; psychological research and the standardization of mental tests are conducted by the Bureau of Educational and Social Research; while the education and training of subnormals falls to the responsibility of the Provincial Administrations.

The *South African National Council for Mental Hygiene* was established in 1920 and has its headquarters at Johannesburg (P.O. Box 2587). It co-ordinates and directs the work of the local societies, of which there are seven affiliated to the national body, viz., those at Johannesburg, Pretoria, Capetown, Kimberley, Port Elizabeth, Durban, and Bloemfontein. The objects of the Council are to co-operate with the Government in all measures dealing with the care of the mentally disordered and the feebleminded and the prevention of mental disorder and feeblemindedness; to undertake the dissemination of knowledge regarding mental disorder and feeblemindedness; and to direct public opinion into such channels as shall lead to the enactment of suitable legislation dealing with the subject.

The local societies arrange for the psychiatric examination of juvenile delinquents, probationers referred to them by court officials, and children committed under the *Children's Act* before they are admitted to local homes and institutions, as well as cases referred to them by private individuals; they undertake the after-care of patients discharged or on leave from mental hospitals and institutions; and provide general assistance to needy mental cases recommended by the psychiatrist.

During 1938 occupation centres for boys and girls leaving special classes were opened in Johannesburg. The provision of a hostel for men who have become stabilized by institutional care, and who are capable of working in the community, is under consideration.

4. **Liquor Control.**—(i) *Liquor Laws.*—(*a*) *Pre-Union Legislation.*—Prior to the enactment of the *Liquor Act*, No. 30 of 1928, the laws controlling the supply and sale of intoxicating liquor were essentially those in operation in the separate colonial administrations at the time of Union. These laws, in so far as they applied to the European population, were based on English law and practice.

The laws governing the supply of intoxicating liquor to coloured persons and aborigines were framed to suit the conditions peculiar to each province. These conditions varied so considerably and were based upon such divergent practice that they presented formidable obstacles to the construction of a uniform law for the whole Union.

(*b*) *Post-Union Legislation.*—The excise liquor laws of the Union have not as yet been codified and consequently form a somewhat heterogeneous body of provisions governing the production of liquor and its removal from the place of production. An equal degree of divergence is to be found in that subsidiary portion of excise liquor legislation which appertains to the issue and holding of licences. Some measure of uniformity in the matter of excise liquor law may ultimately be expected to result from the administration of Chapter 2 of the *Customs and Excise Duties Amendment Act*, No. 19 of 1928, section 6 of which contains provisions enabling the Governor-General to apply in the inland provinces certain provisions of the excise laws of the coastal provinces, and section 10 of which enables the Governor-General to prescribe conditions governing the excise licensing.

The industrial liquor laws of the Union are contained in the *Wine, Spirits and Vinegar Act*, No. 15 of 1913, as amended by Acts Nos. 7 of 1926, 37 of 1930, and 55 of 1935, and in the legislation for the control and management of the wine and spirit industry, Act No. 5 of 1924, as amended by Act No. 17 of 1928.

The liquor distribution control laws for the Transkeian Territories are contained in Proclamation No. 53 of 1933, as amended or amplified by Proclamations Nos. 166 of 1933 and 159 of 1934, and Government Notice No. 411 of 1933. In the Union, distribution and control of liquor is governed by the *Liquor Act*, No. 30 of 1928, as amended by Acts Nos. 41 of 1934, 46 of 1935, and 39 of 1937.

Licensing or the forbidding of licensing is the principal means by which the restraints of the *Liquor Act* are rendered effective. The Legislature has itself made certain land and certain native areas and their near neighbourhood places at which no liquor licences may exist, though in the latter case the prohibition may be relaxed by the Governor-General. In certain other areas no licence may be issued without the authority of the Executive Government: native, mining, and rural areas are here chiefly concerned. If, in the interest of any section of the population, State veto or restriction is desirable, areas may be constituted within which such may obtain; and in rural areas licensing boards may not entertain applications for new hotel or club liquor licences, unless the Minister of Justice has authorized them to do so.

For the rest, the issue of licences in a district is in the hands of the licensing board, a body which is constituted for each district annually under the *Liquor Act*. These boards have the power to authorize or refuse to issue licences, and within their respective jurisdictions may impose conditions in many directions, more particularly in regard to hours of sale or premises. A number of conditions and restrictions, however, have been imposed directly by the Legislature and these for the most part are immutable.

Aboriginal natives throughout the Union are prohibited persons in regard to liquor supplies, and the exemptions granted to the native parliamentary voters in the Cape Province under prior Acts, and to natives in Natal under certain special grants, are now entirely abrogated.

A summary of the *Liquor Act*, No. 30 of 1928, appeared in *Year Books* Nos. 11 to 19.

(ii) *Liquor Traffic Statistics.*—The following table gives figures of liquor and bottle store licences issued in the various provinces over a series of years. Particulars of convictions for drunkenness are also included; details of other offences under the liquor laws are given in Chapter IX.

LIQUOR TRAFFIC, 1934 TO 1938.

Year.	Retail Liquor Licences.	*Europeans 15 Years and over per Licence.	Bottle Stores.	*Europeans 15 Years and over per Licence.	Convictions: Drunkenness.	
					European.	Non-European.
Cape of Good Hope.						
1934	872	975	210	4,048	1,747	10,129
1935	1,052	818	176	4,886	1,672	11,003
1936	1,074	865	184	5,015	1,831	13,357
1937	1,112	852	185	5,124	1,737	14,661
1938	1,133	850	180	5,350	1,709	15,016
Natal.						
1934	345	400	75	1,840	649	2,863
1935	337	418	84	1,679	638	3,127
1936	328	430	84	1,681	864	3,450
1937	334	425	80	1,775	810	3,130
1938	347	415	82	1,756	861	4,157
Transvaal.						
1934	463	1,095	230	2,204	3,447	18,958
1935	459	1,133	240	2,167	3,622	15,381
1936	463	1,188	241	2,282	3,784	13,110
1937	461	1,265	240	2,429	3,000	12,791
1938	484	1,248	247	2,445	3,350	14,906

* Includes coloured persons in the Cape Province only.

LIQUOR TRAFFIC, 1934 TO 1938—(*continued*).

Year.	Retail Liquor Licences.	*Europeans 15 Years and over per Licence.	Bottle Stores.	*Europeans 15 Years and over per Licence.	Convictions: Drunkenness.	
					European.	Non-European.
Orange Free State.						
1934	114	1,193	44	3,091	210	868
1935	113	1,210	44	3,107	178	789
1936	113	1,186	43	3,116	182	612
1937	114	1,193	43	3,163	207	764
1938	110	1,236	44	3,091	271	573
Union.						
1934	1,794	909	559	2,918	6,053	32,818
1935	1,961	846	544	3,048	6,110	30,300
1936	1,978	875	552	3,161	6,661	30,529
1937	2,021	895	548	3,301	5,754	31,346
1938	2,074	890	553	3,336	6,191	34,652

* Includes coloured persons in the Cape Province only.

(iii) *Illicit Liquor Traffic.*—In the industrial areas of the Transvaal there is still in existence a considerable illicit liquor traffic. In 1938, 251 Europeans and 755 non-Europeans were convicted for illicit sale of liquor to non-Europeans, and of these 155 Europeans and 221 non-Europeans were convicted in the Transvaal. It is a recognized fact that large numbers of residents in the Transvaal trade illicitly in liquor as a means of livelihood, and the problem of dealing with the question has provided almost insuperable difficulties.

§ 7. The Physically Handicapped.

1. **Vocational and Special Education.**—Particulars regarding the provision made for the education and training of physically handicapped persons are given in §1, 13, of Chapter VIII.

2. **Assistance for needy Physically Unfit European Persons.**—A scheme for financial assistance to needy European persons over the age of 16 years, who on account of physical or mental disabilities are permanently unfit to undertake remunerative employment, was instituted in January, 1937, by the then Department of Labour and Social Welfare and is now administered by the Department of Social Welfare.

The scheme is administered through district committees. A district committee representing local social welfare organizations and churches is established in each magisterial district, and all applications for assistance are made to the district committee, which forwards them with a recommendation to the Secretary for Social Welfare, who may approve grants not exceeding the following for a maximum period of 12 months:—

Persons resident in large urban centres: £2. 10s. per person per month.
Persons resident in other towns and villages: £2. 5s. per person per month.
Persons resident on farms: £2 per person per month.

These grants are payable through postmasters to applicants direct, unless otherwise authorized.

In all cases where there is any doubt whether an applicant is unfit to undertake employment, he is required to register his name at an employment exchange. Investigations are then made by the Department of Labour to ascertain whether suitable work can be obtained for the applicant, and if he refuses to accept work offered he is not eligible for assistance under the scheme.

Generally speaking and with certain exceptions, the scheme is not applicable to persons who are not Union nationals, unless they have been resident in the Union for a period of not less than 10 years out of the 15 years immediately prior to the date of application, persons who have an income exceeding £2. 10s. per month, and persons for whom other provision exists, such as old age pensioners, chronic sick for whom institutional care

is desirable and available, blind persons, children who can be assisted under the provisions of the *Children's Act*, 1937, and persons whose near relations are in a position to support them.

The number of applications received since the inception of the scheme up to and including 31st December, 1938, was 13,531. Grants were made in 7,431 cases, while 5,248 applications were refused, 115 were withdrawn, and 737 were still under consideration on the 31st December, 1938, on which date 6,133 grants were in operation, 1,298 grants having been withdrawn for the following reasons: Death of grantees, 291; transferred to old age pensions, 697; transferred to institutions, 53; improved financial position, 88; stopped on review, 169.

The expenditure for certain financial years approved up to 31st December, 1938, was as follows:—

1936-37	£269
1937-38	£57,469
1938-39	£125,801
1939-40	£38,028

3. **Old Age Pensions.**—Provision for the payment of old age pensions is made under Act No. 22 of 1928, as amended by Acts Nos. 34 of 1931 and 34 of 1937. A detailed summary of the *Old Age Pensions Act* was given in *Official Year Book* No. 17 and earlier issues.

The Act as amended applies to white (European) persons and coloured persons (excluding Asiatics and aboriginal natives) of sixty-five years of age and over in the case of a man and sixty years of age and over in the case of a woman, domiciled and resident in the Union, with means not exceeding a prescribed amount.

The following table shows the number and value of old age pensions in payment at the 1st November, 1936 to 1938.

OLD AGE PENSIONS.

NUMBER OF PENSIONERS, WHITE AND COLOURED, AND ANNUAL VALUE AT 1st NOVEMBER, 1936 TO 1938.

Race and Amount of Pension per Annum.	1936.		1937.		1938.	
White— £	No.	£	No.	£	No.	£
42	—	—	9,924	416,808	17,239	724,038
36	—	—	14,070	506,520	19,578	704,808
30	25,939	778,170	15,429	462,870	13,419	402,570
24	10,230	245,520	6,723	161,352	5,777	138,648
18	2,960	53,280	1,935	34,830	1,729	31,122
12	998	11,976	915	10,980	1,121	13,452
6	200	1,200	242	1,452	394	2,364
TOTAL	40,327	1,090,146	49,238	1,594,812	59,257	2,017,002
Coloured— £						
21	—	—	199	4,179	968	20,328
18	3,909	70,362	4,870	87,660	5,497	98,946
15	378	5,670	382	5,730	403	6,045
12	1,103	13,236	2,089	25,068	2,278	27,336
9	5,522	49,698	4,988	44,892	5,216	46,944
6	5,617	33,702	5,977	35,862	7,609	45,654
TOTAL	16,529	172,668	18,505	203,391	21,971	245,253

4. **Blind Persons' Pensions.**—Provision for the payment of pensions to blind persons and of grants-in-aid for the promotion of the welfare of such persons is made under the *Blind Persons Act*, No. 11 of 1936. A detailed summary of this Act was published in *Year Books* Nos. 17 and 18.

The Act applies to blind white (European) persons and coloured persons (excluding Asiatics and aboriginal natives*) accepted for registration after medical examination, who have attained the age of nineteen years, are domiciled and resident in the Union, are Union nationals, and whose means do not exceed a prescribed amount.

Grants-in-aid may be made under the Act towards (*a*) the provision and maintenance by a registered association or institution of hostels, homes, workshops, or other places for the reception and training of blind persons,

* See paragraph 5 below

and the remuneration of persons employed by such association, and (*b*) the augmentation of the earnings of registered blind persons working in any such home, hostel, etc.

The *Blind Persons Act*, in so far as it concerns the registration of blind welfare societies, subsidization of workshops and other institutions for the blind, and the augmentation of wages, is administered by the Department of Social Welfare. Applications for pensions and all matters connected therewith are dealt with by the Commissioner of Pensions.

Provision is made in the Act for co-operation between the State and the South African National Council for the Blind in connexion with any matter concerning blind persons and the registration of associations for the welfare of blind persons. It also confers such powers and duties on the Council as may be prescribed by regulation.

The Department of Social Welfare has, under section 10 of the Act, registered fifteen associations throughout the Union, whose functions include general attention to the interests of the blind and the provision of schools, workshops, and a library for the blind. Some of these societies cater specifically for the needs of coloured, Bantu, and Indian blind.

The basis on which grants-in-aid under section 9 (*a*) of the Act are made to workshops, training centres, homes, and hostels for the blind, is calculated as follows:—

(i) *Capital Expenditure.*—Fifty per cent. of the cost of purchasing, repairing, or renovating buildings and fifty per cent. of the cost of office and other equipment.

(ii) *Maintenance and Salaries.*
- (*a*) *Workshops.*—66⅔ per cent. of the salaries of instructors and 50 per cent. of other approved expenditure excluding wages of blind workers and the cost of purchasing raw materials.
- (*b*) *Training Centres.*—66⅔ per cent. of the salaries of instructors and 50 per cent. of other approved expenditure.
- (*c*) *Homes and Hostels.*—50 per cent. of the difference between the running costs, as approved, and the payments of the institution by or on behalf of the inmates.

(iii) *Augmentation Grants.*—Augmentation grants are paid in respect of the earnings of blind workers. Societies grade the workers employed in their shops according to their earning capacity and augmentation is paid on a percentage basis. Workers earning at the rate of 1s. per hour, for instance, receive a 25 per cent. augmentation grant, while workers earning only 4d. per hour receive 100 per cent. augmentation grant. Other grades between these two extremes receive grants in proportion.

The following table shows the number and value of pensions being paid to blind persons at the 1st November, 1937 and 1938.

BLIND PERSONS' PENSIONS—NUMBER OF PENSIONERS, WHITE AND COLOURED, AND ANNUAL VALUE AT 1st NOVEMBER, 1937 AND 1938.

Race and Amount of Pension per Annum.	1937.		1938.	
White— £	No.	£	No.	£
31-36	682	24,501	768	27,595
25-30	103	3,010	197	5,827
19-24	33	778	59	1,375
13-18	20	328	29	492
7-12	8	82	14	147
1- 6	6	28	9	39
TOTAL	852	28,727	1,076	35,475
Coloured— £	No.	£	No.	£
19-24	207	4,953	286	6,848
13-18	112	1,861	493	8,036
7-12	389	4,660	309	3,677
1- 6	18	108	19	113
TOTAL	726	11,582	1,112	18,674

5. **State Aid to Native Blind Persons.**—When the *Blind Persons Bill* was discussed in Parliament on the 26th March, 1936, the Minister of Labour and Social Welfare stated that the Government had decided that the question

of assistance to blind natives should be dealt with separately. It was decided that the Minister of Native Affairs should inquire into the matter, with a view to obtaining statistics to enable provision to be made on the estimates of expenditure of his Department for the financial year 1937-38. As a result of inquiries made, an amount of £20,000 was provided for that year, and a scheme was worked out under which blind natives over the age of 18 years would be granted assistance, on production of a certificate from the District Surgeon that the eyesight of the person applying for assistance is so restricted that he is unfitted to do any work for which eyesight is essential and a statement by the Native Commissioner or Magistrate that he is indigent and in need of assistance.

The scheme, unlike that under which pensions are payable to Europeans, is not fettered by any legal provisions and is so simple that its administration has not occasioned any appreciable additional expenditure to the Government.

At first, as it was not known what number of applicants for grants would come forward and as it was felt that provision on the estimates would be totally inadequate if all blind natives applied for grants, a conservative policy was adopted. A definite sum was allocated to each district and the amount payable to individuals was left to the discretion of the district officer, who was, however, not allowed to make to any native a grant higher than 10s. per month. On an average 6s. 8d. per month was paid under this arrangement.

Natives are usually suspicious of any innovation and it was soon evident that the scheme was no exception to the rule. As the money available was not being spent at the rate which was anticipated, it was possible to fix all grants at 10s. per month or £6 per annum per person as from the 1st October, 1937. This rate still applies.

Gradually, as blind natives realized that those who had made application for grants were actually deriving benefit and as the scheme became better known in the isolated native reserves, the stream of applications swelled so that by 1st April, 1938, it was found that the initial provision of £24,000 for the year 1938-39 was totally inadequate, and subsequently the amount provided for this service was increased to £50,000.

At the end of 1938, 9,857 blind natives had been registered and were in receipt of grants. This number is still growing rapidly.

While 10s. per month may appear to be a small sum, it represents more to the native than to a European, particularly where the native resides in a rural location under tribal conditions.

The South African National Council for the Blind collaborates closely with the Department in this matter.

6. **The South African National Council for the Blind.**—The South African National Council for the Blind was established on the 20th March, 1929. The Council is a statutory body under the *Blind Persons Act*, No. 11 of 1936, with powers and duties prescribed by the Act and in the regulations thereunder. The Council encourages, co-ordinates, and where possible assists the activities of societies affiliated to or associated with it. Its efforts are directed towards the welfare of upwards of 10,000 civilian blind of all races, as distinct entirely from blinded ex-soldiers, whose interests are in the care of the South African Committee of St. Dunstan's.

At the 31st December, 1938, the Council's records comprised particulars relating to 10,520 blind persons distributed as follows:—

Area.	European.	Coloured.	Native.	Total.
Western Cape Province	538	976	1,049	2,563
Eastern Cape Province	257	245	2,973	3,475
Natal	84	10	819	913
Orange Free State	175	14	522	711
Transvaal	455	51	2,352	2,858
TOTAL	1,509	1,296	7,715	10,520

The Council is the official channel for communication between registered associations for the blind and the Government and provincial and other authorities in matters of national and general policy.

7. **South African National Council for the Deaf.**—The headquarters of this organization are in Capetown (P.O. Box 493). Its objects are to encourage and assist the formation of local societies for the care of the deaf and to co-ordinate their activities; to investigate conditions of the deaf and protect their interests; to investigate proposals for education, training, and employment of the deaf; to give advice to the deaf and those caring for them.

The Council publishes a monthly journal, *The Silent Messenger—Die Stille Boodskapper.*

8. **Cripples and Cardiopaths.**—There is as yet no national organization dealing specially with the welfare of cripples, but Cripples' Care Associations are established in the Cape, Transvaal, and Natal Provinces, and the formation of a combined national body is under consideration.

The Transvaal Association was established in 1934 to provide for the care of cripples and cardiopaths in that province. The Hope Training Home, erected in Johannesburg in 1934, is now housing 45 crippled boys and girls, and will shortly be able to accommodate the full quota of 72. Sixty per cent. of the maintenance costs of the home are borne by the Transvaal Province, the balance being derived from public subscriptions. An amount has been voted by the Province for the erection of a special school in the grounds adjoining the home. This school is designed to provide general and vocational training for all the crippled children of the Transvaal, with the object of rendering them, as far as possible, self-supporting.

The Cripples Care Association of the Cape Province has its headquarters at Capetown. The objects of the Association are to co-ordinate the work of societies and institutions interested in cripples; to initiate and support action for the early discovery and prompt treatment of children likely to become crippled; to promote schemes for the education, training, and general welfare of cripples; and to encourage the formation of local associations.

The Association works in conjunction with the Cape Hospital Board, the Invalid Children's Aid Committee of the Society for the Protection of Child Life, and the Women's Hospital Auxiliary. Its activities are concerned with:—

(*a*) The Lady Michaelis Home, which provides accommodation for 32 European and 16 coloured children, particularly cases of congenital or traumatic deformity.

(*b*) The Princess Alice Home of Recovery, which provides for the treatment and nursing care of 30 European and 42 coloured patients, principally bone tuberculosis and poliomyelitis cases.

(*c*) The Maitland Cottage Home (maintained and administered by the Invalid Children's Aid Committee), which cares for 72 coloured children who are either awaiting admission to the Princess Alice Home of Recovery or have been removed from surroundings definitely deleterious to their physical condition and progress.

Each of these institutions is in full medical charge of the orthopaedic surgeons of the Groote Schuur Hospital. They are also staffed with fully qualified teachers supplied by the Cape School Board.

The very large field of out-patients amongst crippled children—early cases receiving treatment and cases discharged but under supervision—is covered by the Invalid Children's Aid Committee with nearly 400 active cases on their books. In addition St. Joseph's Home at Philippi, which is maintained by the Palatine Sisters, provides 60 beds for coloured cripple children, chiefly chronic cases.

The present efforts of the Association over and above its general activities are concentrated on providing facilities for housing the large number of early cases on the waiting list, so as to prevent permanent defect, and on providing means for the further education and vocational training of the adolescent who suffers from permanent physical handicap. The Pieter Moll Memorial Fund Committee is responsible for raising a memorial fund, the bulk of which will be used for building in the grounds of the Princess Alice Home a hostel in connexion with the vocational training of cripples.

In East London the Society for Crippled Children, which was established in 1933, provides for the necessary treatment and after-care of cripples. The society is supported entirely by voluntary contributions.

In Durban an Open Air Primary School, opened in 1920, caters for crippled and debilitated children, and provides remedial exercises, special baths, etc., in addition to general education. All charges are met by the Provincial Administration. A Cripples' Care Association is also working in Durban in connexion with the local Benevolent Society.

9. **Epileptics.**—The Rand Epileptic Employment Association, which is the only organization of its kind in the Union, was established in 1935. It employs epileptics in floriculture on a plot of ground granted by the Johannesburg Municipality. The employees are paid a weekly wage for their labour and are in charge of two expert non-epileptic horticulturists. They are housed in a hostel run by the Association, and pay for their board and lodging. The Association accepts applicants (not certifiable under the *Mental Disorders Act* of 1916) from any centre in the Union and Rhodesia.

10. **Statistics of Afflicted Persons.**—An inquiry was instituted concurrently with the enumeration of the population in 1936 regarding the numbers of persons in the Union suffering from certain physical defects, viz., the blind, the deaf, the dumb, and the epileptic.

The questionnaire did not form part of the Census schedule and the information given was, therefore, purely voluntary. Although there is no means of checking the completeness of the figures, the response to the inquiry may be regarded as satisfactory when the information collected is compared with the information in the possession of the benevolent societies working in the interests of afflicted persons. The inquiry extended to Europeans, Asiatics, and coloured persons, but not to natives (Bantu).

Tables giving information regarding the number, age, and race of persons afflicted and the nature of the affliction were published in *Official Year Book* No. 18. A detailed report on this subject (U.G. No. 16—1937) is obtainable from the Government Printer, Pretoria.

AFFLICTED PERSONS—NATURE OF AFFLICTION, 1936.

Affliction.	European.	Asiatic.	Coloured.	Total.
	No.	No.	No.	No.
Epilepsy	1,324	26	373	1,723
Deafmutism	966	40	312	1,318
Deafness	1,289	21	229	1,539
Blindness	1,447	79	925	2,451
Epilepsy and Deafmutism	24	3	11	38
Epilepsy and Deafness	32	—	7	39
Epilepsy and Blindness	32	2	9	43
Epilepsy, Deafmutism, and Blindness	2	1	—	3
Epilepsy, Deafness, and Blindness	3	—	1	4
Deafmutism and Blindness	26	1	6	33
Deafness and Blindness	114	3	40	157
TOTAL	5,259	176	1,913	7,348

§ 8. War Veterans.

1. **Military Pensions.**—Act No. 42 of 1919 (as amended by Act No. 41 of 1920) makes provision for the payment of pensionable benefits to persons disabled on military service during the Great War of 1914-1918 and pre-1914 South African wars, and for the dependants of deceased soldiers and burghers whose deaths resulted from war service.

Claims for compensation are dealt with by a board, appointed by the Governor-General and styled the Military Pensions Board, which consists of medical and lay members. Appeals against decisions of this board are dealt with by a Military Pensions Appeal Board, which consists of a barrister (chairman), a soldier's representative, and a representative of the Treasury. Appeals against assessments of percentages of disablement by medical boards are decided by medical appeal boards. Some classes of appeal lie as of right whilst in others leave to appeal has to be obtained by the appellant. The Minister responsible for deciding questions arising out of provisions of the Act is the Minister of Finance.

Particulars regarding pensions payable for disablement, and to widows, parents, and other dependants, were given in *Official Year Book* No. 18.

The following statement shows the number and value of military pensions as at 1st November, 1938:—

PRE-1914 WARS.		GREAT WAR.	
NUMBER.	ANNUAL VALUE.	NUMBER.	ANNUAL VALUE.
	Disability Pensions.		
1,209	£58,115	3,490	£231,819
	Widows' Pensions.		
374	£35,658	1,187	£180,868
	Pensions to other Dependants.		
318	£12,681	2,169	£87,755

2. **The Governor-General's Fund.**—This Fund was inaugurated by the late Mrs. Louis Botha and the first Lord de Villiers in August, 1914, and from that date to 30th November, 1938, the amount of subscriptions and accrued interest on investments reached the sum of £3,765,873. No calls were made on the public for further subscriptions after 1919.

The operations of the fund may be divided into three periods:—

(*a*) War period 1914-1918. Assistance to families and dependants of men on war service	£1,315,249
(*b*) Demobilization and re-establishment period 1919-1921. Assistance to men returned from war service	£1,211,123
(c) Peace Period. On War disablements and dependants of husbands, fathers, and sons who lost their lives in the Great War to 30th November, 1938	£925,152
	£3,451,524

The following table summarizes the distribution of relief during the year 1938:—

Classification.	In Monthly Grants.	In Casual Assistance.	Total.
	£	£	£
War disabled ex-soldiers	7,229	1,470	8,699
War widows and children	6,779	415	7,194
Parents, aged or in need, who lost sons in the War	10,890	84	10,974
Administered by British Empire Service League	—	3,500	3,500
TOTAL £	24,898	5,469	30,367

The balance of the Fund at the 30th November, 1938, was £314,322.

Eighteen South African ex-service men who were blinded in the Great War possess homes purchased for them by the Governor-General's Fund.

At the 30th November, 1938, there were 979 cases on the Fund's books in which permanent monthly grants are being paid. Of this number 57 are paid through the High Commissioner's Office in London for beneficiaries resident in England.

In addition to the central office in Capetown, there are local committees in Johannesburg, Durban, and Pretoria, which administer relief from funds remitted from the central office, and in many of the smaller centres there are advisory committees who investigate applications and submit recommendations. In places where there are no local committees, the investigations are made through magistrates and local branches of the British Empire Service League.

An acutarial investigation is made every three years into the financial position, and it is possible now to feel assured that, unless something unforeseen happens, the Fund is in a position to meet its obligations in full to all its remaining beneficiaries for life.

For several years the Governor-General's Fund has made an annual grant to the Dominion Office of the British Empire Service League for administration by the League in relief of ex-service men who are suffering from war disablements assessed at a low rate, and whose cases do not now fall within the present scope of the operations of the Governor-General's Fund. The total of these grants amounted to £58,000 at 30th November, 1938.

3. **British Empire Service League (South Africa).**—The League, which was established in 1921, and which is affiliated with other ex-service men's organizations throughout the British Commonwealth, has its headquarters in Bloemfontein (P.O. Box 322).

The policy of the League is national, non-sectarian, and non-partisan in relation to party politics. The objects, which are fully set out in a constitution, include making representations to Parliament when necessary in regard to adequate scales of pension for men and women discharged on account of ill-health or incapacity arising from service; assisting in the rehabilitation in civil life and generally safeguarding the interests of all ex-service men and women and their dependants; finding employment and providing relief for ex-service men and their dependants; and helping to secure educational facilities for the children of War widows and of necessitous and deserving ex-service men and women where possible.

The League has fifty branches throughout the Union and South West Africa and publishes a monthly journal, *The Springbok*.

4. **St. Dunstan's After Care Committee for S.A. Blinded Soldiers.**—This Organization, which is affiliated to the parent organization, St. Dunstan's, London, was established in South Africa in 1918, and has for its object the training, settlement, and after-care of blinded ex-service men and their dependants. Facilities are provided whereby blinded soldiers are taught handicrafts and trades, and help is given in the marketing of the goods produced.

Moneys subscribed in South Africa to this Fund are used solely for the benefit of South African blinded soldiers and their dependants.

§ 9. Social Research.

Social Research Bodies.—(i) *The National Bureau of Educational and Social Research.*—Information regarding the institution and functions of the Bureau are given in § 1, 11, of Chapter VIII.

(ii) *The South African Council for Educational and Social Research.*—Particulars with regard to this Council will be found in § 5 of Chapter VIII.

(iii) *The South African Institute of Race Relations (Incorporated).*—The South African Institute of Race Relations was established in 1929 through grants made available by the Carnegie Corporation, New York, the Phelps Stokes Fund (New York), and later the Rhodes Trust. It was incorporated in 1937 under section 21 of the *Companies Act*, 1926.

The main aim of the Institute is to encourage, work for, and foster peace, goodwill, and practical co-operation between the various sections and races of the population of Southern Africa.

In pursuance of this aim the Institute—

(i) Promotes and supports investigations on matters (e.g. social and economic conditions) having a bearing upon the relations between, and the welfare of, the various sections and races of South Africa;

(ii) examines legislative and administrative measures, racial situations, and organized movements likely to affect the racial situation; subject, however, to the limitation imposed in the Memorandum of Association "that the Institute shall not identify or associate itself with any organized political party or concern itself with the election of any parliamentary representative";

(iii) initiates social welfare agencies and makes suggestions intended to assist in (*a*) the creation of social conditions that will make a full and healthy life possible for all sections of the population; (*b*) the education of all sections of the public in a right attitude towards their own responsibility for the general welfare, and (*c*) the training and employment of qualified workers of all races to engage in social services;

(iv) provides opportunities (such as regional conferences and local joint councils) for consultation and co-operation between organizations and individuals engaged upon the matters coming within the scope of the Institute's main object;

(v) issues the following publications: *Race Relations News*, monthly; *Race Relations*, quarterly; an Annual Report; and monographs and memoranda; makes available to interested persons its reference library; and supplies information to inquirers on racial and cognate subjects;

(vi) provides secretarial help to certain scientific bodies and social welfare organizations;

(vii) provides legal defence and assistance for the poor of all races through its Legal Aid Bureau.

The funds of the Institute are now mainly derived from South Africa, its activities being supported by some forty affiliated organizations, by grants from municipalities and other public bodies, and by a considerable personal membership.

The Institute is an unofficial, non-party body, but, while independent of government control, it endeavours to work in close co-operation with governmental and municipal administrations in Southern Africa regarding the several aspects of racial problems, e.g., native affairs, education, health, and labour. It also co-operates with international and other organizations overseas. It has served on several occasions as the headquarters in Southern Africa for expeditions and individual research workers from Europe and America engaged in investigations on the African continent. In such cases it places its office accommodation and library resources at the service of the expedition, arranges conferences with individuals and groups having special knowledge, plans itineraries, and gives help in other ways.

Through the courtesy of the authorities of the University of the Witwatersrand, the Institute's head office and reference library are housed in the central building of the university, and the Institute's officers have free access to the university library and the Gubbins Collection of Africana.

The Institute embodies an attempt to approach the racial problems of Southern Africa in a scientific and co-operative spirit and to apply the results of research to the practical problems of every-day life.

(iv) *The South African Institute of International Affairs.*—The South African Institute of International Affairs was established in 1936 and has its headquarters in Capetown. Its object is to promote through study, discussion, lectures, and public addresses, and by other means, an understanding of international questions and problems. Membership is restricted to Union nationals. The Institute is affiliated to the Royal Institute of International Affairs, London.

§ 10. Ecclesiastical Organizations.

1. **General.**—The numbers of the European population who were recorded at the Censuses of 1926 and 1936 as belonging to certain churches and professing certain forms of religious belief are given in the following table. Although particulars of religions were collected at the Census of 1931, the information was not tabulated. At the time of going to press the tabulation of the 1936 Census returns in respect of religions of the non-European population had not been completed.

RELIGIONS OF THE POPULATION OF THE UNION AND PROPORTION PER CENT. TO TOTAL POPULATION—EUROPEANS, CENSUSES 1926 AND 1936: NON-EUROPEANS, 1921

Religion.	Europeans.				Non-Europeans.	
	1926.		1936.		1921.	
	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.
Nederduits-Gereformeerde Kerk (Nederduits-Hervormde of Gereformeerde Kerk; Verenigde Kerk)	831,713	49·61	972,163	48·51		
Gereformeerde Kerk van Suid-Afrika (Enkel Gereformeerde Kerk)	45,722	2·73	58,925	2·94	276,486§	5·11
Hervormde Kerk	44,526	2·66	58,029	2·90		
Anglican Churches	311,281	18·57	344,811	17·21	420,059	7·77
Presbyterian	79,516	4·74	82,275	4·11	115,897	2·14
Congregationalist	9,965	0·59	11,615	0·58	145,723	2·70
Methodist	105,217	6·28	140,671	7·02	730,214	13·50
Lutheran	23,371	1·39	25,994	1·30	241,807	4·47
Roman Catholic	71,227	4·25	92,193	4·60	82,008	1·52
Greek Church	2,404	0·14	3,496	0·17	98	*
Baptist	17,316	1·03	20,075	1·00	23,944	0·44
Christian Scientist	3,930	0·24	7,250	0·36	179	*
Salvation Army	3,647	0·22	4,147	0·21	2,209	0·04
Seventh Day Adventist	3,210	0·19	5,457	0·27	15,760†	0·29
Apostolic Faith Mission Church	15,544	0·93	31,732	1·58	—	—
Plymouth Brethren	1,998	0·12			375	0·01
Full Gospel Church, Gospel Mission	3,491	0·21	37,660	1·88	—	—
Protestant	8,756	0·52			1,022	0·02
Spiritualist	1,229	0·07			—	—
Various Christian Sects	8,901	0·53			57,190	1·06
Hebrew	71,816	4·28	90,638	4·52	31	*
Buddhist	12	*			12,497	0·23
Confucian	2	*			1,449	0·03
Hindu	1	*	134‖	0·01	109,253	2·02
Mahommedan	36	*			49,936	0·92
Parsi	—	*			741	0·01
‡ No Religion	4,916	0·29	6,206	0·31	3,062,669	56·62
Unknown (or not stated)	4,934	0·29	5,924	0·30	17,848	0·33
Others and Indefinite	1,979	0·12	4,462	0·22	41,697	0·77
TOTAL POPULATION	1,676,660	100·00	2,003,857	100·00	5,409,092	100·00

* Indicates that the percentage is so small that it has no significance. † Zionist, Israelite, etc.
‡ Indicates for Europeans "No Religion" (so returned), and for non-Europeans covers Bantu religions and non-Christian Hottentots and Bushmen.
§ No census figures are available to show the distribution of the non-European population in 1921 as between the three independent divisions of the Dutch Churches.
‖ Details of these denominations not yet available.

2. **The Dutch Reformed Church (Nederduits-Gereformeerde Kerk).**—The passing of Act No. 23 of 1911 gave authority for the union of the branches of the Nederduits-Gereformeerde Kerk in the various provinces, and made comprehensive provision in regard to organization, the holding of property, and other matters concerning the united church and its component congregations.

Organization—

(a) Each of the four churches (Cape, Orange Free State, Natal, and Transvaal) is ruled by a synod, possessed of the highest legislative, judicial, and administrative power.
(b) To ensure uniformity of church government, the churches are divided into presbyteries (ringe), as fixed from time to time by the synod.
(c) Each congregation has a representative and managing church council.
(d) There is also a federal council, which, guided by certain provisions, interests itself for the general good of the four aforesaid churches.
(e) Arrangements also exist for the connexion of mission churches with the Dutch Reformed Church.

Theological Training.—Candidates for the ministry of the church are trained in the Theological Seminary at Stellenbosch; those entering as preachers of the mission church are trained at the Mission Institute at Wellington. Ministers of the Nederduits or the Gereformeerde Kerk in the Transvaal are also now trained at the University of Pretoria, where there is a Faculty of Theology. For the mission churches native ministers are trained at the Stofberg-Gedenkskool, Orange Free State, and coloured ministers at Wellington.

Publications.—*Die Kerkbode* (weekly) and *Jaarboek van die Nederduits-Gereformeerde Kerke in Suid-Afrika.*

Statistics.—The following statistics have been furnished by the archivist for the year 1938-39:—

DUTCH REFORMED CHURCH STATISTICS, 1938-39.

Particulars.	Cape of Good Hope.	Transvaal.	Orange Free State.	Natal.	Total.
	No.	No.	No.	No.	No.
European—					
Congregations	206	112	84	11	413
Adherents	405,267	232,904	157,871	18,299	814,341
Members	215,056	124,886	81,764	10,514	432,220
†Mission Churches—					
Congregations	94	48	68	7	217
Adherents	130,006	54,371	63,864	8,507	256,748
Members	37,876	21,899	21,311	2,113	83,199

† In addition mission work is carried on at 9 stations in Bechuanaland (2,335 members), 288 stations in Mashonaland (4,988 members), 1,003 stations in Nyasaland (20,089 members), 542 stations in Rhodesia (8,000 members), and 7 stations in the Sudan (67 members).

3. **The Reformed Church of South Africa (Die Gereformeerde Kerk).**—The Reformed Church of South Africa is governed according to the church regulations laid down by the Dordrecht Church Assembly of 1618-19, as far as they can be applied in the various countries, with due regard to the individual requirements of the communities. At the Synod of Steynsburg in 1913, it was decided to review and modify the church regulations of Dordrecht on the basis of the revision adopted by the Reformed Churches in the Netherlands at the Synod of Utrecht in 1905.

According to these church regulations, which do not represent an absolute law for every church or community, the functions of government rest mainly in the hands of every individual "kerkraad" or church council for every local congregation. Until recently it was the custom for the congregations of each province of the Union to assemble once annually in general assembly. This is still the case in the Orange Free State, but a change has been made with regard to the Transvaal and Cape Provinces. More in agreement with the church regulations referred to above, the Transvaal is divided into four presbyteries (*klasses*), namely Rustenburg, Pretoria, Potchefstroom, and Middelburg. Representatives of these presbyteries assemble once or twice every year to deal with matters which are too difficult for the church council to dispose of. Once a year every presbytery (*klassis*) sends five representatives to the provincial synod, and once in three years the representatives of all church councils assemble for the general synod. A synod was held in March, 1939. The Reformed Church has no moderator or permanent executive.

Every presbytery, general assembly, provincial synod, or general synod at the commencement of its deliberations elects an executive consisting of four members At the close of the proceedings the executive is dissolved. Every congregation has its correspondent, and every province has its corresponding church council: for the Transvaal, Heidelberg; for the Orange Free State, Bloemfontein; and for the Cape Province, Burghersdorp.

The training of ministers takes place at the theological school at Potchefstroom. Three theological professors work in this institution.

The *Almanak* for 1939 contains the following church statistics: Congregations, 131; confirmed members, 31,937; baptized members, 25,108; total, 57,045.

Mission communities are to be found in South West Africa; at Ventersstad, in the Cape Province; and in the Transvaal at Sileam, with twelve outstations, administered by the Pretoria East Congregation. The Cape Province has charge of the first two and the Transvaal and Orange Free State of the others.

Twice a month the church issues *Die Kerkblad.* Once a year an *Almanak* is published.

4. **Die Nederduits-Hervormde Kerk.**—At the establishment of the South African Republic, the Nederduits Hervormde Kerk was the only church of the country, and the first constitution of 1858 provided in section 20 that this church should be the Church of the State. Its first minister, the first in the Transvaal, was the Rev. D. van der Hoff, who arrived in 1853 direct from Holland. In 1885 the church lost a number of its members through amalgamation with the Dutch Reformed Church (Netherduits-Gereformeerde Kerk), founded in 1866. The history of the church is given in the publication *Geskiedenis van die Nederduits Hervormde Kerk van Afrika*, 2nd Edition, 1936, by Dr. S. P. Engelbrecht.

Its ministers are trained at the University of Pretoria. The church publications are represented by a monthly paper, *Die Hervormer*, and a Church Almanac, which appears annually. The church has an orphanage at Krugersdorp.

Die Hervormde Kerk is governed according to Presbyterian Church regulations by a General Church Assembly, which meets at least once every three years, and in the intervening period by a commission of the General Church Assembly; and further by the six circuits (ringe) into which the community is divided, and by the individual church councils concerned.

The following are the statistics for the year 1937-38: Congregations, 88; members, 73,339; members confirmed during the year, 2,173; members baptized during the year 3,315.

5. **Church of the Province of South Africa.**—(i) *Organization and Government.*—The official title of the English Church in South Africa is the Church of the Province of South Africa, and it is in communion with the Church of England and the other Provinces of the Anglican Communion throughout the world. It is a voluntary association and has its own constitution and its own rules and regulations. It is governed by a provincial synod, which meets every five years under the presidency of the Archbishop of Capetown and in which every diocese in the province has its representatives, both clergy and laity, and no resolution, rule, canon, or constitution is regarded as a law of the Church of the Province, but such as shall have received the concurrent assent of all orders of the church—bishops, priests, and laymen. The Church of the Province is divided into fourteen dioceses constituted in the following years: Capetown, 1847; Grahamstown, 1853; Natal, 1853; St. Helena, 1859; Bloemfontein, 1863; Zululand, 1870; St. John's, 1873; Pretoria, 1878; Southern Rhodesia, 1891; Lebombo, 1893; George, 1911; Kimberley and Kuruman, 1911; Johannesburg, 1922; Damaraland, 1924. Each of the above dioceses has the right to send clerical and lay representatives to the provincial synod on the basis of one of each order for every ten (or part of ten) licensed priests in the diocese. The enactments of the provincial synod are binding upon all members of the church in South Africa, though it is expressly stated in Article II of the constitution that the provincial synod of the Church of the Province shall be subordinate to a higher authority of a general synod of the church of the Anglican Communion, to which such province shall be invited to send representatives whenever such general synod shall be convened. The Church of the Province has accepted the consultative body of the Lambeth Conference as its court of final appeal. The organization of the various dioceses is very similar to that of the Province. All the dioceses have their synods, but all acts and resolutions passed by the diocesan synods are subject to revision by the provincial synod. There are at the present time some 700 clergy working in the Province, of whom the majority are employed in parochial or missionary work, but some few are engaged in educational and extra-parochial work.

(ii) *Colleges and Schools.*—In connexion with the church there are several schools and colleges for Europeans. For boys: Diocesan College, Capetown; St. Andrew's College, Grahamstown; Michaelhouse, Balgowan, Natal; St. John's School, Johannesburg; St. Andrew's School, Bloemfontein; St. George's Grammar School, Capetown. For girls: St. Cyprian's School and Herschel School, Capetown; St. Anne's School, Hilton Road, Natal; Diocesan School, Grahamstown; Diocesan School, Pretoria; St. Michael's High School, Bloemfontein; and St. Mark's School, Mbabane, Swaziland (co-educational). At Grahamstown there are a training college for women teachers and a theological college (St. Paul's) for the training of ordinands. There are also various

training colleges for native or coloured clergy and teachers, the chief of which are at Capetown, Keiskama Hoek, Estcourt, Pietersburg, Johannesburg, Umtata, and Kwa Magwaza, Zululand. Much is also being done for the education of the native and coloured people, and there are hundreds of mission schools throughout the Union. A hostel has been founded at Fort Hare, the government establishment for the higher education of natives.

(iii) *Hostels and Houses of Mercy.*—Leliebloem, Capetown; Irene, Transvaal; and at St. Monica's, Queenstown. There are also the Marion Institute and a home for friendless girls at Capetown, and St. Monica's Maternity Home.

(iv) *Orphanages and Homes for Children.*—For boys: St. John's Hostel, Capetown; St. George's Orphanage, Cleveland, Transvaal. For girls: St. George's Orphanages, Rosebank and Claremont, Cape; House of Bethany, Plumstead, Cape. For young children: St. Michael's Home, Capetown; the Woodville Orphanage, Grahamstown. There are also the St. Francis Home for coloured boys, Capetown; and the Athlone Blind School for coloured and natives at Faure, Cape.

(v) *Communities.*—The Community of the Resurrection, Johannesburg (priests), with a large mission station at Penhalonga, Southern Rhodesia; the Society of St. John the Evangelist, Capetown (priests), with an important mission station at St. Cuthbert's, Tsolo; The Society of the Sacred Mission, Modderpoort, O.F.S. (priests); the Community of St. Mary the Virgin, Irene, Transvaal (sisters); and the Community of the Resurrection, Grahamstown (sisters), with several mission stations throughout the province.

(vi) *Other Activities.*—For sailors, there are homes and chaplains of the seamen's institutes at Capetown, East London, Durban, and Lourenco Marques. There is a strong organization of the Church Lads' Brigade and Church Girls' Brigade among the coloured in the Cape district.

(vii) *Sources of Revenue.*—In the year 1937 the church raised in South Africa itself £205,000 for its own requirements from collections, subscriptions, and donations. In addition to this £33,000 was received from endowments. A further amount of £41,000 was received from overseas, but this was employed almost entirely on missionary work amongst native peoples.

(viii) *Publications.*—Publications include *The Historical Records of the Church of the Province of South Africa, The Legal Development of the Church of the Province, The Cape to the Zambezi* (quarterly), *The Church Weekly Newspaper*, and the *Church Directory and Year Book* containing the names of bishops and clergy, with other useful information; these can be obtained from the English Church Book Room, Church Street, Capetown.

6. **The Methodist Church of South Africa.**—(i) *Historical.*—The Wesleyan Methodist Church commenced work officially in South Africa in the year 1816, when the Rev. Barnabas Shaw arrived to minister to the Wesleyan soldiers in the garrison of occupation and to the native people. In 1820 the Rev. William Shaw arrived as chaplain to the London Party of the British Settlers, and within a few years he commenced work among the native population and made plans for considerable developments. In the course of years the work grew considerably, and attempts were made to minister to all sections of the population not ministered to by the Dutch Reformed Church.

Until 1883 the work in South Africa was under the direct control of the Missionary Society of the Wesleyan Methodist Church in England. In that year the first South African Conference met, and all the missions and churches south of the Vaal River were placed under its jurisdiction; the work in the Transvaal remained under the control of the Missionary Society in England. The South African Conference sustained an affiliated relationship with the parent conference in Great Britain until the year 1927, when, as the result of joint action of the two conferences, it was agreed that the South African church, while remaining in full communion with the parent church, should become independent and autonomous. By a Private Act (No. 17 of 1927) this independent and autonomous existence was ensured and received legislative sanction. Under this Act the Transvaal and Swaziland district, embracing the Transvaal Province, British Bechuanaland, Swaziland, and Portuguese East Africa, came under the jurisdiction of the South African conference as from the 1st of January, 1931. At the same time the Primitive Methodist Missions at Aliwal North in the Cape Province and Johannesburg were taken over by the Wesleyan Methodist Church of South Africa. The conference of

1931 resolved that the name of the church should be altered, and legislative effect was given to this resolution by the passing through Parliament in 1932 of Act No. 12, entitled *The Methodist Church of South Africa (Private) Act.*

(ii) *Organization.*—The area under the jurisdiction of the South African Conference is now divided into seven districts, namely:—1. Cape of Good Hope; 2. Grahamstown; 3. Queenstown; 4. Clarkebury; 5. Kimberley and Bloemfontein; 6. Natal; and 7. Transvaal and Swaziland. These districts are divided into smaller areas known as circuits, of which there are 266. There are also three medical missions with several medical clinics.

The administration of each district rests with an annual synod, composed of all the ministers resident in the area and of lay representatives from all the circuits. The supreme legislative and executive authority is vested in the annual conference, which is composed of representatives elected by the various district synods and official members appointed by the conference itself.

(iii) *Institutions.*—(*a*) *Day Schools.*—Very considerable educational work is being carried on by the church among native, coloured, and Indian people. There are 1,315 schools with 3,191 teachers and 139,192 scholars.

(*b*) *Secondary Schools, European.*—Under Wesleyan auspices three secondary schools for Europeans are in existence, namely, Kingswood College, Grahamstown, and Kearsney College, Stanger, Natal, both for boys, and Epworth High School, Pietermaritzburg, Natal, for girls.

(*c*) *Native Training Institutions.*—There are nine training schools and industrial institutions in connexion with the church. Pupils at these institutions number 4,839.

(*d*) *Orphanages.*—There are three orphanages for European children, namely, the Marsh Memorial Homes at Rondebosch, the Ethelbert Children's Home and Orphanage, Malvern, Natal, and Epworth Children's Home, Johannesburg. There is also an orphanage for coloured children at Heatherdale in the Cape Province.

(*e*) *Theological Colleges.*—A college for the training of ministerial students (European) is established at Mowbray, Cape Province. In connexion with the native college at Fort Hare there is a theological institution for the training of native ministerial students.

(iv) *General Statistics.*—The statistics for the Union of South Africa, Bechuanaland, Basutoland, Swaziland, and Portuguese East Africa, according to the latest available information, are as follows:—

Churches	2,538
Other preaching places	3,907
Ministers	395
Students at theological colleges	25
Evangelists	344
Local preachers	8,760
Church members	179,863
Sunday schools	1,130
Scholars	68,005
Total income from all sources	£553,276
Invested funds	£250,000
Value of church property	£2,000,000

7. Presbyterian Church of South Africa.—The first Presbyterian Church in South Africa was organized in Capetown in 1813 by the Rev. George Thom. In 1820, to meet the views of the Rev. Dr. Philip, who had been called to the pastorate, a Congregational platform was adopted and the church thereafter ceased to be Presbyterian. In 1827, under the Rev. Dr. Adamson, the Church of St. Andrew's, Capetown, the oldest Presbyterian congregation in the Union, was established, and in 1838 a mission for liberated slaves was instrumental in founding the coloured congregation of St. Stephen's in Riebeeck Square. Later in the century Presbyterian congregations were established in various towns in the Cape Colony and Natal and subsequently in the Orange Free State and Transvaal. In 1897 these were all united to form the Presbyterian Church of South Africa. Several congregations in Rhodesia are included in the Church, and the statistics given cover the whole Church in the Union and Rhodesia.

The Presbyterian Church of South Africa is governed by its General Assembly, which is held annually under a Moderator elected by the Assembly year by year. The General Assembly is constituted of representatives of the eight presbyteries—Capetown, Kingwilliamstown, Natal, Orange River, Orange River Native, Port Elizabeth, Transvaal, and Rhodesia.

The church has erected, at a cost of £15,000, and maintains at Queenstown (Cape Province) an orphanage with accommodation for seventy-five children.

The following figures give particulars for the years 1936 and 1937.

PRESBYTERIAN CHURCH—STATISTICS FOR THE UNION AND RHODESIA, 1936 AND 1937.

Description.	1936.	1937.	Description.	1936.	1937.
	No.	No.		£	£
Congregations*	215	206	Value of Church property	463,041	471,799
European members	18,403	18,663	Amount raised for the Church in year	63,738	62,773
European adherents	14,312	14,314	Amount spent on native mission work	8,362	8,622
European children in Sunday schools	7,814	8,137	Amount raised by natives	2,438	2,982
Native members	6,483	6,683	Invested funds†	121,463	122,772
Catechumens	1,198	880			
Mission schools	39	49			
Pupils in mission schools	3,183	4,022			

NOTE.—On the formation of the Bantu Presbyterian Church in 1923 two Presbyteries, Kaffraria and Mankazana, became detached from the Presbyterian Church of South Africa and incorporated in the newly-formed Bantu Church. The figures above relating to mission work indicate what is being done by the Presbyterian Church of South Africa from its own resources.

* Congregations and preaching stations (including mission charges).

† Including capital of beneficiary funds, orphanage, etc.

8. Congregational Churches.—Congregational churches in South Africa have been closely connected for more than a century with the London Missionary Society, and most of the native and coloured churches in the Cape Province were originally started by the missionaries of that Society.

The strict interpretation of congregational principles allows each church to manage its own internal affairs, but the Congregational churches in South Africa have formed a Congregational Union of South Africa, of which all these churches are members. The Union holds an annual Assembly to which all the churches send representatives, and this meeting lays down the principles and general policy to be followed.

With a view to providing local advice, the Union has been divided into five district associations as follows: (1) Rhodesia, the Transvaal, and the Orange Free State; (2) Natal; (3) the Cape Midlands; (4) South-west Cape; and (5) Cape Western.

A training college at Uitenhage for coloured teachers, conducted by the Congregational Union, takes a high place among such institutions in the Cape Province.

The following figures give information for the year ending June, 1938:—

Number of Ministers		81
„ Lay preachers		1,485
„ European members		3,086
„ Coloured members		24,317
„ Native members		7,636
„ European adherents		2,680
„ Coloured adherents		23,330
„ Native adherents		9,185
„ Sunday school scholars		23,820
„ Sunday school teachers		1,315
„ Buildings used in church work		385
Value of property	(approx.)	£250,000
Invested funds	„	£93,000

9. **Baptist Churches of South Africa.**—Baptists have been settled in South Africa since 1820, their first church being opened at Grahamstown. In 1872 the churches combined under the Baptist Union, a voluntary association for the furtherance of their work through mutual conference and assistance, in which each church retained its independence and complete autonomy, though co-operating in corporate action. The churches are represented in an annual Assembly by ministers and lay members, and this Assembly carries out its enterprises through the year by means of its officers and an executive. In 1892 the Missionary Society was formed for work among the Bantu, and it has since become identical with the Union in personnel, being the Union organized for missionary purposes.

The Union includes a number of district associations representing different parts of the country, one of which comprises the German Baptist churches of Kaffraria while another comprises the Afrikaans Baptist churches. In Natal there are also Indian churches, affiliated with the Union, working amongst Telegus and Tamils.

The ministers of the churches in the Union are trained, where possible, at recognized Baptist colleges in Great Britain and the United States of America, and where overseas training is not practicable training courses are provided, supervised by the ministerial education committee, over a period of four years. The European churches are scattered through all the four provinces of the Union of South Africa and in Southern and Northern Rhodesia. The missionary work covers nearly the same ground.

The Baptist Union of South Africa is affiliated with the Baptist World Alliance, a federation of churches comprising about twelve million members and nearly forty million adherents.

General statistics for 1938 are as follows:—

European ministers and probationer ministers	No.	76
European church members	„	7,631
Coloured church members	„	532
Native church members	„	7,568
Indian church members	„	581
Sunday school teachers	„	925
Sunday school scholars	„	10,563
Buildings for church work	„	218
Value of church property	£	178,963
Income of churches	£	35,396

It should be added that there are in addition, under the control of the National Foreign Mission Board of the United States of America, Bantu members numbering over 2,500 who are recognized by the Baptist World Alliance.

10. **Roman Catholic Church.**—The Union contains the following ecclesiastical divisions of the church:—

Delegate Apostolic: Bloemfontein.
Western Vicariate, Cape Province: Capetown.
Eastern Vicariate, Cape Province: Port Elizabeth.
Kimberley Vicariate: Kimberley.
Central Prefecture, Cape Province: Oudtshoorn.
Aliwal Vicariate: Aliwal North, Cape Province.
Mount Currie Prefecture: Kokstad.
Mariannhill Vicariate: Mariannhill, Natal.
Natal Vicariate: Durban.
Vicariate of Eshowe: Inkamana, P.O. Vryheid.
Vicariate of the Transvaal: Johannesburg.
Prefecture-Apostolic of Northern Transvaal: Pietersburg.
Lydenburg Prefecture: Lydenburg, Transvaal.
Vicariate of the Orange River: Pella, Namaqualand.
Vicariate of Basutoland: Roma.
Prefecture of Swaziland: Bremersdorp, Swaziland.
Vicariate of Windhoek: Windhoek, South West Africa.
Kroonstad Vicariate: Kroonstad, Orange Free State.
Great Namaqualand Vicariate: Keetmanshoop, South West Africa.
Umtata Vicariate: Umtata.
Prefecture of Queenstown: Queenstown, Cape Province.

The following figures are given for the year 1938:—

	No.		No.
Bishops*	16	Churches, chapels, and stations†	1,136
Prefects-Apostolic	6	Convents	334
Priests	714	Communities	19
Religious Brothers	653	Colleges and schools	1,286
Nuns	4,112	Other institutions	41

* One on the retired list.
† Includes stations where Mass is said regularly, but not every Sunday.

11. **The Jewish Community.**—(i) *Historical.*—The Jews have been associated with South Africa since its earliest days. Jewish pilots accompanied the Portuguese navigators, and Jews were included among the Dutch East India Company's officials at the Cape. Jewish names constantly crop up in the church and secular records of the Cape in the 17th and 18th centuries. There was also a party of Jews among the 1820 Settlers. The "Jewish Community" as an organized body first came into existence at Capetown in 1841, under the title of "The Society of the Jewish Community of the Cape of Good Hope", its Hebrew name being "Tikvath Israel" (The Hope of Israel). Its leader was Benjamin Norden. As the white population made its way into the whole of the sub-continent, Jewish communities came to be founded in most centres, so that there are to-day Jews in every part of the country. (See *The History of the Jews in South Africa*, by Louis Hermann, London, 1930, and *The South African Jewish Year Book*, 1929.)

(ii) *Congregational.*—In most centres, the Jewish communities are organized for religious purposes into congregations, of which there are about 200 in the Union, most of them having their own synagogues. In the larger centres of the Jewish population, such as Johannesburg, Capetown, Durban, Pretoria, Port Elizabeth, Bloemfontein, and Kimberley, there are Rabbis (holders of the Rabbinical diploma), who exercise authority in matters of religious observance. In the smaller centres, it is usual for a single individual to perform the duties of cantor, teacher of Hebrew and religion, and other functions associated with Judaism.

(iii) *Educational and Cultural Activities.*—A knowledge of Hebrew and of Judaism is normally imparted to the young through supplementary afternoon classes, which are usually attached to the synagogues. In the larger towns there are, in addition, separate Talmud Torah schools for this purpose. The work of these schools is co-ordinated and supervised by the South African Board of Jewish Education, with headquarters at Johannesburg and a special committee at Capetown for the Cape Peninsula. Periodical examinations take place under the direction of qualified inspectors. In the main centres, there are societies or clubs devoted to the fostering of Jewish culture, learning, and social intercourse.

(iv) *Philanthropic Institutions.*—The Jewish community undertakes the care of its own orphans, aged, and poor. In both Johannesburg and Capetown there are orphanages and homes for the Jewish aged; and every considerable centre of Jewish population has its Helping Hand Society, Jewish Board of Guardians, or other benevolent societies, which give financial help to the poor.

(v) *Organizational.*—The representative institution of South African Jewry is the South African Jewish Board of Deputies. A unified body for the Union came into existence in 1912, replacing separate provincial organizations existing prior to that date. The Board is composed of all the important congregations and Jewish institutions in South Africa (its affiliated bodies numbering some 215), and its function is "to watch and take action with regard to all matters affecting the welfare of the Jews in the southern portion of the Continent of Africa". The headquarters of the executive council of the Board are in Johannesburg, and there are provincial committees at Capetown, Durban, Bloemfontein, and Port Elizabeth.

(vi) *Zionism.*—The official representative of the World Zionist Organization (and of its various funds and institutions) in the Union is the South African Zionist Federation, which has branches or correspondents in over 500 places in the Union and adjacent territory. Its main objects are to propagate the principles of Zionism, to elicit the moral and material support of the Jews of South Africa for the upbuilding of the Jewish National Home in Palestine,

to foster a knowledge of the Hebrew language and of Jewish history and culture, and to co-operate with other Jewish organizations in the furtherance of Jewish welfare.

(vii) *Publications.*—There are four weekly newspapers published in English: the *Zionist Record*, *South African Jewish Chronicle*, *South African Jewish Times*, and *Jewish Herald*. There are also three Yiddish papers: *African Jewish Newspaper*, *Jewish Express*, and *South African Jewish Opinion*. Monthly magazines include the *Jewish Guild Magazine*, *South African Menorah*, *Jeshurun*, *Habinyan*, *Jewish Mirror*, and *Hasholom*, all published in English, *Barkai* published in Hebrew, and *Forois* published in Yiddish.

(viii) *Statistics.*—The following table shows the number of persons in the various provinces professing the Hebrew religion as ascertained at the Censuses of 1926 and 1936 respectively:—

JEWS IN THE UNION, CENSUSES OF 1926 AND 1936.*

Province.	1926.			1936.		
	Male.	Female.	Total.	Male.	Female.	Total.
Cape of Good Hope	12,761	11,223	23,984	14,789	13,373	28,162
Natal	1,805	1,472	3,277	2,019	1,744	3,763
Transvaal	20,941	17,861	38,802	28,835	25,067	53,902
Orange Free State	3,310	2,443	5,753	2,667	2,144	4,811
TOTAL	38,817	32,999	71,816	48,310	42,328	90,638

* Corresponding information for the Census of 1931 was not tabulated.

§ 11. Miscellaneous.

1. **Physical Education in South Africa.**—The national scheme of physical education was set afoot in 1937 when the Cabinet decided, in accordance with a general desire which had been evinced in the country, to take some such action as had already been done in most civilized states. The objects aimed at were to raise the general standard of the nation's physique and to impart knowledge of the rules of health, including nutrition.

A sum of £50,000 was voted for the financial year 1938-39 and was allocated as follows:—

(*a*) Expenditure through the Department of Defence, in co-operation with the South African Railways and Harbours Administration £25,000

(*b*) In aid of the work at educational institutions, such as universities, colleges, and primary, secondary, and vocational schools, to be spent through the education departments £15,000

(*c*) Expenditure through local authorities and voluntary organizations £10,000

The first item (£25,000) is being devoted by the departments mentioned to supplying physical training to such groups as the following:—

(i) Permanent Force.
(ii) Special Service and Pioneer Battalions.
(iii) School Cadet Corps.
(iv) Active Citizen Force.
(v) Defence Rifle Associations and Burgher Commandos.
(vi) Voluntary Aid Associations.
(vii) St. John Ambulance Brigade.

The second and third items (total £25,000) are being administered by the Minister of Education, who is advised by and acts through the agency of the National Advisory Council for Physical Education*.

* For personnel see Chapter XXVIII.

Individual educational institutions approach the education departments under which they fall. Technical colleges, vocational schools, and reformatories communicate with the Union Education Department, and primary or high schools with the department of the province in which they lie. £15,000 is divided amongst the five education departments, and each department aids its own institutions by paying out amounts from the sum allocated to it.

Local government authorities and voluntary organizations, such as sports, athletic, or gymnastic clubs, on the other hand, approach the Council direct. When considering applications from these bodies, the Council generally observes the following rules:—

Grants may be either annually recurrent or non-recurrent.

Grants are available to rural as well as urban communities.

Grants are as a rule not made to organizations with fewer than 20 members.

As far as possible all the clubs, schools, and other bodies within a given locality must be allowed to benefit by the grants. For this purpose the Council generally requires representative committees to be formed in the towns and villages where they think of making grants.

Grants are made only if the Council is satisfied that the locality concerned is in need of assistance and has made reasonable efforts to procure such assistance itself.

Property for the purchase of which a grant has been made must be vested in a body approved by the Council.

In order to establish an efficient physical education service the training of teachers and instructors is a matter of great importance. Schemes with which the Council are acquainted are gradually taking shape and include the following:—

(*a*) Some departments send young South Africans overseas to be trained.

(*b*) The provincial education departments train some of their ordinary certificated teachers at normal colleges on a one-year basis, so that they can teach physical education as well as the ordinary school subjects.

(*c*) The University of Stellenbosch trains expert instructors on a four-year basis and others for a shorter period.

2. **Temperance Movement.**—Of the temperance societies operating in the Union of South Africa, the *International Order of Good Templars* is the oldest, its first South African lodge having been opened in 1873. The *Women's Christian Temperance Union* came next, and consists of a South African Union with organized bodies for the four provinces and also for Rhodesia. It has enlarged its scope so as to include young people's branches and also an organization of non-European women. The *White Ribbon*, published monthly, is its official organ. The largest temperance society in South Africa is the *Independent Order of True Templars*, a purely South African body founded for non-Europeans and numbering 15,000 coloured and native adult members and 30,000 juveniles; the *Sons of Temperance* and the *Order of Rechabites* are temperance benefit societies, with world headquarters overseas; the *South African Railways and Harbours Temperance Union* is a sectional society working among railway employees; and the *Band of Hope and Temple Union* seeks to extend activities among the young. In addition, the majority of the churches have special temperance committees.

The *South African Temperance Alliance* co-ordinates the work of the temperance societies, and has special charge of the legislative side of temperance activities. It has provincial organizations in the Transvaal, Natal, and Orange Free State, and its headquarters are at Capetown. The *Tribune* is its monthly organ.

3. **Prevention of Cruelty to Animals.**—The earliest recorded efforts in South Africa towards awakening public sympathy with tortured and ill-used animals were made in the year 1872, when the first society for the Prevention of Cruelty to Animals was founded at Wynberg, Cape. The movement was followed up in 1875 by the passing of an Act dealing with the matter through the Cape of Good Hope Legislature; this Act was later repealed and Act No. 18 of 1888 substituted. In Natal an Act, No. 31, was passed in 1874, and the other territories now forming the Union each introduced similar legislation within the few years following.

After the constitution of the Union the whole of the earlier legislation was consolidated in Act No. 8 of 1914, subsequently amended by Act No. 14 of 1922. Persons guilty of certain offences defined by the Act as amounting to cruelty to animals are liable to imprisonment (with or without the option of a fine not exceeding £25) for a period of not more than three months, with or without hard labour. In 1928 an Act, further amending Act No. 8 of 1914, was passed, providing that in cases where cruelty of a wilful and aggravated nature is proved, the offender is liable to whipping, in addition to other penalties. Animals which have been subject to cruelty may be destroyed or otherwise disposed of as the court may direct. Societies for the prevention of cruelty to animals may be authorized to institute prosecutions under the Act, and officers of such societies may be granted police powers under the Act within particular areas.

Particulars are given hereunder of other Acts which have as their object the protection of animals:—

(i) The *Slaughter of Animals Act*, No. 26 of 1934, came into operation as from the 1st January, 1935. This Act makes provision for the method of slaughter of certain animals and for the licensing of slaughtermen.

(ii) The *Wild Birds Protection Act*, No. 22 of 1934, now in force, will do much to put a stop to the traffic in wild birds, and to their capture and/or sale. It is no longer legal to capture wild birds without a permit, and permits will not easily be obtained.

(iii) The *Performing Animals Protection Act*, No. 24 of 1935, came into operation as from 8th May, 1935. Under the provisions of this Act, any person who intends to exhibit or train for exhibition any animal must obtain a licence to do so, together with a certificate for all animals in respect of which such licence is held. Upon the certificate is specified the form of training and form of exhibition of such animals. Police officers and authorized officers of societies for the prevention of cruelty to animals may enter premises where training and/or exhibition takes place, at any reasonable time, for the purpose of investigating the conditions under which performing animals are trained and kept. Heavy penalties are provided for contraventions of the Act.

Societies are in existence in all the provinces, and nearly all the largest towns have a branch. At the 31st December, 1938, there were 38 societies in the Union.

No grant is made to societies by the Government, although they may claim one half of any fine inflicted (and paid) in cases brought into court by them.

4. **Censorship of Cinematograph Films, Pictures, and Public Entertainments.**—Under the provisions of the *Entertainments (Censorship) Act*, No. 28 of 1931, a Board of Censors was appointed to take over the duties and responsibilities of the boards which previously operated in the four provinces. The functions of the Board are to examine cinematograph films and film advertisements submitted to it for approval, and it has power to approve or reject a cinematograph film unconditionally or to approve of any such film, subject to a condition that it shall be exhibited only to a class of persons specified by the Board or after any specified portion or portions

have been excised therefrom. Section 5 of the Act lays down that the Board shall not approve any film which, in its opinion, depicts any matter that prejudicially affects the safety of the State, or is calculated to disturb peace or good order, or prejudice the general welfare, or be offensive to decency. The Board is also required, upon reference to it by the Minister, to make representations to the Minister regarding the prohibition of the publication of any picture or the giving of any public entertainment, and, in terms of the *Customs Management Act*, No. 9 of 1913, as amended, to advise the Minister of the Interior regarding the prohibition of importation of any printed, engraved, lithographic, and photographic matter which is indecent or obscene or on any ground whatsoever objectionable.

In terms of section 1 of the Act no person shall exhibit in public any cinematograph film or publish a film advertisement, unless such film or advertisement has been approved by the Board. Heavy penalties are provided for contraventions of the Act.

The following statement shows for a series of years the numbers of films and film advertisements censored:—

CINEMATOGRAPH FILMS AND FILM ADVERTISEMENTS CENSORED, 1934 TO 1938.

Heading.	1934.	1935.	1936.	1937.	1938.
FILMS.					
Approved without Excisions—					
For General Exhibition	1,443	1,565	1,414	1,624	1,797
For Exhibition under Conditions	161	160	174	249	309
Approved after Excisions—					
For General Exhibition	41	24	31	47	58
For Exhibition under Conditions	29	41	23	33	23
Rejected	26	27	38	32	43
TOTAL	1,700	1,817	1,680	1,985	2,230
Footage of Films Censored	3,736,664	3,875,288	3,456,270	3,754,283	4,379,800
Fees £	2,595	2,691	2,401	2,635	3,075
FILM ADVERTSIEMENTS.					
Approved	12,578	17,818	14,868	15,780	23,567
Rejected	527	559	181	153	293
TOTAL	13,105	18,377	15,049	15,933	23,860
Fees £	165	185	135	153	257

The recommendations of the Board in regard to publications submitted for examination in terms of the *Customs Management Act*, 1913, for a series of years were as follows:—

	1934.	1935.	1936.	1937.	1938.
Considered objectionable	• 88	130	89	235	1,059
Considered not objectionable	16	32	17	99	637
TOTAL	104	162	106	334	1,696

5. **Public Holidays.**—The following are the statutory public holidays as prescribed in Act No. 3 of 1910:—

New Year's Day.
Good Friday.
Easter Monday.
Ascension Day.
Victoria Day (24th May).
Union Day (31st May).
King's Birthday (first Monday in August).
First Monday in October.
Dingaan's Day (16th December).
Christmas Day.
Boxing Day (26th December).

When any of these days falls on a Sunday, the following Monday is observed as a public holiday. When Boxing Day falls on a Monday, the following Tuesday is regarded as a holiday. Sundays and the above-mentioned days are deemed to be non-business days for bills of exchange and promissory notes.

CHAPTER VI.

LABOUR AND INDUSTRIAL CONDITIONS.

§ 1. Department of Labour.

1. **Formation of the Department of Labour.**—Consequent upon the constitution of the Ministry of Labour in July, 1924, the Department of Labour was established in terms of Government Notice No. 1305 of the 6th August, 1924. By Government Notice No. 568, dated the 26th April, 1935, the designation was amended to the "Department of Labour and Social Welfare", but on 1st October, 1937, a separate Department of Social Welfare was established (vide Government Notice No. 1278 of 20th August, 1937).

The head office of the Department of Labour is in the Union Buildings, Pretoria, while seven district inspectorates have been established with headquarters in Johannesburg, Pretoria, Capetown, Durban, Bloemfontein, Port Elizabeth, and East London. In addition, there are industrial inspectors stationed at Benoni, Kimberley, Krugersdorp, and Pietermaritzburg.

2. **Functions of the Department.**—The primary functions of the Department may be classified as follows:—

(*a*) Employment questions generally (other than native employment) in which are included—
- (i) urban and rural employment exchanges;
- (ii) the recruiting of such members of the Public Service as are not dealt with by the Public Service Commission;
- (iii) the recruiting of labourers for government departments;
- (iv) schemes for the physically handicapped; and
- (v) recruiting for, and placement of, units of the Special Service and Pioneer Battalions;

(*b*) Administration of the following Acts:—
- (i) Factories Act, 1918, as amended.
- (ii) Juveniles Act, 1921.
- (iii) Apprenticeship Act, 1922, as amended.
- (iv) Workmen's Compensation Act, 1934, as amended.
- (v) Industrial Conciliation Act, 1937.
- (vi) Wage Act, 1937.
- (vii) Unemployment Benefit Act, 1937.
- (viii) Workmen's Wages Protection Act, 1914.

(*c*) International Labour Organization matters.

3. **Advisory Council of Labour.**—During 1937, the Advisory Council of Labour, which had last functioned in 1930, was resuscitated by the Minister of Labour. The functions of this Council are of a consultative and advisory character, and all matters falling within the purview of the Department of Labour may be discussed at the instance of the Minister or the Council.

The personnel, whilst drawn from various interests, has been selected by the Minister, not as the representatives of any organization, but on account of the individual's knowledge of and connexion with a particular interest; organizations catering for the more important national interests were, however, invited to submit the names of persons considered suitable for appointment. The Council consists of fifteen members and eleven alternates; the interests represented include agriculture, commerce, industry, and mining, and further members have been appointed on behalf of the interests of women, of the workers generally, and of non-Europeans; in addition there are two Members of Parliament on the Council.

According to the nature of the business to be discussed, meetings of the full Council, or of a group or several groups of interests particularly concerned, are arranged at the discretion of the Minister. At least one meeting of the full Council is convened each year. The proceedings at meetings, and the documents placed before members or alternates, are confidential, but the Council may agree on the terms of any statement which it is decided should be handed to the Press. The inaugural meeting of the reconstituted Council was held in Pretoria on the 29th November, 1937.

§ 2. Labour Conditions and Unemployment.

1. **General Conditions of Labour in Industry and Commerce.**—The expansion of industrial activity in South Africa during the last two decades has naturally been accompanied by a rapid increase in the number of persons engaged in industrial and commercial occupations in urban areas. Problems connected with labour conditions arose at an early stage, and led to the enactment of the laws described in this section of the *Year Book*. The code of industrial legislation is wide enough to deal with most of the difficulties which arise from time to time in regard to labour conditions, and has been successful to a degree which is gratifying to a country with so short an industrial history. In 1922, Parliament passed the *Apprenticeship Act*, which made provision for the training of South Africa's youth in occupations for which it had been necessary in the past to import skilled workmen from overseas. The *Industrial Conciliation Act*, 1924, was followed by the *Wage Act*, 1925, and in 1937 these two measures were replaced by two consolidating Acts bearing the same titles. The regulations made under these laws, together with the provisions of the *Factories Act* of 1918, as amended, cover the great majority of occupations in industry and commerce in urban areas and make provision for the fixing of minimum wages, the protection of the health and welfare of factory workers, and the control of hours of labour and other conditions of employment. The Acts contain safeguards to ensure adequate consultation with the interests affected, and the regulations may be varied from time to time to meet changing conditions.

All questions concerning labour conditions in the Union, particularly in semi-skilled and unskilled occupations, are complicated by the existence of the numerically predominant native and coloured elements of the population. In the Provinces of the Transvaal and Orange Free State, the skilled trades are, by long standing custom, regarded as a European preserve, and although in individual cases members of the native races may have established themselves in occupations requiring a certain degree of skill, the general rule is not affected by these exceptions. In Natal, the Indian has gained a footing in some occupations, while in the Cape Province, Malays and Coloured men (i.e. persons of mixed descent) form a proportion of the journeymen in many trades. The bulk of the unskilled work in most occupations is performed by native or coloured labour.

The conditions of labour and the effect of the Union's industrial laws were surveyed in detail by the Industrial Legislation Commission (1935). A summary of the Commission's report was published in *Year Book* No. 17.

2. **The Civilized Labour Policy.**—The steady influx into the towns from the country districts of large numbers of Europeans of the semi-skilled and unskilled type has led to the development of a sentiment favourable to the employment of European labour in occupational spheres which in past years were regarded as primarily the preserve of the native. This sentiment, which took practical shape under pressure of the acute unemployment following the economic depression of 1920, was further encouraged by the adoption, as a part of public policy, of the principle of the widest possible utilization of civilized labour in the government service.

More recently, the scope for the employment of civilized persons in unskilled and semi-skilled industrial occupations has increased as the result of developments in manufacturing methods. In several instances, industrial councils have already included in their agreements suitable provisions to meet the requirements of civilized workers in occupations not hitherto available to them. Considerable attention has been devoted to this matter in recent years. The experience gained since 1934 has shown very clearly the relationship between wage rates and the employment of civilized labour. In industries not subject to wage regulation, or where no special provision has been made in regard to rates of pay, attempts to increase the number of civilized workers have met with little success. Nor has indirect pressure, exerted through the protective customs tariff under which certain industries have grown up, proved of greater avail. Investigations into the conditions of labour in a number of industries enjoying tariff privileges showed that the proportion of uncivilized labour was high and wages and other conditions of labour poor, in comparison with the standards observed by other industries in South Africa.

3. **Fair Wage Policy.**—The aim of the Government's fair wage policy is to ensure that employees of government contractors are paid fair wages and that satisfactory conditions of employment and hours of labour are observed. Every contract for the supply of government requirements contains what is commonly known as the Fair Wage Clause, the terms of which are as follows:—

> "The contractors shall pay rates of wages and observe hours of labour not less favourable than those commonly recognized by employers and trade societies (or in the absence of such recognized wages and hours, those which in practice prevail amongst good employers) in the trade in the district where the work is carried out. Where there are no such rates of wages and hours recognized or prevailing in the district, those recognized or prevailing in the nearest district in which the general industrial circumstances are similar shall be adopted. Further, the conditions of employment generally accepted in the district in the trade concerned shall be taken into account in considering how far the terms of this clause are being observed."

The Department's divisional inspectors carry out investigations, where necessary, in order to ensure that the fair wage clause is being observed. The Tender and Supplies Board is advised of all cases where contractors or tenderers have been convicted of contravening industrial legislation, and, if the nature of the contravention justifies such action, the guilty party is debarred from tendering for government contracts for a specified period.

In contracts for the erection of government buildings, a more detailed fair wage clause is inserted, and the Public Works Department prescribes the wages to be paid on such works in districts where no minimum wages have been laid down by law. A fair wage clause is also inserted in contracts for the supply of the Railways and Harbours Administration's requirements.

Further, the regulations under the *Customs Tariff and Excise Duties Amendment Act* of 1925, governing the rebate of import duty on articles and materials required for industrial purposes, contain a provision whereby any manufacturer who maintains unsatisfactory labour conditions may be deprived of the right to import such goods free of duty.

In addition, the regulations of the Tender and Supplies Board now provide for approved lists of government tenderers and for the non-inclusion of a firm in an approved list unless, in the case of a South African company or firm, the Board is satisfied, after consultation with the Department of Labour, that satisfactory labour conditions, including the employment of a reasonable proportion of civilized workers, are maintained.

4. **Government Employment Exchanges.**—The Department of Labour conducts employment exchanges at Capetown, Port Elizabeth, East London, Kimberley, Bloemfontein, Johannesburg, Pretoria, Benoni, Krugersdorp, Durban, and Pietermaritzburg, under the supervision of Divisional Inspectors of Labour. These exchanges deal with employment matters affecting adult European males and females, as well as European juveniles of both sexes at the centres mentioned. In rural areas, where the needs of the community were previously served by Post Office and Social Welfare Committee employment exchanges, unemployment work has, since 1st May, 1938, been performed by Magistrates, Native Commissioners, and full-time Special Justices of the Peace. There are 282 rural employment exchanges, known as magisterial employment exchanges, conducted by these officials. Complementary to the employment exchanges referred to above, there is a co-ordinating employment division in the head office of the Department which, in addition to directing the filling of vacancies on government works, co-ordinates the work of district offices, particularly in connexion with the placement of clerical and semi-professional applicants, and the filling of non-prescribed, non-classified, and temporary posts in the general division of the public service. The Department of Labour also conducts employment exchanges for coloured persons at Capetown and Kimberley. In Johannesburg and Durban the needs of coloured

persons are provided for by subsidized employment exchanges conducted by representatives of the coloured communities. It is proposed to replace these subsidized exchanges by departmental employment exchanges in the near future, and also to establish a departmental exchange at Port Elizabeth in accordance with the recommendations of the Commission of Inquiry regarding the Cape Coloured Population of the Union.

In addition to the recruiting of all unskilled labour for government work, e.g., railway, irrigation, government contract works, and normal government works (subsidized and non-subsidized), the Department undertakes recruiting and placement work in connexion with the Special Service and Pioneer Battalions. 7,993 boys from the Special Service Battalion had been placed in employment from its inception in 1933 to the 31st December, 1938, and 1,566 members of the Pioneer Battalion had been placed in employment from 1935, when the battalion was established, to the 31st December, 1938. The placement work in this connexion engaged the attention of two special employment officers stationed at Roberts Heights and Bloemfontein respectively.

The tables given below reflect the employment activities of the Department for the year 1938:—

(a) DEPARTMENTAL AND MAGISTERIAL EMPLOYMENT EXCHANGES.

(i) APPLICATIONS FOR EMPLOYMENT (INCLUDING MONTHLY RE-REGISTRATIONS)—EUROPEANS, 1938.

Trade Group.	Inspectorates.								
	Johannesburg.	Pretoria.	Capetown.	Durban.	Bloemfontein.	Port Elizabeth.	East London.	Kimberley.	Total.
Departmental Employment Exchanges.									
Adult Males—									
Mining (Skilled)	299	9	3	3	—	—	—	9	323
Engineering (Skilled)	515	57	244	107	7	52	4	22	1,008
Building (Skilled)	745	88	429	39	64	144	10	21	1,540
Printing and Publishing (Skilled)	17	2	1	—	—	2	—	1	23
Other Industries (Skilled)	515	40	660	9	15	121	10	14	1,384
Clerical and Semi-professional	933	471	709	78	94	123	21	33	2,522
Semi-skilled and Unskilled Workers	14,090	7,329	6,707	4,265	2,099	2,558	1,496	1,430	39,983
Juveniles	5,839	1,755	1,588	1,479	429	786	804	223	12,903
Females	3,407	1,411	1,526	1,029	481	314	924	589	9,681
Magisterial Exchanges.									
All Occupations	2,235	1,551	1,664	412	1,577	1,112	716	1,348	10,615
TOTAL	28,595	12,713	13,591	7,421	4,766	5,212	3,985	3,702	79,985

(ii) DEPARTMENTAL EMPLOYMENT EXCHANGES—PERSONS PLACED IN NON-SUBSIDIZED PRIVATE EMPLOYMENT—EUROPEANS, 1938.

Occupational Group.	Inspectorates.								
	Johannesburg.	Pretoria.	Capetown.	Durban.	Bloemfontein.	Port Elizabeth.	East London.	Kimberley.	Total.
Adult Males—									
Mining (Skilled)	106	—	—	—	—	—	—	—	106
Engineering (Skilled)	106	2	22	29	1	6	—	3	169
Building (Skilled)	176	3	43	7	9	10	2	4	254
Printing and Publishing (Skilled)	—	—	—	—	—	—	—	1	1
Other Industries (Skilled)	94	6	73	2	4	35	—	4	218
Clerical and Semi-professional	204	65	68	19	22	21	7	3	409
Semi-skilled and Unskilled Workers	3,676	4,548	2,138	1,403	826	549	444	778	14,362
Juveniles	3,058	1,230	837	959	266	286	182	113	6,931
Females	700	296	275	227	61	102	104	80	1,845
TOTAL	8,120	6,150	3,456	2,646	1,189	1,009	739	986	24,295

(a) DEPARTMENTAL AND MAGISTERIAL EMPLOYMENT EXCHANGES—(*continued*).

(iii) DEPARTMENTAL EMPLOYMENT EXCHANGES—PERSONS PLACED ON GOVERNMENT, PUBLIC, AND SUBSIDIZED WORKS—EUROPEAN ADULT MALES, 1938.

Class of Work.	Inspectorates.								
	Johannesburg.	Pretoria.	Capetown.	Durban.	Bloemfontein.	Port Elizabeth.	East London.	Kimberley.	Total.
Railway Works	934	766	571	722	281	208	216	166	3,864
Irrigation Works	675	211	143	38	90	7	41	295	1,500
Anti-Soil-Erosion Works	18	15	76	—	53	31	2	85	280
Eradication of Noxious Weeds	—	—	—	—	—	20	—	—	20
Forestry Settlements	6	4	1	4	4	6	—	1	26
Other Government Works	537	707	325	113	158	162	44	86	2,132
Government Contractors	138	1,867	1	179	137	41	26	5	2,394
Provincial and Divisional Councils	2	13	—	1	60	11	7	56	150
Municipal Subsidized Works	841	33	42	60	—	—	26	47	1,049
Other Public or Private Subsidized Works	—	509	150	5	—	—	1	8	673
TOTAL	3,151	4,125	1,309	1,122	783	486	363	749	12,088

(iv) MAGISTERIAL EMPLOYMENT EXCHANGES—PERSONS PLACED IN NON-SUBSIDIZED PRIVATE EMPLOYMENT AND ON GOVERNMENT, PUBLIC, AND SUBSIDIZED WORKS—EUROPEAN ADULT MALES, 1938.

Class of Work.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Total.
All Occupations	1,987	289	2,009	753	5,038

(b) DEPARTMENTAL EMPLOYMENT EXCHANGES.

(i) APPLICATIONS FOR EMPLOYMENT (INCLUDING MONTHLY RE-REGISTRATIONS)—NON-EUROPEANS, 1938.

Trade Groups.	Capetown.	Kimberley.	Non-Governmental Exchanges.*	Total.
Adult Males—				
Mining (Skilled)	—	—	—	—
Engineering (Skilled)	70	—	1	71
Building (Skilled)	308	10	90	408
Printing and Publishing (Skilled)	12	—	1	13
Other Industries (Skilled)	887	6	268	1,161
Clerical and Semi-Professional	327	2	7	336
Semi-Skilled and Unskilled	8,206	941	2,605	11,752
Juveniles	1,209	51	602	1,862
Females	1,721	25	582	2,328
TOTAL	12,740	1,035	4,156	17,931

* Johannesburg and Durban.

employed and their wages are paid out of funds provided by the Department of Labour. The wages for Europeans are the same as those on anti-soil-erosion works, and coloured persons receive 2s. to 2s. 9d. per day.

(ii) *Provincial and Local Authorities Subsidized Works.*—In addition to measures for the relief of unemployment described in this paragraph, subsidies are granted by the Department of Labour to Provincial Administrations and various local authorities to enable them to provide work for persons who would otherwise be unemployed. The conditions of subsidy vary according to circumstances but are on a more liberal basis in the case of persons absorbed in regular employment than in respect of those employed on supplementary works.

With a view to encouraging local authorities to give employment to unemployed semi-fit Europeans, the Department of Labour is prepared to grant subsidies at the rate of 75 per cent. (inclusive of any contribution which may be made by provincial authorities) of the wages paid, based on a minimum wage of 4s. and a maximum wage of 6s. per day. Although the subsidy is based on these wage rates, the employing authorities are not precluded from paying higher wages than 6s. per day; but subsidy is not paid on a wage higher than the ruling rate for Europeans in the area concerned.

(iii) *Statistics.*—The following table shows the average numbers of European and coloured persons employed on subsidized works and non-subsidized government works, including men undergoing training in the Special Service and Pioneer Battalions:—

SUBSIDIZED WORKS AND NON-SUBSIDIZED GOVERNMENT WORKS.—AVERAGE NUMBER OF LABOURERS EMPLOYED, 1934 TO 1938.

Year.	Subsidized Works.		Non-Subsidized Works.	
	European.	Coloured.	European.	Coloured.
1934	14,267	2,254	23,562	1,361*
1935	14,325	1,954	27,560	1,730*
1936	12,380	1,263	29,564	9,579
1937	9,823	822	28,696	10,658
1938	9,030	958	29,913	10,612

* Excludes Railways.

(iv) *Special Service and Pioneer Battalions.*—During 1933 a Special Service Battalion was established at Roberts Heights (now Voortrekkerhoogte) for the purpose of combating the deteriorating influences of unemployment and of providing discipline and training for unemployed boys and young men. The cost of the scheme is shared equally by the Departments of Defence and Labour. Recruiting is confined to young men between the ages of 17 and 22 (23 if matriculated) of good character, physically and mentally fit, and in possession of at least a Standard VI certificate. In urban areas the recruiting is undertaken by the Department of Labour, and in rural areas by the police. Final selection is entrusted to a board consisting of representatives of the Departments of Defence and of Labour.

Although the scheme cannot be regarded strictly as a means of providing employment, it has nevertheless proved a most effective method of combating unemployment. Special efforts are made to place in suitable employment members of the battalion who have served the full period of training, and the demand for the services of the products of the battalion (disciplined youth) has exceeded expectations. Members of the battalion receive pay at the following rates per diem: Privates, 1s.; corporals, 1s. 6d.; sergeants, 2s.; and in addition free rations, uniform, medical treatment, quarters, fuel, and light are given. Special attention is paid to physical training, and sports are organized under the direction of a sports officer. The authorized strength is 1,960 men.

In November, 1934, a Pioneer Battalion was established on lines similar to the Special Service Battalion, but for the benefit of young men between the ages of 18 and 30 who are physically and mentally fit, but who are not educationally qualified for the Special Service Battalion. The Pioneer Battalion is stationed at Bloemfontein, and the men enrol for a period of six months, after which they are placed as labourers on government works, particularly with the Railway Administration, and in other employment. The work offered by the Railway Administration is of the manual type, but the labourers are entitled to certain privileges, such as sick and pension benefits, concessions, etc., while their employment is of a permanent nature. The authorized strength of this battalion is 420. The expenditure is shared between the Departments of Defence and Labour and amounts to £22,000 per annum.

The establishment of platoons, attached to the Special Service and Pioneer Battalions, to which applicants handicapped by remediable physical disabilities will be posted for curative treatment, is under consideration. These platoons will serve as "feeders" to the battalions.

(v) *Coloured Training Camp, Kimberley.*—The Department of Labour has concluded negotiations with the Railway Administration, whereby the Department and the Administration became jointly responsible, with effect from 1st October, 1938, for the conduct of the training camp for Coloured youths which the Railway Administration established at Kimberley on 1st March, 1937.

Unmarried coloured youths between the ages of 18 and 30 years, who are medically fit, are eligible for admission to the camp for training. The strength of the camp is 100 units and the period of training is twelve months, but trainees may be discharged to approved employment after having satisfactorily completed six months' service. Trainees are paid 1s. per day and get free food, accommodation, uniforms, light, water, and medical attention. The training consists of physical exercises and vocational instruction. The latter is mainly in respect of railway occupations, but steps will be taken, as experience is gained, to extend vocational instruction to other occupations, if the demand justifies it.

The enrolment of trainees is undertaken by employment exchanges functioning under the Department of Labour.

§ 3. Industrial Conciliation and Arbitration.

1. **Industrial Conciliation Act, 1937.**—This Act came into force on the 15th December, 1937, and the *Industrial Conciliation Act*, No. 11 of 1924, was repealed with effect from that date.

The objects of the new Act are similar in all respects to those of the old Act and provision is made for the registration of industrial councils, employers' organizations, and trade unions, if effected under the 1924 Act, to be recognized as though these bodies had been registered under the new law. The main objects of the law are the prevention and settlement of disputes between employers and employees by conciliation, and in certain cases by arbitration, and the registration and regulation of trade unions, employers' organizations, and private registry offices.

The scope of the 1937 Act is similar to that of the previous statute and embraces every industrial council and public utility undertaking, every industry, trade, and occupation, and every employer and employee engaged in or at any such undertaking, industry, trade, or occupation, excluding agriculture or farming employment, government employment (including the Railway Administration), and work done at charitable or educational institutions, if in the former case no remuneration is paid and in the latter case the work forms a part of the educational training of the person performing it.

The establishment of industrial councils consisting of employers or registered employers' organizations on the one hand, and registered trade unions or groups of registered trade unions on the other hand, is recognized, and these bodies, when registered, may deal with any matter of mutual interest to the parties, and take such steps as may be necessary for the prevention and settlement of disputes within the industry for which they are registered. Agreements arrived at by the parties to these councils may be published by the Minister and made binding upon the employers and employees who are members of the constituent organizations and, if the Minister is satisfied that these employers and employees are sufficiently representative of the industry concerned taken as a whole, the terms of these agreements may on publication be made binding upon all employers and employees in the industry concerned. If it appears that the objects of any such agreement are likely to be defeated by the employment of persons excluded from the definition of employee contained in the Act, i.e. pass-bearing natives, provision is made for the Minister, at the request of the industrial council concerned, to extend to these persons and their employers such of the terms of the council's agreement as he may consider necessary. Agents of industrial councils, whose powers of inspection

were previously restricted to the establishments of parties to the councils, may now exercise powers of inspection in respect of all establishments in the industry concerned, if the Minister approves of their appointment as designated agents.

Where there are no industrial councils and disputes arise, conciliation boards may be set up by the Minister on the application of any of the disputants for the purpose of settling these disputes. Where a dispute relates to employment in connexion with essential services, i.e. the provision of light, power, water, sanitation, fire extinguishing services, or passenger transportation, strikes and lock-outs are prohibited, and the Minister may appoint a conciliation board, although no application may have been made by one of the parties to the dispute, and in any event compulsory arbitration automatically follows the failure of a board to settle a dispute connected with these services; similar provisions apply in the case of the failure of an industrial council having jurisdiction in these matters to settle a dispute.

Where the industrial council or the conciliation board, as the case may be, is unable to agree on the arbitrator, the Minister is vested with power to appoint his own nominee, and, where more than one arbitrator is appointed, an umpire has the power of taking a decision in case the arbitrators are unable to agree. The Minister may appoint an umpire where the parties cannot agree upon the nominee. Awards made by arbitrators or umpires are binding.

In addition to the absolute prohibition in respect of essential services, strikes and lock-outs are prohibited during the currency of any agreement or award which is binding upon the persons concerned, until an industrial council having jurisdiction has reported on the matter, and, if there is no council, until application has been made for the appointment of a conciliation board and such board has reported to the Minister, or the Minister has refused to appoint a board or has not within a fixed period taken his decisi- to appoint a board, and finally if arbitration has been decided upon by t parties pending the making of the arbitrator's award. The Minister h power, in the case of an arbitrator's award, to extend the terms to perso not parties to the dispute, if he considers that the parties are sufficient representative of the undertaking, industry, trade, or occupation concerne Special provision is made for dealing with disputes between private employe and their employees in connexion with essential services, where the employ supplies the service directly or indirectly to a local authority or within t area of a local authority. These provisions are similar to those referred above where the services in question are furnished by the local authori itself.

The Act provides for the appointment of an Industrial Registrar, whom are vested the powers and duties previously exercised by the Registr of Trade Unions and Employers' Organizations under the *Industrial Conciliation Act*, 1924. His duties include the registration of trade unions, employer organizations, and industrial councils. The powers previously conferred upo the Registrar of Trade Unions and Employers' Organizations have been co siderably extended, and the Industrial Registrar now has the right to var the basis upon which registration is accorded to any of the organizatior referred to, so that it coincides from time to time with the interests effectivel catered for by these bodies.

Registration is withheld from applicant trade unions and employer organizations where there already exist in the same area bodies which, i the Registrar's opinion, are sufficiently representative of the interests fo which the applicant desires to cater. The laws governing companies, insuranc companies, and friendly and provident societies do not apply to trade union or employers' organizations, but, if it appears that an organization of em ployees or employers exists for purposes other than those contemplated by th Act, it is permitted to seek registration under any other law for th purpose of achieving those objects. Provision is also made for the registratio of federations of bodies representing employers or employees.

The constitutions of registered trade unions and employers' organization are subject to stricter supervision under the new Act, which lays down that i the Registrar is unable to decide whether any provision in a constitution i or is not in accordance with law, or if he is of the opinion that any provisior is unreasonable in relation to the public or the members of the body con cerned, he shall refuse to approve of such provision. The status of a bod registered under the 1924 Act is not affected by the provisions of the new Act, but the Registrar is empowered to require any organization or unior

registered under the former Act to remove from its constitution any provision which, in his opinion, is inconsistent with the new Act or is contrary to the provisions of any law or is calculated to hinder the attainment of the objects of any law. The Registrar may also conduct enquiries into the affairs of these bodies where it appears that irregularities are taking place.

Another important change brought about by the new Act concerns the registration of associations composed of government employees. Under the old Act a trade union could only be registered in respect of a particular undertaking, industry, trade, or occupation, and several unions consisting of government employees were refused registration on the ground that they could not be said to be organized in respect of a specific undertaking, etc. The new Act, however, provides that an association of the type referred to may, if the other requirements of the Act are satisfied, be registered, notwithstanding the fact that its members or some of them are not employed in any particular undertaking, industry, trade, or occupation. The Act only applies to these associations in so far as registration is concerned, and they cannot for instance participate in the establishment of industrial councils or conciliation boards: they do, however, derive from registration the benefits of corporate status; such unions have the option of applying for registration or not, whereas in the case of all other trade unions application for registration should be made within three months of the commencement of the Act or within three months of their establishment, if this takes place after the commencement of the Act.

The registration and regulation of private registry offices is obligatory, and the keepers of these bureaux are required to maintain books and records in the form laid down in the regulations under the Act.

2. **Enforcement of Wage Regulating Measures.**—The following is a summary of the provisions of the Act in regard to failure to observe the terms of any wage regulating measure, orders of court for the payment of arrear wages, victimization of employees, appointment and powers of inspectors, registration of employers, etc.

(i) *Underpayment of Remuneration.*—Whenever an employer is convicted of underpayment of wages or other remuneration, the court is required to order the convicted person to pay the amount of such underpayment to a specified officer. As much of the amount as the court deems equitable must be paid to the employee concerned, and the balance to the Consolidated Revenue Fund. If the court finds that the employee did not agree to accept less than the minimum to which he was entitled, or agreed in ignorance of his rights, the whole amount must be paid to the employee. When an employer has been convicted of underpayment, the employee concerned is entitled to receive only the amount, if any, which the court orders to be paid to him, and is not entitled to take civil proceedings in respect of any such underpayment. Civil proceedings can only be taken if the employer has not been prosecuted, or has been acquitted on a charge of underpayment.

It is an offence for an employer to require or permit an employee to refund any money paid to the employee under any wage regulating measure, or to sign a receipt for more than he has actually received.

(ii) *Victimization.*—No employer may dismiss an employee, or alter his conditions of employment unfavourably, by reason of the fact that he suspects or believes that the employee—

(*a*) has given information in regard to his employment to the authorities concerned, or

(*b*) has refused to refund remuneration due and paid to him, or to sign for more than he has received, or

(*c*) belongs to a trade union, or takes part outside ordinary working hours (or, with the consent of the employer, within working hours) in the formation or lawful activities of a trade union.

The court which convicts an employer of contravening this section may order that the employee concerned be reinstated or that compensation not exceeding two hundred pounds be paid to him. The maximum penalty is a fine of three hundred pounds or two years' imprisonment with hard labour. Sentence of imprisonment may be imposed together with a fine, or without the option of a fine.

(iii) *Inspectors.*—Inspectors appointed under the Act are empowered to enter any premises without previous notice, to question persons who are

or have been on such premises, and to examine and seize any books or documents relating to any business. An inspector may take with him into any premises an interpreter or a member of the police force. Employers are required to furnish inspectors with the necessary facilities to enable them to carry out their investigations. Any person who makes a false statement to an inspector, or refuses to answer questions put to him by an inspector in the exercise of his functions, or otherwise hinders an inspector, is guilty of an offence.

(iv) *Registration of Employers.*—The Act provides that every employer upon whom a wage regulating measure is binding shall, within three months of the date on which such measure becomes binding, furnish particulars to the inspector in regard to the names of partners, directors, managers, etc. Notification of subsequent changes in such particulars must also be made. Upon receipt of the required statement, the inspector concerned will issue a certificate of registration, and any employer who carries on a business covered by an agreement or award without such certificate is guilty of an offence. No certificate may be issued to any person who has not complied with an order of court in regard to the payment of arrear wages, and provision is made for the cancellation of any certificate in possession of an employer who fails to comply with an order of court.

(v) *Alleged Partnerships.*—Whenever it is alleged that the remuneration of any party to a partnership agreement consists wholly or partly of a share in the takings or profits, and it is proved—

(a) that the agreement is terminable by any party thereto giving less than three months' notice, or

(b) that the amount received by any party was less than the remuneration payable to an employee under the wage regulating measure applicable,

the party concerned is presumed to be an employee, and any other party to the agreement is presumed to be an employer, unless it is proved that the agreement was not made with the object of evading any wage determination, agreement, or award.

(vi) *Demarcation between Trades.*—The Minister is given power to determine whether any employer, employee, class of business or work, or any operation or process, falls within a particular trade or industry. Provision is made for an appeal to provincial divisions of the Supreme Court, and to the Appellate Division.

(vii) *Evidence and Penalties.*—Proof of the publication in the *Gazette* of specified notices is conclusive proof that all the provisions of the Act in respect of matters precedent and incidental to such notices have been complied with. Provision is also made for the acceptance of presumptive evidence of certain facts, unless the contrary is proved. The maximum penalty for an offence for which no penalty is specially fixed is a fine of one hundred pounds, or one year's imprisonment. Imprisonment may be imposed in addition to, or without the option of, a fine. An employer convicted of underpayment a second or subsequent time may be ordered to surrender his certificate of registration. Should he thereafter carry on business in the same trade and employ any persons, he becomes liable to imprisonment for a period of one year without the option of a fine.

3. **Operation of Industrial Conciliation Act.**—The *Industrial Conciliation Act*, which came into operation in April, 1924, was extensively used by industry, and the record of strikes and lock-outs since this Act came into operation has been greatly reduced. In order to enable industry to avail itself of the provisions of the Act, organization on the part of both employers and employees was necessary; the result of the legislation has been to speed up organization on both sides.

The total number of industrial councils registered at the end of 1938 was 50. In three instances councils were set up on a national basis. In all other instances the scope of agreements was limited to provincial or local areas. Until such time as the employers and employees are able to organize on a national basis, the full fruits of this legislation will not be forthcoming, and the question of inter-area competition and varying conditions will present difficulties. As indicated above the *Industrial Conciliation Act*, 1937, which repealed the 1924 Act, contains the same principles, the provisions of the previous Act having been amplified and elaborated with a view to more effective administration.

The following tables give particulars of the number of industrial council and conciliation board agreements and awards. These wage regulating instruments remain in force and are deemed to have been made under the 1937 Act.

(i) INDUSTRIAL COUNCIL AND CONCILIATION BOARD AGREEMENTS AND AWARDS, 1934 TO 1938.

Date.	Number of—			Approximate Number of—	
	Industrial Council Agreements.	Conciliation Board Agreements.	Awards.	Employers.	Employees.
30th June, 1934.....	21	—	3	2,722	42,064
30th June, 1935.....	26	2	5	3,890	51,586
30th September, 1936	36	4	5	4,726	65,732
30th September, 1937	33	2	1	5,123	58,763
30th September, 1938	32	3	4	6,732	64,316

(ii) ARBITRATION AWARDS OPERATIVE AT 30th SEPTEMBER, 1938.

Industry or Occupation.	Area of Jurisdiction.	Date from which Operative.
Borough Council Employees.....	Estcourt borough area.....	11th March, 1937.
Municipal Employees.....	Hercules municipal area.....	24th March, 1937.
Durban Municipal Electricians.....	Durban municipal area.....	5th April, 1938.
Municipal Employees.....	Johannesburg municipal area..	11th July, 1938.

4. **Development of Trade Unionism in South Africa.**—A brief account of the development of the trade union movement in the Union will be found in the ninth and previous issues of this *Year Book*.

With the promulgation of the *Industrial Conciliation Act* of 1924, interest in trade unions, which had waned, was revived, and in many instances these were resuscitated with the assistance of the Department of Labour. Trade unions have not been slow to realize the advantages of the machinery provided by the *Industrial Conciliation Act*, and industrial councils have been established in respect of most of the important industries. While organized labour has through the industrial council system a say as to working conditions in industry, unorganized labour is catered for by the *Wage Act*. At 30th September, 1938, there were 134 trade unions and 99 employers' organizations registered.

In recent years there has been some development in the direction of industrial organization among non-European employees. One of the associations established was the Industrial and Commercial Workers' Union (I.C.U.), which came into being in 1919. The history of this body, which is now defunct, was marked by many internal difficulties, which led to the development of subsidiary and rival associations. A body styled the Federation of Non-European Trade Unions was founded in 1928. A trade union as defined in the Act should, however, be a body consisting of employees, and as pass-bearing natives are excluded from the definition of "employee" given in the Act they cannot form registrable trades unions. The Act does not, however, prohibit organizations of pass-bearing natives from functioning as unregistered bodies. Coloured and Indian organizations have been formed in particular industries, and under the influence of the 1927 agreement between the Union and Indian Governments the Natal Indian Trade Union Congress was established, with the object, *inter alia*, of stimulating trade union organization among the Indian wage-earning population.

5. **Industrial Disputes.**—The following tables contain particulars of industrial disputes for the years 1906 to 1938:—

(i) SUMMARY OF INDUSTRIAL DISPUTES, 1906 TO 1938.

Years.	Number of Strikes beginning each Year.	Number of Workpeople Involved.	Aggregate Duration in Working Days.	Estimated Loss in Wages.
			No.	£
1906–1910	7	6,870	300,846	285,652
1911–1915	24	43,442	266,801	229,050
1916–1920	168	136,771	1,428,176	430,491
1921–1925	46	40,799	1,462,734	1,952,965
1926–1930	47	19,684	23,151	10,014
1931	19	6,284	54,575	19,681
1932	12	4,011	26,034	9,440
1933	10	1,585	16,081	14,563
1934	12	2,379	52,132	37,366
1935	17	2,367	10,564	4,894
1936	20	2,193	5,009	1,936
1937	33	5,906	27,229	9,246
1938	20	3,798	4,070	1,045

NOTE.—In the above table the records up to 1917 are by no means complete, as returns were not then tabulated for all the strikes shown. The latter portion of the table may, however, be accepted as a fairly accurate record.

(ii) INDUSTRIAL DISPUTES, 1938.

Locality and Industry.	Date of Commencement.	Employees Affected.		Man-Days Lost by—		Estimated Wages Lost by—	
		European.	Non-European.	European.	Non-European.	European.	Non-European.
						£	£
Woodstock—							
Furniture Industry	20/1/38	13	16	393	480	296	403
Graaff-Reinet—							
Building	26/10/38	—	11	—	22	—	8
East London—							
Stevedores	12/2/38	—	150	—	450	—	110
Olifantshoek—							
Manganese Mining	25/8/38	—	28	—	196	—	18
Kuruman—							
Manganese Mining*	29/11/37	—	1,200	—	1,200	—	†
Durban—							
Coal Mining	10/1/38	—	637	—	80	—	16
Coal Mining	2/5/38	—	125	—	125	—	11
Furniture Industry	25/7/38	45	60	2	2	†	†
Motor Engineering	17/2/38	—	6	—	6	—	1
Metal Engineering	4/1/38	—	98	—	57	—	7
Johannesburg—							
Gold Mining (Cleveland)	9/2/38	—	293	—	293	—	37
Gold Mining (E.R.P.M.)	22/3/38	—	300	—	300	—	39
Clothing	21/6/38	—	11	—	8	—	6
Footwear	23/9/38	8	8	8	8	6	3
Woodworking	26/2/38	—	300	—	9	—	†
Picture Framing	10/8/38	8	23	4	12	2	2
Furniture Industry	14/3/38	18	—	72	—	65	—
Germiston—							
Brickmaking	23/6/38	—	400	—	175	—	†
Potchefstroom—							
Gold Mining	25/3/38	—	28	—	168	—	17
Ventersdorp—							
Gold Mining	16/7/38	—	12	—	‡	—	—
TOTAL	—	92	3,706	479	3,591	369	676

* Strike occurred in 1937, but return was received in 1938.
† Wages paid in full.
‡ Time lost made up by working later.

6. **Statistics of Trade Unions and other Associations of Employees.**—The following tables give (i) membership of trade unions and other associations of employees for a series of years, and (ii) the distribution of associations of employees and their membership, according to industrial groups, at 30th September, 1937 and 1938.

It was only when the provisions of the *Statistics Act* were applied, in the year 1919, that it was possible to obtain anything approaching complete statistics of employees' associations. Statistics of trade unions and other associations of employees are now secured annually. In 1932 an attempt was made to ascertain the number of non-European members of trade unions, but the result was not successful, and no figures can be given with any confidence.

At 30th September, 1938, there were 166 employees' unions in existence in the Union, of which 17 dated from pre-Union days; 29 were established between 1925 and 1929; 23 between 1930 and 1934; and 57 between 1935 and 1938.

Of these unions 40 had a membership of below 100; 47 had from 100 to 499; 29 from 500 to 999; 22 from 1,000 to 2,499; 11 from 2,500 to 4,999; and 17 had 5,000 and over.

(i) MEMBERSHIP OF TRADE UNIONS AND OTHER ASSOCIATIONS OF EMPLOYEES, 1900 TO 1938.

Year.	Membership.	Year.	Membership.	Year.	Membership.
	Number.		Number.		Number.
1900	3,836	1924	87,147	1932	106,851
1905	6,343	1925	93,603	1933	106,350
1910	9,178	1926	116,231	1934	126,436
1915	10,538	1927	213,620	1935	150,543
1920	135,140	1928	114,516	1936	189,003
1921	108,242	1929	115,997	1937	223,537
1922	81,861	1930	118,281	1938	253,651
1923	86,865	1931	101,888		

NOTE.—Fluctuations in the total membership are largely due to marked changes in the membership of the non-European unions.

(ii) TRADE UNIONS AND OTHER ASSOCIATIONS OF EMPLOYEES IN VARIOUS CLASSES OF OCCUPATION, NUMBER AND MEMBERSHIP, 30th SEPTEMBER, 1937 AND 1938.

Class of Occupation.	Registered.				Non-Registered.			
	Unions and Associations.		Membership.		Unions and Associations.		Membership.	
	1937.	1938.	1937.	1938.	1937.	1938.	1937.	1938.
Mining	7	7	24,227	25,450	1	1	59	62
Engineering and Metal Working	11	11	15,808	15,773	3	3	358	552
Building	7	7	23,802	25,767	2	—	594	—
Printing	1	1	8,198	8,455	—	—	—	—
Manufacturing (General)—								
Clothing	7	8	13,967	16,530	1	—	45	—
Food, Drink, and Tobacco	11	13	2,692	5,169	3	1	1,515	474
Other	17	20	12,409	15,570	3	5	424	985
State Services (excluding Teaching)	14	12	51,648	60,696	5	5	17,924	19,632
Teaching	—	—	—	—	9	9	12,363	12,864
Municipal and Tramway	16	16	13,274	15,008	1	3	268	387
Trading and Clerical	10	11	11,926	15,753	—	2	—	108
Miscellaneous—								
Catering	4	5	2,269	3,076	—	1	—	80
Other	18	22	8,122	8,971	4	3	1,645	2,289
TOTAL	123	133	188,342	216,218	32	33	35,195	37,433

NOTE.—In a number of cases craftsmen and others are members of more than one union. The extent of duplication cannot be given.
Most skilled mechanics in the service of the Railway Administration are members of craft unions and not of railway unions. Such membership is therefore not included in "State Services" above.

7. **Associations of Employers.**—Statistics of associations of employers were taken for the first time in 1919, and are collected annually. The table below gives certain particulars of such associations at 30th September, 1937 and 1938.

At 30th September, 1938, there were 111 employers' organizations, exclusive of Chambers of Commerce, in existence. Of these 29 had a membership of 10 and under; 37 from 11 to 25; 16 from 26 to 50; 8 from 51 to 100; and 21 over 100.

Many employers' associations are federated in national or regional organizations. The most important of these are the district chambers of industries and the S.A. Federated Chamber of Industries; the Federation of Master Printers of South Africa; the National Federation of Building Trade Employers; and the National Association of Hotel Keepers.

CLASSIFICATION OF EMPLOYERS' ORGANIZATIONS (EXCLUDING CHAMBERS OF COMMERCE) ACCORDING TO TRADE, INDUSTRY, OR SERVICE, 30th SEPTEMBER, 1937 AND 1938.

Trade, Industry, or Service.	Registered.				Non-Registered.			
	Associations.		Membership.		Associations.		Membership.	
	1937.	1938.	1937.	1938.	1937.	1938.	1937.	1938.
Mining	2	2	96	97	—	—	—	—
Engineering and Metal Working	15	17	267	2,458*	—	1	—	4
Building	9	10	1,104	1,245	4	2	56	28
Printing	2	2	124	137	—	—	—	—
Manufacturing (General)—								
Clothing	7	8	308	293	1	1	38	38
Food, Drink, and Tobacco	10	10	132	132	3	5	36	56
Furniture	7	7	164	184	—	—	—	—
Leather Working	5	5	70	60	—	—	—	—
Miscellaneous	4	3	45	36	1	2	20	35
Trading and Clerical	13	12	3,209	1,275*	1	—	17	—
Miscellaneous—								
Catering	8	8	653	796	—	—	—	—
Other	15	14	762	929	3	2	81	175
TOTAL	97	98	6,934	7,642	13	13	248	336

* Difference when compared with previous year mainly due to transfer of S.A. Motor Trade Employers' Association from Trading to Engineering.

At 30th September, 1938, the position as regards Chambers of Commerce was as follows:—

Province.	*Number of Chambers.*	*Number of Member Firms.*
Cape of Good Hope	39	1,685
Natal	7	535
Transvaal	28	1,441
Orange Free State	14	414
TOTAL	88	4,075

These chambers are also associated in a national body, the Association of Chambers of Commerce of South Africa.

§ 4. Juvenile Affairs.

1. **Training and Employment of Juveniles.**—The realization of the necessity for the establishment of a definite system of training and placing juveniles in employment brought into existence a number of voluntary advisory boards, the first of which was established in 1915. Prior to the establishment of the boards little had been done to develop or co-ordinate the work of preparing juveniles for, and placing them in, suitable employment after their school training.

During the year 1918, the boards devoted considerable attention to the apprenticeship problem in the belief that some more definite system of indenture could be adopted in the skilled trades, in order to provide courses of training along definite lines. The interest aroused by the boards in this connexion culminated in the passing of the *Apprenticeship Act* in 1922 (see § 5 below).

2. **Legislation.**—The demands of the advisory boards for increased powers and statutory recognition were met by the passing of the *Juveniles Act* in 1921. This Act makes provision for the establishment of statutory juvenile affairs boards to deal with matters affecting the employment, training, welfare, and supervision of juveniles. A juvenile is defined as "a person who is under the age of 18 years, and who was subject to the laws relating to compulsory education, but shall not include any classes of person exempted by the Minister". Boards are established by the Minister of Labour, who also appoints the members. In making such appointments the Minister shall have regard to the several recommendations of organizations or associations of employers or employees (as the case may be) in the area to be served by the board. The persons representing such organizations or associations shall, as nearly as possible, be equal in number. Among the members of every board shall also be persons having a special knowledge of or experience in educational matters and social conditions.

The Act makes it obligatory for principals of schools situate within a board area to furnish to the board information regarding children who leave school while they are still juveniles. Employers of labour are also required to render returns to boards in respect of juveniles taken into or discharged from their employ.

The Minister may from time to time designate any officer to exercise powers and perform duties in relation to the supervision, welfare, training, employment, and assistance of juveniles, and to co-ordinate the work of the several boards; the Minister may also allocate the powers and duties of a board to any such officer, in any area where no board exists.

Statutory juvenile affairs boards are now operating at Pretoria, the Witwatersrand (3 boards—Central, East, and West), Potchefstroom, Rustenburg, Pietersburg, Brits, Capetown, Port Elizabeth, East London, Kimberley, Grahamstown, Graaff-Reinet, George, Upington, Bloemfontein, Kroonstad, Fauresmith, Durban, Pietermaritzburg, and Ladysmith (Natal). The only non-statutory advisory board still in existence functions at Kingwilliamstown. Non-statutory boards functioning in respect of non-European juveniles have been established at Capetown, Kimberley, Johannesburg, and Durban.

3. **Work of Juvenile Affairs Boards.**—It is a function of the boards to advise parents and children on all matters concerning the employment of juveniles and their careers, welfare, and further education. Employment bureaux are conducted to assist juveniles in finding work. Boards undertake to bring to the notice of the Government, other bodies, and the public generally, the existence of evils, and to suggest remedies, in all matters concerning the training and welfare of juveniles.

In recent years the boards have devoted an increasing measure of attention to questions of vocational guidance and after-care. To promote the vocational guidance activities of boards, the Witwatersrand Central Juvenile Affairs Board issues a monthly journal known as the *Careers Guide*, with a circulation of 11,000 copies. Annual grants-in-aid towards the publication of this journal are made by the Department of Labour and the four provincial education departments. The after-care work of boards involves the following up of juveniles after they have been placed in employment, with a view to ascertaining whether they are satisfactorily placed. They also endeavour to maintain contact with the individual, and in general are available to advise and help the juvenile on critical occasions during the period of adolescence.

The boards also engage in the systematic exploration and encouragement of new fields of employment for boys and girls (e.g. in the commercial distributive industry and in domestic service). They are empowered to collect and maintain such statistics bearing upon the employment of juveniles as are necessary to enable the problems affecting juveniles to be dealt with in the most advantageous manner.

The operations of boards from 1934 to December, 1938, are shown in the following statistics:—

OPERATIONS OF JUVENILE AFFAIRS BOARDS, 1934 TO DECEMBER, 1938.

Period.	Applications for Work.			Placed by Boards.			Found Work or Notified in Employment.			Total Found Employment.	Balance of Registered Juveniles.*	
	Boys.	Girls.	Total.	Boys.	Girls.	Total.	Boys.	Girls.	Total.		Boys.	Girls.
1934.....	5,375	3,997	9,372	2,272	1,787	4,059	2,015	1,245	3,260	7,319	929	691
1935.....	7,454	4,135	11,589	3,538	1,913	5,451	2,336	1,605	3,941	9,392	1,046	544
1936.....	7,956	3,612	11,568	4,607	1,808	6,415	2,211	1,374	3,585	10,000	610	363
1937.....	8,706	3,780	12,486	5,551	2,105	7,656	2,459	1,577	4,036	11,692	964	480
1938.....	8,727	4,299	13,026	4,951	1,879	6,830	1,883	1,536	3,419	10,249	1,109	517

* At end of December.

Further figures concerning juvenile employment are included in the general statistical tables appearing earlier in this chapter. (See § 2, paragraph 4.)

§ 5. Apprenticeship.

1. **Apprenticeship.**—Prior to the passing of the *Apprenticeship Act*, 1922, apprenticeship in the Cape, Natal, and Transvaal Provinces was legalized under *Masters and Servants Acts*, which permitted the indenturing of apprentices under private contracts enforceable by either party. These provisions had, however, become unsuitable to modern industrial conditions, and it was felt that a system, having the force and sanction of law, should be devised, under which youths, to whom good educational opportunities were offered, could learn to become artisans. It was realized that the employment of skilled tradesmen implied the power and afforded the opportunity to train apprentices, and also that the early stage of such employment was highly educative, since it supplied a course which, in industry, was parallel to the secondary cultural course offered by the high schools. The view was held that modern apprenticeship must take its proper place in the educative system of the nation, and that this is the only sure method of training skilled workers. To meet the needs of the Union in these several respects the *Apprenticeship Act* of 1922 was passed.

2. **Apprenticeship Act.**—The provisions of this Act (Act No. 26 of 1922, as amended by Act No. 15 of 1924 and Act No. 22 of 1930) are applicable only to certain industries specified in the *First Schedule* to the Act or added by proclamation. The provisions of the Act cannot be applied in any industry, until the Minister has appointed an apprenticeship committee in respect of that industry in a defined area. Upon designation of any trade in such industry by the Minister on the advice of the committee, it becomes necessary for any employer who wishes to employ a minor in the trade for longer than four months to indenture him under the form of contract of apprenticeship provided in the regulations. The State assumes certain responsibilities relative to the enforcement of the terms of an apprenticeship contract and undertakes the scrutiny and registration of contracts. Payment of premiums is forbidden. Transfer and cancellation of contracts under certain circumstances are provided for.

The *Apprenticeship Act* came into operation on the 1st January, 1923. Regulations under the Act, relating chiefly to the contract of apprenticeship, were published in March, 1923, and have been amended from time to time.

Under an amending Act (No. 15 of 1924) it was constituted an offence for any person to bring pressure to bear on an apprentice to break the conditions of his contract. A clause in the form of contract of apprenticeship rendering it illegal for an apprentice to belong to a trade union was removed, and it was provided that an apprentice should not absent himself from his employment without the sanction of the Inspector of Apprenticeship. A further amending Act reduced the period of probation and made certain changes, mainly of an administrative nature, including a minimum compulsory attendance at technical classes in working hours.

3. **Apprenticeship Committees.**—Apprenticeship committees must consist of not fewer than five members, appointed for a period of three years by employers' and employees' organizations in the industry concerned; the chairman is appointed by the Minister. Recommendations of committees in regard to certain matters have the force of law, if approved by the Minister. The Minister may, in consultation with the committee concerned, prescribe the conditions of apprenticeship in any designated trade, including the period to be served, the qualifications for commencing apprenticeship, and the rates of wages to be paid to apprentices. Similarly, he may fix the number of apprentices who may be employed from time to time in any area.

The following apprenticeship committees are functioning under the Act:—

(i) *National.*

Government Apprenticeship Committee.
National Printing Apprenticeship Committee.
Railways and Harbours Apprenticeship Committee.

(ii) *Provincial and Local.*

Building.—Witwatersrand, Pretoria, Durban, Pietermaritzburg, Cape Division, Port Elizabeth, East London, Queenstown.

Building and Engineering.—Transvaal (Mines), Kimberley.

Building, Engineering, and Furniture.—Bloemfontein.

Carriage Building.—Witwatersrand.

Commercial Distributive Industry.—Bloemfontein.

Dental Mechanicians.—Witwatersrand and Pretoria, Cape Division, Port Elizabeth, Durban, Pietermaritzburg.

Engineering.—Transvaal, Durban, Cape Division, Port Elizabeth, East London, Queenstown, Pietermaritzburg.

Food (Baking and Confectionery).—Witwatersrand, Cape Division.

Food (Butchery).—Witwatersrand.

Furniture.—Cape Division, Durban.

Hairdressing.—Witwatersrand, Cape Division, Durban.

Leather Working and Bootmaking.—Witwatersrand and Pretoria, Cape Division, Port Elizabeth.

Motor Engineering.—Cape Division, Witwatersrand, Pretoria, Durban, Port Elizabeth.

The furniture apprenticeship committees appointed under the Act at East London and Port Elizabeth have ceased to function. The duties of these committees are now vested in the Inspector of Apprenticeship.

4. **Statistics of Operations under Apprenticeship Act.**—The following table gives comparative information regarding apprenticeship contracts registered, terminated, cancelled, and current from 1934 to 1938:—

APPRENTICESHIP ACT—CONTRACTS REGISTERED, TERMINATED, CANCELLED, AND CURRENT, 1934 TO 1938.

Particulars.	Printing.	Building.	Engineering.	Furniture.	Carriage Building.	Baking.	Leather	Hairdressing.	Butchery.	Motor Engineering.*
Contracts Registered—										
1934	51	484	973	77	25	21	26	102	—	—
1935	75	801	1,403	108	39	30	29	122	—	—
1936	140	678	1,298	105	25	18	14	80	—	—
1937	155	828	1,645	189	32	9	11	92	6	—
1938	123	757	1,290	69	23	17	12	161	22	307
Contracts Terminated—										
1934	86	606	769	185	25	32	7	17	—	—
1935	68	375	693	70	26	20	19	13	—	—
1936	71	310	655	81	10	13	12	64	—	—
1937	36	203	624	42	12	13	23	36	—	—
1938	25	260	713	77	21	29	20	75	—	—
Contracts Cancelled—										
1934	5	61	86	7	2	11	4	20	—	—
1935	3	54	113	6	5	10	5	27	—	—
1936	10	59	107	10	3	8	6	23	—	—
1937	5	80	163	11	4	7	4	33	—	—
1938	6	57	114	15	6	8	1	33	—	41
Contracts Current at end of Year—										
1934	298	1,344	3,215	246	107	100	75	218	—	—
1935	302	1,716	3,807	278	115	100	80	300	—	—
1936	361	2,025	4,343	292	127	97	76	293	—	—
1937	475	2,570	5,201	428	143	86	60	316	6	—
1938	567	3,010	5,664	405	139	66	51	369	28	266

* Previously included in Engineering.

5. **Wages of Apprentices and other Conditions of Apprenticeship.**—The wages payable to apprentices may be regulated by the provisions of the *Apprenticeship Act* or by the terms of agreements arrived at under the *Industrial Conciliation Act* or of determinations under the *Wage Act*. Wherever an industry scheduled under the *Apprenticeship Act* is sufficiently well organized to avail itself of the provisions of the Act, it is encouraged to pursue this course, in preference to the insertion of apprenticeship conditions in agreements under the *Industrial Conciliation Act* or determinations under the *Wage Act*, both of which measures were primarily intended for the regulation of the working conditions of labour.

The following tables show at the 31st December, 1938, the weekly rates of wages paid to apprentices and other conditions of apprenticeship in the various industries, as fixed under the provisions of the *Apprenticeship Act*.

(*a*) NATIONAL PRINTING APPRENTICESHIP COMMITTEE.

(WAGES PER WEEK.)

Year of Service.	Area A.	Area B.	Area C.	Area D.	Area E.	Area F.	Area G.	Area H.
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
First year	15 0	16 8	18 4	19 5	20 9	22 6	24 3	26 0
Second year	18 0	20 0	22 0	23 4	25 0	27 0	29 0	31 0
Third year	22 6	25 0	27 6	29 1	31 3	33 9	36 3	39 0
Fourth year	29 3	32 6	35 9	37 10	40 9	44 0	47 3	50 3
Fifth year	36 0	40 0	44 0	46 8	50 0	54 0	58 0	62 0
Sixth year	42 9	47 6	52 3	55 4	59 6	64 3	69 0	73 9
Seventh year	51 9	57 6	63 3	67 0	71 9	77 9	83 6	89 3

DEFINITION OF AREAS.

Area A.—The Cape Province, except Areas B, C, D, E, and F.

Area B.—The municipal areas of Worcester, Oudtshoorn, Mossel Bay, George, Knysna, Malmesbury, and the magisterial district of Tulbagh.

Area C.—The magisterial districts of Paarl, Stellenbosch, Somerset West, Wellington, Uitenhage, and Barberton (Transvaal).

Area D.—The municipal areas of Aliwal North, Burghersdorp, Queenstown, Kingwilliamstown, and Grahamstown.

Area E.—The magisterial districts of Bellville, the Cape (including Durbanville), Wynberg, Simonstown, Port Elizabeth, and East London. The Province of Natal, excluding the magisterial district of Durban. The Province of the Orange Free State, excluding the magisterial districts of Bloemfontein and Kroonstad. The Province of the Transvaal, excluding the magisterial districts of Barberton, Benoni, Brakpan, Boksburg, Germiston, Heidelberg, Johannesburg, Klerksdorp, Krugersdorp, Middelburg, Pietersburg, Potchefstroom, Pretoria, Springs, Standerton, and Ventersdorp.

Area F.—The magisterial districts of Kimberley, Hay, Herbert, and Barkly West (Cape Province). The magisterial districts of Heidelberg, Klerksdorp, Middelburg, Pietersburg, Potchefstroom, Standerton, and Ventersdorp (Transvaal). The magisterial district of Kroonstad (Orange Free State).

Area G.—The magisterial district of Durban (Natal). The magisterial district of Bloemfontein (Orange Free State).

Area H.—The magisterial districts of Krugersdorp, Johannesburg, Germiston, Boksburg, Benoni, Brakpan, Pretoria, and Springs.

(*b*) GOVERNMENT AND RAILWAY APPRENTICESHIP COMMITTEES.

In terms of section 13 (1) of the *Apprenticeship Act*, the Minister is precluded from fixing wages in respect of apprentices employed by the Railways and Harbours Administration and by government departments. In these cases the wages are fixed by the administration and the departments concerned respectively.

(*c*) BOOTMAKING AND LEATHER WORKING APPRENTICESHIP COMMITTEES.

(WAGES PER WEEK.)

Period of Service.	Bootmaking.	Tanning.	Leather Travelling Requisites.	Saddlery.
(i) AREAS CONTROLLED FROM PORT ELIZABETH AND CAPETOWN.				
	s. d.	s. d.	s. d.	s. d.
First six months	15 0	15 0	15 0	15 0
Second six months	17 6	17 6	17 6	17 6
Third six months	20 0	20 0	20 0	20 0
Fourth six months	22 6	22 6	22 6	22 6
Fifth six months	27 6	27 6	27 6	25 0
Sixth six months	32 6	32 6	32 6	27 6
Seventh six months	37 6	37 6	37 6	32 6
Eighth six months	42 6	42 6	42 6	37 6
Ninth six months	52 6	50 0	50 0	42 6
Tenth six months	65 0	60 0	60 0	47 6

Period of Service.	Bootmaking.	Tanning.	Saddlery.
(ii) WITWATERSRAND AND PRETORIA.			
	s. d.	s. d.	s. d.
First six months	15 0	15 0	15 0
Second six months	17 6	17 6	17 6
Third six months	20 0	20 0	20 0
Fourth six months	22 6	22 6	22 6
Fifth six months	27 6	27 6	25 0
Sixth six months	32 6	32 6	27 6
Seventh six months	37 6	37 6	32 6
Eighth six months	42 6	42 6	37 6
Ninth six months	52 6	50 0	52 6
Tenth six months	65 0	60 0	65 0

(d) FOOD (BAKING AND CONFECTIONERY) APPRENTICESHIP COMMITTEES.

(i) WITWATERSRAND.

For the first three months the wages per week are £1, rising with every succeeding three months by 2s. 6d. and closing in the twentieth three months with £3. 7s. 6d.

(ii) CAPE DIVISION.

Trade.	Year of Service.				
	1.	2.	3.	4.	5.
	s.	s.	s.	s.	s.
In the trade of bread baking (per week)	18	23	30	40	50
In all other trades (per week)	20	25	35	45	60

(e) FOOD (BUTCHERY) APPRENTICESHIP COMMITTEE.

WITWATERSRAND.

(WAGES PER WEEK.)

Trade.	Year of Service.				
	1.	2.	3.	4.	5.
	s.	s.	s.	s.	s.
Retail Butcher	15	25	35	50	65

(f) OTHER APPRENTICESHIP COMMITTEES.

A.—(WAGES PER WEEK.)

Committee.	Year of Service.				
	1.	2.	3.	4.	5.
(i) BUILDING.					
	s. d.	s. d.	s. d.	s. d.	s. d.
Pretoria	10 0	30 0	45 0	60 0	75 0
Witwatersrand	10 0	30 0	45 0	60 0	75 0
Cape Division†—					
(a) Painting and signwriting	15 0	20 0	30 0	40 0	50 0
(b) All other building trades	18 9	22 6	31 3	46 9	62 6‡
Pietermaritzburg	15 0	20 0	30 0	40 0	55 0
Durban	20 0	25 0	35 0	50 0	65 0
Port Elizabeth	10 0	15 0	25 0	32 6	40 0
East London*—					
(a) Painting	16 0	16 9	24 0	37 6	50 6
(b) All other building trades	18 9	20 0	28 9	44 3	60 0
Queenstown*—					
(a) Painting	16 0	16 9	24 0	37 6	50 6
(b) All other building trades	18 9	20 0	28 9	44 3	60 0
(ii) BUILDING AND ENGINEERING.					
	s. d.	s. d.	s. d.	s. d.	s. d.
Kimberley†	15 0	21 0	30 0	42 0	60 0
Bloemfontein	22 6	27 0	37 6	56 6	75 0

* Payment of 2s. 6d. per week in addition is made to apprentices producing a technical college certificate of good conduct and 75 per cent. attendance for the preceding year.
† Less 2s. 6d. per week for a period not exceeding one year if at the end of the preceding year the apprentice failed to produce a technical college certificate of good conduct and 75 per cent. attendance.
‡ 75s. per week is provided for a sixth year.

(f) OTHER APPRENTICESHIP COMMITTEES—(*continued*).

A.—(WAGES PER WEEK)—(*continued*).

Committee.	Year of Service.				
	1.	2.	3.	4.	5.
(iii) ENGINEERING.					
	s. d.	s. d.	s. d.	s. d.	s. d.
Cape Division*	12 6	18 9	25 0	37 6	50 0
Transvaal	13 3	19 9	26 6	39 6	52 9‖
Port Elizabeth	12 0	18 0	24 0	36 0	48 0
Queenstown†	12 6	16 6	22 9	35 3	48 0
East London—					
(a) Electrical fitting and wiring†	18 9	20 0	28 9	44 3	60 0
(b) All other engineering trades†	12 6	16 6	22 9	35 3	48 0
Pietermaritzburg	13 6	20 0	26 6	40 0	53 0
Durban and District	18 0	23 0	28 0	40 0	60 0
Witwatersrand and Pretoria (Motor Industry)	14 0	21 6	31 6	45 0	65 0
Cape Division (Motor Industry)	12 6	18 9	25 0	37 6	50 0‡
(iv) FURNITURE AND CARRIAGE BUILDING.					
	s. d.	s. d.	s. d.	s. d.	s. d.
Furniture—					
East London†	16 2	19 1	27 2	38 0	48 9§
Cape Division and Port Elizabeth	16 2	21 7	29 8	40 6	51 3§
Bloemfontein	16 2	21 7	29 8	40 6	51 3§
Carriage Building—					
Witwatersrand	15 0	25 0	35 0	50 0	65 0

* Less 2s. 6d. per week for a period not exceeding one year, if at the end of the preceding year the apprentice failed to produce a technical college certificate of good conduct and 75 per cent. attendance.
† Payment of 2s. 6d. per week in addition is made to apprentices producing a technical college certificate of good conduct and 75 per cent. attendance for the preceding year.
‡ In addition £6. 10s. per annum on production of a technical college certificate of good conduct and 75 per cent. attendance during preceding year.
§ These rates apply to trades r quiring five years' apprenticeship.
‖ Sixth year (moulding apprentices): First 6 months, 65s. per week; second 6 months, 75s. per week. Sixth year (office appliances mechanic), 100s. per week.

B.—(MISCELLANEOUS WAGES PER DAY, WEEK, AND MONTH.)

Apprenticeship Committee.	Year of Service.				
	1.	2.	3.	4.	5.
	s. d.	s. d.	s. d.	s. d.	s. d.
Transvaal Mines—					
Building, mechanical engineering, and electrical engineering (per diem)	4 6*	6 6*	8 6*	10 0*	—
	3 0†	4 6†	6 6†	8 6†	10 0†
	2 0	3 0	4 6	6 6	8 6
Hairdressing—					
Witwatersrand (per month)	60 0	80 0	100 0	140 0	200 0
Ladies'—		1st Six Months.			
Capetown (per week)	10 0	20 0	30 0	42 0	—
		2nd Six Months.			
	15 0	25 0	35 0	42 0	—
Gentlemen's—		1st Six Months.			
Capetown (per week)	10 0	15 0	25 0	45 0	—
		2nd Six Months.			
	12 6	20 0	30 0	45 0	—
Combined—		1st Six Months.			
Capetown (per week)	10 0	20 0	30 0	45 0	—
		2nd Six Months.			
	15 0	25 0	35 0	45 0	—
Dental Mechanicians—					
Witwatersrand and Pretoria (per month)	80 0	120 0	160 0	200 0	280 0
Durban and Pietermaritzburg (per month)	80 0	120 0	160 0	200 0	280 0
Port Elizabeth (per month)	80 0	120 0	160 0	200 0	280 0
‡Cape Division	60 0	80 0	100 0	150 0	200 0

* Rates for boys who have obtained exemption from twelve months of the full period of five years' apprenticeship in respect of trades school training.
† Rates for boys who have obtained exemption of less than twelve months of the full period of five years' apprenticeship in respect of trades school training.
‡ Plus 10s. per month during 2nd, 3rd, and 4th years on production of a technical college certificate of good conduct and 75 per cent. attendance during preceding year. Plus 20s. per month during 5th year on production of a technical college certificate of good conduct and 75 per cent. attendance during 4th year.

(g) OTHER CONDITIONS OF APPRENTICESHIP.

Other conditions may be summarized as follows:—

Committee.	Minimum Commencing Qualifications. Age and Educational Standard.	Number of Apprentices Allowed.	Period of Apprenticeship.	Attendance at Technical Classes.
Building Committees—				
Pretoria	15 and VII	Not more than can be efficiently trained	5 years	Eight hours weekly during first two years.
Witwatersrand	15 and VII	"	"	Four hours weekly for two years, half in ordinary working hours.
*Cape Division	16 and VI	"	"	†Six hours weekly throughout whole period.
Pietermaritzburg	15 and VI	"	"	†Six hours weekly for first three years.
Durban	15 and VI	"	"	†Six hours weekly during first three years.
Port Elizabeth	15 and VI	"	"	†Six hours weekly throughout whole period.
East London	15 and VI	"	"	†Six hours weekly throughout whole period.
Queenstown	15 and VI	"	"	†Six hours weekly throughout whole period.
Building and Engineering—				
Kimberley	16 and VI	"	"	Six hours weekly throughout whole period; three hours weekly during working hours.
Bloemfontein	15 and VII	"	"	†Six hours weekly throughout whole period.
Carriage Building—				
Witwatersrand	15 and VI	"	"	Four hours weekly throughout whole period. First two years, two hours weekly during working hours.
Engineering—				
‡Cape Division	16 and VII	"	"	Eight hours weekly throughout whole period; one afternoon per week during working hours.
§Transvaal	16 and VI	"	"	†Six hours weekly throughout whole period.
Durban	15 and VI	"	"	Six hours weekly throughout whole period. First three years, three hours weekly during working hours.
Pietermaritzburg	15 and VI	"	"	†Six hours weekly for first four years.
Port Elizabeth	15 and VI	"	"	†Six hours weekly throughout whole period.
East London	15 and VI	"	"	†Six hours weekly throughout whole period.
Queenstown	16 and VI	"	"	Four hours weekly throughout whole period. First two years, two hours weekly during working hours.

* Lead burning six years.
† During first two years, three hours weekly during working hours.
‡ Includes carriage building.
§ Moulding and office appliances mechanic apprentices six years.

(g) OTHER CONDITIONS OF APPRENTICESHIP—(*continued*).

Committee.	Minimum Commencing Qualifications. Age and Educational Standard.	Number of Apprentices Allowed.	Period of Apprenticeship.	Attendance at Technical Classes.
Furniture—				
Cape Division	16 and VI	Not more than can be efficiently trained	5 years	Four hours weekly during first two years; half during working hours.
‡Natal	15 and VI¶	"	"	First two years, four hours weekly, two hours during working hours.
‡East London	15 and VI	"	"	Four hours weekly throughout whole period. First two years, two hours weekly during working hours.
‡Port Elizabeth	16 and VI	"	"	*Six hours weekly throughout whole period.
‡Bloemfontein	15 and VII	"	"	*Six hours weekly throughout whole period.
Building, Mechanical Engineering, and Electrical Engineering—				
Transvaal Mines	15 and V	"	"	First four years, six hours weekly; three hours during working hours.
Printing—				
National	16 and VII§	Not referred to	7 years	†Six hours weekly.
Government	15 and VI	"	5 years	†Six hours weekly.
Railway	15–18 and VI	"	"	†Three years, six hours weekly.
Bootmaking and Leather Working—				
Port Elizabeth	15 and VI or 16 and V	Not more than can be efficiently trained	"	Six hours weekly throughout whole period; four hours during first two years and two hours during remaining years during working hours.
Witwatersrand and Pretoria	Legal school-leaver	"	"	Four hours weekly for first two years; two hours during working hours.
Cape Division	15 and VI or 16 and V	"	"	First three years, six hours weekly; four hours each week in first two years during working hours, two hours weekly during remainder.
Baking and Confectionery—				
Witwatersrand	16 and VI	"	"	First two years, four hours weekly, two hours during working time.
Cape Division	16 and VI	"	"	First three years, four hours weekly, two hours during working time.
Food (Butchery)—				
Witwatersrand	15 and VI	"	"	Four hours weekly throughout whole period during first two years, half during ordinary working time.
Motor Industry—				
Witwatersrand and Pretoria	15 and VI	"	"	*Six hours weekly throughout whole period.

* During first two years, three hours weekly during working hours.
† Half of which during working hours.
‡ Four years for furniture polishing.
§ Composing and proof reading, Standard VIII.
¶ Furniture machining, 16 and VI.

(g) OTHER CONDITIONS OF APPRENTICESHIP—(*continued*).

Committee.	Minimum Commencing Qualifications. Age and Educational Standard.	Number of Apprentices Allowed.	Period of Apprenticeship.	Attendance at Technical Classes.
Hairdressing—				
Witwatersrand	15 and VI	Not more than can be efficiently trained	5 years	Four hours weekly throughout whole period. First two years, two hours weekly during working time.
Cape Division—				
Men's trade	15 and VI	"	"	Four hours weekly throughout whole period. First two years, two hours weekly during working hours.
Ladies' trade	16 and VI	"	"	
Dental Mechanicians—				
Witwatersrand and Pretoria	16 and VII	"	"	—
Durban and Pietermaritzburg	15 and VII	"	"	—
Port Elizabeth	16 and VIII	"	"	—
Cape Division	VIII	"	"	Six hours weekly throughout first four years; three hours each week during working time.

§ 6. The Wage Act, 1937, and the Wage Board.

1. **The Wage Act, 1937.**—The *Wage Act*, 1937, came into operation on the 15th December, 1937, and the *Wage Act*, 1925, ceased to be operative on that date. The objects of the new Act are similar to those of the 1925 measure, but its provisions have been amplified with a view to facilitating the operation of the Act. The provision for the appointment of a Wage Board consisting of three members, and for the appointment of divisions of the Board, has been retained. The chairman and members of the Wage Board, or a division, appointed under the 1925 Act and holding office when the new Act came into operation, are deemed to have been appointed under the latter measure. Trade unions and employers' organizations have the right to nominate additional members for specific investigations.

The powers of the Minister in regard to the initiation of Wage Board investigations have been amplified considerably. Under section 5, the Minister may direct that any investigation shall be in respect of any one or more classes of employees in any section of trade. In defining a class of employees, or a section of trade, the Minister may use any method of differentiation he may deem desirable, including differentiation by age, sex, experience, length of employment, or type of work or type or class of premises on which work is performed, but may not differentiate or discriminate on the basis of race or colour. Section 9, which sets out the matters on which the Board may make a recommendation, vests an identically worded discretion in the Board, in regard to the definition of classes of employees.

The necessity for safeguarding civilized standards of living is reflected in section 6, which requires the Wage Board to report, in connexion with every investigation, on the classes of employees to whom it would be equitable to pay remuneration at such rates as will enable them to support themselves in accordance with civilized standards. The points to be taken into consideration in reporting on this matter are the responsibility of the work performed by the employees concerned, the danger to health or life, the conditions under which work is carried on, and generally the nature of the work performed.

The matters on which the Board may make a recommendation are set out at length in section 9, and cover all phases of the relationship between employer and employee. In addition, the Board may make recommendations in regard to the rates at which payment shall be made by a principal or contractor to any person to whom work is given out on contract. Before making any recommendation, the Board is bound, by the provisions of section 8, to consider the ability of employers to carry on their business successfully should its recommendations

be carried into effect. The Board is given wide powers in regard to the collection of information, and section 14 forbids the members and officers of the Board to disclose information relating to any person, firm, or business, save for specified official purposes.

Under section 15, the Minister may publish any recommendation made by the Board, in order to give interested persons an opportunity to lodge objections. The Board may amend its recommendation after consideration of any objections. The Minister is empowered by section 16 to make a determination which, as in the previous Act, must be in accordance with a recommendation by the Board, including any amendments made under section 15, save that the Minister has the right to exclude from the determination any section of a trade, class of employee, or area. The Act contains a number of new provisions designed to facilitate—

(*a*) the cancellation or suspension of a determination, and
(*b*) extension of the area of application of a determination.

Due provision is made for consultation with the Wage Board in regard to the exercise of these powers, and for an opportunity to be given to interested persons to make representations to the Minister.

The provisions of the Act in regard to failure to observe the terms of a determination, orders of court for the payment of arrear wages, victimization of employees, appointment and powers of inspectors, registration of employers, etc., are identical with those contained in the *Industrial Conciliation Act* and described earlier in this chapter.

2. **The Wage Board.**—The first Wage Board was constituted on the 12th February, 1926, the day on which the *Wage Act*, 1925, was brought into operation. Mr. F. A. W. Lucas, K.C., was appointed chairman, and remained in office until the 20th August, 1935. On that date the periods for which the remaining two members had been appointed also expired. The new board was appointed on the 7th February, 1936; the personnel will be found in Chapter XXVIII.

At the end of December, 1938, the following determinations as to wages and hours and conditions of labour, which had been made by the Minister in consequence of investigations instituted by the Wage Board under Act No. 27 of 1925, as amended, and Act No. 44 of 1937, were in operation.

DETERMINATIONS OPERATIVE AT 31st DECEMBER, 1938.

Trade or Section of Trade.	Date Gazetted.	Area of Operation.
Baking and Confectionery	16/3/34	Magisterial districts of Durban, Inanda, Pinetown, and Pietermaritzburg.
Baking and/or Confectionery	24/6/38	Witwatersrand.
Baking and/or Confectionery	28/10/38	Extended to Pretoria.
Barmen	26/10/28	Municipal areas of Bloemfontein and Kimberley.
Bespoke Tailoring*	16/9/32	Principal magisterial districts in the Union.
Brickmaking and/or Tilemaking	16/9/38	Cape Peninsula.
Building Trade*	17/8/34	Magisterial district of Port Elizabeth.
Catering*	2/4/31	Principal municipal areas in the Union.
Clothing Manufacturing*	22/4/32	Principal magisterial districts of the Union.
Commercial Distributive Trade*	10/7/31	Principal municipal areas in the Union.
Furniture Manufacturing*	24/3/33	Principal magisterial districts in the Union.
Furniture Manufacturing	10/12/37	Magisterial district of Oudtshoorn.
Glass Bevelling and Silvering	23/9/32	Union of South Africa.
Hairdressing	17/3/33	Municipal area of Bloemfontein.
Hairdressing	11/12/31	Municipal area of Capetown.
Hairdressing	20/1/33	Municipal areas of Port Elizabeth, Walmer, and Uitenhage.
Hairdressing*	15/7/38	Witwatersrand and Pretoria.
Laundering, Cleaning and Dyeing	15/7/32	Principal magisterial districts in the Union
Liquor and Catering	17/9/37	Witwatersrand.
Meat Trade	24/6/38	Municipal area of Durban.
Motor Transport Driving	17/6/38	Magisterial district of Durban.
Motor Transport Driving	12/3/37	Witwatersrand and Pretoria.
Quarrying and/or Stonecrushing	16/9/38	Cape Peninsula.
Roadmaking	16/9/38	Municipal area of Capetown.
Sweet Manufacturing	24/2/33	Principal municipal areas in the Union.
Textile Manufacturing (Yarn, Rugs, Shawls, Blankets, Blanketing, and Cotton Sheeting)	29/1/37	Union of South Africa.
Tea, Coffee, and Chicory	7/9/28	Principal magisterial districts in the Union.
Unskilled Employment	21/12/28	Bloemfontein.
Unskilled Work	9/9/38	Municipal area of Capetown.

* Applicable only to persons not covered by an Industrial Council Agreement.

The Department of Labour is responsible for the enforcement of wage determinations under the *Wage Act*, and maintains a staff of inspectors in the principal towns for that purpose.

§ 7. Other Industrial Legislation.

1. **Factories Act.**—The Department of Labour undertakes the administration of the *Factories Act*, No. 28 of 1918, as amended by Act No. 26 of 1931, which contains the following provisions:—

(i) *Administration.*—The appointment of a chief inspector, with inspectors under him for various industrial districts. Power of entry is given and full authority to inspect any factory or part thereof.

(ii) *Registration of Factories.*—All factories have to be registered, and no premises may be used as a factory until a certificate of registration has been obtained from an inspector of factories. Application for registration must be made on the prescribed form. An appeal lies to the Minister of Labour against any decision of an inspector in regard to registration.

(iii) *Employment in Factories.*—A record of employees must be kept. The occupier has also to keep affixed in a conspicuous place certain notices, giving the name and address of the inspector, the working hours of the factory, and an abstract of the Act and regulations.

(iv) *Supervision of Machinery.*—All machinery (except that defined in the *Mines and Works Amendment Act*, No. 22 of 1931, or under the control of the Administration of Railways and Harbours) is subject to the supervision of the Chief Inspector of Factories and his inspectors.

(v) *Regulations.*—The Governor-General may make regulations not inconsistent with the Act.

(vi) *Inquiries by Inspectors.*—In case of death or serious personal injury or other occurrence which makes an inquiry desirable, an inspector may hold an inquiry and summon witnesses to attend. In the case of an accident causing death or serious bodily injury, a copy of the evidence and report must be sent to the Attorney-General or the Solicitor-General. No worker of sixteen years of age or over may work for more than (*a*) 48 hours a week; or (*b*) 8 hours a day; or (*c*) 5 hours continuously. No person under sixteen years of age may work for more than (*a*) 45 hours a week; or (*b*) 8 hours a day; or (*c*) 4½ hours continuously (5 hours on half-holidays). All the foregoing hours are exclusive of meal times. The restrictions do not apply to persons of or over 16 years of age employed in starting motive power in the factory, making preparations for work, or cleaning up, or to unskilled work carried on in the open air. A special exemption may be given by the Minister in the case of a factory where the supply of raw material is intermittent, or subject to seasonal variation, or where raw material is liable to deterioration if untreated, or where continuous processes or the exigencies of the business render special hours necessary during certain times or seasons. Women may not be employed between 6 p.m. and 7 a.m., or boys under sixteen years of age between 6 p.m. and 6 a.m., subject to certain exemptions, which may be granted by the Minister, but which may not authorize work between 9 p.m. and 5 a.m. In exceptional cases, women over 16 years of age may be permitted to work until midnight: provided that they are not employed during any period for a number of hours in excess of the maximum number of hours of work prescribed by the Act or any other law for such females.

Overtime is allowed, but in the case of women and boys under sixteen years of age no overtime may be worked for more than three hours a day on three consecutive days of the week. In the case of women over sixteen years of age, overtime may not be worked on more than sixty days in a year, and in the case of all children under sixteen years of age, on more than twenty days in a year. Overtime in these cases is not allowed on holidays or half-holidays, except by permission of the inspector, and when the employees are willing. An overtime register must be kept in every factory.

No female may work in a factory during the four weeks preceding or the eight weeks following her confinement. Provision exists for the payment by the Government of an allowance not exceeding £1 per week during the twelve weeks above specified, if the female is solely dependent upon the wages she ordinarily earns, and where the father is unable to support the child.

Children under fourteen years of age may not be employed in any factory.

(vii) *Out-Work.*—Where work is given out, a record has to be kept for the guidance of the inspector. No such work may be sub-let, though it may be done by other members of the out-worker's family. The Act provides for a label, which may be attached by the inspector, to be affixed to work given out in connexion with the clothing and textile industries, where the work is performed under satisfactory and sanitary conditions.

(viii) *Noxious and Dangerous Occupations.*—Noxious and dangerous occupations may be so declared by proclamation.

(ix) *Holidays.*—Sundays and statutory public holidays are specified. Other days in the year may be substituted. No women or boys under sixteen years of age may work on Saturday afternoons, except when a half-holiday is provided for on some other day of the working week.

(x) *General Working Conditions.*—Provision is made for proper means of egress in case of fire; for proper sanitation, ventilation, lighting, drinking-water, and such matters.

The following regulations have been framed under the Act:—

Chapter I.—General (Government Notice No. 559/19, *Union Government Gazette*, 2nd May, 1919; amended by Government Notice No. 246/22, *Union Government Gazette*, 10th February, 1922).

Chapter II.—Handling of Hides and Skins and the Sorting of Wool and Mohair (Government Notice No. 2099/20, *Union Government Gazette*, 19th November, 1920).

Chapter III.—Bakehouses and Factories where Foodstuffs are Manufactured, Prepared, or Handled (Government Notice No. 2247/20, *Union Government Gazette*, 17th December, 1920).

Chapter IV.—Regulations dealing with First-Aid in Factories (Government Notice No. 2286/1925, *Union Government Gazette*, 21st December, 1925).

Chapter V.—Regulations dealing with the Use or Storage of Cellulose Solutions in Factories (Government Notice No. 268, *Union Government Gazette*, 14th February, 1930).

Chapter VI.—Regulations dealing with the Supervision and Control of Certain Machinery (Government Notice No. 1247/1931, *Union Government Gazette*, 31st July, 1931).

Full information with regard to the working of the Act is contained in the annual report of the Department of Labour.

Statistics with regard to factories will be found in the chapter on manufacturing industries (Chapter XXIII).

2. **Workmen's Compensation.**—(i) *Workmen's Compensation Act.*—Act No. 59 of 1934, amended in certain respects by Act No. 38 of 1936, consolidates, amends, and extends throughout the Union the law with respect to compensation for disablement caused by accidents to, or industrial diseases contracted by, workmen in the course of their employment, or death resulting from such accidents or diseases. The Act came into operation on the 1st July, 1935, and repeals all previously existing legislation in regard to workmen's compensation.

The following have been scheduled as industrial diseases: cyanide rash, lead poisoning or its sequelae, mercury poisoning or its sequelae, and ankylostomiasis (hookworm) in workmen other than Asiatics or natives.

All claims in respect of injuries caused by accident, resulting in the disablement or death of workmen, must be determined under and in accordance with the Act, and no action in respect of such claim lies at common law.

A summary of the procedure laid down in the Act for the recovery of compensation has been prescribed, and a printed copy thereof must be displayed by every employer in a conspicuous place.

The Act describes what persons are workmen and the dependants of workmen, and sets out the compensation payable, which is based upon the earnings of the workman at the time of the accident. Compensation takes the form of lump-sum payments in certain cases, and monthly pensions in others. Pensions are also provided for the children of workmen who have died as the result of accident, and continue until each child has reached the age of 16 years or dies or marries before that age. In certain cases the continuation of the pension after the age of 16 may be ordered. In all cases where the compensation due to a major exceeds £200, and to a minor £50, the directions of the Workmen's Compensation Commissioner are necessary before payment can be made. This also applies to the payment of pensions in respect of children.

In addition to compensation, employers must also defray, during a period not exceeding one year from the date of accident, the reasonable expenses incurred by workmen in respect of medical, surgical, or hospital treatment, skilled nursing services, and the supply and repair of artificial limbs and apparatus in connexion with injuries, but these must not exceed in all the sum of £100.

Contracts entered into whereby workmen or their representatives relinquish any right to compensation are null and void, but under section 16 provision exists for a workman to agree that the employer shall pay less than the amount payable under the Act—but not less than one-half—if a district surgeon has certified that by reason of old age, serious physical infirmity, or any previous injury, such person is specially liable to meet with an accident or to sustain an injury if employed as a workman. The Act requires all employers, other than the Crown, the State, and any Provincial Administration, to obtain from a licensed insurance company or association a policy of insurance or indemnity for the full extent of their potential liability under the Act to all workmen employed by them; failure to do so is an offence. An employer who proves to the satisfaction of the Minister that he has established a fund for insurance against liability under the Act and has deposited with the Treasury sufficient security to meet all payments which may become due from him may, subject to certain conditions, be exempted from the duty of insuring against liability under the Act.

Compensation in the case of native workmen is on a different scale from that for European, Asiatic, and Coloured workmen, and is in the first place to be assessed by an officer appointed for the purpose. The officer may in addition award the allowance payable in respect of medical, surgical, and hospital treatment, but only to an amount not exceeding £25.

Various regulations have been framed for the better carrying out of the objects and purposes of the Act.

The administration of the *Workmen's Compensation Act* has been assigned to the Minister of Labour, and an officer styled the Workmen's Compensation Commissioner has been appointed and given certain functions and duties which are prescribed in the Act.

(ii) *Statistics.*—The following tables give information regarding accidents which occurred during the period 1st July to 31st December, 1935, and were reported in terms of the *Workmen's Compensation Act.*

Employers are not liable for compensation to natives who are disabled for less than 6 weeks, provided food, quarters, and medical aid are supplied by the employer. Such cases are not reported to the Commissioner and are not included in the statistics.

The figures given refer to all cases reported to the Commissioner by general assurance companies, the Rand Mutual Assurance Co., government departments, the South African Railways and Harbours Administration, and exempted employers.

(i) PERSONS INJURED ACCORDING TO AREA, RACE, SEX, AND DEGREE OF INJURY, JULY TO DECEMBER, 1935.

Area.	Sex.		Race.				Degree of Injury.			
	Male.	Female.	European.	Native.	Asiatic.	Coloured.	Temporary.	Permanent.	Fatal.	Total.
Cape Peninsula	1,968	165	872	211	22	1,028	2,067	56	10	2,133
Port Elizabeth	1,068	34	560	358	5	179	1,071	26	5	1,102
Rest Cape Province	2,059	97	850	581	6	719	2,026	109	21	2,156
Durban	1,460	36	533	683	213	67	1,410	71	15	1,496
Rest Natal	861	6	270	505	71	21	625	214	28	867
Witwatersrand	3,720	245	2,591	1,290	6	78	3,667	237	61	3,965
Pretoria	913	21	615	296	2	21	890	37	7	934
Rest Transvaal	741	7	349	385	2	12	562	107	79	748
Orange Free State	404	5	212	189	—	8	377	22	10	409
Rand Mutual*	5,305	1	2,234	3,055	3	14	2,224	2,756	326	5,306
UNION	18,499	617	9,086	7,553	330	2,147	14,919	3,635	562	19,116

* Almost exclusively gold mining cases on the Witwatersrand.

(ii) PERSONS INJURED ACCORDING TO CAUSE, DEGREE OF INJURY, AND RACE OF CASUALTY, JULY TO DECEMBER, 1935.

Cause.	Temporary.		Permanent.		Fatal.		All Injuries.		
	European.	Non-European.	European.	Non-European.	European.	Non-European.	European.	Non-European.	Total.
Prime Movers	15	9	1	3	—	—	16	12	28
Transmission Apparatus	84	48	6	125	—	1	90	174	264
Working Machinery—									
Metal Working*	617	103	11	13	1	—	629	116	745
Engineering	11	16	2	3	—	—	13	19	32
Wood Working	136	74	28	41	—	—	164	115	279
Textile Working	158	67	5	3	1	—	164	70	234
Leather Working	51	11	7	2	—	—	58	13	71
Other	202	155	29	172	2	4	233	331	564
TOTAL	1,175	426	82	234	4	4	1,261	664	1,925
Non-Working Power Machines	17	7	4	9	—	—	21	16	37
Hoisting Apparatus—									
Cranes	7	32	3	2	1	—	11	34	45
Other	57	20	9	50	3	17	69	87	156
TOTAL	64	52	12	52	4	17	80	121	201
Conveyors	5	9	2	4	—	1	7	14	21
Vehicles—									
Mine/Quarry Cars	127	138	17	689	2	42	146	869	1,015
Automobiles	337	321	17	33	14	18	368	372	740
Animal-drawn	19	59	—	13	1	1	20	73	93
Other	138	264	16	90	16	18	170	372	542
TOTAL	621	782	50	825	33	79	704	1,686	2,390
Explosions, etc.—									
Explosions (Blasting)	15	5	6	41	1	27	22	73	95
Explosions (Other)	36	60	1	13	4	63	41	136	177
Electricity	45	9	1	2	2	6	48	17	65
Hot Water, etc.	116	182	3	5	2	2	121	189	310
Other	119	57	2	3	—	—	121	60	181
TOTAL	331	313	13	64	9	98	353	475	828
Poisonous Substances	136	56	5	9	—	3	141	68	209
Falls of Persons—									
From Elevations	439	273	23	40	7	18	469	331	800
On Level	889	309	25	109	1	3	915	421	1,336
Other	83	30	2	18	1	34	86	82	168
TOTAL	1,411	612	50	167	9	55	1,470	834	2,304

* Mainly emery wheels.

(ii) PERSONS INJURED ACCORDING TO CAUSE, DEGREE OF INJURY, AND RACE OF CASUALTY, JULY TO DECEMBER, 1935—(*continued*).

Cause.	Temporary.		Permanent.		Fatal.		All Injuries.		
	European.	Non-European.	European.	Non-European.	European.	Non-European.	European.	Non-European.	Total.
Stepping on Objects.....	164	188	—	8	—	—	164	196	360
Striking against Objects..	496	320	14	67	1	5	511	392	903
Falling Objects—									
Collapse of Buildings....	48	54	3	5	1	7	52	66	118
Falls from Elevations...	257	354	17	59	2	22	276	435	711
Ground Fall in Mines....	252	97	21	612	14	129	287	838	1,125
Other.....	29	8	4	34	—	19	33	61	94
TOTAL.....	586	513	45	710	17	177	648	1,400	2,048
Handling Objects—									
Heavy.....	1,097	1,458	37	237	1	8	1,135	1,703	2,838
Sharp and Rough.....	676	624	22	423	—	4	698	1,051	1,749
Other.....	3	12	—	—	—	—	3	12	15
TOTAL.....	1,776	2,094	59	660	1	12	1,836	2,766	4,602
Hand Tools—									
In Worker's Hands.....	1,274	554	60	223	3	2	1,337	779	2,116
Other.....	12	13	3	3	—	—	15	16	31
TOTAL.....	1,286	567	63	226	3	2	1,352	795	2,147
Animals—									
Draught Animals.....	16	60	1	2	—	—	17	62	79
Other.....	29	41	2	—	—	1	31	42	73
TOTAL.....	45	101	3	2	—	1	48	104	152
Miscellaneous.....	372	232	7	54	3	23	382	309	691
Unknown.....	2	4	—	—	—	—	2	4	6
GRAND TOTAL...	8,586	6,333	416	3,219	84	478	9,086	10,030	19,116

(iii) TOTAL PERSONS INJURED ACCORDING TO INDUSTRY, RACE, AND DEGREE OF INJURY, AND CASES REPORTED TO GENERAL ASSURANCE COMPANIES ONLY, AND COST INCURRED ACCORDING TO INDUSTRY (JULY TO DECEMBER, 1935).

Industry.	Race of Casualty.				Degree of Injury.				General Assurance Companies only.	
	European.	Native.	Asiatic.	Coloured.	Temporary.	Permanent.	Fatal.	Total.	Number of Cases.	Total Cost.* £
Agriculture.....	41	30	—	14	69	12	4	85	51	986
Mining and Metallurgy—										
Gold Mining...	2,282	3,075	3	14	2,337	2,706	331	5,374	192	3,717
Coal Mining....	41	428	5	2	129	260	87	476	358	8,276
Other.....	78	257	10	26	321	40	10	371	338	3,319
TOTAL.....	2,401	3,760	18	42	2,787	3,006	428	6,221	888	15,312
Raw Materials, Refining.....	5	25	6	—	31	4	1	36	36	177
Earth and Mineral Works.....	81	123	3	40	218	23	6	247	244	2,773
Woodworking—										
Sawmills.....	100	106	4	37	201	44	2	247	247	3,500
Other.....	31	24	6	14	64	11	—	75	75	973
TOTAL.....	131	130	10	51	265	55	2	322	322	4,473

* Excluding pensions and lump sums paid on account of commuted pensions. [See tables (iv) and (v).]

(iii) TOTAL PERSONS INJURED ACCORDING TO INDUSTRY—(*continued*).

Industry.	Race of Casualty.				Degree of Injury.				General Assurance Companies only.	
	European.	Native.	Asiatic.	Coloured.	Temporary.	Permanent.	Fatal.	Total.	Number of Cases.	Total Cost.* £
Furniture Manufacturing.....	186	27	16	60	265	23	1	289	289	2,894
Metal Working, Engineering—										
Blast Furnaces.	333	120	—	2	442	11	2	455	455	3,722
Mechanical Engineering..	466	227	—	34	699	21	7	727	717	6,161
Other.....	468	167	32	74	712	27	2	741	737	5,078
TOTAL.....	1,267	514	32	110	1,853	59	11	1,923	1,909	14,961
Food, Drink, & Tobacco.	298	236	48	229	752	55	4	811	773	7,072
Clothing & Textiles—										
Clothing Manufacturing....	167	5	8	36	212	3	1	216	216	1,238
Other.....	112	40	21	29	191	10	1	202	202	1,499
TOTAL.....	279	45	29	65	403	13	2	418	418	2,737
Books, Paper & Printing—										
Printing.....	73	8	1	7	87	2	—	89	61	534
Other.....	19	7	1	11	36	2	—	38	38	253
TOTAL.....	92	15	2	18	123	4	—	127	99	787
Vehicle Manufacturing—										
Motor Garages.	640	67	4	49	739	17	4	760	751	6,717
Other.....	54	19	2	14	86	3	—	89	86	390
TOTAL.....	694	86	6	63	825	20	4	849	837	7,107
Shipbuilding.....	3	3	1	2	9	—	—	9	9	30
Chemicals Manufacturing.....	47	144	3	28	212	8	2	222	94	1,225
Surgical Apparatus	4	—	—	1	4	1	—	5	5	166
Jewellery.....	14	2	—	1	17	—	—	17	17*	67
Heat, Light, & Power—										
Electricity Supply.....	90	10	—	3	94	7	2	103	102	2,335
Other.....	54	42	2	8	97	8	1	106	106	694
TOTAL.....	144	52	2	11	191	15	3	209	208	3,029
Leatherworking—										
Footwear Manufacturing.....	124	7	—	27	149	9	—	158	158	1,057
Other.....	25	12	1	27	61	4	—	65	63	454
TOTAL.....	149	19	1	54	210	13	—	223	221	1,511
Building and Construction—										
Erection	808	449	9	190	1,354	78	24	1,456	1,429	22,211
Not erection...	175	116	5	58	319	26	9	354	152	1,897
Other.....	—	—	—	—	—	—	—	—	—	—
TOTAL.....	983	565	14	248	1,673	104	33	1,810	1,581	24,108
Miscellaneous Manufacturing..	38	9	1	7	46	9	—	55	55	1,044
Transportation—										
Motor Transport	114	69	5	42	219	9	6	230	214	2,006
Other.....	640	579	16	362	1,511	60	26	1,597	369	4,939
TOTAL.....	754	648	21	404	1,726	69	32	1,827	583	6,945

* Excluding pensions and lump sums paid on account of commuted pensions. [See tables (iv) and (v).]

(iii) TOTAL PERSONS INJURED ACCORDING TO INDUSTRY—(*continued*).

Industry.	Race of Casualty.				Degree of Injury.				General Assurance Companies only.	
	European.	Native.	Asiatic.	Coloured.	Temporary.	Permanent.	Fatal.	Total.	Number of Cases.	Total Cost.* £
Water Supply....	12	11	1	2	25	1	—	26	26	139
Trade, Commerce, and Finance...	763	656	33	390	1,747	82	13	1,842	1,780	13,447
Public Administration.....	501	349	75	211	1,077	48	11	1,136	869	6,532
Professional Service.....	44	11	—	10	60	3	2	65	62	591
Domestic Service	98	77	8	72	246	6	3	255	252	2,801
Personal Service..	19	2	—	2	23	—	—	23	22	92
Sport and Amusement.....	33	9	—	7	48	1	—	49	48	455
Miscellaneous.....	4	1	—	1	6	—	—	6	6	140
Unknown.....	1	4	—	4	8	1	—	9	9	20
GRAND TOTAL	9,086	7,553	330	2,147	14,919	3,635	562	19,116	11,713	121,621

* Excluding pensions and lump sums paid on account of commuted pensions. [See tables (iv) and (v).]

Table (iv) excludes pension payments and also lump sums paid on account of commuted pensions [see Table (v)]. It also excludes medical cost of cases which occurred on gold mines insured with the Rand Mutual Assurance Co., and on the S.A. Railways & Harbours. During the six months ended 31st December, 1935, 35,498 natives who were disabled in gold mining accidents were treated in hospital at an estimated cost of £62,280. To this must be added the medical cost of European casualties, which is estimated at about £6,300 per month. The annual medical cost on account of injuries to servants of the S.A. Railways and Harbours Administration is estimated at £15,000.

The large amount shown against "Sundries" under the Rand Mutual Assurance Co. consists almost entirely of *ex gratia* periodical payments and not transportation costs as in other cases.

(iv) COST OF COMPENSATION ACCORDING TO RACE OF CASUALTY, DEGREE OF INJURY, AND NATURE OF PAYMENT, JULY TO DECEMBER, 1935.

Race of Casualty.	Temporary.		Permanent.		Fatal.		Payments.				
	Number.	Cost. £	Number.	Cost. £	Number.	Cost. £	Periodical. £	Lump Sums. £	Medical. £	Sundries. £	Total. £
(*a*) GENERAL ASSURANCE COMPANIES.											
European.....	5,576	40,258	214	31,366	34	9,450	28,168	26,646	25,449	811	81,074
Native.....	3,170	10,412	493	9,832	155	6,313	4,381	12,377	9,736	63	26,557
Asiatic.....	301	738	15	790	—	—	600	399	516	13	1,528
Coloured.....	1,686	7,336	59	4,104	10	1,022	4,135	3,160	5,045	122	12,462
TOTAL.....	10,733	58,744	781	46,092	199	16,785	37,284	42,582	40,746	1,009	121,621
(*b*) RAND MUTUAL ASSURANCE COMPANY.											
European.....	2,055	28,944	156	64,085	23	8,136	30,639	23,713	431	6,382	61,165
Native.....	156	78	2,596	17,084	303	12,354	1,028	28,446	—	42	29,516
Asiatic.....	1	1	2	21	—	—	2	20	—	—	22
Coloured.....	12	117	2	64	—	—	121	57	—	3	181
TOTAL.....	2,224	29,140	2,756	41,254	326	20,490	31,790	52,236	431	6,427	90,884

(iv) COST OF COMPENSATION—(*continued*).

Race of Casualty.	Temporary.		Permanent.		Fatal.		Payments.				
	Number.	Cost. £	Number.	Cost. £	Number.	Cost. £	Periodical. £	Lump Sums. £	Medical. £	Sundries. £	Total. £
(*c*) GOVERNMENT DEPARTMENTS, S.A. RAILWAYS AND HARBOURS, AND EXEMPT EMPLOYERS.											
European.....	955	4,758	46	4,834	27	5,998	4,091	9,363	1,960	171	15,590
Native.....	625	1,020	46	879	9	423	786	1,130	343	63	2,322
Asiatic.....	10	8	1	61	—	—	10	30	29	—	69
Coloured.....	372	929	5	181	1	82	764	209	218	1	1,192
TOTAL.....	1,962	6,715	98	5,955	37	6,503	5,651	10,737	2,550	235	19,173
GRAND TOTAL...	14,919	94,599	3,635	93,301	562	43,778	74,725	105,555	43,727	7,671	231,678

In Table (v) the number of dependent children includes only those children to whom pensions are actually payable. The capital value is the total value of all pensions payable including those commuted in whole or in part.

(v) CASUALTIES WHICH RESULTED FROM ALL ACCIDENTS AND INVOLVED THE PAYMENT OF PENSIONS, JULY TO DECEMBER, 1935.

Race.	Cases.	Dependent Children.	Monthly Pension Bill. £ s. d.	Capital Value. £
(*a*) WORKMEN PERMANENTLY INJURED.				
European.....	32	—	136 15 10	27,246
Asiatic.....	—	—	—	—
Coloured.....	1	—	11 9	112
TOTAL.....	33	—	137 7 7	27,358
(*b*) WORKMEN FATALLY INJURED.				
European.....	35	83	138 1 11	12,492
Asiatic.....	—	—	—	—
Coloured.....	6	18	11 18 10	1,239
TOTAL.....	41	101	150 0 9	13,731

3. **Workmen's Wages Protection.**—The *Workmen's Wages Protection Act* (No. 15 of 1914) was passed "to make better provision for securing the payment of workmen's wages." It provides generally that wages due to a workman shall form a first charge upon money payable to a contractor by his principal, and that assignments and attachments are void as against the claims of workmen.

Other provisions of the Act and particulars of the procedure to be adopted under it are summarized in No. 5 and previous issues of this *Year Book*.

Owing to the protection given to employees by subsequent legislation, such as the *Wage Act* and the *Industrial Conciliation Act*, the number of cases in which workmen make use of the provisions of the *Workmen's Wages Protection Act* is not very great.

§ 8. International Labour Organization.

1. **International Labour Conferences.**—An account of the International Labour Organization established under the Treaty of Versailles will be found in the sixth and previous issues of this *Year Book*. These also contain particulars of the first four general conferences held under the auspices of the International Labour Office each year since 1919, the Union being represented at all except the second. Information as to subsequent conferences will be found in the seventh and later issues of the *Year Book*.

During 1936, in addition to the general annual session of the conference, two special maritime sessions (the twenty-first and the twenty-second) were held. Owing to the paucity of Union-owned shipping and the consequent small number of seamen affected, representation of the Union at these two sessions was not considered necessary, and accordingly no South African delegation attended.

At the twenty-first session, five draft conventions were adopted, namely: No. 53, concerning the minimum requirement of professional capacity for masters and officers on board merchant ships; No. 54, concerning annual holidays with pay for seamen; No. 55, concerning the liability of the shipowner in case of sickness, injury, or death of seamen; No. 56, concerning sickness insurance for seamen; and No. 57, concerning the hours of work on board ship and manning. One further draft convention, No. 58, fixing the minimum age for the admission of children to employment at sea (revised 1936), was adopted at the twenty-second session. The Union Government found itself unable to ratify any of these conventions.

The twenty-third (general) session was held in June, 1937, when four draft conventions were adopted: two of these, which lay down a minimum age for the admission of children to employment—No. 59, covering industrial employment, and No. 60, non-industrial—revise previous conventions dealing with the same matters by raising the minimum age from 14 to 15 years, while the remaining two—No. 61, concerning the reduction of hours of work in the textile industry, and No. 62, concerning safety provisions in the building industry—cover new ground. The question of the ratification of these conventions by the Union Government is under consideration.

The twenty-fourth (general) session was held in June, 1938, and was attended by a South African delegation consisting of eight members, four representing the Union Government and two each the employers and workers respectively. One draft convention (No. 63) concerning statistics of wages and hours of work in the principal mining and manufacturing industries, including building and construction, and in agriculture, was adopted, and has since been ratified by the Union Government, advantage being taken of the provision therein, which enables Governments to supply only certain of the specified statistics. Accordingly in so far as South Africa is concerned, the information to be forwarded annually to the International Labour Office will consist of statistics of the time rates of wages and normal hours of work in mining and manufacturing industries.

2. **Labour Conventions Ratified by South Africa.**—The following conventions framed at the International Labour Conference have been ratified by the Union Government:—

(*a*) Convention (No. 2) concerning unemployment (adopted at the first session of the conference, 1919).

(*b*) Convention (No. 4) concerning the employment of women during the night (adopted at the first session of the conference, 1919). This convention was amended in 1934; the amended version was ratified by the Union, and the ratification of the original was accordingly denounced, with the proviso that the denunciation was to take effect only when the revised convention (No. 41) should have come into force [see (*f*) below.]

(*c*) Convention (No. 19) concerning equality of treatment for national and foreign workers as regards workmen's compensation for accidents (adopted at the seventh session of the conference, 1925).

(*d*) Convention (No. 26) concerning the creation of minimum wage fixing machinery (adopted at the eleventh session of the conference, 1928).

(*e*) Convention (No. 27) concerning the marking of the weight on heavy packages transported by vessels (adopted at the twelfth session of the conference, 1929, and to take effect after ratification by Great Britain, Germany, France, and Italy).

(*f*) Revised convention (No. 41) concerning the employment of women during the night (adopted at the eighteenth session of the conference, 1934).

(*g*) Convention (No. 45) concerning the employment of women on underground work in mines (adopted at the nineteenth session of the conference, 1935).

(*h*) Convention (No. 63) concerning statistics of wages and hours of work in the principal mining and manufacturing industries, including building and construction, and in agriculture (adopted at the twenty-fourth session of the conference, 1938).

It should be pointed out that, though the Union has formally ratified only a small proportion of the conventions, the principles embodied in the majority of these conventions form an integral part of the legislative and administrative system of the Union. Where formal ratification has not been possible, it has frequently been due to the fact that the conventions contain points of detail which are not strictly applicable to the conditions prevailing in the Union of South Africa.

§ 9. Wages and Hours of Labour of European Workers.

1. **Introductory.**—Since the end of the year 1919 the Office of Census and Statistics has undertaken the collection of statistics of wages, hours of labour, trade unionism, and cognate matters in the Union on a regular and comprehensive plan. Prior to that year no systematic or complete record had been maintained. The task of compiling statistics covering a long series of past years was one of magnitude, particularly as the necessary data could not be obtained under statutory authority, but only by enlisting the assistance and co-operation of representative employers of labour and others. With the application of the *Statistics Act*, it became possible to put the annual collection of statistics of wages and other aspects of industrialism on a satisfactory and sure basis. The methods followed in inaugurating the system and in obtaining data and computing results for earlier years were set out in detail in the reports on wages, etc., published in the "Social Statistics" series (S.P. 23, 1921, and S.P. 35, 1922) issued by the Office of Census and Statistics. These publications are now out of print.

From *Official Year Book* No. 11 onwards the method of presentation of wage statistics differs from that used previously. In the earlier issues *averages* were employed in cases where standard minimum wage rates were not available; but, as will be seen from the tables appearing later in this chapter, standard minimum wage rates are now employed wherever possible, these being supplemented in a few instances by average wage rates.

Information is now given in respect of well-defined occupations in the various industries rather than in respect of an industry as a whole. Cognizance is taken only of occupations which fall within the scope of wage determinations or industrial council agreements, or which show a sufficient number of employees to make it possible to obtain a certain amount of stability in compiling wage rate records from year to year. This entailed a careful revision of wage rates as used for index purposes, and recalculations were made as far back as 1926. (See also paragraph 3.)

2. **Scope of Inquiry.**—The following groups of occupations are now utilized in the computation of wage statistics:—

I.—Gold Mining (Witwatersrand).
II.—Diamond Mining (Kimberley).
III.—Engineering and Metal Working.
IV.—Building.
V.—Printing, Bookbinding, etc.
VI.—General Manufacturing.
VII.—Transport and Communication (Railways, Harbours, Tramways, and Posts).
VIII.—Trading.

It will be observed that this list does not include the clerical, domestic, and miscellaneous groups appearing in *Official Year Book* No. 10 and previous issues. For the last two of these groups it has always been found a matter of considerable difficulty to secure adequate information, while the clerical group has been omitted for technical reasons.

Wage rates payable to Europeans (male and female) for full-time work, in a range of specific occupations under the selected groups of industry, are obtained in respect of each of the nine principal industrial centres, and in the case of occupations in manufacturing industry, in respect of certain areas outside those centres. Particulars of wages paid to coloured persons and natives were not called for at the initial investigations, but were ascertained for the first time in the year 1921.

3. **Methods of Collection and Computation.**—A statement on the methods of collection and computation adopted in the wage statistics inquiry was given in the sixth issue of this *Year Book*. In connexion with the basic changes mentioned above, and in order that the sequence of the index numbers should not be broken, two separate calculations were made for the year 1926, one on the old basis and the other on the new. The second calculation has been utilized for making comparisons with years subsequent to 1926, and the relative increases or decreases have been applied to index numbers for 1926 calculated on the old basis.

An examination of employment in industry according to the 1926 Population Census revealed the fact that, except in the case of mining, the proportions of the European population in any particular class of employment in the different towns did not vary materially as between town and town. It was, therefore, decided to re-weight the indexes of wages (mining wages excepted) in the same proportion as is done in the calculation of retail price indexes. This facilitates the calculation of real wages direct from the retail price indexes for the averages of the nine towns. In the case of gold mining, the price indexes of the Witwatersrand have been utilized, and in the case of diamond mining those of Kimberley.

4. **Variations in Nominal and Real Wages.**—The term *nominal wage* is used to signify the actual amount of money which would be received in return for labour for the full number of hours per week, whether full time is actually worked or not. By *real wage* is meant a wage equivalent in purchasing power, i.e. purchasing power according to the price indexes calculated under the *Statistics Act*. It should be noted that in calculating real wages the factor of unemployment has not been taken into account, for the reason that complete statistics of unemployment have not up to the present been obtainable in the Union. Nominal wages are specified in the tables below from 1895, real wages from 1910.

The Government Mining Engineer, from whose statements the wages paid in diamond mining are obtained for the following calculations, states with reference to the figures for 1932: "The lower rates paid for wages on the diamond mines are due to temporary arrangements made to enable men to be retained in employment." In consequence the indexes in Class II for 1932, 1933, and 1934 are not quite comparable with the indexes for other classes in those years, as no allowance is made in the latter for short time worked.

The following tables (i) and (ii) give index numbers of nominal and real wages in eight groups of occupations for certain years up to and including the year 1938.

Index numbers for "All Groups" for a complete series of years from 1910 will be found in a table at the end of § 5 in Chapter VII.

(i) INDEX NUMBERS OF AVERAGE WEEKLY WAGE RATES—EUROPEAN ADULT MALE WORKERS IN EACH OF EIGHT CLASSES OF OCCUPATION (THE BASE IN EACH CASE=UNION AVERAGE FOR EACH CLASS IN 1910=1000).

(*a*) NOMINAL WAGE RATES, 1895 TO 1938.

Year.	I.	II.	III.	IV.	V.	VI.	VII.	VIII.	All Groups.
1895	973	951	964	954	870	935	—	885	955
1900	1022	951	959	975	938	961	—	911	976
1905	1076	978	981	1008	1001	991	—	925	1006
1910	1000	1000	1000	1000	1000	1000	1000	1000	1000
1914	982	907	1021	1040	1025	1036	1107	1030	1032
1920	1569	1352	1689	1722	1784	1700	1050	1728	1717
1922	1111	1090	1261	1413	1542	1417	1509	1656	1385
1925	1133	1128	1274	1413	1451	1383	1553	1578	1378
1930	1200	1089	1327	1458	1451	1374	1579	1485	1400
1933	1196	576	1302	1304	1316	1359	1321	1485	1329
1934	1191	619	1297	1292	1354	1387	1361	1450	1319
1935	1196	1048	1301	1459	1354	1431	1375	1481	1372
1936	1200	1030	1313	1485	1354	1442	1427	1536	1395
1937	1200	1056	1323*	1493	1354	1456	1446	1514	1400
1938	1200	1056	1332	1513	1354	1475	1459	1527*	1412*

* The 1938 figure for Trading (Class VIII) is not yet available. These index numbers have, however, been estimated on the basis of the percentage change in 1938, as compared with 1937, in the nominal wage rates of the remaining seven groups as a whole.

(i) INDEX NUMBERS OF AVERAGE WEEKLY WAGE RATES—(*continued*).

(*b*) REAL WAGE RATES, 1910 TO 1938.
(Standard Basis—Food, Fuel, Light, and Rent.)

Year.	I.	II.	III.	IV.	V.	VI.	VII.	VIII.	All Groups.
1910	1000	1000	1000	1000	1000	1000	1000	1000	1000
1914	934	702	935	952	939	949	1014	943	974
1920	1001	728	905	1014	1050	1001	1149	1018	1048
1922	898	808	955	1071	1168	1073	1143	1254	1084
1925	915	826	951	1055	1082	1032	1159	1178	1064
1930	1017	852	1021	1122	1116	1057	1215	1142	1088
1933	1109	549	1104	1105	1115	1152	1119	1258	1130
1934	1084	552	1084	1079	1131	1159	1137	1211	1112
1935	1100	955	1098	1231	1143	1208	1160	1250	1169
1936	1090	943	1105	1249	1139	1213	1200	1292	1183
1937	1053	953	1092	1233	1118	1202	1194	1251	1164
1938	1014	897	1063	1207	1081	1177	1164	1219*	1134*

(*c*) REAL WAGE RATES, 1910 TO 1938.
(Complete Price Index Basis—Food, Fuel, Light, Rent, Clothing, Hardware, etc.)

Year.	I.	II.	III.	IV.	V.	VI.	VII.	VIII.	All Groups.
1910	1000	1000	1000	1000	1000	1000	1000	1000	1000
1914	934	702	935	952	939	949	1014	943	974
1920	853	610	863	880	911	869	997	883	907
1922	794	679	854	957	1044	959	1022	1121	968
1925	833	720	880	976	1002	955	1073	1090	983
1930	924	736	950	1044	1039	984	1130	1063	1009
1933	1024	462	1041	1043	1052	1087	1056	1187	1063
1934	1004	475	1023	1019	1068	1094	1074	1143	1048
1935	1014	812	1032	1157	1074	1135	1090	1174	1095
1936	1009	800	1038	1173	1069	1139	1127	1214	1109
1937	976	802	1022	1153	1046	1124	1117	1169	1087
1938	939	762	992	1127	1009	1099	1087	1138*	1057*

(ii) REAL WEEKLY WAGE RATES IN VALUES OF £1—EUROPEAN ADULT MALE WORKERS IN EACH OF EIGHT CLASSES OF OCCUPATION, 1910 TO 1938.

(Standard Basis—1910=20s. in each case.)

Year.	I.	II.	III.	IV.	V.	VI.	VII.	VIII.	All Groups.
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
1910	20 0	20 0	20 0	20 0	20 0	20 0	20 0	20 0	20 0
1914	18 8	14 0	18 8	19 0	18 9	19 0	20 3	18 10	19 6
1920	20 0	14 7	19 11	20 3	21 0	20 0	23 0	20 4	21 0
1922	18 0	16 2	19 1	21 5	23 4	21 6	22 10	25 1	21 8
1925	18 4	16 6	19 0	21 1	21 8	20 8	23 2	23 7	21 3
1930	20 4	17 0	20 5	22 5	22 4	21 2	24 4	22 10	21 9
1933	22 2	11 0	22 1	22 1	22 4	23 0	22 5	25 2	22 7
1934	21 8	11 1	21 8	21 7	22 7	23 2	23 9	24 3	22 3
1935	22 0	19 1	22 0	24 7	23 10	24 2	23 2	25 0	23 5
1936	21 10	18 10	22 1	25 0	22 9	24 3	24 0	25 10	23 8
1937	21 1	19 1	21 10	24 8	22 4	24 0	23 11	25 0	23 3
1938	20 3	17 11	21 3	24 2	21 7	23 6	23 3	24 5*	22 8*

* The 1938 figure for Trading (Class VIII) is not yet available. These rates have, however, been estimated on the basis of the percentage change in 1938, as compared with 1937, in the nominal wage rates of the remaining seven groups as a whole.

5. **Adult Male European Wage Rates.**—The following tables give particulars of wages paid to European adult male workers in certain occupations at the different dates specified. Where possible, standard minimum wages, as laid down by Wage Board determinations or industrial council agreements, have been utilized.

Mining.—The wages shown in the following table were the average rates paid to certain adult male European employees in the mining industry on the third Wednesday of June, 1938. The working hours per week were:—Underground occupations: Witwatersrand Gold Mines, 48½, bank to bank; others, 48.

I. MINING.

(Average pay per shift, including allowances.)

Occupation.	Gold Mining (Witwatersrand).	Coal Mining (Transvaal).	Diamond Mining (Kimberley).	Occupation.	Gold Mining (Witwatersrand).	Coal Mining (Transvaal).	Diamond Mining (Kimberley).
	s. d.	s. d.	s. d.		s. d.	s. d.	s. d.
Amalgamators	23 5	—	—	Miners—Machine Developing—Contract	39 3	—	—
Banksmen*	18 11	—	—	Miners—Shaft Sinking—Contract	63 0	—	—
Blacksmiths	22 3	23 1	22 2	Miners-Reclaiming—Contract	26 3	—	—
Boilermakers	22 5	—	22 11	Day's Pay	21 10	—	—
Boiler Attendants	18 3	15 10	20 5	Miners—Various—Contract	30 2	—	—
Carpenters	22 5	22 7	22 9	Day's Pay	22 9	—	—
Drill Sharpeners	21 6	—	—	Miners, Examiners	21 3	22 3	—
Electricians*	22 9	22 6	22 8	Miners, Coal	—	22 6	—
Electricians	25 0	23 10	—	Miners, Diamond	—	—	24 2
Engine-drivers—				Onsetters and Skipmen	17 11	—	14 4
Winding (electric) *	24 3	—	—	Pipemen and Platelayers	21 8	—	18 11
Winding (electric)	26 8	—	—	Pumpmen	19 9	—	20 0
Winding (other)*	24 4	24 8	23 6	Shiftbosses†	916 9	904 1	957 2
Locomotives (steam)	21 9	23 2	20 0	Screeners	—	19 9	—
Fitters*	23 9	22 7	22 11	Timbermen—Shaft	23 9	—	23 9
Fitters	24 11	23 11	—	Stoping	21 9	—	—
Masons*	22 4	22 6	22 7	Trammers	20 3	—	—
Mill Shiftmen	22 1	—	—				
Miners—Machine Stoping—Contract	29 11	—	—				
Day's Pay	21 11	—	—				

* Surface hands. † Per mensem.

Building, Printing, etc.—The wage rates throughout the following table are the standard minimum wage rates paid to adult male European employees in certain industries at 30th September, 1938, or approximately at that date. The rates are those agreed on by industrial councils or fixed by the Wage Board.

II. BUILDING, PRINTING, ETC.

Occupation.	Cape Peninsula.	Port Elizabeth.	East London.	Kimberley.	Pietermaritzburg.	Durban.	Pretoria.	Witwatersrand.	Bloemfontein.
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
(a) BUILDING—PER HOUR (44 hrs. per week).									
Carpenters, Plumbers, Bricklayers, Masons, Electricians	3 2	3 0	2 11	2 0*	3 4	3 4	3 6	3 6	3 3
Painters, Glaziers, Paperhangers	2 6	2 9	2 7	1 6*	3 0	3 0	3 4	3 4	3 0

* Wage rates in Kimberley are not governed by law; the rates shown are the predominant ones from wage returns.

II. BUILDING, PRINTING, ETC.—*continued.*

Occupation.	Cape Peninsula.	Port Elizabeth.	East London.	Kimberley.	Pietermaritzburg.	Durban.	Pretoria.	Witwatersrand.	Bloemfontein.
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
(b) ENGINEERING—PER HOUR (48 hrs. per week).									
Blacksmiths, Boilermakers, Brassfinishers, Fitters, Moulders, Turners, Patternmakers, Electricians	2 9	2 7	2 8	2 9	2 6	2 9	2 9	2 9	2 7

NOTE.—Industrial council agreements were in force in all towns except Kimberley, Pietermaritzburg, and Bloemfontein. For these areas the rates shown are the predominant ones from wage returns.

(c) PRINTING—PER WEEK (40 to 46 hrs.).

Typesetting machine operators	Day..	130 9	130 9	130 9	137 3	130 9	147 3	152 9	152 9	145 0
	Night	143 9	143 9	143 9	151 0	143 9	162 0	168 0	168 0	159 6
Bookbinders, Rulers, Compositors, Lithographers, Machinists, Stereotypers	Day..	119 0	119 0	119 0	124 9	119 0	134 0	139 0	139 0	132 0
	Night	130 9	130 9	130 9	137 3	130 9	147 3	152 9	152 9	145 0

(d) FURNITURE—PER WEEK (48 hrs.).

Cabinetmakers, Machinists, Polishers, Carvers, Turners, Chairmakers, Upholsterers	116 0	116 0	116 0	108 0	120 0	120 0	117 6 to 132 6	117 6 to 132 6	116 0
Drivers, Storemen	64 6	64 6	64 6	60 0	60 0	60 0	60 0	60 0	64 6
	64 0	64 0	64 0	60 0	64 0	64 0	64 0	64 0	64 0
Mattressmakers									

(e) BAKING AND CONFECTIONERY—PER WEEK (48 to 50 hrs.).

Bread baking.									
Tablehands	84 0	80 0	80 0	80 0	60 0	60 0	100 0	100 0	80 0
Doughmakers	88 0	80 0							
Ovenmen	92 6	80 0							
Bakers (foremen)	120 9	115 0	105 0	105 0	120 0 / 105 0	120 0	150 0	140 0	105 0
Bakers (sub-foremen)	110 3	—				105 0	—	—	
Confectioners—									
Foremen	126 0	120 0	120 0	120 0	100 0	100 0	150 0 / 120 0	140 0	120 0
Sub-foremen	110 3	—					—	—	80 0
Assistants	84 0	90 0	80 0	80 0	40 0	40 0	—	—	80 0
Drivers	66 0	65 0	80 0	80 0	80 0	80 0	100 0	110 0	80 0
Packers	70 0	60 0	80 0	80 0	80 0	80 0	100 0	100 0	80 0
Storemen	80 0	—	80 0	80 0	80 0	80 0	100 0	120 0	80 0
Biscuit baking.									
Bakers (foremen)	130 0	130 0	130 0	130 0	130 0	130 0	140 0	140 0	130 0
Bakers (other)	100 0	100 0	100 0	100 0	100* 0	100 0	105 0	105 0	100 0
Brakesmen, ovenmen	90 0	90 0	90 0	90 0	90 0	90 0	96 6	96 6	90 0
Storemen	95 0	95 0	95 0	95 0	95 0	95 0	100 0	100 0	95 0
Drivers (motor)	77 6	77 6	77 6	77 6	77 6	77 6	77 6	77 6	77 6
Packers	90 0	90 0	90 0	90 0	90 0	90 0	95 0	95 0	90 0

II. BUILDING, PRINTING, ETC.—*continued.*

Occupation.	Cape Peninsula.	Port Elizabeth.	East London.	Kimberley.	Pietermaritzburg.	Durban.	Pretoria.	Witwatersrand.	Bloemfontein.
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
(f) TAILORING—RETAIL AND WHOLESALE PER WEEK (48 hrs.).									
*Retail—									
All Occupations	100 0	117 0	100 0	100 0	100 0	100 0	130 0 to 160 0	130 0 to 160 0	100 0
*Wholesale—									
All Occupations	70 0	60 0	60 0	60 0	60 0	65 0	130 0	130 0	60 0

* The rates for the Witwatersrand and Pretoria (wholesale and retail), for Port Elizabeth (retail), and for Capetown and Durban (wholesale) are those agreed upon by industrial councils; the rest are those determined by the Wage Board.

(g) LEATHERWORKING—PER WEEK (48 hrs.).

Footwear.									
Clickers on—									
Split and kip	80 0	80 0	80 0	76 0	80 0	80 0	80 0	80 0	76 0
Other side leathers	100 0	100 0	100 0	95 0	100 0	100 0	100 0	100 0	95 0
Other leathers	110 0 and 120 0	110 0 and 120 0	110 0 and 120 0	104 6 and 114 0	110 0 and 120 0	110 0 and 120 0	110 0 and 120 0	110 0 and 120 0	104 6 and 114 0
Sole cutters from—									
Leather	110 0	110 0	110 0	100 0	110 0	110 0	110 0	110 0	100 0
Other	80 0	80 0	80 0	80 0	80 0	80 0	80 0	80 0	80 0
Sorters and fitters-up	110 0	110 0	110 0	100 0	110 0	110 0	110 0	110 0	100 0
Sole stitchers—									
Welted	110 0	110 0	110 0	110 0	110 0	110 0	110 0	110 0	110 0
Machine sewn	95 0	95 0	95 0	90 3	95 0	95 0	95 0	95 0	90 3
Bed lasters (toes)	105 0	105 0	105 0	105 0	105 0	105 0	105 0	105 0	105 0
Sole sewers—									
Hide, split, kip	80 0	80 0	80 0	80 0	80 0	80 0	80 0	80 0	80 0
Other	105 0	105 0	105 0	100 0	105 0	105 0	105 0	105 0	100 0
Welt sewers	110 0	110 0	110 0	110 0	110 0	110 0	110 0	110 0	110 0
Edge trimmers—									
Rivet, stitch (ex. miner's)	84 0	84 0	84 0	80 0	84 0	84 0	84 0	84 0	80 0
Miner's	100 0	100 0	100 0	95 0	100 0	100 0	100 0	100 0	95 0
Edge setters—									
Rivet, stitch (ex. miner's)	67 6	67 6	67 6	67 6	67 6	67 6	67 6	67 6	67 6
Miner's	85 0	85 0	85 0	81 0	85 0	85 0	85 0	85 0	81 0
Scourers (Heel and Bottom)	52 6	52 6	52 6	52 6	52 6	52 6	52 6	52 6	52 6
Heel Attachers	40 0 to 55 0	40 0 to 55 0	40 0 to 55 0	40 0 to 55 0	40 0 to 55 0	40 0 to 55 0	40 0 to 55 0	40 0 to 55 0	40 0 to 55 0
Channel Closers, Sole Tackers	37 6	37 6	37 6	37 6	37 6	37 6	37 6	37 6	37 6
Saddle and Harness.									
Saddlers—									
1st Grade	100 0	100 0	100 0	100 0	100 0	100 0	100 0	100 0	100 0
2nd Grade	84 0	84 0	84 0	84 0	84 0	84 0	84 0	84 0	84 0
Harness—									
Cutters	90 0	90 0	90 0	90 0	90 0	90 0	90 0	90 0	90 0
Machinists	60 0	60 0	60 0	60 0	60 0	60 0	60 0	60 0	60 0
Preparers and Finishers	65 0	65 0	65 0	65 0	65 0	65 0	65 0	65 0	65 0
Travelling requisites.									
Leather bag, suitcase, and trunk makers—									
Foremen	120 0	120 0	120 0	120 0	120 0	120 0	120 0	120 0	120 0
Other males	90 0	90 0	90 0	90 0	90 0	90 0	90 0	90 0	90 0
Tanning.									
Machine operators—									
Splitting	100 0	100 0	100 0	100 0	100 0	100 0	100 0	100 0	100 0
Shaving	90 0	90 0	90 0	90 0	90 0	90 0	90 0	90 0	90 0

Domestic Service.—The following table shows the rates of wages paid to the more important male employees in the liquor and catering trades in various centres at 30th September, 1938. All rates have been taken from wage returns collected by the Office of Census and Statistics and include the estimated value of food and lodging.

III. HOTELS—PER WEEK (about 60 hrs.).

Occupation.	Cape Peninsula.	Port Elizabeth.	East London.	Kimberley.	Pietermaritzburg.	Durban.	Pretoria.	Witwatersrand.	Bloemfontein.
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Barmen	90 10	89 9	89 8	94 3	98 6	89 3	112 0	116 11	103 9
Cooks	112 9	94 5	100 3	69 3	60 0	92 0	111 7	115 1	110 10
Waiters	55 10	50 9	54 5	46 6	38 4	38 1	57 7	72 8	57 7
Porters	59 3	59 6	58 5	54 5	40 10	82 11	76 11	76 7	62 3

IV. TRANSPORT AND COMMUNICATION.

(a) RAILWAYS AND HARBOURS, 30TH SEPTEMBER, 1938.

Occupation.	Class.	Rate of Pay per Diem. Minimum.	Incremental Progression.				Maximum.
		s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
*Railways (Running Staff)**—							
Drivers	Special	—	—	—	—	—	21 0
"	I	18 5	19 2	—	—	—	20 0
"	II	15 9	16 7	17 4	—	—	17 11
Passed Firemen (if passed for position of Driver)	—	14 3	14 9	—	—	—	15 3
Firemen	—	10 0	10 10	11 7	12 1	12 8	13 2
Guards or Ticket Examiners	Special	—	—	—	—	—	16 4
" " "	I	12 8	13 5	14 3	14 9	15 3	15 9
" " "	II	10 6	11 4	—	—	—	12 1
Railways and Harbours (Other)—							
Checkers	I	13 11	14 9	15 3	15 9	—	16 4
"	II	10 6	11 4	12 1	12 8	—	13 2
Drivers (Crane)	Special	16 4	—	—	—	—	16 10
"	Ordinary	10 6	11 4	12 1	12 11	13 8†	15 9
Stationary Plant Attendant	I	15 9	16 7	—	—	—	17 4
" " "	II	13 2	13 11	14 9	—	—	15 3
" " "	III	10 6	11 4	12 1	—	—	12 8
Drivers, Motor Vehicle (Cartage Services)	—	11 7	12 5	13 2	13 11	14 9‡	17 4
Shunters	Leading	13 8	14 6	15 3	—	—	15 9
Shunters	Ordinary	9 6	10 3	11 1	11 10	12 8	13 2
Signalmen	Special I	18 5	19 2	—	—	—	20 0
"	Special II	16 4	17 1	—	—	—	17 11
"	I	14 9	15 3	—	—	—	15 9
"	II	13 2	13 8	—	—	—	14 3
"	III	10 6	11 4	12 1	—	—	12 8

* Plus bonus time allowance for punctual running and allowance for "booking on and off".
† Then two further notches of 14s. 6d. and 15s. 3d. before the maximum of 15s. 9d. is reached.
‡ Then three further notches of 15s. 6d., 16s. 4d., and 16s. 10d. before the maximum of 17s. 4d. is reached.

(b) WAGE RATES PAID TO RAILWAYS ARTISANS, 30TH SEPTEMBER, 1938.

Occupation.	Railway District. I. p.h.	II. p.h.	III. p.h.	IV. p.h.	V. p.h.
	s. d.	s. d.	s. d.	s. d.	s. d.
Artisans in Railway Employ*	2 7½	2 7½	2 7½	2 7½	2 7½

* Blacksmiths, boilermakers, brassfinishers, bricklayers, cabinetmakers, carpenters, coachbuilders, coppersmiths, electricians, farriers, fitters, french-polishers, harnessmakers, wood machinists, masons, iron and brass moulders, painters, patternmakers, plasterers, plumbers, printers, sawyers, sheet metal workers, shipwrights, tinsmiths, trimmers, turners and machinists, and wheelwrights.

NOTE.—The Cape Peninsula, Port Elizabeth, East London, Pietermaritzburg, and Durban are in District I; Kimberley is in District III; Bloemfontein is in District IV; and Pretoria and the Witwatersrand are in District V.

IV. TRANSPORT AND COMMUNICATION—*continued.*

(c) TRAMWAYS, 30TH SEPTEMBER, 1938.

Occupation.	Cape Peninsula.*	Port Elizabeth.	East London¶	Kimberley.	Pietermaritzburg.	Durban.†	Pretoria.‖	Witwatersrand.§	Bloemfontein.
	p.h.	p.h.	p.h.	p.d.	p.h.	p.d.	p.h.	p.w.	p.h.
Motormen—	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
1st year.....	1 10	1 8	1 9		1 9	15 6 to 17 10	2 1	116 0	2 1 and 2 2
2nd year.....	1 11	1 10	1 10		1 10	17 10	2 2	120 0	2 3 and 2 4
3rd year.....	2 0	2 1	2 0	18 4	1 11	18 7	2 3½	124 0	2 4
4th year.....	2 1	2 2	2 2		2 0	19 4	2 6	130 0	2 4
5th year.....	2 2		2 4		2 1		2 8½		
Thereafter...	2 3 to 2 4	2 3	2 6 to 2 7		2 2 to 2 4‡		2 10 to 3 0		
Conductors—									
1st year.....	1 9	1 8	1 9		1 9	15 6 to 17 10	2 1	116 0	1 6 and 1 7
2nd year.....	1 10	1 10	1 10		1 10	17 10	2 2	120 0	1 8 and 1 9
3rd year.....	1 11	2 1	2 0	18 4	1 11	18 7	2 3½	124 0	1 10 and 1 11
4th year.....	2 0	2 2	2 2		2 0	19 4	2 6	130 0	2 0
5th year.....	2 1	2 3	2 4		2 1		2 8½		
Thereafter...	2 2 to 2 4		2 6 to 2 7		2 2 to 2 4‡		2 10 to 3 0		
Hours per week	48	48	52	52	48	48	48	48	48

* The wage rates for the Cape Peninsula are those agreed on by the Industrial Council. Motormen receive 2s. 3d. during the 6th year; after 15 years' service they receive 2s. 3½d.; and after 20 years' service 2s. 4d. Conductors receive 2s. 2d. during the 6th year; 2s. 3d. during the 7th year; after 15 years' service 2s. 3½d.; and after 20 years' service 2s. 4d.

† First 3 months 15s. 6d.; second 3 months, 16s. 3d.; next 6 months, 17s. 10d.

‡ Wages rise by one penny per hour per year to 2s. 4d. in the 8th year.

§ After 10 years 132s. 6d. and after 15 years 135s.

‖ Sixth year 2s. 10d.; 7th and thereafter 3s.

¶ After 5 years 2s. 6d.; after 10 years, 2s. 7d.

Trading.—The following table shows the standard minimum wage rates which ruled at 30th September, 1938, in certain classes of wholesale and retail establishments trading in groceries, drapery, hardware, furniture, etc. The wages for Kimberley are those agreed on by the industrial council and those for the other towns are the wages fixed by Wage Board determination.

V. TRADING—per month (about 48 hours per week).

Occupation.	Cape Peninsula.	Port Elizabeth.	East London.	Kimberley.	Pietermaritzburg.	Durban.	Pretoria.	Witwatersrand.	Bloemfontein.
	£	£	£	£	£	£	£	£	£
Shop Assistant.	18	18	18	20	18	18	18	18	18
Clerk.....	18	18	18	20	18	18	18	18	18
Chemist (Regd.)	30	30	30	—	30	30	30	30	30

6. **Comparison between Wages in South Africa and those in Other Countries.**—An attempt is made here to institute a definite comparison between wages paid in South Africa and those paid in the United Kingdom, Canada, Australia, and New Zealand. For this purpose the building trade has been chosen for the following reasons:—(i) The average wages paid in this trade approximate very closely to the general average of all trades in South Africa and apparently are almost equally typical of the average in other countries; and (ii) better and more directly comparable statistics are available for this trade than for others.

The arithmetical average of the wages paid to bricklayers, masons, carpenters and joiners, plumbers, plasterers, and painters in the principal towns has been computed. Labourers have been omitted in all cases, on account of the difficulty of comparing South African native labour with the European labour of other countries. From 1937 the averages have been calculated from information published by the International Labour Office and they refer to the month of October throughout. Details as to how the averages were previously calculated will be found in *Year Book* No. 19.

The information up to 1936 relates to September for the Union, June for Australia, average for the year for Canada, March for New Zealand, and December for the United Kingdom.

The results are as follows:—

(i) WEEKLY WAGE RATES—MALE ADULT EUROPEAN WORKERS IN THE BUILDING INDUSTRY IN SOUTH AFRICA AND OTHER COUNTRIES, 1910, 1914, AND 1933 TO 1938.

Country.	1910 (Average).	1914 (Average).	1933.	1934.	1935.	1936.	1937.	1938.
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
South Africa.....	94 6	98 3	123 3	122 1	137 10	140 4	141 1	142 11
Australia.....	64 2	70 5	102 10	102 7	104 0	105 7	111 11	116 9
Canada.....	88 10	97 10	138 4	133 10	137 2	138 4	143 4	150 2
New Zealand.....	63 10	66 8	90 9	90 9	90 5	91 11	101 3	111 11
United Kingdom.....	—	39 5	65 5	65 6	67 4	69 4	71 7	73 6

Comparative figures of price indexes of food, fuel, light, and rent have been calculated for the different countries at the par rate of exchange. The two sets of figures are utilized in combination in the following table of international comparisons, which shows the real value of the wages paid as opposed to the nominal wages detailed in the above table (South Africa in 1910 = 1000). Price index figures for the months mentioned have been used in making the calculations.

(ii) INDEX NUMBERS OF REAL WAGE RATES IN THE BUILDING INDUSTRY IN SOUTH AFRICA AND OTHER COUNTRIES, 1910, 1914, AND 1933 TO 1938.

(South Africa in 1910 = 1000.)

Country.	1910 (Average).	1914 (Average).	1933.	1934.	1935.	1936.	1937.	1938.
South Africa.....	1000	965	1108	1092	1251	1251	1229	1222
Australia.....	976	914	1151	1146	1134	1127	1128	1112
Canada.....	1163	1129	1508	1436	1457	1434	1402	1475
New Zealand.....	1007	933	1027	1009	978	972	972	1045
United Kingdom.....	—	721	888	883	898	886	873	921

It must be emphasized that in the above calculations account has been taken only of the prices of food, fuel, light, and rent. The prices of other commodities and services in the Union have exceeded the increases above indicated, and, in so far as they have been similarly affected in other countries, would, if taken into account, tend to reduce the figures in Table (ii) as far as post-war years are concerned.

7. **Overtime.**—Rates of payment for time worked in excess of ordinary working hours exist in respect of skilled crafts, tramway occupations, and other employment. These rates are in most cases based upon standard rates of wages and usually comprise "time and a quarter", "time and a half," or "double time" applicable to weekday, Sunday, and public holiday overtime with greatly varying incidence. In some cases, for example, "time and a half" is payable for weekday overtime worked, in others for Sunday time, and in yet others for time worked on public holidays. The overtime rate in certain instances increases for work performed after midnight. In certain classes of occupation overtime rates apply after the normal hours have been worked on any one day; in others only after the normal weekly hours have been worked.

8. **Standard Minimum Wage Rates of Female Workers.**—The subjoined table gives some standard minimum rates of wages paid to adult female workers in certain industrial areas at 30th September, 1938, or as near as possible to that date. The rates shown are those that have been laid down by the Wage Board, or have been agreed upon by industrial councils.

STANDARD MINIMUM WAGE RATES OF FEMALE WORKERS AS AT 30th SEPTEMBER, 1938.

Occupation.	Cape Peninsula.	Port Elizabeth.	East London.	Kimberley.	Pietermaritzburg.	Durban.	Pretoria.	Witwatersrand.	Bloemfontein.
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
(a) TAILORING—PER WEEK (48 hours).									
Retail.									
Qualified Employees	50 0	81 0	50 0	50 0	50 0	50 0	60 0 to 75 0	60 0 to 75 0	50 0
Wholesale.									
Qualified Employees	50 0	40 0	40 0	40 0	40 0	45 0	65 0	65 0	40 0
(b) SWEETMAKING—PER WEEK (48 hours).									
Assistant Sweetmakers	60 0	60 0	60 0	60 0	60 0	60 0	60 0	60 0	60 0
General Workers	30 0	30 0	30 0	30 0	30 0	30 0	30 0	30 0	30 0
(c) PRINTING—PER WEEK (40 to 46 hours).									
Printers' Assistants	35 0	35 0	35 0	40 0	35 0	40 0	50 0	50 0	50 0
Solid Typesetters	60 0	60 0	60 0	65 0	60 0	65 0	65 0	65 0	75 0
Monotype Caster Attendants	66 0	66 0	66 0	71 6	66 0	71 6	71 6	71 6	82 6
Quarter Binders	47 6	47 6	47 6	52 6	47 6	52 6	65 0	65 0	62 6
Platen Pressmen	60 0	60 0	60 0	65 0	60 0	65 0	65 0	65 0	75 0

STANDARD MINIMUM WAGE RATES OF FEMALE WORKERS AS AT 30th SEPTEMBER, 1938—(*continued*).

Occupation.	Cape Peninsula.	Port Elizabeth.	East London.	Kimberley.	Pietermaritzburg.	Durban.	Pretoria.	Witwatersrand.	Bloemfontein.
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
(d) CLEANING AND DYEING—PER WEEK (48 hours).									
Examiners, Checkers	30 0	30 0	30 0	30 0	30 0	30 0	30 0	30 0	30 0
Sorters, Ironers	25 0	25 0	25 0	25 0	25 0	25 0	25 0	25 0	25 0
Washers, Calendar Hands, Pressers	22 6	22 6	22 6	22 6	22 6	22 6	22 6	22 6	22 6

NOTE.—These wage rates have been suspended in Kimberley since 1st August, 1933.

(e) LEATHERWORKING (FOOTWEAR)—PER WEEK (48 hours).									
Machinists (not Pilot or Puritan)	35 0 to 55 0	35 0 to 55 0	35 0 to 55 0	35 0 to 52 3	35 0 to 55 0	35 0 to 55 0	35 0 to 55 0	35 0 to 55 0	35 0 to 52 3
Eyeletters and Perforators	35 0 to 42 6	35 0 to 42 6	35 0 to 42 6	35 0 to 42 6	35 0 to 42 6	35 0 to 42 6	35 0 to 42 6	35 0 to 42 6	35 0 to 42 6
Skivers, Fitters, and Folders	32 6 to 45 0	32 6 to 45 0	32 6 to 45 0	32 6 to 45 0	32 6 to 45 0	32 6 to 45 0	32 6 to 45 0	32 6 to 45 0	32 6 to 45 0
Tablehands, Solutioners, Inkers, and Stainers	35 0	35 0	35 0	35 0	35 0	35 0	35 0	35 0	35 0
	37 6	37 6	37 6	37 6	37 6	37 6	37 6	37 6	37 6
(f) TEA AND REFRESHMENT ROOMS—PER MONTH.									
Waitresses	150 0	150 0	140 0	140 0	140 0	160 0	160 0	160 0	150 0

NOTE.—The employer to supply meals during working hours. The figure for Kimberley has been taken from wage returns.

(g) TRADING—PER MONTH (about 48 hours per week).									
Shop Assistants, Bookkeepers, Clerks, Typists	190 0	190 0	190 0	210 0	190 0	190 0	190 0	190 0	190 0

9. **Hours of Labour of European Employees.**—The hours of labour worked by Europeans in the various occupations and branches of industry have of recent years tended towards greater uniformity. The International Labour Conference at Washington recommended a 48-hour week; and except in relatively few instances the terms of that recommendation apply to industrial conditions in South Africa. Further particulars on the subject will be found in the sixth issue of this *Year Book*.

10. **Legal Regulation of Wages.**—As has been shown in previous sections in this chapter, various types of machinery exist under Union legislation for the fixing of standard wages and wage-scales, together with other conditions of labour. Under the *Regulation of Wages, Apprentices and Improvers Act*, 1918, local wage boards were established for the purpose. The awards made by these bodies have been largely superseded by the provisions of the *Apprenticeship Act* of 1922, as amended by Act No. 22 of 1930, and the *Wage Act* of 1925, superseded in 1937 by Act No. 36 of 1937, which are described in § 5 and § 6 respectively. Apprenticeship committees govern wage and labour conditions of apprentices in designated trades and specified areas, while the Minister of Labour, acting in accordance with the recommendations of the Wage Board, has powers to regulate wages, etc., in practically every form of

industry and trade (agriculture, public employment, and domestic service being the exceptions). Under the *Industrial Conciliation Act* of 1924, superseded in 1937 by Act No. 44 of 1937, the principle of voluntary regulation of wage and labour conditions by the industries themselves is given full recognition (see §3), the decisions of the various bodies representative of employers and employees being granted the force of law, if they are shown to command a sufficient measure of agreement from the parties concerned. In addition, wages may be regulated under this Act by the findings of appointed conciliation boards and by arbitrators' awards.

§ 10. Wages and Hours of Labour of Non-European Workers.

1. **General.**—It is generally admitted that the prosperity of South African trade and industry depends to a very great extent on an adequate supply of relatively cheap, unskilled non-European labour. This labour is available in the form of (*a*) Cape Coloured, (*b*) Asiatics, (*c*) natives.

The Cape Coloured, chiefly resident in the western and south-western districts of the Cape Province, are mainly engaged in agricultural and domestic pursuits, while in the urban areas many have attained a sufficient degree of skill to secure for themselves standard European wages in such industries as furniture, building, engineering, printing, and tailoring.

The Asiatics, chiefly domiciled in Natal, are employed for the greater part in trade, industry, and domestic service, and a large number work in the cane fields and sugar mills and in coal mines.

The natives distributed throughout the four provinces constitute the chief labour force in agriculture, trade, and industry. A considerable number is engaged in domestic service, while in the railway service unskilled native labour predominates. The Witwatersrand mining industry accounts for a very large number of native labourers, who are absolutely essential for the prosperity of the mines.

The ratio of non-European to European labour varies considerably from one industry to another, but the former element generally predominates. Thus in September, 1938, there were 304,068 natives and other coloured labourers employed on large producing and non-producing gold mines of the Witwatersrand, as against 38,416 European artisans and labourers, giving a ratio of 7·9 to 1. For producing coal mines in the Transvaal and Natal the numbers employed at the same date were 28,951 non-Europeans and 1,737 Europeans, giving a ratio of 16·7 to 1.

2. **Non-European Wages.**—(i) *Farming.*—A certain amount of information is available as regards wages paid to natives in agriculture. The most reliable is that collected by the Division of Economics and Markets of the Department of Agriculture and Forestry in its various farm-economic investigations. In the following table is shown the cost to the farmer of a grown-up native labourer as computed in some of the latest investigations. Costs of native labour in earlier studies were shown in previous issues of the *Official Year Book*. An analysis of native wages in agriculture is also given in fair detail in the report of the Native Economic Commission, published in 1932.

COST OF NATIVE LABOUR PER YEAR.

Type of farming and area.	Year.	Cash.	Rations.	Grazing.	Land.	Total.
		£	£	£	£	£
Peanut farming (N. Transvaal)—	1935–36					
Tenant labourers		11·3	4·5	3·0	·8	19·6
Hired labourers		12·9	4·5	—	—	17·4
Irrigation farming (W. Transvaal)—	1937–38					
Tenant labourers		5·9	4·4	1·9	1·6	13·8
Hired labourers		14·9	4·5	—	—	19·4
Mixed Farming (North-Eastern Orange Free State)—	1937–38					
Tenant labourers		5·0*	5·3	4·8	0·9	16·0
Hired labourers		15·7	4·4	—	—	20·1
Maize Farming (Western Transvaal)—	1937–38					
Tenant labourers		3·9*	4·8	2·0	0·6	11·8
Hired labourers		15·7	4·6	—	—	20·3

* Including taxes paid by employers on behalf of the labourers.

It must be noted that these figures represent the cost of the labour to the farmer, but they do not reflect the actual value of the earnings of the native tenants. The figures for land are arrived at by taking a 5 per cent. interest charge on the land cultivated by the native, irrespective of the value of the crops obtained from this land. Actually the income of the native from the land is in most cases considerably higher, and in the case of the peanut farms, for instance, represents an additional amount of approximately £7 per annum to the native tenant. In addition to the privileges of land and grazing the native also gets a small house in which to live and free use of water and wood.

(ii) *Railways and Harbours.*—The average wage rates paid to unskilled native labourers in the service of the Railways and Harbours Administration during a series of years are given in the following table. All these averages are based on 20,000 to 30,000 employees.

NON-EUROPEAN LABOURERS—SOUTH AFRICAN RAILWAYS AND HARBOURS (PER WEEK).

1912–13.	1913–14.	1921–22.	1929–30.	1934–35.	1935–36.	1936–37.	1937–38.	1938–39.
s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
11 10	13 1	19 0	17 0	15 5	15 9	16 3	16 7	17 2

(iii) *Mining.*—During September, 1938, the mining industry employed, according to the Government Mining Engineer, 411,695 non-Europeans, chiefly natives. Of these no fewer than 334,920 were engaged on large gold mines in the Transvaal. Coal mining and by-products works accounted for 31,872; diamond mining for 4,740; and alluvial diamond diggings for 9,664.

The natives employed on the Witwatersrand gold mines are housed in compounds and fed at the expense of the mining companies. With the exception of diamond mines in the Transvaal and mines in the Cape, where natives are housed only, it is general for companies to provide their coloured employees with free quarters and food. The average rate of native money wages per shift during September, 1938, was 2s. 2d. on producing mines and 2s. 7·1d. on developing mines. The cost of compound services to the Chamber of Mines per native per shift was approximately 12·1d.; but the value of these services to the native is estimated at 1s. 6d. at least, if he had to purchase them as a private individual.

The hours of work vary from mine to mine and in different occupations, but in no case do these exceed 48 hours per week on gold mines and 52 on coal mines.

The average rate of native money wages in the Transvaal coal mines during September, 1938, was 2s. 0d. per shift.

The average monthly wage for natives engaged in different classes of mining is given in the following table for a series of years.

NATIVE MINING WAGES (PER MONTH, EXCLUDING HOUSING AND FOOD).

Year.	Gold.	Coal.		Diamonds.	
	Witwatersrand.	Transvaal.	Natal.	Cape of Good Hope.	Transvaal.
	s. d.	s. d.	s. d.	s. d.	s. d.
1934	56 7	51 6	46 5	66 8	70 9
1935	57 1	51 7	46 2	69 11	67 0
1936	58 5	51 6	46 4	75 4	66 5
1937	58 4	51 11	48 1	78 0	69 0
1938	58 9	52 8	49 7	80 0	69 1

(iv) *Commerce, Trade, and Industry.*—As already remarked, a very great number of non-Europeans is engaged in trade and industry generally. Many Cape Coloured, as well as Asiatics, are employed in such industries as building, engineering, printing, and furniture at standard European wage rates, but the great majority do unskilled or semi-skilled work. The natives on the other hand are much less skilled and consequently do most of the rough manual labour. Many work in and about shops and warehouses as cleaners, warehousemen, and porters, while a large number are employed as drivers, packers, etc. By far the greatest number, however, are engaged in such industries as building, brickmaking, and engineering as unskilled labourers. Native wages are, therefore, comparatively low; in fact only a very small proportion earn as much as £5 per month.

The table below contains fairly reliable data with regard to the average wages paid to unskilled native labourers employed in various classes of trade, commerce, and industry. The figures have been obtained from wage returns collected by the Office of Census and Statistics and include the estimated value of food and lodging as well as any other benefits.

NATIVE WAGES—INDUSTRY, TRADE, ETC., SEPTEMBER IN EACH YEAR (PER WEEK).

Year.	Cape Peninsula.	Port Elizabeth.	East London.	Kimberley.	Pietermaritzburg.	Durban.	Pretoria.	Witwatersrand.	Bloemfontein.	Natal Sugar Mills.
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
1933	22 3	19 9	20 0	18 5	17 4	16 8	15 7	19 0	20 9	11 8
1934	24 4	21 0	19 4	17 9	16 5	16 5	14 11	18 5	20 4	12 10
1935	25 4	23 1	20 3	18 8	17 3	16 10	16 1	18 4	20 4	12 2
1936	24 7	23 8	20 1	20 5	18 6	18 1	18 10	18 8	21 3	11 10
1937	26 6	23 6	20 1	17 5	16 0	17 11	17 9	19 7	20 9	11

3. **Standard Wage Rates.**—Schedules of standard minimum rates of wages, determined or agreed on in terms of the *Wage* and *Industrial Conciliation Acts* generally, provide for unskilled workers in addition to the rates fixed for semi-skilled and skilled artisans. In this way native unskilled labourers earn standard rates of wages in several trades and industries. There is, however, only one determination which affects all native unskilled workers in a specified area, namely Determination No. 25; this fixed the minimum wages per day and per week at 3s. 6d. and 20s. respectively, within a radius of 15 miles from the General Post Office, Bloemfontein.

The following examples of wage rates, which have been laid down from time to time for unskilled workers (mainly natives) under industrial legislation, indicate the level of wages paid to such labour in typical industries.

	s. d.	
Footwear Industry	25 0	per week. Throughout the Union.
Biscuit Baking	30 0	" " "
Cleaning, Dyeing, and Laundering	22 6	" Nine Industrial Areas.
Sweetmaking	24 0	" " "
Furniture	30s. in the Cape Peninsula; 24s. in the other large industrial areas.	
Motor Industry (per week)	Cape Peninsula, 27s. 1d.; Durban and Pietermaritzburg, 18s.; Witwatersrand and Pretoria, 20s.	
Building Industry (per hour)	Cape Peninsula, 9d.; East London, 5d.; Port Elizabeth, 7½d.; Durban and Pietermaritzburg, 5d.; Witwatersrand and Pretoria, 5½d.; Bloemfontein, 5½d.	
Building, Brewing, Canvas and Clay, Engineering, Milling and Mineral Waters, Printing, Houses and Shops, Transportation	3 6 per day 20 0 per week	Area within 15 miles radius from General Post Office, Bloemfontein.

§ 11. Miners' Phthisis: A Problem of Labour.

1. **General.**—The history of miners' phthisis legislation, commencing with Act No. 34 of 1911 up to and including the consolidating Act, No. 40 of 1919, has been traced in previous issues of this *Year Book* (Nos. 1 to 6). Recent legislation includes amending Act No. 35 of 1924, consolidating Act No. 35 of 1925, and amending Acts Nos. 38 of 1930, 60 of 1934, 23 of 1936, and 6 of 1938. The 1925 Act consolidates all legislation on the question of miners' phthisis, and makes certain additional provisions for beneficiaries and their dependants. A résumé of Act No. 35 of 1925 was published in *Year Books* Nos. 9 and 10, together with a statement in parallel columns showing the extent of the principal changes between the Act of 1919 and the Act of 1925, and reference is made to the amending Act of 1930 in this and previous issues of the *Year Book*. A statement showing the more important amendments resulting from the passing of Act No. 60 of 1934 appeared in *Official Year Book* No. 17. The administration of the miners' phthisis laws is vested in the Miners' Phthisis Board. All purely medical matters are dealt with by the Miners' Phthisis Medical Bureau, which has an entirely independent organization.

At the 31st March, 1938, applications had been received by the Board from or in respect of 28,696 miners or deceased miners, and at that date 17,576 awards had been made as follows:—

Under Act No. 34 of 1911	57
Under the Prior Law (1.8.12 to 31.7.19)	9,070
Under the 1919 and 1925 Acts	8,449
TOTAL	17,576

At the 31st March, 1938, an aggregate amount of £18,069,267 had been paid as compensation to and in respect of silicosis and tuberculosis sufferers under the *Miners' Phthisis Acts* since the inception of miners' phthisis legislation in 1911, the amount so paid, since the 1919 Act came into operation, being £14,271,350.

The following tables show for the years 1934 to 1938 (i) the allowances received by miners and their dependants and (ii) the allowances received by dependants of deceased miners.

(i) ALLOWANCES RECEIVED BY MINERS AND DEPENDANTS, 1934 TO 1938.

Year.	Miners Receiving Allowance.			Additional Allowance received in respect of Wives.			Additional Allowance received in respect of Children.		
	No.	Average Monthly Allowance.	Average Age.	No.	Average Monthly Allowance.	Average Age.	No.	Average Monthly Allowance.	Average Age.
		£ s. d.	Years.		£ s. d.	Years.		£ s. d.	Years.
1934	1,624	12 7 8	50·45	1,240	2 9 7	45·78	2,358	1 2 3	9·66
1935	1,721	12 7 5	50·47	1,286	2 9 3	45·68	2,292	1 2 4	9·63
1936	1,694	12 7 6	50·47	1,265	2 9 5	45·68	2,035	1 2 4	9·63
1937	1,769	12 7 3	50·46	1,356	2 9 4	45·69	2,046	1 2 4	9·63
1938	1,833	12 8 7	55·78	1,453	2 10 0	49·49	2,002	1 2 11	10·32

(ii) ALLOWANCES RECEIVED BY DEPENDANTS OF DECEASED MINERS, 1934 TO 1938.

Year.	Dependants of Deceased Miners receiving Allowance.					
	No.*	Average Monthly Allowance.	Average Age.	Additional Allowance in respect of Children.		
				No.	Average Monthly Allowance.	Average Age.
		£ s. d.	Years.		£ s. d.	Years.
1934	2,389	4 18 8	55·06	3,226	2 6 0	12·44
1935	2,475	4 18 4	55·14	3,257	2 6 3	11·42
1936	2,622	4 18 4	55·14	3,368	2 6 3	11·42
1937	2,720	4 18 4	55·14	3,398	2 6 3	11·42
1938	2,812	4 18 11	55·21	2,223	2 5 10	11·78

* Excludes children but includes widows as follows:—2,330 in 1934; 2,416 in 1935; 2,556 in 1936; 2,657 in 1937; and 2,757 in 1938.

2. **Cases dealt with under Phthisis Acts.**—The table hereunder gives the number of cases dealt with under the *Miners' Phthisis Acts* in which awards have been made, distinguishing between persons born in South Africa and those born elsewhere, and the section of the particular Act under which the awards have been made:—

MINERS' PHTHISIS ACTS—NUMBER AND PARTICULARS OF CASES IN WHICH ORIGINAL AWARDS HAVE BEEN MADE—PERIOD 12th MAY, 1911, TO 31st MARCH, 1938.

Period.	Born in South Africa.						Born Elsewhere.						Dependants.	Grand Total.
	A.P.S. *	P.S. †	S.S. ‡	T. §	T.S. ‖	S.A.S. ¶	A.P.S. *	P.S. †	S.S. ‡	T. §	T.S. ‖	S.A.S. ¶	D.N.M. **	
Act No. 34 of 1911	—	—	—	—	—	4	—	—	—	—	—	53	—	57
1/8/12–31/3/33	2,507	1,931	783	384	125	5	2,145	3,229	2,879	256	542	11	1,256	16,053
1933–34	134	2	7	24	—	—	54	4	8	4	—	—	31	268
1934–35	121	5	7	16	—	—	62	8	8	6	—	—	36	269
1935–36	147	3	7	26	—	—	62	5	3	7	—	—	42	302
1936–37	158	10	5	12	—	—	59	3	7	10	—	—	35	299
1937–38	168	8	6	24	—	—	58	12	4	7	—	—	41	328
TOTAL	3,235	1,959	815	486	125	9	2,440	3,261	2,909	290	542	64	1,441	17,576

* Ante-primary Silicosis, Section 25 (*a*), Act No. 40 of 1919; Section 22 (1) (*a*), Act No. 35 of 1925.

† Primary Silicosis, Section 21 (1) (*a*), Act No. 19 of 1912; Section 9 (1) (*a*), Act No. 44 of 1916; Section 25 (*b*), Act No. 40 of 1919; Section 22 (1) (*b*), Act No. 35 of 1925.

‡ Secondary Silicosis, Section 21 (1) (*b*), Act No. 19 of 1912; Section 9 (1) (*b*), Act No. 44 of 1916; Section 25 (*c*), Act No. 40 of 1919; Section 22 (1) (*c*), Act No. 35 of 1925.

§ Tuberculosis without Silicosis, Section 9 (1) (*e*), Act No. 44 of 1916; Section 26 (*a*), Act No. 40 of 1919; Section 23, Act No. 35 of 1925.

‖ Tuberculosis with Silicosis, Section 9 (1) (*f*), Act No. 44 of 1916; Section 26 (*b*), Act No. 40 of 1919.

¶ Special Award Silicosis, Section 11 (*a*), Act No. 44 of 1916.

** Deceased Non-Beneficiary Miners, Sections 21 (1) (*c*), 21 (1) (*d*), Act No. 19 of 1912; Section 6, Act No. 29 of 1914; Sections 9 (2) (*a*), 9 (2) (*b*), 11 (*b*), Act No. 44 of 1916; Sections 27 (*b*), 29 (*e*), Act No. 40 of 1919; Sections 25 (*b*), 27 (1) (*c*), Act No. 35 of 1925.

3. **Medical Examinations.**—The following tables give particulars of medical examinations held in respect of applications to benefit under the *Miners' Phthisis Acts* and in respect of miners employed or to be employed underground on the mines.

(i) SUMMARY OF THE WORK OF THE MINERS' PHTHISIS MEDICAL BUREAU (1st AUGUST TO 31st JULY), 1936-37 AND 1937-38.

Nature of Examination or Investigation.	1936–37.		1937–38.		Relevant Section of Act of 1925.
	Number of Examinations made.	Number of Individuals dealt with.	Number of Examinations made.	Number of Individuals dealt with.	
European Miners.					
Initial Examinations	18,931	16,779	18,899	16,762	46
Special Examinations	1,962	1,139	2,160	1,291	44, 46
Periodical Examinations	47,982	26,378	50,862	28,414	44, 45
Benefits Examinations	2,736	2,606	2,481	2,390	22, 23, 26, 29
Claims in respect of Deceased Miners	402	402	395	395	25, 27
Claims for Allowances to Children of Beneficiaries	112	107	118	108	Third Schedule (*d*)
"Rehabilitation" Examinations	15	—	19	—	20 of 1934
"Special Authorization" Examinations	65	42	54	32	25 of 1934
Stall-holders' Examinations	46	29	42	26	51, 52, Act 36 of 1934.
Non-European Miners.					
All Examinations	1,369	876	1,256	835	22, 23, 25, 26, 27, 29, 44, 45, and 46
Native Labourers.					
All Examinations	2,198	2,198	2,347	2,347	35
TOTAL ROUTINE EXAMINATIONS	75,818	50,556	78,633	52,600	—
Supplementary Investigations.					
Post-mortem Examinations—					
(1) Europeans	370	—	357	—	—
(2) Native and other Non-European Labourers	282	—	321	—	—
Admission to Hospital for Observation	120	—	106	—	—
*Special Visits to Sick Miners	29	—	33	—	—
Visits of Inspection to Scheduled Mines	36	—	7	—	—
GRAND TOTAL	76,655	—	79,457	—	—
Daily Average	255	—	264	—	—

* "Visits to Sick Miners" are special visits paid, for the purpose of examination, only to such persons as are entitled to examination and who are unable through illness to present themselves at the Bureau.

(ii) REPORTS OF MEDICAL EXAMINATIONS RECEIVED BY MINERS' PHTHISIS BOARD, YEAR ENDING 31st MARCH, 1938.

Classification.	Without Tuberculosis.	With Tuberculosis.	Total.
Non-beneficiary Miners—			
First Examinations	40	6	46
Second and Further Examinations	77	8	85
Periodical Examinations (first notification)	265	37	302
Medical Board of Appeal	26	1	27
Beneficiary Miners—			
Second and Further Examinations	2,501	200	2,701
Medical Board of Appeal	149	11	160
TOTAL	3,058	263	3,321

4. **Deaths of Beneficiary Miners.**—The following table gives information from 12th May, 1911, regarding the deaths of beneficiary miners noted by the Miners' Phthisis Board, classified in accordance with the results of the last medical examination. Figures for each year prior to 1930-31 are given in the seventeenth and previous issues of this *Year Book*.

NUMBER OF DEATHS OF BENEFICIARY MINERS, CLASSIFIED IN ACCORDANCE WITH THE RESULTS OF THE LAST MEDICAL EXAMINATION—12th MAY, 1911, TO 31st MARCH, 1938.

Period.	South African Born.					Born Elsewhere.					Total.
	N.S. *	S. †	S1. ‡	S2. §	T. ‖	N.S. *	S. †	S1. ‡	S2. §	T. ‖	
Act No. 34 of 1911...	—	—	—	2	—	—	—	—	51	—	53
1/8/12-31/3/20.....	—	19	102	398	22	—	19	259	1,837	24	2,680
1/4/20-31/3/30.....	25	158	188	843	80	14	257	417	1,614	89	3,691
1930-31.....	5	17	19	113	5	7	25	28	152	7	378
1931-32.....	7	25	19	103	10	2	16	30	133	6	351
1932-33.....	5	14	13	122	7	3	29	30	123	6	352
1933-34.....	6	12	17	96	11	3	18	29	101	3	296
1934-35.....	7	21	23	90	14	—	23	30	130	7	345
1935-36.....	6	37	23	126	12	3	33	44	112	9	405
1936-37.....	4	30	25	114	10	4	27	28	102	6	350
1937-38.....	7	34	27	140	9	1	26	20	112	6	382
TOTAL 12/5/11-31/3/38	72	367	456	2,147	186	37	473	915	4,467	163	9,283

* No silicosis.
† Silicosis in the ante-primary stage or physically unfit for underground work by reason of the presence of silicosis, though not in either the primary or the secondary stage.
‡ Silicosis in the primary stage with or without tuberculosis.
§ Silicosis in the secondary stage with or without tuberculosis, and tuberculosis with silicosis.
‖ Tuberculosis without silicosis.

5. **Cost of Administration.**—The cost of administration of the Act (i.e. salaries and other expenses of the Board, the Bureau, and the Medical Board of Appeal and their respective staffs) is borne by the Consolidated Revenue Fund. The cost of the administration of the Board was £20,658 for the year ended the 31st March, 1938, being 2·093 per cent. of the total amount paid out by the Board during the same period from the funds and accounts under its control. The cost of administration of the Bureau was £33,460, of the Medical Board of Appeal £5,211, and of the Miners' Phthisis Prevention Committee £1,109 for the same period. The total cost of administration of the Miners' Phthisis Board, the Miners' Phthisis Medical Bureau, the Medical Appeal Board, and the Miners' Phthisis Prevention Committee during the year 1937-38 amounted to £60,438.

6. **Revenue and Expenditure under Miners' Phthisis Acts.**—The subjoined table gives particulars as to revenue and expenditure of the Compensation Fund under the *Miners' Phthisis Acts* from 1st April to 31st March for a period of years.

Under section 9 (1) of the *Miners' Phthisis Act*, 1919, the Insurance Fund (see No. 4 and previous issues of this *Year Book*) was merged in the Compensation Fund.

MINERS' PHTHISIS COMPENSATION FUND—REVENUE AND EXPENDITURE, 1931-32 TO 1937-38.

Particulars.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
REVENUE.							
	£	£	£	£	£	£	£
Contribution by Employers.	800,000	800,000	800,000	800,000	800,000	900,000	1,000,000
Interest.....	77,843	89,285	92,073	61,019	20,561	24,235	20,763
Fines.....	239	313	279	269	214	243	369
Miscellaneous.....	2,330	590	4,078	1,509	1,307	518	1,134
*Amount transferred from Outstanding Liabilities Fund.....	71,059	69,726	66,193	94,250	231,176	243,034	258,318
TOTAL.....£	951,471	959,914	963,523	957,047	1,053,258	1,168,030	1,280,584

* In terms of section 55 (2) of Act No. 35 of 1925.

MINERS' PHTHISIS COMPENSATION FUND—(*continued*).

Particulars.	1931-32.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
EXPENDITURE.							
	£	£	£	£	£	£	£
Payments in regard to Awards granted under prior Law	439	342	219	308	243	121	65
Payments to Beneficiaries under Act No. 40 of 1919	185,823	163,763	147,737	134,590	121,613	112,596	101,303
Payments to Beneficiaries under Act No. 35 of 1925	529,846	521,505	544,866	559,752	556,125	603,112	644,788
Medical and Funeral Expenses	6,094	6,081	5,076	5,365	6,648	6,218	6,760
Interest Payable.....	1,175	1,291	988	1,706	3,501	5,088	6,102
Miscellaneous.....	5,622	3,829	9,021	1,424	1,937	2,397	1,444
Trades and Industries Fund	16,000	16,000	16,000	19,000	20,000	20,000	20,000
Miners' Phthisis Special Fund.....	—	—	—	49,011	58,077	51,248	67,381
TOTAL.....£	744,999	712,811	723,907	771,156	768,144	800,780	847,843

7. **Miners' Phthisis Compensation Fund—Balances.**—The following table shows the balance over a series of years standing to the credit of the Miners' Phthisis Compensation Fund Reserve Fund and the Outstanding Liabilities Fund (Act No. 35 of 1925).

MINERS' PHTHISIS COMPENSATION FUND, 1932 TO 1938.

Year ending 31st March.	Reserve Fund.		Outstanding Liabilities Fund.	
	Increase (or Decrease) during Year.	Balance.	Increase (or Decrease) during Year.	Balance.
	£	£	£	£
1932.....	206,473	1,773,089	−34,217	662,260
1933.....	247,103	2,021,092	20,926	683,186
1934.....	239,616	2,260,708	−31,577	651,609
1935.....	−1,660,465	600,242	1,818,942	2,470,550
1936.....	6,482	606,724	160,326	2,630,877
1937.....	50,574	657,298	197,296	2,828,173
1938.....	−28,185	629,113	319,517	3,147,691

§ 12. Phthisis Legislation.

1. **Miners' Phthisis Acts.**—(i) *Consolidation Act, No. 35 of 1925.*—Act No. 35 of 1925, which repealed the *Miners' Phthisis Act*, No. 40 of 1919, and the amending Act, No. 35 of 1924, consolidated the whole of the laws relating to miners' phthisis, and is in many respects the expression of many years' observation and experience of silicotic conditions in the gold mining areas along the Witwatersrand.

A résumé of the more salient provisions of Act No. 35 of 1925 was given in *Official Year Book* No. 17 and preceding issues, and a detailed summary appeared in Nos. 9 and 10, to which reference should be made for fuller information on the subject.

(ii) *Further Amendment Act, No. 38 of 1930.*—Act No. 38 of 1930 empowers the Minister, by notice in the *Gazette*, to extend the period (5 years) mentioned in section 39 (3) of Act No. 35 of 1925, i.e., the period during which the Board had power to appropriate moneys from the Compensation Fund for the purposes of the Trades and Industries Fund (the said period was extended to 31st July, 1939). The Act of 1930 also amplifies, with effect from 1st August, 1919, the definition of earnings on which benefits to a native labourer or his dependants for silisosis or tuberculosis are to be calculated.

(iii) *Amendment Act, No. 60 of 1934.*—The Act of 1934 makes further provision regarding the investment of funds, the Medical Bureau and the Board of Appeal, benefits to non-beneficiaries and beneficiaries, payments towards funeral and medical expenses, and the increase of the quarterly appropriation for the purposes of the Trades and Industries Fund.

(iv) *Amendment Act, No. 23 of 1936.*—By the Act of 1936, a further amount not exceeding £75,000 per annum may be appropriated by the Board from the Compensation Fund for the purpose of special *ex gratia* grants from the Special Fund established under the provisions of section 13 of Act No. 60 of 1934.

(v) *Amendment Act, No. 6 of 1938.*—This Act was published in *Government Gazette Extraordinary* of the 18th March, 1938, and came into force on 1st August, 1938. The provisions of this amending Act are as follows:—

ADDITIONAL BENEFITS.

(a) *Miners in the Ante-primary Stage of Silicosis.*—An increase of 5 per cent. of the amount calculated in accordance with the First Schedule to the Act.

(b) *Miners in the Primary Stage of Silicosis or suffering from Tuberculosis without Silicosis.*—An increase of 15 per cent. of the amount calculated in accordance with the First Schedule to the Act.

(c) *Miners in the Secondary Stage of Silicosis or suffering from Tuberculosis with Silicosis.*—The additional monthly allowance prescribed "for a wife", in terms of the Third Schedule to the Act, to be granted to single men and widowers (without children under 16 years of age) if they have a father or mother wholly dependent upon them.

(d) *Dependents of Deceased Miners.*—(i) The additional benefits to which a miner would have been entitled for ante-primary or primary silicosis or tuberculosis without silicosis, had he not died, will accrue to the dependents, unless they are entitled to a monthly allowance award.

(ii) If a miner dies in the primary stage of silicosis, his dependents are entitled to an award of a monthly allowance irrespective of the cause of his death.

(iii) If a miner dies within twelve months from the date he was last employed underground on a scheduled mine and no benefits had been awarded to him but his dependents are entitled to a monthly allowance award, such dependents (*if resident in South Africa from the date of the miner's death*), are entitled to the "fixed sum" award for the ante-primary stage of silicosis (in addition to the monthly allowance). This provision has been made retrospective to cover cases of miners who have died since 31st July, 1934.

(iv) If one or more children of a deceased miner are in receipt of a monthly allowance and his widow is not entitled to such an allowance on the grounds that she married him after the date prescribed by the Act, the Board has discretionary power to make a "Special Grant" to her (in addition to the monthly allowance granted to the child or children of the deceased).

RESIDENTIAL RESTRICTIONS.

A miner who was a beneficiary before 1st August, 1938, is only entitled to the additional benefits mentioned above for ante-primary or primary silicosis or tuberculosis without silicosis, if he has been resident in South Africa from 1st August, 1919, or the date when he was first granted benefits (whichever date is the later).

The dependents of a deceased miner who was a beneficiary or whose dependents were beneficiaries before 1st August, 1938, are only entitled to the additional benefits mentioned above if they have been resident in South Africa from 1st August, 1919, or the date of the miner's death (whichever date is the later).

OTHER PROVISIONS.

(i) *Gratuities.*—Under the Consolidation Act retiring benefits in the form of gratuities based on length of service are provided for officials of the Board, the Medical Bureau, and the Medical Appeal Board, who have had a minimum continuous service of five years.

Under the amending Act, the amount of the gratuity to officials is increased, and provision is also made for the payment of the increased gratuity to full-time members of the Board, the Medical Bureau, and the Medical Board of Appeal, on retirement after at least five years' continuous service.

(ii) *Conversion into monthly allowances of lump sum awards already paid.*—Lump sums for primary silicosis granted before 1st August, 1938, to dependents of deceased miners are to be "converted" into monthly allowances, i.e., payment of the monthly allowance will only commence from a date arrived at by calculating the period over which the amount already paid under the lump sum award, would have been exhausted if it had been paid out as a monthly allowance from the date of the miner's death. The balance of the lump sum will be cancelled when the monthly allowance is granted.

(iii) *Provision against accrual of unpaid benefits to estates.*—If no award had been made by the Board to a deceased person the right to any benefit which he may have had does not accrue to his estate. Specific provisions exist in the Miners' Phthisis Acts enabling the award of benefits to the dependents of a deceased miner to be made.

(iv) *Extension of Special Authorization Provisions.*—A beneficiary miner who has no silicosis and no tuberculosis, and who is the holder of a "Special Authorization" issued by the Bureau, is permitted to resume work in special occupations and localities underground on the scheduled mines. These "Special Authorization" provisions are extended to beneficiary miners who have silicosis in the ante-primary or primary stage.

(v) *Definition of "child under 16 years of age".*—The new definition of "child under 16 years of age" includes persons of any age who are the children of miners and have been declared by the Bureau to be incapacitated for work, and at the same time prescribes the date on which such persons must have been so incapacitated.

(vi) *Continuation of monthly allowances.*—The provisions of the Third Schedule to the Act in regard to the continuation of the monthly allowance of an incapacitated child and dependents (other than the widow or child under sixteen years of age) were unsatisfactory and did not clearly convey the original purpose which, in the case of an incapacitated child, was the continuation of the allowance only for so long as the "child" remained incapacitated and would have been supported by the miner had the latter not died and, in the case of other dependents, was the continuation of the allowance only with due regard to their financial circumstances and the period of the normal expectation of life of the deceased miner. It could have been held that the Board was not empowered to continue an allowance to an incapacitated child or "other" dependent after the miner's death, as a miner could not reasonably be expected to have continued the support of his dependents after that event. The matter has now been adjusted.

2. Miners' Phthisis Board.—The personnel of the board as at present constituted is given in Chapter XXVIII.

3. Miners' Phthisis Prevention Committee.—By Government Notice No. 585, dated the 4th April, 1926, the Minister of Mines and Industries under section 14 (2) of the *Miners' Phthisis Acts Consolidation Act* of 1925 constituted a committee to investigate and report and advise him upon the means of prevention of dust and all matters affecting health conditions in and upon any mine. This committee continued to meet and to conduct investigations throughout the year 1938.

4. Silicosis in Occupations outside Scheduled Mines.—An inter-departmental committee, consisting of representatives of the Department of Mines and the Department of Labour, was appointed in March, 1936, by the Honourable the Minister of Mines for the purpose of carrying out further investigations into

the question of the production of silicosis in occupations outside the scheduled mines, the terms of reference of the committee being to inquire into and report upon—

(1) silicosis-producing occupations outside the scheduled mines;

(2) the extent to which work in such occupations predisposes to or produces silicosis or aggravates or accelerates the progression of the disease;

(3) whether miners' phthisis beneficiary miners should be prohibited, in terms of sub-section (4) of section 70 of Act No. 35 of 1925, from working in any such occupations.

The committee investigated conditions by clinical and radiological examinations of selected employees and by inquiry and inspection at mines and works almost throughout the Union. In the course of the investigation about 700 persons were X-rayed and 112 mines and works visited, these including mines for asbestos, coal, copper, diamonds, gold, iron, manganese, and tin; works producing asbestos products, silica and other bricks, cement, glass, and abrasive soaps; and also quarries, stone crushers, sewer tunnels, the premises of stone and monumental masons, foundries, and engineering works.

The committee submitted two interim reports during 1937 dealing respectively with the conditions in sewer mining and in the Thabazimbi iron mine.

CHAPTER VII.

PRICES AND PRICE INDEXES.

§ 1. Introductory.

1. **General.**—No adequate measures were taken until January, 1919, to ascertain with regularity as a section of routine statistics the facts relating to prices and comparative price data in various parts of the Union. The only material previously available was that reported upon (1) in January, 1914, by the Economic Commission which referred particularly to the lack of means and authority for collecting the necessary data on a sufficiently comprehensive scale; (2) in 1916 by a Special Commission to inquire into increased costs attributable to the war; and (3) by the Cost of Living Commission appointed in 1917 to inquire further into the rise of prices. Summaries of the reports of the commissions were given in previous issues of this *Year Book* (Nos. 1 and 2). From January, 1919, figures have been collected under authority of the *Statistics Act*. These figures include wholesale and retail prices, the former from 1910 and the latter from 1895. Under the same statutory authority a census of rents of habitations was taken half-yearly from 1918 to 1920, and annually since then except in the years 1927, 1929, and 1930. The index numbers of prices at various periods from 1895, as contained in the various tables given in this chapter, have been calculated upon data rendered available as the result of the various investigations referred to. Owing to considerations of space it has been found necessary to omit particulars for certain years from the various tables of index numbers of prices. Tables containing indexes for each year from 1910 were published in *Year Book* No. 17 and previous issues. (See also the table appearing at the end of § 5 of this chapter.)

2. **Statistics of Prices.**—The Economic Commission of 1913 definitely advised the Government to charge itself with the establishment of a section of statistical work covering the principal subjects with which the commission had been dealing, i.e. prices, rents, the cost of living, and wages, as having a vital interest for the workers and industrialists of the Union, and a direct bearing upon the economic problems which faced the country at that period and still more insistently faced it during succeeding years. This commission and the subsequent commissions referred to above, which were appointed in 1916 and 1917, found themselves at a disadvantage owing to the absence of statistical data; and comparisons with other Dominions showed that in this particular respect the Union was most unfortunately placed. It was not, however, possible to give effect to the recommendations of the Economic Commission until the latter part of the year 1918, when a section of the Office of Census and Statistics was constituted for the purpose of maintaining a regular service of statistics of this character.

During the period which has since elapsed much has been done to collate such scattered information as was already in existence, mainly consisting of data obtained by various commissions and in particular by the Cost of Living Commission. From January, 1919, the Office of Census and Statistics took over from the last-named commission the work of preparing and publishing monthly statements as to price movements; and in addition to this work it has done everything possible to make good some, at least, of the deficiencies of the past in this branch of statistics, and to initiate a regular and reasonably adequate statistical service.

It was fortunate, however, that the experience of other countries was available; and the Statistical Council in its consideration of a scheme to cover this important subject had before it the experience of Australia (where a highly specialized system has been created by the Commonwealth Statistician), New Zealand, Canada, and the United States of America. In all these countries the matter had received detailed consideration; many statistical methods had been afforded close and critical examination. Thus the system adopted in South Africa, though modified to suit the peculiar circumstances of a country in which the bulk of the population consists of native and coloured persons, has been very largely borrowed from systems practised elsewhere.

The system was fully explained in a publication (S.P. 13) issued in August, 1919, which was followed by similar reports issued in subsequent years. The last of this series was issued in 1922 (S.P. 35). These publications are now, however, out of print.

§ 2. Wholesale Prices.

The list of commodities in regard to which prices are collected under the *Statistics Act* comprises about 200 articles. The list may be extended from time to time should this prove expedient. Prices have been traced back to 1910. In calculating index numbers of prices for individual commodities the prices in the year 1910 have been taken for the present as the basis for comparison (1000).

The different groups of wholesale index numbers for 1910–1921 were weighted on the average national consumption basis of three years—1917–1919. For the years 1922, 1923, 1924, 1925, and 1926 the consumption basis for the purpose of weighting has been advanced to the average of 1918–1920, 1919–1921, 1920–1922, 1921–1923, and 1922–1924 respectively. For subsequent years, the weighting has been done on the basis of the national consumption for the years 1922 to 1924. Information for arriving at the national consumption has been drawn mainly from the import and export figures and the agricultural and factory censuses.

Price averages are based on quarterly returns furnished by representative firms in Capetown, Port Elizabeth, East London, and Durban, as representing the coast centres, and in Johannesburg as representing the inland centres. The following method of calculating the average price for the Union has been adopted:—

> As regards each town separately, the predominant price or, if there is no predominant price, the actual price nearest to the average of all quotations is utilized; the arithmetical average of the prices for the coast towns is then calculated; finally the Union price is obtained by taking the mean between the Johannesburg price and the average of the prices for the coast towns.

The index numbers for the years since 1919 have been constructed by averaging the index numbers for January, April, July, and October in each year.

The following tables give the index numbers of groups for a series of years.

WHOLESALE PRICES—INDEX NUMBERS OF GROUPS, 1910, TO JANUARY, 1939.

(Base—Index Number for 1910 = 1000 *in the case of each Group.)*

(i) SUMMARY OF GROUP INDEX NUMBERS.

Year.	All Groups.	Food and Groceries.	Food, Groceries, Fuel, and Light.	Other Groups.	South African Goods.	Imported Goods.
1910	1000	1000	1000	1000	1000	1000
1914	1090	1098	1079	1122	1083	1106
1920	2512	2392	2309	2713	2249	3185
1922	1445	1291	1309	1683	1277	1870
1925	1436	1383	1364	1492	1309	1730
1930	1155	1069	1065	1287	1027	1428
1933	1047	1010	1003	1112	972	1201
1934	1143	1165	1132	1170	1115	1196
1935	1066	1036	1023	1170	1004	1180
1936	1109	1115	1093	1149	1085	1154
1937	1136	1110	1086	1255	1081	1235
1938 (January)	1207	1213	1177	1278	1166	1281
(April)	1172	1165	1135	1260	1125	1258
(July)	1160	1154	1125	1244	1115	1242
(October)	1157	1161	1131	1221	1119	1228
(Year)	1174	1173	1142	1251	1131	1252
1939 (January)	1145	1144	1116	1215	1106	1218

(ii) DETAILED INDEX NUMBERS OF GROUPS.

Group.	1914.	1920.	1933.	1934.	1935.	1936.	1937.	1938.
I. Metals	1221	3339	1041	1056	1052	1081	1360	1393
II. Jute, Leather, Hides and Skins	1366	2705	1002	1013	1042	1048	1145	1023
III. Grains, Meal, etc	1108	2693	1012	1218	1023	1188	1140	1226
IV. Dairy Produce	1060	2023	974	1087	898	935	945	1022
V. Groceries	954	1901	1053	1021	1001	979	1008	984
VI. Meat	1266	2116	960	1221	1158	1137	1206	1308
VII. Building Materials	1087	2445	1107	1126	1122	1116	1193	1195
VIII. Chemicals	1018	1271	745	738	729	719	827	833
IX. Fuel and Light	928	1658	953	902	932	934	911	921
X. Soft Goods*	1113	4418	1354	1398	1392	1337	1416	1406
XI. Miscellaneous	1052	3174	1560	1517	1519	1503	1551	1574
ALL GROUPS	1090	2512	1047	1143	1066	1109	1136	1174

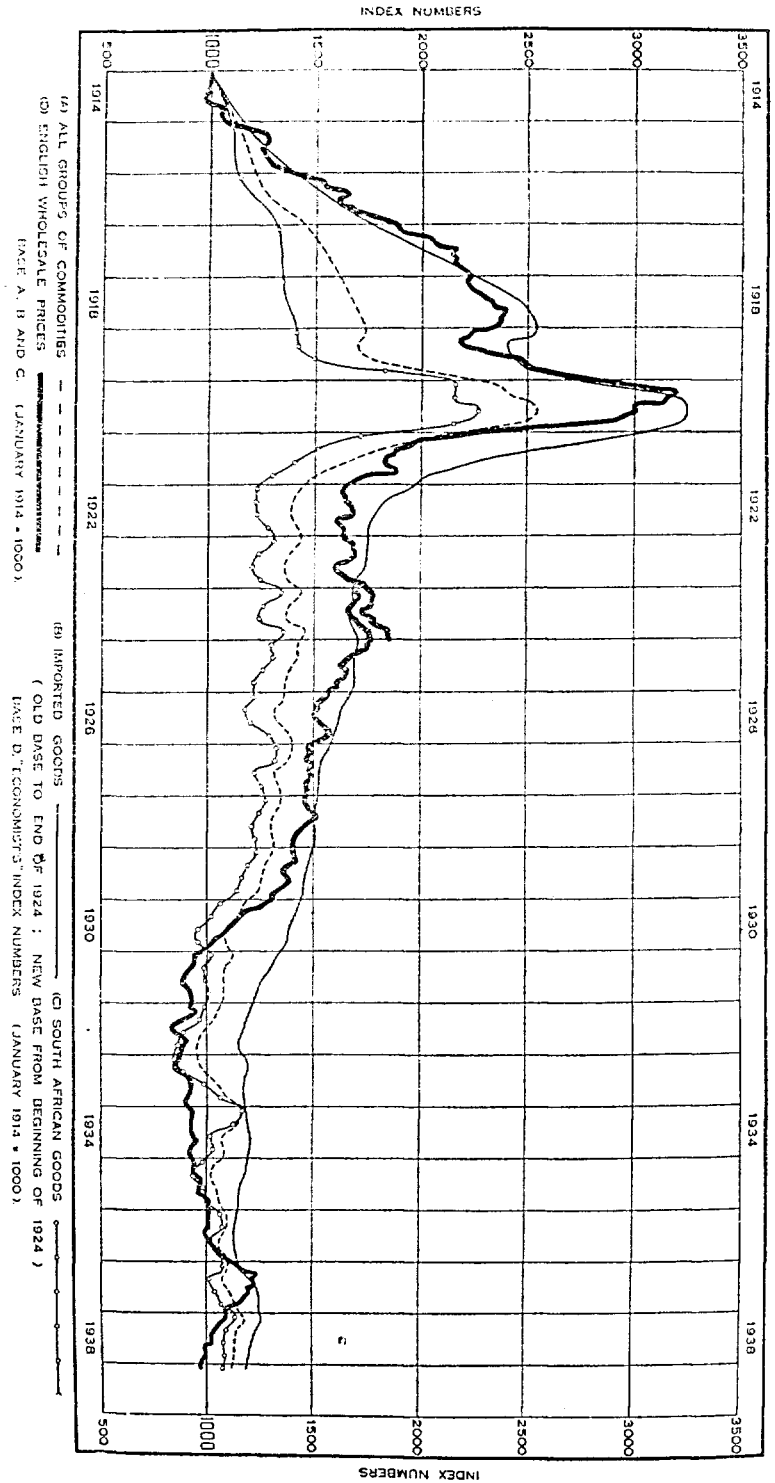
* As consumption of articles included in Group X cannot be estimated, index numbers for this group have been arrived at by taking the arithmetical average of the index numbers for individual commodities.

(iii) WHOLESALE PRICES—INDEX NUMBERS FOR SPECIFIED MONTHS—SOUTH AFRICAN AND IMPORTED GOODS, 1920 AND 1931 TO 1938.

(Base January, 1914 =1000.)

Month.	1920.	1931.	1932.	1933.	1934.	1935.	1936.	1937.	1938.
(a) *All Commodities.*									
January	2348	1117	1054	956	1161	1045	1089	1100	1174
April	2441	1085	1033	985	1139	1015	1091	1079	1140
July	2542	1074	975	1043	1072	1040	1055	1110	1128
October	2443	1079	951	1091	1079	1051	1081	1131	1125
(b) *South African Commodities.*									
January	2156	1019	985	844	1162	979	1064	1077	1131
April	2152	984	963	885	1122	938	1073	1011	1091
July	2270	993	884	983	1015	980	1018	1039	1081
October	2147	1010	860	1061	1026	1000	1055	1070	1085
(c) *Imported Commodities.*									
January	2845	1329	1204	1181	1157	1169	1139	1145	1255
April	3186	1299	1184	1188	1169	1158	1127	1206	1232
July	3245	1250	1165	1170	1180	1152	1124	1242	1216
October	3204	1231	1139	1167	1179	1146	1130	1246	1203

TREND OF WHOLESALE PRICES OF COMMODITIES IN SOUTH AFRICA AND THE CORRESPONDENCE BETWEEN THE PRICES OF IMPORTED GOODS AND OF ENGLISH WHOLESALE PRICES.



§ 3. Retail Prices.

1. **System of Collection.**—Until the end of 1931, monthly price quotations were obtained from sixty towns, including seven towns in South West Africa. Since then, however, the collection has been restricted to the nine principal towns of the Union and Windhoek in South West Africa. Statistics are compiled regularly in respect of all these towns. Retail dealers, fully representative of their locality and of good standing, have been selected in each town, and are required to render quotations each month in respect of specified articles. The practice generally followed is to require that the return shall show the retail, over-the-counter, selling price of each article named therein, or of that brand or grade of such article most commonly in demand. The price, in other words, is the actual price predominating in the bulk of the month's sales of each article specified.

The arithmetical average of the quotations in respect of each town is used in constructing the index number. The regulations framed under the *Statistics Act* require the returns to be posted on or before the fifteenth day of the month to which they relate, but no particular day is prescribed for which prices are required. In practice, the bulk of the returns are posted in the second week of the month to which they refer, so that the prices given are presumably those ruling at that time. The indexes are accordingly based on average prices for that period and not on quotations relating to any particular selected day of the month. (For method applied prior to 1926, see No. 7 and previous issues of this *Year Book*.)

2. **Index Numbers of Prices.**—Index numbers of prices are given for the nine principal towns of the Union regarded as a whole in table (i) representing relative prices of commodities in various groups. These figures are used as a basis for the graph included in this section. Index numbers are given in table (ii) showing the relative cost of food in the nine principal towns from 1910; and table (iii) contains monthly food index numbers for the average of the nine towns from 1930. Particulars are given in table (iv) of average prices from 1895 of retail commodities in the nine principal towns of the Union regarded as a whole. These prices have been used for the calculation of the index numbers in table (i). The price for each town has been weighted according to the European population in order to secure the average for all towns.

(i) INDEX NUMBERS OF RETAIL PRICES OF FOOD, FUEL AND LIGHT FROM 1895.

PRINCIPAL TOWNS FROM 1895 (BASE—1910 = 1000).

Year.	Group I.		Group II.	Group III.	Groups I, II, and III.	Group IV.	All Groups.
	Cereal Foods.	Other Foods (not Animal Products).	Dairy Produce.	Fresh Meats.	All Foods.	Fuel and Light.	
1895.....	1049	1094	989	833	990	1389	1044
1900.....	1076	1132	1162	1243	1152	1263	1165
1905.....	934	971	1086	1225	1056	1182	1071
1910.....	**1000**	**1000**	**1000**	**1000**	**1000**	**1000**	**1000**
1914.....	1322	1086	1098	1133	1148	891	1121
1920.....	2814	2079	1914	1740	2049	1379	1979
1922.....	1653	1463	1320	1190	1364	1291	1356
1925.....	1638	1486	1310	1234	1378	1120	1350
1930.....	1526	1381	1157	1146	1264	1025	1238
1933.....	1406	1241	1035	1001	1131	910	1106
1934.....	1411	1211	1073	1155	1190	878	1156
1935.....	1394	1169	1027	1163	1169	871	1136
1936.....	1387	1166	1022	1154	1163	867	1130
1937.....	1390	1169	1038	1179	1177	868	1143
1938—							
(3rd Qr.)..	1455	1167	1056	1257	1220	878	1182
(4th Qr.).-.	1454	1180	1015	1259	1212	876	1175
(Year).....	1459	1177	1031	1207	1234	877	1194

(ii) INDEX NUMBERS OF RETAIL PRICES OF FOOD IN NINE TOWNS FROM 1910.

(BASE—AVERAGE OF NINE TOWNS IN 1910 = 1000.)

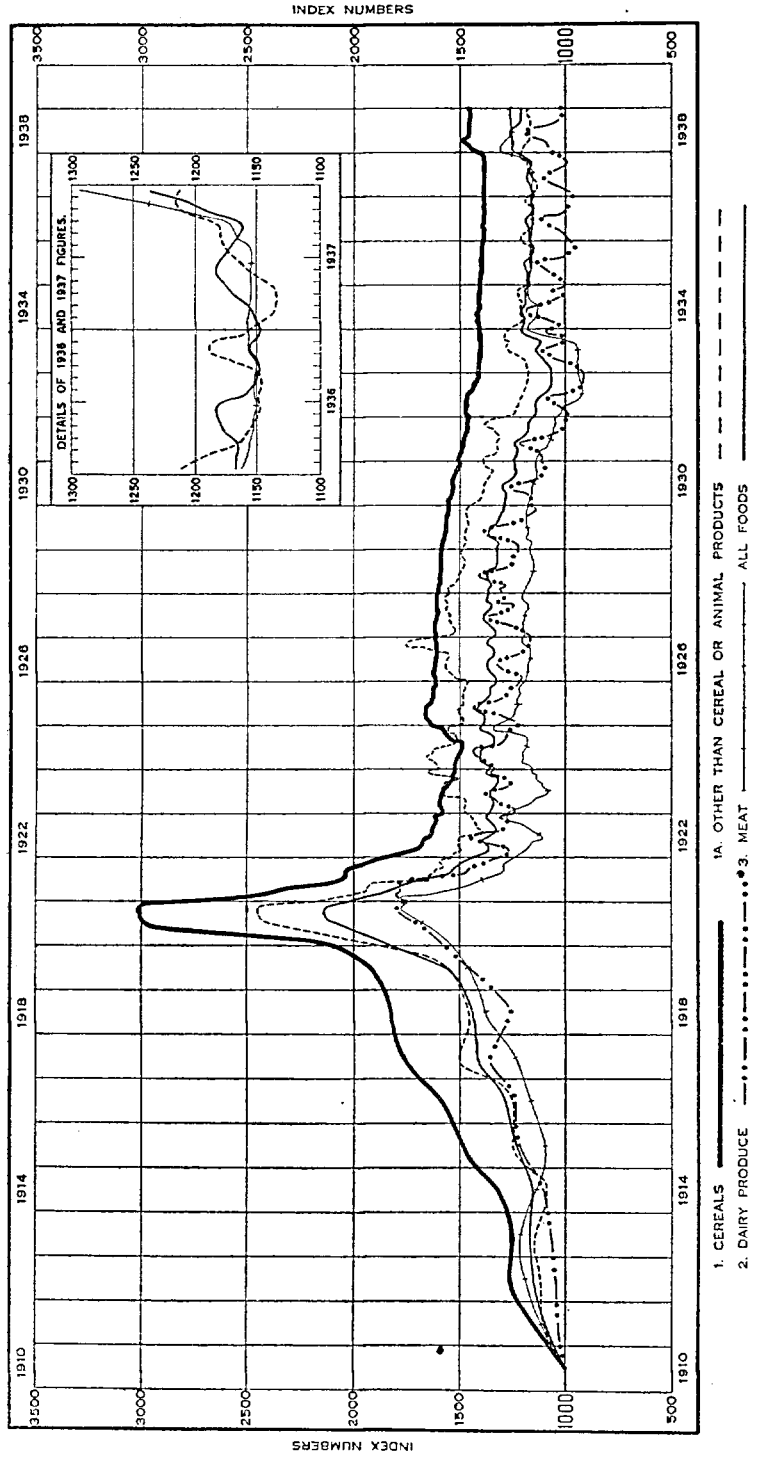
Year.	Cape Peninsula.	Port Elizabeth.	East London.	Kimberley.	Pietermaritzburg.	Durban.	Pretoria.	Witwatersrand.	Bloemfontein.	Weighted Average.
1910..	870	1014	915	868	934	1020	1139	1060	954	1000
1914..	1088	1089	1047	1280	1042	1093	1257	1187	1115	1148
1920..	1978	2183	1932	1999	2007	2072	2141	2062	2009	2049
1922..	1338	1288	1274	1256	1352	1432	1447	1375	1289	1364
1925..	1392	1448	1325	1275	1411	1430	1383	1363	1311	1378
1930..	1311	1314	1171	1146	1259	1264	1284	1251	1209	1264
1933..	1158	1062	1081	1007	1124	1130	1165	1139	1043	1131
1934..	1180	1158	1133	1095	1185	1209	1240	1206	1091	1190
1935..	1164	1147	1111	1069	1178	1190	1207	1181	1063	1169
1936..	1161	1126	1114	1050	1192	1190	1200	1174	1036	1163
1937..	1169	1125	1112	1063	1205	1213	1204	1194	1053	1177
1938—										
(3rd Q.)	1219	1174	1124	1116	1208	1233	1250	1242	1118	1220
(4th Q.)	1211	1167	1129	1105	1204	1230	1244	1229	1126	1212
Year..	1224	1181	1140	1127	1225	1250	1273	1258	1122	1234

(iii) INDEX NUMBERS OF RETAIL PRICES OF FOOD BY MONTHS FOR THE AVERAGE OF NINE TOWNS FROM 1930.

(Base—1910 = 1000.)

Month.	1930.	1931.	1932.	1933.	1934.	1935.	1936.	1937.	1938.
January.....	1283	1241	1137	1069	1188	1172	1166	1149	1251
February.....	1278	1233	1139	1077	1191	1174	1166	1153	1247
March.....	1278	1229	1140	1091	1191	1175	1165	1163	1249
April.....	1293	1232	1133	1109	1210	1183	1176	1173	1250
May.....	1296	1242	1126	1120	1211	1187	1181	1182	1256
June.....	1286	1221	1106	1135	1195	1193	1183	1181	1254
July.....	1254	1197	1084	1125	1185	1170	1161	1174	1231
August.....	1242	1183	1071	1115	1188	1157	1152	1166	1218
September.....	1233	1173	1064	1133	1179	1151	1148	1161	1212
October.....	1237	1178	1064	1181	1193	1146	1150	1179	1212
November.....	1240	1173	1065	1208	1180	1155	1156	1203	1210
December.....	1245	1152	1063	1205	1172	1164	1148	1236	1214
Average.....	1264	1205	1099	1131	1190	1169	1163	1177	1234

RETAIL PRICE OF FOOD, 1910 TO DECEMBER, 1938. PRINCIPAL TOWNS.



(iv) WEIGHTED AVERAGE OF PREDOMINANT RETAIL PRICES OF FOOD, FUEL, AND LIGHT IN SIX‡ TOWNS FROM 1895 TO 1909, AND IN NINE TOWNS FROM 1910.

Year.	Bread (1st Grade). lb.	Flour (Ordinary White). 25 lb.	Oatmeal (S.A.). lb.	Rice. lb.	Tea. lb.	Coffee (Ground). lb.	Condensed Milk. 14-oz. tin.
SIX TOWNS.							
1895	d. 2·75	s. d. 4 5	d. 3·8	d. 2·5	s. d. 1 10	s. d. 1 6	s. d. 6·8
1900	3	4 5·5	3·25	2·75	1 11	1 2·5	6·5
1905	2·75	3 8	3·5	2·75	1 9	1 1	6
1909	2·8	3 10·3	3·3	2·3	1 1	1 3	6·3
NINE TOWNS.							
1910	d. 2·75	s. d. 4 0	d. 4	d. 3	s. d. 1 10	s. d. 1 3	s. d. 6
1914	2·95	5 11·2	4·1	2·9	1 1·3	1 5·9	6·7
1920	6·33	12 7·8	7·9	9·4	2 0·8	1 11·6	1 5·2
1925	3·93	7 4·2	4·8	4·0	2 11·5	1 10·5	10·2
1930	3·76	6 8·6	4·2	4·1	2 8·2	1 8·5	9·1
1933	3·40	6 0·9	3·5	3·1	2 2·9	1 4·6	7·8
1934	3·42	6 1·0	3·4	2·8	2 4·2	1 4·0	7·8
1935	3·40	6 0·5	3·3	2·7	2 2·7	1 3·5	7·7
1936	3·37	5 11·7	3·2	2·7	2 2·2	1 3·2	7·4
1937	3·40	5 11·8	3·1	2·7	2 1·7	1 3·0	7·4
1938—							
(1st Qr.)	3·54	6 4·9	3·2	2·7	2 1·8	1 3·0	7·4
(2nd Qr.)	3·53	6 4·6	3·3	2·7	1 1·8	1 3·0	7·4
(3rd Qr.)	3·51	6 4·3	3·4	2·7	1 1·8	1 3·0	7·4
(4th Qr.)	3·50	6 4·2	3·4	2·7	1 1·7	1 2·9	7·4
(Year)	3·52	6 4·5	3·4	2·7	2 1·8	1 3·0	7·4

Year.	Sugar. lb.	Golden Syrup (S.A.). lb.*†	Jam (S.A.). lb.*	Candles. lb.	Potatoes. 12 lb.	Paraffin. Gal.	Coal. 100 lb.
SIX TOWNS.							
1895	d. 3·25	d. 4·5	d. 6	s. d. 10	s. d. 1 0·8	s. d. 2 5	s. d. 1 11·5
1900	3·50	4·5	6	8·5	1 3·5	1 11	1 11·5
1905	3	4·5	6	7	10·5	1 7·5	1 11·5
1909	3	3·5	6	7·5	1 0·5	1 4·3	1 10·3
NINE TOWNS.							
1910	d. 3	d. 3·5	d. 6	s. d. 7·0	s. d. 11·0	s. d. 1 6·5	s. d. 1 6·3
1914	2·75	4·1	6·3	6·2	11·5	1 4·2	1 4·7
1920	6·41	10·8	10·4	1 4·3	3 4·5	3 0·4	1 9·2
1925	4·02	6·6	8·6	8·9	1 5·8	1 11·4	1 8·0
1930	3·83	6·1	7·0	7·6	1 5·3	1 11·7	1 7·2
1933	3·49	5·7	5·1	5·5	1 5·7	1 5·6	1 6·4
1934	3·50	5·6	5·2	5·3	1 3·8	1 3·9	1 6·2
1935	3·46	5·3	5·4	5·2	1 2·7	1 4·9	1 6·1
1936	3·33	5·2	5·4	5·4	1 4·1	1 5·5	1 6·2
1937	3·42	5·3	5·5	5·4	1 4·1	1 5·1	1 6·4
1938—							
(1st Qr.)	3·44	5·5	5·5	5·5	1 5·3	1 5·3	1 6·5
(2nd Qr.)	3·44	5·5	5·5	5·5	1 3·9	1 5·3	1 6·7
(3rd Qr.)	3·44	5·5	5·5	5·5	1 3·8	1 5·1	1 6·7
(4th Qr.)	3·44	5·5	5·4	5·5	1 4·8	1 5·1	1 6·7
(Year)	3·44	5·5	5·5	5·5	1 4·5	1 5·2	1 6·7

* In 2-lb. tins.
† From 1931 the price refers to the imported article.
‡ See Table (ii) above. Johannesburg, Pretoria, and Bloemfontein were added from 1910.

(iv) WEIGHTED AVERAGE OF PREDOMINANT RETAIL PRICES OF FOOD, FUEL, AND LIGHT IN SIX* TOWNS FROM 1895 TO 1909, AND IN NINE TOWNS FROM 1910—*continued.*

Year.	Butter (1st Grade Creamery). lb.	Cheese. lb.	Bacon (½-side). lb.	Eggs. doz.	Fresh Milk. pt.	Beef. lb.	Mutton. lb.
SIX TOWNS.							
1895	s. d. 1 9·5	s. d. 1 4	s. d. 10·8	s. d. 1 6	d. 2·50	d. 6·3	s. d. 5·5
1900	2 0·3	1 3·3	1 2·5	2 2	3	9·3	8·3
1905	2 0	1 1	1 2	1 11	2·75	9	8·3
1909	1 8·3	1 2·3	1 2·8	1 6·8	2·8	7·5	7·5
NINE TOWNS.							
1910	s. d. 1 6	s. d. 1 3	s. d. 1 4	s. d. 1 5	d. 3·20	d. 7·2	s. d. 0·8
1914	1 8·3	1 2·5	1 5	2 4·1	3	7·9	7·3
1920	3 3·0	2 5·9	2 7·8	3 4·6	5·28	10·5	1 2·3
1925	2 0·8	1 6·5	1 11·9	2 2·7	3·81	7·3	10·3
1930	1 9·2	1 5·3	1 10·1	1 9·9	3·45	7·2	9·1
1933	1 8·7	1 3·7	1 4·3	1 6·7	3·03	6·5	7·8
1934	1 7·5	1 5·7	1 8·8	1 8·8	3·07	7·2	9·3
1935	1 5·5	1 3·0	1 7·9	1 7·5	3·05	7·2	9·3
1936	1 6·1	1 3·1	1 6·8	1 7·0	3·05	7·2	9·2
1937	1 6·7	1 4·2	1 6·3	1 8·3	3·02	7·4	9·4
1938—							
(1st Qr.)	1 7·9	1 6·0	1 6·7	1 10·9	3·05	8·3	10·5
(2nd Qr.)	1 7·4	1 4·9	1 8·0	2 5·6	3·18	8·1	10·1
(3rd Qr.)	1 7·4	1 4·7	1 7·5	1 6·2	3·17	8·1	10·1
(4th Qr.)	1 7·3	1 4·6	1 7·3	1 4·0	3·07	8·1	10·1
(Year)	1 7·5	1 5·0	1 7·4	1 9·7	3·12	8·2	10·2

* See Table (ii) above. Johannesburg, Pretoria, and Bloemfontein were added from 1910.

§ 4. Rents.

1. **Rent Legislation.**—A *Rents Act* was passed by Parliament in 1920, with effect from June of that year until the 30th June, 1921, and was re-enacted annually until 1924, when it was made permanent by Act No. 29. A summary of the original Act, which provided for the constitution of rent boards with power to order the reduction of rents, was given in the sixth and previous issues of the *Year Book*. From the 1st April, 1937, the administration of this Act was entrusted to the Department of Labour and Social Welfare, and to the Department of Social Welfare from 1st October, 1937.

2. **Censuses of Rents.**—The first inquiry of this kind held by the Census and Statistics Office under the *Statistics Act* of 1914 was undertaken during the month of August, 1918, in the nine largest centres in the Union. In addition to returns from occupiers of houses, returns for each year from 1910 to 1918 were obtained from a large number of owners and agents. From this information average rents for each year 1910 to 1918 were computed to correlate by means of ratios to the complete rent census of 1918.

Complete rent censuses were taken concurrently with the population censuses in 1921, 1926, 1931, and 1936, and intermediate censuses in the intervening and subsequent years.

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The following tables give (i) the index numbers for rents of houses of three to six rooms in the nine principal towns from 1910 to May, 1938, and (ii) the average monthly rent for each class of house in each town according to the May, 1938, Rent Census.

(i) INDEX NUMBERS OF RENTS OF HOUSES OF THREE TO SIX ROOMS IN NINE PRINCIPAL TOWNS, 1910 TO 1938.

(Base—Average for 1910 = 1000.)

NINE PRINCIPAL TOWNS.

YEAR.	Cape Peninsula.	Port Elizabeth.	East London.	Kimberley.	Pietermaritzburg.	Durban.	Pretoria.	Witwatersrand.	Bloemfontein.	Average.
1910.....	680	752	733	783	716	801	1210	1204	1153	1000
1911.....	681	709	630	835	678	789	1294	1200	1143	1002
1912.....	684	717	768	851	692	855	1342	1211	1154	1020
1913.....	723	740	777	874	710	885	1315	1205	1194	1029
1914.....	751	803	833	847	761	922	1291	1191	1222	1034
1915.....	782	793	834	743	753	933	1230	1120	1187	998
1916.....	823	813	852	572	772	956	1217	1094	1185	990
1917.....	848	828	868	703	781	974	1201	1098	1206	1003
1918—January...	864	849	895	799	803	1013	1259	1161	1232	1051
August....	906	868	931	824	821	1061	1329	1185	1268	1084
1919—March.....	896	849	928	876	815	1075	1340	1207	1284	1096
August.....	910	859	960	919	835	1136	1423	1247	1301	1135
1920—March.....	952	883	1006	976	882	1202	1493	1320	1312	1194
August.....	956	888	1018	993	927	1234	1558	1335	1312	1203
1921—March.....	951	898	987	1008	932	1236	1584	1335	1328	1204
1922—March.....	954	888	1019	950	927	1294	1596	1399	1411	1240
1923—July.....	987	881	1060	986	961	1384	1634	1438	1525	1283
1924—July.....	1022	910	1098	1002	966	1391	1622	1436	1563	1294
1925—March.....	1048	920	1147	977	988	1420	1640	1434	1513	1303
1926—May.....	1182	998	1215	956	1098	1533	1600	1453	1558	1359
1929—May.....	1250	1106	1238	986	1132	1545	1609	1456	1609	1387
1931—May.....	1347	1209	1319	961	1133	1551	1600	1433	1730	1409
1932—October....	1253	1094	1245	709	1075	1395	1417	1341	1350	1289
1933—October....	1210	1065	1214	739	1043	1328	1379	1308	1251	1249
1934—October....	1194	1073	1209	721	1036	1320	1402	1314	1270	1249
1935—October....	1183	1087	1210	740	1033	1315	1425	1354	1266	1267
1936—May.....	1178	1143	1215	737	1060	1307	1411	1433	1189	1298
1937—May.....	1177	1158	1218	790	1071	1327	1449	1480	1211	1326
1938—May.....	1186	1184	1227	861	1087	1358	1479	1490	1268	1344

(ii) AVERAGE MONTHLY RENTS OF HOUSES OF THREE, FOUR, FIVE, AND SIX ROOMS IN NINE PRINCIPAL TOWNS, MAY, 1938.

Houses Containing—	Cape Peninsula.	Port Elizabeth.	East London.	Kimberley.	Pietermaritzburg.	Durban.	Pretoria.	Witwatersrand.	Bloemfontein.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Three Rooms..	4 10 2	4 6 7	5 5 2	3 8 11	4 7 4	5 12 5	6 2 7	6 6 2	5 3 1
Four Rooms...	5 17 8	6 3 6	6 5 7	4 6 1	5 11 1	6 17 11	7 12 6	7 9 0	6 12 0
Five Rooms...	7 14 1	7 11 7	7 5 8	5 5 6	6 11 6	8 6 1	9 1 10	9 6 7	7 15 8
Six Rooms....	8 13 1	8 6 4	7 16 11	6 5 3	7 12 8	9 0 0	9 5 5	9 8 2	8 0 10

§ 5. Price Levels.

1. **General.**—Statistics as to variations in price levels were published monthly by the Cost of Living Commission from December, 1917, to December, 1918; after this date the monthly statements were superseded by statistics of prices compiled by the Census and Statistics Office. Full information regarding the methods of compilation is given in certain reports dealing with wholesale and retail prices and rents, and also in *Year Book* No. 3.

It is necessary to emphasize the point that while the figures published purport to and do in fact measure with a reasonable degree of accuracy *variations* in price levels, they do not indicate either a minimum or a maximum standard of living. Their value is relative and they provide means for comparing costs of commodities at different times on the national consumption basis, and furnish other data which can be applied to questions affecting wages, etc.; but they do not, as often they are wrongly supposed to do, give a direct index of the cost of living of any particular class.

The original method of weighting prices for index calculation purposes was described on Page 22 of the report (S.P. 13) previously alluded to, that is, on the basis of the family budget returns collected in 1913, which represented the only information available at the time. By the latter part of 1920, however, information had been collected which enabled calculations to be made on the basis of post-war national consumption, instead of on the basis of particulars collected from a single class of the community, viz., railway servants.

The national consumption figures are prepared, as far as possible, on a three years' average and represent the consumption of food by Europeans and by coloured persons who have adopted a European dietary. The bulk of the maize, kaffir corn, and rice has been excluded, and the consumption of milk has been estimated by recalculating the budget figure in proportion to the European population, with due allowance for the increased use of fresh milk and decreased use of condensed milk. The weight for rent has been obtained by taking the number of European occupants per house in the urban areas and assuming that the same proportion is true for the whole country.

Index numbers in the case of the years 1895 to 1909 have been calculated on the budget system. Satisfactory information as to prices was obtainable up to the year 1909 for six towns only. The weighted average of these six towns has been calculated on the proportion of these towns to the nine towns in 1910 = 1000. On the assumption that the cost of living in Pretoria, Johannesburg, and Bloemfontein in 1895-1909 was in the same proportion to that of the six towns as in 1910, these figures should give a fair estimate of the average for the Union. Index numbers from 1910 have been calculated on the national consumption basis. Table (*b*) gives the same relatives as are contained in Table (*a*) in a somewhat more popular form, showing the changing value of the sovereign calculated as being worth 20s. in 1910. Table (*c*) contains monthly index numbers for the average of the nine towns from 1930, on the same basis as table (*a*).

More complete figures for the years preceding 1910 will be found in No. 6 and earlier issues of this *Year Book*.

INDEX NUMBERS OF PRICES (RETAIL—FOOD, FUEL, LIGHT, AND RENT), NINE TOWNS, AND PURCHASING POWER OF A SOVEREIGN COMPARED WITH 1910.

(*a*) INDEX NUMBERS OF PRICES SINCE 1895.

(Base—Average of Nine Towns in 1910 = 1000.)

YEAR.	Cape Peninsula.	Port Elizabeth.	East London.	Kimberley.	Pietermaritzburg.	Durban.	Pretoria.	Witwatersrand.	Bloemfontein.	Weighted Average.
1895.....	808	931	1053	1082	804	788	—	—	—	1038
1900.....	857	1102	1335	1233	1057	1033	—	—	—	1191
1905.....	861	882	971	1053	951	1041	—	—	—	1080
1910.....	830	928	876	860	854	943	1156	1109	1037	1000
1914.....	979	982	972	1112	929	1028	1244	1167	1145	1092
1920.....	1597	1686	1592	1598	1561	1726	1856	1739	1729	1698
1922.....	1224	1153	1202	1160	1209	1370	1493	1373	1330	1320
1925.....	1266	1243	1268	1175	1244	1404	1461	1374	1386	1340
1930.....	1295	1231	1210	1099	1203	1355	1386	1309	1344	1300
1933.....	1197	1078	1147	902	1100	1219	1240	1196	1151	1160
1934.....	1191	1120	1165	963	1123	1237	1265	1219	1140	1197
1935.....	1176	1116	1151	942	1116	1224	1254	1206	1131	1185
1936.....	1171	1112	1153	939	1124	1221	1257	1221	1110	1189
1937.....	1174	1130	1153	953	1142	1235	1261	1264	1099	1211
1938—										
(3rd Qr.)....	1203	1172	1162	1012	1149	1258	1302	1305	1154	1247
(4th Qr.)....	1200	1171	1165	1015	1149	1260	1303	1299	1164	1244
(Year).....	1206	1173	1171	1012	1157	1265	1312	1313	1151	1253

(b) PURCHASING POWER OF A SOVEREIGN.

(Base—Purchasing power of a sovereign in nine towns regarded as a whole in 1910 = 20s.)

YEAR.	Cape Peninsula.	Port Elizabeth.	East London.	Kimberley.	Pietermaritzburg.	Durban.	Pretoria.	Witwatersrand.	Bloemfontein.	Weighted Average.
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
1895	24 8	21 6	19 0	18 6	24 10	25 5	—	—	—	19 3
1900	23 4	18 2	15 0	16 3	18 11	19 4	—	—	—	16 10
1905	23 3	22 8	20 7	19 0	21 0	19 3	—	—	—	18 6
1910	24 1	21 7	22 10	23 3	23 5	21 3	17 4	18 0	19 3	20 0
1914	20 5	20 4	20 7	18 0	21 6	19 5	16 1	17 2	17 6	18 4
1920	12 6	11 10	12 7	12 6	12 10	11 7	10 9	11 6	11 7	11 9
1922	16 4	17 4	16 8	17 3	16 7	14 7	13 5	14 7	15 0	15 2
1925	15 9	16 1	15 9	17 0	16 1	14 3	13 8	14 7	14 5	14 11
1930	15 5	16 3	16 6	18 2	16 7	14 9	14 5	15 3	14 11	15 5
1933	16 8	18 7	17 5	22 2	18 2	16 5	16 1	16 9	17 4	16 11
1934	16 9	17 10	17 2	20 9	17 10	16 2	15 10	16 5	17 6	16 8
1935	17 0	17 11	17 4	21 3	17 11	16 4	15 11	16 7	17 8	16 10
1936	17 1	18 0	17 4	21 4	17 9	16 5	15 11	16 5	18 0	16 10
1937	17 0	17 8	17 4	21 0	17 6	16 2	15 10	15 10	18 2	16 6
1938—										
(3rd Qr.)	16 7	17 1	17 3	19 9	17 5	15 11	15 4	15 4	17 4	16 0
(4th Qr.)	16 8	17 1	17 2	19 8	17 5	15 10	15 4	15 5	17 2	16 1
(Year)	16 7	17 1	17 1	19 9	17 3	15 10	15 3	15 3	17 4	16 0

(c) INDEX NUMBERS OF PRICES, MONTHLY, FROM 1930.

(Base—Average of Nine Towns in 1910 = 1000.)

Month.	1930.	1931.	1932.	1933.	1934.	1935.	1936.	1937.	1938.
January	1313	1285	1233	1147	1196	1186	1189	1191	1260
February	1310	1281	1235	1152	1197	1188	1189	1193	1257
March	1310	1278	1235	1160	1198	1188	1188	1199	1258
April	1318	1280	1231	1170	1209	1193	1195	1204	1259
May	1319	1286	1227	1176	1210	1195	1198	1210	1263
June	1314	1274	1215	1183	1201	1199	1193	1209	1262
July	1294	1268	1202	1176	1194	1186	1186	1205	1249
August	1287	1260	1194	1170	1196	1178	1181	1211	1248
September	1281	1254	1190	1180	1191	1174	1179	1208	1244
October	1284	1257	1189	1207	1199	1171	1180	1218	1244
November	1286	1254	1189	1222	1192	1176	1195	1232	1243
December	1288	1242	1187	1220	1186	1181	1190	1251	1245
Average	1300	1268	1211	1180	1197	1185	1189	1211	1253

2. Comparison of Index Numbers of Retail Prices in certain Countries.—The following table gives index numbers of the average retail prices of certain commodities in 1914 and October, 1938, for the United Kingdom, Canada, Australia, and New Zealand, with South Africa as the base (1000). It is of interest to note that in the case of foodstuffs before the war the United Kingdom was roughly one-third cheaper than South Africa, but that now the average prices approximate much more closely. It is more difficult to obtain comparable figures for rents. The following figures have been utilized:—

South Africa.—The weighted average rent of houses of three, four, five, and six rooms in the nine principal towns.

United Kingdom.—Report of the Working Classes Cost of Living Commission (Cd. 8980). Rents paid by skilled artisans and percentage increase shown in the *Ministry of Labour Gazette.*

Canada.—Weighted average rent of six-roomed houses chiefly occupied by workmen in sixty cities.

Australia.—Unweighted average of the rents of four, five, and six rooms in Sydney and Melbourne.

New Zealand.—Unweighted average of the rents of four, five, and six rooms in four principal towns.

It should be noted that in these calculations no allowance has been made for the differences in exchange between the different countries.

INDEX NUMBERS OF PRICES—AVERAGE RETAIL PRICES OF CERTAIN COMMODITIES IN THE UNITED KINGDOM AND THE DOMINIONS.

(South Africa in each case = 1000.)

Commodity.	1914.				1938 (October).			
	United Kingdom.	Canada.	Australia.	New Zealand.	United Kingdom.	Canada.	Australia.	New Zealand.
Bread	475	719	576	661	612	977	710	862
Flour	527	605	490	600	680	550	550	680
Oatmeal	463	537	659	537	818	789	964	935
Rice	690	1034	1034	828	926	1482	1149	1112
Sugar	714	1143	982	764	728	917	1164	1091
Tea	709	709	612	733	1100	1135	1037	1166
Coffee	933	1061	1056	1078	1734	1152	—	1741
Jam	556	—	698	873	1203	1323	1047	1837
Butter	708	636	719	700	843	662	998	843
Cheese	607	703	745	621	650	693	825	662
Eggs	534	605	616	658	1768	1284	1041	1081
Milk	583	723	843	677	1088	866	1130	1008
Potatoes	700	700	900	700	572	429	1431	572
Beef	899	1291	747	823	1154	1279	1342	1179
Mutton	945	1411	685	740	934	1134	994	843
Bacon	665	753	653	600	818	870	937	906
Arithmetical Average	669	842	751	725	977	971	1021	1032
Weighted Average	688	882	728	724	949	962	1021	969
Coal	796	1090*	784	1216	1335	1564*	1703	1938
Candles	565	—	1113	1016	728	—	—	1785
Paraffin	549	716†	809	821	633	774†	1172	1272
Rent	299	787	715	621	345	718	689	756
Weighted Average, all Commodities	537	849	757	699	683	871	898	916

* Anthracite and bituminous coal. † Coal oil.

3. Fluctuations in the Index Numbers of Prices in the United Kingdom and the Union.—The following table gives the index numbers of wholesale and retail prices for the United Kingdom and the Union. It will be seen that there is a general correspondence between the fluctuations of wholesale prices of imported goods in the Union and wholesale prices in the United Kingdom. The United Kingdom Board of Trade has started a new series of wholesale price index numbers with 1930 as the base. In order, therefore, to continue the series in the following table, the Board of Trade index numbers from 1930 onwards have been calculated from this new series.

INDEX NUMBERS OF PRICES IN THE UNITED KINGDOM AND THE UNION.

Year.	(a) Wholesale Prices.						(b) Retail Prices (Food).	
	United Kingdom. (Base 1913 = 1000.)			Union of South Africa. (Base January, 1914 = 1000.)			United Kingdom.	Union of S.A.
	"Economist."	"Statist."	Board of Trade.	General Index.	Imported Goods.	S.A. Goods.	"Labour Gazette."* (Base July, 1914 = 1000.)	(Base 1914 = 1000.)
1921	1810	1824	1972	1756	2450	1481	2200	1451
1922	1595	1541	1588	1406	1832	1239	1800	1188
1923	1621	1518	1589	1385	1737	1248	1620	1171
1924	1593	1646	1662	1409	1681	1299	1620	1201
1925	1542	1595	1591	1397	1694	1270	1670	1200
1926	1432	1496	1481	1349	1627	1222	1610	1179
1927	1376	1442	1416	1357	1538	1279	1590	1185
1928	1351	1419	1403	1317	1502	1240	1570	1169
1929	1272	1353	1365	1269	1470	1184	1490	1152
1930	1088	1141	1195	1124	1399	996	1410	1101
1931	893	965	1049	1089	1277	1002	1300	1050
1932	861	940	1023	1004	1172	923	1250	957
1933	868	937	1024	1018	1176	943	1180	985
1934	903	964	1053	1112	1171	1081	1220	1037
1935	943	989	1064	1037	1156	974	1260	1018
1936	1001	1035	1128	1079	1130	1052	1290	1013
1937	1135	1206	1299	1105	1210	1048	1400	1025
1938	989	1075	1212	1142	1226	1097	1460	1075

* Figures for July each year.

4. **Purchasing Power of a Sovereign in the United Kingdom and the Dominions.**—The following table has been framed for the purpose of indicating the relative purchasing power of money at various periods in Australia, Canada, New Zealand, the United Kingdom, and South Africa. For this purpose the prices applicable to each period and country have been weighted according to the family budget system. The resulting relatives furnish comparisons based in each case upon the average prices in the nine principal towns in the Union in 1910. It should be noted that no allowance has been made for fluctuations in exchange between the different countries.

PURCHASING POWER OF A SOVEREIGN COMPARED IN SOUTH AFRICA, AUSTRALIA, CANADA, NEW ZEALAND, AND THE UNITED KINGDOM, 1910, 1914, AND OCTOBER, 1938. (BASE OF TABLES—UNION OF SOUTH AFRICA, 1910=£1.)

Country.	Food, Fuel, Light, and Rent.			Food.		
	1910.	1914.	1938, Oct.	1910.	1914.	1938, Oct.
PURCHASING POWER OF A SOVEREIGN.						
South Africa	£ 1 0 0	£ 0 18 5	£ 0 16 2	£ 1 0 0	£ 0 17 8	£ 0 17 1
Australia	1 8 9	1 4 6	0 18 0	1 8 6	1 4 3	0 16 9
Canada	1 4 9	1 1 10	0 18 7	1 2 7	1 0 0	0 17 9
New Zealand	1 9 10	1 6 5	0 17 8	1 8 9	1 4 5	0 17 8
United Kingdom	—	1 14 7	1 3 8	—	1 5 8	0 18 0
AMOUNT REQUIRED ON THE AVERAGE TO PURCHASE THAT WHICH IN SOUTH AFRICA (AVERAGE OF NINE PRINCIPAL TOWNS) COULD HAVE BEEN PURCHASED IN 1910 FOR £1.						
South Africa	£ 1 0 0	£ 1 1 7	£ 1 4 9	£ 1 0 0	£ 1 2 8	£ 1 3 4
Australia	0 13 11	0 16 4	1 2 3	0 14 0	0 16 6	1 3 10
Canada	0 16 2	0 18 4	1 1 6	0 17 8	1 0 0	1 2 6
New Zealand	0 13 5	0 15 1	1 2 8	0 13 11	0 16 5	1 2 8
United Kingdom	—	0 11 7	0 16 11	—	0 15 7	1 2 3

5. **Prices of Wheat, Flour, and Bread in Different Countries.**—The following tables give the wholesale prices of wheat and flour, as well as the retail prices of bread in England, the Dominions, and the United States for a certain number of years. Prices for the intermediate years will be found in previous issues of the *Official Year Book* (Nos. 6 to 11). The prices in all countries were subject to a certain amount of control during the war period. The prices for the United States and Canada are converted at exchange parity. It will be noticed that prices in South Africa are, and consistently have been, considerably in excess of those obtaining even in a largely importing country such as England. Under the provisions of Act No. 10 of 1930 and Act No. 14 of 1931 the importation of wheat, flour, and meal into the Union is restricted.

By Proclamation No. 212, dated 5th October, 1938, the scheme of the Wheat Industry Control Board for the "regulation of the production and marketing of wheat and wheaten products" came into operation. In terms of section 23 of this scheme the Board is empowered to regulate the prices of wheat and wheaten products. During the period 11th November, 1938, to 30th October, 1939, producers of wheat are prohibited from selling wheat of the various classes and grades at prices other than the following (Government Notice No. 1873, dated 11th November, 1938):—

Grade.	*Class A.*	*Class B.*	*Classes D. & E.*
	s. d.	s. d.	s. d.
1	22 0	21 0	18 0
2	21 6	20 6	17 6
3	20 6	19 6	16 6
4	—	17 6	14 6
5	—	13 6	12 0
6	—	11 6	10 0

The above prices are per bag of 203 lb. for wheat delivered free on rail at the producer's railway station and are subject to a commission of 9d. per bag, payable to the Board.

In terms of Government Notice No. 1871, dated 11th November, 1938, the prices of meal and flour were also fixed as follows:—

(*a*) Selling prices to bakers for use in their bakeries only or to wholesalers who confine their business exclusively to supplying retailers, and who take not less than 25 bags of meal or flour of 200 lb. each at a time:—

	Per Bag.
Best baker's flour	37s. 3d.
No. 1 sifted meal	34s. 6d.
No. 1 or best unsifted meal	29s.

(*b*) Selling prices to retailers or to wholesalers who take less than 25 bags of meal or flour of 200 lb. each at a time:—

	Per Bag.
Best baker's flour	38s. 3d.
No. 1 sifted meal	35s. 6d.
No. 1 or best unsifted meal	30s.

The above prices are for meal or flour delivered carriage paid to the retailer's or wholesaler's nearest station.

(i) WHEAT—WHOLESALE PRICES IN VARIOUS COUNTRIES, 1910 TO 1938.

PER 200 LB.

Period.	South Africa.	England.	Canada.	Australia.	U.S.A.
	S.A. Milling.	English Gazette.	No. 1 Northern Manitoba.	Sydney, Wholesale.	No. 1 Northern.
	s. d.	s. d.	s. d.	s. d.	s. d.
1910	18 1	13 2	—	12 9	—
1914	24 6	14 6	13 8	13 9	14 3
1920	63 0	33 6	30 10	28 9	35 7
1925	31 0	21 10	22 6	20 8	22 9
1930	22 4	14 6	12 11	12 10	13 6
1933	19 9	9 7	8 4	9 7	10 5
1934	23 3	8 8	10 6	9 0	14 0
1935	20 5	9 4	11 7	10 8	16 7
1936	18 0	12 7	13 0	14 3	18 7
1937	18 6	16 9	18 6	16 11	20 7
1938—					
(January)	24 9	14 11	20 5	14 10	17 5
(April)	24 11	13 7	19 9	13 4	15 1
(July)	24 2	14 3	13 5	11 10	11 11
(October)	24 2	9 1	8 7	9 4	10 0
(Year)	24 6	12 3	14 9	11 6	13 •7

(ii) FLOUR—WHOLESALE PRICES IN VARIOUS COUNTRIES, 1910 TO 1938.

PER 100 LB.

Period	South Africa.		England.	Australia.	U.S.A.
	South African.	Imported.	G.R. or London Straights.	Sydney, Wholesale.	Standard Patents.
	s. d.	s. d.	s. d.	s. d.	s. d.
1910	14 0	15 9	11 1	8 8	—
1914	19 11	17 3	12 0	8 5	10 8
1920	42 11	41 6	23 2	16 7	26 7
1925	25 1	23 11	17 11	13 3	18 6
1930	20 9	19 10	11 10	9 0	11 10
1933	18 7	*	8 6	8 8	11 11
1934	19 1	*	8 3	8 3	14 9
1935	19 1	*	9 2	9 10	16 1
1936	18 11	*	11 4	9 9	14 4
1937	18 10	*	14 4	11 0	14 9
1938—					
(January)	21 10	*	15 7	9 7	12 4
(April)	20 8	*	12 5	8 7	11 3
(July)	21 2	*	11 0	7 10	11 5
(October)	20 10	*	9 10	7 2	10 1
(Year)	21 2	*	11 0	8 3	11 3

* Comparable quotations not available (See Paragraph 5).

(iii) BREAD—RETAIL PRICES IN VARIOUS COUNTRIES, 1910 TO 1938.

PER LB.

Period.	South Africa.	England.	Canada.	Australia (Sydney and Melbourne).	U.S.A.
	d.	d.	d.	d.	d.
1910.....	2·75	—	2·17	1·55	—
1914.....	2·95	1·44	2·12	1·70	3·11
1920.....	6·33	3·05	4·58	2·88	5·67
1925.....	3·93	2·56	3·85	2·76	4·63
1930.....	3·76	2·13	3·68	2·65	4·30
1933.....	3·40	1·85	2·80	2·26	3·50
1934.....	3·42	1·90	2·89	2·28	4·01
1935.....	3·40	1·97	2·93	2·47	4·09
1936.....	3·37	2·09	3·11	2·50	4·01
1937.....	3·40	2·36	3·45	2·76	4·28
1938—					
(January).....	3·49	2·38	3·55	2·67	4·39
(April).....	3·53	2·38	3·55	2·63	4·39
(July).....	3·52	2·25	3·55	2·50	4·34
(October).....	3·48	2·13	3·40	2·47	4·04
(Year).....	3·52	2·27	3·50	2·59	4·29

6. **"Sundries."**—The question of the inclusion of "sundries" (that is, clothing, soft goods, boots, vegetables, and wood, sundry groceries, coloured and native servants' wages, and hardware) as an item in the determination of price levels is one that presents considerable difficulties. Reference should be made to the sixth issue of this *Year Book*, where the question is more fully dealt with.

It is considered that, for the purpose of wage calculations, the use of figures calculated on the basis of food, fuel, light, and rent is much safer. It became evident, however, that in many cases the "sundries" figures were being used in conjunction therewith for wage agreements and calculations. It was therefore decided, in order to meet the demand for percentage figures on these lines, to publish regularly a table containing the combined index numbers for food, fuel, light, rent, and sundries from 1910 onwards. It has been assumed in constructing this table that the prices for "sundries" followed the same course as items of food, fuel, light, and rent from 1910 to 1914. Since then in constructing the price index numbers for food, fuel, light, rent, and sundries, the index number for food, fuel, light, and rent has been combined with that for "sundries" in the proportion of two to one, on the assumption that the amount allowed for expenditure on "sundries" forms approximately one-third of the total household expenditure.

The following table contains the resulting index numbers:—

INDEX NUMBERS OF RETAIL PRICES—FOOD, FUEL, LIGHT, RENT, AND SUNDRIES—IN NINE TOWNS, 1910 TO 1938.

(Weighted Average of Nine Towns in 1910 = 1000.)

Period.	Cape Peninsula.	Port Elizabeth.	East London.	Kimberley.	Pietermaritzburg.	Durban.	Pretoria.	Witwatersrand.	Bloemfontein.	Weighted Average
1910..	830	928	876	860	854	943	1156	1109	1037	1000
1914..	979	982	972	1112	929	1028	1244	1167	1145	1092
1920..	1804	1866	1795	1906	1743	1927	2177	2011	2018	1957
1922..	1351	1306	1332	1381	1314	1475	1675	1553	1512	1477
1925..	1341	1327	1339	1348	1301	1458	1605	1508	1505	1448
1930..	1339	1297	1279	1272	1253	1402	1528	1439	1451	1397
1933..	1214	1136	1178	1073	1128	1249	1355	1294	1254	1251
1934..	1215	1170	1195	1120	1148	1267	1379	1315	1253	1268
1935..	1207	1167	1187	1108	1146	1260	1373	1307	1218	1261
1936..	1204	1166	1189	1107	1152	1259	1376	1319	1235	1266
1937..	1220	1192	1203	1132	1176	1283	1397	1364	1245	1295
1938—										
(3rd Q.)	1257	1237	1226	1191	1198	1316	1446	1412	1302	1339
(4th Q.)	1255	1237	1229	1194	1198	1318	1447	1409	1308	1337
(Year)	1259	1238	1232	1194	1203	1320	1452	1417	1299	1342

7. **Comparison of Index Numbers of Wholesale and Retail Prices and o Wages.**—The following table shows the movements of wholesale and retai prices and of wages for each year for which the information is available. I

should be mentioned that information for "sundries" is not available for years before 1914, and it has been assumed for convenience that the movement of the prices of "sundries" was the same during the years 1910 to 1914 as for "food, fuel, light, and rent."

Index numbers of Real Wages, "Standard Basis," are computed by utilizing the retail price index numbers of food, fuel, light, and rent, and those of Real Wages, "Complete Basis," by utilizing the price index numbers for food, fuel, light, rent, and sundries.

INDEX NUMBERS OF WHOLESALE PRICES, FOR ALL GROUPS, SOUTH AFRICAN GOODS, IMPORTED GOODS; RETAIL PRICE INDEX NUMBERS FOR THE AVERAGE OF THE NINE TOWNS, FOR (*a*) FOOD; (*b*) FOOD, FUEL, LIGHT, AND RENT; (*c*) FOOD, FUEL, LIGHT, RENT, AND SUNDRIES; AND INDEX NUMBERS FOR WAGES (*a*) NOMINAL; (*b*) REAL ON STANDARD BASIS; (*c*) REAL ON COMPLETE BASIS.

(Average in 1910 = 1000.)

Period.	Wholesale Prices.			Retail Prices.			Wages.		
	All Groups.	South African Goods.	Imported Goods.	Food.	Food, Fuel, Light, and Rent.	Food, Fuel, Light, Rent, and Sundries.	Nominal.	Real Wages. Standard Basis.	Real Wages. Complete Basis.
1895.....	*	*	*	990†	1038†	*	955	*	*
1900.....	*	*	*	1152†	1191†	*	976	*	*
1905.....	*	*	*	1056†	1080†	*	1006	*	*
1910.....	1000	1000	1000	1000	1000	1000	1000	1000	1000
1911.....	979	967	1010	1093	1052	1052	*	*	*
1912.....	1012	1011	1013	1146	1088	1088	*	*	*
1913.....	1125	1169	1017	1163	1101	1101	*	*	*
1914.....	1090	1083	1106	1148	1092	1092	1032	974	974
1915.....	1204	1154	1325	1228	1126	1148	1048	962	943
1916.....	1379	1268	1651	1275	1158	1219	1098	980	930
1917.....	1583	1373	2091	1418	1248	1336	1172	973	907
1918.....	1723	1419	2464	1437	1289	1428	1296	1041	938
1919.....	1854	1584	2525	1559	1376	1579	1410	1061	923
1920.....	2512	2249	3185	2049	1698	1957	1717	1048	907
1921.....	1805	1527	2501	1666	1494	1771	1639	1137	957
1922.....	1445	1277	1870	1364	1320	1477	1385	1084	968
1923.....	1424	1287	1773	1344	1309	1433	1374	1086	990
1924.....	1448	1339	1716	1379	1340	1453	1373	1061	976
1925.....	1436	1309	1730	1378	1340	1448	1378	1064	983
1926.....	1387	1260	1661	1353	1325	1426	1381	1079	1001
1927.....	1395	1319	1570	1360	1348	1434	1383	1035	971
1928.....	1354	1278	1534	1342	1338	1435	1390	1049	975
1929.....	1305	1221	1501	1323	1336	1431	1400	1059	986
1930.....	1155	1027	1428	1264	1300	1397	1400	1088	1009
1931.....	1119	1033	1304	1205	1268	1345	1353	1079	1014
1932.....	1032	952	1197	1099	1211	1285	1306	1092	1025
1933.....	1047	972	1201	1131	1180	1251	1320	1130	1063
1934.....	1143	1115	1196	1190	1197	1268	1319	1112	1048
1935.....	1066	1004	1180	1169	1185	1261	1372	1169	1095
1936.....	1109	1085	1154	1163	1189	1266	1395	1183	1109
1937.....	1136	1081	1235	1177	1211	1295	1400	1164	1087
1938.....	1174	1131	1252	1234	1253	1342	1412‡	1134‡	1057‡

* Not available.

† Estimated from information for 6 towns only.

‡ The 1938 weekly wage rate for Trading (Class VIII) is not yet available. These index numbers have, however, been estimated on the basis of the percentage change in 1938, as compared with 1937, in the nominal wage rates of the remaining seven groups as a whole.

§ 6. Family Budget Inquiry, 1936.

An inquiry into the expenditure of European families in the nine chief urban centres was carried out by the Office of Census and Statistics with the assistance of supervisors and enumerators appointed by the chief associations of employees in the Union. Families who did not habitually keep account of household expenditure were asked to keep records for the months of March and April, 1936. Families had to include at least one child, those with boarders who were not relations were excluded, and the maximum family income was not to exceed £600 a year.

Of 1,998 completed forms received it was found possible to utilize 1,618. The budgets for all areas combined were averaged in twenty income groups, rising by £25 a year from under £125 a year to £575–£600 a year. For six areas the budgets were averaged in five £100 income groups.

The average monthly family income amounted to £30. 5s. 6d. and the expenditure to £29. 19s. 7d. Of the latter £8. 12s. 8d. or 28·80 per cent. was expended on food, £1. 4s. 6d. or 4·09 per cent. on fuel and light, £6. 7s. 7d. or 21·27 per cent. on rent, £2. 14s. 5d. or 9·08 per cent. on clothing and boots, £1. 0s. 2d. or 3·36 per cent. on transport, and the balance on other commodities and services.

A detailed report with a large number of tables was published (U.G. No. 21, 1937).

§ 7. Revision of the Retail Price Index Numbers.

From information derived from the 1936 Family Budget Inquiry as to the proportional expenditure on different commodities and services, a revision of the Retail Price Index was carried out under the direction of the Statistical Council. Prices were collected for a greatly extended list and calculations on the new basis have been made monthly from January, 1938. The old series was continued for an overlapping period to the end of 1938, when the new series took its place. Special Report No. 127 giving full particulars of the change has been published, and calculations making possible comparisons with past years are given.

The average of the expenditure of nine income groups £225-£450 in the 1936 Family Budget Inquiry was taken as the basis on which to determine the proportion in which the prices of different categories of commodities and services should enter into the composition of the new index numbers.

The food group was increased by the inclusion of prices of fresh fish, pork (leg, shoulder, and chops), poultry (chicken), pork sausages, tinned salmon (pink and middlecut), breakfast oats, biscuits (Marie, cream crackers, and assorted), lard, cooking oil, baking powder, household salt, dried peas, dried beans, tinned fruit (pears and peaches), prunes, raisins (stalkless and sultanas), dried apricots, dried peaches, fresh vegetables and fruit (oranges, tomatoes, cabbage, carrots, beet, green beans, onions, and sweet potatoes).

In the fuel and light group the domestic rates for electric current were utilized. Prices for firewood and matches were added.

The cost of water up to 2,000 gallons per month was added to rent in cases where the tenants pay for water.

The "sundries" group was expanded to include the prices of the following categories, (*a*) cigarettes, (*b*) house—washing and cleaning materials, household replacements except furniture, (*c*) clothing—men's and boys' clothing, women's dress material and other textiles, not house replacements, and boots and shoes, (*d*) transport—bus and tram fares, railway local season tickets, holiday return fares, and petrol, (*e*) amusement and sport—seats at bioscopes, radio listener's licence, (*f*) medical and personal hygiene—medicinal preparations and toilet requisities, dispensing charges, (*g*) life insurance, (*h*) direct taxes, and (*i*) miscellaneous—newspapers, telephone calls, postage, and stationery.

The average of the nine principal urban centres in 1938 was taken as the new base.

Comparison with previous years was made by equating the 1938 index numbers on the old and the new basis. The assumption made was that the level of prices in 1938 was the same whether calculated on the old or the new basis. While this probably gives reasonably accurate comparisons for any particular centre with itself, or with the average of the centres, the index numbers of different centres cannot be compared with each other until 1938. Index numbers for these urban centres for all commodities have not been calculated, as the change of method which has been adopted might render such calculations unreliable. This does not, however, apply to anything like the same extent to index numbers of the average of the nine centres, and these have been recalculated as far back as 1914.

The following tables give the recalculations as far back as 1910 for (*a*) food and (*b*) food, fuel, light, and rent, and as far back as 1914 for (*c*) all groups,

The index numbers for 1938 are the new index numbers for that year.

RETAIL PRICE INDEX NUMBERS FOR THE YEARS 1910 TO 1938 RECALCULATED TO THE 1938 BASE FOR EACH URBAN CENTRE AND FOR THE AVERAGE OF THE NINE PRINCIPAL URBAN CENTRES. THE FIGURES IN DIFFERENT COLUMNS ARE NOT COMPARABLE WITH EACH OTHER.

(*a*) FOOD.

Year.	Cape-town.	Port Eliza-beth.	East London.	Kim-berley.	Pieter-maritz-burg.	Dur-ban.	Pre-toria.	Wit-waters-rand.	Bloem-fon-tein.	Union Average.
1910..	714	835	787	741	763	821	900	848	810	810
1911..	859	879	868	959	809	884	928	896	854	886
1912..	880	883	892	997	809	882	973	972	883	929
1913..	902	884	905	1088	809	896	970	983	877	942
1914..	892	897	900	1093	851	880	993	949	947	930
1915..	991	1038	977	1035	918	907	1091	998	1004	995
1916..	1011	1026	983	1055	1043	998	1053	1055	995	1033
1917..	1112	1228	1111	1076	1167	1194	1235	1140	1137	1149
1918..	1106	1178	1170	1181	1196	1217	1234	1164	1159	1165
1919..	1247	1354	1286	1271	1222	1259	1302	1256	1278	1263
1920..	1622	1799	1704	1706	1640	1668	1692	1649	1706	1660
1921..	1344	1386	1382	1280	1368	1383	1366	1343	1315	1350
1922..	1098	1061	1095	1072	1105	1152	1144	1100	1095	1105
1923..	1095	1050	1107	1082	1106	1143	1148	1084	1098	1089
1924..	1139	1159	1124	1113	1115	1156	1132	1090	1118	1118
1925..	1142	1193	1139	1088	1153	1151	1093	1090	1114	1117
1926..	1118	1148	1093	1089	1114	1127	1070	1077	1102	1096
1927..	1125	1153	1117	1082	1112	1113	1094	1084	1110	1102
1928..	1099	1155	1130	1052	1106	1111	1083	1066	1108	1088
1929..	1107	1125	1076	1058	1077	1067	1074	1050	1080	1072
1930	1075	1083	1007	978	1029	1017	1015	1000	1019	1024
1931..	1015	1020	970	911	994	990	963	956	965	976
1932..	943	874	914	806	931	888	872	878	846	891
1933..	950	875	929	860	918	909	921	911	886	917
1934..	968	954	974	935	968	973	980	964	927	964
1935..	955	945	955	912	963	958	954	944	903	947
1936..	952	928	958	896	974	958	948	939	880	942
1937..	959	927	956	907	985	976	951	955	894	954
1938..	1004	973	980	962	1001	1006	1006	1006	953	1000

(*b*) FOOD, FUEL, LIGHT, AND RENT.

1910..	656	737	726	725	678	739	912	880	862	798
1911..	736	747	766	866	698	770	945	906	881	840
1912..	755	750	780	892	702	787	985	945	900	868
1913..	778	757	790	950	707	804	976	950	909	879
1914..	774	779	806	937	737	805	981	926	952	872
1915..	839	856	851	872	762	826	1021	931	979	899
1916..	866	859	861	837	849	886	999	963	973	924
1917..	923	976	943	896	934	1002	1100	1017	1063	996
1918..	940	966	993	990	962	1039	1132	1055	1098	1029
1919..	1022	1071	1066	1070	985	1089	1198	1122	1181	1098
1920..	1262	1338	1320	1347	1239	1352	1464	1380	1438	1355
1921..	1117	1114	1153	1117	1112	1208	1305	1219	1217	1192
1922..	967	915	997	978	959	1073	1178	1090	1106	1053
1923..	959	901	1002	979	955	1072	1180	1074	1118	1045
1924..	992	962	1027	1006	962	1097	1175	1096	1157	1069
1925..	1000	987	1051	990	987	1100	1153	1090	1152	1069
1926..	989	964	1028	987	968	1090	1139	1080	1137	1057
1927..	1031	987	1061	976	998	1115	1138	1088	1156	1076
1928..	1020	991	1069	961	993	1114	1132	1076	1156	1068
1929..	1042	1002	1046	973	985	1091	1130	1068	1152	1066
1930..	1023	977	1003	926	954	1062	1093	1039	1117	1038
1931..	1002	956	990	879	933	1047	1059	1009	1103	1012
1932..	974	890	967	811	897	989	1005	960	1052	966
1933..	946	856	951	760	873	955	978	949	957	942
1934..	941	889	966	812	891	969	998	967	948	955
1935..	929	886	954	794	885	959	989	957	940	946
1936..	925	883	956	791	892	957	992	969	923	949
1937..	928	897	956	803	906	967	995	1003	914	966
1938..	953	931	971	853	918	991	1035	1042	957	1000

(c) ALL GROUPS. AVERAGE OF NINE PRINCIPAL URBAN CENTRES ONLY.

Year.	Union Average.	Year.	Union Average.	Year.	Union Average.
1914	814	1922	1101	1930	1041
1915	855	1923	1068	1931	1002
1916	908	1924	1083	1932	958
1917	996	1925	1079	1933	932
1918	1064	1926	1063	1934	945
1919	1177	1927	1069	1935	940
1920	1458	1928	1069	1936	943
1921	1320	1929	1066	1937	965
				1938	1000

CHAPTER VIII.

EDUCATION.

§ 1. Higher Education.

1. **History and Development of Higher Education in South Africa.**—The beginnings of a system of higher education in South Africa are to be found in the establishment of the South African College at Capetown in 1829. It was not, however, until the passing of the *University Act* of 1873 by the Cape Parliament and the establishment of the University of the Cape of Good Hope that any notable advance was made.

2. **University of South Africa.**—(i) *General.*—The University of South Africa from the 2nd April, 1918, became the legal successor of the University of the Cape of Good Hope. Its headquarters are at Pretoria, and it embraces the following constituent colleges:—University College of the Orange Free State, Bloemfontein; Huguenot University College, Wellington; Natal University College, Pietermaritzburg and Durban; Rhodes University College, Grahamstown; and the Potchefstroomse Universiteitskollege vir Christelike Hoër Onderwys, Potchefstroom. In the case of each college there is a governing council responsible for general administration, and academic matters and discipline are controlled by the college Senate, consisting entirely or mainly of the professors on the staff, the executive functions being discharged by the Rector, President, Principal, or Master, as the case may be.

The government and the executive authority of the university are vested in a Council consisting of eight members appointed by the Governor-General, four members elected by convocation, and one member appointed by the Council and one by the Senate of each constituent college. Provision is also made for the appointment of a representative of any Government or Administration outside the Union, which contributes to the university such funds as may be prescribed by statute: the Government of Southern Rhodesia is represented on the Council under this provision. Members hold office for six years.

The university Senate consists of the heads of recognized departments of study at the constituent colleges, and, subject to the authority of the Council, controls the curricula, syllabuses of study, and degree and diploma examinations of the university.

OFFICERS OF THE UNIVERSITY OF SOUTH AFRICA.

Chancellor	Field-Marshal H.R.H. the Duke of Connaught and Strathearn, P.C., K.G., K.T., K.P.
Vice-Chancellor	Senator the Right Hon. F. S. Malan, P.C., B.A., LL.D.
Chairman of Senate	Prof. T. F. Dreyer, M.A., Ph.D.
Registrar	Langham Murray, M.A.

The legislation which reorganized the university system created the following joint bodies:—

(a) *The Joint Matriculation Board.*—This Board consists of representatives (28) of the five universities (South Africa, Capetown, Stellenbosch, Witwatersrand, and Pretoria), the Provincial, Union, South West African, and Southern Rhodesian Education Departments, and of the teachers of public and private secondary schools, and is charged with the control and conduct of the Matriculation examination.

(b) *The Joint Committee for Professional Examinations.*—This Committee, which consists of fifteen members, five appointed by the Governor-General and two by each of the five universities, controls and conducts the examinations in law (other than degree examinations), surveying, and the final examination for patent agents. The Registrar of the University of South Africa is *ex officio* secretary to the Joint Matriculation Board and the Joint Committee for Professional Examinations. His address is P.O. Box 392, Pretoria.

(c) *The Vice-Chancellors' Committee.*—This Committee consists of the Vice-Chancellors of the five universities, and is charged with the regulation of matters common to the five universities, the Joint Matriculation Board, and the Joint Committee for Professional Examinations, or any of them. The secretary to the Committee is the Registrar of the University of Capetown.

(ii) *University College of the Orange Free State.*—The college was founded in 1855 by Sir George Grey, but it was not until 1904 that the classes were organized in such a way as to permit of the separate constitution of a university college; this took place in 1907. The erection of the college buildings was completed in 1909, and in 1910 the university college was incorporated by statute. The work undertaken comprises the usual preparation for the examinations of the University of South Africa in literature and science, survey, education, law, commerce, and social science, including preliminary classes for the study of medicine, engineering, agriculture, and theology. The institution was originally named Grey University College.

The college has facilities for research in various departments. The herbarium of the botany department is the regional herbarium for the Orange Free State and Basutoland and for the Union Botanical Survey.

(iii) *Huguenot University College.*—The college dates back to 1874, when, as the Huguenot Seminary, it was founded in Wellington by the late Rev. Andrew Murray, D.D. It was formally incorporated by Act of Parliament in 1907 as a college for women students (with the right of retaining male students for a limited period), and is named in the *University of South Africa Act*, 1916, as one of the constituent colleges of the university. An amendment to the Charter in 1920 inserted the word "University" in the name of the college, and opened its doors to male students from Wellington district. Matriculated students are prepared for the B.A., B.Sc. (Dom. Science), and M.A. degrees of the University of South Africa, for the teachers' diplomas of the University of South Africa, and for the College Domestic Science Teachers' Certificate. Special one-year courses approved by the Cape Education Department are given for teachers who hold the Primary Certificate.

(iv) *Rhodes University College.*—Rhodes University College was established in 1904, when it took over the college department of St. Andrew's College School, which had carried on university work in Grahamstown for some years, and the university students from Kingswood College.

The sum of £50,000 was set apart by the Rhodes Trustees towards the establishment of the college. This was augmented by £10,000 raised locally and also by a bequest of £25,000 from the late Alfred Beit and £5,000 from the de Beers Company.

Further grants from the Rhodes Trust together with government grants and loans have made possible the completion of the permanent physics, chemistry, and psychology laboratories, the arts block, the school of art, and the library and administrative parts of the building scheme. At present the departments of geology, zoology, botany, and geography are housed in old buildings, which have been reconditioned for the purpose. As funds permit permanent buildings for these departments, as well as additional library and lecture room accommodation, will be erected.

The residential nature of the college is one of its outstanding characteristics, 80 per cent. of the students being in residence. The following houses have been built (each holding approximately 60 students): For men: Botha, College, Milner, and Struben Houses, with one central dining hall; for women: Beit, Jameson, Oriel, and Phelps Houses, with one central dining hall.

Courses are given in the usual subjects required for degrees in arts, law, science, commerce, economics, music, and fine arts, as well as for diplomas in education and survey. First-year courses in agriculture, veterinary science, medicine, and engineering, and first and second-year courses in the degree in surveying are offered.

A course of lectures is given in Bantu Studies; and there are facilities for research in the Tanning, Hides, and Skins Department; lectures in Mental Hygiene are given by a Government Psychiatrist. Bursaries and scholarships are available.

The Grahamstown School of Art has been taken over as a department of the college. A donation from the Carnegie Corporation of New York made possible the appointment of an instructor in pottery on the staff of the Art School.

(v) *Natal University College.*—The college was incorporated by Act of the Natal Parliament of 1909, and teaching was started in 1910 at the Maritzburg College and in the Town Hall at Pietermaritzburg, until the college buildings at Scottsville were erected in 1912 on a site of forty acres presented by the municipality for the purpose. Faculties in pure science, arts, fine arts, and law are established here, as well as first-year courses in medicine and agriculture and courses for university diplomas in education. Facilities exist for research in chemistry, physics, botany, zoology, geography, geology, psychology, and history. In 1931 Mr. T. B. Davis of Durban erected a magnificent building on the top of the Berea in Durban on a site of fifty acres provided by the Durban Town Council. This is known as the Howard College in memory of the son of the donor, who was killed in the Great War. The faculty of engineering is housed in this building, while the faculty of commerce has a separate building nearer to the business centre of the town. A lecturer in law is also resident in Durban. There are residences for both men and women in the college grounds at Pietermaritzburg, and a Student's Union building has recently been erected there. The financial and academic control of the two branches at Pietermaritzburg and Durban is vested in a Council and a Senate.

The Natal University College receives liberal support from the State, the Corporation of the City of Durban, and the Corporation of Pietermaritzburg, in the shape of annual grants-in-aid.

(vi) *Potchefstroomse Universiteitskollege vir Christelike Hoër Onderwys.*—The Potchefstroom University College for Christian Higher Education developed out of the literary department of the "Theologiese School van die Gereformeerde Kerk," which was founded on the 29th November, 1869, at Burghersdorp, Cape Province, and was solely supported by the Gereformeerde Kerk. In February, 1905, this school with its literary department was transferred to Potchefstroom. In April, 1919, a government subsidy was granted to the literary department, whereby a complete separation took place between the two departments. The college was placed under the management of its own council under the name of "Potchefstroom University College." In June, 1921, the *Potchefstroom University College (Private) Act* was passed by Parliament, and on the 6th July, 1921, the college was incorporated by proclamation as a constituent college of the University of South Africa. By Private Act passed by Parliament in 1933 the name of the institution was changed to "Die Potchefstroomse Universiteitskollege vir Christelike Hoër Onderwys".

Courses are undertaken for the following degrees and diplomas: B.A., B.Econ., B.Com., B.A. (Social Science), M.A., M.Econ., D.Litt., D.Phil., B.Sc., M.Sc., B.D., M.Div., D.D., M.Ed., and for the Transvaal teachers' examinations in co-operation with the local normal college. Provision is also made for the following: LL.B.; 1st year courses in Agriculture, Medicine, Veterinary Science, and Engineering; training for chemists' examinations, social work, and commercial teaching.

3. **University of Capetown.**—The University of Capetown was created in 1916 by an Act of Parliament, which provided for the incorporation of the South African College as a university on 2nd April, 1918.

The South African College was founded as a private institution in 1829, and was the first college of the kind to be established in South Africa. It was formally incorporated as an institution for male students in 1837 by an Ordinance, which continued until 1878, when an Act was passed making the college an entirely public institution, the shareholders relinquishing their rights. In 1886 women students were admitted. In 1900 it ceased to prepare for matriculation and began to confine itself to university work. In 1902 extensions were made possible by an annual grant from the city funds of Capetown and by the contribution of £40,000 by public subscription. In 1910 the college took over the university classes hitherto carried on at the Diocesan College, Rondebosch; and in 1916 the Capetown Normal College was amalgamated with it. Throughout its existence substantial support was given to the college by the Government.

The foundation of the university was made possible by the munificence of the late Sir Julius Wernher and Mr. Alfred Beit, whose bequests amounting to £500,000 were made available for erecting some of the buildings and providing part of the university endowment.

The main seat of the university is on the Groote Schuur Estate at Rondebosch, where it occupies an area of some 70 morgen; but the former buildings of the South African College in Capetown are used by the faculties of com-

merce and of fine art and architecture, as well as for evening degree classes. The University Little Theatre building was opened in June, 1934. The Wernher and Beit Medical Laboratories are in immediate proximity to the Groote Schuur Hospital, which has over 800 beds and serves as a clinic for the medical school.

The university provides for the residence, as well as the teaching, of students and confers degrees in applied and industrial chemistry, architecture, arts, commerce, education, engineering, fine art, land surveying, law, medicine, music, quantity surveying, science, and social science, and diplomas and certificates in teaching, music, commerce, bacteriology, analytical chemistry, nursing, public health, fine art (including commercial art and ceramics), architecture, quantity surveying, speech training (elocution), social science, and African studies. The degrees and diplomas of the medical school are recognized for purposes of registration throughout the Union and Southern Rhodesia, and the degrees in law are accepted for admission to the bar. Attached to the University are a School of African Studies for the special study of native languages and customs, the South African College of Music, and the Michaelis School of Fine Art.

Provision is made for research work in all departments of the university, and grants-in-aid are obtainable from a special fund established by the Council.

The institution receives liberal support from the State, the Corporation of the City of Capetown, and the Cape Divisional Council.

OFFICERS OF THE UNIVERSITY OF CAPETOWN.

Visitor.....	His Excellency the Governor-General.
Chancellor.....	General the Right Hon. J. C. Smuts, P.C., C.H., K.C., D.Sc.
Principal and Vice-Chancellor.....	Dr. A. W. Falconer, C.B.E., D.S.O., M.D., F.R.C.P.

4. **University of Stellenbosch.**—The Victoria College developed out of the Stellenbosch Gymnasium, which was founded in 1866, and in connexion with which the faculties of literature and philosophy, mathematics and physics—the so-called "Arts Department"—were established in 1874. In 1881 the Arts Department was granted a charter and accorded its status and constitution as the "Stellenbosch College" by a Private Act of Parliament. In 1887 (the year of the 50th anniversary of Queen Victoria's accession) Her Majesty consented to the college's being named "The Victoria College of Stellenbosch". By the *University of Stellenbosch Act*, No. 13 of 1916, the college, on the 2nd April, 1918, was incorporated as the University of Stellenbosch, and in addition to fulfilling its previous functions is entitled to examine its own students and grant degrees.

Provision is made for courses leading to degrees and diplomas in the faculties of arts, science, education, agriculture, theology, law, and commerce, and for the training of teachers for special classes, for physical culture, and for native administration. Since 1934 the Conservatoire of Music at Stellenbosch has been under the Control of the University. Attached to the faculty of arts is a department of Bantu studies, ethnology, and social studies, and under the faculty of science a special department of home economics has been established.

Special mention should be made of the faculty of agriculture, which aims at the promotion of agricultural science and the development of agriculture in the Union. Particular attention is given to the training of future farmers, and provision is made for courses in domestic science and forestry. By Act No. 45 of 1926, the Elsenburg School of Agriculture and the faculty of agriculture of the university were amalgamated to constitute "The Stellenbosch-Elsenburg College of Agriculture of the University of Stellenbosch." In accordance with this Act, the faculty of agriculture shall be for all purposes the faculty of agriculture of the university, and shall have all such rights and privileges and be subject to all such duties as are laid down by the *University of Stellenbosch Act*, No. 13 of 1916. By this amalgamation the faculty of agriculture is brought into more intimate touch with practical farming and matters relating thereto, so that its activities are more extensive than those of the original faculty. A fruit experiment station is attached to the University, and a department of forestry is attached to the faculty of agriculture.

The university possesses well-equipped laboratories, among which the chemical institute (De Beers Building), the science building, and the agriculture building deserve special mention; there are also a botanic garden and three hothouses. The university has two libraries, namely, the Christian Marais Library and the Carnegie Library. The libraries receive a liberal annual grant out of the university funds and now contain about 70,000 volumes.

Research work forms an important part of the activities of this university. In the departments of educational psychology, psychology, sociology, geography, history, agriculture, Bantu languages, ethnography, Afrikaans-Nederlands, geology, biology, law, and economics, special attention is devoted to South African problems. Since 1923, the results of research work have been published regularly in the *Annals of the University of Stellenbosch*. The university Council also awards a special grant for the purpose of carrying on scientific investigational work.

OFFICERS OF THE UNIVERSITY OF STELLENBOSCH.

Chancellor.....	The Rt. Rev. J. D. Kestell, Litt.D.
Vice-Chancellor.....	The Honourable Mr. Justice H. S. van Zijl, B.A., LL.B.
Rector.....	Prof. R. W. Wilcocks, B.A., Ph.D.

5. **University of the Witwatersrand, Johannesburg.**—This institution has developed out of the South African School of Mines, which was transferred from Kimberley to Johannesburg in 1904, taking then the name of Transvaal Technical Institute. Classes in arts and science were commenced in 1906, when the institution was renamed the Transvaal University College. In 1908 a branch institution was established at Pretoria, and the work at Johannesburg and Pretoria was controlled by a common Council until 1910. In that year the Pretoria institution was incorporated as a separate body, retaining the name of Transvaal University College, while the Johannesburg institution received the name of South African School of Mines and Technology and was restricted to departments of mining and technology. Courses in commerce were established in 1913, and in 1916 the institution was made a constituent member of the University of South Africa. In 1917, work was begun in nine new arts and science departments, created in consequence of the generous response of the municipalities and public of the Witwatersrand to the appeal of the Witwatersrand University Committee for financial support. In 1920, the name of the institution was changed to University College, Johannesburg, and in 1921 Parliament passed a Private Act incorporating the college as the University of the Witwatersrand, Johannesburg, with effect from 1st March, 1922.

The university provides courses and grants degrees in the faculties of arts (including social studies, fine arts, music, and education), science, medicine, engineering (including land surveying, mining geology, architecture, and quantity surveying), commerce, law, and dentistry. Courses are offered also for diplomas in architecture, quantity surveying, actuarial mathematics, in social studies, Bantu studies, and a number of other arts subjects, in the economics of local government and public administration, in nursing, massage, medical gymnastics, and electro-therapy, and for post-graduate diplomas in public health, tropical medicine and hygiene, and psychological medicine.

A considerable amount of original research is carried out in all departments by members of the staff and by advanced students. With the assistance of the Union Department of Agriculture and Forestry and of African Explosives and Industries, Ltd., the Frankenwald Estate, a portion of the Beit bequest for the "University of Johannesburg", is being developed as a research station. Important investigations are being undertaken in the minerals research laboratory, which the Department of Mines has established at the university with the professor of metallurgy as Director. Generous donations from Dr. Bernard Price and the Carnegie Corporation of New York have provided for the establishment of the Carnegie-Price chair of Geophysics and of the Bernard Price Institute of Geophysical Research, which commenced its activities in January, 1937, and is housed in a well-equipped Institute building, completed in 1938.

The university departments of public health and forensic medicine are staffed by officers of the Union Departments of Health and the Interior, respectively, the Chief Health Officer being professor of public health, while the professorship of forensic medicine is associated with the post of medico-legal pathologist. The government Commissioner for Mental Hygiene is pro-

fessor of psychiatry. The government Bureau of Archaeology has its offices at the university, in which the Director of the Bureau holds the position of professor of archaeology. The Johannesburg hospitals and the South African Institute for Medical Research are closely associated with the instruction of medical students. In the training of engineering students the university has the co-operation of the Transvaal Chamber of Mines, the South African Institution of Engineers, and other bodies, as well as private firms. The Transvaal Society of Accountants contributes towards the cost of university classes for candidates for the professional examinations in accounting.

In 1938 the enrolment was 2,397 students (1,796 men and 601 women), of whom 1,955 were full-time students and 2,347 were matriculated. The student enrolment was divided between the several faculties as follows: Arts, 530; Science, 176; Medicine, 660; Engineering, 750; Commerce, 204; Law, 34; Dentistry, 43. The number of degrees conferred in 1938 was 342, including 5 doctor's degrees and 48 other post-graduate degrees, and 16 diplomas were granted.

The old university buildings, which date from 1907, are now occupied by the Witwatersrand Technical College. The new buildings at Milner Park, occupied since 1921, were erected at a cost of over £500,000 on a site of 96 acres within 1¼ miles of the centre of the city. The library building was erected in 1933, and the work of completing the central building, including a great hall, is now in progress.

The medical departments are housed separately at the medical school buildings on Hospital Hill, and the department of dentistry is housed in the university dental hospital, near the centre of the city. The university residences for men and women students, the swimming bath, and the playing fields are at Milner Park.

The main library is housed in a separate building, which also contains the celebrated collection of Africana, purchased by the university from the late Dr. J. G. Gubbins. There is a sectional library for each department, including the Leonard Memorial Library of Law Books, and the university also houses and administers the Witwatersrand medical library and the library of the South African Association for the Advancement of Science.

OFFICERS OF THE UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG.

Chancellor..... Hon. J. H. Hofmeyr, B.A. (Oxon) M.A. (C.G.H.), Hon. D.Sc. (Capetown), M.P.
Vice-Chancellor..... Hon. R. Feetham.
Principal..... H. R. Raikes, A.F.C., M.A.

6. **University of Pretoria (formerly the Transvaal University College).**—In 1908, university classes in arts, science, and law were established at Pretoria by the Transvaal Government, and were placed under the control of the Council of the Transvaal University College at Johannesburg, the constitution of that body being altered so as to give Pretoria equal representation. A separation took place in 1910, the Johannesburg section being re-incorporated as the South African School of Mines and Technology, whilst the Pretoria section retained the name of the Transvaal University College. By Act No. 13 of 1930 the Transvaal University College was incorporated as the University of Pretoria, the higher status being assumed on 10th October, 1930. In 1917 was instituted a faculty of agriculture, financial provision for which (an endowment of £100,000) had been made by the last Parliament of the Transvaal in 1910. The following faculties have since been established: 1918, theology; 1919, commerce and public administration; 1920, veterinary science; 1923, music; 1937, education.

Courses are provided for degrees and diplomas in arts, science, agriculture, veterinary science, law, divinity, education, native education, music, commerce, public administration, native administration, social work, architecture, quantity surveying, and domestic science.

The faculty of veterinary science works in the closest co-operation with the government research laboratories at Onderstepoort, and provides a five-year course leading to the degree of B.V.Sc., a feature being the training in tropical diseases. The faculty of agriculture gives a four-year course leading to the degree of B.Sc. (Agric.), and provides as options an advanced technical training in domestic science and most of the branches of agriculture practised in South Africa.

Important research work has been done in various directions during recent years at this institution, which provides the necessary facilities to students and members of the staff.

OFFICERS OF THE UNIVERSITY OF PRETORIA.

Chancellor..... H. J. van der Bijl, M.A., Ph.D., M.A.I.E.E., M.I.R.E.
Vice-Chancellor and Rector..... C. F. Schmidt, B.A.
Registrar..... Adv. J. C. V. Breytenbach, B.A., LL.B.

7. **Statistics of Universities and University Colleges.**—The tables hereunder give (i) comparative statistics of higher education from the year 1910, and (ii) in respect of each university and college the number of professors, lecturers, assistants, and students, the expenditure for 1937, and the annual value of bursaries granted.

(i) STATISTICS OF HIGHER EDUCATION, 1910 TO 1937.

Year.	Average No. of Students each Year.	State Expenditure.	State Expenditure per Student.	No. of Professors.	No. of Lecturers, etc.	Total Value of Bursaries.
		£	£			£
1910.....	1,171	79,657	68·0	—	—	6,780
1913.....	1,285	104,293	81·2	102	94	16,592
1916.....	1,355	109,784	81·0	100	99	20,546
1920.....	2,946	230,570	78·3	147	172	38,210
1925.....	5,215	314,067	60·2	213	356	25,670
1930.....	7,006	386,584	55·1	237	603	32,970
1933.....	7,337	310,027	42·3	221*	594†	32,650
1934.....	7,541	356,182	47·2	221*	625†	31,964
1935.....	7,892	357,000	45·2	228*	662†	35,480
1936.....	8,358	358,260‡	43·0	237*	697†	32,257
1937.....	8,707	364,871	41·9	242*	749†	33,176

* Full-time, including rectors or principals.

† Including part-time professors and part-time lecturers numbering 279 in 1933, 320 in 1934, 319 in 1935, 340 in 1936, and 337 in 1937.

‡ Revised figure.

NOTE.—The University of South Africa also examines external students for various degrees and diplomas. The number examined in 1937 was 2,067.

(ii) GENERAL STATISTICS OF UNIVERSITIES AND CONSTITUENT COLLEGES OF THE UNIVERSITY OF SOUTH AFRICA, 1937.

University or College.	Current Expenditure.	Number of Full-time Professors. †	Number of Lecturers and Assistants.‡		Average Number of Students for the Year.			Bursaries and Scholarships Available. ¶
			Full-time.	Part-time.§	Full-time.	Part-time.	Total.	
	£							£
Capetown.....	232,172	48	160	104	1,733	298	2,031	7,908
Stellenbosch.....	108,385*	43	58	17	1,261	42	1,303‖	5,056
Witwatersrand.....	246,571	35	74	110	1,803	417	2,220	11,462
Pretoria.....	81,062*	46	35	44	590	534	1,124‖	2,804
South Africa.....	40,706	—	—	—	—	—	—	2,005
Constituent Colleges—								
Orange Free State, Bloemfontein.....	31,970	17	13	10	250	100	350	1,210
Huguenot, Wellington.	12,113	6	8	5	90	13	103	538
Rhodes, Grahamstown.	61,101	15	22	25	449	42	491	242
Natal, Pietermaritzburg	57,549	15	27	17	407	308	715	1,451
Potchefstroom.....	24,684	17	15	5	342	28	370	500
TOTAL.....	896,313	242	412	337	6,925	1,782	8,707	33,176

* Does not include expenditure on the faculty of agriculture.
† Includes the rectors or principals.
‡ Does not include farm and library assistants.
§ Includes a few part-time professors.
‖ Includes students in the faculties of agriculture and veterinary science.
¶ Under this head prizes (amounting to £270) and loans to students are not included. The figures here given will for obvious reasons not agree with the expenditure under the head "Bursaries and Scholarships" given in paragraph 9, table (i) (b), of this section.

8. **Examinations under the University Organization.**—The examining bodies created under the university system in the Union are the Universities of South Africa, Capetown, Stellenbosch, Pretoria, and the Witwatersrand, the Joint Matriculation Board, and the Joint Committee for Professional Examinations. The results of the examinations conducted by these bodies are given in the following tables.

(i) JOINT MATRICULATION BOARD—RESULTS OF EXAMINATIONS, DECEMBER, 1937, AND FEBRUARY, 1938.

Examinations.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Union.	Outside Union.	Grand Total.
(a) *Matriculation Certificate*—							
Candidates	479	888	603	1,023	2,993	226	3,219
Passed	260	527	273	563	1,623	124	1,747
Awarded a School-Leaving Certificate with five subjects under Reg. 9 (2)	52	111	65	184	412	47	459
Failed	167	250	265	276	958	55	1,013
(b) *School-leaving Certificate*—							
Candidates	26	9	13	236	284	29	313
Passed (with 6 subjects)	11	3	6	116	136	6	142
Passed (with 5 subjects)	5	3	—	58	66	10	76
Failed	10	3	7	62	82	13	95

(ii) UNIVERSITIES.

(a) DEGREES GRANTED, 1936 AND 1937.

Degrees.	1937. University of—					Total.	1936 Total.
	Capetown.	Stellenbosch.	Witwatersrand.	Pretoria.	South Africa.		
Honorary	—	—	2	—	2	4	10
M.D.	—	—	1	—	—	1	1
Ph.D.	5	6	—	—	4	15	8
D.Litt.	—	1	1	3	1	6	2
D.Sc.	—	2	1	1	1	5	6
D. Com.	—	—	—	1	—	1	—
D.Sc. (Agriculture)	—	1	—	2	—	3	1
D.Sc. (Eng.)	—	—	—	—	—	—	1
D.D.S.	—	—	1	—	—	1	—
D.V. Sc.	—	—	—	—	2	2	1
D.Ed.	—	2	—	—	—	2	1
LL.D.	—	1	—	—	—	1	—
M.A.	8	16	7	13	38	82	93
M.A. (Fine Arts)	1	—	—	—	—	1	—
M.A. (Soc. Sc.)	—	1	—	—	—	1	—
M.Ed.	1	3	—	—	—	4	14
M.Sc.	5	16	10	8	9	40	43
M.Sc. (Eng.)	—	—	3	—	3	6	6
M.Sc. (Agriculture)	—	5	—	1	—	6	5
M.Com.	—	1	—	—	3	4	3
LL.M.	1	—	—	—	—	1	—
M.Div.	—	—	—	—	—	—	2
M.Mus.	—	—	—	—	—	—	1
B.A. (Hons. Fine Arts)	—	—	1	—	—	1	2
B.A. (Hons.)	—	—	14	—	—	14	10
B.A.	77	77	41	58	291	544	564
B.A. (Admin.)	—	—	—	3	—	3	5
B.A. (Architecture)	2	—	—	—	—	2	4
B.A. (Fine Arts)	2	—	—	—	6	8	7

(ii) UNIVERSITIES—(*continued*).

(a) DEGREES GRANTED, 1936 AND 1937—(*continued*).

Degrees.	1937. University of—					Total.	1936 Total.
	Capetown.	Stellenbosch.	Witwatersrand.	Pretoria.	South Africa.		
B.A. (Soc. Sc.)	4	5	1	1	—	11	9
B.Ed.	5	1	—	—	—	6	6
B.Mus.	—	—	—	—	—	—	2
B.Sc. (Hons.)	—	—	14	—	—	14	9
B.Sc. (Pure Science)	24	37	30	23	83	197	146
B.Sc. (Eng.)	24	—	49	—	13	86	101
B.Sc. (Applied and Indus. Chem.)	3	—	—	—	—	3	—
B.Sc. (Agriculture)	—	5	—	8	—	13	14
B.Sc. (Forestry)	—	2	—	—	—	2	6
B.Sc. (Dom. Sc. and Home Economics)	—	1	—	3	1	5	7
B.Sc. (Surveying)	5	—	—	1	—	6	5
B.V.Sc.	—	—	—	7	—	7	13
B.Arch.	—	—	5	—	—	5	5
B.Com.	19	8	22	25	30	104	103
B.Econ.	—	—	—	—	8	8	6
B.D.	—	1	—	4	3	8	5
LL.B.	9	7	15	10	17	58	61
M.B., Ch.B.	57	—	45	—	—	102	105
B.D.S.	—	—	9	—	—	9	5
TOTAL	252	199	272	175	518	1,416	1,398

(b) DIPLOMAS GRANTED, 1936 AND 1937.

Diplomas.	1937. University of—					Total.	1936 Total.
	Capetown.	Stellenbosch.	Witwatersrand.	Pretoria.	South Africa.		
Secondary Teachers' Diploma (Certificate)	28	75	—	18	109	230	214
Lower Secondary Teachers' Diploma (Certificate)	—	—	—	—	10	10	48
Higher Primary Teachers' Diploma (Certificate)	10	47	—	—	—	57	5
Other Teachers' Diplomas (including Primary Teacher's Diploma)	2	11	—	—	—	13	1
Diploma in Domestic Science (Home Economics)	—	7	—	—	—	7	2
Other Diplomas, Architecture, Actuarial Maths., Elocution, Bantu Studies, Music, Public Administration, Public Health, Quantity Surveying, Fine Arts, Social Work, Agriculture, Commerce, Analytical Chemistry, Nature Study, and Physical Education	37	56	13	6	16	128	90
TOTAL	77	196	13	24	135	445	360

(iii) JOINT COMMITTEE FOR PROFESSIONAL EXAMINATIONS—UNIVERSITY OF SOUTH AFRICA—RESULT OF EXAMINATIONS, 1936 AND 1937.

Examination.	1936.			1937.		
	Part I.	Part II.	Final.	Part I.	Part II.	Final.
Law Certificate Examination:						
Candidates	114	154	—	110	147	—
Passed	56	37	—	58	51*	—
% Failed	50·9	54·6	—	47·3	49·6	—
Union Civil Service Lower Law:						
Candidates	269	176	—	292	165	—
Passed	72	66	—	138	75	—
% Failed	73·3	62·5	—	52·7	54·6	—
Union Civil Service Higher Law:						
Candidates	—	—	17	—	—	12
Passed	—	—	10	—	—	6†
% Failed	—	—	29·41	—	—	—
Land Surveying Examinations:						
Candidates	15	1	—	13	5	—
Passed	3	1	—	5‡	1§	—
% Failed	73·3	—	—	46·1	20·0	—
Patent Agents:						
Candidates	1	1	—	1	—	—
Passed	—	—	—	—	—	—
% Failed	100	100	—	100	—	—
Advocates, Admission:						
Candidates	—	—	1	—	—	4
Passed	—	—	1	—	—	3
% Failed	—	—	—	—	—	25·0

* In addition 23 partial credit.
† „ „ 6 partial credit.
‡ „ „ 2 partial credit.
§ „ „ 3 partial credit.

9. **Financial Statistics: Higher Education.**—The subjoined tables give particulars of expenditure by the Government and from university and college funds on higher education and of fees received.

FINANCIAL STATISTICS.

UNIVERSITIES AND UNIVERSITY COLLEGES.

(i) REVENUE AND EXPENDITURE, 1937.

(a) REVENUE.

University or College.	Government Grants.	Other Donations and Subscriptions.	Fees.	Interest.	Other.	Total.	Surplus (+) Deficit (−)
	£	£	£	£	£	£	£
Universities—							
Capetown	93,560	20,686	82,158	33,688	458	230,550	+1,622
Stellenbosch	49,255	6,774	37,921	10,341	2,448	106,739	−1,646
Witwatersrand	89,061	33,413	108,185	7,258	6,503	244,420	−2,151
Pretoria	43,360	4,126	25,868	3,574	3,860	80,788	−274
South Africa	500	200	921	2,978	36,107	40,706	—
Colleges—							
Rhodes	25,125	4,307	17,223	13,001	1,155	60,811	−200
Huguenot	8,000	155	2,032	587	488	11,262	−851
Natal	25,525	8,324	22,184	1,004	50	57,087	+462
O.F.S.	17,845	565	6,842	—	—	25,252	−6,718
Potchefstroom	13,140	1,500	8,325	—	1,456	24,421	+263
TOTAL £	365,371	80,050	311,659	72,431	52,525	882,036	—
Percentage of Total	% 41·42	% 9·08	% 35·33	% 8·21	% 5·96	% 100·00	—

FINANCIAL STATISTICS—(*continued*).

UNIVERSITIES AND UNIVERSITY COLLEGES—(*continued*).

(i) REVENUE AND EXPENDITURE, 1937—(*continued*).

(b) EXPENDITURE.

University or College.	Administration.	Instructional Expenses.	Grounds, Buildings, and Equipment.	Bursaries and Scholarships.	Capital Expenditure.	Other.	Total.
	£	£	£	£	£	£	£
Universities—							
Capetown	13,351	135,788	53,732	8,056	17,211	3,965	232,103
Stellenbosch	8,065	64,125	12,386	6,338	2,850	14,621	108,385
Witwatersrand	24,026	130,666	48,180	11,740	10,130	21,829	246,571
Pretoria	12,494	50,904	7,159	3,955	4,209	2,342	81,063
South Africa	32,360	—	986	1,785	180	4,247	39,558
Colleges—							
Rhodes	3,091	29,355	8,520	242	15,332	4,561	61,101
Huguenot	718	8,607	1,346	229	709	504	12,113
Natal	3,648	31,403	6,003	1,451	6,947	6,690	56,142
O.F.S.	2,832	22,725	1,481	—	341	4,591	31,970
Potchefstroom	1,511	17,968	2,620	557	1,118	832	24,606
TOTAL £	102,096	491,541	142,413	34,353	59,027	64,182	893,612
Percentage of Total	% 11·42	% 55·01	% 15·94	% 3·84	% 6·61	% 7·18	% 100·00

(ii) UNIT COSTS, 1937.

(a) UNIVERSITIES.

Heading.	Capetown.	Stellenbosch.	Witwatersrand.	Pretoria.	Total.
Student's Fees:					
Total Fees Received £	82,158	37,921	108,185	25,868	254,132
Per Student† £	46·13	31·57	56·29	36·49	44·07
Percentage of Gross Cost %	35·40	34·99	43·88	31·91	38·04
Government Grant:					
Total Grant £	93,560	49,255‡	89,061	43,360‡	275,236
Per Student† £	52·53	41·01	46·34	61·15	47·73
Percentage of Gross Cost %	40·31	45·44	36·12	53·49	41·19
Other Income of Institution:					
Total £	56,385	21,209	49,325	11,834	138,753
Per Student† £	31·66	17·66	25·66	16·69	24·06
Percentage of Gross Cost %	24·29	19·57	20·00	14·60	20·77
Total Cost:					
Gross Total £	232,103	108,385	246,571	81,062	668,121
Per Student† £	130·32	90·25	128·29	114·33	115·86
Net Total§ £	181,521	100,683	210,370	77,297	569,871
Per Student† £	101·92	83·83	109·45	109·02	98·82

(b) UNIVERSITY COLLEGES.*

Heading.	Rhodes.	Huguenot.	Natal.	Orange Free State.	Potchefstroom.	Total.
Students' Fees:						
Total Fees Received £	17,223	2,032	22,184	6,841	8,325	56,605
Per Student† £	37·68	21·85	44·81	22·21	23·85	33·25
Percentage of Gross Cost %	28·19	16·78	39·51	21·40	33·83	30·44
Government Grant:						
Total Grant £	25,125	8,000	25,525	17,845	13,140	89,635
Per Student† £	54·98	86·02	51·57	57·98	37·65	52·66
Percentage of Gross Cost %	41·12	66·04	45·47	55·82	53·40	48·21

* Of the University of South Africa.
† In this total part-time students are reduced to a basis of full-time students in order to obtain comparable unit costs.
‡ Does not include grants to faculties of agriculture and veterinary science (expenditure borne on votes of Department of Agriculture and Forestry), but includes a grant of £1,360 paid to University of Pretoria by the Department of Agriculture and Forestry for administrative expenses.
§ Excluding capital expenditure such as interest, redemption of loans, and depreciation.

FINANCIAL STATISTICS—(*continued*).

UNIVERSITIES AND UNIVERSITY COLLEGES—(*continued*).

(ii) UNIT COSTS—(*continued*).

(b) UNIVERSITY COLLEGES*—(*continued*).

Heading.	Rhodes.	Huguenot.	Natal.	Orange Free State.	Potchef-stroom.	Total.
Other Income of Institution :						
Total.....£	18,753	2,081	8,433	7,284	3,141	39,692
Per Student†.....£	41·04	22·38	17·04	23·65	9·00	23·32
Percentage of Gross Cost..%	30·69	17·18	15·02	22·78	12·77	21·35
Total Cost :						
Gross Total.....£	61,101	12,113	56,142	31,970	24,606	185,932
Per Student†.....£	133·70	130·25	113·42	103·84	70·50	109·23
Net Total‡.....£	51,638	10,823	52,999	30,711	21,987	168,158
Per Student†.....£	112·99	116·37	107·07	99·71	62·94	98·80

(c) TOTAL—UNIVERSITIES AND UNIVERSITY COLLEGES, 1933 TO 1937.

Heading.	1933.§	1934.§	1935.§	1936.§	1937.
Students' Fees :					
Total fees Received.....£	214,886	224,394	262,910	287,133	310,737
Per Student†.....£	34·53	35·45	39·46	40·84	41·60
Percentage of Gross Cost.....%	32·02	32·12	34·26	36·17	36·68
Government Grant :					
Total Grant.....£	309,777	355,182	356,000	358,260	364,871
Per Student†.....£	49·77	56·12	53·43	50·95	48·85
Percentage of Gross Cost.....%	46·18	50·84	46·38	45·13	42·72
Other Income of Institution :					
Total.....£	146,108	118,991	148,583	148,451	176,445
Per Student†.....£	23·47	18·80	22·30	21·11	23·89
Percentage of Gross Cost.....%	21·78	17·03	19·36	18·70	20·90
Total Cost.					
Gross Total.....£	670,771	698,567	767,498	793,844	854,053
Per Student†.....£	107·77	110·38	115·19	112·91	114·34
Net Total‡.....£	545,391	567,487	629,772	673,509	738,029
Per Student†.....£	87·63	89·66	94·52	95·79	98·81

(d) SOUTH AFRICAN NATIVE COLLEGE, 1937.

Students' Fees.

Total Fees Received.....£ 1,427
Per Student†.....£ 10·94
Percentage of Gross Cost.....% 11·08

Other Income of Institution.

Total.....£ 3,448
Per Student†.....£ 26·52
Percentage of Gross Cost.....% 26·78

Government Grant.

Total Grant.....£ 8,000
Per Student†.....£ 61·54
Percentage of Gross Cost.....% 62·14

Total Cost.

	£
Gross Total.....	12,875
Per Student†.....	99·00
Net Total‡.....	11,480
Per Student†.....	88·31

* Of the University of South Africa.

† In this total part-time students are reduced to a basis of full-time students in order to obtain comparable unit costs.

‡ Excluding capital expenditure such as interest, redemption of loans, and depreciation.

§ Amended figures.

FINANCIAL STATISTICS—(*continued*).

UNIVERSITIES AND UNIVERSITY COLLEGES—(*continued*).

(iii) GOVERNMENT GRANTS AND EXPENDITURE FROM UNIVERSITY FUNDS, 1933 TO 1937.

Heading.	1933.	1934.	1935.	1936.	1937.
Capetown University—	£	£	£	£	£
Government Grant.....	80,556	91,720	92,000	91,800	93,560
University Funds.....	112,271	120,527	125,688	128,947	138,543
Stellenbosch University—					
Government Grant*.....	40,926	46,000	46,000	46,000	49,255
University Funds.....	38,919	39,570	48,915	53,866	59,130
University of the Witwatersrand—					
Government Grant.....	72,908	89,450	90,000	90,000	89,061
University Funds.....	108,782	100,571	131,990	152,239	157,510
University of Pretoria—					
Government Grant*.....	37,760	43,118	42,000	43,360	43,360
University Funds.....	26,099	24,914	30,938	31,121	37,702
University of South Africa, Central Office—					
Government Grant.....	250	1,000	1,000	1,000	500
University Funds.....	14,874	16,010	26,771	29,210	30,405
Natal University College—					
Government Grant.....	16,198	21,000	21,000	21,100	25,525
College Funds.....	21,142	19,762	30,432	23,749	30,617
Rhodes University College—					
Government Grant.....	23,052	26,000	27,000	27,000	25,125
College Funds.....	20,412	20,564	20,615	23,460	35,976
O.F.S. University College—					
Government Grant.....	18,456	17,895	18,000	19,000	17,845
College Funds.....	7,214	6,740	9,744	8,114	14,125
Huguenot University College—					
Government Grant.....	6,476	8,019	8,000	8,000	8,000
College Funds.....	4,530	2,602	3,513	3,268	4,113
Potchefstroom University College†—					
Government Grant.....	10,412	11,980	12,000	12,000	13,140
College Funds.....	8,101	8,135	9,663	10,820	11,466
TOTAL.....£	669,338	715,577	795,269	824,054	884,958
South African Native College—					
Government Grant.....	4,565	6,483	6,500	7,035	8,000
College Funds.....	4,154	2,998	3,513	2,823	4,875

* Does not include grant for Faculty of Agriculture.

† Known as Potchefstroomse Universiteitskollege vir Christelike Hoër Onderwys.

(iv) FEES RECEIVED BY INSTITUTIONS CONCERNED WITH HIGHER EDUCATION, 1933 TO 1937.

Heading.	1933.	1934.	1935.	1936.	1937.
Tuition and Examination Fees.	£	£	£	£	£
Universities—					
Capetown.....	63,858	67,277	69,337	74,867	82,158
Stellenbosch.....	23,080	24,305	29,294	33,411	37,921
Witwatersrand.....	68,407	72,592	97,498	103,461	108,185
Pretoria.....	19,228	20,766	22,645	26,791	25,868
Constituent Colleges of the University of South Africa—					
Natal University College.....	13,935	15,028	15,487	16,699	22,184
Rhodes University College.....	12,596	11,437	14,184	15,966	17,223
O.F.S. University College.....	6,627	5,927	6,191	6,837	6,841
Huguenot University College.....	1,711	1,635	2,178	1,808	2,032
Potchefstroom University College*.....	5,444	5,427	6,096	7,293	8,325
TOTAL.....£	214,886	224,394	262,910	287,133	310,737
Examination Fees.					
University of South Africa.....	26,352	26,103	26,887	30,106	30,653
Joint Matriculation Board.....	10,878	10,950	7,403	7,510	7,614
Joint Professional Committee.....	3,527	3,342	3,056	2,638	2,620
GRAND TOTAL.....£	255,643	264,789	300,256	327,387	351,624
Students' Fees—					
South African Native College.....	1,331	1,506	1,597	1,666	1,427

* Known as Potchefstroomse Universiteitskollege vir Christelike Hoër Onderwys.

10. **Extension Facilities at University Institutions.**—*The University of Capetown.*—Vacation courses are arranged from time to time in the following subjects: African studies, medicine and surgery (post graduate), and music (teachers). Extension lectures are provided during the sessions. In 1938 three

courses were given on literary and scientific topics. Seminar courses are held periodically for teachers who wish to make a study of present day theories and practice in the field of education.

The University of Stellenbosch.—Besides the ordinary instruction, members of the staff also give public lectures at Stellenbosch and other neighbouring places. It is the aim of the university to be in contact with problems of the day. Besides instruction given to farmers, special attention is paid to practical psychological and educational problems. The Department of Educational Psychology undertakes the observation and treatment of psychological and educational defects of school children, and renders a good deal of assistance to schools in the classification of children. The department of sociology offers advice in connexion with charity and social rehabilitation in Capetown. Prof. Smith is responsible for the compilation of an Afrikaans standard dictionary, at which he has been working since 1925.

The *University of the Witwatersrand, Johannesburg,* conducts part-time classes of post-matriculation standard, leading to degrees in the faculties of arts, commerce, and law, and to diplomas in the faculties of arts, engineering (architecture and quantity surveying), and commerce. A post-graduate vacation course for district surgeons is regularly held, and similar courses for medical and dental practitioners are organized from time to time. Arrangements are being made for vacation refresher courses for teachers. A vacation course in Bantu studies has also been given, and members of the staff participate in vacation courses organized by other bodies. The university arranges frequent public lectures by distinguished visitors and by members of the staff, and most of the lectures organized by student societies are open to the public. The university is associated with the Transvaal Worker's Educational Association in the provision of extension lectures and tutorial classes in the Witwatersrand area.

At the *University of Pretoria*, the extra-mural classes, given out of office hours and in the business centre of the town, provide facilities for civil servants and professional and business men to qualify for degrees in commerce, public administration, arts, and law. In addition, a number of public lectures, dealing mainly with problems of the day, are regularly given in Pretoria and elsewhere by members of the teaching staff and other authorities under the aegis of the university.

Rhodes University College, Grahamstown.—Extension lectures on scientific subjects, history, law, English, music, and fine arts are given from time to time by members of the staff, in Port Elizabeth, Graaff-Reinet, Grahamstown, and other towns in the neighbourhood, and talks are broadcast from the local station of the South African Broadcasting Corporation.

11. **The National Bureau of Educational and Social Research.**—The National Bureau of Education was instituted under the Union Education Department in July, 1929. In 1934 a division of social work under a responsible officer was added and the name of the Bureau was changed to include this aspect; in 1936 a Film Division was established under the Bureau. The Bureau is administered by a Director and comprises at present the following divisions:—

1. The Division of Educational Research and Statistics.
2. The Social Research Division.
3. The Psychological Research and Service Division.
4. The National Library on Education and Social Science.
5. The Film Division.

The chief functions of the Bureau are as follows:—

(*a*) It is a central clearing house for information on education and social work all over the Union. It has in its library developed a considerable collection of official and other publications dealing with education, psychology, and social work, which is probably the largest collection of recent works on these subjects in the country. A free loan system is in operation whereby books may be borrowed by interested organizations and individuals throughout the Union.

(*b*) It acts as a liaison office between the four provinces in all matters pertaining to education and social work in South Africa. It works in close co-operation with the educational committee consisting of the heads of the five Education Departments in the Union. This committee is really a sub-committee of the Inter-Provincial Consultative Committee, for particulars of which see § 5, paragraph 5, Chapter II.

While the Bureau is not a co-ordinating body in the administrative sense, it draws together, either through informal consultation or through conferences, individual persons and State and other organizations engaged in kindred activities. As instances of this may be mentioned the organizing work done by the Bureau in acting as secretariat for the International Conference on Education held in South Africa in 1934 under the auspices of the New Education Fellowship, and for the National Conference on Social Work in connexion with the British Empire Exhibition at Johannesburg in 1936.

It collaborated in a secretarial and technical capacity with the Committee on Juvenile Delinquency and Neglect, the Committee on Poor Relief and Charitable Institutions, the Inter-departmental Committee on Native Education, and the Committee on Medical Training.

(*c*) Not only is the Bureau a sort of liaison office between the various bodies administering education and social work in South Africa, but it also keeps in touch with movements and developments in these fields in other countries, in so far as they are relevant to and may throw light upon South African problems. In this capacity it not only acts as South Africa's representative in connexion with the work of the Committee on Intellectual Co-operation of the League of Nations and the *Bureau International d'Education* at Geneva as well as that of international conferences on educational and social matters overseas, but also systematically keeps local bodies informed of their deliberations and recommendations.

(*d*) The Bureau conducts research work in problems of an educational or a social nature. It also acts as the secretariat to the South African Council for Educational and Social Research, which administers a grant for £2,500 per annum made by the Carnegie Corporation of New York. The results of these investigations are published in special bulletins under the auspices of the Council.

(*e*) The Bureau is also a service bureau. When called upon, it renders service to State departments and social welfare and other organizations. For example, through its Psychological Research Division, the Bureau serves the schools of provincial Education Departments and the trades and industrial schools in such matters as vocational guidance, the psychological classification of pupils, the selection of sub-normals for special education, and the diagnosis of special disabilities, especially of reading, spelling, and arithmetic. Advice is also given concerning the adjustment of problem cases. An important part of this division's work is the standardization of intelligence (individual and group), special abilities, and occupational tests.

(*f*) Through its Film Division the Bureau is responsible for the functions usually performed by what is known as a *Film Institute* in other countries, e.g. in England. These functions in respect of South Africa may be summarized as follows:—

(i) It acts as a clearing house for information on the educational and cultural uses of the cinema.

(ii) It advises educational institutions and government departments on all matters pertaining to audio-visual education, e.g. films and apparatus.

(iii) It links up the film trade and the cultural interests of the country both in the production and in the distribution of films of an educational and cultural nature.

(iv) It certifies films as educational, cultural, or scientific for purposes of customs exemption in terms of the League of Nations Convention on the International Circulation of Educational Films.

(v) It administers the national film library which is responsible for the collection, care, and distribution of 16 mm. educational films. This library has over 1,200 films and is supported by grants from the four Provincial Administrations as well as from Union Government departments, e.g. Education, Health, Agriculture, Labour, and Social Welfare. Schools and

welfare organizations of a public nature are thus enabled to borrow films from the library in regular rotation at a nominal subscription.

12. **Inter-Provincial Co-operation on Educational Matters.**—A sub-committee appointed by the Inter-Provincial Consultative Committee furnishes the means for consultation between the Union Education Department and the four provincial Education Departments on matters pertaining to education. This sub-committee consists of the heads of the five Education Departments who in turn delegate certain specialized aspects of the work to further sub-committees, on which the assistance of officials and technical persons from other departments is called in, e.g., Public Health, Agriculture, Labour, etc.

Several important educational problems have been dealt with in this way. The following are the chief:—(1) The co-ordination of the normal colleges and universities in the training of teachers; (2) the salaries and conditions of service of teachers with a view to facilitating interchange of teachers between the provinces; (3) the co-ordination of (*a*) the agricultural colleges under the Department of Agriculture and Forestry, (*b*) the agricultural schools under the Union Department of Education, (*c*) the primary and secondary schools under the provincial Education Departments, with a view to meeting the urgent educational needs of the agricultural population; (4) vocational guidance in the schools and the organization of juvenile affairs boards in the country districts, with a view to solving the rural unemployment problem in a prophylactic way; (5) the education of physically and mentally deviate children; (6) the co-ordination of medical inspection and follow-up services for school children, with special reference to malaria and bilharziasis; (7) the co-ordination of school broadcasting for the four provincial systems; (8) cinematograph instruction in schools and the institution of a Union Film Institute; (9) uniformity of reporting on educational statistics in the four provincial Education Departments, with a view to the issue of an annual Union Bulletin of Educational Statistics by the National Bureau of Educational and Social Research.

13. **Technical, Vocational, and Special Education.**—As the outcome of an inter-provincial conference held at Durban in November, 1924, vocational education was transferred from provincial to Union control.

The Union Department of Education administers technical colleges under Act No. 30 of 1923; industrial schools under the *Children's Act*, No. 31 of 1937; and trades and housecraft schools under the *Vocational Education and Special Schools Act*, No. 29 of 1928. In 1938 agricultural schools were transferred from the control of the Union Education Department to that of the provincial departments. Special schools for the deaf and blind are also administered under Act No. 29 of 1928. The training of mentally defective children is, however, administered by the Commissioner for Mental Hygiene under the Department of the Interior.

Statistics regarding all the different types of vocational training are given below. Generally speaking, the vocational courses are post-primary, the exception being those at industrial and special schools, where pupils who have not completed the primary school course are also afforded an opportunity of learning a trade or craft while continuing their scholastic training. All pupils in industrial schools are committed under the *Children's Act* on grounds of destitution, neglect, or delinquency, and are on that account at various stages of scholastic advancement when they enter these institutions.

A report on the Technical Colleges of South Africa giving the results of an investigation made by F. H. Spencer, D.Sc., under the auspices of the Carnegie Corporation of New York, was issued in 1937 and is obtainable from the National Bureau of Educational and Social Research, Union Buildings, Pretoria.

Act No. 43 of 1937 makes provision for compulsory attendance at special schools of children who by reason of physical, mental, or behaviour aberration or disability are unable to benefit sufficiently from the instruction given in ordinary schools. With regard to the deaf and the blind, there is no specified age of admission (regulations with regard to special schools are at present under consideration), but blind children are encouraged to enrol at the age of seven years and deaf at four or five years. The schools for the deaf at Worcester and at Capetown have recently acquired with government assistance new buildings for school work, vocational training, and hostel accommodation. At schools for the deaf, the oral method of teaching is followed exclusively,

the principals assuming responsibility for training their staff in the special teaching technique. The course at schools for the deaf is a 12-year one, the last three years being devoted to vocational training. Schools for the blind, which also have a 12-year course, provide school training up to Standard VIII for Europeans and Standard VI for non-Europeans. Vocational training comprises the orthodox crafts for the blind, such as basket, mat, and brush-making, as well as music. Schools for the deaf and the blind are State-aided, the Union Government contributing from two-thirds to the whole of the salaries, as well as 50 per cent. of all other authorized expenditure. In addition, boarding grants are given to necessitous children.

In addition to schools for the deaf and the blind and the school for epileptics at Kuils River administered by the Union Education Department, the provincial Education Departments provide, in a small measure, for other types of deviate children. There is provision in special classes, and in one instance there is a special school (Durban) for about 950 subnormal children. At three centres, viz., Plumstead (Cape), Johannesburg, and Durban, there are facilities for special education and convalescent care for about 120 cripple and cardiopathic children. At two institutions for mental defectives (under Act No. 38 of 1916) the Department of the Interior provides for about 500 mentally defective children of both sexes. Statistical particulars in regard to mentally disordered and defective persons are contained in Chapter IV, § 3.

A.—TECHNICAL COLLEGES.

(i) AVERAGE NUMBER OF FULL-TIME AND PART-TIME STUDENTS CLASSIFIED ACCORDING TO TYPE OF TRAINING, 1937.

Type of Training.	Cape (Capetown). †	Port Elizabeth.	East London.	Natal (Durban).	Pietermaritzburg.	Witwatersrand. †	Pretoria.	Orange Free State (Bloemfontein).	Total.
Preparatory *:									
Full-time.....	—	—	—	—	—	—	—	—	—
Part-time.....	56	—	24	45	—	172	—	29	326
TOTAL.....	56	—	24	45	—	172	—	29	326
Technical:									
Full-time.....	68	18	118	197	54	1,055	623	—	2,133
Part-time.....	1,602	488	344	887	177	5,769	1,140	221	10,628
TOTAL.....	1,670	506	462	1,084	231	6,824	1,763	221	12,761
Commercial:									
Full-time.....	365	72	93	271	27	1,369	339	120	2,656
Part-time.....	1,224	419	244	813	175	1,593	956	251	5,675
TOTAL.....	1,589	491	377	1,084	202	2,962	1,295	371	8,331
Domestic Science:									
Full-time.....	47	—	—	47	—	117	15	—	226
Part-time.....	143	—	—	137	10	40	56	—	386
TOTAL.....	190	—	—	184	10	157	71	—	612
Other:									
Full-time.....	—	5	—	31	—	248	10	—	294
Part-time.....	—	242	—	338	—	825	525	—	1,930
TOTAL.....	—	247	—	369	—	1,073	535‡	—	2,224
Total:									
Full-time.....	480	95	211	546	81	2,789	987	120	5,309
Part-time.....	3,025	1,149	612	2,220	362	8,399	2,677	501	18,945
GRAND TOTAL	3,505	1,244	823	2,766	443	11,188	3,664	621	24,254

* Std. VI and below.

† Excluding students who took correspondence courses: 319 at the Cape and 9,146 at the Witwatersrand Technical College.

‡ These consist of (i) Physical Education students: 510 full-time (Teachers' Course) and 276 part-time; (ii) Adult and Visual Education students: 249 part-time.

NOTE.—Besides these regular technical colleges, there are continuation classes in technical and commercial work conducted at 21 smaller centres attended by 2,416 students. The expenditure at these centres amounted to £11,818 in 1937–38.

A.—TECHNICAL COLLEGES—(*continued*).

(ii) UNIT COSTS, 1937.

Heading.	Cape (Capetown).	Port Elizabeth.	East London.	Natal (Durban).	Pietermaritzburg.	Witwatersrand.	Pretoria.	Orange Free State (Bloemfontein).	Total.
Students' Fees:									
Total Fees Received....£	17,391‡	4,941	4,740	13,973	2,093	79,504§	16,426	2,748	141,816
Per Student*£	15·29	17·77	14·81	15·25	15·30	19·97	11·23	11·13	16·73
Percentage of Gross Cost%	30·41	24·06	26·48	28·75	25·97	48·73	30·02	29·77	37·38
Government Grant:									
Total Grant £	35,774	14,110	11,270	27,131	5,270	80,339	32,392	6,823	213,109‖
Per Student*£	31·43	50·75	35·22	29·62	39·03	20·18	22·14	27·62	25·13
Percentage of Gross Cost.%	62·55	68·72	62·95	55·83	65·39	49·24	59·19	73·94	56·17
Other Income of Institution:									
Total.....£	4,025	1,481	1,893	7,496	696	3,321	5,903	—	24,815
Per Student*£	3·5	5·3	5·9	8·2	5·2	0·8	4·0	—	2·9
Percentage of Gross Cost.%	7·04	7·22	10·57	15·42	8·64	2·03	10·79	—	6·5
Total Cost:									
Gross Total..£	57,190	20,532	17,903	48,600	8,059	163,164	54,721	9,571¶	379,740¶
Per Student*£	50·25	73·89	55·95	53·06	59·69	40·97	37·40	38·75	44·74
Net Total†..£	53,493	16,614	15,246	45,719	8,059	130,965	47,689	7,654	345,439
Per Student*£	47·00	59·76	47·64	49·91	59·69	37·95	32·59	30·98	40·74

* In this figure part-time students are reduced to a basis of full-time students in order to obtain comparable unit costs.

† Capital expenditure, such as interest and redemption charges and depreciation, excluded, in order to obtain current tuitional costs on a comparable basis.

‡ Excluding 319 correspondence students.

§ Excluding 9,146 correspondence students. Fees £8,968; expenditure, £11,565.

‖ Includes state bursaries to students for tuition purposes: Cape, £947; East London, £241; Orange Free State, £130; Natal, £531; Pietermaritzburg, £20; Port Elizabeth, £204; Pretoria, £1,392; Witwatersrand, £2,224; Total, £5,689.

¶ In this total a credit balance of £342 is included.

B.—STATE VOCATIONAL SCHOOLS.

(i) ENROLMENT AND COST.

Class of School.	Number of Schools, 1937.	Daily Average Number of Students, 1937.	Total Cost to the State, 1937–38.	Net Cost per Student.*
			£	£
Trades and Commercial Schools	16	1,408	174,669	67·44
Housecraft Schools	13	759		
Agricultural Schools	7	168	35,416	170·32
Industrial Schools (under the *Children's Act*, No. 31 of 1937)	7	1,266	103,005	77·09
TOTAL	43	3,601	313,090	75·84

* These institutions render inter-institutional services which reduce actual cost. They also have an income from cash sales, etc. The net cost allows for these amounts. The net unit cost is based on the daily average of students for the financial year 1937–38, and not on the average for the calendar year. These students are in residence, which together with tuition is provided free in the case of all industrial school students and in the case of nearly all the students in the other institutions.

(ii) NUMBER OF STUDENTS AND TYPES OF VOCATIONAL TRAINING FOLLOWED IN CERTAIN SPECIFIED CLASSES OF STATE SCHOOLS AT THE CLOSE OF THE YEAR 1937.

Class of Training.	Trades Schools.*	Agricultural Schools.†	Housecraft Schools.	Industrial Schools (under *Children's Act.*)	Total.
Agriculture	23	194	—	99	316
Baking	—	—	—	49	49
Boot and Shoemaking	21	—	—	78	99
Bricklaying	10	—	—	91	101
Cabinetmaking, Carpentry, and Polishing	542	—	—	176	718
Commercial and Office Work	243	—	—	89	332
Housecraft and Domestic Science	—	—	746	488	1,234
Motor Mechanics	23	—	—	—	23
Painting and Signwriting	33	—	—	65	98
Plumbing and Metal Work	26	—	—	78	104
Tailoring	209	—	—	69	278
Upholstery, Leather Work, Trimming, and Painting	107	—	—	—	107
Wagonmaking and Smithy	227	—	—	—	227
Coopery	17	—	—	—	17
TOTAL	1,481	194	746	1,282	3,703

* Includes 3 commercial schools and 1 school with an agricultural section.
† Includes 1 school with a housecraft section.

C.—STATE-AIDED VOCATIONAL SCHOOLS, 1937.

School.	Average Enrolment, 1937.	State Grant, 1937–38.
	No.	£
Salesian Institute Trades School, Capetown	47	4,378
Langlaagte Abraham Kriel Orphanage—		
(*a*) Trades (Boys)	183	6,249
(*b*) Housecraft (Girls)		
3 Institutions training girls for Domestic Service	*	5,300
2 Institutions training in Home Industries		
TOTAL	*	15,927

* Not available.

D.—STATE-AIDED SPECIAL SCHOOLS FOR THE BLIND AND THE DEAF—AVERAGE NUMBER OF PUPILS, 1937.

School.	Male.	Female.	Total.
School for the Blind, Worcester (European)	96	57	153
School for the Deaf, Worcester (European)	92	81	173
St. Vincent's School for the Deaf, Johannesburg (European)	55	46	101
Dominican School for the Deaf, Capetown—			
(*a*) European	9	10	19
(*b*) Non-European	26	18	44
School for the Deaf, Worcester (Non-European)	30	20	50
Athlone School for the Blind, Faure (Non-European)	57	31	88
TOTAL	365	263	628

NOTE.—The State grant to these institutions was £38,795 for the year 1937–38.

14. Examinations.—(i) *Technical, Commercial, and Vocational.*—Under the supervision of the Union Department of Education, a series of national technical and commercial examinations is conducted at regular intervals, with the object of stimulating vocational education in combination with or in continuation of the ordinary school curriculum. The Department is assisted by advisory committees, and is able, by setting a proper standard for the

departmental examinations, to ensure that the training obtained by students and the certificates issued on the results of examinations are of uniform recognition and of definite practical value. The examinations, which were conducted in 333 centres and for which 37,182 candidates (approximately 107,600 subject entries) entered in 1938, are of five general types:—

(1) Teachers' Certificates (embracing courses in the divisions of Art, Commerce, Domestic Science, Technology, and Physical Education).
(2) National Technical Certificates and Advanced Technical Certificates.
(3) Domestic Science Certificates.
(4) Trades School Certificates (in which technical courses are associated with subjects of a more academic and scholastic character).
(5) General Commercial Certificates.

(ii) *On behalf of other Departments.*—Special examinations were conducted on behalf of the South African Railways and Harbours Administration, the Public Service Commission, the Post Office Administration, and the Department of Defence. In 1938, 9,364 candidates were examined on behalf of the South African Railways and Harbours Administration in the official languages, Standard VI, Standard VII, Apprenticeship and Entrance Tests.

Examinations are conducted annually to enable the Public Service Commission to select suitable candidates for appointment as clerks in the Public and Railways Services. These Public Service Examinations are classified as follows:—

(*a*) *Public Service Examination* (*A*), intended for male candidates only between the ages of 16 and 25 years who have passed the Matriculation Examination (with English and Afrikaans or Nederlands as obligatory subjects) or an examination recognized by the Commission as being of equivalent or higher standard.

(*b*) *Public Service Examination* (*B*).—This examination is open to all women who are 16 years of age and over and have passed the Junior Certificate Examination (with English and Afrikaans or Nederlands as obligatory subjects) or its equivalent.

(*c*) *Public Service Examination* (*C*).—This examination is intended for both male and female candidates who wish to be considered for appointment as (i) Probationer Post and Telegraph Assistants, and (ii) in the case of youths, to apprenticeships in the Engineering Division of the Department of Posts and Telegraphs. Candidates are required to be in possession of at least the Junior Certificate including both official languages (i.e. English and Afrikaans or Nederlands) or its recognized equivalent, and must conform to the following age requirements:—

Males: Under 18 and over 15 years.
Females: Under 19 and over 16 years.

(*d*) *Railways and Harbours Clerical Examinations.*—These examinations are intended for candidates who wish to be considered for appointment as clerks in the Administration of the South African Railways and Harbours. Candidates are required to be in possession of the Junior Certificate (Standard VIII) or its recognized equivalent.

Particulars of the number of candidates who sat for recent Public Service and Railways and Harbours Entrance Examinations are as follows:—

Examination.	1937.		1938.	1939.
	March.	December.	November.	February.
Public Service (A)	902	1,720	†	1,194
" " (B)	1,334	1,808	†	1,681
" " (C)—				
Boys	225	654	651	—
Girls	328	621	724	—
	553	1,275	1,375	†
Railways and Harbours	2,117*	1,393	2,111*	†

* Entered. † Not conducted.

(iii) *On behalf of Overseas Examining Bodies.*—The Union Department of Education also conducts examinations in South Africa on behalf of certain overseas examining bodies, such as the University of London (Matriculation and Degree courses), City and Guilds of London Institute, the Royal Sanitary Institute, and the examinations for Army and Navy Cadetship.

15. **Inquiry into Medical Training in South Africa.**—A committee was appointed by the Hon. the Minister of Education in December, 1937, under the chairmanship of Professor M. C. Botha, Secretary for Education, to investigate and report upon medical training in South Africa. The following were the terms of reference:—

(1) Whether the facilities for medical training in South Africa at present available are sufficient and adequate, having regard to the present and prospective future needs of the various sections of the Union's population.
(2) What steps should be taken to remove such weaknesses as may be found to exist at the existing medical schools, and in this connexion whether steps should be taken to fix a quota of students at such schools.
(3) If it is found to be necessary to expand the existing facilities, whether, having regard to the financial and all other relevant considerations, this could most suitably and appropriately be done at existing medical schools or by the establishment of an additional school or schools, and in the latter event what centre or centres would be most suitable for the purpose.

The committee's report was published in May, 1939 (U.G. No. 25, 1939).

§ 2. State and State-aided Education other than Higher Education.

1. **General.**—Under the *South Africa Act*, for a period of five years after the establishment of the Union and thereafter subject to decree of Parliament, control of education other than higher education was granted to the four Provincial Administrations. This arrangement still obtains [except as indicated in § 1 (13) above], and each province has continued to follow its own system and to shape its development according to its own policy. Thus four systems of State or State-aided education exist, which though akin in some respects are entirely dissimilar in others. Further there are numbers of schools independent of State aid or State control, statistics relating to which are given in § 4 of this chapter. The information contained in this section relates entirely to education under State control.

The whole question of "provincial" education has been the subject of investigation by various government commissions. The Provincial Finances Commission, which was appointed in September, 1922, and reported in April, 1923, inquired into the financial aspects of the question, and the Education Administration Commission, appointed in August, 1923, made a survey of the whole field of State and aided education in the Union (other than higher education). In its first report, dated October, 1923, the commission made recommendations defining the limits of compulsory education and assigning the burden of costs in relation to such limits. The final report, published in June, 1924, dealt more particularly with the questions of rural and technical education, and made proposals for the co-ordination of educational effort by the establishment of a central board of education directly under the control of the Government.

A government commission was appointed on the 4th July, 1933, under the chairmanship of Mr. Jacob de Villiers Roos, to examine and report upon the financial relations existing between the Union and the provinces. As the subsidies paid by the Government to the provinces are based upon a rate *per caput* of the average attendance at primary and secondary schools, this question received considerable attention at the hands of the commissioners. The recommendations of the commission are contained in a report (U.G. No. 46, 1934) issued in November, 1934.

As from the 1st April, 1925, all industrial and trades schools, formerly under the administration of the provinces, were taken over by the Union Education Department and classified under higher education.

2. **Educational Administrative System.**—Subject to final control by the Provincial Administration, the central direction of public education in each province is exercised by the provincial Education Department, the permanent

head of which in the Cape of Good Hope is the Superintendent-General, and in Natal, the Transvaal, and the Orange Free State in each case the Director. Each province has an inspection staff adapted to its requirements (see annual reports of the departments).

Further particulars of the educational administrative systems of the various provinces, both central and local, are given in the sixth and previous issues of this *Year Book*.

3. **Financial System.**—The central expenditure on school education is met from grants made by Provincial Councils supplemented from certain other local sources of revenue.

The revenues of the provinces are augmented by annual subsidies paid by the Government. These subsidies are based on the average attendance of European pupils at primary and secondary schools (see Chapter XV).

A feature of the financial provision made in the various provinces for the encouragement of education is the bursary system (see § 3, par. 3 below).

4. **Religious Instruction.**—The practice in each province in all public schools is for school to be opened with prayer and the reading of the Bible. Teaching of Bible history in school, subject to a conscience clause, may be and generally is provided; but no sectarian or doctrinal teaching is allowed, except in the Cape Province under certain conditions laid down in Chapter 23 of Ordinance No. 5 of 1921, which governs the matter.

5. **Secondary School Examinations.**—(i) *General.*—Until 1917 the University of the Cape of Good Hope conducted a Matriculation examination and a Junior Certificate examination. From and after 1918 the control and conduct of the Matriculation examination was vested in the Joint Matriculation Board. In 1922, however, the Transvaal Education Department instituted for the schools under its control a Transvaal Secondary School Certificate examination; in 1924 the Cape Education Department instituted a Cape Senior Certificate examination; and in 1939 the Orange Free State Education Department will conduct its own Senior Certificate Examination. All three of these departmental examinations are recognized by the Board (under certain conditions regarding choice of subjects) as equivalent to the Matriculation examination. Similarly the Junior Certificate examination was transferred to the University of Sout hAfrica, the Education Departments of the Cape, Transvaal, and Orange Free State Provinces, after varying intervals, instituting their own Junior Certificate examinations.

In 1932 a National Senior Certificate examination, which had for some time been conducted by the Union Education Department in connexion with commercial and technical schools, was also recognized by the board as granting exemption from the Matriculation examination. Candidates for the National Senior Certificate examination who were granted exemption from the Matriculation examination numbered 127 in 1937 and 210 in 1938.

(ii) *Cape of Good Hope.*—The Cape Senior Certificate and Junior Certificate examinations are under the control of a departmental examinations committee, which consists of twenty-one members, including nine inspectors, nine representatives of teachers' associations, and two representatives of the Joint Matriculation Board.

The Senior Certificate examination is held at the end of Standard X and the Junior Certificate examination at the end of Standard VIII. Entries for these examinations are accepted from private secondary schools under certain conditions.

Candidates who have passed the Senior Certificate examination are entitled to exemption from matriculation, if they passed in six subjects that satisfy the matriculation options, and if they passed in at least five of the subjects at one and the same examination. In these cases an endorsement signed by the secretary of the Joint Matriculation Board to the effect that the candidate is exempted from the Matriculation examination is added to the certificate. Male candidates who have passed the Senior Certificate examination are eligible for admission to the Public Service examination, if they passed in six subjects, including English and Afrikaans, and passed in at least five of the subjects at one and the same examination.

The following are the results of the examinations held in 1938:—

	No.	%
Cape Senior Certificate.		
Candidates	3,843	—
Passed—		
1st Grade	577	15
2nd Grade	2,516	65
Failed	750	20
Cape Junior Certificate.		
Candidates	8,526	—
Passed—		
1st Grade	1,391	16
2nd Grade	5,700	67
Failed	1,435	17

The admission fee for the Senior Certificate examination is £2. 5s. and for the Junior Certificate examination £1. 10s.

The following is a statement of the revenue derived from fees for the Junior and Senior Certificate examinations during the last five financial years:—

Year.	Junior Certificate.	Senior Certificate.	Total.
	£	£	£
1933–34	6,623	8,750	15,373
1934–35	9,433	7,295	16,728
1935–36	10,152	7,576	17,728
1936–37	11,230	7,628	18,858
1937–38	11,889	8,255	20,144

(iii) *Natal.*—The examinations taken in the secondary schools in this province are the Matriculation and School Leaving Certificate examinations conducted by the Joint Matriculation Board, the Junior Certificate examination of the University of South Africa, and the National and Technical Examinations of the Union Education Department. The results of the two first-named examinations held in December, 1937, and February, 1938, are given in Table (i), § 1 (8), of this chapter.

(iv) *Transvaal.*—The Transvaal Secondary School Certificate examination and the Transvaal Junior Certificate examination are conducted by the provincial Education Department with the assistance of the Transvaal Board of Moderators. The Board consists of fifteen members and includes representatives of the inspectorate, normal colleges, universities, and high and intermediate schools, under the chairmanship of the Director of Education. The papers for the Secondary School Certificate examination are subject to approval by the Joint Matriculation Board.

The underlying principle of the Transvaal examinations is that they shall not be dependent solely on a written examination and the verdict of an external examining authority, but that the school record of a candidate shall form an integral part of the examination. In view of this fact private students are not permitted to sit for these examinations.

The Junior Certificate examination is held at the end of Standard VIII (Form III), and the Secondary School Certificate examination at the end of Standard X (Form V).

The Secondary School Certificate is designed to provide for two types of pupil:—

(*a*) Those who desire it as a record of their school course;
(*b*) those who intend to proceed to a more advanced course of education.

In the case of those under (*a*) the candidate is permitted to select any subject from the curriculum, but in the case of those under (*b*) the candidate must select subjects in accordance with the grouping of subjects as laid down by the Joint Matriculation Board. In the case of the latter, an endorsement signed by the secretary to the Board to the effect that the candidate is exempted from the Matriculation examination for the South African universities is added to the certificate.

The examination fee per candidate for the Secondary School Certificate is £3, with a reduction to £2 in the case of failures re-entering, and for the Junior Certificate the fee is £1.

The following are the results of the examinations held in 1938:—

Transvaal Secondary School Certificate.

	No.	%
Candidates	2,243	—
Passed—		
Class I	229	10·2
Class II	1,264	56·4
Supplementary	247	11·0
Failed	503	22·4

Transvaal Junior Certificate.

Candidates	4,789	—
Passed—		
Class I	612	12·8
Class II	2,528	52·8
Supplementary	690	14·4
Failed	959	20·0

(v) *Orange Free State.*—(*a*) *Junior Certificate Examination.*—The provincial Education Department instituted its own Junior Certificate examination in 1933. Previously this examination was conducted by the University of South Africa. The examination is conducted by an examining board consisting of the Director of Education, two representatives of the Joint Matriculation Board, two representatives of the University College of the Orange Free State, one representative of the Normal College, five inspectors of education, five principals of high schools, and one principal of a junior high school.

The examination is held at the end of Standard VIII; the candidate's school record is taken into account, and an oral test is given in the two official languages.

The admission fee for the Junior Certificate examination is £1. 10s.

The following are the results of the examination held in 1938:—

	No.	%
Candidates	2,032	—
Passed	1,691	83
Failed	341	17

(*b*) *Matriculation Examination.*—This examination is conducted by the Joint Matriculation Board and the results of the examinations held in December, 1937, and February, 1938, are given in Table (1), § 1 (8), of this chapter. In 1939 the Orange Free State Education Department will conduct its own Senior Certificate examination.

6. **Cape of Good Hope.**—(i) *Administrative System.*—The majority of schools for European pupils are controlled by school boards with statutory powers; there are 111 of these. Schools for non-European pupils are mostly controlled by denominational bodies. The general policy of the Cape Education Department aims at the encouragement of local efforts for the extension and improvement of primary and secondary education for all races. The various Acts and Ordinances dealing with education in this province have been co-ordinated in the *Consolidated Education Ordinance*, 1921.

(ii) *Finance.*—Expenditure on teachers' salaries, hire of buildings, purchase of equipment, etc., is defrayed almost entirely from the Provincial Revenue Fund. Education is free, up to the age of 15, in the case of all schools, European and non-European, except in certain high schools and in a few primary schools connected with high schools.

Different scales of fees are in operation at the various secondary and high schools in the Cape Province. When fixing the scale of fees at a school due regard is taken of the locality in which such school is situated and the financial circumstances of the inhabitants.

The following statement shows the minimum and maximum quarterly fees in operation at secondary and high schools throughout the province:—

Description.	Minimum Fees.	Maximum Fees.
	£ s. d.	£ s. d.
Secondary Schools—		
Standard VII.	15 0	1 10 0
„ VIII.	15 0	1 15 0
High Schools (fee-paying from Std. VII)—		
Standard VII.	15 0	1 15 0
„ VIII.	1 0 0	2 0 0
Standards IX and X.	1 2 6	3 3 0
High Schools (fee-paying throughout)—		
Sub. A and B.	10 0	17 6
Standard I.	12 6	1 6 6
„ II.	15 0	1 12 6
„ III.	17 6	2 2 6
„ IV.	1 0 0	2 2 6
„ V.	1 2 6	2 12 6
„ VI.	1 5 0	2 16 6
„ VII.	1 7 6	3 0 0
„ VIII.	1 10 0	3 10 0
Standards IX and X.	2 0 0	4 0 0

The following statement shows the revenue derived from school fees and other sources during the last five financial years:—

EDUCATION RECEIPTS, CAPE OF GOOD HOPE, 1933-34 TO 1937-38.

Heading.	1933–34.	1934–35.	1935–36.	1936–37.	1937–38.
	£	£	£	£	£
School Fees	139,401	141,700	143,010	144,957	148,696
Boarding Fees	73,384	78,166	79,995	85,798	90,503
Saleable Requisites	34,674	41,002	43,866	43,847	42,552
Examination Fees	16,612	18,020	18,882	20,116	21,779
Rents	14,528	14,269	13,379	13,558	13,218
Other	2,702	2,669	3,335	3,290	4,316
TOTAL £	281,301	295,826	302,467	311,566	321,064

(iii) *Classification and Curriculum of Schools.*—European schools are classified as training colleges, high schools, secondary schools, primary schools, farm schools, and special schools.

In December, 1938, there were 9 training colleges; 149 high schools and 84 secondary schools providing differentiated courses in secondary education; and 1,704 primary schools, in which instruction is given on the lines of the complete primary course, consisting of two sub-standards and six standards. Farm schools, of which there were 116, provide instruction on the lines of the primary course at centres where it is not possible to secure a regular attendance of at least ten pupils, which is the minimum requirement for primary schools.

The native section included 3 high schools, 14 secondary schools, 3 part-time schools, 19 industrial schools, 14 training schools, and 1,814 denominational primary schools. The coloured section included 4 high schools, 5 secondary schools, 34 public primary schools, 7 farm schools, 19 part-time schools, 2 special schools, 8 training schools, and 832 denominational primary schools. The vast majority of native and coloured schools are managed by the various religious denominations, and are aided by the Government.

(iv) *Attendance.*—Education for European children aged 7 to 16 years inclusive is compulsory throughout the province, unless the child is engaged in a regular occupation and has already passed Standard VI. Provision is made for the transport or boarding of children when necessary.

(v) *Qualifications and Grading of Teachers.*—The chief classes of certificates issued to student-teachers after training and examination are:—

(*a*) European Primary Teachers' Certificate after a two-year course of training, the admission standard being a pass in the Senior Certificate examination or an equivalent examination.

(*b*) European Primary Teachers' Higher Certificate after a one-year course of training in one of the following subjects:—(1) Infant school work, (2) manual training, (3) physical culture, (4) cookery and housewifery, (5) needlework and laundrywork, (6) needlework, (7) music.

These one-year courses are open to students who have qualified for the Primary Teachers' Certificate.

(*c*) Coloured Teachers' Primary Lower Certificate.
(*d*) Coloured Teachers' Primary Higher Certificate.
(*e*) Native Teachers' Primary Lower Certificate.
(*f*) Native Teachers' Primary Higher Certificate.

The course of training for the Native Teachers' Primary Lower Certificate extends over a period of three years, the standard of admission being a pass in Standard VI. The course of training for the Native Teachers' Primary Higher Certificate extends over a period of two years, the standard of admission being a pass in the Junior Certificate examination.

Previously the course of training for the Coloured Teachers' Primary Lower Certificate was a three-year course, the standard of admission being a pass in Standard VI; and the course of training for the Coloured Teachers' Primary Higher Certificate was a two-year course, the standard of admission being the Junior Certificate. Since January, 1936, the course of training for the Coloured Teachers' Primary Lower Certificate has been a two-year course, the standard of admission being a pass in the Junior Certificate Examination. One-year Primary Higher courses of training in special subjects, open to students who have passed the Coloured Teachers' Primary Lower Certificate Examination, were instituted at Coloured Training Schools in 1938.

Teachers in native mission schools are eligible for a good service allowance after five years' reasonably meritorious and continuous teaching service.

(vi) *Salaries of Teachers.*—Particulars of the scales of salaries obtaining with regard to various classes and grades of teachers in European schools are given in the statement below. The minimum and maximum salaries are given in respect of certain classifications containing various grades, but are not given in detail for each intermediate grade.

SCALES OF SALARIES FOR TEACHERS. (Ord. No. 5 of 1921.)

Class of School and Grading of Post.	Number of Grades.	Male.		Female.	
		Minimum.	Maximum.	Minimum.	Maximum.
Principals.		£	£	£	£
Training Colleges	1	750	900	500	600
High Schools	3	600	900	400	600
Secondary Schools	2	450	675	310	450
Primary Schools	6	135*	675	120*	450
Farm Schools	1	80†	110	80†	110
Assistant Teachers.					
Training College Assistant Teachers	1	525	675	350	450
Chief Secondary Assistant Teachers (in High Schools)	4	300	600	235	400
Secondary School Assistant Teachers	6	150	540	135	360
Chief Primary Assistant Teachers (in High Schools)	1	270	450	210	300
Primary School Assistant Teachers	6	135	405	120	270

* Assistant teacher's salary is paid to the principal of a Group E school.
† Plus free board and residence.

(vii) *Training of Teachers.*—European students desiring to be admitted to the two-year course of training for the Primary Teachers' Certificate apply during the third quarter of the preceding year to the principal of the high school at which they are completing their high school course, and from the list of applicants the Department selects those to be admitted. The average fee charged to students for training as teachers is £1. 10s. per quarter.

Coloured students desiring to be admitted to the two-year course of training for the Coloured Primary Teachers' Lower Certificate apply during the third quarter of the preceding year to the principal of the secondary school at which they are taking the Junior Certificate examination, and from the list of applicants the Department selects those to be admitted. The average fee charged to students for training as teachers is £1. 5s. per quarter.

Native students desiring to be admitted to a course of training apply to the principal of the native training school which they wish to attend.

(viii) *Training Colleges.*—Apart from the universities, there are nine European training colleges in which there were in December, 1938, 1,224 students under training as primary and specialist teachers.

The following is a list of training colleges and training schools for teachers in the province.

European.

Capetown Training College.
Graaff-Reinet Training College.
Grahamstown Training College.
Kingwilliamstown Training College.
Oudtshoorn Training College.
Paarl Training College.
Stellenbosch Training College.
Steynsburg Training College.
Wellington Training College.

Non-European.

In the native training schools 2,121 students were under training as teachers in December, 1938, and in the coloured training schools, 671.

Native.

Blythswood.†
Clarkebury.*
Emfundisweni.*
Emgwali.†
Engcobo, All Saints'.‡
Healdtown.*
Kimberley, Gore-Browne Chwana.‡
Lovedale.†
Mariazell.‖
Mvenyane.§
St. Matthew's.‡
Shawbury, Girls'.*
Tiger Kloof (London Missionary Society).
Umtata.‡

Coloured.

Capetown, Zonnebloem.‡
Kimberley, Perseverance.‡
Parow, St. Augustine's.‖
Paarl, Athlone.‡‡
Salt River.*
Uitenhage.¶
Worcester.††
Wynberg, Battswood.**

* Methodist. † Church of Scotland. ‡ English Church. § Moravian.
‖ Roman Catholic. ¶ Congregational. **Dutch Reformed Church. †† Rhenish.
‡‡ Interdenominational.

(ix) *Special and Part-time Schools.*—The South African Training Ship "General Botha" is a special school. There are also special schools in connexion with the Lady Michaelis Home, Plumstead, and the Princess Alice Home of Recovery, Retreat. Under the Durban Agreement the special, technical, art, and industrial schools, previously under the control of the Cape Education Department, were transferred to the control of the Government as from the 1st April, 1925. European and coloured part-time schools were also transferred to the control of the Government as from 1st January, 1928, but the Provincial Administration again assumed control of coloured part-time schools as from the 1st January, 1932.

7. **Natal.**—(i) *Administrative System.*—Numerous laws and ordinances govern the administration of education in Natal, commencing with Laws Nos. 15 and 16 of 1877, which provided for primary and higher education respectively. The Education Department has power to establish and maintain primary and secondary schools, and also to make grants-in-aid to private primary and secondary schools, which agree to maintain the same standard of education as in the government schools and which are inspected by the Department. The Department may establish schools for native, Indian, and coloured children, and, on request, it may undertake the inspection of private schools which are not grant-aided. There is no system of local administration, but provision is made by law for the establishment of school advisory committees where such are desired, and in some places parent-teacher associations have been formed voluntarily.

(ii) *Finance.*—The entire cost of education is paid out of the central fund, receipts from school fees being paid in to the credit of that fund. Local contributions are not required by the Administration. Except in the case of government native schools, where the fees are from 2s. 6d. to £2 per annum, primary education is entirely free in government schools, and books are supplied free in government and government-aided primary schools. In government secondary schools the fees charged per pupil per annum range from £6. 4s. to £10 according to standard, with a reduction for two or more children in the same family.

The following table shows the revenue derived from school fees and other sources for a series of years:—

EDUCATION REVENUE, NATAL, 1933 TO 1937.

Description.	1933.	1934.	1935.	1936.	1937.
	£	£	£	£	£
School Fees—					
Training College	4,086	2,341	2,615	2,901	2,849
Secondary Schools	15,186	14,336	13,374	13,561	13,436
Preparatory Schools	4,546	4,558	4,885	5,089	5,503
Intermediate and Primary Schools	5,931	5,768	6,248	6,941	8,089
Coloured Schools	40	64	48	61	110
Indian Schools	3,141	3,258	3,312	3,537	3,762
Native Schools	1,376	1,477	1,652	1,985	2,005
Boarding Fees—					
Training College	2,616	1,319	1,655	1,831	1,632
Secondary Schools	12,600	13,755	15,861	14,702	14,104
Preparatory Schools	2,200	2,515	3,289	3,031	4,102
Intermediate and Primary Schools	10,605	10,865	11,390	11,891	14,946
Coloured Schools	169	149	133	92	56
Miscellaneous	3,902	5,017	4,913	3,936	1,374
TOTAL £	66,488	65,422	69,375	70,458	72,619

(iii) *Classification and Curriculum of Schools.*—The government schools are divided into primary, intermediate, and secondary schools and, under certain conditions, secondary or intermediate schools may be designated "High Schools." The primary school comprises two infant classes and six standards, the secondary school Standards VII to X (Matriculation), and the intermediate school covers both the primary and the secondary course. As a general rule, no free pupils are admitted to the high schools except those who gain "free places" under the bursary system. Provision exists, however, whereby necessitous children, who have passed Standard VI before reaching the age of 16, may continue to receive free education up to the end of the year in which they become 16. No native, Indian, or coloured children are allowed in schools other than those specially provided for them. Farm schools may hardly be said to be schools in the ordinary sense, but merely groups of children under a tutor or governess. European, coloured, and Indian schools follow the same curricula; a separate curriculum has been devised for native schools. Provision is made in European schools for instruction in the English or the Afrikaans medium.

(iv) *Attendance.*—Education for European children aged seven to fifteen years inclusive (or the completion of Standard VI) is compulsory within a three-mile limit of a school, but pupils may enter voluntarily at 5½ years of age. Fees are charged only in respect of pupils who have passed Standard VI, and in secondary schools which have a Standard VI fees are charged for that standard. There are two preparatory schools for boys where fees are payable, although the work covers only the primary syllabus.

(v) *Qualifications and Grading of Teachers.*—The government training college at Pietermaritzburg supplies on an average about 90 certificated teachers each year, 70 per cent. of whom are women.

Students are trained for Third Class Certificates (two years) and University Education Diplomas: (i) General; (ii) Special; (iii) Technical (all with a degree); and, for a limited time, a non-graduate diploma. From 1936, a new certificate, the "Rural Teacher's Diploma", has been issued and from 1938, the "Natal Teacher's Diploma (Domestic Science)". Training for the Third Class Certificate and the diplomas is effected by co-operation between the Natal University and the training colleges, for the Rural Diploma between the Natal Training College and the Cedara Agricultural College, and for the Domestic Science Diploma at the Natal Training College.

Mainly for the benefit of coloured and Indian students, but open to all races, there have been instituted since 1932 a Third Class (B) Certificate, a Fourth Class Certificate, and a Fifth Class Certificate. The first and third of these can be obtained only by taking a course of training, but the Fourth Class Certificate must be taken as an external course for some time to come; this concession has been allowed mainly for the sake of teachers with experience who prior to entering on their teaching career had no opportunity for training.

Native students may enter training for a Third Class or a Fourth Class Native Teacher's Certificate. These classes are equivalent in standard to the first two classes mentioned in the previous paragraph.

The Second Class Certificate course is an extra-mural course for persons who are actually teaching in Natal. The qualification for admission to the examination is the possession of a Third Class Certificate and Matriculation, plus 5 years' teaching experience, or a degree plus 8 years' teaching experience. The professional part of the examination is conducted by the Natal Education Department.

(vi) *Salaries of Teachers.*—Particulars are given in the statement below as to the scales of salaries obtaining with regard to various classes and grades of teachers in European schools. The minimum and maximum salaries are given in respect of certain classifications containing various grades, but are not given in detail for each intermediate grade.

SCALES OF SALARIES FOR TEACHERS.

Class of Post.	Grade.	Male.		Female.	
		Minimum.	Maximum.	Minimum.	Maximum.
		£	£	£	£
Principals.					
Secondary	1	700	900	500	625
"	2	625	800	480	580
Intermediate	1	580	740	435	555
"	2	520	700	375	495
"	3	460	660	330	465
Primary	1	520	700	375	495
"	2	460	640	315	450
"	3	420	580	270	405
"	4	380	520	240	360
"	5	300	460	210	315
"	F	285	600	260	450
Assistants	E	255	560	220	375
"	D	225	500	200	330
"	C	195	420	165	300
"	B	195	360	165	270
"	A	180	360	150	270

(vii) *Training of Teachers.*—The conditions under which a European teacher is accepted for training are, briefly, that he must have matriculated, be physically fit, and be able to receive the nomination of the head teacher of his school, with specific reference to character, conduct, and temperamental fitness for teaching. The fees for the Third Class Certificate Course are £50 per annum including board and residence at a training college hostel, or £24 exclusive of board and residence.

For the diploma course, the fees per annum payable to the training college are: First year, nil; second year, £3; Third Year Non-Graduate Diploma, £2. 10s.; Third Year Graduate Diploma, nil; Fourth Year Graduate Diploma, £5; all exclusive of board, lodging, and books. Cost of board and residence at the Natal Training College Hostel is £40 per annum, and at the University College Hostel, £60 per annum. In addition, diploma students have to pay to the university the usual fees charged by that institution.

The Provincial Administration may advance loans to a limited number of students up to the full cost of training. The loans are repayable whether the student completes the course or not, and whether he receives an appointment as a teacher or not, but if he receives an appointment he may repay the loan in instalments over a period of five years. He is bound to serve the Department for the same number of years as he received assistance, and failure to do so carries a penalty of £25 for each year of service not performed.

Candidates for the Rural and the Domestic Science Diploma Courses must possess the Third Class Teacher's Certificate, and to encourage a supply of such teachers the Department grants both bursaries and loans, the latter only being repayable.

At the moment the Department does not train teachers for Agricultural Science, but it secures a supply of teachers in this subject by subsidizing their training at approved institutions by means of loans and bursaries.

The Department trains at its own institutions Indians and Coloured persons for the T.3 B and T. 5, the entrance qualification for the former being the Junior Certificate and for the latter Std. VI. The fee is from 7s. 6d. to 15s. per mensem. The entrance qualification for the T. 4 is the T. 5, or a pass in the Mother Tongue, Arithmetic, and two other subjects in the Junior Certificate, plus a year's teaching experience. Candidates are trained externally for this examination at part-time classes, for which no fee is charged.

The training of native teachers is undertaken entirely by Christian missions, but the examinations are conducted by the Department. The entrance qualifications are: for T. 4, Standard VII, and for T. 3 B, the T. 4, plus teaching experience or the Junior Certificate. The fee for any course is £12 per annum including board and lodging, and the Department grants bursaries for these courses.

(viii) *Training Colleges.*—There is one government training college for Europeans, situated at Pietermaritzburg, which, in conjunction with the Natal University College, provides a two years' course to the Third Class Certificate of the province, after admission through the Matriculation or equivalent examination, and courses for the various education diplomas instituted by the University of South Africa. The college contains, in its own grounds, classrooms, laboratories, an art school, music rooms, a domestic science building, and a women's hostel.

There are also five training colleges for natives, one training college and four training classes for Indians, and one training centre for coloured teachers.

The following is a list of training colleges and training schools for teachers in the province:—

European.	*Coloured.*
Natal Training College.	Umbilo Road, Durban.
Indian.	*Native.*
Durban Training Class.*	Adams.
North Coast Training Class.*	Mariannhill.
Pietermaritzburg Training Class.*	Nutall Institute.
Sastri College.	St. Chads.
Stanger Training Class.*	Umpumulo.

* Part-time.

(ix) *Special and Part-time Schools.*—The special schools, viz. the Technical College at Pietermaritzburg and the Natal Technical College at Durban, in common with all similar institutions in the country, are controlled by the Union Education Department.

The Glenwood High School, Durban, formerly the Durban Technical High School, is under the control of the provincial Education Department. In it are provided Junior Certificate and Matriculation courses with a technical or commercial bias. Technical or commercial courses of two, three, or four years' duration are provided at the Vryheid Secondary School, two intermediate schools in Durban, two in Pietermaritzburg, and one at Malvern. Several other intermediate schools are providing commercial subjects for Junior Certificate and Matriculation candidates, and the demand for commercial work is further met at two or three government-aided secondary schools. A special course in agricultural science, with suitable outdoor and laboratory work, is followed at the Vryheid High School, the Estcourt High School, the Eshowe Intermediate School, and the Wartburg and Weenen Government Schools. Its introduction in other rural schools will follow as opportunity occurs.

In 1938 the Weston Farm Training School was transferred from the control of the Union Education Department to that of the Provincial Education Department. Boys who have passed Standard VI are admitted for a two-year course of training in general farming and at the same time cover a Standard VII school course.

Developments in rural and specific agricultural education were introduced in 1936 as the result of the findings of recent Union and provincial commissions. The training of teachers specially qualified to give a rural bias to the education of the country child was commenced. In some 90 schools the elementary principles of agriculture and gardening are taught, and generally the aim in the rural primary school is to equip the child for rural life, without actually attempting definite vocational training.

(x) *Natal Provincial Education Commission.*—On 5th March, 1936, the Administrator appointed a commission to inquire into and report upon:—

(*a*) The system of education, other than higher education, at present existing in the Province of Natal;
(*b*) the financial implications of any alterations proposed;
(*c*) the question of future control and administration of native education in the province;
(*d*) any other matters incidental to such inquiry.

The report of the commission was submitted in January, 1938.

8. **Transvaal.**—(i) *Administrative System.*—Education is administered under the *Education Act*, No. 25 of 1907 (Transvaal), as amended. Provision is made for the establishment and maintenance of schools for European, coloured, and native children. Grants-in-aid are made to private schools, which do not form part of the ordinary school system. The province is divided into 32 school districts, for each of which there is an advisory body called a School Board, consising partly of elected and partly of nominated members.

(ii) *Finance.*—Both primary and secondary school education are free, the cost being met from provincial revenue. Books are supplied free to all pupils up to Standard VIII (Form III).

(iii) *Classification and Curriculum of Schools.*—Primary schools generally include instruction from the grades up to and including Standard VI. In a few instances Standard VI is attached to a high school and is designated "Form I." To a number of primary schools there are secondary departments attached making provision for instruction up to and including Standard VIII (Form III). There are 40 high schools in the province: six of these are for boys only and six for girls. Secondary departments making provision for instruction up to and including Form V are attached to 8 primary schools. On the 1st June, 1937, there were 14,560 pupils in high schools, and 6,348 pupils were receiving secondary education in the secondary departments of primary schools. At many high and primary schools provision is made for instruction in manual training and domestic science.

(iv) *Attendance.*—Education in respect of European children aged seven to sixteen years inclusive (fifteen years on the Witwatersrand), or the completion of Form III (Standard VIII) is compulsory.

(v) *Qualifications and Grading of Teachers.*—Teachers in schools directly maintained by the Government enter into a definite contract with the Government. Assistants in primary schools are paid according to their qualifications, those in high schools according to the posts occupied. Special scales are laid down for principals.

The Teachers' Diploma and the Teachers' Lower Diploma are issued by the Transvaal Education Department, which prescribes the conditions under which they may be issued. Courses for these diplomas are provided at the Normal Colleges. The Higher Education Diploma is issued by the Union Department of Education, which prescribes the conditions under which it may be issued. The university college provides courses, usually directed by a professor of education, for this certificate.

(vi) *Salaries of Teachers.*—Particulars are given in the statement below as to the scales of salaries obtaining with regard to various classes and grades of teachers in European schools as from the 1st January, 1926. The minimum and maximum salaries are given in respect of certain classifications containing various grades, but are not given in detail for each intermediate grade.

SCALES OF SALARIES FOR TEACHERS.

Class of Post.	Class.	Male.		Female.	
		Minimum.	Maximum.	Minimum.	Maximum.
		£	£	£	£
Normal Colleges and High Schools.					
Principals	A	725	925	560	720
"	B	625	850	480	660
Assistants	B	360	580‡	285	435§
"	C	According to qualifications as for School assistants.			Primary
Primary Schools.					
Principals	I (special)	560	750	425	585
"	I	530	720	395	555
"	II	490	670	365	515
"	III	450	630	335	485
Vice-Principals of Class I (Special) Schools, Principals of Class IV Schools, and Assistants:—					
T. 3 Certificate—					
With Training	—	230	420	190	315
Without Training	—	200	420	170	315
T. 2 Certificate—					
With Training	—	270	500†	220	390*
Without Training	—	240	500†	200	390*
Manual Training and Cookery Teachers.	—	Same as for Primary Schools above.			
Other Special Posts.					
Lower Grade—					
With Training	—	230	420	190	315
Without Training	—	200	420	170	315
Higher Grade—					
With Training	—	270	500†	220	390*
Without Training	—	240	500†	200	390*

* Then after five years £420.
† Then after five years £540.
‡ Then after five years £600.
§ Then after five years £450.

(vii) *Training of Teachers.*—Candidates for admission to a course of training must—

(*a*) be in possession of the Transvaal Secondary School Certificate or a certificate considered equivalent thereto, showing that the candidate has passed at the examination concerned in both official languages;
(*b*) satisfy an examination by the Medical Inspector of Schools or a Medical Board constituted or approved by the Director of Education;
(*c*) be recommended for admission by persons appointed or approved for that purpose by the Director of Education;
(*d*) enter into an agreement with the Department in which they undertake on completion of the course to serve the Department for a certain period.

Tuition for the professional part of the course is free. Boarding fees, university fees, college fees, etc., amount to approximately £80 per annum.

(viii) *Training Colleges.*—The following is a list of training colleges and training schools for teachers in the province:—

Normal College, Pretoria.
Normal College, Johannesburg.
Normal College, Heidelberg.
Normal College, Potchefstroom.

(ix) *Transvaal Provincial Education Commission.*—On 3rd March, 1937, the Administrator appointed a commission to inquire into the educational system of this province with a view to making such recommendations as may increase its efficiency, bring it into line with the most modern developments in educational practice, and enable it to meet satisfactorily the requirements of all sections of the population. The Commission's report has not yet been issued.

9. **Orange Free State.**—(i) *Administrative System.*—Education is administered under the *Education Laws Consolidation Ordinance*, No. 15 of 1930. The Education Department has powers to establish and maintain various types of public schools and allied institutions, and also to make grants-in-aid to the latter, as well as to private schools which comply with certain conditions. The province is divided into twenty-five school districts, for each of which there is a school board, consisting of elected members, with certain powers of supervision.

(ii) *Finance.*—The total expenditure on education is met from provincial revenue. No local contributions towards expenditure are required. Education up to and including the Matriculation standard was made free in 1920; but certain schools approved by the Provincial Administration are allowed to charge tuition fees, the amount of such fees being placed at the disposal of the respective school committees for expenditure for the benefit of the school, subject to the Administrator's approval.

(iii) *Classification and Curriculum of Schools.*—Primary schools provide for the whole primary school course from the sub-standards to Standard VI inclusive. Junior high schools provide for instruction up to Standard VIII or Junior Certificate, while high schools provide for all continuation work up to Matriculation, School Leaving Certificate, and equivalent examinations. Thus two types of school may be combined in one institution. The public school is regarded as complete when it covers the whole ground from the infant school to university Matriculation.

(iv) *Attendance.*—Education in respect of European children aged six to sixteen years inclusive is compulsory, unless the child is receiving adequate instruction elsewhere, has passed Standard VI, or is fourteen years of age and is lawfully apprenticed to a recognized trade. If a pupil resides more than three miles from school and if the parent is unable to provide transport, the Education Department gives assistance, either for transport or for board.

(v) *Qualifications and Grading of Teachers.*—The minimum requirement for appointment as a teacher in public schools is the possession of the Lower Primary Teachers' Certificate of the Orange Free State or its equivalent. The examination and the grading of teachers in the service of the Department are conducted by a Teachers' Registration Board, of which body the Director of Education is *ex officio* chairman. Professional Teachers' Certificates are of several classes—Lower Primary Teachers' Certificate, Higher Primary Teachers' Certificate, Advanced Primary Teachers' Certificate, Professional Technical Teachers' Certificates, and Secondary Teachers' Certificates, Grades I and II. The minimum requirements for the admission of candidates to these examinations are as follows:—Lower Primary Teachers' Certificate: Matriculation or equivalent certificate and two years' training at the Normal College; Higher Primary Teachers' Certificate: First year B.A. course in certain specified subjects or one year at a recognized School of Agriculture and two years' training at the Normal College; Infant Teachers' Certificate: Lower Primary or Higher Primary Teachers' Certificate and one year's training in Infant School work at the Normal College; Advanced Primary Teachers' Certificate: Higher Primary Teachers' Certificate or equivalent, second year degree course and five years' experience (if the degree course was taken as an internal student, the experience required is reduced to two years).

The Secondary Teachers' Certificate is issued without further examination as follows:—

Grade I.—To teachers in possession of (*a*) the B.A. degree or equivalent academic qualifications plus the M.Ed. of the University of South Africa or equivalent professional qualifications, or (*b*) the M.A. degree of a recognized university, or equivalent academic qualifications plus any recognized professional teachers' certificate of the Orange Free State Province or equivalent professional qualifications.

Grade II.—To teachers in possession of the B.A. degree of a recognized university or equivalent academic qualifications, plus any recognized professional teachers' certificate of the Orange Free State Province or equivalent professional qualifications.

The Professional Technical Teachers' Certificates are issued without further examination to acting teachers with the following qualifications:—

(*a*) *Domestic Science.*—The Matriculation certificate or equivalent academic qualifications, plus any recognized professional technical teachers' certificate in domestic science approved by the Board.

(*b*) *Physical Culture.*—The Matriculation certificate or equivalent academic qualifications, plus any recognized professional technical teachers' certificate in physical culture approved by the Board.

(c) *Art.*—The Matriculation certificate or equivalent academic qualifications, plus any recognized professional technical teachers' certificate in art approved by the Board.

(d) *Music.*—The Matriculation certificate or equivalent academic qualifications, plus any recognized professional technical teachers' certificate in music approved by the Board.

(vi) *Salaries of Teachers.*—Particulars are given in the statement below as to the scales of salaries obtaining with regard to various classes and grades of teachers in European schools. The minimum and maximum salaries are given in respect of certain classifications containing various grades, but are not given in detail for each intermediate grade.

SCALES OF SALARIES FOR TEACHERS.

Class of Post.	Grade.	Male.		Female.	
		Minimum.	Maximum.	Minimum.	Maximum.
		£	£	£	£
A. *Professionally Qualified Teachers.*					
Principals.—					
High Schools	I (a)	625	825	470	620
" "	I	600	800	450	600
" "	II	525	675	395	510
Other Secondary Schools	III	450	600	325	450
Primary Schools	—	400	550	285	410
" "	I (a)	525	675	395	510
" "	I	475	625	345	470
	II	375	525	270	395
Assistants—					
Primary Schools	A	170	395	160	300
" "	B	195	420	180	320
" "	C	220	445	200	340
Secondary Schools	D	235	460	210	350
" "	E	300	525	260	400
	F	325	550	270	410
B. *Teachers not Professionally Qualified.*	—	96	220	96	200
C. *Normal Colleges*—					
Rectors and Vice-Rectors	—	600	875	—	—
Lecturers and Instructors	—	375	625	275	470

(vii) *Training of Teachers.*—Candidates for admission to the Lower Primary Teachers' Examination must produce evidence to the satisfaction of the Board—

(a) that they are in possession of the Matriculation Certificate or a recognized Secondary School Leaving Certificate, or hold equivalent qualifications;

(b) that they have attended a course of at least two years' duration at an approved institution.

Candidates for admission to the Higher Primary Teachers' Examination must produce evidence to the satisfaction of the Board—

(a) that they have followed a first-year course at a recognized university or university college and presented themselves for examination in the following four subjects, and that they have passed the prescribed university or college tests in at least three of these subjects at one and the same examination: (i) First official language; (ii) second official language; (iii) Biological Science (preferably Biology if approved for degree purposes); (iv) History or Geography or Mathematics or Physics or Chemistry or Geology;

(b) that they have attended a course of at least two years' duration at an approved institution.

Candidates for admission to the examination for the Infant Teachers' Certificate must produce evidence to the satisfaction of the Board—

(a) that they are in possession of the Matriculation Certificate or a recognized Secondary School Leaving Certificate;

(b) that they hold the Lower or Higher Primary Teachers' Certificate;

(c) that they have attended a course of at least twelve months' duration at an approved institution.

In accordance with the provisions of section 3 (*f*) (iii) of Ordinance No. 15 of 1930, the Administrator may, if funds permit, grant Normal College advances to teachers or to persons who hold the Matriculation Certificate or a recognized Secondary School Certificate or equivalent qualifications, and who wish to qualify themselves as teachers. The financial position of the applicant is taken into account in fixing the amount of the advance awarded, but the maximum advance is £60 per annum for study at the Grey University College, or £50 at the Normal College or other approved institution.

(viii) *Training Colleges.*—European teachers are trained at the Normal College, Bloemfontein.

(ix) *Special and Part-time Schools.*—There are several trades and industrial schools, including schools of agriculture and housewifery, and continuation classes are also conducted in Bloemfontein. These schools and classes were taken over by the Union Education Department from 1st April, 1925, and are no longer under provincial control.

§ 3. Statistics of State and State-aided Education other than Higher Education.

1. **General.**—The following tables give in respect of the Union, and of each province separately, summarized figures indicating the development of primary and secondary education and education other than higher education from the earliest date available in each case to 1937. So far as the enrolment figures are concerned, it should be noted that from 1936 onwards these result from a census taken during the first week of June in each year. Figures for previous years relate to the first week in November. The figures should not, therefore, be taken as representing the average enrolment for the last quarter or for the year.

The figures given for expenditure relate only to expenditure from government funds and do not represent the total cost of education, part of which in the Cape, Natal, and Orange Free State Provinces, and for a certain period to a limited extent in the Transvaal Province, has been defrayed from local sources. The figures showing expenditure per scholar are based upon the total of all scholars, European and non-European. Seeing that the cost of European and non-European education differs very considerably and that the proportion of European to non-European children varies in the case of each province, comparison between the provinces cannot be made with any degree of accuracy.

STATISTICS OF STATE AND STATE-AIDED EDUCATION OTHER THAN HIGHER EDUCATION.

Year.	Number of Schools.			Number of Scholars.			Number of Teachers. †	Total Normal State Expenditure.‡
	For European Scholars.	For Non-European Scholars.	Total.	European.	Non-European.	Total.		
	(i) UNION, 1895 to 1937.							
								£
1895	2,276	1,042	3,318	66,496	72,057	138,553	4,810	331,550
1900	1,705	1,358	3,063	68,982	99,881	168,863	4,594	329,471
1910	3,873	1,999	5,872	163,257	136,000	299,257	10,909	1,597,062
1920	4,746*	3,129	7,875	303,255	238,137	541,392	19,759	5,940,037
1930	4,906	4,038	8,944	353,942	382,707	736,649	25,805	7,824,219
1933	4,858	4,080	8,938	361,665	429,314	790,979	26,171	7,623,959
1934	4,782	4,131	8,913	364,641	446,674	811,315	27,068	8,114,926
1935	4,672	4,419	9,091	371,952	482,316	854,268	28,224	8,622,558
1936	4,609	4,540	9,149	375,157	500,130	875,287	28,996	8,956,345
1937	4,471	4,850	9,321	381,550	546,225	927,775	30,250	9,354,422

* Private farm schools in Natal excluded.

† Until 1927 shows teachers in primary and beyond primary schools only; since 1928 teachers in all schools.

‡ Excluding capital expenditure and loan charges.

STATISTICS OF STATE AND STATE-AIDED EDUCATION OTHER THAN HIGHER EDUCATION—(*continued*).

Year.	Number of Schools.			Number of Scholars.			Percentage of Attendance (European only).	Number of Teachers.*			Total State Expenditure.	Expenditure per scholar (All Scholars)
	For European Scholars.	For Non-European Scholars.	Total.	European.	Non-European.	Total.		Certificated.	Uncertificated.	Total.		
(ii) CAPE OF GOOD HOPE, 1860 to 1937.												
1860	—	—	225	—	—	18,757	—	—	—	—	£ 14,000†	£ s. d. 0 14 11
1870	—	—	438	—	—	40,412	—	—	—	—	23,045	0 11 5
1880	—	—	943	—	—	72,281	—	—	—	—	79,618	1 2 0
1890	—	—	1,609	—	—	104,293	—	—	—	—	129,351	1 4 10
1895	1,359	881	2,240	45,606	62,348	107,954	81·5	1,381	2,753	4,134	181,371	1 13 7
1900	1,463	1,142	2,605	58,471	85,869	144,340	83·4	2,170	2,424	4,594	272,207	1 17 9
1910	2,353	1,585	3,938	81,775	103,936	185,711	88·8	4,538	2,722	7,260	410,199	2 7 5
1920	2,621	2,019	4,640	128,061	154,422	282,483	90·8	7,649	2,355	10,004	2,011,667	7 2 5
1930	2,391	2,366	4,757	143,997	211,197	355,194	93·0	11,241	724	11,965	3,246,728	9 2 10
1933	2,362	2,426	4,788	151,244	239,933	391,177	93·7	11,735	472	12,207	3,322,495	8 9 11
1934	2,331	2,472	4,803	152,000	249,512	401,512	93·0	12,107	436	12,543	3,594,323	8 19 0
1935	2,290	2,557	4,847	154,028	268,132	422,160	92·1	12,524	688	13,212	3,830,921	9 1 6
1936	2,254	2,571	4,825	154,135	279,497	433,632	93·1	12,917	430	13,347	3,910,683	9 0 4
1937	2,177	2,704	4,881	156,010	297,342	453,352	91·4	13,209	428	13,637	4,058,883	8 19 1
(iii) NATAL, 1885 to 1937.												
1885	51	89	140	3,922	5,263	9,185	—	—	—	—	£ 18,723	£ s. d. 2 0 9
1890	90	88	178	5,793	5,448	11,241	—	—	—	—	18,777 (to June 30 only)	1 13 5
1895	287	161	448	7,603	9,709	17,317	—	—	—	—	40,681	2 7 0
1900	242	216	458	10,511	14,012	24,523	—	—	—	—	57,264	2 6 8
‡1909–10	342	236	578	13,999	17,973	31,972	84·0	355	24	379	103,748	3 4 11
1920	186§	541	727	23,140	34,217	57,357	90·0	1,273	832	2,105	566,319	9 17 1
1930	461	800	1,261	28,438	66,113	94,551	93·5	2,689	1,076	3,765	755,707	7 19 10
1933	532	778	1,310	28,177	73,195	101,372	94·2	2,913	934	3,847	744,370	7 6 10
1934	524	785	1,309	28,923	76,292	105,215	92·6	3,070	897	3,967	805,177	7 13 5
1935	493	829	1,322	29,105	86,149	115,254	92·1	3,254	964	4,218	867,909	7 10 7
1936	510	842	1,352	29,016	92,255	121,271	92·8	3,395	954	4,349	888,242	7 6 6
1937	537	900	1,437	29,411	103,731	133,142	93·2	3,685	1,033	4,718	970,065	7 5 9
(iv) TRANSVAAL, 1876 to 1937.												
1876	13	—	13	150	—	150	—	—	—	—	£ 1,275	£ s. d. 8 10 0
1890	296	—	296	6,990	—	6,990	—	—	—	—	35,547	5 1 8
1895	422	—	422	7,679	—	7,679	89·0	180	276	456	63,779	8 6 1
1905	394	178	572	28,530	9,926	38,456	84·1	615	482	1,323¶	156,394	4 1 4
1910	727	178	905	48,352	14,091	62,443	86·0	1,358	710	2,450¶	887,547	14 4 3
1920	1,071	437	1,508	108,735	33,065	141,800	90·1	3,628	1,862	5,490	2,561,348	18 1 3
1930	1,243	640	1,883	136,197	79,366	215,563	93·2	6,377	963	7,340	2,886,457	13 7 10
1933	1,204	637	1,841	137,486	86,470	223,956	94·4	6,607	692	7,299	2,688,663	12 0 1
1934	1,187	639	1,826	139,677	92,824	232,501	93·9	6,991	761	7,752	2,829,070	12 3 4
1935	1,168	738	1,906	144,980	100,004	244,984	93·0	7,230	637	7,867	3,001,327	12 5 0
1936	1,146	788	1,934	148,016	96,913	244,929	93·8	7,683	610	8,293	3,180,844	12 19 9
1937	1,083	881	1,964	152,347	107,584	259,931	93·0	7,589	1,224	8,813	3,334,238	12 16 7

* Until 1927 shows teachers in primary and beyond primary schools only; since 1928 teachers in all schools.
† Approximate.
‡ July to June.
§ Excluding farm schools.
‖ In State schools only and including pupil and visiting teachers.
¶ Including native teachers.

STATISTICS OF STATE AND STATE-AIDED EDUCATION OTHER THAN HIGHER EDUCATION—(*continued*).

Year.	Number of Schools.			Number of Scholars.			Percentage of Attendance (European only).	Number of Teachers.*			Total State Expenditure.	Expenditure per scholar (All Scholars from 1920).
	For European Scholars.	For Non-European Scholars.	Total.	European.	Non-European.	Total.		Certificated.	Uncertificated.	Total.		
(v) ORANGE FREE STATE, 1895 to 1937.												
1895	208	—	208	5,603	—	5,603	—	—	—	220	£ 45,719	£ s. d. 8 3 2
1905	258	—	258	15,577	—	15,577	—	—	—	515	104,343	6 14 0
1910	451	—	451	19,131	—	19,131	—	—	—	820	165,568 (11 months)	8 13 1
1920	868	132	1,000	43,319	16,433	59,752	87·0	1,323	837	2,160	800,703	13 8 0
1930	811	232	1,043	45,310	26,031	71,341	94·9	2,437	298	2,735	935,327	13 2 3
1933	760	239	999	44,758	29,716	74,474	95·3	2,484	334	2,818	868,431	11 13 3
1934	740	235	975	44,041	28,046	72,087	94·4	2,460	346	2,806	886,356	12 5 11
1935	721	295	1,016	43,839	28,031	71,870	93·6	2,481	446	2,927	922,401	12 16 8
1936	699	339	1,038	43,990	31,465	75,455	95·0	2,543	464	3,007	976,576	12 18 10
1937	674	365	1,039	43,782	37,568	81,350	94·3	2,510	572	3,082	991,236	12 3 8

* Until 1927 shows teachers in primary and beyond primary schools only; since 1928 teachers in all schools.

2. **Statistics of Education of European Scholars.**—The following tables give (A) in the form of a general summary, and (B) in detail, statistics of State and State-aided schools for European scholars, number of scholars, particulars as to enrolment and attendance, sex and age, and number in the various standards. Further tables give particulars as to teachers and training institutions for teachers.

(A) GENERAL SUMMARY.—STATE AND STATE-AIDED SCHOOLS FOR EUROPEAN SCHOLARS.

(i) NUMBER OF SCHOOLS, SCHOLARS, TEACHERS, AND EXPENDITURE ON EDUCATION [OTHER THAN HIGHER EDUCATION] OF EUROPEAN SCHOLARS, 1916 TO 1937.

Year.	Schools.†	Scholars.	Percentage Attendance to Enrolment.	Teachers.	Total State Expenditure.*
					£
1916	4,878	251,360	—	—	2,724,871
1920	4,746	303,255	90·0	14,316	5,401,837
1925	4,958	329,834	91·7	14,471	6,243,469
1930	4,906	353,942	93·3	15,846	6,710,263
1933	4,858	361,665	94·2	15,887	6,461,764
1934	4,782	364,641	93·5	16,144	6,844,059
1935	4,672	371,952	92·7	16,341	7,172,803
1936	4,609	375,157	93·3	16,771	7,444,429
1937	4,471	381,550	92·5	16,932	7,705,233

* Excluding capital expenditure and loan charges.
† Including training colleges and special schools but not vocational schools, which were transferred to the Department of Union Education from 1925. Part-time and evening schools were transferred from 1928.

(ii) NUMBER OF SCHOOLS [OTHER THAN FOR HIGHER EDUCATION] FOR EUROPEAN SCHOLARS, 1937.

Province.	Number of Schools.					Training Colleges.	Special Schools.	Total.
	Primary.	Intermediate.	High.	Secondary.	Total.			
Cape of Good Hope	1,935	—	141	89	2,165	9	3	2,177
Natal	502	—	30	4	536	1	—	537
Transvaal	939	82	18	40	1,079	4	—	1,083
Orange Free State	597	18	52	6	673	1	—	674
UNION	3,973	100	241	139	4,453	15	3	4,471

(iii) NUMBER OF SCHOLARS AND TEACHERS IN EUROPEAN PRIMARY AND BEYOND PRIMARY SCHOOLS, SPECIAL SCHOOLS, AND TRAINING INSTITUTIONS, 1st JUNE, 1937.

Province.	Number of Scholars.			Number of Teachers.		
	Boys.	Girls.	Total.	Males.	Females.	Total.
Cape of Good Hope	80,881	75,129	156,010	2,712	4,120	6,832
Natal	15,523	13,888	29,411	508	1,323	1,831
Transvaal	79,764	72,583	152,347	3,139	3,093	6,232
Orange Free State	22,771	21,011	43,782	1,117	920	2,037
UNION	198,939	182,611	381,550	7,476	9,456	16,932

(B) DETAILED STATISTICS.—STATE AND STATE-AIDED SCHOOLS FOR EUROPEAN SCHOLARS.

NOTE.—The following scholars are excluded from the tables indicated:—*Cape Province:* 931 "unclassified" from Tables (ii) and (vii); and 124 on the S.A.T.S. "General Botha" from Tables (ii) to (vii). *Natal:* 1,014 scholars in farm schools from Tables (iii) to (vii).

(i) NUMBER AND CLASSIFICATION OF PRIMARY AND BEYOND PRIMARY SCHOOLS FOR EUROPEAN SCHOLARS, 1st JUNE, 1937.

Province and Classification of School.	Urban Schools.	Rural Schools.	Maintained by State.	Aided by State.	Schools for Boys only.	Schools for Girls only.	Mixed Schools.
Cape of Good Hope.							
Primary and Intermediate	269	1,666	1,905	30	17	17	1,901
Secondary and High	217	13	230	—	22	23	185
TOTAL	486	1,679	2,135	30	39	40	2,086
Natal.							
Primary and Intermediate	79	423	134	368	7	4	491
Secondary and High	31	3	25	9	4	8	32
TOTAL	110	426	159	377	11	12	513
Transvaal.							
Primary and Intermediate	242	779	998	23	2	1	1,018
Secondary and High	58	—	52	6	6	8	44
TOTAL	300	779	1,050	29	8	9	1,062
Orange Free State.							
Primary and Intermediate	27	588	560	55	—	—	615
Secondary and High	58	—	56	2	2	3	53
TOTAL	85	588	616	57	2	3	668
UNION TOTAL	981	3,472	3,960	493	60	64	4,329

(ii) ENROLMENT AND ATTENDANCE OF EUROPEAN SCHOLARS IN PRIMARY AND BEYOND PRIMARY SCHOOLS, 1st JUNE, 1937.

Province.	Enrolment on 1st June.						Total.	Average Attendance for Year.	Percentage Attendance to Enrolment.
	State Schools.			State-aided Schools.					
	Boys.	Girls.	Total.	Boys.	Girls.	Total.			
PRIMARY CLASSES.									
Cape of Good Hope	64,235	59,679	123,914	2,055	2,539	4,594	128,508	—	—
Natal	12,085	10,393	22,478	1,134	1,440	2,574	25,052	—	—
Transvaal	67,736	62,180	129,916	434	884	1,318	131,234	—	—
Orange Free State	18,034	16,769	34,803	403	337	740	35,543	—	—
UNION	162,090	149,021	311,111	4,026	5,200	9,226	320,337	—	—
SECONDARY CLASSES.									
Cape of Good Hope	13,702	11,594	25,296	—	—	—	25,296	—	—
Natal	2,163	1,450	3,613	77	472	549	4,162	—	—
Transvaal	11,247	8,648	19,895	10	314	324	20,219	—	—
Orange Free State	4,205	3,687	7,892	106	65	171	8,063	—	—
UNION	31,317	25,379	56,696	193	851	1,044	57,740	—	—
ALL CLASSES.									
Cape of Good Hope	77,937	71,273	149,210	2,055	2,539	4,594	153,804	143,428	91·4
Natal	14,248	11,843	26,091	1,211	1,912	3,123	29,214	27,464	93·2
Transvaal	78,983	70,828	149,811	444	1,198	1,642	151,453	141,589	93·0
Orange Free State	22,239	20,456	42,695	509	402	911	43,606	40,862	94·3
UNION	193,407	174,400	367,807	4,219	6,051	10,270	378,077	353,343	92·5

(iii) NUMBER OF EUROPEAN SCHOLARS BY AGE AND SEX IN PRIMARY AND BEYOND PRIMARY SCHOOLS, 1st JUNE, 1937.

Age in Years.	Cape of Good Hope.		Natal.		Transvaal.		Orange Free State.		Union.		
	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Total.
Under 7	5,043	4,996	1,204	1,185	4,670	4,435	1,219	1,168	12,136	11,784	23,920
7	7,689	7,329	1,505	1,262	8,463	7,882	2,008	1,920	19,665	18,393	38,058
8	7,993	7,661	1,502	1,341	8,657	7,921	2,270	2,103	20,422	19,026	39,448
9	7,914	7,665	1,478	1,391	8,493	8,091	2,166	2,132	20,051	19,279	39,330
10	7,929	7,649	1,502	1,421	8,007	7,811	2,149	2,093	19,587	18,974	38,561
11	7,939	7,561	1,563	1,425	8,119	7,718	2,207	2,078	19,828	18,782	38,610
12	7,882	7,504	1,533	1,348	7,851	7,493	2,203	1,968	19,469	18,313	37,782
13	7,836	7,222	1,415	1,312	7,557	7,146	2,021	1,953	18,829	17,633	36,462
14	7,272	6,821	1,299	1,146	6,912	6,284	2,046	1,990	17,529	16,241	33,770
15	6,106	5,108	1,008	786	5,683	4,379	1,866	1,578	14,663	11,851	26,514
16	3,774	2,766	626	405	2,975	1,892	1,346	1,032	8,721	6,095	14,816
17	1,988	1,362	251	158	1,337	754	750	589	4,326	2,863	7,189
18	790	499	73	38	508	177	355	193	1,726	907	2,633
19 and over	350	87	21	2	195	43	142	61	708	193	901
TOTAL	80,505	74,230	14,980	13,220	79,427	72,026	22,748	20,858	197,660	180,334	377,994

(iv) PERCENTAGE OF EUROPEAN SCHOLARS OF EACH SEX AT EACH YEAR OF AGE IN PRIMARY AND BEYOND PRIMARY SCHOOLS, 1st JUNE, 1937.

Age in Years.	Cape of Good Hope.		Natal.		Transvaal.		Orange Free State.		Union.		
	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Total.
Under 7	6·27	6·73	8·04	8·96	5·88	6·16	5·36	5·60	6·14	6·53	6·33
7	9·55	9·87	10·05	9·55	10·66	10·94	8·83	9·21	9·95	10·20	10·07
8	9·93	10·32	10·03	10·14	10·90	11·00	9·98	10·08	10·33	10·55	10·44
9	9·83	10·33	9·87	10·52	10·69	11·23	9·52	10·22	10·14	10·69	10·40
10	9·85	10·30	10·03	10·75	10·08	10·84	9·45	10·03	9·91	10·52	10·20
11	9·86	10·19	10·43	10·78	10·22	10·72	9·70	9·96	10·03	10·41	10·21
12	9·79	10·11	10·23	10·20	9·89	10·40	9·69	9·44	9·85	10·16	10·00
13	9·73	9·73	9·44	9·92	9·51	9·92	8·88	9·36	9·53	9·78	9·65
14	9·03	9·19	8·67	8·67	8·70	8·72	8·99	9·54	8·87	9·01	8·93
15	7·59	6·88	6·73	5·94	7·15	6·08	8·20	7·57	7·42	6·57	7·01
16	4·69	3·73	4·18	3·06	3·75	2·63	5·92	4·95	4·41	3·38	3·92
17	2·47	1·83	1·67	1·20	1·68	1·05	3·30	2·82	2·19	1·59	1·90
18	·98	·67	·49	·29	·64	·25	1·56	·93	·87	·50	·70
19 and over	·43	·12	·14	·02	·25	·06	·62	·29	·36	·11	·24
TOTAL	100·00	100·00	100·00	100·00	100·00	100·00	100·00	100·00	100·00	100·00	100·00

(v) STANDARD OF EUROPEAN SCHOLARS ENROLLED IN PRIMARY AND BEYOND PRIMARY SCHOOLS, 1st JUNE, 1937.

Standards.	Cape of Good Hope.		Natal.		Transvaal.		Orange Free State.		Union.	
	No.	Per cent.	No.	Per cent.	No.	Per cent.	No.	Per cent.	No.	Per cent.
Below Standard	27,672	17·88	5,645	20·02	30,239	19·97	7,375	16·91	70,931	18·77
Standard I	16,729	10·81	3,069	10·88	17,726	11·70	4,642	10·65	42,166	11·16
„ II	17,064	11·03	3,160	11·20	17,546	11·59	4,792	10·99	42,562	11·26
„ III	17,635	11·40	2,817	9·99	18,173	12·00	4,787	10·98	43,412	11·48
„ IV	16,971	10·97	2,758	9·78	16,378	10·81	4,846	11·11	40,953	10·83
„ V	16,682	10·78	3,012	10·79	16,135	10·65	4,761	10·92	40,620	10·75
„ VI	15,755	10·18	3,392	12·03	14,558	9·61	4,340	9·95	38,045	10·06
„ VII	10,298	6·66	1,594	5·65	9,219	6·09	3,325	7·63	24,436	6·46
„ VIII	7,229	4·67	1,358	4·82	5,827	3·85	2,195	5·03	16,609	4·39
„ IX	4,215	2·72	664	2·35	2,909	1·92	1,460	3·35	9,248	2·45
„ X	3,554	2·30	530	1·88	2,264	1·49	1,043	2·39	7,391	1·96
Unclassified	931	·60	171	·61	479	·32	40	·09	1,621	·43
TOTAL	154,735	100·00	28,200	100·00	151,453	100·00	43,606	100·00	377,994	100·00

(vi) AGE AND STANDARD OF EUROPEAN SCHOLARS ENROLLED IN PRIMARY AND BEYOND PRIMARY SCHOOLS, 1st JUNE, 1937.

Age in Years.	Below Standard.	Standard.										Unclassified.	Total.
		I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.	X.		
Under 7	23,550	345	9	—	—	—	—	—	—	—	—	16	23,920
7	29,830	7,585	596	19	1	—	—	—	—	—	—	27	38,058
8	13,648	17,418	7,596	673	25	—	—	—	—	—	—	88	39,448
9	3,058	11,764	16,484	7,211	659	24	1	—	—	—	—	129	39,330
10	601	3,728	11,547	15,379	6,404	698	34	—	—	—	—	179	38,561
11	139	943	4,337	11,764	13,981	6,498	722	20	—	—	—	206	38,610
12	66	261	1,356	5,315	10,954	13,099	5,771	706	25	—	—	229	37,782
13	22	80	433	1,988	5,420	10,612	12,103	4,972	580	26	1	225	36,462
14	11	26	143	768	2,392	6,113	10,770	9,093	3,800	438	10	206	33,770
15	4	12	50	255	951	2,886	6,256	6,635	6,365	2,518	417	165	26,514
16	2	3	9	33	145	571	1,857	2,342	4,148	3,619	1,995	92	14,816
17	—	1	2	6	18	100	428	554	1,326	1,911	2,802	41	7,189
18	—	—	—	1	3	18	85	85	300	588	1,535	18	2,633
19 and over	—	—	—	—	—	1	18	29	65	148	631	9	901
TOTAL	70,931	42,166	42,562	43,412	40,953	40,620	38,045	24,436	16,609	9,248	7,391	1,621	377,994

(vii) MEDIUM OF INSTRUCTION OF EUROPEAN SCHOLARS ENROLLED IN PRIMARY AND BEYOND PRIMARY SCHOOLS, 1st JUNE, 1937.

Province.	Primary Classes.			Secondary Classes.			All Classes.		
	English Only.	Afrikaans Only.	Eng. and Afri. and Other.	English Only.	Afrikaans Only.	Eng. and Afri. and Other.	English Only.	Afrikaans Only.	Eng. and Afri. and Other.
NUMBER.									
Cape of Good Hope	41,253	73,443	13,812	9,989	9,721	5586	51,242	83,164	19,398
Natal	20,248	3,501	289	3,699	373	90	23,947	3,874	379
Transvaal	45,092	83,300	2,842	8,840	10,544	835	53,932	93,844	3,677
Orange Free State	3,981	31,191	371	1,436	5,577	1,050	5,417	36,768	1,421
UNION	110,574	191,435	17,314	23,964	26,215	7,561	134,538	217,650	24,875
PERCENTAGE.									
Cape of Good Hope	32·10	57·15	10·75	39·49	38·43	22·08	33·32	54·07	12·61
Natal	84·23	14·57	1·20	88·88	8·96	2·16	84·92	13·74	1·34
Transvaal	34·36	63·47	2·17	43·72	52·15	4·13	35·61	61·96	2·43
Orange Free State	11·20	87·76	1·04	17·81	69·17	13·02	12·42	84·32	3·26
UNION	34·63	59·95	5·42	41·50	45·40	13·10	35·68	57·72	6·60

(viii) NUMBER OF SCHOOLS (EUROPEAN) WITH BOARDING ESTABLISHMENTS MAINTAINED OR RECOGNIZED, AND NUMBER OF BOARDERS, 1937.

Heading.	Cape of Good Hope.*	Natal.†	Transvaal.	Orange Free State.	Union.
Number of Schools	139	49	157	86	431
Number of Boarders	4,486	2,078	7,845	3,591	18,000

* There are, in addition, 166 boarding-houses for indigents with 7,152 boarders.
† Excluding 587 indigent boarders of whom 61 are merit bursars.

(ix) NUMBER OF CERTIFICATED AND UNCERTIFICATED TEACHERS IN PRIMARY AND BEYOND PRIMARY SCHOOLS, ETC. (EXCLUDING TRAINING COLLEGES), FOR EUROPEAN SCHOLARS, 1st JUNE, 1937.

Province.	Male.			Female.			All Teachers.		
	Certificated.	Uncertificated.	Total.	Certificated.	Uncertificated.	Total.	Certificated.	Uncertificated.	Total.
GRADUATES.									
Cape of Good Hope	1,008	12	1,020	368	9	377	1,376	21	1,397
Natal	211	10	221	213	11	224	424	21	445
Transvaal	1,124	7	1,131	626	9	635	1,750	16	1,766
Orange Free State	424	6	430	116	4	120	540	10	550
UNION	2,767	35	2,802	1,323	33	1,356	4,090	68	4,158

(ix) NUMBER OF CERTIFICATED AND UNCERTIFICATED TEACHERS—(*continued*).

Province.	Male.			Female.			All Teachers.		
	Certificated.	Uncertificated.	Total.	Certificated.	Uncertificated.	Total.	Certificated.	Uncertificated.	Total.
NON-GRADUATES.									
Cape of Good Hope—									
Matriculated	1,118	9	1,127	2,242	24	2,266	3,360	33	3,393
Not Matriculated	526	12	538	1,419	16	1,435	1,945	28	1,973
TOTAL	1,644	21	1,665	3,661	40	3,701	5,305	61	5,366
Natal—									
Matriculated	155	16	171	417	61	478	572	77	649
Not Matriculated	91	21	112	309	304	613	400	325	725
TOTAL	246	37	283	726	365	1,091	972	402	1,374
Transvaal—									
Matriculated	1,517	19	1,536	1,695	91	1,786	3,212	110	3,322
Not Matriculated	422	15	437	626	32	658	1,048	47	1,095
TOTAL	1,939	34	1,973	2,321	123	2,444	4,260	157	4,417
Orange Free State—									
Matriculated	557	17	574	652	30	682	1,209	47	1,256
Not Matriculated	82	22	104	98	14	112	180	36	216
TOTAL	639	39	678	750	44	794	1,389	83	1,472
Total Non-Graduates	4,468	131	4,599	7,458	572	8,030	11,926	703	12,629
GRAND TOTAL	7,235	166	7,401	8,781	605	9,386	16,016	771	16,787

(x) TRAINING INSTITUTIONS FOR EUROPEAN TEACHERS, 1st JUNE, 1937.

Province.	Number of Institutions.	Students.			Teachers.		
		Male.	Female.	Total.	Male.	Female.	Total.
Cape of Good Hope	9	252	899	1,151	27	42	69
Natal	1	64	133	197	4	8	12
Transvaal	4	337	557	894	35	14	49
Orange Free State	1	23	153	176	9	6	15
UNION	15	676	1,742	2,418	75	70	145

3. **Expenditure on Education of European Scholars.**—Particulars of ordinary government expenditure in the various provinces on education (other than higher education) of European scholars, are given in the following two tables.

(i) GOVERNMENT EXPENDITURE ON ADMINISTRATION, INSPECTION, AND OTHER GENERAL MATTERS, 1937.

NOTE.—This table relates to expenditure on both European and non-European education. The allocation to races is necessarily arbitrary and has not been attempted.

Head of Expenditure.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Union.
	£	£	£	£	£
Administration	30,276	11,900	20,083	10,136	72,395
School Boards and Committees	55,142	51	26,201	12,721	94,115
School Inspection	37,751	26,496	29,849	13,357	107,453
Medical Inspection	18,557	6,112	21,940	3,373	49,982
General*	190,274	37,708	177,125	62,835	467,942
Minor Works	15,159	†	40,726	4,330	60,215
TOTAL £	347,159	82,267‡	315,924	106,752	852,102

* Including pension fund contributions.
† Included under "Repairs" in Table (ii).
‡ Including £18,891, which also figures in Table (ix), paragraph 5.

(ii) GOVERNMENT EXPENDITURE ON EUROPEAN EDUCATION, 1937.

Heading.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Union.
(*a*) ALLOCATION BY CLASS OF SCHOOL.					
	£	£	£	£	£
Training of Teachers	58,455	11,485	73,695	16,273	159,908
Secondary Education	268,662	82,835	419,060	52,707	823,264
Primary and Preparatory Education	1,393,452	367,032	2,171,374	359,759	4,291,617
Combined Primary and Secondary Education	993,494	159,761	40,481	389,823	1,583,559
TOTAL £	2,714,063	621,113	2,765,486	818,562	6,919,224
(*b*) ALLOCATION BY ITEM OF EXPENDITURE.					
	£	£	£	£	£
Salaries, Wages, and Allowances	2,176,879	452,347	2,250,672	701,440	5,581,338
Hostels	85,560	64,295	—	14,523	164,378
Bursaries and Scholarships	249,637	14,604	179,536	40,795	484,572
Furniture and School Equipment	86,407	36,232	114,443	13,701	250,783
Light, Water, Sanitation, etc.	22,334	13,038	71,301	13,339	120,012
Grants-in-aid	13,042	16,745	9,659	5,883	45,329
Rents and Insurance	30,400	*	38,640	11,695	80,735
Repairs and Maintenance	45,209	16,349	60,876	16,838	139,272
Other	4,595	7,503	40,359	348	52,805
TOTAL £	2,714,063	621,113	2,765,486†	818,562	6,919,224†

* Included under Light, Water, etc.
† £60,876 spent on repairs and maintenance, which cannot be allocated.

(iii) CAPITAL EXPENDITURE BY STATE ON ALL SCHOOL BUILDINGS AND GROUND AND INTEREST AND REDEMPTION PAYMENTS, 1937-38.

Description.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Union.
	£	£	£	£	£
Capital Value of School Buildings to date	4,927,188	1,382,087*	4,264,606	1,249,261	11,823,142
Expenditure from Loans during year	200,212	53,524	565,692	31,109	850,537
Payments on Loan Interest and Redemption during year	181,122	59,956	143,450	64,641	449,169

(iv) *Bursaries.*—(*a*) *Cape of Good Hope*, 1937-38.—Merit Awards of £10 a year, tenable for two years, are given to the 25 candidates who obtain the highest marks at the Junior and Senior Certificate Examinations.

Bursaries to enable promising and necessitous pupils, whose homes are remote from secondary institutions, to obtain secondary education were also given in 1937-38. Of these, boarding bursaries were awarded to 4,660 pupils, and conveyance bursaries to 441 pupils, at a cost of £55,567 and £1,669 respectively.

(*b*) *Natal*, 1937.—In the Natal Province the number of bursaries granted for educational purposes and to boarders during the year was 2,343, involving an expenditure of £41,656. These bursaries represented merit bursaries and free places, i.e. free books and tuition, and in some cases free board, free or partially-free admission of indigents to hostels, boarding grants to indigents, and free books to indigents.

In addition, grants amounting to £2,696 for transport were paid in respect of 938 pupils, and 530,277 free meals were supplied at a cost of £10,858.

(*c*) *Transvaal*, 1938.—A total sum of £128,100 was made available for bursaries to primary and secondary pupils during 1938.

(*d*) *Orange Free State*, 1937.—The following figures relate to bursaries granted in the Orange Free State: Normal College and secondary bursaries, £13,075; primary boarding and transport bursaries, £5,274.

4. **Statistics of Education of European Scholars in certain Urban Areas.**—The following table gives in summary particulars of schools for European scholars in certain of the more important towns and urban areas in the Union:—

NUMBER OF SCHOOLS, ENROLMENT OF EUROPEAN SCHOLARS AND STUDENTS, AND NUMBER OF TEACHERS IN CERTAIN URBAN AREAS, 1st JUNE, 1937.

Town or Area.	Number of Schools and Colleges.	Enrolment in Primary and Beyond Primary Schools.			Students in Training Colleges and Schools.		Students in Special Schools.		All Scholars and Students.	Teachers.
		Boys.	Girls.	Total.	Male.	Female.	Male.	Female.		
Cape Peninsula..	95	14,142	13,161	27,303	4	119	142	16	27,584	978
East London.....	22	2,915	2,525	5,440	—	—	—	—	5,440	195
Grahamstown....	12	779	927	1,706	—	206	—	—	1,912	84
Kimberley.....	18	1,788	1,677	3,465	—	—	—	—	3,465	142
Paarl.....	8	1,248	1,049	2,297	88	134	—	—	2,519	101
Port Elizabeth...	27	4,683	4,372	9,055	—	—	—	—	9,055	293
Stellenbosch.....	10	1,373	1,295	2,668	—	74	—	—	2,742	114
Wellington.....	5	410	509	919	17	114	—	—	1,050	49
Durban.....	41	6,454	5,510	11,964	—	—	—	—	11,964	564
Pietermaritzburg.	17	2,015	1,862	3,877	64	133	—	—	4,074	233
Johannesburg....	102	19,850	18,292	38,142	73	238	—	—	38,453	1,377
East Rand.....	57	10,446	9,298	19,744	—	—	—	—	19,744	693
West Rand.....	24	4,223	3,855	8,078	—	—	—	—	8,078	283
Pretoria.....	46	6,737	6,643	13,380	107	103	—	—	13,590	508
Potchefstroom....	10	1,451	1,166	2,617	104	126	—	—	2,847	118
Bloemfontein.....	19	3,271	3,047	6,318	23	153	—	—	6,494	290

NOTE.—The special schools are: S.A.T.S. *General Botha* (Simonstown), Lady Michaelis Home (Plumstead), Princess Alice Home of Recovery (Retreat).

5. **Statistics of Education of Non-European Scholars.**—The following tables give such statistics as are available in respect of State and State-aided education of non-European scholars.

In the Orange Free State the £4,000 grant received annually from the Provincial Administration is now amalgamated with the £10,000 Union grant and is disbursed as a grant towards native teachers' salaries, being no longer allocated separately as a capitation grant to the various mission societies.

STATE AND STATE-AIDED SCHOOLS FOR NON-EUROPEAN SCHOLARS.

(i) NUMBER OF STATE AND STATE-AIDED SCHOOLS AND STATE EXPENDITURE ON EDUCATION OF NON-EUROPEAN SCHOLARS, 1920 TO 1937.

Year.	Number of Schools.			Training Schools.	Special Schools.	Expenditure. *	Expenditure per Scholar. *
	Native.	Other Non-European including Asiatic.	Total.				
						£	£ s. d.
1920.....	2,593	498	3,091	29	9	538,200	2 5 2
1925.....	2,646	591	3,237	29	9	726,662	2 12 6
1930.....	3,195	782	3,977	38	23	1,113,956	2 18 3
1933.....	3,148	875	4,023	37	20	1,162,195	2 14 2
1934.....	3,133	941	4,074	37	20	1,270,867	2 16 11
1935.....	3,354	997	4,351	41	27	1,449,755	3 0 1
1936.....	3,464	1,016	4,480	41	19	1,511,916	3 0 6
1937.....	3,724	1,052	4,776	43	31	1,649,189	3 0 5

* These figures are approximate as it is found very difficult to allocate administration and other general costs to Europeans and non-Europeans respectively.

(ii) NUMBER OF STATE AND STATE-AIDED SCHOOLS FOR NON-EUROPEAN SCHOLARS, 1937.

Province.	Purely Primary Schools.	Secondary and High Schools.	Total.	Training Colleges.	Special Schools.	Total.
			(*a*) NATIVES.			
Cape of Good Hope.....	1,811	12	1,823	14	15	1,852
Natal.....	628	122	750	5	—	755
Transvaal.....	803	5	808	8	—	816
Orange Free State.....	341	2	343	3	—	346
UNION.....	3,583	141	3,724	30	15	3,769
			(*b*) COLOURED AND ASIATIC.			
Cape of Good Hope.....	821	8	829	7	16	852
Natal.....	135	4	139	6	—	145
Transvaal.....	64	1	65	—	—	65
Orange Free State.....	19	—	19	—	—	19
UNION.....	1,039	13	1,052	13	16	1,081
GRAND TOTAL.....	4,622	154	4,776	43	31	4,850

(iii) NUMBER OF SCHOLARS AND TEACHERS IN STATE AND STATE-AIDED SCHOOLS (NON-EUROPEAN ONLY), 1920 TO 1937.

Year.	Native.			Asiatic and Other Non-European.			All Scholars.	Percentage of Attendance to Average Enrolment.	Number of Teachers.
	Boys.	Girls.	Total.	Boys.	Girls.	Total.			
1920...	—	—	182,647	—	—	55,490	238,137	83·9	6,145
1925...	93,480	115,569	209,049	—	—	67,877	276,926	83·7	6,995
1930...	127,130	157,120	284,250	54,676	43,781	98,457	382,707	85·2	9,961
1933...	143,806	171,008	314,814	63,835	50,665	114,500	429,314	84·8	10,284
1934...	149,449	175,200	324,649	67,666	54,359	122,025	446,674	84·7	10,924
1935...	163,774	188,134	351,908	71,833	58,575	130,408	482,316	83·4	11,883
1936...	162,908	196,616	359,524	76,895	63,679	140,574*	500,098	84·6	12,225
1937...	181,220	215,414	396,634	81,602	67,989	149,591	546,225	84·8	13,318

* Excluding 32 pupils attending 2 special schools in the Cape Province.

(iv) NUMBER OF NON-EUROPEAN SCHOLARS IN STATE AND STATE-AIDED SCHOOLS, 1st JUNE, 1937.

Province.	Native.			Other Non-European, including Asiatic.			All Scholars.
	Boys.	Girls.	Total.	Boys.	Girls.	Total.	
Cape of Good Hope.	82,684	103,978	186,662	56,204	54,416	110,680	297,342
Natal*	32,797	44,756	77,463	18,183	8,085	26,268	103,731
Transvaal†	47,951	48,334	96,285	6,484	4,815	11,299	107,584
Orange Free State..	17,878	18,346	36,224	671	673	1,344	37,568
UNION.....	181,220	215,414	396,634	81,602	67,989	149,591	546,225

* Including 116 scholars in Natal coloured farm schools which are not classified in the succeeding tables.
† Figures for natives at 30th November, 1937.

(v) NUMBER OF TEACHERS IN STATE AND STATE-AIDED NON-EUROPEAN SCHOOLS, 1st JUNE, 1937.

Province.	Certificated.				Not Certificated.				Total.
	European.	Native.	Asiatic.	Coloured.	European.	Native.	Asiatic.	Coloured.	
Cape of Good Hope.....	410	3,790	—	2,259	43	190	—	113	6,805
Natal.....	252	1,565	407	53	62	377	157	14	2,887
Transvaal.....	179	1,115	38	199	30	994	7	19	2,581
Orange Free State	14	518	—	34	5	468	—	6	1,045
UNION.....	855	6,988	445	2,545	140	2,029	164	152	13,318

(vi) AVERAGE ENROLMENT AND PERCENTAGE ATTENDANCE IN NON-EUROPEAN STATE AND STATE-AIDED SCHOOLS, 1937.

Province.	Average Enrolment.				Percentage Average Attendance.			
	Native.	Asiatic.	Other Coloured.	All Races.	Native.	Asiatic.	Other Coloured.	All Races.
Cape of Good Hope	185,424	—	109,578	295,002	80·2	—	85·9	82·3
Natal.....	73,640	22,671	3,337	99,648	88·6	91·0	92·5	89·3
Transvaal.....	102,665	2,350	8,877	113,892	85·3	92·9	89·4	85·6
Orange Free State	33,795	—	1,415	35,210	91·0	—	90·7	91·0
UNION.....	395,524	25,021	123,207	543,752	83·9	91·2	86·4	84·8

(vii) TRAINING INSTITUTIONS FOR NON-EUROPEAN TEACHERS, 1st JUNE, 1937.

Province.	Institutions.			Students.			Teachers.		
	Native.	Other Non-European.	Total.	Native.	Other Non-European.	Total.	European.	Non-European.	Total.
Cape of Good Hope.....	14	7	21	2,039	714	2,753	118	18	136
Natal.....	5	6	11	660	247	907	57	22	79
Transvaal*.....	8	—	8	931	64	1,045	44	6	50
Orange Free State	3	—	3	174	—	174	21	3	24
UNION.....	30	13	43	3,854	1,025	4,879	240	49	289

* Figures for natives at 30th November, 1937.

(viii) STATE AND STATE-AIDED INDUSTRIAL SCHOOLS FOR NATIVE SCHOLARS, DECEMBER, 1937.

Province.	Number of Schools.	Students.			Teachers.		
		Male.	Female.	Total.	European.	Non-European.	Total.
Cape of Good Hope.....	15	338	333	671	33	24	57
Natal.....	8	193	231	424	11	24	35
Transvaal*.....	3	16	51	67	2	2	4
Orange Free State.....	—	—	—	—	—	—	—
UNION.....	26	547	615	1,162	46	50	96

* At 30th November, 1937.

(ix) STATE EXPENDITURE ON EDUCATION OF NON-EUROPEAN SCHOLARS, 1937.

Head of Expenditure.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Union.
(a) NATIVE.					
	£	£	£	£	£
Inspection, School.....	16,334	11,326	6,182	5,321	39,163
Supervision.....	3,024	1,536	3,360	—	7,920
Training of Teachers.....	39,973	14,701	15,456	6,732	76,862
Secondary Education.....	9,780	12,726	5,531	2,776	30,813
Primary Education.....	319,662	100,402	128,536	44,255	592,855
Industrial Education.....	12,972	5,621	538	—	19,131
General.....	21,637	3,339	2,113	2,216	29,305
TOTAL.....£	423,382	149,651	161,716	61,300	796,049
(b) OTHER COLOURED.					
	£	£	£	£	£
Primary and Secondary Education—					
Salaries, Wages, and Allowances.....	471,760	54,747	76,037	3,763	606,307
Other.....	68,759	73,731	15,075	859	158,424
Training of Teachers—					
Salaries, Wages, and Allowances.....	24,574	6,139	—	—	30,713
Other.....	9,186	1,308	—	—	10,494
TOTAL.....£	574,279*	135,925	91,112	4,622	805,938*
GRAND TOTAL.....£	997,661	285,576†	252,828	65,922	1,601,987†

* Excluding £47,202 which is included in Table (i), Paragraph 3, but which cannot be allocated here.
† Includes an amount of £18,891 which also figures in Table (i), Paragraph 3.

§ 4. Statistics of Private Schools.

There is very little government regulation of the activities of private schools in the Union. In the *Cape Province*, private schools with five or more pupils on the roll which do not receive any financial assistance from the Education Department are required to register with the Department, to keep registers of pupils and teachers, and to submit annual returns to the Superintendent-General of Education.

Private schools are inspected free of charge by the Department if the request for inspection is made in writing. It is lawful for an inspector of schools to inspect any private school for the purpose of ascertaining its condition, and should the Superintendent-General of Education not be satisfied with conditions, it is competent for him to refuse to recognize attendance at such school under the provisions relating to compulsory school attendance in the Cape Province. In *Natal*, the Education Department undertakes, upon

request, the inspection of private schools, but gives them no financial assistance of any kind. In the *Transvaal*, the Department has a limited inspectorial power over private schools, which, if attended by ten or more pupils, are required to register and supply returns. In the *Orange Free State* capitation grants may be made to private schools under conditions laid down in the *Education Ordinance*. Inspectors of the Department may visit and inspect any private school which is attended by five or more pupils, and the Administrator, on the advice of the Director of Education, may require any alterations in the conduct of the school to be made within a fixed time, and, if the order is not complied with, he may cause such school to be closed forthwith and the pupils transferred to another school. All private schools must register and supply returns to the Department.

The figures given in the following tables are derived from returns furnished under regulations framed under section 10 of the *Statistics Act*, No. 38 of 1914, by every school or other educational or training institution which was not maintained by the Government, was not in receipt of any government grant, and in which not fewer than five pupils received instruction other than religious instruction during the calendar year. Until 1937 schools were enumerated in December of each year; since 1938 the census has been taken in June.

Appreciable fluctuations occur from year to year in the figures for private schools. This is inevitable considering the transient nature of many of the schools, as well as the fact that private schools continually pass into the category of "government-aided" and then cease to play a part in these statistics. The main reason for fluctuation, however, is the extreme difficulty of achieving complete enumeration. All private schools are not necessarily required to register with the various Departments of Education, and a complete list of schools is therefore unobtainable. The Office of Census and Statistics relies for its information on the lists of registered private schools from the different Education Departments, together with lists furnished by missionaries and grantees who are known to be in control of schools. While the list of European private schools is reasonably complete, that of non-European, especially native, is subject to an unknown margin of error.

(i) NUMBER OF PRIVATE SCHOOLS (ACCORDING TO RACE OF PUPILS), 1934 TO 1938.

Year.	Cape of Good Hope.		Natal.		Transvaal.		Orange Free State.		Union.		
	European.	Non-European.	European.	Non-European.	European.	Non-European.	European.	Non-European.	European.	Non-European.	Total.
1934.....	113	157	47	547	123	313	10	4	293	1,021	1,314
1935.....	106	142	49	545	114	379	10	4	279	1,070	1,349
1936.....	110	157	44	492	129	425	12	3	295	1,077	1,372
1937.....	102	113	36	539	122	395	9	20	269	1,067	1,336
1938.....	109	163	36	517	122	386	9	6	276	1,072	1,348

(ii) DATE OF FOUNDATION OF PRIVATE SCHOOLS (EUROPEANS ONLY), JUNE, 1938.

Date of Foundation.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Union.
Less than 5 years ago.....	13	1	12	1	27
From 5–9 years ago.....	11	10	21	4	46
From 10–14 years ago.....	15	8	24	2	49
From 15–19 years ago.....	4	6	23	—	33
From 20–24 years ago.....	8	—	10	—	18
From 25–34 years ago.....	12	2	16	1	31
From 35–44 years ago.....	14	5	7	—	26
From 45 years and over.....	24	4	7	1	36
Unstated.....	1	—	2	—	3
TOTAL.....	102	36	122	9	269

(iii) NUMBER OF PRIVATE SCHOOLS, JUNE, 1938 (CLASS OF INSTRUCTION GIVEN AND RACE OF SCHOLARS).

Classification of Schools.	Cape of Good Hope.		Natal.		Transvaal.		Orange Free State.		Union.		
	European.	Non-European.	European.	Non-European.	European.	Non-European.	European.	Non. European.	European.	Non-European.	Total
Kindergarten.....	22	1	17	1	40	—	4	—	83	2	85
General Primary.....	33	111	9	536	35	395	3	20	80	1,062	1,142
Secondary and High Schools.....	40	—	10	—	32	—	2	—	84	—	84
Commercial and Business.....	6	1	—	—	15	—	—	—	21	1	22
Other.....	1	—	—	2	—	—	—	—	1	2	3
TOTAL.....	102	113	36	539	122	395	9	20	269	1,067	1,336

(iv) PRIVATE SCHOOLS, ACCORDING TO ENROLMENT, JUNE, 1938.

Province.	No. of Pupils.							
	5–24.	25–49.	50–99.	100–149.	150–199.	200–299.	300 and over.	Total.
EUROPEAN SCHOOLS.								
Cape of Good Hope....	28	21	15	13	12	10	3	102
Natal.....	13	9	4	4	1	1	4	36
Transvaal.....	31	24	22	12	9	13	11	122
Orange Free State.....	6	1	—	—	1	1	—	9
UNION.....	78	55	41	29	23	25	18	269
NON-EUROPEAN SCHOOLS.								
Cape of Good Hope.....	24	58	28	3	—	—	—	113
Natal.....	249	219	59	9	2	1	—	539
Transvaal.....	101	179	95	12	7	—	1	395
Orange Free State.....	—	7	9	1	1	1	1	20
UNION.....	374	463	191	25	10	2	2	1,067
TOTAL.								
Cape of Good Hope.....	52	79	43	16	12	10	3	215
Natal	262	228	63	13	3	2	4	575
Transvaal.....	132	203	117	24	16	13	12	517
Orange Free State.....	6	8	9	1	2	2	1	29
UNION.....	452	518	232	54	33	27	20	1,336

(v) PRIVATE SCHOOLS, ACCORDING TO RELIGIOUS DENOMINATION, JUNE, 1938.

Province.	Religious Denomination.									
	English Church.	Dutch Reformed.	Roman Catholic.	Methodist.	Lutheran.	Presbyterian.	Christian (other).	Other Religions.	Undenominational.*	Total.
EUROPEAN.										
Cape of Good Hope.....	11	—	43	1	3	—	2	2	40	102
Natal.....	9	—	6	—	1	—	—	—	20	36
Transvaal.....	10	1	38	—	—	1	2	5	65	122
Orange Free State	—	—	2	—	—	—	2	—	5	9
UNION.....	30	1	89	1	4	1	6	7	130	269

* Including unstated.

(v) PRIVATE SCHOOLS ACCORDING TO RELIGIOUS DENOMINATION, JUNE, 1938—(*continued*).

Province.	Religious Denomination.									
	English Church.	Dutch Reformed.	Roman Catholic.	Methodist.	Lutheran.	Presbyterian.	Christian (other).	Other Religions.	Undenominational.*	Total.
NON-EUROPEAN.										
Cape of Good Hope	12	—	44	13	—	15	26	—	3	113
Natal	30	—	158	60	209	19	38	12	13	539
Transvaal	32	35	50	48	153	27	39	1	10	395
Orange Free State	—	—	16	2	—	—	1	—	1	20
UNION	74	35	268	123	362	61	104	13	27	1,067
TOTAL.										
Cape of Good Hope	23	—	87	14	3	15	28	2	43	215
Natal	39	—	164	60	210	19	38	12	33	575
Transvaal	42	36	88	48	153	28	41	6	75	517
Orange Free State	—	—	18	2	—	—	3	—	6	29
UNION	104	36	357	124	366	62	110	20	157	1,336

* Including unstated.

(vi) ENROLMENT IN PRIVATE SCHOOLS, DECEMBER, 1934, TO JUNE, 1938—EUROPEANS AND NON-EUROPEANS.

Year.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Union.
EUROPEANS.					
1934	8,850	3,219	10,543	519	23,131
1935	8,941	3,474	10,786	536	23,737
1936	9,433	3,513	12,418	598	25,962
1937	9,556	2,981	11,730	562	24,829
1938	9,663	3,043	12,883	507	26,096
NON-EUROPEANS.					
1934	7,529	19,083	14,775	247	41,634
1935	6,343	18,277	17,548	249	42,417
1936	7,050	16,385	20,393	240	44,068
1937	7,935	17,758	17,179	298	43,170
1938	4,721	17,116	17,227	1,777	40,841

(vii) ENROLMENT IN PRIVATE SCHOOLS, JUNE, 1938—EUROPEANS AND NON-EUROPEANS.

Age of Pupils in Years.	Cape of Good Hope.		Natal.		Transvaal.		Orange Free State.		Union.		
	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Total
(*a*) EUROPEANS—BY AGE AND SEX OF PUPIL.											
Below 7	639	604	332	322	1,247	1,218	61	54	2,279	2,198	4,477
7	353	424	92	109	540	565	31	46	1,016	1,144	2,160
8	352	361	80	104	480	525	15	25	927	1,015	1,942
9	342	336	58	120	488	459	8	24	896	939	1,835
10	372	363	72	103	415	431	1	22	860	919	1,779
11	367	373	68	114	438	424	5	23	878	934	1,812
12	371	390	78	114	440	444	4	32	893	980	1,873
13	376	372	134	129	404	448	1	36	915	985	1,900
14	347	412	147	158	358	420	2	37	854	1,027	1,881
15	331	386	138	121	242	457	—	22	711	986	1,697
16	308	411	131	98	252	525	—	29	691	1,063	1,754
17	211	310	94	63	201	425	—	21	506	819	1,325
18	102	161	26	28	133	285	—	7	261	481	742
19 and over	62	227	4	6	290	329	—	1	356	563	919
TOTAL	4,533	5,130	1,454	1,589	5,928	6,955	128	379	12,043	14,053	26,096

(vii) ENROLMENT IN PRIVATE SCHOOLS, JUNE, 1938—EUROPEANS AND NON-EUROPEANS—(*continued*).

Age of Pupils in Years.	Cape of Good Hope.		Natal.		Transvaal.		Orange Free State.		Union.		
	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Total.
(*b*) NON-EUROPEANS—BY RACE AND SEX OF PUPIL.											
Native	1,877	2,210	6,228	9,288	8,938	8,113	843	904	17,886	20,515	38,401
Asiatic	1	1	828	757	26	22	—	—	855	780	1,635
Coloured	293	339	8	7	66	62	15	15	382	423	805
TOTAL	2,171	2,550	7,064	10,052	9,030	8,197	858	919	19,123	21,718	40,841

(viii) ENROLMENT, JUNE, 1938—CLASSIFICATION OF PRIVATE SCHOOLS AND SEX OF PUPILS—EUROPEANS ONLY.

Nature of Schools.	Cape of Good Hope.		Natal.		Transvaal.		Orange Free State.		Union.		
	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Total.
Kindergarten	228	208	281	234	538	452	45	42	1,092	936	2,028
General Primary	1,249	1,127	228	89	2,322	1,550	20	11	3,819	2,777	6,596
Secondary and High	3,018	3,434	945	1,266	2,619	3,658	63	326	6,645	8,684	15,329
Commercial and Business	33	361	—	—	449	1,295	—	—	482	1,656	2,138
Other	5	—	—	—	—	—	—	—	5	—	5
TOTAL	4,533	5,130	1,454	1,589	5,928	6,955	128	379	12,043	14,053	26,096

(ix) BOARDERS (EUROPEAN) IN PRIVATE SCHOOLS, DECEMBER, 1934 TO 1937, AND JUNE, 1938.

Year.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Union.
1934	2,162	1,232	1,921	91	5,406
1935	2,752	1,372	1,643	112	5,879
1936	2,578	1,433	1,891	137	6,039
1937	2,806	856	1,919	136	5,717
1938	2,584	1,137	1,948	137	5,806
Boys	1,349	685	1,005	—	3,039
Girls	1,235	452	943	137	2,767

(x) TEACHERS IN PRIVATE SCHOOLS, JUNE, 1938.

Description.	Certificated.					Uncertificated.					Total.
	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Union.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Union.	
(*a*) EUROPEAN SCHOOLS.											
Graduates.											
Male	66	26	42	1	135	39	18	21	—	78	213
Female	80	21	40	4	145	36	18	19	1	74	219
TOTAL	146	47	82	5	280	75	36	40	1	152	432
Non-Graduates.											
Matriculated—											
Male	29	4	38	—	71	11	3	7	—	21	92
Female	131	27	121	12	291	36	16	62	2	116	407
Not Matriculated—											
Male	12	1	29	—	42	11	4	24	—	39	81
Female	60	31	68	6	165	91	29	129	6	255	420
TOTAL	232	63	256	18	569	149	52	222	8	431	1,000
GRAND TOTAL	378	110	338	23	849	224	88	262	9	583	1,432

(x) TEACHERS IN PRIVATE SCHOOLS, JUNE, 1938—(*continued.*)

Description.	Certificated.					Uncertificated.					Total.
	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Union.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Union.	
(b) NON-EUROPEAN SCHOOLS.											
European—											
Male	8	—	—	—	8	2	1	8	—	11	19
Female	11	3	7	2	23	22	10	8	3	43	66
Native—											
Male	23	20	45	10	107	28	79	260	9	376	483
Female	18	40	19	5	82	46	426	125	15	612	694
Asiatic—											
Male	—	4	1	—	5	—	28	—	—	28	33
Female	—	—	—	—	—	—	9	—	—	9	9
Coloured—											
Male	2	—	—	—	2	—	—	—	—	—	2
Female	1	—	—	—	1	1	—	1	—	2	3
TOTAL	63	76	72	17	228	99	553	402	27	1,081	1,309

§ 5. Scientific Research.*

An article describing the principal scientific research facilities existing in the Union was included in the sixth and previous issues of this *Year Book*. Some reference to the scientific research done at South African universities and colleges will be found in § 1 of this chapter, in the paragraphs devoted to the various institutions.

(i) *National Research Council and Board.*—The Research Grant Board, instituted by the Government in 1918, was merged in April, 1938, into a new organization, consisting of two bodies, the National Research Council and the National Research Board. The Council is purely an advisory body, while the Board's duties are administrative in character and comprise those of the former Research Grant Board.

The functions of the new organization, stated briefly, are to advise the Government generally regarding the encouragement of research in the Union and to administer all government grants in aid of research, as well as other funds placed at its disposal for a similar purpose. A report of the activities of the Research Grant Board from 1918 to 1935 was issued in 1936 (U.G. 13, 1936).

The National Research Council and the Board are attached to the Department of Union Education and report to the Minister of Education.

(*a*) *Research Grants.*—These grants are awarded to members of the staffs of the universities and museums, besides others who have generally a considerable amount of research to their credit. The grants are made to defray such necessary expenses as the purchase of apparatus, material, and literature, travelling expenses, and the cost of publication of the results of research.

(*b*) *University Research Grants and Scholarships.*—An amount of £1,500 has been provided each year from 1934-35 on the estimates of the Department of Education for the award of these grants and scholarships. Their primary object is to encourage the training of research workers in the universities of the Union. In the case of grants, preference is given to applications from post-graduate students and the younger members of university staffs, while the scholarships are available only to post-graduate students, who must undertake to devote their whole time to research during the period of the scholarships. In every case provision must be made for the appointment of a capable supervisor. The grants are for varying amounts, mainly towards the purchase of apparatus or material, or towards travelling expenses, while the scholarships are of the value of £100 for one year and may be renewed on application.

* A comprehensive report on this subject, prepared by a committee of the Research Grant Board was published in the *South African Journal of Industries* (Vol. VII, No. 4, April, 1924).

The grants and scholarships awarded from 1934 are as follows:—

	Grants.	*Scholarships.*
1934	11	10
1935	10	14
1936	6	15
1937	13	10
1938	11	14

(*c*) *Carnegie Corporation of New York.*—The Board, on the invitation of the Carnegie Corporation, assisted in the distribution and administration of funds contributed by the Corporation in support of research in South Africa. The programme was for a period of five years, i.e. from 1928 to 1932 inclusive, and included, in addition to grants for research purposes, travelling allowances for men and women, based on the plan of the Guggenheim Fellowship of the United States of America.

The Board, at the request of the Carnegie Corporation, collaborated with the Dutch Reformed Church in research in connexion with the Poor White problem. The results of this research have been published in English and Afrikaans; the work comprises five volumes, and the cost of publication was borne by the Carnegie Corporation.

The Carnegie Corporation placed a further sum at the disposal of the Research Grant Board for the support of research during the years 1933 to 1937 inclusive. This sum is now practically exhausted.

(*d*) *Mineral Research Scholarships.*—These scholarships, of which two are available annually, are of the value of £240 per annum, and are tenable for one year with the possibility of renewal. They are awarded for the purpose of research in connexion with the winning and utilization of minerals (other than coal) occurring in the Union. The scholars are required to act under the direction of the Director of the Mineral Research Laboratory, University of the Witwatersrand.

(ii) *The South African Institute for Medical Research.*—This Institute was established in Johannesburg in 1912 for the purpose of carrying out (*a*) researches and investigations into the causes and methods of prevention of human diseases, (*b*) routine laboratory examinations of a diagnostic nature for public health authorities, hospitals, the mining industry, and others, and (*c*) the preparation of biological products for the prevention and treatment of diseases, including vaccines, antitoxins, antibacterial sera, and similar products.

The control of the Institute is vested in a board of management representing the Government (3 members), the Witwatersrand Native Labour Association (3 members), and the University of the Witwatersrand (1 member).

In the years which have elapsed since its establishment the Institute has greatly expanded both in building and staff, until now it employs about 100 Europeans and 50 natives.

The Institute is mainly concerned, on the research side, with investigations into medical problems relating to public health and industrial hygiene, with particular reference to South African conditions. Extensive investigations have been made, or are in progess, in connexion with plague, typhus, the typhoid fevers, rabies, the silicosis of gold mining, tuberculosis, pneumonia, meningitis, and other bacterial diseases, and parasitic diseases, while a special department is devoted to the study of tumour formation and growth. Much work has also been done in regard to the nutritional conditions and diets of the native population, and a special study of the blood groups of African natives has been made. Both in the laboratory and in field work extensive studies have been made of the bionomics of the vectors of malaria, and similar studies have been commenced on the flea carriers of plague.

The routine side of the Institute's work includes the performance of routine tests for diagnostic purposes on behalf of the Government, the mining industry, local authorities, hospitals, and medical practitioners, while the serum and vaccine laboratories, in addition to carrying out serological and immunological researches, are responsible for the preparation and issue of large quantities of antitoxins, antibacterial serum, and vaccines for the prevention and treatment of diseases. In this connexion extensive research has been conducted in regard to the snake venoms of Africa and other countries; this has resulted in improved methods for the production of antivenene used for the treatment of snake bite. In regard to the preparation of sera and vaccines, extensive new buildings have been erected and equipped with the most modern plant for the production of these essential biological products.

A branch laboratory for routine diagnostic investigations has been established at Port Elizabeth to serve the eastern districts of the Cape Province.

The Institute works in close association with the medical school of the University of the Witwatersrand, of which the Director of the Institute is honorary professor of bacteriology and pathology, while other officers of the Institute hold senior lectureships in pathology, bacteriology, and parasitology. In addition to the courses in these subjects for the ordinary medical curriculum, special post-graduate courses are held for the diplomas of Public Health, Tropical Medicine and Hygiene, and Psychological Medicine.

The total expenditure on the Institute for the financial year ended on the 31st March, 1938, was £75,892.

The Institute publishes an annual report covering its many activities, and a copy of that report can be obtained by anyone interested on application to the Manager and Secretary, P.O. Box 1038, Johannesburg. The Institute also publishes, from time to time, the results of specific scientific researches in the form of monographs and papers contributed to various medical and scientific journals, copies of which are distributed to similar institutions and to research workers throughout the world.

(iii) *The South African Association of Private Laboratories.*—The members of this association, who are laboratory owners in private medical laboratory or analytical practice in Capetown, Durban, Johannesburg, and Pretoria, work in close co-operation with chemical and medical associations in South Africa. The object of the association is to promote the chemical, medical, and allied sciences, to foster a spirit of mutual help and co-operation amongst its members, and to encourage and facilitate research work in private laboratories.

The officers elected for the year 1938 were:—

Dr. A. Pijper (Pretoria), *President.*
Mr. James Gray (Johannesburg), *Vice-President.*
Dr. J. Pratt-Johnson (Johannesburg), *Hon. Secretary and Treasurer.*

(iv) *The South African Council for Educational and Social Research.*—This Council is constituted under the chairmanship of the Minister of Education. The National Bureau of Educational and Social Research, mentioned in § 1 above, acts as secretariat for the Council.

The objects and functions of the Council are:—

(i) To promote generally, as far as possible in co-operation with existing institutions, the cause of educational and social research and investigation in South Africa;

(ii) to administer the Carnegie Grant of £12,500 (payable in five annual instalments) for the furtherance of the abovementioned object, provided none of this fund be spent upon the salaries of the permanent officers and staff of the Bureau.

This will involve:—

(*a*) Payment of expenses in connexion with the meetings of the Council and the Board;

(*b*) allocation and disbursement of grants to assist in carrying out any research or investigation approved by the Council;

(*c*) the making of an annual grant towards the library of the Bureau so that South Africa may have at least one central library where students may become acquainted with the work done in social and educational fields in other countries, as well as in South Africa;

(*d*) the publication in suitable form of the results of research and investigation approved by the Council;

(iii) to advise the Bureau as to possible lines of research;

(iv) to consider suggestions and recommendations made by an Advisory Board constituted from representatives of various educational and social organizations in the different provinces of South Africa.

An account of the grants made and activities sponsored by the Council has been published in *Research Series No.* 6 of the South African Council for Educational and Social Research under the title: *Educational and Social Research in South Africa.*

§ 6. Libraries.

1. **Library of Parliament.**—The Library of Parliament, which is housed in the Houses of Parliament at Capetown, has existed since July, 1854, and to-day contains some 80,000 books; it is the largest library in the Union maintained purely from State funds. The aim of this institution is to provide information on the political and social sciences required by those governing the country. The institution is open to the Governor-General, senators, members of parliament, and judges, ex-senators, ex-members of parliament, and ex-judges.

A collection of about 25,000 volumes dealing with Africa, called the Mendelssohn library, forms part of the Library of Parliament, and this section is open during office hours to research workers, students, and those interested in African literature. The whole of these collections is fully catalogued according to the Dewey Decimal System of Classification, and students have the assistance of research librarians, together with the help of a subject index.

The Mendelssohn collection originated through the munificence of the late Sidney Mendelssohn, who died in 1917, bequeathing his famous collection of Africana to the Union Parliament. The books brought together by Mr. Mendelssohn number about 12,000 items, and in addition the collection embraces a vast number of historical pictures and maps. A collection of Africana, belonging to Major William Jardine, was subsequently added by purchase, as was also a considerable African library, previously housed in the Library of Parliament. Together with Mr. Mendelssohn's gift, funds were provided for the purpose of keeping the collection up to date.

The Library of Parliament publishes an annual report, periodical lists of additions, and bibliographies of various subjects of contemporary interest, among which are: *Guide to Publications in the Library of Parliament dealing with the Relations between Europeans and Coloured Races* and *Gids tot die Publikasies in en oor Afrikaans in die Parlementsbiblioteek.*

2. **Principal Public Libraries.**—In earlier issues of this *Year Book* (Nos. 1 to 6) historical particulars were given of the four libraries designated by the Copyright Act (No. 9 of 1916) for the receipt of all publications copyrighted in the Union, viz., the South African Public Library, Capetown; the State Library, Pretoria; the Library of the Natal Society, Pietermaritzburg; and the Bloemfontein Public Library.

The *South African Public Library, Capetown,* which is a national institution, was founded in 1818, and is the oldest and largest library in the Union. It contains the Dessinian, Fairbridge, Grey, Hofmeyr, and Wessels Collections, and the Muir Mathematical Library, and is especially rich in literature relating to South Africa and in sets of scientific publications.

The *State Library, Pretoria,* is one of the two national libraries; it is also the central library. It was established in 1887 and possesses one of the most extensive and valuable book collections in South Africa. It includes a very comprehensive collection of works on the early history of and records of travel in South Africa and numerous printed publications issued by the Government of the late South African Republic. In 1932 the Carnegie Corporation of New York voted a capital grant of 125,000 dollars (£25,686 at par) to the State Library, the annual interest on which is devoted to the provision of central library facilities.

The chief objects of the State Library are: To act as the centre of the South African library system; to act as a national lending and reference library, supplying on loan to libraries, and in special cases to individuals, books which cannot be conveniently or economically obtained in any other way; to encourage co-operation between all libraries and to provide the mechanism for exchange of books between libraries; to achieve a united national library system and to provide the services of a travelling organizer to assist library authorities in the solution of their difficulties and in the improvement of their library service; to assist in the establishment of rural library services throughout the entire Union; in terms of the *Patents, Designs, Trade*

Marks and Copyright Act, 1916, to act as a repository for all books, periodicals, newspapers, and other documents published in the Union of South Africa and to furnish information concerning these publications by means of monthly lists of accessions and by other means; to act as a centre of bibliographical information; to act as a municipal library.

The *Library of the Natal Society* originated in a small public library started at Pietermaritzburg in 1846, and was subsequently taken over by the Natal Society, which was founded in 1851 and incorporated in 1874, with the object of promoting the study and cultivation of the various branches of art, science, literature, and philosophy. One of the distinguishing features of the library is the valuable and comprehensive music section. A grant is received from the Provincial Government in support of the children's section, which is now in a flourishing condition. The library supplies books to country subscribers and to library clubs in the schools. There are good reading rooms with overseas and local newspapers and magazines.

The *Bloemfontein Public Library* was established in 1875, and after many vicissitudes it has now developed into a considerable institution. The present building was given by the late Mr. G. A. Fichardt, and the ground by the Municipality; from the latter the library has received a great deal of financial support. The library possesses a good collection of Orange Free State records. The Africana collection has been considerably enlarged and includes the following:—

Hofstede, H. J.: Geschiedenis van den Oranje Vrijstaat, 1876.
Notulen van den Volksraad, Oranje Vrijstaat.
Ordonnanties van den Volksraad, Oranje Vrijstaat.

The Bloemfontein Public Library supplies books to country residents, as well as to 28 smaller libraries in the Orange Free State and the northern Cape Province.

One of the most important steps in the development of the library was the opening in June, 1932, of a children's free library. It has also organized a non-European library service for the Orange Free State, for which a Carnegie grant of 2,500 dollars was made.

It was the first library in South Africa to establish and maintain a Book Club and a Drama Library. Valuable extension work is conducted through the medium of a popular Library Literary Society.

3. Statistics of Public Libraries.—The following tables give statistics of public libraries for a period of years:—

PUBLIC LIBRARIES.

(i) NUMBER OF LIBRARIES AND BORROWERS, BOOK STOCK, AND ISSUES.

(*a*) UNION, 1933 TO 1937.

Year.	Number of Libraries.	Book Stock.		Number of Borrowers.				Lending Department Issues.	
				Town.		Country.			
		Reference.	Lending.	Subscribers.	Free.	Subscribers.	Free.	Adult.	Juvenile.
1933...	245	—	1,996,474*	65,743†	—	—	—	388,385‡	—
1934...	249	—	2,069,109*	71,095†	—	—	—	400,960‡	—
1935...	253	164,755	1,953,523	36,032	38,414	3,823	1,098	3,981,866	405,78
1936...	254	169,685	2,012,567	36,349	56,976	3,601	12,868	4,162,177	435,22
1937...	253	169,638	2,104,352	31,548	83,065	3,778	16,515	4,182,463	525,20

* Total book stock—unclassified prior to 1935.
† Total number of borrowers—unclassified prior to 1935.
‡ Average monthly circulation.

PUBLIC LIBRARIES—(*continued*).

(i) NUMBER OF LIBRARIES AND BORROWERS, BOOK STOCK, AND ISSUES—(*continued*).

(*b*) PROVINCES AND PRINCIPAL LIBRARIES, 1937.

Libraries.	Book Stock.		Number of Borrowers.				Lending Department Issues.	
			Town.		Country.			
	Reference.	Lending.	Subscribers.	Free.	Subscribers.	Free.	Adult.	Juvenile.
Principal Libraries.								
South African Public Library, Capetown.....	—	275,000†	1,607§	—	—	—	123,624	363
State Library, Pretoria....	—	101,193†	—	7,372	—	—	272,253	37,735
Natal Society's Library, Pietermaritzburg.....	4,714	49,469	1,109	—	94	—	88,092	4,978
Durban.....	5,833	65,093	263	10,167	187	—	243,868	89,721
Bloemfontein.....	2,000	26,750	720	2,334	71	—	76,107	18,430
Port Elizabeth.....	5,596	63,591	1,869	—	113	—	156,584	6,528
Germiston.....	939	26,589	—	3,292	200	—	90,572	28,616
Transvaal Education Department School Libraries, Germiston*.....	—	28,123	—	14,284	—	9,331	—	93,440
Rural Free Library, Germiston.....	—	11,363	—	—	—	6,818	59,014‡	—
Benoni.....	485	23,115	—	2,664	81	—	101,694	19,200
Johannesburg.....	86,709	80,500	—	33,269	—	—	446,414	95,785
Kimberley.....	17,929	45,348	866	28	39	—	70,607	2,418
Albany, Grahamstown.....	11,770	22,933	548	—	89	—	69,819	4,163
South African Library for the Blind, Grahamstown.	—	6,684	—	3	—	245	5,209	113
East London.....	2,635	23,507	668	—	36	—	83,004	746
Provincial Totals (including above).								
Cape of Good Hope.....	63,927	1,375,523	22,572	1,356	2,067	332	2,065,192	80,477
Natal.....	10,754	188,152	2,405	10,213	718	—	447,842	97,771
Transvaal.....	92,206	441,848	4,619	67,568	674	16,181	1,464,519	324,795
Orange Free State.....	2,751	98,829	1,952	3,928	319	2	204,910	22,163

* A juvenile section of the Germiston Library belonging to and run for the Transvaal Department of Education.
† Includes Reference.
‡ Includes Juvenile.
§ Total number of borrowers.

(ii) RECEIPTS AND EXPENDITURE.

(*a*) UNION, 1933 TO 1937.

Year.	Receipts.			Expenditure.		
	Government Grants.	Other.	Total.	Books, Binding, Periodicals.	Other.	Total.
	£	£	£	£	£	£
1933.....	13,532	87,609	101,141	33,792	68,005	101,797
1934.....	14,070	88,819	102,889	35,800	68,255	104,055
1935.....	19,674	105,409	125,083	40,114	84,157	124,271
1936.....	19,917	107,136	127,053	41,449	84,054	125,503
1937.....	20,908	120,098	141,006	46,914	93,335	140,249

PUBLIC LIBRARIES—(*continued*).

(ii) RECEIPTS AND EXPENDITURE—(*continued*).

(*b*) PROVINCES AND PRINCIPAL LIBRARIES, 1937.

Libraries.	Receipts.			Expenditure.		
	Government Grants.	Other.	Total.	Books, Binding, Periodicals.	Other.	Total.
Principal Libraries.	£	£	£	£	£	£
South African Public Library, Capetown	3,000	5,188	8,188	2,267	5,351	7,618
State Library, Pretoria	2,760	5,037	7,797	2,842	4,932	7,774
Natal Society's Library, Pietermaritzburg	100	2,030	2,130	563	2,501	3,064
Durban	100	10,043	10,143	3,210	6,933	10,143
Bloemfontein	—	2,630	2,630	879	1,809	2,688
Port Elizabeth	360	3,984	4,344	1,374	3,121	4,495
Germiston	—	2,478	2,478	1,067	1,347	2,414
*Transvaal Education Department School Libraries, Germiston	600	14	614	606	302	908
Rural Free Library, Germiston	1,000	1	1,001	679	477	1,156
Benoni	—	1,818	1,818	793	1,064	1,857
Johannesburg	—	42,689	42,689	11,212	31,477	42,689
Kimberley	307	2,610	2,917	582	1,988	2,570
Albany, Grahamstown	270	1,182	1452	484	911	1,395
South African Library for the Blind, Grahamstown	200	894	1,094	270	1,000	1,270
East London	270	1,392	1,662	579	1,031	1,610
Provincial Totals (including above).						
Cape of Good Hope	15,683	38,898	54,581	19,508	33,334	52,842
Natal	200	13,949	14,149	4,598	10,446	15,044
Transvaal	5,025	62,031	67,056	21,122	46,286	67,408
Orange Free State	—	5,220	5,220	1,686	3,269	4,955

* A juvenile section of the Germiston Library belonging to and run for the Transvaal Department of Education.

§ 7. Art Galleries and Museums.

1. **Art Galleries.**—(i) *South African National Gallery, Capetown.*—The original Capetown Art Gallery was founded in 1871 under a bequest from Butterworth Bayley, supplemented by the efforts of the South African Fine Arts Association, which resulted in a sum of £3,000 being raised towards the project. The first gallery was situated in New Street, now Queen Victoria Street, but in 1895 this property was sold to the Cape Government, and the art collection was removed to a building adjacent to the South African Museum.

In 1914 a commencement was made with the building of the present gallery, but the outbreak of war interrupted the work, which had not then advanced beyond the foundations. In 1928 building was resumed and the gallery was opened in November, 1930.

The completion of the first part of the building was a result of financial co-operation between the Union Government, the Capetown Municipality, and the trustees of the estate of the late Hyman Liberman, a former mayor of the city. Plans are now ready for extensions involving three new blocks, the building of which was commenced in January, 1938.

Valuable gifts of pictures and sculpture have been made by Mr. A. A. de Pass, Mr. F. K. Wiener, Frank Brangwyn, R.A., Sir Edmund and Lady Davis, Lady Michaelis, The National Art Collection Fund, London, Mr. and Mrs. J. Whitford Griffiths, and others.

(ii) *Statistics.*—Particulars are given hereunder in respect of art galleries:—

ART GALLERIES, 1937.

Particulars.	South African National Gallery, Capetown.	Michaelis Gallery, Capetown.	Fine Arts Association, Grahamstown.	Municipal Art Gallery, Durban.	Municipal Art Gallery, Pietermaritzburg.	Municipal Art Gallery, Johannesburg.
Date of Establishment	1871.	1916.	1901.	1892.	1903.	1913.
Number of Visitors during Year	90,572	27,492	*	111,119	19,798	58,635
Value of Buildings and Contents.	£	£	£	£	£	£
Insured Value of Buildings	62,500	—	4,000	26,600	160,000	48,469
Insured Value of Furniture and Fittings	1,120	350	—	7,706	18,710	1,790
Insured Value of other Contents (pictures, etc.)	22,300	87,050	3,000	44,842		80,103
TOTAL £	85,920	87,400	7,000	79,148	178,710	130,362
Receipts.						
Government Grant	3,325	1,000	90	—	—	—
Municipal and other Grants	500	5	—	1,823	133	4,078
Other Receipts	418	15	55	59	1	300
TOTAL £	4,243	1,020	145	1,882	134	4,378
Expenditure.						
Salaries and Wages	1,414	727	11	831	117	2,440
Purchase of Articles for Gallery	692	—	—	146	—	85
New Buildings	—	—	4,544	—	—	—
Other Expenditure	2,172	313	17	905	17	1,853
TOTAL £	4,278	1,040	4,572	1,882	134	4,378

* No record.

2. **Museums.**—(i) The *South African Museum, Capetown*, was established under that name in 1825 with Dr. (later Sir) Andrew Smith as its first curator. In 1855 it was incorporated by Act of Parliament as a government institution, and placed under the care of a board of trustees. The present Director and Keeper is Dr. E. L. Gill and there is a scientific staff of five.

The museum contains collections in all branches of natural history and geology, as well as anthropology and archaeology. In most departments a representative series of specimens is set out for public exhibition, but much larger systematic collections are kept for the use of specialists. Owing to lack of space, there has been up to the present no permanent public exhibit of botanical material, though the museum possesses a large and valuable herbarium; but a named collection of fresh wild flowers renewed every week is shown in the entrance hall.

Much scientific work on the collections is carried out by the staff and by specialists in other South African institutions or abroad. The results are published in the *Annals of the South African Museum*, of which thirty-four volumes are completed or in course of publication.

One whole volume and parts of two others, amounting to 1,153 pages of text, with 39 plates and many other illustrations, were published during 1938. A supplementary publication was an index to Volumes I to XXX of the *Annals*.

Special features of the collections at present exhibited to the public are inscriptions left at Table Bay by early navigators; the life-casts of Bushmen and other native races; cave-paintings, rock-engravings, and prehistoric stone implements; prehistoric remains from Zimbabwe; South African birds, reptiles, and fishes; skeletons of whales from local seas; Karroo fossil reptiles; economic geology of diamonds, platinum, asbestos, etc. Among the more notable of the reference collections are those in South African botany, entomology, arachnology, marine zoology, and fossils.

The exhibition galleries were largely re-arranged a few years ago in consequence of considerable extensions of the building, but as the supply of new show-cases has not yet caught up with the increased space it has so far been impossible to present all the re-arranged sections in finished form. During 1938 a further instalment of cases resulted in the completion of the equipment of the new ethnology gallery and the future insect room. The furnishing of a new outbuilding, which provides much-needed storage and working quarters for the departments of palaeontology and stone-age archaeology, was finished early in 1938, and these new quarters have since been in full use.

Also under the care of the museum trustees, with the help of an advisory committee, is a typical colonial town-house in Strand Street, known as the Koopmans de Wet House and devoted to the exhibition of early Cape-made furniture and domestic appurtenances in use from the Settlement to about the year 1830.

Further particulars descriptive of the principal collections in the museum will be found in the sixth and earlier issues of this *Year Book*.

(ii) The *Albany Museum, Grahamstown*, was founded in the year 1855. At first the collections were housed in various private premises and later in the Town Hall. In 1900 a museum building was erected, the funds for which were provided by the Government. In 1920 a new wing was added and a second wing was completed in 1938.

The museum is under the control of a Director, who is responsible to the board of trustees consisting of twelve members. The Director is Dr. J. Hewitt, who is assisted by three honorary curators: Dr. J. L. B. Smith (fish collections), Prof. E. D. Mountain (rocks and minerals), and Dr. J. V. L. Rennie (fossils). The Botanical Survey officer for the South-eastern Districts acts as Curator of the Herbarium.

The museum is maintained by means of annual grants from the Provincial Administration, supplemented by grants from the Divisional Council, the Grahamstown Municipality, and various colleges, and by public subscriptions.

The collections relate chiefly to the fauna, flora, geology, ethnography, and history of South Africa. The historical collection contains a number of interesting objects relating to the 1820 Settlers, and the pre-history collections include a series of Scandinavian stone implements and also collections of stone implements from many rock-shelters in the Albany district, including material from the well-known sites of Wilton and Howieson's Poort. The bird and mammal rooms contain fairly representative series, and besides there are skin collections stored away—that of birds numbering approximately 10,000 specimens.

Collections of reptiles, amphibians, and fishes are exhibited, and there is a much larger series amongst the study collections. These study collections of lower vertebrates are of considerable importance and include many "type" specimens. There are good collections of insects and of land and marine shells.

The herbarium, which was commenced about the year 1860, is the only public collection of its kind in the eastern Cape Province, and is one of the largest in South Africa. The specimens are contained in 31 cabinets, and the total number is estimated at over 100,000. The herbarium is now the Eastern Districts Regional Herbarium for the Botanical Survey of the Union.

In the arrangement of the exhibited collections the special needs of Grahamstown as an educational centre have been considered. Specimens are often lent to teachers and students for class instruction and study. Recently the sphere of influence has been greatly enlarged by the establishment of a schools service, which provides travelling collections that are sent to the primary schools over a wide area in the eastern Cape Province. The cost of the exhibition cases for this purpose was met from funds donated by the Carnegie Corporation of New York. A fully trained officer has been appointed by the Education Department to manage this service.

In matters of research, interest is mainly concentrated on the eastern Cape Province. The publications of the museum are of two kinds: Guide books for popular instruction and Records which make known the results of the scientific work of the staff. The latter publication is issued to kindred institutions throughout the world on an exchange basis.

(iii) *Port Elizabeth Museum and Snake Park.*—The collection in the museum commenced in a very small way and was housed for many years in a single room. In 1885 the Town Council undertook the control and maintenance of the collection, which was then transferred to the Feather Market building, and in 1888 a grant of £150 per annum was made by the Government. In 1914 Mr. and Mrs. Olorenshaw and Mr. C. R. Olorenshaw presented to the town a spacious residence situated in Bird Street for use as a museum, and the collection was transferred to the new premises.

The museum contains collections of mammals, birds, minerals, and historical specimens. The Marine Hall, built in 1930, contains a collection of specimens of the marine life of Algoa Bay, including two whale skeletons, each measuring 60 feet. The African Hall houses the ethnological collection comprising beadwork, stone implements, bushman paintings, etc. Situated in the museum grounds are the famous Snake Park, where live snakes are displayed by a native attendant, two aviaries, and an aquarium.

(iv) The *Durban Museum* was established by the Durban Town Council in 1887 and is housed in the municipal buildings. The museum contains collections in South African zoology, botany, ethnography, prehistoric archaeology, numismatics, and local history. The exhibits include several important collections, viz.: the Alfred D. Millar collection of more than 3,000 South African butterflies and some 2,500 eggs of South African birds; the J. D. Casey collection of shells of South African molluscs; and the W. S. Churchill collection of more than 3,000 Greek, Roman, and British coins and European commemorative medals; and amongst the collections that are stored for reference and study purposes is the C. N. Barker collection of about 12,000 specimens of South African coleoptera.

The educational value of the museum is promoted by the employment of a guide-lecturer to conduct visitors and classes of school children through the museum and to interpret the exhibits, and also by means of weekly lectures to classes of school children on subjects within the scope of the museum and the curriculum of the schools, illustrated by lantern slides, motion-picture films, and exhibits in the museum.

The results of the scientific activities of the museum staff are published in the *Annals of the Durban Museum*.

The public attendance during the last three years has averaged 115,094 persons per annum.

(v) *Transvaal Museum, Pretoria.*—The Transvaal Museum was established in 1893 and officially opened on 15th May, 1894, by President S. J. Paul Kruger under the name of "Staatsmuseum".

To-day the Transvaal Museum comprises:—

(*a*) the *Old Museum* in Boom Street;
(*b*) the *New Museum* in Paul Kruger Street;
(*c*) the *Paul Kruger Museum* (President Kruger's former residence) in Church Street West.

At the *Old Museum* are exhibited the historical, ethnological, and art collections. The taxidermist's laboratory is also in this building.

The *New Museum* houses the natural history and geological collections, the scientific library, the office of the Director, and the laboratories of the scientific staff. Every branch of natural history is here represented. Three large halls are devoted to the exhibition of mammals, birds, reptiles, fishes, shells, insects, etc., while in a fourth hall is the geological collection, the most extensive in the southern hemisphere. The exhibition collections in the museum have grown to fairly large proportions; the study collections are far larger and, in fact, in most branches they are the largest in South Africa. The method of exhibition of the natural history collections is only a temporary measure; lack of show-cases prevents any proper arrangement and display of the magnificent groups of mammals, which have continually to be replaced as a result of exposure.

The *Paul Kruger Museum* was officially opened as a branch of the Transvaal Museum on the 10th October, 1934. The house has been restored to something of its former state and contains many relics of President S. J. Paul Kruger. Much of the original furniture, however, has still to be procured, and in this respect great difficulty is being experienced. It is hoped that gradually many of these pieces will be returned to their former home, where they will be arranged in their original positions.

The museum is under the control of a Director, Mr. C. J. Swierstra, who is responsible to a board of trustees. The scientific staff consists of six specialists. The results of scientific research on the museum collections are published in the *Annals of the Transvaal Museum*, of which 19 volumes are complete or in the hands of the printer.

(vi) *The National Museum, Bloemfontein.*—The museum was established in 1877. The Government made a grant of £100 per annum, and the material was housed in the Raadsaal, one of the buildings dating from the early days of Bloemfontein. After 1900 the grant was increased to £400 per annum. In 1912 the Government erected a large building for the museum with 12 halls at a cost of £15,000. Thereafter the grant was increased to £1,000, but it was not until 1922, when the grant was further increased to £2,000, that the first scientist was appointed. In 1937 further large halls were added and the floor space was thereby doubled. Other extensions are in course of construction.

To-day the museum is a government museum with a yearly grant of £2,700 from the Government and £150 from the Town Council. It is under the supervision of 6 curators, 4 of whom are appointed by the Government and 2 by the Town Council. The Director of the museum is Dr. Ir. E. C. N. van Hoepen, M.I.

Since the appointment of a scientific staff in 1922 the museum has grown rapidly, not only because of the work of the staff but because of the increasing support of the public. The growth of the museum is reflected in the growth of the more important collections.

The number of exhibits in the most important groups in 1922 as compared with that in September, 1937, is as follows:—

Description.	1922.	1937.	Increase.
Vertebrates	1,886	3,134	1,248
Invertebrates	819	2,988	2,169
Fossil Vertebrates	109	6,439	6,330
Fossil Invertebrates	379	16,139	15,760
Ethnographic Objects	977	4,132	3,155
Stone Implements	286	38,250	37,964
Historic Objects	369	662	293
Minerals and Rocks	1,300	3,494	2,194
TOTAL	6,125	75,238	69,113

In the first 45 years of its existence the museum had assembled 6,125 objects in the above-mentioned sections, and this number had increased by 69,113 to 75,238 in 15 years. The library has grown from 30 books to between 4,000 and 5,000. In 1928 the museum started its own publications, and an exchange system was instituted with learned institutions throughout the world. Twenty-six publications have been issued and an exchange is effected with 358 learned periodicals.

The number of visitors in 1922 was 18,000. This number has increased to about 70,000 yearly.

(vii) *Statistics.*—Particulars are given hereunder for the year 1937 in regard to all museums:—

MUSEUMS—NUMBER OF VISITORS, VALUE OF BUILDINGS, ETC., REVENUE AND EXPENDITURE, 1937.

Museum.	Date of Establishment.	Number of Visitors.	Insured Value of Buildings and Furniture.	Insured Value of other Contents.	Receipts.		Total Expenditure.
					Government Grant.	Other.	
			£	£	£	£	£
Albany Museum, Grahamstown	1855	*	39,277‡	—	2,276	4,121	5,336
East London	1921	21,161	7,090‡	—	500	781	528
McGregor Museum, Kimberley	1907	*	18,200	5,500	1,138	1,723	2,407
Kaffrarian Museum, Kingwilliamstown	1889	50,000	6,994	9,894	900	274	1,238
Port Elizabeth	1885	118,920	31,970	15,100	1,800	2,927	4,050
South African Museum, Capetown	1855	130,480	107,000§	33,600	7,225	988	8,278
Oude Kerk Volksmuseum, Tulbagh	1925	750	1,500**	*	100	28	79
Durban	1887	118,404	36,479	14,976	—	3,395	3,395
Natal Museum, Pietermaritzburg	1903	38,100	56,000§	22,000	2,650	303	2,788
Voortrekker Museum, Pietermaritzburg	1912	7,000	5,500‖	5,500‖	240	—	228
Africana Museum, Johannesburg	1935	60,000	11,000††	21,839	—	8,400	8,400
Transvaal Museum, Pretoria	1893	173,314	120,000§	100,000¶	7,900	668	8,092
National Museum, Bloemfontein	1877	62,695	30,250¶	14,850	2,500	350	3,002
Oorlog Museum, Bloemfontein	1931	9,000†	4,000‡	—	300	100	255

* No records kept.
† Approximate figure.
‡ Including value of other contents.
§ Building government-owned; not insured value.
‖ Not insured value.
¶ Including furniture.
** No record of value of furniture.
†† Building included in public library.

§ 8. Zoological and Botanical Gardens.

1. **Zoological Gardens.**—(i) The *National Zoological Gardens of South Africa, Pretoria*, arose as an offshoot of the Staatsmuseum der Zuid Afrikaansche Republiek, now the Transvaal Museum. In 1899 Dr. J. W. B. Gunning, Director of the Staatsmuseum, obtained permission to remove a few wild animals, collected by him, from the museum on Market Square to "Rus in Urbe", the present site of the gardens.

The gardens are under the control of a Director (R. Bigalke, M.A., Ph.D., C.M.Z.S.). By Government Notice No. 1398 of the 29th September, 1933, the institution was incorporated under the *State-aided Institutions Act*, 1931, and the committee of management which had hitherto functioned was raised to the status of a board of trustees.

For many years the collection of animals was the most extensive in South Africa, and this is probably still the case.

Towards the end of 1932 the development of an ideal area of approximately 30 acres was commenced as an unemployment relief scheme, and the sections for lions, tigers, and antelopes were completed and occupied towards the end of 1938. These three enclosures are among the largest and most modern of their kind.

Early in 1936 the area of the grounds was increased from about 70 acres to about 100 acres by the cession of approximately 32 acres of the farm Prinshof. This new area extends from the Aapies River to the top of the Daspoort Hills, and is adjacent to the 30-acre extension now in course of development.

(ii) *Zoological Gardens, Johannesburg.*—In 1903 Messrs. Wernher, Beit and Co., of London, and Mr. (later Sir) Max Michaelis, a former partner of that firm, presented to the town about 200 acres of the Braamfontein Forest, then known as the Saxonwold, for the establishment of a public park. The offer was coupled with the wish that the park should be called "Hermann Eckstein Park" to commemorate the name of the late Mr. Hermann Eckstein, a senior partner of the firm. At the time the donation was made, there were in the deceased estate some animals which had been brought together by the late Mr. Hermann Eckstein. These animals were moved to

Hermann Eckstein Park and formed the nucleus of the present zoological collection. The City Council has developed the area, and has acquired over 2,660 animals and birds, with the result that to-day the gardens are one of the principal pleasure resorts of the inhabitants. No charge is made for admittance.

(iii) *Mitchell Park Aviaries and Gardens, Durban.*—These aviaries occupy the site of the former zoological gardens, and the collection of birds is housed in roomy aviaries provided with ample supplies of running water and sheltered by growing trees. The Municipality has erected part of what is intended to be an elaborate scheme of aviaries for a representative collection of South African birds. In addition to the birds, the elephant "Nellie", the gift of the Maharajah of Mysore, is a great source of attraction. Small collections of buck occupy several of the paddocks.

The gardens contain several fine specimens of trees, the chief of these being the *Trichelia Emetica*, the M'kuhla or Thunder tree, a species of immense proportions.

(iv) *Zoological Gardens, Bloemfontein.*—The Bloemfontein Zoological Gardens, situated in the Kings Park, are in reality what the name implies. Cages have been dispensed with in almost all cases, and animals are allowed the freedom of spacious islands, which give natural surroundings as far as is possible within the confines of a zoo. The whole layout of islands, irregular waterways, rustic bridges, lawns, and trees gives a splendid setting for the animals, among which may be found lions, including "Ligers," the progeny of a Bengal tigress and an African lion, leopards, baboons, monkeys, silver foxes, lynx, lemurs, Tasmanian Devils, porcupine, blue and black wildebeest, blesbok, rhebok, waterbuck, lechwe, gemsbok, steenbok, duiker, zebra, water buffalo, eagles, vultures, swans, herons, storks, and numerous other varieties of birds and waterfowl.

(v) *Statistics.*—The following table contains a statement of the number of visitors, receipts, and expenditure of four zoological gardens:—

ZOOLOGICAL GARDENS—NUMBER OF VISITORS, RECEIPTS, EXPENDITURE, 1937.

Heading.	National Zoological Gardens, Pretoria.	Zoological Gardens, Johannesburg.	Mitchell Park Gardens, Durban.	Zoological Gardens, Bloemfontein.
Date of Establishment	1899.	1903.	1908.	1909.
Number of Visitors, 1937	176,612	*	213,682	*
Receipts—	£	£	£	£
Government Grant	5,750	—	—	—
Municipal and other Grants	2,500	26,634	2,905	2,239
Entrance Fees	3,752	—	—	—
Other Receipts	2,133	1,638	40	—
TOTAL £	14,135	28,272	2,945	2,239
Expenditure—				
Salaries and Wages	6,618	15,191	1,318	746
Purchase of Animals	404	2,001	605	1
New Buildings	71	2,275	349	—
Animal Food	3,000	4,414	—	570
Other Expenditure	3,797	4,391	673†	922
TOTAL £	13,890	28,272	2,945	2,239

* No record.
† Includes food.

2. **Botanic Gardens.**—(i) The *National Botanic Gardens of South Africa.*—The National Botanic Gardens were established by unanimous resolution of Parliament in 1913, Kirstenbosch—a part of the Groote Schuur Estate bequeathed by Cecil Rhodes to the people of South Africa—being chosen as their site. Kirstenbosch is situated on the eastern slopes of Table Mountain, and both in natural beauty and in suitability for its purpose it is unsurpassed among the botanic gardens of the world. The area under control is about 550 morgen, extending from about 350 feet altitude to the summit of Table Mountain, 3,570 feet above sea level. The lower portions are being laid out and cultivated, the upper slopes being a nature reserve for the protection of the rich indigenous vegetation.

The purpose of the gardens is the cultivation, preservation, and scientific study of the South African flora. Kirstenbosch also serves an educational purpose in connexion with botanical teaching in the University of Capetown and nature study in the local schools and training institutions. It is popular as a place of pleasure, interest, and recreation for the public, the grounds being open every day of the year without charge for admission.

The chief features of Kirstenbosch are the Lawn and Pond, the Mesembryanthemum Garden, the Terrace, the Composite and Pelargonium Gardens, the Sandstone Kopje, the Fern Dell, the Protea Garden, the Succulent Garden, the Heath Garden, and the Cycad Amphitheatre. Other features of interest are Van Riebeeck's Hedge of Wild Almond, planted in 1660 and recently proclaimed a National Monument; and the old Bath, probably built by Colonel Bird about 1811. In the Economic Grounds is a large collection of plants of economic value.

The Karroo Garden at Whitehill, near Matjesfontein, was established in 1921 by private benefaction and is devoted to the cultivation and study of succulent flora.

The National Botanic Gardens are controlled by a board of trustees acting through a Director, who is one of the two professors of botany in the University of Capetown. The present Director is Professor R. H. Compton, M.A., F.R.S.S.Af. The Curator of Kirstenbosch is Mr. F. W. Thorns, and of Whitehill, Mr. J. Archer.

Kirstenbosch is supported by grants-in-aid from the Union Government, the Cape Provincial Council, the Cape Divisional Council, and the Capetown City Council. The Botanical Society of South Africa, a voluntary organization, now numbering over 1,900 subscribing members, grants the whole of its nett income to Kirstenbosch and Whitehill. Both gardens also derive a small revenue from sales.

(ii) *Municipal Botanic Gardens, Durban.*—These gardens were established in 1849 by an agricultural society, mainly for the purpose of introducing and testing economic plants and crops for the Colony. They are now run on the lines of a public park. The area of the gardens is about 40 acres.

There is a good collection of tropical and sub-tropical trees, both ornamental and economic, representing all parts of the tropics, particularly India and Queensland. A fair number of indigenous plants are cultivated, and this collection receives constant additions. Palms, ferns, orchids, and general conservatory plants are displayed in the Victoria Conservatory, built to commemorate Queen Victoria's Jubilee in 1897. The latest addition is the formal sunken garden, which was constructed in 1934 and has proved a great attraction to visitors. The municipal nurseries are included in the botanic gardens area.

(iii) *General.*—A statement containing particulars of botanic gardens is given hereunder.

BOTANIC GARDENS—NUMBER OF VISITORS, RECEIPTS, AND EXPENDITURE, 1937.

Heading.	Municipal Botanic Gardens, Capetown.	National Botanic Gardens, Kirstenbosch.	Botanic Gardens, Kingwilliamstown.	Botanic Gardens, Grahamstown.	Botanic Gardens, Graaff-Reinet.	Municipal Botanic Gardens, Durban.	Botanic Gardens, Pietermaritzburg.
Date of Establishment	1675	1913	1895	1853	1870	1848	1873
Number of Visitors.	*	74,579†	9,000‡	*	3,500‡	104,820	27,500‡
Receipts—	£	£	£	£	£	£	£
Government Grant	563	2,950	176	198	—	—	300
Municipal and other Grants	4,121	1,875	402	413	32	4,198	300
Other Receipts	25	1,129	75	564	—	1,053	331
TOTAL £	4,709	5,954	653	1,175	32	5,251	931
Expenditure—							
Salaries and Wages	3,380	4,740	457	913	—	2,941	890
Purchases	143	532	12	30	—	685	35
New Buildings	—	—	—	—	—	519	—
Other Expenditure	1,186	1,470	184	232	32	1,106	248
TOTAL £	4,709	6,742	653	1,175	32	5,251	1,173

* No records kept.
‡ Approximately.
† Saturday afternoons, Sundays, and public holidays only.

§ 9. Cultural Societies and Miscellaneous.

1. **Scientific and Cultural Societies, 1938.**—The following statement gives particulars of some of the more important of these societies. The list does not however claim to be exhaustive.

Society.	President.	Secretary.	Publications.	Membership.
Art, Literature, etc.				
The South African National Society for Preservation of Historic Objects, etc.	Sen. The Rt. Hon. F. S. Malan, P. C.	Lt.-Col. C. Graham Botha, V.D., M.A., P.O. Box 6, Capetown	Year Book....	218.
The Van Riebeeck Society.....	Dr. J. G. van der Horst	Miss M. Ralling and W. T. Wood, S.A. Library, Capetown	South African Historical Documents	600.
Suid-Afrikaanse Akademie vir Taal, Lettere en Kuns (Incorporated by Act No. 23 of 1921)	S. H. Pellissier	I. M. Lombard, Voortrekker Building, P.O. Box 3688, Johannesburg	Year Book.....	79 (100 maximum).
Federasie van Afrikaanse Kultuurverenigings	Dr. N. J. van der Merwe, M.P.	Dr. P. J. Meyer, Voortrekker Building, P.O. Box 8711, Johannesburg	F.A.K. Kongresbrosjure	300 (affiliated art and cultural societies)
The Classical Association of South Africa	Hon. J. H. Hofmeyr, M.P.	Prof. Wm. Rollo, University of Capetown, Rondebosch	Proceedings and selected Papers, First Issue, 1927-29, published in August, 1929; Second Issue, 1929-31, published in December, 1931	150.
Scientific and Technical (General).				
The Royal Society of South Africa.....	Prof. L. Crawford, D.Sc., F.R.S.E.	A. J. H. Goodwin, M.A., University of Capetown, Rondebosch.	Transactions...	205.
Inter-University Committee for African Studies	A. Kerr, M.A., D. Litt.	Sen. the Hon. J. D. Rheinallt Jones, M.A., c/o S.A. Institute of Race Relations, P.O. Box 1176, Johannesburg	Bantu Studies (Official Journal published by Witwatersrand University)	*
South African Institute of Race Relations (Incorp.)	Prof. R. F. A. Hoernlé	A. Lynn Saffery, B.A., University of Witwatersrand, P.O. Box 97, Johannes-burg	Race Relations News (Monthly), Race Relations (Quarterly), Monograph Series (occasional), Annual Report, Special Reports (Occasional)	Affiliated bodies, 36; individuals, 923.
South African Institute of International Affairs	Col. F. H. P. Cresswell	A. Gordon Bagnall and G. Roos, P.O. Box 56, Capetown	—	—
South African Association for the Advancement of Science	Prof. G. H. Stanley, D.Sc., A.R.S.M., F.I.C., M. Inst. M.M., M. Inst. Met.	C. F. Juritz, M.A., D.Sc., F.I.C., Hon. Gen. Sec., Capetown. H. E. Wood, D.Sc., F.R.A.S., Hon. Gen. Sec., Johannesburg. H. A. G. Jeffreys, O.B.E., Asst. Gen. Sec., P.O. Box 6894, Johannesburg	South African Journal of Science (yearly) Quarterly Bulletins.	751.

* Representatives of universities, Governments of Union, Protectorates, and Rhodesia, and other bodies.

SCIENTIFIC AND CULTURAL SOCIETIES—(*continued*).

Society.	President.	Secretary.	Publications.	Membership.
Scientific and Technical (General)—cont.				
Associated Scientific and Technical Societies of South Africa	Dr. P. N. Lategan	A. J. Adams, Kelvin House, 75 Marshall St., Johannesburg	The Annual Proceedings of the Associated Scientific and Technical Societies of South Africa	10 (constituent societies). 1 (affiliated society).
South African Museums Association.....	Prof. C. van Riet Lowe	E. C. Chubb, Museum and Art Gallery, Durban	Bulletin.....	Institutional 29) Ordinary 33.
Architecture.				
Transvaal Provincial Institute of South African Architects	R. Martiensen, B. Arch. (Rand), A.R.I.B.A.	A. S. Pearse, 202, Kelvin House, 75, Marshall St., Johannesburg	S.A. Architectural Record	337.
Astronomy.				
Astronomical Society of South Africa..	T. Mackenzie F.R.A.S.	A. Menzies, P.O. Box 2061, Capetown	Journal.....	110.
Biology.				
The South African Biological Society....	Dr. F. J. de Villiers	E. P. Phillips, D.Sc., P.O. Box 820, Pretoria	Pamphlets.....	150.
Botany.				
Botanical Society of South Africa*.....	W. Duncan Baxter	F. E. Cartwright, P.O. Box 267, Capetown	Journal (annual), Journal of South African Botany (quarterly)	1,928.
Chemistry.				
Cape Chemical and Technological Society	Prof. E. Newbery D.Sc., F.I.C., F.C.S., F.R.S. (S.Af.)	T. Murray Simpson, B.A., M.Sc., A.I.C., P.O. Box 2645, Capetown	—	110.
Chemical, Metallurgical, and Mining Society of South Africa	P. E. Hall, Ph. D., M.Sc., D.I.C.	H. A. G. Jeffreys, O.B.E., P.O. Box 1183, Johannesburg	Journal of Proceedings (monthly)	1,037.
South African Chemical Institute.....	F. J. de Villiers, M.Sc., Ph.D., D.Sc., F.I.C.	Associated Scientific and Technical Societies of S.A., Kelvin House, Marshall St., (P.O. Box 3361), Johannesburg	Proceedings (annual). Journal (twice yearly)	260.
Economics.				
Economic Society of South Africa.....	Prof. E. H. D. Arndt	C. W. Pearsall, M.A., Census Office, Pretoria	Journal (quarterly)	335.
Engineering.				
Institution of Certificated Engineers, South Africa	Joseph White, M.C., J.P., A.M.I.E.E.	Associated Scientific and Technical Societies of S.A., Kelvin House, 75, Marshall St., (P.O. Box 3361), Johannesburg	Journal (monthly)	495.
South African Society of Civil Engineers	D. P. Howells, M.Inst. C.E.	C. Costley-White, M.Inst. W.E., P.O. Box 1283, Capetown	Proceedings (monthly, March to Nov. inclusive)	400 (approx.
South African Institution of Engineers (Incorporated)	F. E. Kanthack	Associated Scientific and Technical Societies of S.A., Kelvin House, 75, Marshall St., (P.O. Box 5907), Johannesburg	Journal (monthly)	525.
South African Institute of Electrical Engineers	K. B. Findlay A.M.I.E.E.	〃	Transactions (monthly)	780.

* Members and associates have the privilege of participating in the distribution of surplus plants, bulbs, and seeds from the National Botanic Gardens.

SCIENTIFIC AND CULTURAL SOCIETIES—(*continued*).

Society.	President.	Secretary.	Publications.	Membership.
Geology and Geography.				
Geological Society of South Africa.....	Dr. B. V. Lombaard	Associated Scientific and Technical Societies of S.A., Kelvin House, 75, Marshall St., (P.O. Box 1071), Johannesburg	Proceedings and Transactions (annual)	250.
South African Geographical Society....	F. E. Plummer	W. Stewart, B.A., P.O. Box 5013, Johannesburg	Journal (annual)	150.
Mining and Metallurgy.				
Chemical, Metallurgical and Mining Society of South Africa	P.E. Hall, PhD., M.Sc., D.I.C.	H. A. G. Jeffreys, O.B.E., P.O. Box 1183, Johannesburg	Journal of Proceedings (monthly)	1,037.
South African Association of Assayers...	Chas. F. Cayton-Boxall	J. A. Milligan, P.O. Box 6343, Johannesburg	Rand Assay Practice Annual Journal	185.
Surveying.				
Institute of Land Surveyors of the Transvaal..	S. D. Tennant	Associated Scientific and Technical Societies of S.A., Kelvin House, 75, Marshall Str., Johannesburg	—	120.
Transport.				
Institute of Transport.....	T. H. Watermeyer, M.Inst. C.E., M.Inst. T.	T. A. W. Riley, c/o General Manager's Office, S.A.R. & H., Johannesburg	Monthly Journal, while council in Session (issued to members only)	500 (approx.)
Zoology.				
South African Ornithological Society...	Dr. R. Bigalke	N. C. K. Lighton P.O. Box 413, Pretoria	The Ostrich....	120 (approx.)
Wild Life Protection Society of South Africa	D. F. Gilfillan	J. W. H. Wilson, F.C.I.S., P.O. Box 3916, Johannesburg	Annual Report, Souvenir of Wild Life	150 (approx.)
Marine Biological Association.....	Gen., the Hon. J. B. M. Hertzog, Prime Minister	Prof. T. A. Stephenson, D.Sc., Capetown University, Rondebosch	Annual Report	32.

2. **Registered Newspapers.**—Every periodical published in the Union, in order to pass through the post at the newspaper rate of postage, must be registered with the Postmaster-General and must have the words, "Registered at the General Post Office as a newspaper," printed on the front page of each copy. The registration fee is 2s. 6d. per annum.

The following table shows the number of newspapers so registered at the 31st December during certain years:—

NUMBER OF NEWSPAPERS REGISTERED AT 31st DECEMBER, 1911 TO 1938.

Year.	Cape of Good Hope.		Natal.		Transvaal.		Orange Free State.		Union.	
	All Newspapers.*	Native Newspapers.	All Newspapers.*	Native Newspapers.	All Newspapers.*	Native Newspapers.	All Newspapers.*	Native Newspapers.	All Newspapers.*	Native Newspapers.
1911..	111	4	21	3	70	1	18	—	220	8
1915..	131	5	25	3	84	5	15	—	255	13
1920..	150	4	40	7	105	4	27	3	322	18
1925..	145	4	33	4	123	3	30	3	331	14
1930..	168	6	48	5	159	6	41	2	416	19
1935..	142	7	39	5	147	3	31	—	359	15
1936..	139	3	36	4	147	6	29	3	351	16
1937..	151	10	41	4	163	4	28	—	383	18
1938..	152	10	47	4	159	3	28	1	386	18

* Including native newspapers.

All publications have also to be registered with the Department of the Interior as required by the *Newspaper and Imprint Act* of 1934.

CHAPTER IX.

ADMINISTRATION OF JUSTICE.

§ 1. Criminal Jurisdiction—Lower Courts.

1. **Magistrates' Courts.**—The *Magistrates' Courts Act* (No. 32 of 1917) as amended by Act No. 39 of 1926 lays down the following limits of punishments which may be imposed by a magistrate's court in any part of the Union:—

Ordinary summary jurisdiction:—
Fine not exceeding £50.
Imprisonment with or without hard labour not exceeding six months, with or without solitary confinement and spare diet.
Whipping, not exceeding fifteen strokes, in certain cases.

Increased jurisdiction by reason of remittal:—
Twice the above limits in case of fine or imprisonment.

The *Magistrates' Courts Act*, 1917, was applied to the mandated territory of South West Africa by Proclamation No. 52 of 1921, issued by the Administrator of that territory under the powers delegated to him under Act No. 41 of 1919 of the Union Parliament.

2. **Courts of Special Justice of the Peace.**—Act No. 2 of 1918 (which has been amended by Act No. 46 of 1935) consolidates the law relating to the appointment and jurisdiction of special justices of the peace.

In the first place jurisdiction is given by section 3 and the First Schedule to the Act over all statutory offences for which the *maximum* penalty does not exceed a £25 fine, or three months' imprisonment, or both. By section 9 *bis* of the Act (as added by Act No. 46 of 1935) the Minister of Justice is given power from time to time, by notice in the *Gazette*, to add any offence to the offences in the First Schedule or to remove any offence from that schedule. Such offences are usually of a petty nature. Also, this section and schedule in effect re-enact, in a briefer form, much of the pre-existing legislation upon the subject. In the Orange Free State alone jurisdiction is given in respect of more than twenty statutes or fractions of statutes, which are at present separately enumerated in the body or the schedule of several Acts extending the jurisdiction of special justices of the peace [First Schedule (1) of Act.]

Secondly. Jurisdiction is given in respect of those common law offences such as petty thefts and assaults, which were originally subjects of trial by a special justice of the peace. This presents no difficulty, as the jurisdiction in this respect is practically the same in all the three provinces which have special justices of the peace [First Schedule (2), (3), (4)].

Thirdly. Jurisdiction is given in certain classes of offence which may be roughly classified as rural, e.g. offences in respect of pounds, preservation of game, etc., upon the assumption that the function of a special justice of the peace is mainly to provide for the comparatively simple wants of the countryside. A complete list of these classes of offence is contained in sub-division (8) of the First Schedule to the Act. Jurisdiction is also given in respect of contraventions of by-laws [First Schedule (6)].

Fourthly. Jurisdiction is given in respect of contraventions of regulations made under the *Native Labour Regulation Act*, No. 15 of 1911, section 23 (1), paragraphs (*i*), (*j*), and (*k*), First Schedule (7).

Finally, in master and servant cases, special justices of the peace are given without restriction the full jurisdiction of a magistrate. This does not increase the punishment which a special justice of the peace may impose, except in the single case of forging a false certificate of character. There are many provisions in the *Masters and Servants Acts** as to matters other than the imposition of fine and imprisonment, e.g. the making of orders for the payment of wages [section 3 (3)].

Besides this increase in master and servant jurisdiction, the plan adopted has resulted in an incidental increase in some other matters. For example,

in the Transvaal special justices of the peace have jurisdiction over all contraventions of Act No. 23 of 1907 (Registration and Control of Dogs), except contraventions of section 7 (3) of that Act, which deals with forgery of dog badges and provides a penalty of two years' imprisonment. The language employed in the Act covers the whole of this statute, including section 7 (3) of that Act. This extension is, however, more apparent than real, since by the proviso to section 3 (1) of the Act a special justice of the peace may not inflict a greater punishment than a fine of £10 or one month's imprisonment. Any risk that a serious offender might escape with an inadequate punishment by being prosecuted before a special justice of the peace for a serious offence is obviated by section 5 of the Act, which empowers the special justice of the peace, if he discovers the offence to be beyond his jurisdiction, or, though within his jurisdiction, of such a nature as not to be suitable for trial by him, to transmit the proceedings to the magistrate to be dealt with according to law, i.e. to be commenced afresh under the *Criminal Procedure and Evidence Act*.

By section 3 (2) of the Act, as amended by section 79, Act No. 46 of 1935, special justices of the peace have been given jurisdiction to sentence to a whipping not exceeding ten cuts male offenders under twenty-one years of age.

The Act gives a special justice of the peace jurisdiction to make an order for costs against an offender or a complainant, in addition to the fine or imprisonment imposed in the case of an offender (see also section 23 of the *Criminal Procedure and Evidence Act*, 1917, as to private prosecutions). The Act also authorizes a special justice of the peace to order an offender to make compensation or restitution.

Section 3 (1) of the Act is so drawn as to prevent any special jurisdiction being exercised under existing laws in the case of special justice of the peace courts.

As regards the appointment of special justices of the peace, and therefore the circumstances which give rise to the constitution of courts of special justice of the peace, the Act (section 1) sets the limit at twenty miles from the seat of magistracy of a district or a sub-district.

Magistrates' courts possess both appellate and review jurisdiction in respect of the criminal proceedings held before courts of special justice of the peace. Under the Act records of all criminal proceedings before a special justice of the peace must be transmitted to the local magistrate for review. He will possess on such review like powers to those possessed by a provincial division of the Supreme Court in the review of a decision of a magistrate's court. The Act also provides for an appeal to the magistrate's court against a conviction or sentence by a special justice of the peace, with a further appeal to the provincial or local division of the Supreme Court having jurisdiction (sections 4 and 7).

§ 2. Criminal Jurisdiction—Superior Courts.

1. **Divisions of the Supreme Court.**—Part VI of the *South Africa Act* (sections 95 to 112) left the superior courts of the Union in precisely the same position as regards criminal jurisdiction as they were in before the establishment of the Union. All that was changed was the nomenclature. A Supreme Court of South Africa was constituted in name, and an Appellate Division thereof was created (section 96); but to that division appeal lies on criminal matters from a judgment of a provincial or a local division, apart from the provisions of Act No. 31 of 1917 (see paragraph 4 below), only after special leave to appeal to it has been given by the division concerned or, if it refuses leave, then by the Appellate Division (sections 103 and 105, as amended by sections 104 and 105 of Act No. 46 of 1935). The three Supreme Courts of the Cape of Good Hope, Natal, and the Transvaal became provincial divisions of the new Supreme Court of South Africa; the High Court of the Orange River Colony became the Provincial Division of the Orange Free State; the Eastern Districts Court of the Cape became the Eastern District Local Division; the High Court of Griqualand became the Griqualand West Local Division; and the Witwatersrand High Court became the Witwatersrand Local Division. Circuit courts in every province also became local divisions of the Union Supreme Court.

By section 3 of Act No. 12 of 1920, as amended by Act No. 46 of 1935, section 108, the Appellate Division has jurisdiction to hear and determine appeals in civil and criminal matters from the High Court of the Mandated Territory of South West Africa, and from any circuit court of that territory, in the same circumstances as such division has jurisdiction to hear and determine appeals and applications for leave to appeal in such matters from a provincial division of the Supreme Court. Where leave is required before appeal can proceed, such leave may be granted by the High Court or a circuit court.

By Act No. 18 of 1931, the Appellate Division is given jurisdiction to hear appeals in criminal matters from the High Court of Rhodesia in the same cases as it has jurisdiction to hear appeals in criminal matters from a provincial division or a local division of the Supreme Court.

2. **Jurisdiction.**—(i) *Provincial and Local Divisions.*—The several supreme courts, high courts, and circuit courts have continued since the establishment of the Union to possess as provincial or local divisions (as the case may be) the same criminal jurisdiction as they previously possessed. In other words, presided over by a judge, and with a jury to determine questions of fact, such a superior court had before the establishment of the Union, and has now, practically unlimited criminal jurisdiction within the area for which it was constituted. This jurisdiction, except in very special cases, comes into operation on presentation to the court of an indictment by the Attorney-General of the province, or in the case of the Eastern District Court, an indictment by the Solicitor-General; and such indictment is presented after the accused has been committed for trial or sentence by a magistrate at the conclusion of an inquiry called a preparatory examination.

The existing jurisdiction of these superior courts has been indirectly confirmed by the Union Parliament in section 4 of the *Criminal Procedure and Evidence Act*, 1917, which lays down that the jurisdiction of the several superior courts in respect of the trial of persons accused of any offence is prescribed in the laws severally relating to the constitution and jurisdiction of those courts. The same Act recognizes two other classes of superior court for the trial of criminal cases, (*a*) the Native High Court of Natal as a permanent court, and (*b*) a special criminal court constituted by the Governor-General *ad hoc* on the request of the Attorney-General for the trial of certain classes of cases where there is ground to believe that the ends of justice may be defeated by trial before a jury.

The statutes conferring criminal jurisdiction on the provincial and local divisions described above are as follows:— *Cape*: The Charter of Justice, sections 30 and 39; Act No. 35 of 1896, section 13, as to the Eastern Districts; Act No. 39 of 1877, section 10, as to the Griqualand Local Division. *Natal*: Act No. 39 of 1896, sections 6, 7, and 8. *Transvaal*: Ordinance No. 10 of 1903, sections 1 and 6. *Orange Free State*: Ordinance No. 4 of 1902, sections 3 and 21.

(ii) *Circuit Courts.*—These courts were established by various pre-Union laws and in the Cape, Transvaal, and Orange Free State are held at such places and on such days as the Governor-General may approve, on the recommendations of the judge-presidents and judges of the provincial divisions of the Supreme Court concerned. One or more magisterial districts may form a circuit district, and the grouping of magisterial districts into circuit districts is subject to alteration from time to time. Descriptions of circuit districts and the places and days for holding of circuit courts are published in the *Government Gazette* from time to time.

The *Cape Province* is divided into two circuits (those for the western and eastern districts). Each is held twice annually, commencing in March and September. The *Transvaal* is divided into two circuits (those for the western and eastern districts). Each is held twice annually. The western circuits usually commence in April and October and the eastern circuits in February and August. Two circuits are held annually for the various districts in the *Orange Free State*. These circuits usually commence in March and September. In *Natal* the law provides for the holding of circuits when necessary at centres prescribed by the Supreme Court. Circuit court is held regularly at Durban, but no circuits have been held elsewhere since 1914.

Full court and single judge circuits for the trial of all classes of cases against natives are held at regular intervals by the *Native High Court* during each year at towns and on days prescribed by rules of court.

(iii) *Special Criminal Courts.*—The Governor-General may, in prescribed circumstances, constitute a special criminal court consisting of at least two and not more than three judges, for the trial of charges of treason, sedition,

or public violence, or for an attempt, conspiracy, or incitement to commit such an offence. The trial is without a jury and is a trial before a superior court. In addition, the Minister of Justice may direct that a person committed for trial for committing any offence under Chapter I of the *Riotous Assemblies and Criminal Law Amendment Act*, No. 27 of 1914, or any offence relating to illicit dealing in or possession of precious metal or precious stones, or the supply of intoxicating liquor to natives or coloured persons, or to insolvency or assignment of estates, or with having committed or attempted to commit any offence towards or in connexion with a European, if the accused is a non-European, shall be tried before a judge without a jury.

3. **Jurisdiction under Act No. 31 of 1917.**—Under the *Criminal Procedure and Evidence Act*, No. 31 of 1917, the superior courts continue the practice of trying indictments presented by the Attorney-General, or (in the Eastern Districts of the Cape) by the Solicitor-General. A superior court also tries an indictment presented—though this is a rare occurrence—by one of that limited class of persons who are empowered to institute private prosecutions after the Attorney-General (or the Solicitor-General) has certified that he declines to prosecute. The indictments are presented after consideration of preparatory examinations and the committal of the accused for trial by a magistrate. Except in the case of the Native High Court and the Special Criminal Court in the circumstances above described—and with one further exception (see below)—the trial is conducted before a jury of nine men, of whom seven at least must be unanimous as to the verdict returned. This limitation on absolute unanimity is a modification of the law in the Cape and the Orange Free State. After a verdict, the court is limited as to the punishment by the provisions of the common law as to the offence, or in case of a statutory offence, by the terms of the statute creating the offence. But the court *must* impose the death sentence on conviction for murder, except where the accused is a woman convicted of the murder of her newly-born child or is a person under sixteen years of age, or where the jury has expressed the opinion that there are extenuating circumstances (or in a case tried without a jury where the court is of opinion that there are extenuating circumstances), and it *may* impose the death sentence on a conviction for treason or for rape. In other cases the court may, subject to the common law or the particular statute concerned, impose fine or imprisonment or whipping or all such punishments, and may also impose those special classes of detention and punishment which are described above in connexion with magistrates' courts. On a third conviction for certain scheduled offences, a superior court may declare the offender to be an habitual criminal, and impose upon him an indeterminate sentence. Under Act No. 31 of 1917 the Attorney-General of a province, or the Solicitor-General of the Cape Eastern Districts, was vested with the right of prosecuting all offences. Under the amending Act, No. 46 of 1935, such right is exercised subject to the control and directions of the Minister of Justice, who may reverse any decision of the Attorney-General or the Solicitor-General, and may himself in general or in any specific matter exercise their authority and functions.

The other exception to trial before a superior court without a jury is contained in section 216 of Act No. 31 of 1917, whereby a judge must on notice and application by the accused try him without a jury, and may summon one or two persons who have experience in the administration of justice or skill in any matter which may have to be considered at the trial to sit with him as assessors. In cases of treason, murder, rape, or sedition, the judge must summon two such assessors. The judge alone decides matters of law, but all matters of fact are decided by a majority, except that the judge's opinion prevails if there is only one assessor and there is a difference of opinion. Where a case is remitted by the Attorney-General (or the Solicitor-General) for trial by a magistrate, and the accused, as he is entitled to do before plea, demands a trial by a superior court, he is tried by a judge without a jury in terms of section 216. (See section 229, as amended by section 41 of Act No. 46 of 1935.)

Under the provisions of Act No. 20 of 1931, women and persons under the age of eighteen years may claim to be tried by a jury consisting of women only. The qualifications for women sitting on a jury are the same as in the case of men, but it is not a duty as in the case of men; it is a right for which application must be made. If nine women jurors are not available the trial proceeds in the ordinary way. There can therefore be no mixed juries consisting of men and women.

4. **Appellate Jurisdiction.**—The decisions of superior courts in the trial of criminal cases are, under section 368 of the *Criminal Procedure and Evidence Act*, 1917, subject to the appellate jurisdiction of the Appellate Division of the Supreme Court constituted under section 96 of the *South Africa Act*. In the case of the Natal Native High Court, this jurisdiction may be on both fact and law, though on points of law the provincial division of Natal exercises an intermediate jurisdiction on questions specially reserved. In the cases of the provincial and local divisions, the jurisdiction of the Appellate Division in criminal cases is limited in practice to decisions on points of law. Such jurisdiction may be exercised (*a*) on application for arrest of judgment on the ground that the indictment discloses no offence; or (*b*) on the consideration of a special entry on the record made on the application of the accused or his counsel, in which an allegation of irregularity or illegality in the preceedings is made, the nature of which is indicated; or (*c*) on questions of law reserved at the trial for the consideration of the Appellate Division by the presiding judge either on his own motion or at the request of the prosecution or of the defence. The Appellate Court may either confirm the judgment of the trial court, or set it aside, or remit the case to the court below for judgment to be given, if it has not already been given, or itself give such judgment as ought to have been given, or impose such sentence (whether more or less severe or of a different nature from that imposed) as ought to have been imposed, or make such other order as justice may require (section 374).

As regards the decisions of magistrates' and other inferior courts in criminal cases, appeals against which are heard and determined, as described below, by the provincial and local divisions, the Appellate Division exercises jurisdiction only when special leave to appeal has been given by such provincial or local division (*South Africa Act*, section 105 as amended by Act No. 46 of 1935). Where such division has refused leave to appeal, the Appellate Division may itself grant such leave.

As above indicated, every decision involving a conviction in a criminal case by a magistrate's court, whether on law or on fact and whether against the conviction or against the sentence passed, is subject to an appeal by the convicted person to the provincial division within the area of jurisdiction covering the magistrate's court, or, if the court sat within the area of jurisdiction of the Griqualand West Local Division, is subject to appeal to that division, or to the Cape of Good Hope Provincial Division, or, if it sat within the area of jurisdiction of the Eastern Districts Local Division, is subject to appeal to that division. The court to which such an appeal lies may affirm, alter, or quash the conviction, or may affirm, reduce, alter or set aside the sentence imposed, or it may set aside or correct the proceedings of the magistrate's court, or generally give such judgment or impose such sentence or may make such order as the magistrate's court ought to have given, imposed, or made in the matter, or remit the case to that court with instructions to deal with any such matter in such manner as the court of appeal may think fit, and generally may make such order as to that court seems calculated to promote the ends of justice [section 100, read with section 95 (2) of Act No. 32 of 1917, as amended by Act No. 46 of 1935].

In addition to the appellate jurisdiction of the provincial and local divisions, Chapter XIV of Act No. 32 of 1917 confers upon them a special jurisdiction to review the proceedings of any magistrate's court whenever a sentence of (*a*) imprisonment or other form of detention exceeding three months is imposed, or (*b*) a fine exceeding £25 is inflicted, or (*c*) whipping is ordered as a punishment except in the case of males under twenty-one years; while, by the amendment to section 95 of Act No. 32 of 1917, the court of appeal is given power to review any criminal case, irrespective of the quantum of sentence, where it is brought to the notice of the court or a judge thereof that the proceedings in the lower court were not in accordance with justice. The records are sent by the magistrate to the registrar of the provincial or the local division concerned and submitted by the latter for consideration of a judge in chambers, who, if satisfied that the proceedings are in accordance with real and substantial justice, gives his certificate to that effect. Otherwise the case is dealt with in open court, which possesses the same powers as it possesses on appeal, and may direct the case to be argued (sections 93 to 95 of Act No. 32 of 1917).

In addition, every provincial division and the Eastern Districts and Griqualand West Local Divisions, under the statute under which they may have been constituted prior to the constitution of the Union, have jurisdiction

to review the proceedings of any inferior court, on the ground that such inferior court has exceeded its jurisdiction or has been guilty of gross irregularity or has admitted illegal or incompetent evidence or rejected legal and competent evidence or has shown malice or corruption.

When a magistrate's court has in any criminal proceedings given a decision in favour of the accused on any matter of law, the Attorney-General, or in the event of a private prosecution the person or body concerned, may require the magistrate to state a case setting forth the question of law and his decision thereon for the consideration of the provincial or local division having jurisdiction, and, if evidence has been heard, his findings of fact in so far as they are material to the question of law. The Attorney-General or private prosecutor may then appeal from that decision. If the appeal succeeds the provincial or local division may either impose sentence or give such order as the magistrate should have given or remit the case to the magistrate with directions. The magistrate then proceeds to deal with the case as he would have dealt with it had his decision on the point of law been in accordance with that of the provincial or local division. If the appeal fails the court may order the appellant to pay the respondent's taxed costs (section 100 *bis* and 100 *ter* of Act No. 32 of 1917 as added by section 95 of Act No. 46 of 1935).

Section 100 *ter* of Act No. 32 of 1917, as added by section 95 of Act No. 46 of 1935, also provides for an appeal by the prosecutor to the Appellate Division from a judgment of a provincial or local division on a point of law decided in favour of the accused.

Under section 388 of Act No. 31 of 1917, as amended by section 73 of Act No. 46 of 1935, the Minister of Justice may submit to the Appellate Division the decision of any superior court on a question of law whenever he has any doubt as to the correctness of such decision.

5. **Advocates, Attorneys, etc.**—The subjoined table gives the number of advocates, attorneys, notaries, and conveyancers admitted into the several divisions of the Supreme Court during 1937 and 1938.

Under Act No. 7 of 1923, women are entitled to practise and to be enrolled as advocates, attorneys, etc., in any province of the Union on the same terms and conditions as apply to men.

ADMISSION OF ADVOCATES, ATTORNEYS, ETC., INTO DIVISIONS OF SUPREME COURT, 1937 AND 1938.

A: Admitted for the first time. E: Enrolled after admission elsewhere.

Division.	Advocates Admitted.*		Attorneys.				Notaries.				Conveyancers.			
			1937.		1938.		1937.		1938.		1937.		1938.	
	1937.	1938.	A.	E.†	A.	E.†	A.	E.†	A.	E.†	A.	E.†	A.	E.†
Cape	7	15	29	23	25	20	25	5	17	6	13	5	18	5
Eastern Districts	3	8	—	—	—	—	—	—	—	—	—	—	—	—
Griqualand West	1	3	—	—	—	—	—	—	—	—	—	—	—	—
Natal	7	6	11	20	6	10	5	7	1	8	3	4	3	5
Transvaal	18	18	46	38	16	17	21	19	20	11	27	15	29	5
Orange Free State	3	10	20	10	13	12	4	6	—	9	4	3	—	5
TOTAL	39	60	106	91	60	59	55	37	38	34	47	27	50	20

* Includes advocates admitted who were previously admitted to one or more other divisions.
† Enrolled in terms of section 25, Act No. 23 of 1934.

§ 3. Civil Jurisdiction—Lower Courts.

1. **Magistrates' Courts.**—Up to the 1st January, 1918, the civil jurisdiction of magistrates' courts rested upon and was determined by the provisions of a considerable number of statutes in each of the provinces. On the 1st January, 1918, the new consolidating and amending *Magistrates' Courts Act* (No. 32 of 1917) came into operation, and achieved uniformity in the jurisdiction of these courts throughout the Union.

The Act confers upon a magistrate's court jurisdiction (section 29)—

(*a*) in actions in which is claimed the delivery or transfer of any property movable or immovable not exceeding £200 in value;

(*b*) in actions of ejectment against the occupier of land or premises within the district if the right of occupation does not exceed £200 in clear value to the occupier;

(*c*) in other actions (except those specifically excluded) where the claim or value of the matter in dispute does not exceed £200.

The following classes of actions, however, are specifically excluded from the jurisdiction of the magistrate's court, however little may be the amount at stake, viz., actions for or concerning—

(*a*) divorce and judicial separation;

(*b*) the validity and interpretation of wills and testamentary documents;

(*c*) status of persons in respect of mental capacity;

(*d*) specific performance of acts without alternative of damages, except as to rendering of accounts where the claim does not exceed £200 or delivery or transfer of property not exceeding £200 in value;

(*e*) decree of perpetual silence;

(*f*) provisional sentence (section 44).

Except as to these specially excluded actions, a magistrate's court may acquire jurisdiction by the written consent of both parties, whatever may be the amount or value in dispute (section 43).

Incidental to all this jurisdiction in civil matters a magistrate's court may issue (*a*) orders of personal arrest of persons suspected of intention to abscond; (*b*) orders of attachment of property; (*c*) interdicts prohibiting the removal of furniture which is subject to the landlord's hypothec for rent, and the court may enforce payment thereof not only by execution first against movables and afterwards against immovable property which is not subject to prior charges, but also by civil imprisonment, garnishee (attachment of debts due from third persons), and by order for payment in instalments.

Appeals lie to the provincial division of the Supreme Court from final judgments, or orders having the effect of finality, and from decisions overruling exceptions, the Griqualand West and the Eastern Districts Local Divisions having concurrent jurisdiction with the Cape Provincial Division in respect of decisions of courts within their respective areas of jurisdiction. The parties may, however, agree in writing before the hearing that there shall be no appeal, and the judgment of the magistrate's court shall be final. Formerly appeal lay from a magistrate's court to a circuit court, except in the Transvaal. This is no longer possible under the present Act.

The Magistrates' Courts Act, 1917, has been applied to the mandated territory of South West Africa.

2. **Courts of Special Justice of the Peace.**—Prior to 1918, these courts possessed no civil jurisdiction under the laws of any of the provinces. The *Special Justices of the Peace Act*, No. 2 of 1918, gives them, when sitting more than twenty-five miles from any place where a magistrate's court is held (whether as a periodical court or at the seat of magistracy), jurisdiction to try a civil action in which is claimed a liquidated sum not exceeding £25; but if the sum claimed exceeds £5 the defendant may insist on having the action removed to the magistrate's court. Appeals in civil matters from a court of special justice of the peace lie as in criminal matters to the magistrate's court, with a further appeal to the provincial division of the Supreme Court.

§ 4. Civil Jurisdiction—Superior Courts.

1. **Provincial and Local Divisions.**—The manner in which the several superior courts, viz., the Appellate Division, the provincial divisions, and the local divisions (including circuit courts), came into being at the establishment of the Union, by virtue of Part VI of the *South Africa Act*, is described above (§2). A provincial or a local division (otherwise known as a superior court) has, in addition to any original jurisdiction exercised by the corresponding court of the Colony concerned at the date of the establishment of Union, jurisdiction in all matters in which the Government of the Union or a person suing or being sued on behalf of such Government is a party or in which the

validity of any provincial ordinance comes into question [*South Africa Act*, 1909, section 98 (3)]. Generally it may be said that a provincial division in each province has unlimited jurisdiction throughout the province in respect of all causes or matters arising within that area; while each local division has jurisdiction (slightly restricted in some respects) in regard to causes arising and persons residing within its defined area. For example, the Witwatersrand Local Division, while it has concurrent jurisdiction with the provincial division so long as the cause or matter arises within its defined limits, is expressly excluded from exercising any appellate jurisdiction or from reviewing the proceedings of inferior courts (Proclamation No. 14 of 1902, section 27), and in regard to insolvency and certain other matters its jurisdiction is that of a circuit court only. The Eastern Districts Local Division has certain appellate and review jurisdiction (see §2 above), but in regard to insolvency, registration of title, administration of estates, and certain other matters, its jurisdiction is limited to that of a circuit court only (Act No. 35 of 1896, section 25). The limitations placed upon the Griqualand West Local Division are the same as those placed on the Eastern Districts Local Division (Act No. 39 of 1877, section 10, and Act No. 35 of 1896, section 18).

Special jurisdiction is given to any provincial division in which a parliamentary or a provincial council election is held (but not to a local division) to try election petitions, i.e. petitions complaining of an undue return or undue election of a member, by reason of want of qualification, disqualification, corrupt or illegal practice, irregularity, or any other cause whatever (see Chapter V of Act No. 12 of 1918). In the trial of election petitions by any provincial division under Chapter V of Act No. 12 of 1918, the quorum consists of not fewer than three judges, though one judge may adjudicate on an interlocutory application other than an application for the withdrawal of a petition [section 111 (i)].

In addition, any provincial or local division of the Supreme Court may in its discretion, at the instance of any interested party, inquire into and determine any existing, future, or contingent right or obligation, notwithstanding that such person cannot claim any relief consequential upon such determination.

The provincial divisions sit at Capetown, Pietermaritzburg, Pretoria, and Bloemfontein respectively, the Cape of Good Hope Division consisting of six judges, the Natal Division of four judges, the Transvaal Division of ten judges, and the Orange Free State Division of three judges. The Eastern Districts Local Division consists of four judges; the Griqualand West Local Division of one judge; and one judge of the provincial division may preside over any sitting of the Witwatersrand Local Division.

In all the Cape divisions, the court may sit with one judge only as a divisional court, and under Act No. 10 of 1917 as many divisional courts as there are judges available to preside may sit at the same time for the dispatch of civil business. In the Transvaal Provincial Division (except in vacation time, when one judge constitutes a quorum) the quorum of the court is two, except in motions, applications, and trial cases where the defendant is in default, when one judge sitting in chambers constitutes the court. By Ordinance No. 31 of 1904 (section 1), however, a divisional court of one judge may exercise the civil jurisdiction of the court in any trial action if both parties consent, or if the action is remitted to such divisional court for trial by order of the full court. A like provision exists as regards the Natal Provincial Division [Act No. 39 of 1896 (Natal), section 9], and as regards the Orange Free State Provincial Division by Act No. 21 of 1934. In Natal also, one judge sitting in chambers, or the like, may exercise all the powers of the full court except in arguments on exceptions to pleadings, applications for new trials, objections to accounts in insolvency, and in the administration of estates, rehabilitations in insolvency, and in trials not falling within section 9 of the Act. In those cases the full court is necessary.

In the Orange Free State Provincial Division the quorum in civil proceedings is two, except that one judge may deal with actions for provisional sentence, applications by motion or petition, and actions where the defendant is in default, and any other suit where all the parties agree, or where the case is remitted by the full court for trial by one judge (section 4, Ordinance No. 13 of 1904, as substituted by section 1, Act No. 21 of 1934). In vacation time one judge forms a quorum (section 5, Ordinance No. 13 of 1904).

Further provisions as to jurisdiction, transfers of suits, etc., are as follows:

(*a*) By section 112 of the *South Africa Act*, the judgment or order of any one division of the Supreme Court may be enforced outside the area of jurisdiction of such division, by lodging with the registrar of the provincial division having jurisdiction in the place where it is desired to enforce the judgment, an authenticated copy of the judgment or order. The registrar, on proof that the judgment or order is still unsatisfied, will issue process for the execution thereof, and such process will be executed as if it had been issued originally from that division.

(*b*) Any provincial or local division may, under section 113 of the *South Africa Act*, transfer a civil suit to another division when it is satisfied that it can be more conveniently or fitly heard or determined in that other division, and that this division will proceed with the suit as if it had originally been commenced therein.

(*c*) By section 3 of Act No. 27 of 1912, a civil process for commencing civil proceedings may, subject to compliance with certain forms, be served throughout the Union upon any defendant who resides or is for the time being in the Union, and is subject also to the jurisdiction of the court.

(*d*) When a defendant resides in the Union, it is provided by section 5 of Act No. 27 of 1912 that no attachment of his person or property to found jurisdiction is to be ordered, and if service of a summons can be effected in any other way, no service of a civil summons on a defendant by way of edictal citation is to be authorized.

(*e*) A writ of arrest of the person, issued out of any superior court in connexion with civil proceedings, may be executed throughout the Union by transmitting the writ to the proper officer at the place where the person to be arrested resides or is for the time being.

2. **Appellate Division.**—In addition to the provincial and local divisions, there exists as indicated above, in § 2 (4), the Appellate Division of the Supreme Court. This division was created by section 96 of the *South Africa Act*, and now, since the passing of Act No. 12 of 1920, consists of the Chief Justice of South Africa and four judges of appeal. Its work as a court of criminal appeal is described in § 2 (4). It is, however, chiefly occupied in the final determination of civil causes and matters. It may here be mentioned that it succeeded to the jurisdiction of the old Cape Supreme Court as a court of appeal from the High Court of Southern Rhodesia. Further jurisdiction was conferred upon it by section 3 of Act No. 12 of 1920, to hear and determine appeals from orders or judgments of the newly constituted High Court of South West Africa, and by Act No. 18 of 1931 an appeal lies direct to the Appellate Division from the divisions of the High Court of Southern Rhodesia in cases similar to those in which an appeal lies from a local division of the Supreme Court of the Union. As regards civil appeals from courts of the Union, appeals which before the establishment of the Union lay to the Supreme or High Court of the late Colony go direct to the Appellate Division, except in the case of appeals against interlocutory orders of a single judge, orders on application, motions or petitions, judgments on summonses for provisional sentence, and judgments as to costs only. Those excepted matters are still subject to appeal, first to the provincial division, unless, under section 5 of Act No. 1 of 1911, the parties have agreed to go direct to the Appellate Division and dispense with an intermediate appeal. Where before the establishment of the Union an appeal lay to the Privy Council, the appeal now lies only to the Appellate Division, whose decision is final, unless the Privy Council itself grants special leave to appeal to it from the Appellate Division's decision (sections 104 and 105 of the *South Africa Act*). The Judicial Committee of the Privy Council has intimated that it will, as a general rule, grant such leave in civil cases only when the matter at issue is of some constitutional importance. In practice, however, this rule has not always been strictly adhered to.

While before the establishment of the Union there must have been a certain amount at stake to enable any person to appeal as of right to the Privy Council, the substituted right of appeal to the Appellate Division is not limited by reason of the amount or value in dispute. Appeals to provincial or local divisions on judgments of inferior courts cannot be taken

further to the Appellate Division unless the provincial or the local division concerned grants special leave to appeal. If such leave is refused the Appellate Division may itself grant such leave (section 105 of the *South Africa Act*, as amended by section 105 of Act No. 46 of 1935). A special appellate jurisdiction in the matter of decisions of a provincial division at the trial of an election petition is conferred on the Appellate Division by Act No. 12 of 1918 (section 132), but the leave of the Appellate Division must first be obtained.

The quorum of the Appellate Division is three when the appeal is from a court of a single judge and four when the appeal is from the decision of two or more judges (Act No. 11 of 1927, section 1). In vacation time one judge of the Appellate Division may hear and determine applications for special leave to appeal or for leave to proceed *in forma pauperis*, or for any interlocutory order (Act No. 1 of 1911, section 6).

The process of the Appellate Division runs throughout the Union. As all its judgments have full effect in every province, it naturally follows that they must be executed as if they were original judgments or orders of a provincial division (*South Africa Act*, section 111).

Rules for the conduct of proceedings in the Appellate Division are made by the Chief Justice and judges of the Appellate Division, and they, as judges of the Supreme Court of South Africa, collaborate with the judges of the other divisions in framing rules of court for the conduct of the proceedings in any provincial or local division (*South Africa Act*, sections 107 and 108).

§ 5. Special Native Courts.

1. **Native Tribunals.**—Generally speaking, natives in both civil and criminal matters are subject to the ordinary laws and the ordinary courts of the land. Certain special tribunals have, however, been established for the hearing of purely native cases, with a view to affording the natives a simpler and less expensive method of procedure, also to ensure that cases arising out of native law and customs are heard by officials experienced and well versed in such laws and customs and, in so far as native chiefs' courts are concerned, to accord a measure of recognition to purely native institutions.

2. **Civil Matters.**—In so far as civil matters are concerned the following special native courts have been established:—

(i) *Native Chiefs' and Headmen's Courts.*—A native chief or headman appointed as such under the *Native Administration Act*, No. 38 of 1927, as amended by Act No. 9 of 1929, may be authorized by the Governor-General to hear and determine civil suits arising out of native law and custom between natives resident within his area of jurisdiction. An appeal from the decision of any such court lies to the court of the Native Commissioner.

(ii) *Native Commissioners' Courts.*—Under section 10 of the *Native Administration Act*, No. 38 of 1927, the Governor-General may establish Native Commissioners' courts for the hearing of all civil causes and matters between native and native only, provided that no such court shall have jurisdiction in any matter in which:—

(*a*) the status of a person in respect of mental capacity is sought to be affected;

(*b*) a decree of perpetual silence is sought;

(*c*) namptissement is sought;

(*d*) the validity or interpretation of a will or other testamentary document is in question; or

(*e*) a decree of nullity, divorce, or separation in respect of a marriage (contracted according to christian or civil rites) is sought.

Under this provision Native Commissioners' courts have been established in all districts with appreciable native populations. In Natal and the Orange Free State such courts have now been constituted in every district, while in the Cape Province there are courts at 39 centres and in the Transvaal at 44 centres.

These courts are authorized to decide cases involving questions of customs followed by natives, according to the native law applying to such customs, except in so far as this law shall have been repealed or modified, and provided

that such native law is not opposed to the principles of public policy or natural justice. The custom of *lobolo* or *bogadi* or similar custom is specially declared not to be repugnant to such principles.

(iii) *Native Appeal Courts.*—There are two native appeal courts in existence—one for the Cape and Orange Free State Provinces and one for the Transvaal and Natal. These courts are constituted under section 13 of the *Native Administration Act*, No. 38 of 1927, for the hearing of appeals from Native Commissioners' courts. Each native appeal court consists of a president and two members. The president is a full-time officer appointed by the Governor-General, while the members are appointed by the Minister from time to time as required, and are selected from magistrates, Native Commissioners, and other qualified persons. The decision of a native appeal court is final, except:—

(*a*) where conflicting decisions have been given by a native appeal court within its area of jurisdiction, in which case the Minister may cause a special case to be argued before the Appellate Division of the Supreme Court;

(*b*) where the native appeal court consents to an application for leave to appeal, upon any point stated by the court, to the Appellate Division.

(iv) *Native Divorce Courts.*—Section 10 of the *Native Administration Act*, 1927, *Amendment Act*, No. 9 of 1929, made provision for the establishment of native divorce courts with jurisdiction to hear and determine suits of nullity, divorce, and separation arising out of native marriages contracted according to christian or civil rites. Each such court must consist of the president of a native appeal court, and its area of jurisdiction must coincide with that of a native appeal court. Two native divorce courts have accordingly been established with areas of jurisdiction coinciding with those of the two native appeal courts.

The jurisdiction of the Supreme Court as a forum of the first instance for native divorce cases is not ousted by the native divorce courts, and, moreover, an appeal from the judgment of a native divorce court lies to the provincial or the local division of the Supreme Court having jurisdiction.

3. **Criminal Matters.**—The special courts established for the exercise of jurisdiction in respect of natives are as follows:—

(i) *Native Chiefs' and Headmen's Criminal Courts.*—Such courts are established under section 20 of the *Native Administration Act*, No. 38 of 1927, as amended by section 6 of Act No. 9 of 1929, which empowers the Governor-General to grant to any native chief or headman jurisdiction over members of his own tribe resident or being upon tribal land, or in a tribal location within his area, in respect of offences punishable under native law and custom. His jurisdiction is limited to a maximum penalty of two head of cattle or £5.

An appeal from the decision of any such court in a criminal matter lies to the magistrate of the district concerned.

(ii) *Native Commissioners.*—Section 9 of the *Native Administration Act*, No. 38 of 1927, authorizes the Governor-General to confer criminal jurisdiction upon Native Commissioners in respect of offences, subject to the jurisdiction of a magistrate's court, committed by natives. Appeals from the decisions of Native Commissioners exercising criminal jurisdiction so conferred lie to the Supreme Court.

(iii) *Natal Native High Court.*—The Native High Court of Natal, as at present constituted, exercises criminal jurisdiction only. The court consists of a judge-president and three other judges and tries criminal cases when the accused are natives, but without prejudice to the jurisdiction of magistrates' courts. It exercises jurisdiction in respect of all crimes (including capital offences) committed by natives, save certain particular classes of crimes specified in section 6 of Natal Act No. 49 of 1898 as amended by Natal Act No. 30 of 1910. The jurisdiction of the Supreme Court as a court of first instance is expressly excluded in respect of such crimes committed by natives as are cognisable by the Natal High Court.

§ 6. Source, Development, and Nature of the Law of South Africa.

1. **The Roman-Dutch Law.**—The foundation of the law of South Africa is that system, known as the *Roman-Dutch Law*, which existed in the Provinces of Holland during the time of the Republic of the United Netherlands. This system was derived from Germanic custom and Roman law, and may be said to have consisted of Roman law modified and adapted to the requirements of Holland by well established custom and by statute. The States of Holland in a Resolution of the 25th May, 1735, enacted that the Court of Holland, as also all other tribunals in the Provinces of Holland and West Friesland, must do justice according to the laws and ordinances of the land and also according to the privileges and old-established customs and usages, and, on failure of these, according to the written (i.e. the Roman) law. The Dutch jurist Van der Linden (1756-1835), one of the latest expounders of the Roman-Dutch system before its supersession in Holland in 1809 by the *Code Napoléon*, wrote (*Koopmans-Handboek*, 1.1.4) that to discover what was the law in any particular case, it must first be inquired whether there was any particular law of the land on the matter, or any local ordinance or regulation having the force of law, or any established custom; and that on failure of these, the Roman law, as a model of wisdom and justice, should be called in to supply the *casus omissus*.

2. **Introduction of Roman-Dutch Law by Dutch Pioneers.**—The principles of this system were carried by the early Dutch pioneers into their foreign settlements. In this manner it was, at Van Riebeeck's occupation on behalf of the Dutch East India Company in 1652, introduced into the Cape of Good Hope. Subsequent to the occupation, amendments or additions found requisite to adapt the law of the mother country to the requirements of the settlement were provided first by the laws or rules issued by the Directorate of the East India Company in Holland or by the Company through its Governor-General in Batavia, secondly by the enactments of the local Governor, and thirdly, by *Placaats* of the States-General and the States of Holland. This last-mentioned method, however, was but little resorted to in view of the legislative powers which had been delegated to the Company. How far, if at all, any legislation of the parent country passed since the date of the occupation, and not expressly applied to the settlement, became part of the law of the Cape is an interesting question upon which legal opinion is not unanimous.

3. **Retention of Roman-Dutch Law at Cession of Cape to British.**—At its final cession to the British in 1814 the settlement retained its own laws, the basis of which, as already shown, was the *Roman-Dutch* system. The presumption is that every one of the laws existing at that date is still in force where not expressly repealed by a competent legislature. The *Roman-Dutch Law*, however, with its reverence for immemorial custom and ancient usage, permits of the abrogation of law not only by long continued adverse custom, but even in some circumstances by mere desuetude. But while both the Roman law and Dutch practice recognized that even a statute might be repealed, not only by express legislative enactment, but by the tacit disuse of a whole community, a distinction would probably be drawn by South African courts in this respect between statutes in force before 1806 and those passed at a later date. "I should have great difficulty", said Chief Justice de Villiers in the case of *Seaville* versus *Colley* (9 Cape Supreme Court Reports at page 44), referring to statutes of the latter class, "in holding that disuse for any length of time would be sufficient to abrogate them. They were promulgated at the time when they were enacted and have all been published in authentic form. If such a statute is no longer required, the Legislature, which must be presumed to be acquainted with the body of its own statute laws, is at hand to enact the repeal."

The laws and regulations issued by the Dutch East India Company and the Batavian Government having in general been of ephemeral interest, and the legislative authority of the States-General having been but little invoked on behalf of the settlement, the law as it existed in 1806 is for the most part to be found in the expositions of *Roman-Dutch Law* at that time in existence and considered as authoritative. Amongst these the publications of Grotius, Vinnius, Matthaeus, Groenewegen, Van Leeuwen, U. Huber, Z. Huber, P. Voet, J. Voet, Bynkershoek, Van der Keessel, and Van der Linden have been regarded in South African legal practice as of great authority.

4. **Extension of Roman-Dutch Law.**—*Natal.*—In 1844 the District of Natal became a dependency of the Cape Colony with a Lieutenant-Governor and Executive Council, in whom, however, no legislative authority was vested. Ordinance No. 12 of 1845 of the Cape of Good Hope, in the legislative authority of which the power to make laws for the dependency resided until 1848, enacted that "the system, code, or body of law commonly called the *Roman-Dutch Law* as the same has been and is accepted by the tribunals of the Colony of the Cape of Good Hope shall be and the same is hereby established as the law for the time being of the District of Natal." In 1856 Natal was created a separate Colony with its own Legislative Authority, but the *Roman-Dutch* system has remained the common law. *Transvaal.*—In the Transvaal it was provided in 1859 by an annexure to the *Grondwet* that the law book of Van der Linden should remain, so far as it was not in conflict with the *Grondwet* and other laws or Volksraad resolution, the law book of the State; and that, whenever that book did not treat any matter with sufficient clearness or omitted any subject, then the law book of Simon van Leeuwen and the introduction of Hugo de Groot should be binding. Subsequent to the British annexation it was enacted by section 17 of Proclamation No. 14 of 1902 that the *Roman-Dutch Law*, except so far as modified by legislative enactments, should be the law of the Transvaal Colony. *Orange Free State.*—The Constitution of the Republic of the Orange Free State adopted the *Roman-Dutch Law* as the fundamental law of the State. This, it was later explained, was to be taken to mean the *Roman-Dutch Law* only in so far as it was found in force in the Cape Colony at the time of the appointment of the English judges in the place of the previously existing Council of Justice, and was not to be taken to include any new laws and institutions, local or general, which may have been introduced into Holland and which are not based upon, or are in conflict with, the old *Roman-Dutch Law* as expounded in the text-books of Voet, Van Leeuwen, Grotius, De Papegaai, Merula, Lybrecht, Van der Linden, Van der Keessel, and the authorities cited by them. Ordinance No. 3 of 1902 enacted in section 1 that the *Roman-Dutch Law* shall be the common law of the Colony in so far as it has been introduced into and is applicable to South Africa. *Rhodesia.*—By the Southern Rhodesia Order-in-Council of the 20th October, 1898, the law in force in the Cape Colony on the 10th June, 1891, except in so far as that law had been modified by any Order-in-Council, Proclamation, Regulation, or Ordinance in force at the date of commencement, was declared to be the law of Southern Rhodesia.

5. **Modification of Roman-Dutch Law.**—The adaptability of *Roman-Dutch Law* to the conditions of present day civilization has been well exemplified in South Africa by the history of its development and by its present vigorous vitality. Nevertheless, with the advance of civilization, new situations, not within the contemplation of the law-giver of a century ago, frequently arise, and public opinion in matters affecting human conduct is constantly undergoing change. Alterations or adaptations of law to meet new conditions and the additional requirements of society in the matter of rules of human conduct are in the main provided by the enactments of legislatures and by the adaptation by judges of established principles to new situations and conditions. By these means the *Roman-Dutch Law*, like every other system of law operative in a progressive community, is constantly undergoing development and change.

6. **Legislatures.**—By the *South Africa Act*, 1909, the Legislatures of the Colonies of the Cape of Good Hope, Natal, the Transvaal, and the Orange Free State were abolished, and a Parliament was constituted for the Union, consisting of the King, the Senate, and the House of Assembly. In addition a legislative body was created for each of the four provinces of the Union, styled a *Provincial Council*, with power to pass Ordinances on matters within its jurisdiction. Section 135 of the *South Africa Act* provided for the continuation of all laws existing in the respective provinces of the Union until repealed or amended by Parliament, or, in respect of matters within their jurisdiction, by the Provincial Councils. The work of the Union Parliament has already resulted in the codification on various important subjects of the differing statutory laws of the various provinces.

By the *Status of the Union Act*, No. 69 of 1934, an Act to give effect to the provisions of the Statute of Westminster (22 Geo. V.C. 4), the Parliament of the Union is declared to be the sovereign legislative power in and over the Union, and no Act of the Parliament of the United Kingdom and Ireland is to extend or is to be deemed to extend to the Union, as part of the law of the Union, unless extended thereto by an Act of the Parliament of the Union.

Full power to make laws having extra-territorial operation is conferred upon the Parliament of the Union by the Statute of Westminster, while that Parliament may also repeal or amend any Act of the Parliament of the United Kingdom and any order, rule, or regulation made under authority of such Act, in so far as such Act or order, rule, or regulation made thereunder is part of the law of the Union.

7. **Influence of English Law.**—The law of South Africa has been widely influenced, and its more recent developments to meet the requirements of modern society have been largely moulded, by the law of England. The result of this influence is to be seen both in the statutes of the local legislature and in the body of precedent formed by judicial decisions and frequently but inaccurately known as judge-made law. With the supersession of the Roman-Dutch system in the Netherlands by the adoption of the *Code Napoléon* in 1809, the further development of that system had ceased and colonial legislators and jurists could no longer look to the mother country for guidance in the matter of the expansion and extension of the law necessary to adapt it to the requirements of an advancing community. Consequently when a precedent for some alteration or expansion of the law was required, legislators and jurists, seeing no advantage in resorting to Holland, where an alien system now obtained, had recourse to the law of England for assistance. This process found no inconsiderable encouragement from the fact that many of the earlier judges and practitioners were trained under the English system and not unnaturally resorted with greater freedom to that system than to one which, by reason of its uncodified condition and of its being written in a foreign language, was not easy of ascertainment. The introduction of the English jury system and the general adoption of the English rules of evidence and procedure, the conforming of the usages of commerce to that obtaining in the United Kingdom, the rise of corporations of a character unknown to the earlier jurisprudence, the recognition of the essential justice of the British system of criminology, and the existence of the Privy Council as the ultimate resort of an aggrieved litigant have largely been instrumental in aiding the assimilation into the body of the common law of South Africa of rules and methods of the law of England.

8. **Present Condition of Common Law.**—Nevertheless, apart from statute, the law of South Africa as it exists to-day is essentially the *Roman-Dutch* system. The exposition and development of that system, influenced by English law and local usage, has resulted in a symmetrical and lucid body of law, on the one hand, by virtue of its reverence for local usage, largely freed of those provisions which the general concensus of a more enlightened age has disapproved, and on the other hand showing a singular absence of those subtleties which not uncommonly accrue in the course of their development to systems of more recent origin. The gradual decadence of *Roman-Dutch Law* in other settlements into which it was introduced, which in 1916 led in British Guiana to legislation almost completely displacing it, has found no counterpart in South Africa where, under the impetus given by the creation of one Appeal Court for the whole Union, it may confidently be expected to continue to provide a system pre-eminently suited to the conditions of the country.

§ 7. Department of Justice.

1. **Constitution of Department.**—A Ministry of Justice was created at the establishment of the Union, in substitution for the practice previously in force in each of the Colonies under which the Attorney-General had been a member of the Ministry, and had also assumed ministerial responsibility for the Law Department of the Colony. The system now in force in the Union is that set out in section 139 of the *South Africa Act*, as amended by section 1 of Act No. 39 of 1926, and is as follows:—

> The administration of justice throughout the Union shall be under the control of the Minister of State, in whom shall be vested all powers, authorities, and functions, which shall at the establishment of the Union be vested in the Attorneys-General of the Colonies.

Section 139 of the *South Africa Act* was amended by section 2 of Act No. 14 of 1914, so as to substitute Attorney-General for Minister as *curator ad litem* of lunatics, a portion of which was confirmed by the *Mental Disorders Act* (No. 38 of 1916, section 14), when section 2 of Act No. 14 of 1914 was repealed. By the later Act, the Solicitor-General of the Eastern Districts is, in the area in which he exercises his functions, *curator ad litem* of persons detained as mentally disordered under a magistrate's or a judge's order.

The powers, duties, and functions of the Attorney-General in relation to criminal prosecutions are fully dealt with in Act No. 31 of 1917 as amended by Acts Nos. 39 of 1926 and 46 of 1935. (See particularly Chapter II of the 1917 Act.)

Particulars as to the functions of the Union Department of Justice are given in Chapter II.

The permanent head of the Department is the Secretary for Justice.

2. **Judges and Staff of the Supreme Court.**—The names of the judges and registrars of the several divisions of the Supreme Court of the Union are given in Chapter XXVIII.

3. **Sheriffs.**—(i) *Appointment and Functions.*—In each of the provinces of the Union there is a sheriff, who is an officer of the public service, and whose duties are to execute, either by himself or by deputies appointed by him and duly authorized under his hand and seal, the sentences, decrees, judgments, writs, summonses, rules, orders, warrants, commands, and processes of any division of the Supreme Court within his province. The Charter of Justice of the Colony of the Cape of Good Hope sets out in section 27 that "the sheriff shall by himself or his sufficient deputies, to be by him appointed and duly authorized under his hand and seal, and for whom he shall be responsible during his continuance in such office, execute, and the said sheriff, by himself and his said deputies, are hereby authorized to execute all the sentences, decrees, judgments, writs, summonses, rules, orders, warrants, commands, and processes of the said Supreme Court of the Cape of Good Hope, or of the circuit courts of the said Colony hereafter mentioned, and shall make a return of the same, together with the manner of the execution thereof, to the Supreme Court of the Cape of Good Hope, or to the said circuit courts, as the case may be, and shall receive and detain in prison all such persons as shall be committed to the custody of such sheriff by the Supreme Court of the Cape of Good Hope, or by the said circuit courts or by the Chief Justice, or by any other judge of the said courts."

This provision was closely followed in the other provinces (see in Natal, Act No. 21 of 1905; in the Transvaal, section 4 of Proclamation No. 17 of 1902; and in the Orange Free State, section 3 of Ordinance No. 9 of 1902).

(ii) *Laws Defining Powers and Duties.*—The powers and duties of the sheriff are set out in rules of the various divisions of the Supreme Court and in the Cape Province in Ordinance No. 37 of 1828, in the Transvaal in Proclamation No. 17 of 1902, and in the Orange Free State in Ordinance No. 9 of 1902.

The special powers, duties, and functions of the sheriff in all criminal matters are regulated by Act No. 31 of 1917 as amended by Acts Nos. 39 of 1926 and 46 of 1935.

The sheriff receives the jury list in criminal cases and keeps it. He, or his deputy, in manner provided in section 186 of Act No. 31 of 1917, draws the names of the jurors to be summoned for the criminal sessions.

§ 8. Statistics of Crime.

1. **General.**—The system of collecting statistics of crime, which was inaugurated on 1st January, 1921, involves the completion by the police of a form setting forth the race, sex, age, nationality, birthplace, occupation, offence, and result of trial of every person prosecuted.

In addition to the inclusion of statistics in the Monthly Bulletin of Statistics, the Census and Statistics Office undertakes the compilation of a special report annually, in which statistics of crime are dealt with in greater detail than is possible in the *Official Year Book*. The first report of this series covered the year 1923, with comparative figures for previous years, and this was followed by reports which dealt primarily with statistics for the years 1924 to 1935. The reports for the years 1936 and 1937 were combined in one volume and were for the first time published in full Blue Book form (U.G. No. 33, 1938). The scope of the reports has been expanded to give much additional information. For previous available statistics reference should be made to the annual reports of the Commissioner of Police.

2. **Prosecutions, Convictions, etc.**—The following tables (i) to (v) give information regarding persons prosecuted, convicted, acquitted, etc., during a series of years. Figures for earlier years in the case of these and other tables will be found in previous issues of this *Year Book*.

(i) PERSONS PROSECUTED,* 1934 TO 1938.

Year.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Union.	Prosecutions per 1,000 of Population.
1934	156,707	103,027	337,184	47,258	644,176	69·7
1935	166,624	111,499	365,694	48,804	692,621	73·5
1936	173,062	117,454	368,072	50,048	708,636	73·7
1937	179,456	134,662	383,565	53,615	756,298	77·2
1938	189,152	137,309	416,673	51,210	794,344	79·6

* Excluding persons awaiting trial.

(ii) RACE AND SEX OF PERSONS PROSECUTED, UNION, 1934 TO 1938.

Year.	Europeans.		Non-Europeans.		All Races.		
	Male.	Female.	Male.	Female.	Male.	Female.	Total.
1934	90,024	4,984	458,641	90,527	548,665	95,511	644,176
1935	97,747	5,978	492,130	96,766	589,877	102,744	692,621
1936	114,810	6,639	484,213	102,974	599,023	109,613	708,636
1937	129,242	7,704	523,778	95,574	653,020	103,278	756,298
1938	129,389	8,174	560,905	95,876	690,294	104,050	794,344

(iii) RESULTS OF PROSECUTIONS, 1934 TO 1938.

Year and Police Division.	Convicted.*		Acquitted or Discharged.	Absconded and Charges Withdrawn	Died and Escaped.	Committed to Mental Hospital.	Total Prosecutions.
	Male.	Female.					
UNION, 1934 TO 1938.							
1934	481,353	87,354	42,400	32,793	87	189	644,176
1935	524,843	94,622	40,289	32,598	67	202	692,621
1936	534,827	101,332	38,534	33,644	87	212	708,636
1937	577,364	93,969	45,056	39,652	71	186	756,298
1938	608,449	94,750	45,764	45,110	78	193	794,344
POLICE DIVISIONS, 1938.							
Cape Eastern	43,192	13,206	3,820	3,448	8	14	63,688
Cape Western	63,171	6,828	4,598	5,625	6	27	80,255
Kimberley	10,308	1,019	609	808	4	4	12,752
Transkei	23,670	3,419	3,552	1,784	12	20	32,457
Natal	104,090	16,045	8,762	8,316	25	71	137,309
Transvaal	95,918	11,190	6,607	7,488	12	21	121,326
Witwatersrand	227,916	36,566	14,889	15,945	8	23	295,347
Orange Free State	40,184	6,477	2,837	1,696	3	13	51,210
TOTAL	608,449	94,750	45,764	45,110	78	193	794,344

* Cases of estreatment of bail are included among convictions.

(iv) PERSONS CONVICTED FOR VARIOUS CLASSES OF OFFENCES, UNION, 1934 TO 1938.

YEAR.	OFFENCES AGAINST—						Statutory Offences.	Revenue and Municipal Offences.	Total Convictions.
	The State.	The Administration of Justice.	Public Peace.	Public Order.	The Person.	Property.			
1934	1,190	4,506	15,765	9,191	33,302	54,620	306,672	143,461	568,707
1935	1,252	5,055	17,712	9,680	36,426	56,280	334,505	158,555	619,465
1936	1,304	5,448	17,220	10,025	37,680	64,052	342,713	157,717	636,159
1937	1,267	5,091	19,760	9,701	42,984	60,475	353,325	178,730	671,333
1938	1,078	5,060	22,330	9,822	43,811	63,803	302,737	164,558	703,199

(v) OCCUPATIONAL GROUPS OF EUROPEANS CONVICTED, 1938.

Occupation.	1938.
Agricultural	10,535
Commercial and Financial	30,772
Industrial	26,771
Mining	11,312
Personal Service	1,652
Professional, Entertainments and Sport	2,212
Public Administration and Defence	489
Transport and Communication	19,024
Dependants	7,517
Independent	569
Out of Work (Unemployed)	2,508
Other and Undefined	1,114
Unspecified	395
TOTAL	114,870

3. **Predominant Offences.**—(i) *Europeans.*—The predominant offences based on the number of Europeans convicted in 1938 were:—

	No.	Per cent.		No.	Per cent.
Assault, Common	2,712	2·4	Municipal Offences	37,640	32·8
Breach of Peace	857	·7	Native Pass Laws	657	·6
Defence Act	1,010	·9	Natives (Urban Areas) Act	676	·6
Diseases of Stock Act	685	·6	Personal Tax (Including Poll Tax)	3,609	3·1
Dog Tax	1,031	·9	Police Offences Act (Petty Offences)	605	·5
Drunkenness	6,191	5·4	Railways and Harbours Act	977	·9
Income Tax	870	·8	Shop Hours Ordinance	1,243	1·1
Licensing Act	965	·8	Theft, Common	1,652	1·4
Motor Carrier Transportation Act	1,311	1·1	Wheel Tax	344	·3
Motor Vehicle Ordinances—			Other	14,412	12·5
No Licence	5,991	5·2	TOTAL CONVICTIONS	114,870	100·0
Reckless Driving	3,993	3·5			
Speeding	5,673	4·9			
Other Offences	21,766	19·0			

(ii) *Non-Europeans.*—Amongst Non-Europeans the predominant offences in 1938 were:—

	No.	Per cent.		No.	Per cent.
Assault, Common	26,138	4·4	Municipal Offences	52,210	8·9
Assault with Intent to do Grievous Bodily Harm	9,033	1·5	Native Labour Regulations	20,992	3·6
Breach of Peace	5,797	1·0	Native Pass Laws	87,566	14·9
Dagga Laws	6,515	1·1	Native Taxation Act	55,059	9·3
Diseases of Stock Act	7,934	1·3	Natives (Urban Areas) Act	7,501	1·3
Dog Tax	9,123	1·6	Police Offences Act (Petty Offences)	6,160	1·0
Drunkenness	34,652	5·9	Stock Theft	6,343	1·1
Faction Fighting	8,763	1·5	Theft, Common	22,204	3·8
Illegal Possession of Native Liquor	65,700	11·2	Theft by Housebreaking	5,172	·9
Location Regulations	20,243	3·4	Trespass	18,555	3·2
Masters and Servants Act	18,370	3·1	Other	83,680	14·2
Motor Vehicle Ordinances*	10,569	1·8	TOTAL CONVICTIONS	588,329	100·0

* Offences other than speeding, reckless driving, and no licence.

4. **Juvenile Crime.**—During 1938 European juveniles, aged 16 years and under, to the number of 2,542, were prosecuted for 93 different offences, and juvenile adults aged 17 to 20 years to the number of 7,516 for 156 different offences. The principal offences involved and the numbers of prosecutions and convictions are given hereunder. The percentages represent the proportions under each offence to the total number of juveniles prosecuted or convicted.

JUVENILE CRIME: PRINCIPAL OFFENCES—PROSECUTIONS AND CONVICTIONS, 1938.

Offence.	Juveniles, 16 years and under.				Juvenile Adults, 17 to 20 years.			
	Prosecutions.		Convictions.		Prosecutions.		Convictions.	
	No.	%	No.	%	No.	%	No.	%
Defence Act	*	*	*	*	534	7·1	443	6·7
Road Laws	*	*	*	*	63	0·8	59	0·9
Assault (common)	134	5·3	78	3·8	297	4·0	215	3·3
Malicious Injury to Property	84	3·3	49	2·4	46	0·6	29	0·4
Theft (Cycle)	76	3·0	54	2·6	41	0·5	34	0·5
Theft of Motor Vehicle	38	1·5	31	1·5	139	1·9	125	1·9
Theft (common)	488	19·2	366	17·8	451	6·0	370	5·6
Housebreaking (by Day)	69	2·7	49	2·4	34	0·5	24	0·4
Housebreaking (by Night)	134	5·3	114	5·6	97	1·3	72	1·1
Apprenticeship Act	*	*	*	*	34	0·5	31	0·5
Children's Act	29	1·1	26	1·3	29	0·4	23	0·4
Drunkenness	*	*	*	*	84	1·1	82	1·2
Motor Vehicle Ordinances:								
Speeding	*	*	*	*	408	5·4	346	5·3
Reckless Driving	*	*	*	*	249	3·3	214	3·3
No Licence	172	6·8	158	7·7	533	7·1	516	7·9
Other Offences	127	5·0	103	5·3	1,202	16·0	1,112	16·9
Municipal Offences	771	30·3	680	33·2	2,115	28·1	1,955	29·8
Police Offences Act (petty Offences)	31	1·2	31	1·5	53	0·7	45	0·7
Railways and Harbours Act	76	3·0	61	3·0	131	1·7	122	1·9
Other	313	12·3	244	11·9	976	13·0	741	11·3
TOTAL	2,542	100·0	2,049	100·0	7,516	100·0	6,564	100·0

* Relatively small; included in "Other".

JUVENILE CRIME: SERIOUS OFFENCES—PROSECUTIONS AND CONVICTIONS, 1938.

Serious Crime.	Juveniles, 16 years and under.		Juvenile Adults, 17 to 20 years.	
	Prosecutions.	Convictions.	Prosecutions.	Convictions.
	No.	No.	No.	No.
Assault (Indecent)	15	9	7	7
Assault with Intent to do Grevious Bodily Harm	5	5	27	20
Carnal Connexion with Girls under Age of Consent	—	—	11	6
Cruelty to, and Neglect of, Children	—	—	11	3
Culpable Homicide	2	—	23	14
Incest	—	—	4	4
Murder (attempted)	2	1	—	—
Rape	1	1	6	2
Forgery	8	6	23	21
Theft (Motor Vehicle including Motor Cycle)	38	31	139	125
Theft (common), £50 and over	3	3	10	9
Theft (by Conversion), £20 and over	—	—	4	3
Housebreaking (by Night)	2	2	20	15
Stock Theft (excluding Poultry and Domesticated Game)	2	2	12	9
Liquor (European supplying Non-European)	3	2	20	18
Other	8	6	30	18
TOTAL	89	68	347	274

The percentage of juveniles aged 16 years and under convicted (including bail estreated cases) during 1938 was 80·6, and discharged 7·6; 11·8 per cent. of the cases were withdrawn, etc. The figures for juvenile adults were as follows: Convicted, 87·4; discharged, 4·9; and charges withdrawn, etc., 7·7. The sentences imposed are shown by the following percentage of total convictions:—

JUVENILE CRIME, RESULTS OF TRIAL, PERCENTAGE OF TOTAL CONVICTIONS, 1938.

Result of Trial.	Juveniles, 16 years and under.	Juvenile Adults, 17 to 20 years.
	%	%
Bail Estreated	—	0·93
Cautioned or Reprimanded	20·25	8·85
Corporal Punishment only	11·62	3·08
Fined only	42·26†	61·47
Imprisoned with Option of Fine	2·98	14·23
Other Order of Court	8·64	1·16
Postponed Sentence	8·54	3·52
Sent to Reformatory or Industrial School	4·10	2·15
Suspended Sentence	1·61	3·70
Imprisoned without Option of Fine	—	0·91*
TOTAL	100·00	100·00

* Including one case with corporal punishment. † Including one case of bail estreated.

5. **Serious Crime.**—(i) *General.*—A large proportion of the persons prosecuted each year are charged with petty offences, chiefly contravention of statutes, common assault, and common theft. For the most part the option of a fine is given in such cases. On the other hand, an appreciable percentage of the total charges before the courts relates to what may be properly designated as serious crime. Offences are classified as serious or otherwise according to the character of the crime itself and not according to the grade of court which deals with it. Statistics of such cases are contained in the tables hereunder.

From time to time the list of offences treated as *serious* for statistical purposes has been revised. For instance, prior to the year 1923, all cases of common theft were statistically included under serious crime, but in that year it was decided that thenceforth common theft cases were to be regarded as serious crime only when the value of the goods stolen was estimated to be £50 or over. In 1930, a thorough revision was made, in collaboration with the police authorities, of the items constituting the list of serious offences, steps being taken at the same time to amplify the code slightly, so as to bring out in greater detail information concerning certain offences.

(ii) *Cases Investigated.*—The percentage of convictions, acquittals, etc., to the total number of persons brought before the courts in 1938 was:—

Heading.	Convicted or Bail Estreated.	Discharged.	Escaped.	Mentally Disordered.	Died.	Case Withdrawn.
	%	%	%	%	%	%
All Offences	88·53	5·76	0·18	0·02	0·01	5·50
Serious Crime	71·02	22·05	0·16	0·17	0·09	6·51

The following tables give particulars of serious crime investigated by the police during a series of years:—

(a) SERIOUS CRIME: RESULTS OF INVESTIGATION, UNION, 1934 TO 1938.

Year.	Cases Reported.	Undetected Cases.	No Crime Disclosed.	Persons Convicted.				
				Race.		Total.	Per 1,000 of Population.	
				European.	Other.		European.	Other.
1934	45,374	4,539	13,997	2,045	20,855	22,900	1·06	2·85
1935	44,403	3,892	12,535	2,038	21,670	23,708	1·04	2·90
1936	47,112	3,686	13,847	2,009	22,747	24,756	1·00	2·99
1937	49,922	4,041	14,403	1,966	23,563	25,529	0·96	3·04
1938	50,276	3,934	14,800	2,011	23,907	25,918	0·97	3·03

(b) SERIOUS CRIME: CASES INVESTIGATED, UNION, 1937 AND 1938.

Offence.	1937.			1938.		
	Cases Reported.	Undetected Cases.	No Crime Disclosed.	Cases Reported.	Undetected Cases.	No Crime Disclosed.
Against the State.						
Coining	8	2	2	14	1	2
Concealment of Birth	136	28	42	124	22	44
Sedition	—	—	—	—	—	—
Treason	—	—	—	—	—	—
Dissemination of Certain Doctrines amongst Natives	3	—	—	1	—	1
Against the Administration of Justice.						
Bribery	174	—	9	205	—	4
Perjury	684	4	49	603	2	27
Against Public Peace.						
Public Violence	445	2	3	400	1	1
Against Public Order.						
Bigamy	87	1	10	67	2	13
Immorality Law—						
Indecent Assault (Male on Male)	250	3	4	283	2	3
Keeping a Brothel	8	—	2	6	—	2
Living on the Proceeds of Immorality	19	—	1	8	—	—
Procuring	—	—	—	2	—	1
Immorality Act (No. 5 of 1927)						
Illicit Carnal Intercourse	160	1	17	125	3	16
Procuring	3	—	—	3	—	—
Permitting Premises to be used for Illicit Carnal Intercourse	3	—	—	—	—	—
Persons found by Night in Possession of Housebreaking Implements	23	—	1	21	—	1
Sacrilege	15	5	4	8	5	3
Against the Person.						
Abortion	60	2	24	64	1	28
Assault (Indecent)	653	27	47	707	12	32
Assault with Intent	13,181	514	706	13,135	326	701
Infanticide	62	15	20	55	10	16
Homicide (Culpable)	1,348	52	307	1,395	26	360
Child Stealing	145	7	49	176	3	69
Carnal Connexion with Females under the Age of Consent	660	9	70	717	12	67
Carnal Connexion with Imbeciles	28	—	—	36	—	9
Murder	1,120	67	291	1,011	51	309
Murder (Attempted)	387	9	115	345	14	86
Bestiality	98	1	5	99	3	4
Incest	77	—	11	62	—	16
Rape	1,189	36	193	1,338	27	184
Rape (Attempted)	513	33	57	501	14	53
Sodomy	110	3	4	86	—	3
Cruelty to and Neglect of Children	2,625	66	119	2,744	69	95
Against Property.						
Arson	710	98	261	639	78	238
Cattle Maiming	120	22	39	146	29	44
Extortion	144	5	25	147	5	34
Forgery	982	65	36	1,098	59	48
Receiving Stolen Property (£20 and over)	19	—	1	16	—	1
Theft—						
Motor Vehicle	1,145	90	618	1,788	72	1,227
Common (exceeding £50 in Value)	498	120	148	468	91	149
By Conversion and Embezzlement (£20 and over)	206	10	32	165	11	25
By Fraud and False Pretences (£20 and over)	528	19	80	484	27	63
Housebreaking by Day (£20 and over)	201	86	19	258	96	24
Housebreaking by Night (£20 and over)	921	428	72	1,073	460	67
Pocket-picking	110	6	15	113	5	24
Produce, Skins, and Feathers (£20 and over)	7	1	—	4	—	1
Stock (excluding Poultry and Domesticated Game)	16,852	1,886	10,274	16,181	2,055	10,096
By Violence (Robbery)	2,554	316	598	2,655	337	607

(b) SERIOUS CRIME: CASES INVESTIGATED, UNION, 1937 AND 1938—(*continued*).

Offence.	1937.			1938.		
	Cases Reported.	Undetected Cases.	No Crime Disclosed.	Cases Reported.	Undetected Cases.	No Crime Disclosed.
Statutory Offences.						
Diamond Laws—						
Buying Diamonds Illicitly	11	—	—	16	—	—
Illegal Possession of Diamonds	28	—	2	29	—	—
Selling Diamonds Illicitly	3	—	—	16	—	—
Selling Diamonds not Product of Claim	2	—	1	3	—	—
Liquor Law—						
Europeans Selling to Non-Europeans	422	1	7	390	2	7
Precious and Base Metal Act—						
Buying Gold Illicitly	50	1	—	37	—	—
Illegal Possession of Gold	107	—	—	122	1	4
Selling Gold Illicitly	6	—	—	3	—	—
Prevention of Corruption Act.	22	—	4	24	—	—
TOTAL	49,022	4,041	14,403	50,276	3,934	14,800

(iii) *Prosecutions and Convictions.*—In 1938 prosecutions for serious offences were instituted against 36,490 persons, representing 4·59 per cent. of the persons brought before the courts. Of these 3,263 were Europeans, 27,640 natives, 514 Asiatics, and 5,073 other non-European persons. The number of Europeans tried for serious offences was equivalent to 2·37 per cent. of all persons of that race brought before the courts. The corresponding percentages in the case of the other races were: Natives, 4·90; Asiatics, 2·84; and other non-European persons, 6·80.

The percentages of convictions in relation to persons prosecuted for serious offences were as follows:—Europeans, 61·63; natives, 71·84; Asiatics 53·50; other coloured 74·41; and for all races 71·03.

The following table shows the convictions for various classes of serious offences during 1938, according to the race and sex of the persons convicted:—

SERIOUS CRIME: CONVICTIONS, UNION, 1938.

Offence.	European.		Native.		Asiatic.		Other Non-European.		Total.
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	
Against the State.									
Coining	—	2	2	—	—	—	2	—	6
Concealment of Birth	1	7	2	40	—	2	1	2	55
Sedition	—	—	—	—	—	—	—	—	—
Treason	—	—	—	—	—	—	—	—	—
Dissemination of Certain Doctrines amongst Natives	—	—	—	—	—	—	—	—	—
Against the Administration of Justice.									
Bribery	5	—	85	7	5	—	9	—	111
Perjury	36	6	185	54	7	1	41	12	342
Against Public Peace.									
Public Violence	2	1	2,918	225	4	—	22	7	3,179
Against Public Order.									
Bigamy	20	3	18	3	1	—	1	2	48
Immorality Law—									
Indecent Assault (Male on Male)	5	—	239	—	—	—	—	—	244
Keeping a Brothel	—	4	—	—	—	—	—	1	5
Living on the Proceeds of Immorality	—	—	—	—	—	—	1	—	1
Procuring	—	—	1	1	—	—	—	—	2

SERIOUS CRIME: CONVICTIONS, UNION, 1938—(*continued.*)

Offence.	European.		Native.		Asiatic.		Other Non-European.		Total.
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	
Against Public Order—(continued.)									
Immorality Act (No. 5 of 1927)—									
Illicit Carnal Intercourse	30	2	3	31	—	—	—	—	66
Procuring	—	—	—	—	—	—	—	—	—
Permitting Premises to be used for Illicit Carnal Intercourse	—	—	—	—	—	—	—	—	—
Persons found by Night in Possession of Housebreaking Implements	1	—	7	1	—	—	5	—	14
Sacrilege	1	—	3	1	—	—	1	—	6
Against the Person.									
Abortion	2	3	3	—	—	—	—	—	8
Assault (Indecent)	40	—	392	—	2	—	52	—	486
Assault with Intent	152	10	6,866	723	85	3	1,208	196	9,243
Infanticide	—	—	—	14	—	—	—	2	16
Homicide (Culpable)	118	3	807	49	7	—	68	2	1,045
Child Stealing	5	—	30	6	—	—	6	—	47
Carnal Connexion with Females under Age of Consent	31	—	212	—	17	—	111	—	371
Carnal Connexion with Imbeciles	1	—	12	—	—	—	4	—	17
Murder	5	—	106	19	2	—	11	—	143
Murder (Attempted)	7	—	82	9	1	—	8	1	108
Bestiality	3	—	63	—	2	—	11	—	79
Incest	8	5	6	2	1	—	12	3	37
Rape	10	—	343	—	3	—	91	—	447
Rape (Attempted)	9	—	154	—	4	—	22	—	189
Sodomy	10	—	46	—	1	—	7	—	64
Cruelty to and Neglect of Children	403	10	387	24	39	2	685	30	1,580
Against Property.									
Arson	4	—	135	43	2	—	5	1	190
Cattle Maiming	5	—	47	6	—	—	1	—	59
Extortion	6	—	35	—	1	—	1	—	43
Forgery	90	7	404	29	7	—	43	7	587
Receiving Stolen Property (£20 and over)	4	—	2	1	6	—	—	—	13
Theft—									
Motor Vehicle	254	—	85	—	2	—	33	1	375
Common (£50 and over)	62	4	50	9	3	—	10	8	146
By Conversion and Embezzlement (£20 and over)	34	—	19	—	1	—	5	2	61
By Fraud and False Pretences (£20 and over)	69	4	28	4	4	—	2	—	111
Housebreaking by Day (£20 and over)	16	—	49	2	1	—	15	—	83
Housebreaking by Night (£20 and over)	29	—	269	3	9	—	60	2	372
Pocket-picking	1	—	42	1	3	—	7	1	55
Produce, Skins, and Feathers (£20 and over)	—	—	2	—	—	—	1	—	3
Stock (excluding Poultry and Domesticated Game)	100	4	3,431	117	6	—	606	12	4,276
By Violence (Robbery)	56	2	682	26	31	2	288	21	1,108
Statutory Offences.									
Diamond Laws—									
Buying Diamonds Illicitly	14	—	2	—	1	—	—	—	17
Illegal Possession of Diamonds	10	—	18	—	—	—	5	—	33
Selling Diamonds Illicitly	1	—	6	—	—	—	—	—	7
Selling Diamonds not Product of Claim	1	—	—	—	—	—	—	—	1
Liquor Laws—Europeans Selling to non-Europeans	217	32	—	—	—	—	—	—	249
Precious and Base Metal Act—									
Buying Gold Illicitly	16	—	21	1	3	—	—	—	41
Illegal Possession of Gold	6	—	98	6	4	—	1	—	115
Selling Gold Illicitly	—	—	1	—	—	—	—	—	1
Prevention of Corruption Act	2	—	10	1	—	—	—	—	13
TOTAL	1,902	109	18,408	1,449	265	10	3,462	313	25,918

(iv) The following table gives particulars regarding sentences imposed in cases of convictions for serious crime:—

SERIOUS CRIME: SENTENCES IMPOSED, UNION, 1938.

Sentence.	Europeans.		Non-Europeans.		Total.	
	Male.	Female.	Male.	Female.	Male.	Female.
Fined only, and Fined or Imprisoned	621	49	7,530	881	8,151	930
Imprisonment Without Option—						
1 Month or under	28	2	926	78	954	80
Over 1 and under 6 months	154	4	5,101	297	5,255	301
6 Months to 2 years	143	8	2,989	64	3,132	72
Over 2 years	35	—	663	20	698	20
Total without option	360	14	9,679	459	10,039	473
Postponed or Suspended Sentence	659	38	1,461	277	2,120	315
Corporal Punishment only	79	—	2,674	3	2,753	3
Death	1	—	32	3	33	3
Other Order of Court	182	8	759	149	941	157
Total Convictions	1,902	109	22,135	1,772	24,037	1,881
Corporal Punishment in addition to Imprisonment (included above)	11	—	1,307	2	1,318	2

(v) *Murder.*—In 1938, 568 persons were prosecuted for murder, the majority being natives. Of the persons prosecuted only 7 Europeans and 137 others were convicted. In 400 instances the charges were withdrawn or the persons prosecuted were discharged.

PERSONS DEALT WITH ON CHARGES OF MURDER, 1934 TO 1938.

Year.	Convicted.			Discharged or Withdrawn.	Died or Escaped.	Mentally Disordered.	Total Number Dealt with.
	European.	Other.	Total.				
1934	3	89	92	354	9	13	468
1935	6	114	120	381	2	23	526
1936	1	119	120	325	5	19	469
1937	3	142	145	469	3	11	628
1938	7	137	144	400	3	21	568

(vi) *Stock Theft.*—In 1938 the convictions for stock theft (excluding poultry and domesticated game) accounted for 16·5 per cent. of the total convictions for serious crime. Theft of small stock (sheep, goats, pigs, poultry, and domesticated game) accounted for 83·9 per cent. of the total convictions for stock theft. Of the persons convicted for stock theft, 2·5 per cent. were Europeans.

STOCK THEFT, 1934 TO 1938.

Year.	Persons Prosecuted.	Persons Convicted.			Convictions for Thefts of:		
		European.	Other.	Total.	Horses, Mules, and Donkeys.	Cattle.	Small Stock.*
1934	12,044	263	8,837	9,100	772	951	7,377
1935	10,996	222	8,091	8,313	606	795	6,912
1936	10,506	207	7,932	8,139	580	843	6,716
1937	8,191	163	6,260	6,423	405	725	5,293
1938	8,489	160	6,343	6,503	369	676	5,458

* Sheep, goats, pigs, poultry, and domesticated game.

(vii) *Liquor Laws.*—The convictions for offences under this head during 1938 amounted to 119,900 or 17·05 per cent. of the total convictions. The various offences under liquor laws were distributed in the following percentage proportions of the total convictions under that head:—

Offence.	European.	Non-European.
Drunkenness	5·16	28·90
Illegal Possession of Native Liquor	0·02	54·80
Illegal Possession of Other Liquor	—	3·29
Europeans Selling to Non-Europeans	0·21	—
Non-Europeans Selling to Non-Europeans	—	0·63
Other Offences (Liquor Laws)	0·73	6·26

The following table gives the number of persons convicted for contraventions of the liquor laws under various headings:—

PERSONS CONVICTED FOR CONTRAVENTIONS OF THE LIQUOR LAWS (EXCLUDING DRUNKENNESS),* 1934 TO 1938.

Year.	Breach of Licence.	Conveying without Permit.	Distilling.	Illegal Possession of Native Liquor.	Illegal Possession of Other Liquor.	Illegal Possession of Yeast.	Illegal Sale of Yeast.	Sales without Licence.
1934..	33	99	69	56,442	5,487	411	17	130
1935..	40	130	39	65,404	5,113	536	118	172
1936..	59	101	77	70,976	3,991	606	149	167
1937..	61	91	51	66,274	3,634	758	213	185
1938..	58	74	9	65,727	3,949	1,088	271	159

Year.	Supplying Blacklisted Persons.	Non-Europeans Selling to Non-Europeans.	Europeans Selling to Non-Europeans.	Unauthorized Beer Gatherings.	Other Offences.	Persons Convicted.			
						Race.		Per 1,000 of Population.	
						European.	Other.	European.	Other.
1934..	29	1,381	492	4,323	734	869	68,778	0·45	9·40
1935..	20	1,644	442	4,477	1,074	1,038	78,171	0·53	10·47
1936..	31	1,036	276	3,800	1,340	1,028	81,581	0·51	10·72
1937..	41	757	266	4,720	1,533	1,120	77,464	0·55	9·99
1938..	64	755	251	4,993	1,659	1,155	77,902	0·55	9·86

* See Chapter V.

(viii) *Immorality Laws.*—In 1938 convictions for offences under these laws totalled 533 and represented 0·08 per cent. of the total convictions. The offences committed were as follows:—

Offence.	European.	Non-European.
Indecent Assault—Male on Male	5	230
Keeping a Brothel	4	1
Living on Proceeds of Immorality	—	1
Procuring	—	2
Soliciting	65	137
Other Offences	10	3
Illicit Carnal Intercourse	32	34
Procuring Illicit Carnal Intercourse	—	—
Permitting Premises to be used for Illicit Carnal Intercourse	—	—

6. **Suspended Sentences.**—(i) *Minor Offences.*—If any person is convicted of any offence before an inferior court in respect of which the court is of opinion that it is not necessary or desirable to impose a punishment of a whipping or imprisonment without the option of a fine or a fine exceeding £15, the court may, subject to such conditions as it may impose:—

(*a*) Postpone for a period not exceeding one month the passing of sentence and release the offender under recognizances to appear at the end of that period;

(*b*) pass sentence, but order the operation thereof to be suspended for a period not exceeding one month on conditions;

(*c*) order payment of the fine, but suspend the enforcement thereof if the offender enters into recognizances to pay within one month either in one sum or in instalments.

If the conditions of any order made or recognizances entered into are not fulfilled, the offender may be arrested without warrant and committed to prison to serve any alternative sentence of imprisonment.

(ii) *Serious Offences.*—If any person is convicted of any offence (except murder, rape, robbery, any offence in respect of which a minimum punishment is by law imposed, and any conspiracy, incitement, or attempt to commit any of the above offences) the court may, subject to such conditions as it may impose:—

(*a*) Postpone for a period not exceeding three years the passing of sentence and release the offender on recognizances to appear at the expiration of that period;

(*b*) pass sentence, but order the operation of the whole or any part of the sentence to be suspended for a period not exceeding three years;

(*c*) pass sentence of a fine or, in default of payment, imprisonment, but suspend the issue of a warrant of committal in default of payment for not more than twelve months in order to give the offender an opportunity of paying the fine either in one sum or in instalments.

If at the end of the period for which sentence has been postponed under (*a*) the offender has complied with the conditions, the court may discharge him without passing sentence.

If during the period of suspension the offender has observed the conditions under (*b*), the sentence is not enforced.

If the conditions of suspension or postponement are not fulfilled, the offender may be arrested and made to undergo the sentence which has been or may be imposed; provided that an order further suspending the operation of the sentence may be granted by the court which suspended the operation of the sentence, if the offender proves that he has been unable through circumstances beyond his control to perform any condition of such suspension.

(iii) The number of suspended sentences and suspended sentences revived during the years 1937 and 1938 was as follows:—

Heading.	European.	Native.	Asiatic.	Other Non-European.	Total.
1937.					
Suspended Sentences	2,842	5,334	215	2,149	10,540
Suspended Sentences Revived	41	168	1	102	312
1938.					
Suspended Sentences	2,905	5,661	223	2,177	11,026
Suspended Sentences Revived	46	227	3	89	365

§ 9. Statistics of Civil Judgments.

Civil Judgment and Civil Imprisonment Orders.—The table hereunder contains a summary for the year 1938 of civil judgments for debt for goods sold and of civil imprisonment orders arising out of judgments of this nature: defended cases have been excluded from the former. The data have been furnished by magistrates of a selected number of the more important and representative districts in the four provinces.

The magisterial districts from which the information has been obtained are:—

Cape of Good Hope. Cape, Wynberg, Port Elizabeth, East London, Kimberley, Uitenhage, Albany, Paarl, Kingwilliamstown, Queenstown, Oudtshoorn, Stellenbosch, Cradock, Wellington, Mafeking, Beaufort West, and Graaff-Reinet.

Natal..... Klip River, Vryheid, Durban, and Pietermaritzburg.

Transvaal..... Johannesburg, Pretoria, Germiston, Benoni, Boksburg, Krugersdorp, Potchefstroom, Brakpan, Springs, Pietersburg, Ermelo, and Rustenburg.

Orange Free State..... Bloemfontein, Kroonstad, Bethlehem, Harrismith, Ficksburg, and Vredefort.

It should be noted that the data are confined solely to cases of debt for goods sold, and do not take into account judgments in cases of action for damages and similar causes.

CIVIL JUDGMENTS FOR DEBT FOR GOODS SOLD (EXCLUDING DEFENDED CASES) AND CIVIL IMPRISONMENT ORDERS MADE, 1938.

Heading.	Civil Judgments.				Civil Imprisonment Orders.			
	European.		Non-European.		European.		Non-European.	
	Cases.	Amount of Debt.	Cases.	Amount of Debt.	Cases.	Amount of Debt.	Cases.	Amount of Debt.
Magisterial District.	No.	£	No.	£	No.	£	No.	£
Cape and Wynberg.....	2,906	28,707	1,003	11,022	3,166	44,406	1,059	13,232
Port Elizabeth.....	2,326	24,152	382	3,032	2,063	22,192	331	3,225
East London.....	1,170	10,340	92	682	861	9,493	90	847
Kimberley.....	550	7,765	135	2,209	234	2,553	42	379
Pietermaritzburg.....	548	6,306	236	3,173	448	6,422	195	2,869
Durban.....	3,575	50,585	1,040	17,212	2,117	32,494	683	11,310
Pretoria.....	2,374	25,490	91	1,104	2,179	31,451	103	1,460
Johannesburg.....	8,815	113,178	311	7,094	11,668	194,557	304	6,712
Other Reef Districts....	12,077	140,798	347	3,475	8,895	116,618	175	1,700
Bloemfontein.....	1,250	9,707	62	464	1,078	11,785	39	345
Province.								
Cape of Good Hope *....	9,791	104,181	2,469	22,592	7,506	93,177	1,909	20,874
Natal *.....	4,562	63,421	1,333	20,708	2,753	42,100	902	14,350
Transvaal *.....	24,347	296,253	917	14,109	23,113	349,601	623	10,383
Orange Free State *.....	2,461	33,227	117	712	1,420	16,210	48	405
TOTAL, Selected Districts: 1938.....	41,161	497,082	4,836	58,121	34,792	501,088	3,482	46,012
1937.....	40,570	472,562	4,765	58,398	31,340	475,000	2,592	34,855

* Selected districts only. See text above.

§ 10. Prisons.

1. **Prison System.**—The guiding principles of the penal system are to rescue the child from criminal environment and prevent it from becoming a criminal; to build up and supplement in the criminal the elements necessary to prevent a recurrence of crime; and, if all else fails, by means of the indeterminate sentence to remove the habitual criminal from society and prevent his remaining a menace to it; but even then to allow him an opportunity of self-redemption. It seeks to attain these objects through the instrumentality of government industrial schools for waif and stray children, of reformatories for children who have committed crime, and of various penal institutions for adults, and by classification and division within such institutions. The factors making for reformation operating in the prison are religious and moral influences, schooling, drill and discipline, the training of the hand and the eye, and sound literature. A simple system of marks records the progress or retrogression of the prisoner. The prison visitors' boards, on which the judicial, the medical, and the prison administration are represented in addition to the body of citizens, determine the period when the prisoner may with safety be allowed back into the ranks of society by keeping in constant touch with him personally and by following his conduct reports. They commend him when he improves and exhort him when he lapses. The Social Services of South Africa (see Chapter V) also keeps in touch particularly with the European prisoner, preserves the bond with his family, prepares the way for his return to society, and stands by him in the difficult days after his discharge from prison, when after long restraint he regains his liberty. To make the release not too sudden the prison farm has been introduced, where gradually the prisoner gets back to the conditions of outside life. Among preventive influences there is the suspended sentence, and there is also the probation officer, who stands by the sentenced man and helps him to redeem the promises made by him to the courts. As regards the native the road camp has been created, so that for venial offences against the *Pass Law*, the *Tax Law*, or the *Masters and Servants Law* he goes direct from court to camp and never actually enters a gaol. Gradually the features and methods of penal systems of the past are being abandoned. Single cells are coming more and more into use. The detention of Europeans and natives in the same wards is now forbidden. The guarding of European prisoners by coloured warders has been discontinued. The indiscriminate locking up of witnesses for months in gaol lest they might disappear is no longer resorted to. The practice of restraining mentally disordered persons in prison has been resolutely discountenanced, and under section 14 of the *Prisons and Reformatories Act* they now go to proper hospitals. Similarly the pauper sick are sent to appropriate institutions. Night schools for adults, popular science books in place of unedifying literature, and an occasional lecture on an elevating subject have now found a permanent place in the prison system.

In 1936 an intensified system of classification was introduced with the object of reducing to a minimum any contact between first offenders and recidivists while serving their sentences.

2. **Training and Instruction of Warders.**—In prison life the position of a warder is an important one. On enrolment, probationary warders undergo training at the Central Prison Training Depot at Pretoria, and thereafter they are transferred to the Pretoria Central Prison for further training in practical prison work before being passed out and promoted to the permanent establishment.

Instruction is given in matters of drill and discipline, and there is a thorough grounding in prison practice and regulations. In addition, lectures are given in first aid with a view to warders qualifying for the St. John's Ambulance certificate, and an advocate of the Supreme Court teaches the elementary doctrines of criminal and penal law.

3. **Prison Labour.**—Profitless labour such as oakum picking is now unknown, and its place has been taken by creative arts and trades. At the prisons excellent mats are now made from the discarded sheath leaf of the mealiecob, and replace the coir mats imported from India. Manilla rope or sisal fibre

grown on the prison farms has been turned out by the thousand yards. Buttons are turned by machinery out of discarded bone and the remnants ground into bone-dust fertilizer by the prisoners. Baskets and basket chairs are made from prison-grown osier and rush. Uniforms and boots are made in large quantities, and all brushes and brooms required by government departments are produced by the prisoners, including the carpet broom made from broom corn grown on the prison farms.

4. **Penal Legislation.**—The *Prisons and Reformatories Act*, No. 13 of 1911, incorporated the chief features of the Transvaal laws and especially of Act No. 38 of 1909, which was the first legislation to break ground on modern penological lines. With the *Prisons and Reformatories Act* must be read the *Criminal Procedure and Evidence Act*, No. 31 of 1917, as amended, and the *Children's Act*, No. 31 of 1937. Act No. 46 of 1920 gives government recognition and assistance to certified hostels for the reception of lads who would otherwise be committed to penal institutions. Under Act No. 27 of 1934, the administration of juvenile and juvenile-adult reformatories and hostels was transferred to the Union Department of Education.

Prominent provisions of Act No. 31 of 1917 are that no one may be sentenced to less than four days' imprisonment and that no witness may be detained in goal except on the express application of the Attorney-General. For a trifling offence the accused may deposit the maximum fine with the police, from which, if he is found guilty, his fine is deducted, any balance of this deposit being refunded. In a serious matter the court may, if it finds him guilty, reprimand him or postpone the passing of sentence, suspend the operation of the sentence, obtain the fine out of the offender's wages, allow him to pay by instalments, or permit him to give sureties.

5. **The Indeterminate Sentence: Nature and Working.**—The *Transvaal Criminal Law Amendment Act*, No. 38 of 1909, which came into force on the 1st of October of that year, first empowered superior courts to declare *habitual criminals* all those who might be three times convicted of certain scheduled offences. Such convicted persons were to be detained at hard labour during the Governor's pleasure and were not to be released until the board of visitors, whose creation was also provided for in the Act, should have reported to the Governor: (*a*) that there was a reasonable probability that the habitual criminal would in future abstain from crime and lead a useful and industrious life; or (*b*) that he was no longer capable of engaging in crime; or (*c*) that for any other reason it was desirable to release him. Upon receipt of such a report the Governor was empowered to order the release of the habitual criminal unconditionally or on probation on such conditions as to supervision, or otherwise as might be determined. A person who failed to observe any condition of release could be re-arrested and re-committed to prison and detained there as though he had not been released. If the person released on probation completed the period without breaking any condition of his release he would no longer be deemed to be an habitual criminal; but there was nothing to prevent his being again declared an habitual criminal, if he appeared before a superior court for a further crime.

The provisions of this law were extended to the Union by Act No. 9 of 1911, in force from 28th April, 1911, and by the *Prisons and Reformatories Act*, No. 13 of 1911, in force from 1st October, 1911. The provisions of Act No. 9 of 1911 were re-enacted by section 344 of the *Criminal Procedure and Evidence Act*, No. 31 of 1917.

The scheduled offences, in respect of which a third conviction renders the offender liable to be declared an habitual criminal, include the following:—(i) Rape or any statutory offence of a sexual nature against a girl of or under a prescribed age; (ii) robbery; (iii) assault with intent to commit murder, rape, or robbery, or to do grievous bodily harm, or indecent assault; (iv) arson; (v) fraud; (vi) forgery or uttering; (vii) offences relating to the coinage; (viii) breaking into or entering premises with intent to commit an offence; (ix) theft; (x) receiving stolen property; (xi) extortion or threats by letter or otherwise with intent to extort; (xii) offences described in any law for the suppression of brothels and the punishment of immorality; (xiii) illicit dealing in or possession of precious metals or precious stones; (xiv) illicit liquor supplying to natives or coloured persons; (xv) any conspiracy, incitement, or attempt to commit any of the abovementioned offences.

Each habitual criminal has a personal interview with the prison visitors' board once a year, when he has an opportunity of making any representations he wishes and the board is enabled to question him and observe his demeanour. Each habitual criminal is also seen once a year by the Director of Prisons. On consideration of the various factors, the board may decide whether the time is ripe for recommending that the convict be given a chance to prove whether he can be safely trusted again amongst his fellow men. The board ascertains in what locality the convict is most likely to make good, and on release he is transported to that locality and reports to the local probation officer, who renders such assistance as may be necessary in placing him in steady employment. Before release is actually effected, the convict has been tried for a period in prison under conditions approximating to freedom. It is found that some men break down even under this relaxation and prove their unfitness for final release.

The first indeterminate sentences were passed in 1910 when 2 European males and 27 native and coloured males were declared habitual criminals. In 1920 the record number of such sentences was passed, 20 European males, 153 native males, and 1 native female being declared habitual criminals. The number of indeterminate sentences passed up to the end of 1938 was:—Europeans: males 255, females 3; native and coloured: males 2,858, females 33; Asiatics: males 32; a total of 3,181. No Asiatic female has yet received the indeterminate sentence.

6. **Statistics.**—The subjoined tables give statistics for a period of years in regard to penal establishments, sentenced offenders, juvenile offenders, paupers, mental defectives, and debtors admitted to penal establishments (excluding lock-ups) or held in custody, and an analysis of convictions obtained in 1938. Particulars for earlier years will be found in previous issues of this *Year Book*. The concluding table shows the average number of hard labour units employed daily during the year 1938.

(i) PENAL ESTABLISHMENTS, 1934 TO 1938.

Year.	Convict Prisons.	Gaols.	Reformatories.	Road Camps.	Farm Colonies and Inebriate Reformatories.	Labour Out-stations.	Prison Farms.	Total.
1934.....	7	175	4*	3	3	10	2	200*
1935.....	7	175	—	4	2†	9	2	199
1936.....	8	175	—	3	2	6	2	196
1937.....	7‡	176	—	3	2	4	2	194
1938.....	8	176	—	3	2	4	2	195

* Reformatories were handed over to the Union Education Department on 1st July, 1934, and are not included in the total.

† One in Cape Province closed on 30th June, 1935.

‡ One in Cape Province closed on 31st July, 1937.

(ii) SENTENCED OFFENDERS ADMITTED TO PENAL ESTABLISHMENTS, 1934 TO 1938.

Year.	European.		Native.		Asiatic.		Other Non-European.		Total: All Sentenced Prisoners.
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	
1934.....	4,142	204	130,371	20,355	549	31	15,260	2,690	173,602
1935.....	3,665	222	128,352	19,243	482	26	14,376	2,710	169,076
1936.....	3,238	205	116,593	17,811	485	23	16,775	2,826	157,956
1937.....	3,354	188	121,505	16,805	471	27	16,849	2,808	162,007
1938.....	3,365	126	117,122	16,696	548	33	16,804	2,809	157,503

(iii) DAILY AVERAGES OF PRISONERS,* 1934 TO 1938.

Year.	European.		Other.†		All Races.		
	Male.	Female.	Male.	Female.	Male.	Female.	Total.
1934	938·5	35·5	18,022·6	1,383·5	19,011·1	1,419·0	20,430·1
1935	868·0	31·9	17,997·8	1,411·2	18,865·8	1,443·1	20,308·9
1936	896·7	34·8	18,018·8	1,362·5	18,915·5	1,397·3	20,312·8
1937	893·6	26·3	17,530·7	1,315·6	18,424·3	1,341·9	19,766·2
1938	858·6	21·1	17,458·1	1,341·2	18,316·7	1,362·3	19,679·0

* Includes prisoners awaiting trial, civil debtors, etc. † Detailed race figures not available.

(iv) OFFENDERS ADMITTED DIRECT FROM COURTS AND POLICE LOCK-UPS TO PENAL ESTABLISHMENTS, SHOWING SENTENCES, 1938.

Sentence.	European.		Native.		Asiatic.		Other Non-European.	
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
Condemned to Death	2	—	31	4	—	—	5	—
Life	—	—	3	—	1	—	—	—
Indeterminate Sentence	8	—	97	2	3	—	30	—
Governor-General's Pleasure	6	—	22	—	—	—	2	—
10 Years and over	4	—	69	2	5	—	4	
5 Years and under 10 Years	5	—	162	9	2	—	23	
Over 2 Years and under 5 Years	48	—	613	14	6	—	82	
6 Months and up to and including 2 Years	370	8	4,545	141	38	2	714	27
3 Months and under 6 Months	383	20	9,230	946	67	2	1,485	138
Over 1 Month and under 3 Months	457	18	19,159	1,926	111	2	2,298	378
Corporal Punishment only:								
(i) Cat	—	—	—	—	—	—	—	—
(ii) Cane	1	—	233	—	—	—	33	—
7 Days and up to and including 1 Month	1,861	77	70,816	10,573	291	20	11,156	2,071
Under 7 Days	220	3	12,142	979	24	7	972	195
TOTAL	3,365	126	117,122	16,696	548	33	16,804	2,809

(v) SENTENCED OFFENDERS IN PENAL ESTABLISHMENTS AT 31st DECEMBER, 1934 TO 1938.

Year.	European.		Native.		Asiatic.		Other Non-European.	
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
1934	836	24	14,043	948	113	2	2,157	140
1935	738	32	13,684	1,001	110	4	2,259	174
1936	814	30	13,149	898	74	1	2,179	150
1937	757	18	12,629	939	74	2	2,369	139
1938	746	16	11,711	863	96	2	2,397	137

(vi) DEATHS AND EXECUTIONS IN PENAL ESTABLISHMENTS, 1934 TO 1938.

Year.	Total Number of Deaths.	Executions.				Killed while Escaping.	Accidents.	Suicides.	Deaths from Assault.	Deaths from Other and Natural Causes.
		European.		Other.						
		Male.	Female.	Male.	Female.					
1934	306	1	—	14	—	1	6	1	—	283
1935	329	1	—	16	—	1	4	1	—	306
1936	315	1	—	18	—	—	5	2	1	288
1937	239	1	—	31	—	1	3	2	1	200
1938	277	—	—	20	—	4	3	4	—	246

(vii) FIRST AND SUBSEQUENT CONVICTIONS, 1938.

Description.	European.		Native.		Asiatic.		Other Non-European.	
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
First Conviction	1,728	89	92,335	13,777	396	28	6,271	1,435
Second Conviction	348	4	9,300	1,311	37	—	1,573	211
Third Conviction	220	4	5,764	638	30	—	1,437	169
Fourth Conviction	155	3	3,194	377	18	—	1,307	115
Over Four Convictions	914	26	6,529	593	67	5	6,216	879
TOTAL	3,365	126	117,122	16,696	548	33	16,804	2,809

(viii) JUVENILE OFFENDERS* ADMITTED TO PENAL ESTABLISHMENTS, 1934 TO 1938.

Year.	Number Under 21 Years of Age.	European.		Native.		Asiatic.		Other Non-European.	
		Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
1934	19,487	309	14	14,062	2,455	65	2	2,104	476
1935	17,367	307	12	12,595	2,082	64	1	1,886	420
1936	17,212	305	17	11,734	2,196	86	5	2,444	425
1937	16,175	262	11	11,402	2,041	77	—	2,037	345
1938	14,040	274	12	9,703	1,636	80	2	1,951	382

* Excluding those confined in reformatories.

(ix) PAUPERS DEALT WITH IN PENAL ESTABLISHMENTS, 1934 TO 1938.

Year.	European.		Native.		Asiatic.		Other Non-European.		Prisoners' Children.	Total.
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.		
1934	—	—	1	—	—	—	—	—	1,218	1,219
1935	—	—	1	—	—	—	—	—	1,149	1,150
1936	—	1	2	2	—	—	—	—	907	912
1937	—	—	10	2	—	—	—	—	799	811
1938	1	—	—	—	—	—	—	—	867	868

(x) MENTAL PATIENTS DEALT WITH IN PENAL ESTABLISHMENTS, 1934 TO 1938.

Year.	European.		Native.		Asiatic.		Other Non-European.		Total.
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	
1934	10	3	77	22	1	—	5	2	120
1935	5	2	87	28	4	2	8	2	138
1936	4	—	90	39	2	—	14	3	152
1937	11	1	71	20	—	—	8	4	115
1938	8	1	78	34	—	—	12	6	139

(xi) CIVIL DEBTORS DEALT WITH IN PENAL ESTABLISHMENTS, 1934 TO 1938.

Year.	European.		Native.		Asiatic.		Other Non-European.		Total.
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	
1934	84	4	62	—	25	—	18	1	194
1935	247	4	80	1	25	—	33	2	392
1936	707	7	219	5	66	—	87	—	1,091
1937	963	18	226	5	120	1	121	2	1,456
1938	1,107	15	275	7	151	—	130	3	1,697

(xii) AVERAGE NUMBER OF PRISONS HARD LABOUR UNITS EMPLOYED DAILY, 1938.

Heading.	Daily Average.	Heading.	Daily Average.
	No.		No.
Employed for Prisons Department...	6,091	Employed for others—	
Employed for Government Departments—		Gratis.....	179
Gratis.....	4,941	For Remuneration.....	2,857
For Remuneration.....	530	* Not employed (ineffective).....	5,854

* Owing to sickness, rain, Sundays, public holidays, etc.

NOTE.—The amount earned by prisons hard labour units during the year 1938 was £57,438.

7. **Administration of Prisons.**—The administration of prisons is placed under the Director of Prisons in the Ministry of Justice. Particulars as to the cost of administration are contained in Chapter XV.

CHAPTER X.

POLICE AND PROTECTION.

§ 1. Development of the Police Organization.

1. **Organization of the Police Force before 1910.**—Earlier issues of this *Year Book* (Nos. 3 to 6) contained an historical account of the development of the South African Police Forces up to the date of the constitution of the Union, and also statistics showing the strength of the various units at that date.

2. **Organization of the Police Force after 1910.**—On the amalgamation of the Police Forces of the Union and the formation of the Permanent Force (South African Mounted Rifles) on 1st April, 1913, the latter force was made responsible for the policing of the Northern Transvaal, the Natal Province (with the exception of the Durban Water Police patrol area), the districts in the Orange Free State on the Basutoland border, the Transkeian native territories with the districts of Kingwilliamstown, Komgha, Aliwal North, Barkly East, and Herschel, and the north-western portion of the Cape Province; the remainder of the Union was administered by the South African Police. When in August, 1914, the South African Mounted Rifles were mobilized for active service, the policing of the areas assigned to that force devolved on the South African Police, by whom it was continued until peace was proclaimed. The fact that during peace time the work performed by both forces is identical led the Government to determine that from the point of view of both economy and efficiency, it would be better to convert the two forces into one Police Force, and accordingly, on 1st April, 1920, the Permanent Force (South African Mounted Rifles) was absorbed and attached to the South African Police. In order that adequate police protection should be afforded to the areas formerly patrolled by the South African Mounted Rifles, as many members of that force as possible were accepted for service in the South African Police.

On the 31st March, 1926, the South African Mounted Riflemen were totally disbanded, and on the 1st April, one head constable, nine first class sergeants, eight second class sergeants, and 120 constables were taken over by the South African Police.

From the 1st April, 1936, the central area of the City of Durban, which up to then had been policed by the Durban Borough Police, was taken over by the South African Police. The whole of the Union is now policed by this force.

In 1934, with the object of securing speedier and more efficient patrolling of the larger urban areas, experiments in the substitution of motor cars and motor cycles for horses were conducted at Capetown and Johannesburg. These proved successful and the cities and larger towns are to-day equipped with motor vehicles, thus ensuring more effective supervision. In many rural areas throughout the Union, motor vehicles have also taken the place of horses for routine patrol and investigation work, with similar success.

In 1936 a wireless installation was erected at Marshall Square, Johannesburg, and this to-day controls the movements and patrol work of all police motor patrols throughout the Reef.

To provide immediate police action in the case of complaints made by residents of outlying suburban areas of Johannesburg, a system of mobile police stations—motor vans fitted as charge offices, with the necessary personnel—was inaugurated and has proved to be of the greatest service from the public point of view, and has in no small measure increased the efficiency of police supervision in the areas so controlled.

These mobile police stations have fixed " time points " known to the public, who may lay complaints or charges there instead of proceeding to one of the permanent police stations for the purpose. During the period the mobile station is stationary at such points, the personnel patrol the surrounding area.

3. **Number of Police in Provinces and Divisions.**—The allocation of police to the various provinces is indicated in the subjoined Table (i), and in Table (ii) is given an analysis of the European section of the South African Police Force on the 31st December, 1938. Table (iii) shows the strength of the South African Police Force on the 31st December for 1911 and in each year from 1922.

(i) SOUTH AFRICAN POLICE—STRENGTH ON 31st DECEMBER, 1937 AND 1938.

Province.	1937.			1938.		
	European.	Non-European.	Total.	European.	Non-European.	Total.
Cape of Good Hope	2,798	702	3,500	2,819	739	3,558
Natal	806	1,167	1,973	809	1,152	1,961
Transvaal	2,397	1,224	3,621	2,399	1,268	3,667
Orange Free State	534	207	741	545	207	752
Depot	337	31	368	353	30	383
S.A.C. Bureau	54	3	57	57	3	60
Headquarters	229	34	263	224	34	258
Dog Depot	26	4	30	24	4	28
TOTAL	7,181	3,372	10,553	7,230	3,437	10,667

(ii) SOUTH AFRICAN POLICE—EUROPEAN PERSONNEL ON 31st DECEMBER, 1937 AND 1938.

Province and Division.	Officers.	Head Constables.	N.C.O.'s.	Constables.	Detectives.	Total.
Cape of Good Hope—						
Western Division	25	14	169	997	117	1,322
Eastern Division	24	11	135	732	66	968
Transkei Division	7	3	38	180	18	246
Kimberley Division	7	4	41	206	25	283
Total—Cape of Good Hope	63	32	383	2,115	226	2,819
Orange Free State	11	3	95	401	35	545
Natal	18	11	130	579	71	809
Transvaal (except Witwatersrand)	20	11	114	711	97	953
Witwatersrand	28	24	161	996	237	1,446
Depot	4	5	35	309	—	353
S.A.C. Bureau	3	—	—	32	22	57
Headquarters	12	15	69	128	—	224
Dog Depot	1	—	—	4	19	24
GRAND TOTAL, 1938	160	101	987	5,275	707	7,230
* GRAND TOTAL, 1937	160	97	891	5,328	705	7,181

(iii) SOUTH AFRICAN POLICE—TOTAL STRENGTH ON 31st DECEMBER, 1911 AND 1922 TO 1938.

Year.	European.	Native, Coloured, and Indian.	Total.	Year.	European.	Native, Coloured, and Indian.	Total.
1911	5,507	2,871	8,378	1930	6,667	3,919	10,586
1922	6,201	3,743	9,944	1931	6,671	2,895	9,566
1923	6,220	3,845	10,065	1932	6,947	2,964	9,911
1924	6,415	3,879	10,294	1933	6,975	2,988	9,963
1925	6,354	3,865	10,219	1934	7,068	3,011	10,079
1926	6,481	3,960	10,441	1935	7,278	3,025	10,303
1927	6,525	3,997	10,522	1936	7,184	3,163	10,347
1928	6,597	4,046	10,643	1937	7,181	3,372	10,553
1929	6,603	3,941	10,544	1938	7,230	3,437	10,667

4. **Duties of the Police.**—In addition to the duties ordinarily appertainin to a police force, the South African Police are constantly required to under take inquiries on behalf of various government departments, and its member undertake criminal prosecutions (as public prosecutors) in almost all of th rural areas of the Union. They act as messengers of the court, excise officers immigration officers, lock-up keepers, revenue officers, assist in the compila tion of voters' rolls and the registration of births and deaths, serve as la (health) inspectors, inspectors of vehicles, inspectors of licences, post agent pass issuers, health officers, compilers of jury lists, meteorological observer and perform various other duties which are extraneous to police duty prope

The following table shows for a series of five years the cases in which the intervention of the police was called for:—

Description of Circumstances Calling for Police Intervention.	1934.	1935.	1936.	1937.	1938.
	No.	No.	No.	No.	No.
Cases Reported to the Police	769,600	831,073	869,437	932,108	977,769
Persons Arrested	644,176	692,621	708,636	756,298	794,344
Persons Convicted	568,707	619,465	636,159	671,333	703,199
Persons Deported to Other Countries	1,502	890	777	765	816

5. **Recruiting and Losses.**—The subjoined table gives particulars as to recruiting for the police and as to losses from the force:—

RECRUITING AND LOSSES OF POLICE FORCE (EUROPEANS), 1922-23 TO 1937-38.

Financial Year.	Recruiting.	Losses.	Financial Year.	Recruiting.	Losses.
1922-23	563	522	1930-31	463	426
1923-24	645	469	1931-32	590	402
1924-25	374	424	1932-33	610	344
1925-26	464	423	1933-34	267	320
1926-27	465	435	1934-35	541	452
1927-28	525	461	1935-36	750	554
1928-29	523	501	1936-37	510	500
1929-30	527	499	1937-38	599	550

6. **Scales of Pay.**—The following table gives details of the scales of pay and allowances in operation in the South African Police Force:—

SCALES OF PAY AND ALLOWANCES—SOUTH AFRICAN POLICE FORCE.

Rank.	Pay and Allowances.	Rank.	Pay and Allowances.
Commissioned Officers.		*Detective Branch.*	
Commissioner	£2,000	Detective Head Constables	£365–£505
Chief Deputy Commissioner	£1,200–£1,350	Detective Sergeants, 1st Class†	£320–£395
Deputy Commissioners	£895–£1,015	Detective Sergeants, 2nd Class†	£280–£355
Chief Inspectors	£695–£795	Detective Constables‡	£150–£335
Inspectors	£570–£695		
Sub-Inspectors	£495–£595	*Natives.*§	
		Sergeants	£110–£125
Other Ranks.		Corporals	£88–£103
Head Constables	£365–£505	Constables‖	£60–£84
1st Class Sergeants	£320–£395		
2nd Class Sergeants	£280–£355	*Indian and Coloured.*§	
Constables	£150–£335	Sergeants	£130–£148
Recruits on Enrolment*	£120	Corporals	£112–£124
		Constables‖	£72–£108

* Free quarters whilst undergoing training at a police depot.
† Plus non-pensionable allowance of £25 per annum.
‡ Plus non-pensionable allowance of £20 per annum.
§ Indian, coloured, and native policemen employed as detectives are paid a non-pensionable allowance from £3 per annum to £18 per annum.
‖ Indian, coloured, and native constable labourers at rates not exceeding those for Indian, coloured, and native constables.

7. Police: Personnel and Expenditure in relation to Population.—The following table shows the relation existing between total expenditure and personnel of the Police and the estimated population of the Union, all races and European, during each of the years 1933 to 1937:—

POLICE: PERSONNEL AND EXPENDITURE IN RELATION TO POPULATION, 1933 TO 1937.

Year.	Total Expenditure.*	Estimated Population.		Expenditure per Head of Population.		Number of Police.†	Number of Persons per Police Officer.	
		All Races.	European.	All Races.	European.		All Races.	European.
	£			s. d.	s. d.			
1933...	2,415,562	9,065,300‡	1,891,800‡	5 4‡	25 6‡	9,963	910‡	190‡
1934...	2,464,139	9,243,100‡	1,924,600‡	5 4‡	25 7‡	10,079	917‡	191‡
1935...	2,552,092	9,427,800‡	1,964,300‡	5 5‡	26 0‡	10,303	915‡	191‡
1936...	2,583,570	9,617,200	2,008,700	5 4	25 9	10,347	929	194
1937...	2,602,951	9,797,200	2,043,700	5 4	25 6	10,553	928	194

* At 31st March of following year.
† At 31st December.
‡ Revised figures.

§ 2. Defence System.

1. General.—From the time of the inception of the Defence Force system the Government assumed gradually the duties and responsibilities connected with the defence of the Union, and on 1st December, 1921, the Imperial Military Command in South Africa was abolished and the responsibility for the coast fortress defences of the Cape Peninsula was formally taken over by a Union Commander. The Imperial Government generously endowed the Union with a free gift of all its land and buildings in the Union actually required for defence purposes; the conservation of this endowment is provided for in the *Defence Endowment Property and Accounts Act* (No. 33 of 1922).

The defence system is laid down in the *Defence Act* (No. 13 of 1912, as amended by Act No. 22 of 1922). Under this Act every citizen of European descent is liable between his seventeenth and his sixtieth year (both included) to render in time of war personal service in defence of the country in any part of South Africa within or without the Union. Further, every citizen of sound physique between his seventeenth and his twenty-fifth year (both included) is liable to undergo a course of peace training for a period of four years. All employers are bound by law to afford their employees facilities for this training without in any way prejudicing their employment. A minimum of 50 per cent. of those liable for peace training is required annually, others being required in their twenty-first year to enrol as members of rifle associations for the same period of four consecutive years. As an alternative, citizens may enter for service in the South African Division of the Royal Naval Volunteer Reserve. Every other citizen liable to render war service is also allowed to engage as a member of a rifle association if he elects to do so. The liability of non-Europeans to service may be determined by Parliament.

2. Administration.—A Council of Defence, a headquarters staff, and instructional and administrative staffs for the six military commands have been constituted.

The personnel of the Council of Defence is shown in Chapter XXVIII.

3. Military Commands.—The Union has been divided into six military commands as follows:—

Cape Command.—Headquarters at Capetown.—The Western Province of the Cape of Good Hope, with boundaries including the Magisterial Districts of George, Oudtshoorn, Prince Albert, Beaufort West, Victoria West, Carnarvon, Fraserburg, Calvinia, and Namaqualand.

Eastern Province Command.—Headquarters at East London.—The Eastern Province of the Cape of Good Hope, with boundaries including the Magisterial Districts of Knysna, Uniondale, Willowmore, Aberdeen, Murraysburg, Richmond, Hanover, Colesberg, Venterstad, Albert, Aliwal North, Herschel, Barkly East, Maclear, Qumbu, Libode, and Port St. Johns.

Natal Command.—Headquarters at Durban.—The Province of Natal and those portions of the Northern Transkeian Territories with boundaries including the Magisterial Districts of Mount Fletcher, Mount Frere, Tabankulu, and Lusikisiki.

Orange Free State Command.—Headquarters at Bloemfontein.—The Orange Free State Province and that portion of the Cape Province with boundaries including the Magisterial Districts of Philipstown, De Aar, Britstown, Prieska, Kenhardt, Gordonia, Kuruman, Vryburg, Taung, Barkly West, Kimberley, Herbert, and Hopetown.

Voortrekkerhoogte and Transvaal Command.—Headquarters at Voortrekkerhoogte.—The Transvaal Province (less the area of the Witwatersrand Command) and the Magisterial District of Mafeking in the Cape Province.

Witwatersrand Command.—Headquarters at Johannesburg.—That portion of the Transvaal Province comprising the Magisterial Districts of Krugersdorp, Roodepoort, Johannesburg, Germiston, Boksburg, Brakpan, Benoni, and Springs.

4. The South African Permanent Force.—This Force consists of:—

	Officers.	*Other Ranks.*
1. Staff Corps	24	—
2. Artillery	33	519
3. Air Force	119	1,514
4. Instructional Corps	8	121
5. Infantry—		
Special Service Battalion	14	1,584
Pioneer Battalion	3	243
6. S.A. Naval Service	5	12
7. Ordnance Corps	11	252
8. Service Corps	5	25
9. Medical Corps	13	76
10. Veterinary Corps	—	8
11. Administrative, Pay and Clerical Corps	28	156
12. Permanent Force, Band	1	37
13. Permanent Force, Cadets	—	66
14. Corps of S.A. Military Police	—	40

The Special Service Battalion (Infantry) was created in 1933 for the purpose of assisting unemployed youths between the ages of 17 and 22 years. The minimum standard of education is Standard VI. Members are enlisted for one year, but may be released at any time after nine months' service on obtaining employment in the government service or other approved employment. The battalion is stationed at Voortrekkerhoogte, with a company each at Capetown and Durban.

The Pioneer Battalion (Infantry) was established at Bloemfontein on 1st January, 1935. Unemployed men over the age of 17 may enlist in the battalion for a period of six months. There is no minimum educational standard, and men enlisting in this unit are found employment as labourers in government and other services.

5. The South African Military College.—This college was established in 1912 for the training and instruction of officers and other ranks of the Union Defence Forces.

6. The Coast Garrison Force.—This force consists of the South African Garrison Artillery and Coast Defence Corps. A division of the Garrison Artillery is established at Capetown, and citizens liable for peace training may serve their time in this force. The Coast Defence Corps consists of men specially trained in harbour work, engineering, signalling, and telegraphy.

7. The Citizen Force.—This force consists of persons liable to render personal service in time of war (other than members of the other forces mentioned) and comprises three divisions, viz., the Active Citizen Force, the Citizen Force Reserve, and the National Reserve.

8. Registration of Citizens for training under Defence Act.—All citizens of the Union are required to register themselves under the *Defence Act* during January of the year in which they will reach the age of seventeen. Any person who becomes a citizen between his seventeenth year and his twenty-first year must register himself within ninety days of becoming a citizen Failure to register constitutes an offence punishable by law.

The position in regard to the 1938 registration of citizens is reflected hereunder:—

REGISTRATIONS UNDER DEFENCE ACT, 1938.

Command.	Number Liable for Registration.	Total Number Registered.	Total Voluntary Entries.	Total Non-Voluntary Registrations.
Cape	4,587	3,697	3,441	256
Eastern Province	2,945	2,556	2,516	40
Natal	1,736	1,686	1,643	43
Orange Free State	2,968	2,900	2,855	45
Voortrekkerhoogte and Transvaal	4,489	3,911	3,739	172
Witwatersrand	3,736	3,775	3,547	228
TOTAL	20,461	18,425*	17,641	784

* As time progresses this number will be further augmented owing to citizens registering after due date.

9. The Coast Garrison and Active Citizen Forces.—These forces consist of citizens between the ages of seventeen and twenty-five who are undergoing peace training and citizens who, having completed their compulsory period of training, have been permitted to extend their service.

During the training year 1938-39 the following units were accepted for peace training:—

COAST GARRISON FORCE, ACTIVE CITIZEN FORCE, AND R.N.V.R.—STRENGTH, 30th NOVEMBER, 1938.

Command.	Unit.	Authorized Establishment.		Actual Strength.	
		Officers.	Other Ranks.	Officers.	Other Ranks.
Cape	Command Staff	5 (a)	—	2	—
	Coast Artillery Brigade—				
	Brigade Headquarters	3	37	1	27
	Cape Field Artillery	6 (b)	95	5	85
	1st Heavy Battery (C.G.A.)	9	103	6	101
	2nd Heavy Battery (C.G.A.)	8	110	5	110
	1st Medium Battery	3	109	6	215
	No. 1 Armoured Train	2	37	2	37
	3rd Infantry Brigade:—				
	Brigade Commander and Staff	5	—	5	—
	Duke of Edinburgh's Own Rifles	27	325	24	298
	D.E.O.R. Brass, Drum and Bugle Bands	—	46	—	52
	Cape Town Highlanders	27	301	25	301
	C.T.H. Drum and Bugle Band	—	23	—	23
	(For Kimberley Regiment see O.F.S. Command)				
	8th Infantry Brigade:—				
	Brigade Commander and Staff	5	—	—	—
	Regiment Suid-Westelike Distrikte	27	301	19	309
	R.S.W.D. Drum and Bugle Band	—	23	—	14
	Regiment Westelike Provinsie	27	301	30	301
	R.W.P. Drum and Bugle Band	—	23	—	23
	(For Die Middelandse Regiment see Eastern Province Command).				
	3rd Field Company, S.A.E.C.	6	65	6	65
	No. 3 Brigade Signal Company, S.A.C.S.	8	170	4	147
	No. 3 Wireless Section, S.A.C.S.	1	30	(h)	(h)
	No. 3 Company, S.A.S.C.	4	60	3	60
	No. 2 Company, S.A.O.C.	6	77	6	77
	3rd Field Ambulance (Cape), S.A.M.C.	14 (d)	151	13	149
	Union Air Training Group (Pupil Pilots).	—	80	—	54
	TOTAL	193	2,472	162	2,458
Eastern Province	Command Staff	5 (c)	—	1	—
	3rd Heavy Battery S.A.A.	3	106	—	—
	2nd Infantry Brigade:—				
	Brigade Commander and Staff	5	—	5	—
	Prince Alfred's Guard	27	325	26	327
	P.A.G. Drum and Bugle Band	—	23	—	23
	First City	27	301	23	271
	First City Drum and Bugle Band	—	23	—	21
	The Kaffrarian Rifles	27	301	22	308
	The Kaff. Rif. Brass, Drum and Bugle Bands	—	46	—	23

N.B.—For notes see end of schedule.

COAST GARRISON FORCE, ACTIVE CITIZEN FORCE, AND R.N.V.R.—STRENGTH, 30th NOVEMBER, 1938—(*continued*).

Command.	Unit.	Authorized Establishment.		Actual Strength.	
		Officers.	Other Ranks.	Officers.	Other Ranks.
Eastern Province (*cont.*)	Die Middellandse Regiment (8th Inf. Bde. Cape Commd.)	27	301	24	305
	Die M.R. Drum and Bugle Band	—	23	—	—
	2nd Field Company, S.A.E.C.	6	65	2	65
	No. 2 Brigade Signal Company, S.A.C.S.	8	170	4	91
	No. 2 Company, S.A.S.C.	3	26	2	26
	2nd Field Ambulance (Cape), S.A.M.C.	14 (d)	151	11	148
	Union Air Training Group (Pupil Pilots).	—	41	—	25
	TOTAL	152	1,902	120	1,633
Natal	Command Staff	5 (a)	—	4	—
	Natal Field Artillery	6 (b)	104	4	104
	1st Infantry Brigade:—				
	Brigade Commander and Staff	5	—	3	—
	The 1st Royal Natal Carbineers	27	301	19	315
	1 R.N.C. Brass, Drum and Bugle Bands	—	46	—	32
	The 2nd Royal Natal Carbineers	27	301	23	302
	2 R.N.C. Drum and Bugle Band	—	23	—	23
	Umvoti Mounted Rifles	27	301	21	300
	U.M.R. Drum and Bugle Band	—	23	—	18
	7th Infantry Brigade:—				
	Brigade Commander and Staff	5	—	3	—
	Natal Mounted Rifles	27	325	25	328
	N.M.R. Drum and Bugle Band	—	23	—	20
	1st Bn. The Royal Durban Light Inf.	27	335	21	360
	1 R.D.L.I. Brass, Drum and Bugle Bands	—	46	—	23
	2nd Bn. The Royal Durban Light Inf.	27	275	17	272
	2 R.D.L.I. Drum and Bugle Band	—	23	—	26
	1st Field Company, S.A.E.C.	6	65	5	65
	No. 7 Brigade Signal Company, S.A.C.S.	10	226	10	170
	No. 1 Company, S.A.S.C.	3	26	3	26
	1st Field Ambulance (Natal), S.A.M.C.	16 (d)	151	14	151
	Union Air Training Group (Pupil Pilots).	—	30	—	28
	TOTAL	218	2,624	172	2,563
Orange Free State	Command Staff	4 (e)	—	3	—
	1ste O.V.S V.A.	4	76	4	70
	2de O.V.S.V.A.	4	76	4	56
	4th Infantry Brigade:—				
	Brigade Commander and Staff	5	—	5	—
	Regiment de Wet	27	301	18	319
	Regt. de Wet Drum and Bugle Band	—	23	—	8
	Regiment Louw Wepener	27	301	23	297
	Regt. L.W. Drum and Bugle Band	—	23	—	13
	Regiment President Steyn	27	325	24	332
	Regt. P.S. Brass, Drum and Bugle Band	—	46	—	15
	Kimberley Regiment (3rd Infr. Bde. Cape Command)	27	301	22	296
	Kimberley Regt. Drum and Bugle Band	—	23	—	27
	4th Field Company, S.A.E.C.	6	65	4	68
	No. 4 Brigade Signal Company, S.A.C.S.	8	170	8	99
	No. 4 Company, S.A.S.C.	3	26	3	26
	No. 3 Company, S.A.O.C.	6	77	5	70
	4th Field Ambulance, S.A.M.C.	14 (d)	151	14	137
	Union Air Training Group (Pupil Pilots).	—	48	—	33
	TOTAL	162	2,032	137	1,866
Voortrekker-hoogte and Transvaal	*Artillery School*:—				
	1st Field Battery (S.A.A.) (4·5" How.)	3	83	2	76
	2nd Field Battery (S.A.A.) (18 pdr.)	3	76	4	64
	2nd Medium Battery (S.A.A.) (6" How.)	3	117	4	106
	1st Light Battery (S.A.A.) (3·7" How.)	3	89	3	70
	No. 2 Armoured Train (not functioning)	2	37	—	—
	Command Staff	5 (c)	—	—	—

N.B.—For notes see end of schedule.

COAST GARRISON FORCE, ACTIVE CITIZEN FORCE, AND R.N.V.R.—STRENGTH, 30th NOVEMBER, 1938—(*continued*).

Command.	Unit.	Authorized Establishment.		Actual Strength.	
		Officers.	Other Ranks.	Officers.	Other Ranks.
Voortrekkerhoogte and Transvaal (cont.)	*6th Infantry Brigade* :—				
	Brigade Commander and Staff	5	—	4	—
	1st Bn., Pretoria Regiment	27	325	25	325
	1 P.R. Brass, Drum and Bugle Bands.	—	46	—	46
	2nd Bn., Pretoria Regiment	27	241	18	254
	2 P.R. Drum and Bugle Band	—	23	—	23
	Regiment de la Rey	27	301	26	297
	Regt. de la Rey Drum and Bugle Band.	—	23	—	—
	Regiment Botha (9th Inf. Bde., W.W.R.)	27	301	25	303
	Regt. Botha Drum and Bugle Band	—	23	—	24
	6th Field Company, S.A.E.C.	6	65	6	65
	Corps Headquarters, S.A.C.S.	2	1	1	1
	No. 6 Brigade Signal Company, S.A.C.S.	7	142	6	150
	No. 6 Wireless Section, S.A.C.S.	1	30	(b)	(b)
	No. 6 Company, S.A.S.C.	4	60	3	58
	No. 1 Company, S.A.O.C.	6	77	4	70
	No. 1 Company, S.A.M.C. (Pta.)	8 (*d*)	50	7	48
	Union Air Training Group (Pupil Pilots).	—	67	—	48
	Tvl. Air Training Squadron (Artisan Section)	—	300	—	235
	TOTAL	166	2,477	138	2,269
Witwatersrand	Command Staff	6 (*f*)	—	4	—
	Transvaal Horse Artillery Brigade :—				
	Headquarters	1	—	2	—
	"A" Battery	6 (*b*)	104	6	91
	"B" Battery	5	106	5	95
	5th Infantry Brigade :—				
	Brigade Commander and Staff	5	—	4	—
	Imperial Light Horse	27	325	29	325
	I.L.H. Brass, Drum and Bugle Bands.	—	46	—	46
	1st Bn. Transvaal Scottish	27	301	33	301
	1 T.S. Drum and Bugle Band	—	23	—	23
	2nd Bn. Transvaal Scottish	27	301	27	300
	2 T.S. Drum and Bugle Band	—	23	—	24
	9th Infantry Brigade :—				
	Brigade Commander and Staff	5	—	1	—
	Witwatersrand Rifles	27	301	27	303
	W.R. Drum and Bugle Band	—	23	—	24
	Rand Light Infantry	27	301	25	297
	R.L.I. Drum and Bugle Band	—	23	—	23
	(For Regiment Botha see under Voortrekkerhoogte and Transvaal Command)				
	5th Field Company, S.A.E.C.	6	65	5	65
	No. 5 Brigade Signal Company, S.A.C.S.	10	226	7	228
	No. 5 Wireless Section, S.A.C.S.	1	30	(*h*)	(*h*)
	No. 5 Company, S.A.S.C.	4	60	3	58
	5th Field Ambulance (Tvl.), S.A.M.C.	13 (*d*)	151	10	153
	1st Hygiene Company, S.A.M.C.	6	127	5	116
	7th Field Ambulance, S.A.M.C.	10	151	10	139
	6th Field Ambulance, S.A.M.C.	12 (*d*)	151	12	148
	Union Air Training Group (Pupil Pilots).	—	185	—	139
	TOTAL	225	3,023	215	2,898
	GRAND TOTAL	1,116	14,530	944	13,687

(*a*) Includes 1 Command artillery officer, 1 Command air force officer, 1 Command weapon training officer, 1 Command recreation officer, and 1 Deputy Director of Medical Services.
(*b*) Includes Officer Commanding, Reserve Battery.
(*c*) Includes 1 Command artillery officer, 1 Command air force officer, 1 Command weapon training officer, 1 Command recreation officer, and 1 Assistant Director of Medical Services.
(*d*) Includes regimental Medical Officers for attachment to Infantry Battalions.
(*e*) Includes 1 Command artillery officer, 1 Command air force officer, 1 Command recreation officer, and 1 Command weapon training officer.
(*f*) Includes 1 Command artillery officer, 1 Command air force officer, 1 Command weapon training officer, 1 Command recreation officer, 1 Deputy Director of Medical Services, and 1 Assistant Director of Medical Services.
(*g*) Unattached.
(*h*) Personnel not yet selected.

ROYAL NAVAL VOLUNTEER RESERVE.
GENERAL SERVICE SECTION.

Authorized Establishment—42 Officers, 617 Ratings: Sub-divisions.

	Divisional Staff.	No. 1 & 2 Capetown.	No. 3 & 6 Durban.	No. 4 Port Elizabeth.	No. 5 East London.	Total.
cers	6	6	5	2	4	23
cers (Bases)	—	3	4	3	2	12
ings	—	180	196	97	96	569
ings (Bases)	—	7	4	2	1	14

MINESWEEPING SECTION.

Authorized Establishment—27 Officers, 294 Ratings: Flotillas.

	Capetown 1 Flotilla.	Durban 1 Flotilla.	Port Elizabeth ½ Flotilla.	East London ½ Flotilla.	Total.
icers	8	7	4	4	23
tings	91	92	50	35	268

10. **South African Naval Service.**—The South African Naval Service mprises a headquarters staff at Simonstown, a hydrographic survey unit, an structional staff, and the South African Division of the Royal Naval Volunteer eserve.

The South African Division of the Royal Naval Volunteer Reserve was nstituted on the 1st July, 1913, and embodies the former Natal Naval Volunteer eserve and Cape Naval Volunteers. It embraces citizens liable for peace aining who elect to perform naval service. The present establishment of ie Division is 69 officers and 911 men, distributed among the R.N.V.R. bases Capetown, Durban, East London, and Port Elizabeth.

The normal period of service for ratings of the Division is four years, as the case of Active Citizen Force and Coast Garrison Artillery units. A oportion of men re-engage for further periods of service and provide the gher ratings of chief petty officers and petty officers in the Division.

The non-continuous training of the Division is carried out at the R.N.V.R. ises and is in the hands of an instructional staff composed of officers, chief etty officers, and petty officers, who are specially lent from the Royal Navy for is purpose. Continuous training is carried out in H.M. ships of the Africa quadron, all officers and men of the Division being under an obligation to erform a period of fourteen days' sea training per annum. There is also a atrol Section comprising masters and mates of trawlers and whalers, who eceive special instruction in minesweeping in H.M. escort vessels.

There are detachments of the Sea Cadet Corps at Capetown, Durban, East London, and Port Elizabeth; these are affiliated to the respective .N.V.R. bases.

The South African Division of the Royal Naval Volunteer Reserve is under he orders of the Naval Commander-in-Chief for discipline, training, and dministration in connexion therewith. For all matters affecting policy, eneral administration, and financial responsibility the Naval Commander-in-Chief acts directly under the Minister for Defence.

Except that the Admiralty provides facilities for training in H.M. ships, he South African Naval Service, including the South African Division of the Royal Naval Volunteer Reserve, is maintained entirely at the expense of the Union Government. A sum of £45,460 was provided for this purpose in the 1938-39 estimates.

11. **South African Air Force.**—The South African Air Force is organized into he following units:—

(i) At Voortrekkerhoogte—

(*a*) The aircraft and artillery depot, which includes aircraft, artillery, and mechanical transport stores, a mechanical transport section, artillery repair and aircraft repair and construction workshops,

and a reserve aeroplane park. The training of Active Citizen Force artisans for the South African Air Force Reserve is also carried out here.

(b) A central flying school.

(ii) At Capetown—

(a) One service flight.

(b) Aircraft and artillery depot for the maintenance of aircraft, artillery, and mechanical transport.

(iii) At Durban—
One service flight.

(iv) At Bloemfontein—
One service flight.

(v) Reserves—

(a) A special reserve of flying officers.

(b) A general reserve of officers.

(c) A reserve of artisans.

12. **Training of Pupil Pilots.**—(i) A new scheme for training pupil pilots for appointment to the Reserve of Pilots, Union Defence Force, came into operation on the 1st April, 1937.

(ii) *Recruiting.*—At present recruiting is restricted to the following areas and towns:—

Cape Peninsula (including Stellenbosch University), East London, Port Elizabeth, Grahamstown, Durban, Bloemfontein, Kimberley, Pretoria, Potchefstroom, and Witwatersrand.

(iii) *Qualifications for appointment.*—A candidate for appointment as a pupil pilot must—

(a) be a British subject—Union National—of pure European descent;

(b) be over 17 and under 32 years of age;

(c) be medically fit for full flying duties;

(d) satisfy a selection board as to his suitability for appointment to the Reserve of Pilots;

(e) be willing to complete a contract of service;

(f) in the case of university students, have at least two more years before graduating (or leaving university).

(iv) *Training.*—Pupil pilots are required to undergo continuous training and non-continuous training as follows:—

	Non-Continuous.		*Continuous.*
	Flying.	*Ground.*	
First Year.....	70 hrs.	74 hrs.	Two periods; 1 of 30 days, 1 of 15 days.
Second Year.....	40 hrs.	30 hrs.	" " " "

Non-continuous training is carried out at government expense at approved civil flying schools at the various recruiting centres mentioned in sub-paragraph (ii), under arrangements made by the Department of Defence. Continuous training is undergone at the South African Air Force Central Flying School, Voortrekkerhoogte, or other Air Force Flying Training Schools.

13. **The Citizen Force Reserve.**—This force is divided into two classes: Class A consists of men who have undergone peace training in the Active Citizen Force and are not over forty-five years of age; Class B consists of members or past members of Defence Rifle Associations who are not over forty-five years of age.

14. **The Coast Garrison Force Reserve.**—The Coast Garrison Force Reserve consists of all members of the Coast Garrison Force who have completed a prescribed period of training and service in that force and who have not passed their forty-fifth year.

15. **The National Reserve.**—This embraces all citizens between the ages of seventeen and sixty years who are not serving in any other portion of the Defence Forces. After the whole of the Active Citizen Force and the Citizen Force Reserve have been mobilized in time of war, the National Reserve may be called out in three classes according to age.

16. **Rifle Associations.**—All citizens who are required to register themselves, but who do not undergo peace training, are required to serve for four years in a rifle association. Every such citizen will be enrolled as a member of a rifle association on the 1st July in his twenty-first year. Any other citizen

liable to render personal service in time of war, not being a member of the Permanent Force, the Coast Garrison Force, or the Active Citizen Force, may become a member of a rifle association on prescribed conditions, as may also boys between the ages of thirteen and seventeen residing in areas where no facilities for cadet training exist. Members may purchase government rifles at approximately half cost price. A free issue of 50 rounds of ammunition is made to all members annually; a further 200 rounds per annum, which must on no account be expended on other than legitimate target practice on a range, may be issued to each member on payment at approximately cost price.

STRENGTH OF DEFENCE RIFLE ASSOCIATIONS AT 31st MARCH, 1938.

Command.	Commandants.	Captains.	Lieutenants.	Voluntary Members.	Cadet Members.	Total.	Commandos.
Cape.....	17	74	217	13,263	114	13,685	17
Eastern Province.....	20	83	229	11,298	22	11,652	20
Natal.....	5	19	56	2,700	19	2,799	5
Witwatersrand.....	5	23	65	3,991	111	4,195	5
Voortrekkerhoogte and Transvaal..	57	247	701	44,229	1,587	46,821	57
Orange Free State.....	48	215	608	33,178	389	34,438	48
TOTAL.....	152	661	1,876	108,659	2,242	113,590	152

17. **Cadets.**—In November, 1933, it was decided to reduce the number of cadets proper to 20,000, and financial provision was made for this number. This reduction of strength was to be achieved by limiting cadet training proper to boys of 14 years and over, and retaining only efficient detachments that possessed a minimum of 40 boys of this age.

Boys of 12 and 13 years of age at schools where cadet detachments proper exist may be enrolled as junior cadets. They will receive such training as can be arranged and receive only miniature ammunition on the scale of 200 rounds per cadet per annum. The strength of junior cadets is 6,580.

Detachments not retained as cadet detachments proper have either been disbanded or have transferred as rifle association cadet detachments.

Rifle association cadet detachments will retain the titular and numerical designations allotted to them prior to their transfer. The cadets may receive 200 rounds of miniature ammunition per annum. The retention of status as cadet officers in the case of officers transferring to rifle association cadet detachments will be permitted.

The following statement shows the number of officers and cadets in each of the military commands at 30th June, 1938:—

NUMBER OF OFFICERS AND CADETS, BY COMMANDS, AT 30th JUNE, 1938.

(a) CADETS PROPER.

Command.	Detachments.	Officers.	Student Officers.	Cadets.	Junior Cadets.	Total.
Cape.....	28	83	—	3,311	627	4,021
Eastern Province.....	24	78	24	3,185	493	3,780
Natal.....	23	58	24	2,945	829	3,856
Witwatersrand.....	22	122	83	4,317	2,148	6,670
Voortrekkerhoogte and Transvaal.....	28	101	25	3,481	734	4,341
Orange Free State.....	34	123	22	3,922	1,739	5,811
Sea Cadets.....	4	5	—	271	10	286
TOTAL.....	163	575	178	21,432	6,580	28,765

NUMBER OF OFFICERS AND CADETS, BY COMMANDS, AT 30TH JUNE, 1938—*(continued)*.

(b) RIFLE ASSOCIATION CADETS.

Command.	Detachments.	Officers.	Cadets.	Total.
Cape	40	54	2,712	2,766
Eastern Province	28	39	1,793	1,832
Natal	12	14	633	647
Witwatersrand	63	137	5,046	5,183
Voortrekkerhoogte and Transvaal	85	118	4,129	4,247
Orange Free State	62	117	4,077	4,194
TOTAL	290	479	18,390	18,869

18. **Small Arms Ammunition Factory.**—A small arms ammunition factory has been established at Pretoria and is manufacturing ·303 cartridges from raw materials produced in South Africa.

§ 3. Africa Naval Station.

The headquarters of the Africa Naval Station are established at Simonstown, where there are extensive dockyards (including a large graving dock) for Admiralty purposes.

The dock and the dockyard are available, on application to the Captain-in-Charge, Simonstown, for the docking and repairs of merchant ships, provided that the facilities desired are not available at the time elsewhere in Union waters, and that men-of-war have priority.

The limits of the Naval Station are from 40° W., 20° 47′ N. to Cape Blanco, thence by the southern shores of Africa to Cape Delgado, along that parallel to 55° E., along that meridian to 30° S., along that parallel to 80° E., along that meridian to the South Pole, along the meridian of 20° W. to the Equator, thence 4° 20′ N., 40° W., and along that meridian to 20° 47′ N.

The names of the ships belonging to the Africa Station are: Cruiser, H.M.S. "Neptune" (displacement 7,000 tons); Escort Vessels, H.M.S. "Milford", H.M.S. "Bridgewater", H.M.S. "Rochester" (with a displacement of 1,000 tons each), and H.M.S. "Auckland (1,200 tons); Oiler R.F.A. "Rapidol". Another cruiser is expected to arrive in October, 1939.

The following is the personnel: Cruiser, 585 officers and men; Escort Vessels, 100 officers and men each (H.M.S. "Auckland 180); H.M. "Dockyard, 590 officers and workmen.

The cost (to the United Kingdom) of maintenance of the ships and of the Simonstown Base is approximately £510,000 per annum.

CHAPTER XI.

NATIVE AFFAIRS.

§ 1. Native Population.

1. **Native Population.**—The number of natives at various census dates was as follows:—

NUMBER OF NATIVES IN UNION AREA AT VARIOUS CENSUSES (EXCLUSIVE OF MIXED AND OTHER COLOURED POPULATION).

Province.	Number of Natives.				Percentage of Total Population.			
	1904.	1911.	1921.	1936.	1904.	1911.	1921.	1936.
Cape of Good Hope	1,424,787	1,519,939	1,640,162	2,045,570	59·12	59·26	58·94	57·95
Natal	904,041	953,398	1,139,804	1,553,629	81·54	79·85	79·74	79·82
Transvaal	937,127	1,219,845	1,495,869	2,444,380	73·79	72·34	71·65	73·15
Orange Free State	225,101	325,824	421,978	553,110	58·12	61·69	67·11	71·64
UNION	3,491,056	4,019,006	4,697,813	6,596,689	67·45	67·28	67·80	68·79

2. **Distribution of Native Population.**—The following table indicates, from the returns of the Population Censuses of 1911, 1921, and 1936, the distribution of the Bantu population. The principal areas in which the natives were congregated and the density per square mile in the case of each group shown are given according to provinces. It will be seen that in the Cape Province the native population is centred in the Transkeian Territories and the Ciskei. In Natal approximately 22 per cent. of the native population is to be found in Zululand, while in the rest of the province the natives are distributed evenly throughout the various districts. In Zululand they are, however, less densely settled than in the remainder of Natal. In the Transvaal the bulk of the native population is centred in the Witwatersrand area and in the northern portion of the province, which forms the greater part of the Bushveld. The Witwatersrand mining area alone contains a quarter of the native population of the Transvaal. In the Orange Free State the natives are principally located in the central and eastern districts, adjoining the Basutoland border.

DISTRIBUTION OF NATIVE POPULATION.

Province and Area.	Native Population.			Per Square Mile.		
	1911.	1921.	1936.	1911.	1921.	1936.
Cape of Good Hope—						
Transkeian Territories	871,602	938,900	1,153,975	53·29	57·41	69·71
Ciskei	242,290	240,918	292,385	47·44	47·17	62·78
Rest of Province	406,047	460,344	599,210	1·59	1·80	2·34
TOTAL	1,519,939	1,640,162	2,045,570	5·49	5·92	7·38
Natal—						
Zululand	214,969	250,829	• 352,437	20·62	24·06	33·80
Rest of Province	738,429	888,975	1,201,192	29·71	35·76	48·32
TOTAL	953,398	1,139,804	1,553,629	27·02	32·30	44·03

DISTRIBUTION OF NATIVE POPULATION—(*continued*).

Province and Area.	Native Population.			Per Square Mile.		
	1911.	1921.	1936.	1911.	1921.	1936.
Transvaal—						
Witwatersrand	278,815	303,379	630,259	115·50	125·62	256·72
Zoutpansberg	133,840	154,362	228,785	12·51	14·43	21·39
Pietersburg	192,183	138,288	194,868	14·48	23·86	34·62
Letaba		76,371	114,926		10·22	15·67
Pretoria	97,625*	99,354	155,924	14·70	18·86	29·11
Lydenburg	105,605	62,666	93,387	10·38	18·32	27·13
Pilgrims Rest		53,449	78,213		9·45	14·88
Rustenburg	46,589	60,276	87,700	4·95	6·67	9·72
Potgietersrust		49,921	85,462		6·75	11·62
Waterberg	68,376	30,370	47,746	4·29	3·55	5·57
Middelburg	49,853*	49,490	78,805	9·91	13·10	20·86
Rest of Province	246,959	417,943	648,305	6·09	10·20	15·84
TOTAL	1,219,845	1,495,869	2,444,380	11·04	13·54	22·13
Orange Free State—						
Harrismith	39,936	43,378	50,741	12·65	14·68	17·17
Bloemfontein	27,672*	27,110	44,288	6·29	11·42	18·66
Kroonstad	21,098*	23,920	32,264	6·13	11·34	15·03
Senekal	17,632	22,997	30,619	10·68	13·83	18·42
Bethlehem	27,303*	24,667	28,800	11·06	17·21	20·10
Vrede	16,472	22,793	28,729	7·47	10·47	13·20
Ladybrand	16,935	20,297	26,045	15·27	18·20	23·37
Ficksburg	17,259	13,443	18,461	16·53	20·62	28·31
Fouriesburg		7,387	10,172		16·60	22·86
Thaba 'Nchu	23,608	21,543	22,787	17·99	18·18	19·23
Rest of Province	117,909	194,443	260,204	4·04	5·73	7·70
TOTAL	325,824	421,978	553,110	6·56	8·50	11·12
UNION	4,019,006	4,697,813	6,596,689	8·50	9·93	13·96

* Districts reduced in area since 1911.

An attempt was made for the first time at the 1936 Census to obtain particulars of the distribution of natives in various classes of area, as distinct from the geographical distribution shown above, and the results are shown in the following table. Items 15 to 19 cover the "Native Areas", i.e., those portions of the country set aside for, or occupied solely by, natives, where the natives live as peasants under tribal conditions. The number of natives enumerated in these "Native Areas" was 2,962,397, or 45 per cent. of the total native population of the Union, while 2,053,440 (31 per cent.) were on farms owned or occupied by Europeans.

DISTRIBUTION OF NATIVES IN VARIOUS AREAS, 1936.

Class of Area.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Union.
1. Urban Areas*	90,343	92,570	187,854	19,627	390,394
2. Urban Locations	122,330	7,071	142,928	82,837	355,166
3. Rural Suburbs of Towns	729	886	4,179	5,511	11,305
4. Rural Townships	6,191	12,070	15,560	2,024	35,845
5. Native Townships	260	3,299	28,190	—	31,749
6. European Farms	334,811	406,526	902,774	409,329	2,053,440
7. Coloured and Asiatic Farms	2,769	19,577	4,204	396	26,946
8. Company Farms	3,647	9,272	87,712	786	101,417
9. Government Farms	3,578	1,916	7,360	1,078	13,932
10. Alluvial Diggings	6,161	14	18,232	225	24,632
11. Mine Compounds	5,703	13,976	364,663	2,516	386,858
12. Industrial Compounds†	5,637	62,200	42,467	3,432	113,736
13. Municipal Compounds	159	9,754	25,979	168	36,060
14. Construction Gangs	13,898	8,314	16,271	4,712	43,195
Native Areas.					
15. Crown Locations	1,392,688	692,827	319,731	15,103	2,420,349
16. Mission Reserves	14,119	73,766	25,407	843	114,135
17. Tribally-owned Farms	4,174	10,169	120,081	—	134,424
18. Native-owned Farms	26,058	81,030	32,417	3,605	143,110
19. Crown Lands	8,900	46,338	95,141	—	150,379
20. Other Areas	3,415	2,054	3,230	928	9,627
TOTAL	2,045,570	1,553,629	2,444,380	553,110	6,596,689

* Residential areas and townlands.
† Embraces all types of industrial activity, including sugar and wattle estates.

Additional population figures for natives will be found in Chapter XXV, where census figures and estimates of all races of the population are given.

§ 2. Representation.

1. **Representation of Natives Act, 1936.**—This Act, No. 12 of 1936, which was passed at a Joint Sitting of both Houses of Parliament, altered the position in regard to the representation of natives very materially. The position as it existed before the passing of the Act may be ascertained from No. 16 and previous issues of the *Year Book*.

(i) *Cape Province.*—In this province the native population enjoyed the franchise on the same basis as Europeans for many years, and the names of a considerable number of natives appeared on the ordinary lists of voters qualified to vote at elections of members of the House of Assembly. The effect of the *Representation of Natives Act*, 1936, was that the names of these natives were transferred to a special electoral roll called the Cape Native Voters' Roll, on which from time to time will be enrolled the names of natives who may in future obtain qualifications, which prior to the passing of this Act would have entitled the possessor to registration as a voter. Provision exists for the removal from the Cape native voters' roll of the names of those natives who no longer possess the necessary qualifications.

Persons whose names appear on the Cape native voters' roll are entitled to elect three members of the House of Assembly and two members of the Provincial Council, who shall in each case be additional to the number of members provided for in the *South Africa Act*, 1909. For this purpose the Act requires the Governor-General to divide the Cape Province—

(*a*) into three electoral *circles*, each of which will be represented by a member in the House of Assembly, and

(*b*) into two electoral *divisions*, each of which will be represented by a member in the Provincial Council.

These electoral circles and electoral divisions were defined under Proclamation No. 259 of 1936 and are known as the Transkei, Cape Eastern, and Cape Western electoral circles, and as the Cape Eastern and Cape Western electoral divisions, respectively.

Members of the House of Assembly and the Provincial Council elected by the Cape native voters will hold their seats for five years notwithstanding any dissolution of the House or the Council. The qualifications for election by Cape native voters of any person as a member of either the House of Assembly or the Provincial Council are the same as are prescribed under the *South Africa Act* for members of the House of Assembly. Only Europeans may, therefore, be elected. As regards rights, powers, privileges, and immunities, they are to be on the same footing as other members of the House of Assembly or of the Provincial Council, as the case may be.

(ii) *The Union as a whole.*—The provisions detailed in the preceding paragraph may be regarded as a substitute for franchise rights which were taken away from natives in the Cape Province in order to pave the way for a uniform system of representation for natives throughout the Union. The sections providing the system of representation are undoubtedly the main provisions of the Act. This system embraces—

(*a*) the direct representation of natives in the Senate, and

(*b*) the establishment of a Natives Representative Council.

(*a*) *The Senate.*—In terms of the *South Africa Act*, 1909, four senators are appointed by the Governor-General on the ground mainly of their thorough acquaintance, by reason of their official experience or otherwise, with the reasonable wants and wishes of the coloured races. The *Representation of Natives Act* makes provision for the election of four additional senators, each of whom will represent one of the four electoral areas into which the Union is divided, viz.:—

(i) Province of Natal,
(ii) Provinces of Transvaal and Orange Free State,
(iii) the Transkeian Territories, and
(iv) Province of the Cape of Good Hope, excluding the Transkeian Territories.

These senators are elected by electoral colleges each composed of a certain number of voting units, which differ in the various electoral areas owing to differences in local conditions. The voting units of the electoral college for the Transkeian electoral area are the native members of the United

Transkeian Territories General Council. The voting units in other electoral areas include the chiefs of certain tribes, local councils, native advisory boards, and certain other persons or bodies of persons representing the natives of the particular electoral area.

Senators so elected hold their seats for five years. They are required to have the qualifications prescribed by the *South Africa Act* for elected senators, and they enjoy all the usual privileges of senators.

(*b*) *The Natives Representative Council.*—The Act provides that this Council is to consist of six official members, viz., the Secretary for Native Affairs and five Chief Native Commissioners, four nominated native members appointed by the Governor-General, one for each of the electoral areas into which the Union is divided as mentioned in sub-paragraph (*a*) above, and twelve elected native members, three for each electoral area. In the Transkeian Territories all three are to be elected by the electoral college. In the other electoral areas, however, the electoral college, excluding the native advisory boards, is in each case to elect two members and the native advisory boards are to elect one, thus ensuring that the urban native population in each of these electoral areas shall have at least one representative. The non-official members of the Council hold their seats for five years.

The Council meets at such times and places as may be fixed by the Minister of Native Affairs, the Secretary for Native Affairs, or in his absence a person designated by the Minister, to preside. The chairman has a casting vote only, and the other official members have no vote. Any Minister of State or Administrator of a Province and any member of the Native Affairs Commission may attend the meetings of the Council and take part in the proceedings without, however, having the right to vote.

The functions of the Council are to consider and report upon—

(*a*) proposed legislation in so far as it may affect the native population;

(*b*) any matter referred to it by the Minister;

(*c*) any matter specially affecting the interests of natives in general.

It may recommend to Parliament or the Provincial Council, as the case may be, legislation which it considers necessary in the interests of natives, and it will further be required annually to consider and report to the Minister on the draft estimates of revenue and expenditure of the South African Native Trust Fund, which has been established under the provisions of the *Native Trust and Land Act*, No. 18 of 1936. The Council is, therefore, not a legislative but merely an advisory body.

The Minister is empowered to issue a certificate that any Bill or Draft Ordinance contains provisions specially affecting the interests of natives. After the issue of such a certificate, Parliament or the Provincial Council concerned may not proceed with the Bill or Draft Ordinance until it has been submitted to the Council for consideration and report.

Reports of the Council have to be submitted to the Minister and must be laid by him on the tables of both Houses of Parliament, or, if they affect any provincial matter, they must be forwarded by him to the Administrator of the province in question for laying upon the table of the Provincial Council.

Detailed provision also exists in regard to elections, the declaration of persons as non-natives in certain cases, and certain other matters.

The initial elections under the Act were held as follows:—For the election of the three members of the House of Assembly, 8th June, 1937; for the election of the two members of the Cape Provincial Council, 14th June, 1937; for the election of the senators and the members of the Natives Representative Council, 21st June, 1937.

The results of the elections were as follows:—

SENATORS.

Electoral Area.	*Name of Senator.*
Transkeian Territories	Senator the Hon. W. T. Welsh.
Transvaal and Orange Free State	Senator the Hon. J. D. Rheinallt Jones.
Cape Province	Senator the Hon. C. H. Malcomess.
Natal	Senator the Hon. Dr. E. H. Brookes.

MEMBERS OF PARLIAMENT.

Electoral Circle.	*Name of Member.*
Transkeian Territories	G. K. Hemming.
Cape Eastern	Mrs. V. M. L. Ballinger.
Cape Western	D. B. Molteno.

MEMBERS OF THE CAPE PROVINCIAL COUNCIL.

Electoral Division.	*Name of Member.*
Cape Eastern	H. Burman.
Cape Western	J. G. F. Moult.

MEMBERS OF THE NATIVES REPRESENTATIVE COUNCIL.

Electoral Area.	*Name of Member.*
Natal	Dr. John L. Dube.
	W. W. Ndhlovu.
	Arthur Joseph Sililo.
Transvaal and Orange Free State	R. V. Selope Thema.
	R. G. Baloyi.
	Thomas Mapikela.
Cape Province	R. H. Godlo.
	A. M. Jabavu.
	B. B. Xiniwe.
Transkeian Territories	Charles Sakwe.
	Chief Jeremiah Moshesh.
	Elijah Qamata.

In addition the following persons were appointed by the Governor-General, under sub-section (4) of section 20 of the *Representation of Natives Act*, 1936, as nominated members of the Natives Representative Council for the electoral areas specified:—

Electoral Area.	*Name of nominated member.*
Natal	Regent Mshiyeni ka Dinizulu.
Transvaal and Orange Free State	George Makapan.
Cape Province	Chief S. M. Mankuroane.
Transkeian Territories	Chief Victor Poto.

Sessions of the Natives Representative Council were held in Pretoria during the periods 6th to 13th December, 1937, and 21st to 29th November, 1938. The relative reports of proceedings have been published in blue book form (U.G. No. 7 of 1938 and No. 10 of 1939, respectively).

2. **Native Affairs Commission.**—This Commission, established under the *Native Affairs Act*, No. 23 of 1920, still continues to function. It is an advisory body consisting of not fewer than three or more than five members, appointed by the Governor-General and presided over by the Minister of Native Affairs. The members, though in receipt of salaries as commissioners, may sit in either House of Parliament. The functions and duties of the Commission "include the consideration of any matter relating to the general conduct of the administration of native affairs, or to legislation in so far as it may affect the native population (other than matters of departmental administration) and the submission to the Minister of its recommendations on any such matters." Its functions are thus merely advisory, but adequate means are reserved to it of placing its views before Cabinet and Parliament, should its recommendations not be accepted. Regulations in respect of the Commission were published under *Government Notice* No. 2004 of 1920.

In the early stages of its activities, which commenced in April, 1921, the Commission accepted as the first principles of its policy (*a*) that it was primarily and essentially the friend of the native people, and, as such, the needs, aspirations, and progress of the natives should be considered sympathetically by it; (*b*) that it was the adviser of the Government in matters affecting the interests of the natives; (*c*) that it should endeavour to win the confidence of the natives; and (*d*) that it should strive to educate public opinion so as to bring about the most harmonious relations possible between white and black in South Africa. The commissioners have travelled widely throughout the Union for the purposes of the closer study of native problems and of coming into contact personally with native points of view. They have dealt with a number of specific matters of native administration and have investigated certain general questions of native policy, such as native taxation and education, the pass laws, the control of natives in urban areas,

land administration, and the extension of the system of local native councils as contemplated by the *Native Affairs Act*, 1920. They have in addition conducted inquiries into special matters of native interest referred to them by the Government for investigation and report. Fuller information may be found in the first annual statutory report of the Commission for the year 1921 (U.G. No. 15 of 1922) and in later annual reports. The personnel of the Commission as at present constituted is given in Chapter XXVIII.

Since the *Native Trust and Land Act*, No. 18 of 1936, was brought into operation, the investigations in regard to the adjustment and modification of released areas, the acquisition of land by the Trust, and other kindred matters have been carried out by members of the Native Affairs Commission, who have visited and held meetings in a number of districts in the four provinces. They will continue their investigation in the remaining districts as time and opportunity permit.

It may be mentioned that it is provided in sub-section (3) of section 4 of the *Native Trust and Land Act*, 1936, that the affairs of the Trust shall be administered by the Governor-General, with power to delegate any of his powers and functions as Trustee to the Minister of Native Affairs (which has in fact been done) acting in consultation with the Native Affairs Commission.

It is also laid down in the regulations framed under the Act that a meeting of the Commission shall be held at least once a month for the purpose of dealing with matters arising out of the administration of the affairs of the Trust.

3. **Native Conferences.**—The *Native Affairs Act*, 1920, also made provision for the summoning of conferences of persons representative of native opinion. These conferences were never held regularly and, in view of the establishment of a Natives Representative Council by the *Representation of Natives Act*, 1936, they are likely to fall into disuse altogether.

§ 3. Administration.

1. **General.**—In terms of section 147 of the *South Africa Act*, the control and administration of native affairs throughout the Union is vested in the Governor-General-in-Council, who is authorized to exercise all special powers in regard to native administration vested at the time in the governors of the Colonies entering the Union, or exercised by other authorities as superior chiefs. The executive authority rests with a Minister of Native Affairs, who is in control of a Department of State under a permanent Secretary for Native Affairs with an Under-Secretary and staff. The Department is responsible for the administration of all legislation specially affecting the interests of natives and the supervision and control of their general welfare, and is referred to generally by all other departments of State in regard to matters falling within their purview, in which questions regarding native policy, administration, or interest are involved.

Various phases of the administration of the Department are dealt with in the following sections of this chapter.

2. **District Administration.**—For the purposes of District Administration, the Union has been divided into five areas at the head of each of which there is a Chief Native Commissioner. These areas are defined in Government Notice No. 151 of 1936 as follows:—

(*a*) The Transkeian Territories of the Cape Province lying to the east of the Kei River with headquarters at Umtata;

(*b*) The Cape Province, excluding the Transkeian Territories and the districts lying north of the Orange River, with headquarters at Kingwilliamstown.

(*c*) The Province of Natal with headquarters at Pietermaritzburg.

(*d*) The Witwatersrand, including the districts of Vereeniging, Heidelberg, and Witbank, with headquarters in Johannesburg.

(*e*) The Northern Areas, including the Transvaal (excluding the Witwatersrand area), the Orange Free State, and the districts of the Cape Province lying north of the Orange River (i.e. British Bechuanaland and Griqualand West), with headquarters in Pretoria.

(*a*) *The Transkeian Territories.*—The Chief Native Commissioner is also Chief Magistrate for certain purposes. He is assisted by twenty-seven Magistrates and Native Commissioners, all of whom are officers of the Native Affairs Department. This area is almost purely a native area, and each district, with the exception of a few European areas, which are of minor importance, is divided into a number of rural locations, to which headmen are appointed. Administration takes place through these headmen. On the whole the powers of the chiefs have been greatly curtailed, although there are a few who still exercise control over their tribes. The tendency since the passing of the *Native Administration Act*, 1927, has been to add to the powers of recognized Chiefs.

(*b*) *Cape Province.*—Only in the six predominantly native districts of Herschel, Glen Grey, Keiskamahoek, Middeldrift, Victoria East, and Peddie are the Magistrates and Native Commissioners officers of the Department of Native Affairs. In other districts the magistrates are officers of the Department of Justice. The majority of them have, however, been appointed Native Commissioners and, as such, are responsible to the Chief Native Commissioner at Kingwilliamstown. In the districts of East London and Kingwilliamstown, however, Native Affairs Department officials are Native Commissioners, while in Port Elizabeth native administration takes place through an additional Native Commissioner and in Capetown and in the Whittlesea area of the district of Queenstown, through assistant Native Commissioners. In this area there are no recognized chiefs and the administration of locations takes place through headmen.

(*c*) *Natal.*—Magistrates in this province also function as Native Commissioners except in Durban and Pietermaritzburg, where conditions have justified the appointment of separate officials. In the twelve predominantly native districts, Ingwavuma, Ubombo, Nongoma, Hlabisa, Mahlabatini, Mapumulo, Ndwedwe, Msinga, Emtonjaneni, Nkandhla, Nqutu, and Umlazi, the Magistrates and Native Commissioners are officers of the Native Affairs Department. Administration of reserves takes place with the assistance of chiefs and petty chiefs, who retain much larger powers than in the Transkeian Territories and the Cape Province.

(*d*) On the *Witwatersrand* we find a clear division between the functions of Native Affairs and Justice officers and it is only at Vereeniging that the magistrate, a Justice Department official, is also Native Commissioner, and the Native Affairs Department officer is an additional Native Commissioner. Native Commissioners are stationed at Johannesburg, Krugersdorp, Germiston, Benoni, Heidelberg, and Witbank. It may be mentioned that in three cases it was found expedient to group several magisterial districts under one Native Commissioner. Thus the Native Commissioner at Krugersdorp also has charge of the magisterial district of Roodepoort, while Boksburg has been grouped with Germiston, and Brakpan and Springs with Benoni.

The Chief Native Commissioner of the Witwatersrand is also the Director of Native Labour, and as such exercises control through a number of pass officers and inspectors of native labour (*vide* paragraph 3 below).

(*e*) *The Northern Areas.*—In the district of Pretoria the Native Commissioner is an officer of the Department of Native Affairs, but this is the exception to the rule, as in all other Transvaal districts Justice magistrates are *ex officio* Native Commissioners. In all important native districts, however, additional or assistant Native Commissioners, who are officers of the Native Affairs Department, are responsible for the native administration side of the work. As a result of the vastness of many of the magisterial districts, it has also been found necessary to sub-divide them for purposes of native administration. Such sub-districts are controlled by additional or assistant Native Commissioners. As examples of this may be quoted Pretoria with its sub-districts of Hamanskraal and Rayton; Pietersburg with Groot Spelonken and Blaauwberg; Letaba (at Tzaneen) with Duivelskloof and Leydsdorp; Zoutpansberg (at Louis Trichardt) with Sibasa. The Native Affairs Department, therefore, has a larger number of district officers in the Transvaal than appears at first sight. In the Orange Free State the district administration of the Native Affairs Department takes place almost wholly through the medium of Justice Department officials. Only at Thaba 'Nchu and Witzieshoek, where there are native reserves, are there assistant Native Commissioners who are Native Affairs officials.

In the districts of the Cape Province grouped under the Chief Native Commissioner, Northern Areas, the Native Affairs Department has one Magistrate and Native Commissioner, viz., at Taungs, and two assistant Native Commissioners at Mafeking and Vryburg, respectively. In the remaining districts Justice magistrates are directly responsible for native administration.

In those districts where there are native reserves or locations, administration of these takes place with the assistance of chiefs or headmen.

Chiefs in the Transvaal and British Bechuanaland still retain extensive powers.

The number of chiefs and headmen subsidized by the Government in all four provinces is 1,622. In a limited number of cases fairly substantial allowances are paid under agreements entered into at the time of annexation, or in recognition of services rendered. In the large majority of cases, however, the allowances are inconsiderable in amount, and are made as a token of recognition rather than as remuneration for services. A considerable number of chiefs exercise civil jurisdiction under section 12, and criminal jurisdiction under section 20, of the *Native Administration Act*, 1927.

3. **Native Labour Department.**—The Director of Native Labour is charged with executive functions, under the Secretary, in those labour districts proclaimed under the *Native Labour Regulation Act*, 1911 (see § 11 below). The most important of these districts are situated in the Witwatersrand gold and coal mining areas. The Director's staff of inspectors and pass officers stationed at different points in the mining area visit the compounds, deal judicially with petty offences, and generally watch over the welfare and interests of natives employed on the gold mines. The Director administers the other labour districts through the local magistrates. He also advises the Government generally in respect of native labour matters throughout the Union.

4. **Agricultural Administration.**—(*a*) *Organization and Development.*—The Union has been divided into four areas for the purpose of agricultural development. One of these, the Transkeian Territories, is the most advanced, work in that area having been in progress for a number of years. The system evolved there, subject to necessary modification, is being applied to the remaining areas.

(*b*) *Schools of Agriculture.*—Four schools of agriculture have been established, three in the Transkei and one in the Ciskei. In addition agricultural farms have been established for experimental work and for supplying good seed and breeding stock.

(*c*) *System of Work.*—A Director of Agriculture and a Deputy Director have been appointed for the direction and supervision of agricultural work throughout the Union. Assistant Directors have also been appointed for the Ciskei, Natal, and the Northern Areas of the Union. The Transkeian area is under the control of a Director, who, however, is an officer of the United Transkeian Territories General Council. These officers work in collaboration with the Native Commissioners of the various districts in their respective areas.

The schools of agriculture are the centres from which most of the agricultural operations radiate, and selected students from these schools are appointed as agricultural demonstrators or extension officers, and work under the supervision of trained European supervisors. Occasionally short courses are given. The native agricultural demonstrators secure the right from native farmers in their areas to use certain plots measuring, if possible, about two acres. Both seed and fertilizers are supplied free and plots are worked in an up-to-date manner with implements supplied by the South African Native Trust, except in the case of the Transkeian Territories, where implements are supplied by the United Transkeian Territories General Council. The plots are in the midst of native holdings, and the results are thus capable of immediate comparison.

The demonstrators assist in the culling of unsuitable bulls and rams and the introduction of better sires. Improved seed and stock are sold to native agriculturists at a very low figure.

(*d*) *Agricultural Shows and Farmers' Associations.*—Rapid progress has been made in the establishment of farmers' associations and the holding of agricultural shows in the native areas. For the organization of these the assistance of the extension staff is available. The establishment of associations enables free discussion of difficulties in the presence of numbers of interested men to take place, as compared with the system of dealing only with individuals.

(*e*) *Thrift and Co-operative Credit Societies.*—Societies of this type have made rapid progress, and the work commenced in the Transkeian Territories is now spreading to other areas. To provide for the registration and control of these societies in the Transkeian Territories a Central Committee of Native Co-operative Credit Societies has been established under Proclamation No. 191 of the 21st September, 1934.

The proclamation lays down the constitution of the central committee and of the societies, defines the liability of members, and makes provision for the inspection and audit of the books and accounts of societies by the central committee. In addition it lays down by-laws, forms, and a model set of rules.

The central committee, the members of which are natives, consists of not fewer than three and not more than five members, who are elected by delegates of registered co-operative bodies or societies.

(*f*) *Live Stock.*—The Department of Native Affairs has spent a fair sum of money on the purchase of bulls, either on behalf of local councils or direct from its own funds, with the object of introducing the blood of improved breeds of cattle into the native stock. A system of bull camps, to which are drafted females owned by the natives, was inaugurated as far back as 1932 in the Mafeking district. The system has since been extended to other districts.

The following statement shows the number of live stock and poultry owned by the native population and enumerated at the Agricultural Census of 1936-37:—

	By Natives in Reserves.	*By Natives on European Farms.*
Cattle	3,629,944	1,361,329
Sheep	3,661,974	306,642
Goats	2,584,905	858,994
Horses	176,244	169,743
Pigs	313,075	147,493
Mules	2,118	1,414
Donkeys	200,127	124,568
Poultry	3,019,513	1,527,971

(*g*) *Sheep and Wool.*—Natives experience considerable losses of sheep from various causes, but on the whole they receive comparatively good prices for their wool—in some cases as a result of a system of collective marketing which has been introduced in certain centres.

(*h*) *Cane, Maize, and Kaffir-corn.*—Native cane-growers are producing sugar-cane in Natal and Zululand on about 7,000 acres of land. Maize and kaffir-corn are the two staple crops in native areas, and much is being done to improve the production per acre. The average production on demonstration plots is more than double the production from land worked by natives according to their own methods. Good seasons have been experienced during the past few years, and crops of maize and kaffir-corn were generally speaking good throughout the native areas. A certain amount of wheat is being produced in winter by natives under an irrigation scheme laid down by the Department of Native Affairs with the help of the Irrigation Department in the Moiloa Reserve, District of Marico.

(*i*) *Collective Ploughing.*—A system of collective ploughing has been introduced under which implements and draught animals are leased to groups of native farmers in cases where they are not in possession of sufficient implements, or where conditions do not allow of their maintaining sufficient draught oxen, for efficient cultivation.

The agriculturists of a community form themselves into an association and accept liability for:—

(1) Supplying such draught animals, implements, and labour as may be expected from them.

(2) The payment of the *pro rata* share of the rest of the work done by the ploughing unit leased to their association by the South African Native Trust.

The lands are ploughed, harrowed, and planted in blocks under the supervision of the agricultural field staff and the managing committee of the association.

5. **Engineering Development.**—(i) *Organization.*—Excluding the Transkei, the Union has been divided into three areas for the purpose of engineering development, viz., Natal, Ciskei, and Northern Areas, which comprise the remaining native areas of the Union. Each of the three areas has a local engineering

staff, while a Senior Engineer, stationed in Pretoria, has been appointed for the direction and control of services of an engineering nature. Working under the district engineers are overseers and foremen, assistance in regard to field operations being rendered by agricultural officers for the areas concerned.

(ii) *Functions of Engineering Section.*—The work for which the Engineering Section is responsible embraces the following services:—

(*a*) *Water Supplies*, comprising the provision of boreholes and wells together with suitable pumping plant and storage facilities, the design and construction of earth and masonry dams for stock and domestic supplies, the design and construction of irrigation schemes, and the general improvement and maintenance of water supplies.

(*b*) *Roads and Bridges*, comprising work in connexion with the survey, construction, and repair of roads, as well as the provision of the necessary cross drainage works and river crossings and the general improvement of communications in the native areas.

(*c*) *Dipping Services*, including the maintenance and construction of cattle and sheep dipping tanks, as well as the supply and transport of dipping materials. The bulk of this work is in the Province of Natal.

(*d*) *Buildings*, including the construction and maintenance of buildings required for the use of officers of the South African Native Trust. In addition a certain amount of accommodation is provided for officials of the Department of Agriculture engaged in the control of stock diseases.

The following statement reflects the position in regard to the works mentioned above at 30th September, 1938:—

Nature of Service.	No.	Approximate Value.
		£
Boreholes and Wells	529	62,000
Pumping Plants	320	31,000
Stock dams	190	19,000
Irrigation Schemes	12	31,000
Roads and Bridges	—	33,000
Cattle Dipping Tanks	109	27,000
Sheep Dipping Tanks	100	3,000
Buildings	42	20,308

(*e*) *Prevention of Soil Erosion.*—In the native areas, soil erosion due to overstocking presents a major problem. Special funds have been made available by the Government for combating this evil, and a policy of soil reclamation and conservation was initiated in 1934 and is being vigorously pursued in the areas most seriously affected. The more important centres of operation lie in the Ciskei and Natal, but work is also in progress in the Transvaal and Orange Free State. Altogether about 1,300 labourers, as well as mechanical and animal draught, are being employed in fourteen major centres. In addition to the construction of dams and contour banks the fencing in of eroded areas is an important feature of the work. The following statement shows the progress made in this connexion up to 30th September, 1938:—

Contour Banks	Miles.	3,742
Soil Erosion Dams	No.	1,563
Area covered by works	Morgen.	46,747
Fences erected	Miles.	494
Area fenced	Morgen.	49,511
Total cost of works	£	149,000

§ 4. Native Administration Act, 1927.

Provisions of far-reaching effect are contained in the *Native Administration Act*, No. 38 of 1927. The main purpose of this enactment is to consolidate the systems of native administration throughout the Union and generally to facilitate this administration.

With this end in view the Governor-General is now, except in the Cape Province, Supreme Chief of all natives, the powers assumed to have been possessed by hereditary chiefs being thus centralized in him. Provision is made for tribal organization and control, with definite powers to remove individuals and even tribes in the public interest from place to place within the Union.

One of the most revolutionary changes is that contained in the recognition of native law and custom in special courts. Native Commissioners, Additional Native Commissioners, and Assistant Native Commissioners have been appointed for these courts since the 1st January, 1929, with almost unlimited jurisdiction to hear civil cases and matters between native and native. Notwithstanding the provisions of any other law, it is in the discretion of these courts, in all suits or proceedings between natives involving the question of customs followed by natives, to decide such questions according to the native law applying to such customs, except in so far as it shall have been repealed or modified, provided that such native law shall not be opposed to the principles of public policy or natural justice, and it is specially enacted that it shall not be lawful for any court to declare that the custom of *lobolo* or *bogadi* or other similar custom is repugnant to such principles. Certain native chiefs may be authorized to hear and determine civil claims subject to appeal to the Native Commissioner. Chiefs in British Bechuanaland have been allowed to maintain their criminal jurisdiction, and this may also be granted to other chiefs in other areas in respect of offences punishable under native law and custom.

From the date of the establishment of the Native Appeal Court, the Native Territories Appeal Court was abolished, and the Natal Native High Court ceased to exercise jurisdiction in any civil matter. Criminal jurisdiction conferred upon magistrates by the *Magistrates' Court Act*, 1917, and the *Criminal Procedure and Evidence Act*, 1917, has, in terms of the 1927 Act, been conferred on certain Native Commissioners.

An amendment to the Act makes provision for the establishment of native divorce courts under the presidency of the Presidents of the Native Appeal Courts.

A further chapter deals with marriages and succession. In this provision is made for the regulation of marriages by Christian rites between parties who had previously been living in a customary union, and also for the exclusion of the ordinary consequence of marriage in community of property according to Common Law, except under certain circumstances; succession under certain rules is also provided for.

Another outstanding feature of the Acts is the provision for government by proclamation. The Governor-General is empowered to alter any existing law or make new laws for areas included in the Schedule to the *Natives Land Act*, 1913, or such areas as may be designated by both Houses of Parliament as native areas for this purpose. All the provisions contained in the laws in force in the provinces dealing with the issue of *Letters of Exemption* have been repealed, and the Governor-General has been empowered not only to grant these privileges but to cancel them, whether they may have been granted under the provisions of the existing legislation or under the powers of prior Acts. Letters issued under the latter are regarded as having been issued under the provisions of Act No. 38 of 1927. Finally, apart from the preceding provisions, the Governor-General may make regulations for the prevention of misconduct and disorders, the regulation of the mode of living of natives, and the control of certain villages and townships.

Section 37 of the Act provides for the fixing by Governor-General's proclamation of the date of coming into operation, either in whole or in part. By Government Notice No. 201, *Government Gazette* dated the 5th August, 1927, the Act, with the exception of Chapter V, which has reference to marriage and succession, became law as from the 1st September following. Chapter V was eventually brought into force as from the 1st January, 1929, under the provisions of Proclamation No. 296, *Government Gazette Extraordinary* dated the 21st December, 1928.

§ 5. Local Government.

1. **Glen Grey District Council.**—(i) *Constitution.*—This council was established under the provisions of the *Glen Grey Act* (Cape of Good Hope), No. 25 of 1894. It is composed of the magistrate of Lady Frere as chairman and twelve members, six nominated by the Governor-General and six elected by the location boards established under the Act. The assistant magistrate is the secretary and treasurer.

(ii) *Functions.*—The revenue of the Council is derived from Local Tax paid by the natives in terms of Act No. 41 of 1925 and quitrents on arable allotments. Estimates of revenue and expenditure are submitted annually for

approval by the Governor-General. The revenue received by the Council is expended solely in the interests of the natives of the district in the following directions:—

(a) Road construction and maintenance including the building of bridges.
(b) Dipping of cattle.
(c) Encouragement of better methods of agriculture.
(d) Irrigation schemes.
(e) Public health.

The Council possesses a farm 1,432 morgen in extent, where the natives are taught practical methods of agriculture. One hundred and fifty plots each of 5 acres are worked by native farmers under the supervision and direction of the Council's farm manager. The plots change hands every 12 months and thus many natives are taught correct methods of agriculture.

2. **United Transkeian Territories General Council.**—(i) *History.*—The establishment of native councils in the Transkeian Territories, under a formal constitution, dates from the beginning of 1895, when District Councils were created in the districts of Butterworth, Idutywa, Nqamakwe, and Tsomo, the four being united in what was called the *Transkei General Council*, the meetings of which were held at Butterworth. In 1899 the district of Kentani entered the system. In 1903 it was extended to the seven districts of Tembuland and East Griqualand, and the name was changed to *Transkeian Territories General Council*. This Council met yearly in Umtata. By 1924, with the exception of Mount Currie, all districts within the Transkeian Territories, excluding Pondoland, had accepted the council system and fell under the jurisdiction of the Transkeian Territories General Council. Mount Currie is more or less a European district having only one small location. In 1911, the council system in a somewhat modified form was extended to the districts of Libode, Ngqeleni, and Port St. Johns, collectively known as Western Pondoland, the body thus formed being known as the *Pondoland General Council*. In 1927 the districts of eastern Pondoland, namely Bizana, Flagstaff, Lusikisiki, and Tabankulu, accepted the system and were included under the jurisdiction of the Pondoland General Council.

Under the provisions of Proclamation No. 279 of 1930, dated the 18th November, 1930, the Transkeian Territories General Council and the Pondoland General Council were amalgamated, with effect from the 1st January, 1931, into a General Council styled the United Transkeian Territories General Council, and the combined organization now functions for all districts in the Transkeian Territories with the exception of Mount Currie, twenty-six districts falling within its area of jurisdiction. Proclamation No. 279 of 1930 laid down that the seat of the United Transkeian Territories General Council should be at Umtata, and that its meetings should be convened at that place from time to time by the Chief Magistrate of the Transkeian Territories upon dates to be fixed by him; it vested in the amalgamated body all powers previously enjoyed by the constituent councils in their respective areas of jurisdiction and provided for the transfer of all property, assets, and liabilities of the old councils to the new body; it prescribed that all officers and employees of the Transkeian Territories General Council and the Pondoland General Council should become officers and employees of the United Transkeian Territories General Council, and that as such they should retain all their existing and accruing rights.

(ii) *Constitution.*—A revision of the constitution was undertaken in 1932 and was in due course given the force of law under Proclamation No. 191 of the 24th October of that year.

Provision was made therein for the constitution of an executive committee, consisting of the Chief Magistrate, three magistrates appointed from time to time by the Chief Magistrate, and four native members of the General Council, elected triennially by the Council for appointment by the Governor-General. The executive committee is responsible for the administration and control of the following Council affairs:—

Establishments.—Appointment, discipline, and dismissal of pensionable officers.
Education.—Scholarships.
Agriculture.—Establishment of new agricultural institutions; new agricultural institution buildings; acquisition and disposal of farms; establishment, acquisition, and disposal of plantations.
Public Works.—Consideration of tenders for any service, the lowest tender for which is over £100.
General.—The institution of legal proceedings.

The United Transkeian Territories General Council consists of three native members from each Council district, nominated and appointed in a prescribed manner, together with the four chiefs of Eastern Pondoland, Western Pondoland, Tembuland, and Gcalekaland. The magistrates of the Council districts are entitled to attend and to take part in the deliberations of all meetings of the General Council. The chief Magistrate is the chairman and chief executive officer of the Council. After each session of the General Council, the magistrates of the Council districts meet under the chairmanship of the Chief Magistrate in order, *inter alia*, to consider the resolutions adopted and to express their views thereon for the information of the Government. The native members of the executive committee are entitled to attend, and, subject to the approval of the Chief Magistrate, to take part in the deliberations at this meeting, which is known as the Magisterial Conference.

(iii) *Functions of the General Council.*—The councils (district and general) are constituted as advisories to the administration, associating the natives with the control of local funds, giving them a voice in the disposal of affairs intimately affecting their own interests, training them to constitutional methods of expressing their wishes in regard to general and local policy, and also keeping the Government and its officers in touch with native feeling.

The functions of the General Council in session are defined in its constitution to include—

(a) the initiation and consideration of any matter relating to the economic, industrial, or social condition of the native population of the Union or any part thereof in so far as it affects the natives within the area of the jurisdiction of the Council;
(b) the consideration of any proposed legislation or existing law which specially affects the native population of the Union in so far as it affects the natives within the area of jurisdiction of the Council;
(c) the consideration of any specific matter submitted to it by the Governor-General or by the Minister;
(d) the passing of resolutions on any such matter.

Debates in the General Council cover a wide range of subjects, including the revision of laws particularly affecting the native population, such as those in connexion with native marriage and inheritance, education, diseases amongst stock, control of commonages and forests, etc. Questions come before the General Council directly by motions introduced by magistrates or members, and also on submission from district councils and on reference by the Government. Procedure in the council is more or less parliamentary in form. The resolutions of the councils (district or general) having been taken on the subjects placed before them, the responsibility for action thereon rests upon the magistrates, the treasurer, the Chief Magistrate, the Minister, or the Governor-General, according to the importance of the matters involved.

(iv) *Functions and Constitution of District Councils.*—In local administration the various district councils stand to the General Council in the relation of individual parts of a single body. They are executive organs of the General Council, which distributes amongst them such duties as road maintenance and dipping operations, but remains financially responsible for their actions. They have no separate income or expenditure, but there is one common treasury into which all revenues flow, and which is chargeable with the cost of the different services authorized. This arrangement has the twofold merit of allowing for local variations and ensuring, under better control, the accumulation of funds which enable projects beyond the means of any single district organization to be undertaken.

Each district council in the Transkeian Territories, with the exception of Lusikisiki, Libode, Umtata, and Willowvale, consists of the magistrate of the district, who is chairman, and six members, and is constituted in the following way:—

Two members of each council are nominated and appointed by the Governor-General. For the appointment of the other four, each district is divided into four electoral areas known as sections, and the local taxpayers and native quitrent payers in each section elect three representatives. Thereafter these representatives nominate, in the territories other than Pondoland, four of their number, and in the territory of Pondoland, two of their number, to be recommended to the Governor-General for appointment as district councillors. The chiefs of Eastern and Western Pondoland nominate two local representatives for appointment by the Governor-General as members of each district council within their respective areas. The four chiefs of Eastern Pondoland, Western Pondoland, Tembuland, and Gcalekaland are *ex officio* members of the

Lusikisiki, Libode, Umtata, and Willowvale district councils, respectively. Each district council meets in the ordinary course six times a year, but special meetings may at any time be summoned by the magistrate of the district.

(v) *Financial System.*—Under the *Natives Taxation and Development Act*, No. 41 of 1925, as amended by Acts Nos. 28 of 1926, 37 of 1931, 25 of 1932, and 49 of 1935, the United Transkeian Territories General Council receives the native quitrents collected in all council districts and, in addition, the local tax of 10s. payable in respect of every hut or dwelling in a native location, according to the number of wives, not exceeding four, for whom the taxpayer is responsible. Quitrent payers are exempted from the payment of local tax.

In general, the district councils are responsible for the initiation of expenditure proposals, which are collated and laid before the General Council in the form of annual estimates of expenditure. After revision by the treasurer the votes of the Council are taken thereon, and the proposals are then submitted for the approval of the Governor-General. The annual expenditure controlled by the General Council (including the cost of dipping operations) is approximately £260,000. The total expenditure from the inception of the council to the 30th June, 1938, excluding government grants, amounted to £1,185,800. The Council does not levy rates upon or receive taxes from Europeans, who nevertheless share incidentally in many of the benefits accruing to ratepayers from Council expenditure.

(vi) *Scope of operations.*—The more important operations undertaken by the Council may be summarized as follows:—

(*a*) The maintenance of about 4,400 miles of roads and the construction of new roads at a total charge of about £60,000 a year.
(*b*) The construction and maintenance of bridges and causeways. At the 30th June, 1938, 123 bridges and 26 causeways had been built.
(*c*) The repair and construction of cattle and sheep dipping tanks, of which the Council owns 655 and 856 respectively.
(*d*) The dipping of large stock belonging to natives.
(*e*) Anti-soil-erosion works which have been undertaken on a large scale and towards which the Native Affairs Department grants a sum of £5,000 per annum.
(*f*) The development of water supplies. The South African Native Trust granted £5,000 to the Council for expenditure on this service during 1937-38, and a similar sum during 1938-39.
(*g*) The establishment of four types of scholarships designed to assist native students in deserving cases (1) to attain the Junior Certificate standard of education; (2) to proceed from the Junior Certificate stage to Matriculation and post-Matriculation study; (3) to train as visiting (Jeanes) teachers; and (4) to complete medical studies overseas.
(*h*) Grants to State-aided and mission hospitals.
(*i*) Grants to industrial schools.
(*j*) The provision and upkeep of plantations for the primary purpose of supplying natives' requirements in the way of fuel and hut-building material.
(*k*) £ for £ grants towards the fencing of groups of arable allotments, and, funds permitting, the assumption of the natives' liability for the half-cost of dividing fences erected under the compulsory provisions of the *Fencing Act*, No. 17 of 1912.
(*l*) The improvement of native live stock through the elimination of scrub and supernumerary sires and the supply of well-bred sires at approximately 50 per cent. of the cost of purchase, as well as the conducting of grazing control experiments. The South African Native Trust granted a sum of £20,000 during the financial year 1937-38 for expenditure on live stock improvement in the Transkeian Territories.
(*m*) Agricultural development, in connexion with which service the Council maintains a demonstration staff of 139 native agricultural demonstrators, 7 agricultural supervisors, and 1 assistant supervisor in the field; has established and supports by grants, one central and 17 district agricultural shows; has organized vegetable, wheat and maize-growing competitions; conducts at periodical intervals demonstration caravan tours to the outlying parts of the Territories and has established its own experimental farms and agricultural schools for the teaching of agriculture, the encouragement of pastoral industries, and the improvement of stock-breeding.

(*n*) The establishment of an experimental orchard in charge of an experienced horticulturist for the purpose of encouraging natives to grow fruit for both economic and health reasons.

(vii) *Roads and Bridges.*—There are several rural road authorities within the territory, e.g. the National Road Board, the Provincial Advisory Roads Board, the General Council, the Mount Currie and Matatiele Divisional Councils, and the Umzimkulu Road Board. The three last-named bodies, constituted in 1931, are responsible for the maintenance of certain defined roads within their respective areas; the National Road Board and the Advisory Roads Board maintain the National Roads and main trunk roads respectively; municipal and village bodies keep roads within their areas; and the remainder are left to the General Council, which confines itself chiefly to roads in native locations, but occasionally repairs a thoroughfare through a European or a native farming settlement; it receives no grants towards construction or maintenance of roads or bridges.

(viii) *Public Health.*—In addition to paying a *pro rata* share of the cost of treating its ratepayer population in the State-aided and mission hospitals of the Transkeian Territories, the Council makes a small annual grant to the South African (Native and Coloured) Health Society and contributes towards the cost of treatment of native tubercular patients from its area at the Nelspoort Sanatorium.

(ix) *Large Stock Dipping Operations.*—Cattle dipping operations in the *United Transkeian Territories General Council* districts are paid for from funds supplied by the natives in payment of stock rates. The magistrate and the district council of each district, with the exception of Idutywa, are responsible for carrying out the dipping operations. Subject to control by the Chief Magistrate and in co-operation with the Veterinary Department, they take the necessary steps for suppressing East Coast Fever and other diseases. The Engineer's Department of the General Council arranges for and supervises the construction and repair of cattle tanks in native areas. The annual cost of the dipping of large stock in the Transkeian Territories is in the neighbourhood of £50,000.

3. **Local Councils under Act No. 23 of 1920.**—The *Native Affairs Act*, 1920 (as amended by Act No. 15 of 1927), provides for the establishment of local councils in native areas which have been set aside or may hereafter be set aside as such by Parliament. The councils are in principle designed to have real local self-government, and, while independent of official or European control in their deliberations, they have as chairmen government officials with advisory duties, conversant with the necessities and obligations of local government. The Native Affairs Commission, which was empowered to recommend the constitution of such councils, proceeded from the standpoint that these bodies should be established wherever possible.

The extent of each council's area is defined by a proclamation which also indicates the number of its members, not exceeding nine, who serve for a period of two years. The members are natives, of whom a certain number are nominated by the Governor-General and the remainder elected by representatives of the local tax and native quitrent payers. The Native Commissioner of the district is usually designated by the Minister of Native Affairs to preside at the meetings of and generally to act in an advisory capacity to the local council.

The following local councils have been established under the Act:—

Cape of Good Hope...	Tamacha (Kingwilliamstown) (1927), Middeldrift (1927), Keiskamahoek (1928), Victoria East (1927), Peddie (1927), Mafeking (1927), Herschel (1930), East London (1932), and Hewu (Queenstown) (1937).
Natal.....	Msinga District (1928).
Transvaal.....	Zebediela's Location (1927), Sekukuni's Location (1928), Bakoberg Masibi's Location (1929), Moiloa Reserve (1929), and Pietersburg District (1934).

Local Councils derive their funds mainly from the local tax and native quitrent collected in their respective areas, payment of which is made to them in terms of section 11 of the *Natives Taxation and Development Act*, 1925.

Where the natives of any area are not sufficiently advanced for local self-government, provision exists for the establishment of a local council with restricted powers. The Governor-General may direct that all decisions of the Council in the exercise of any of its powers shall be subject to the approval of the Minister of Native Affairs.

Regulations relating to the administration of local councils were published under Government Notice No. 50 of 1930.

4. **The Ciskeian General Council.**—(i) *Constitution.*—The Ciskeian General Council was established under Proclamation No. 34 of 1934, with effect from 1st April, 1934. It was constituted as a result of two conferences of representatives of district and local councils held at the end of 1932 and during 1933 at Kingwilliamstown. A basis of federation was drafted, was accepted by all councils, and finally received the sanction of the Governor-General on the 21st February, 1934.

The Council consists of the Chief Native Commissioner as chairman and chief executive officer, the chairmen of the nine district and local councils, and two members nominated by each of these councils to serve for a period of two years.

In their capacity as chairmen of the district or local councils, Native Commissioners, or Assistant Native Commissioners as the case may be, attend meetings and participate in the deliberations of the General Council, but are not permitted to vote on its resolutions, which at the conclusion of each meeting are required to be transmitted to the Minister of Native Affairs for consideration.

(ii) *Functions of the Ciskeian General Council.*—Generally speaking the council system in the Ciskei approximates closely in its objects and functions to that of the Transkei. There are, however, certain constitutional variations, the most important of which is that the Ciskeian General Council is created on a federal as opposed to the union basis of its Transkeian sister, thereby preserving to district and local councils a measure of independence and opportunity for individual development limited only by the specific functions committed to the General Council under Proclamation No. 34 of 1934. The functions so committed embrace—

(*a*) the encouragement of the planting and cultivation of trees, the establishment and control of plantations, and improvement in methods of agriculture;

(*b*) assistance generally in the advancement of scholastic, agricultural, and industrial education by the provision of scholarships;

(*c*) grants in respect of hospital treatment, medical training, and the provision of sanitation and medical services to natives.

The General Council is also entrusted with—

(1) the initiation and consideration of any matter relating to the economic, industrial, or social condition of the native population of the Union or any part thereof in so far as it affects the natives within the area of jurisdiction of the General Council;

(2) the consideration of any proposed legislation or existing law which specially affects the native population of the Union in so far as it affects the natives within the area of jurisdiction of the General Council;

(3) the consideration of any specific matter submitted to it by the Governor-General or by the Minister;

(4) generally any other powers and functions which may be regarded as proper to General Council administration and which may be committed to it by direction of the Governor-General after consultation with the district and local councils.

Provision exists for the delegation by the General Council of any portion of the powers and functions enumerated under items (*a*), (*b*), and (*c*) above to any district or local council.

(iii) *Functions of Local Councils.*—These institutions have separate control, within the area for which they are established, of matters relating to—

(*a*) the construction and maintenance of roads, drains, dams, and furrows, and the prevention of erosion;

(*b*) the provision of improved water supplies;

(*c*) the suppression of diseases of stock by the construction and maintenance of dipping tanks and in any other manner whatsoever;

(*d*) the destruction of noxious weeds, and, generally, any functions regarded as proper to local administration committed to local councils by direction of the Governor-General. These include, for example, contributions towards the fencing of blocks of land and the destruction of rodents. Any of the foregoing functions may be delegated to the General Council with the concurrence of at least two-thirds of the district and local councils.

(iv) *Financial System.*—The sources of revenue of district and local councils are similar to those of Transkeian institutions, but while the Transkeian district collections of local tax and quitrent accrue to the Central Council, those of Ciskeian districts are, in terms of section 11 of the *Natives Taxation and Development Act*, 1925, as amended, paid direct to the subordinate council, and can be appropriated to its use only after the council's estimates of expenditure have received approval by the Governor-General. Expenditure of General Council revenue is similarly controlled.

The funds of the General Council are derived mainly from a contribution of from 10 to 15 per cent. of each constituent council's revenue for the preceding year. The percentage payable is determined annually by the General Council and has, from the inception of the latter, remained at 12½ per cent.

5. **Finances of Native Councils.**—The following table reflects the revenue and expenditure of the various councils during the years 1934 to 1938:—

REVENUE AND EXPENDITURE OF NATIVE COUNCILS, 1934 TO 1938.

Council.	1934.		1935.		1936.	
	Revenue.	Expenditure.	Revenue.	Expenditure.	Revenue.	Expenditure.
Cape Province.	£	£	£	£	£	£
United Transkeian Territories General Council (year ending 30th June)	154,036	142,104	181,306	162,219	172,448	173,388
Ciskeian General Council*	1,891	934	3,272	1,450	3,557	2,191
Glen Grey District Council	11,000	9,677	9,795	10,130	10,093	9,416
Tamacha Local Council	4,070	3,979	4,331	4,175	3,835	4,825
Herschel Local Council	2,382	1,735	7,154	5,577	5,308	4,705
Peddie Local Council	1,635	1,561	1,400	1,674	1,666	1,598
Victoria East Local Council	1,064	1,276	1,379	1,494	1,000	1,031
Middeldrift Local Council	2,841	2,410	4,186	3,235	2,826	3,561
Keiskamahoek Local Council	1,483	1,419	1,538	1,495	1,679	1,327
East London Local Council	1,573	1,735	1,340	1,477	1,427	1,480
Mafeking Local Council	643	275	1,675	1,114	1,277	1,699
Hewu Local Council‡	—	—	—	—	—	—
Natal.						
Msinga Local Council	4,721	5,691	6,028	5,385	5,043	6,031
Transvaal.						
Zebediela's Location Local Council	729	364	812	458	980	533
Sekukuni's Location Local Council	1,709	1,846	1,661	2,435	1,376	3,248
Bakeberg Masibi's Location Local Council	247	224	143	266	198	86
Moiloa Reserve Local Council	345	250	432	318	650	197
Pietersburg Local Council†	1,102	1,223	3,445	1,955	4,382	4,872

Council.	1937.		1938.	
	Revenue.	Expenditure.	Revenue.	Expenditure.
Cape Province.	£	£	£	£
United Transkeian Territories General Council (year ending 30th June)	178,856	174,519	188,012	179,266
Ciskeian General Council*	3,319	2,090	3,904	2,381
Glen Grey District Council	10,467	10,422	11,430	11,181
Tamacha Local Council	4,714	3,997	4,302	4,850
Herschel Local Council	8,941	6,809	6,733	5,691
Peddie Local Council	1,376	1,669	1,376	1,401
Victoria East Local Council	1,067	1,139	980	1,037
Middeldrift Local Council	2,656	2,448	2,699	2,871
Keiskamahoek Local Council	1,705	1,570	1,425	1,443
East London Local Council	1,444	1,376	1,355	1,428
Mafeking Local Council	1,812	1,703	1,018	1,324
Hewu Local Council‡	747	130	1,111	1,157
Natal.				
Msinga Local Council	6,704	5,588	5,152	9,049
Transvaal.				
Zebediela's Location Local Council	998	676	1,137	1,719
Sekukuni's Location Local Council	2,550	2,473	1,453	1,376
Bakeberg Masibi's Location Local Council	224	90	413	152
Moiloa Reserve Local Council	622	341	482	460
Pietersburg Local Council†	5,188	3,742	5,038	5,545

* Established 1st April, 1934.
† In 1935 the Moletzie's Location Local Council, the Mpahlela's Location Local Council, and the Ramogopo's Location Local Council were amalgamated as the Pietersburg Local Council.
‡ Established May, 1937.

6. **Orange Free State Native Reserves.**—There are three areas in the Orange Free State reserved for the exclusive occupation of natives: the Witzieshoek, Thaba 'Nchu, and Selika Native Reserves.

The Witzieshoek Reserve is a mountainous area approximately 50,000 morgen in extent on the edge of the Drakensberg escarpment in the Harrismith district. Its total population, according to the 1936 Census, is 7,733. The reserve was originally set aside for the late Mosuto Chief Paulus Mopeli and his people in recognition of their services to the Orange Free State Republic during the Basuto wars. In 1873 some 6,000 morgen of the reserve were set aside for the Batlokoa Tribe under Chief Koos Mota. The population of the reserve consists of the descendants of these two tribes, now under the control of Chief Charles Mopeli and the Regentess Eva Mota respectively.

The general administration of the reserve is controlled by the Native Affairs Department through its Assistant Native Commissioner (known locally as the "Commandant"), who lives in the reserve.

Since 1934 a considerable amount of work has been done to combat soil erosion and to assist in the more direct development of the reserve. This has been co-ordinated with the problem of storing water, and 14 dams have been built. Afforestation has also been undertaken.

Missionary work in the reserve is mostly in the hands of the Dutch Reformed Church, which has recently, with the assistance of the South African Native Trust and other interested bodies, built a hospital to meet the medical needs of the natives.

The Thaba 'Nchu and Seliba Reserves are situated in the Thaba 'Nchu district. The former is 6,631 morgen in extent with a population in 1936 of 3,783, and the latter 17,659 morgen with a population of 3,587. A portion of the latter reserve, called Carolusrus, has been marked off for the use of certain coloured persons who were established there. It is approximately 900 morgen in extent and is occupied by 206 coloured persons.

In addition to the reserves further land, approximately 43,000 morgen in extent, has been acquired by the South African Native Trust for the settlement of natives.

Three local boards have been established under the provisions of Ordinance No. 6 of 1907 (O.F.S.): one at Thaba 'Nchu with seven members, six of whom are elected by the natives of the reserve; one for the Seliba Reserve, the seven members of which are elected by the natives; and one with three coloured members at the Carolusrus Reserve. The boards have been showing increasing attention, within the limits of their funds, to the medical needs of the natives. Clinics under the charge of trained native nurses have been established and are doing good work.

A large educational institution in the Thaba 'Nchu Reserve attended by about 600 native children and providing for primary and high school education has been established by the Methodist Church.

Under the provisions of the *Natives Taxation Amendment Act*, No. 37 of 1931, the various native reserve boards in the Orange Free State receive the proceeds of the local tax collected from natives within their respective areas of jurisdiction.

The following is a statement of the revenue and expenditure of native reserve boards in the Orange Free State:—

NATIVE RESERVE BOARDS, ORANGE FREE STATE: REVENUE AND EXPENDITURE, 1935-36 TO 1937-38.

Reserve.	1935-36.		1936-37.		1937-38.	
	Revenue.	Expenditure.	Revenue.	Expenditure.	Revenue.	Expenditure.
	£	£	£	£	£	£
Witzieshoek	570	596	656	751	668	1,046
Thaba 'Nchu	1,245	600	1,062	736	399	330
Seliba	417	276	633	235	291	277
Carolusrus	29	10	45	25	15	14

7. **Mission Stations and Communal Reserves.**—Under Act No. 29 of 1909 (Cape), certain mission stations, where land was held in trust by the missionary body for the native and coloured occupants, were brought under a system in which a definite grant of land was made to the missionary body for the purposes of its work, and the remainder of the station was demarcated and reserved for the registered occupiers. For the control and regulation of the native or coloured community thus established a board of management is provided for by the Act. The board consists of six members elected by the registered occupiers and three appointed by the Governor-General and is presided over by the magistrate of the district; it is endowed with certain of the duties and functions of a village management board, mainly the control of roads, fences, sanitation, water supply, and use of the commonage, and it has power to make regulations in regard to those matters, subject to the approval of the Governor-General. The board may levy a rate of not less than 10s. per year on each registered occupier for the purpose of defraying the cost of administration.

Eight mission stations have now been proclaimed under the Act: Shiloh, in the district of Queenstown; Mamre, in the district of Malmesbury; Goshen, in the district of Cathcart; Enon, in the district of Uitenhage; Zoar, in the district of Ladismith; Pniel, in the district of Paarl; Genadendal, in the district of Caledon; and Ebenezer Kolonie, in the district of Van Rhynsdorp. The system has also, as provided in Part II of the Act, been extended to the four communal reserves: Leliefontein, Concordia, Steinkopf, and Komaggas in Namaqualand.

8. **Tribal Trust Funds (Transvaal).**—In the Transvaal, what are known as *Tribal Trust Funds* have been established in various districts under the control of the local officers of the Native Affairs Department. Originally these funds were instituted for the purpose of extinguishing tribal debts and reorganizing the finances of the tribes concerned. Owing to dilatoriness in meeting their obligations in respect of land purchases, etc., imprudence, and mismanagement of tribal moneys, certain tribes had become yearly more and more involved until, with the consent of chiefs and people, their affairs were investigated and taken in hand by the officers of the Native Affairs Department. As a result of the assistance and protection afforded, the tribal finances were in the course of a few years placed upon a solvent and satisfactory basis.

These trust funds comprise the proceeds of self-imposed levies voluntarily subscribed by the natives. The levy usually takes the form of an annual rate payable by each taxpayer, the amount of which is fixed by the chief and the members of the tribe. It is collected at the office of the Native Commissioner or the Additional or Assistant Native Commissioner, and is paid into the government banking account; accounts are paid by warrant voucher, and the books are audited by government audit inspectors.

The system of maintaining Tribal Trust Funds derived from voluntary levies was initiated in the Pietersburg district, and was attended with marked success. As a result, a number of such funds has been established, and in some cases they are utilized as media not only for discharging tribal obligations, but for providing services of benefit and utility to the communities concerned, e.g. fencing, tree planting, the construction and maintenance of dipping tanks, the sinking of boreholes, erection of windmills, etc.

Section 15 of the *Natives Taxation and Development Act*, No. 41 of 1925, provides definite legal sanction for the imposition of these levies, if desired by any native tribe or community, not only in the Transvaal but throughout the Union.

§ 6. Land Administration.

1. **The Natives Land Act.**—The *Natives Land Act*, No. 27 of 1913, took effect from the 19th June, 1913, and was avowedly a temporary measure with the object of maintaining the *status quo* as regards the ownership and occupation of land in the Union relatively by natives and by persons other than natives—so far as that could be done without imposing undue hardship "until Parliament should make other provision." Provision was made for the appointment in the interim of a commission for the purpose of inquiring into and recommending to Parliament what areas should be set apart, within which (*a*) natives and (*b*) persons other than natives should not be permitted to acquire or hire land or interest in land.

To fulfil its purpose, the Act laid down that, except with the approval of the Governor-General, a native might not acquire from a person other than a native, nor a person other than a native from a native, any land or interest in land in any area outside the native areas described in the schedule to the Act; and that without such approval no person other than a native might acquire any land or interest therein in a scheduled native area.

In 1936 was enacted legislation complementary to the *Natives Land Act*, 1913, in the shape of the *Native Trust and Land Act*, No. 18 of 1936, which by Proclamation No. 219 of 1936 was brought into operation on the 31st August of that year.

The cardinal features of the Act are:—

(*a*) The establishment under section 4 of a corporate body, known as the South African Native Trust, with the Governor-General as Trustee, to be administered for the settlement, support, benefit, and material and moral welfare of the natives of the Union. A necessary corollary to the establishment of the Trust has been the inauguration, under the provisions of section 8 of the Act, of a fund, known as the South African Native Trust Fund, to be utilized for the acquisition and development of land for native settlement, for the advancement of the agricultural, pastoral, and industrial interests of the natives and generally to promote the objects and purposes of the Trust. The pre-existing trusts such as the Natal Native Trust and the Zululand Native Trust have been merged in the South African Native Trust.

(*b*) The prescription under section 2 of the Act of certain areas, termed "released areas", defined in the First Schedule to the Act, within which the purchasing power of the Trust and of the natives themselves is to be focused, and which are thus destined ultimately to become native areas.

In this connexion it should be mentioned that the Act, under section 6, vested in the South African Native Trust all the established Crown and Trust native locations and reserves and unalienated Crown land in the released areas, and in section 10, in recognition of the fact that more land would be required for native occupation, specially empowered the Trust from time to time to acquire additional land for native settlement until the land so acquired, together with that vested in the Trust by virtue of its having previously been Crown land in released areas, should reach a maximum of seven and a quarter million morgen, apportioned between the various provinces as follows:—

	Morgen.
Cape of Good Hope	1,616,000
Natal	526,000
Transvaal	5,028,000
Orange Free State	80,000
TOTAL	7,250,000

Further the Act purports, in so far as purchase by natives themselves is concerned, to free the released areas from the restrictions imposed by paragraph (*a*) of sub-section (1) of section 1 of the 1913 Act, so that natives may acquire land in those areas without special approval. At the same time it is important to note that even in the released areas natives are not able to acquire isolated patches of land, i.e. land wholly surrounded by properties owned by non-natives, except with the approval of the Governor-General and subject to such conditions as he may impose.

For the purpose of computing the extent of land acquired by the Trust from time to time, that is with reference to the seven and a quarter million morgen mentioned above, land purchased by natives is deemed to have been purchased by the Trust.

(*c*) The fact that it brings the Cape Province into line with the other provinces as regards the acquisition of land by natives.

Here it may be mentioned that the Supreme Court had ruled that the restrictions imposed by section 1 of the 1913 Act did not apply in the Cape Province by reason of the saving clause contained in sub-section (2) of section 8 of that Act. That saving clause was, however, repealed by the *Native Trust and Land Act*, with the result that the provisions of section 1 of the 1913 Act, as modified by the new Act, now apply throughout the Union.

(*d*) The provisions contained in Chapter IV regarding the occupation by natives of land belonging to non-natives.

Chapter IV will apply only to areas to which it is specially extended by proclamation. Before applying the provisions of this chapter to any district, the Government will satisfy itself that the general body of the local rural European opinion is in favour thereof, and that adequate accommodation will be available for the natives likely to be displaced by reason of the application of the provisions of the chapter. Up to the present it has been applied to one area only, viz., the European portion of the district of Lydenburg, Transvaal, with effect from 15th April, 1938 (Proclamation No. 264 of 1937, as amended by Proclamation No. 43 of 1938).

The Trust has since its establishment concentrated upon the purchase of the additional land which it is empowered under the Act to acquire. Up to the 31st December, 1938, 958,717 morgen of land had actually been purchased by and transferred to the Trust. In addition, the purchase of a large number of farms, which have been inspected and valued with a view to acquisition by the Trust, has been approved and transfer is awaited. The purchase of further land is being pushed forward as expeditiously as possible, and it is anticipated that large areas of land will be acquired by the Trust during the course of the next few years.

The Trust, in embarking upon its vast scheme of native land purchase, realizes the necessity for adopting measures to remedy unsatisfactory conditions now existing in native reserves. To this end, shortly after the Act was passed, arrangements were made for a detailed survey of each location by a committee in each province, known as the Locations Reclamation Committee, consisting of the Native Commissioner of the district concerned, an agricultural expert, and a qualified engineer. The Committee is required to carry out investigations *in loco* and to report upon and make recommendations as to the following matters—

(*a*) the definition of residential areas in the locations;

(*b*) the definition of arable areas therein;

(*c*) the demarcation of deferred and rotational grazing areas;

(*d*) the acquisition of additional land to relieve overcrowding in the locations, to provide for necessary expansion, and to allow of settlement being effected upon a proper basis;

(*e*) anti-soil-erosion measures;

(*f*) provision of additional water supplies, such as boreholes, wells, reservoirs, etc., indicating where such can most economically and advantageously be provided, having due regard to the requirements of the location residents for water for domestic purposes and for stock;

(*g*) afforestation and the preservation of timber;

(*h*) irrigation schemes;

(*i*) the imposition of any necessary limitation in respect of stock.

The Location Reclamation surveys are being steadily proceeded with in all the provinces.

Much of the land purchased by the Trust will, in pursuance of the locations reclamation scheme, be assigned for the use and occupation of specific tribes in order to provide necessary extensions to the tribal locations. Other purchased land will be utilized to provide accommodation for tribes and communities which have not previously had locations. In addition, the Trust is under a statutory obligation to provide land for the accommodation of surplus natives who may be evicted from urban areas as a result of the operation of the *Native Laws Amendment Act*, 1937, which was brought into operation on the 1st January, 1938, or who may be evicted from privately-owned farms as a consequence of the squatting restrictions contained in Chapter IV of the *Native Trust and Land Act*, 1936.

In every case the settlement of natives on Trust land is being effected under close supervision, as far as possible on a tribal basis, and the natives are required to pay rental to the Trust, assessed by the Minister on an equitable basis.

SOUTH AFRICAN NATIVE TRUST.

REVENUE AND EXPENDITURE, 1st SEPTEMBER, 1936, TO 31st MARCH, 1938.

Heading.	1-9-36 to 31-3-37.	Financial Year 1937-38.
(a) REVENUE.		
Grants from Union Government—	£	£
For Purchase of Land and Assistance to Natives	228,252	1,003,089
For Native Education	185,000	813,000
Subsidy for Coloured Children, O.F.S.	3,150	4,298
Welfare Grant	2,250	4,750
TOTAL	418,652	1,825,137
Surrenders by Provincial Administrations	6,217	25,536
Collections under Act No. 41 of 1925—		
General Tax	268,027	816,647
Local Tax	105,312	224,907
Quitrent	29,984	68,951
TOTAL	403,353	1,110,505
Fort Cox Agricultural School	1,575	2,473
Sales	617	—
Experimental Farms	—	1,417
Rents	10,689	45,089
Grazing Fees, etc., Farms Purchased	447	3,229
Stock Fees	113	—
Forest Revenue	1,112	2,227
Mining and Prospecting Revenue	2,135	5,112
Dipping Revenue	346	1,116
Quitrent Payable under Act No. 18 of 1936	319	765
Interest on Investments and Loans	9,050	17,562
Miscellaneous Revenue	1,856	2,413
Putill Trust—Interest	85	90
Orange Free State Imperial Grant-in-Aid—		
Interest	1,001	1,517
GRAND TOTAL £	866,567	2,596,560
(b) EXPENDITURE.		
	£	£
Grants for Native Education	464,136	798,583
Purchase of Land for Native Settlement	223,798	1,218,926
Assistance to Natives	4,454	—
Salaries, Subsistence and Transport	26,037	—
Maintenance of Departmental Vehicles, Bull Camps, etc.	4,230	—
Water Supplies	18,293	31,161
Fort Cox Agricultural School	3,138	6,250
Experimental Farms and Plots	507	3,788
Irrigation Works—Tugela and Mooi Rivers	1,456	—
Afforestation	2,508	3,191
Roads and Bridges	7,886	11,386
Stud Seed Work	82	—
Maintenance of Plant and Equipment	1,352	—
Maintenance of Buildings	138	—
Stock Diseases Prevention	16,905	31,053
Welfare Grant	1,112	—
Fencing	10,012	3,496
Public Health	4,722	21,720
Payments to Mission Societies, Local Councils, and Reserve Boards	106,879	249,085
Grants for Industrial and other Purposes	626	3,994
Miscellaneous	1,028	10,711
Buildings, Equipment, and Live Stock	13,361	22,009
Agricultural Section—Salaries, Wages, Allowances, etc.	—	46,478
Engineering Section—Salaries, Wages, Allowances, etc.	—	20,394
Veld Improvement	—	9,957
Live Stock Improvement—Maintenance of Camps, etc.	—	3,761
Official Quarters—Maintenance and Repairs	—	252
Communal Cultivation	—	50
O.F.S. Imperial Grant-in-Aid—Grants-in-Aid for Education of O.F.S. pupils	—	616
TOTAL £	912,660	2,496,863

2. **Individual Tenure.**—(i) *Cape Province.*—(*a*) *Ciskeian Districts.*—Allotments are held by natives under individual tenure in surveyed locations in certain districts of the Ciskei, viz., East London, Kingwilliamstown, Victoria East, Fort Beaufort, Peddie, Stutterheim, Queenstown, Herschel, and Glen Grey. These allotments may be classified broadly as follows:—

(1) Those granted in pursuance of the earlier surveys, i.e. prior to the passing of Cape Act No. 40 of 1879.

(2) Those granted under the provisions of Cape Act No. 40 of 1879.

(3) Those held under the Glen Grey system of tenure, as embodied in the *Glen Grey Act*, No. 25 of 1894.

In the early days, the necessity for inculcating amongst the natives, by a gradual process, European methods and ideas in respect of the ownership and occupation of land does not seem to have been sufficiently realized, with the result that individual tenure of land, which was entirely foreign to native ideas, was introduced before the people were ripe for it, or understood its implications, and in a form unsuitable for natives in their then stage of development, allotments being granted on the same basis and more or less subject to the same conditions as applied in the case of Europeans. These conditions naturally militated against the success of the earlier native location surveys.

A better appreciation of conditions existed when Cape Act No. 40 of 1879 was passed "to provide for the disposal of lands forming native locations". This Act contemplated the division of each location into a sufficient number of arable and residential allotments to enable grants to be made to the location residents, and the reservation of the remaining extent as commonage for the use of the registered holders. The Act provided that the grants should be made, subject to conditions to be approved by both Houses of Parliament, and from time to time, as fresh grants were made, advantage was taken of this provision to insert in the title deeds conditions which experience had shown to be desirable and necessary.

The greatest defect in the systems of individual tenure applied in native locations prior to the passing of the *Glen Grey Act* in 1894 lay in the fact that no provision was made for a simple and inexpensive method of transfer, so that small holdings, on the average not more than five morgen in extent, could be transferred only by means of a formal deed in the ordinary course, a procedure involving in many instances the payment of legal fees amounting to more than the actual value of the land. Further, the natives themselves, when transferring their land, failed to appreciate the necessity of doing more than hand over the actual title deed to the new owner. The result was that, in the great majority of cases, transfer of land not held under the Glen Grey system was never registered, though in many cases the allotments frequently changed hands. The confusion arising out of this state of affairs was such, that it became necessary to create by legislation special machinery to deal with the position. To this end, provision was made in section 8 of the *Native Administration Act*, No. 38 of 1927, (1) for the appointment of commissioners to investigate and determine the rights of occupation and ownership in all such cases, and (2) on payment of a fee of £1 sterling, for the transfer of the holdings concerned direct to the respective owners, as determined by the commissioners. Commissioners have been appointed for the various districts concerned, and are pursuing their investigations, which will of necessity be somewhat prolonged.

In addition Proclamation No. 117 of 1931, which was promulgated on the 27th March, 1931, introduced uniformity as regards the conditions of title, and provided a simple and inexpensive method of transfer by endorsement upon the title deed upon payment of a fee of 2s. 6d.

Provision is contained in section 6 of the *Native Administration Act*, No. 38 of 1927, for the establishment by Governor-General's proclamation of special deeds registries for the registration of deeds relating to immovable property owned by natives in scheduled native areas. Steps have been taken under this provision to establish a native deeds registry in the office of the Chief Native Commissioner, Kingwilliamstown (Proclamation No. 119 of 1931). This registry deals with all allotments held by natives under individual tenure in the various Ciskeian locations.

The provisions of section 6 of the aforesaid Act have been applied, by sub-section (2) of section 21 of the *Native Trust and Land Act*, 1936, to all land the title to which has been derived by any native from the South African Native Trust.

Under Proclamation No. 128 of 1937, it is provided that immovable property owned by the Trust and situate within an area which has been proclaimed under section 6 of Act No. 38 of 1927 shall, for the purposes of that section, be deemed to be owned by natives.

(*b*) *Transkeian Districts.*—The Glen Grey system of individual tenure was extended to the district of Butterworth in the Transkeian Territories by Proclamation No. 227 of 1898, and later to the districts of Nqamakwe, Tsomo, Idutywa, Umtata, and Engcobo. A somewhat modified, but essentially similar, system was applied to the district of Xalanga by Proclamation No. 241 of 1911.

The cardinal features of the system have already been indicated, but it should be mentioned, in so far as the Transkeian Territories are concerned, that by taking advantage of the edictal system of legislation operative there, it has been practicable to introduce modifications and improved methods from time to time with a readiness which would not otherwise have been possible. A deeds registry for native titles under the individual tenure system, as applied in the Transkeian Territories, was established in the office of the Chief Magistrate at Umtata by Proclamation No. 196 of 1920, and has functioned most satisfactorily.

(ii) *Natal.*—During 1918, the first definite step was taken towards introducing individual tenure of land into the native areas in Natal. A beginning was made in the mission reserves, and the survey of the Amanzimtoti and Ifafa Reserves has since been completed.

(iii) *Transvaal and Orange Free State.*—No system of individual tenure has been introduced in the Transvaal and Orange Free State native locations and reserves, and the land is still occupied by the people under the communal or tribal system.

(iv) *General.*—Questions have been raised as to the success of the various systems of individual tenure. The survey of the locations has been an expensive process: the natives are not able to comprehend the value of exact measurement, and the surveys have not in all instances been carried out in a way to meet the conservative habits of those for whom the allotments were intended. The Survey Commission, which reported in 1921, recommended that some simpler form of survey should be employed where native allotments were in question, and with this object Mr. M. C. Vos was appointed to go into the question and submit a scheme. His report (U.G. No. 42 of 1922) is a valuable synopsis of the history of individual tenure in its application to native land, and contains suggestions for a simpler system of defining the boundaries of native allotments and for the registration of native titles.

3. **Occupation of Land for Church, School, and Trading Purposes.**—The grant or occupation of sites for church, school, mission, or trading purposes on land owned by the South African Native Trust is controlled by the trustee of that trust (i.e. the Minister of Native Affairs). No grant, however, of any extent of land greater than two morgen can be made without the consent of Parliament as signified by resolution of both Houses [sub-section (4) of section 18 of Act No. 18 of 1936].

The residence upon, or the carrying on by any person other than a native of any profession, business, trade, or calling upon, any land in a scheduled native area or released area of which the Trust or a native is the registered owner, or which is held by any religious denomination or society, is prohibited except with the approval of the trustee, in whom is also vested the discretion to grant or refuse the issue of licences to carry on any profession, business, trade or calling on such land [sub-sections (1) and (3) of section 24 of Act No. 18 of 1936].

4. **Prospecting in Native Areas.**—The control of the issue of permission to prospect or mine on land in respect of which the South African Native Trust or a native is the owner of the mineral rights is vested in the Minister of Native Affairs under section 23 of the *Native Trust and Land Act*, 1936, paragraph (*a*) of sub-section (1) of which provides that:—

> No person shall prospect for minerals on such land without the written permission of the Minister: Provided that this provision shall not apply in respect of land situate in the Province of the Transvaal which at the commencement of this Act is a proclaimed public digging for precious or base metals or is land declared open to public prospecting for precious and base metals for so long as it remains so proclaimed or open. For such permission such fee as may be prescribed by regulation shall be paid to the Trust; and the Trust shall, in the case of land of which the Trust is the owner, pay the fee to the fund, and, in the case of land of which any other person is the registered owner, pay the fee to that person.

The method of dealing with applications for permission to prospect for precious and base minerals, the fees payable for and conditions attaching to permits to prospect for such minerals and permits to win corundum, and other kindred matters are laid down in the regulations (sections 64 to 69) under the *Native Trust and Land Act*, 1936, published under Government Notice No. 494, dated the 2nd April, 1937.

§ 7. Education and Religious Influences.

1. **Education.**—(i) *General.*—The education provided for natives may be graded as primary (normally an 8-year elementary course), post-primary (including secondary education, industrial education, and the training of primary school teachers), and higher, i.e., college or university, education as provided by the South African Native College.

All State and State-aided native education, with the exception of that represented by the South African Native College, is controlled by the Provincial Administrations in terms of § 85 of the *South Africa Act*. Native education, other than State and State-aided education, is under the control of missionary societies. In consequence of this arrangement, the supervision of the education of the natives has been made distinct from the administration of all other native matters. The Native Affairs Commission, in its annual report for 1921, strongly recommended that native education should be controlled and administered by the Government, in view of existing provincial anomalies and the inadequate financial provision made. It may be noted, as a fact which has some bearing on the point, that there has appeared a growing inclination amongst a certain section of the native population, particularly in the Transkeian Territories, to secularize native education and to obtain a larger direct share in its management. Statistics of native education will be found in Chapter VIII, which also contains particulars for the various provinces of the organization of native education, which forms an integral portion of the general education systems in force in the provinces. The details given in the following paragraphs are an extension of these observations, and show more particularly what is being done by the several provinces in providing for the education of the natives.

Section 3 of Act No. 46 of 1925 provides for grants of the following fixed amounts to the various provinces for the purposes of native education: Cape Province, £240,000; Natal, £49,000; Transvaal. £46,000; Orange Free State, £5,000. This fixed annual contribution of £340,000 is made from the public revenue, not direct to the provinces, but to the South African Native Trust Fund. From this fund grants are made to the provinces for the maintenance, extension, and improvement of education facilities among natives, and for the adjustment of the salaries of native teachers, subject to such conditions as may be fixed by the Governor-General after consultation between the Minister of Native Affairs and the Administrator concerned.

(ii) *Cape of Good Hope.*—In June, 1919, the Administrator of the Cape of Good Hope appointed a commission to investigate the whole question of native education in the province. Its report, a most valuable one, was issued in 1920 (C.P. 4—'20). Some of the commission's recommendations have been carried out, notably the appointment of a chief inspector of native education and the preparation of a draft curriculum especially designed for native schools.

An Advisory Board for Native Education, consisting of representatives of the missions, the teachers, and the native people, was created in 1929.

The rapid development of native education in this province is illustrated by an increase in enrolment during 1937 of over 10,000 pupils as compared with the average enrolment in 1936.

(iii) *Natal.*—In Natal native education has always been organized as a distinct branch of the Education Department, with separate personnel in the inspectorate and in headquarters office staff. It has a team of native supervisors, who assist the inspectors, and also organizing instructors in domestic economy, needlework, woodwork, and native crafts. The Native Education Advisory Board, which consists of representatives of the leading missionary denominations, the native people, the Native Teachers' Union, and the Native Affairs Department, performs a most useful function in advising upon and helping to direct educational policy.

Local school committees elected by the parents exist at all government native schools, and at many of the aided schools.

The social side of education is advanced by means of the Pathfinder Wayfarer Movements, by agricultural shows and craft exhibitions, by thrift societies.

The distinguishing features of native schools, as apart from schools for other races, are (*a*) an emphasis upon the study of the Zulu language, (*b*) a bias towards the study and practice of agriculture, promoted by means of nature study and the cultivation of school gardens, (*c*) an attack on superstition by means of practical hygiene, and later on by the study of physiology, and (*d*) the improvement of manual skill by means of indigenous arts and crafts.

There are five institutions at which teachers are trained and twelve at which work of a secondary level is done, while three schools for girls and three for boys give instruction in various industrial subjects.

(iv) *Transvaal.*—In the Transvaal the machinery necessary to cope with the number of native pupils receiving education, now approaching 100,000, has been expanded. There are now 8 inspectors including the Chief Inspector and 15 native supervisors. There is a Native Education Advisory Board, the members of which include representatives of various religious denominations, the Native Affairs Department, and the Provincial Education Department. A committee is being appointed to investigate the problems of native education on the Witwatersrand.

There are 8 training institutions for teachers and 4 secondary schools. Teachers are selected by the school authorities, but their appointment must be approved by the Education Department. Owing to lack of funds many schools are inadequately staffed. School buildings are provided by the mission authorities, the native communities, and in some cases by municipalities. Grants in aid of rent are paid by the Department in respect of new buildings which are used exclusively for school purposes. The teaching of Afrikaans has been introduced in all schools, and steps are being taken to improve the output of school books in the vernacular.

(v) *Orange Free State.*—The number of State-aided schools providing education for natives in this province in 1938 was 365 with an average enrolment of 41,593. These schools were established and are controlled by various religious denominations. There were 1,070 teachers, 672 males and 398 females, of whom 438 (40·93 per cent.) were fully trained, 218 (20·37 per cent.) partly trained, and 414 (38·69 per cent.) untrained.

In addition there are approximately 80 native schools, with an enrolment of about 4,000 pupils, which receive no grant-in-aid. About 60 of these have qualified for State-aid, but owing to lack of funds grants have not yet been awarded.

There are three institutions at which teachers are trained and five providing high school courses.

Information regarding assistance to native education from the Orange Free State Imperial Grant is given in paragraph 3 following.

2. **Higher Education.**—(i) *General.*—There are numerous institutions which endeavour to provide for the needs of the native people in regard to post-primary education. The leading institutions are:—

Cape of Good Hope.
- Lovedale (Victoria East).
- Blythswood (Nqamakwe).
- Healdtown (Fort Beaufort).
- St. Matthew's (Keiskamahoek).
- Shawbury (Qumbu).
- St. John's College (Umtata).
- Tiger Kloof (Vryburg).
- Emfundisweni (Flagstaff).
- Clarkebury (Engcobo).
- All Saints (Engcobo).
- Mariazell (Matatiele).
- Mvenyane (Matatiele).
- Emgwali (Stutterheim).
- Kimberley – Gore-Browne Training School and Lyndhurst Road Secondary School.

Natal.
- Adams Training Institution.
- Edendale.
- Mariannhill.
- Ohlange.
- Indaleni.
- St. Chads.
- Umphumulo.
- Inanda.
- St. Hilda's.
- St. Augustine's.
- Inkamana.
- Edwaleni.
- Bulwer.

Transvaal.
- Kilnerton (Pretoria).
- Diocesan College (Pietersburg).
- Botsabelo (Middelburg).
- Lemana Training College (Elim).

Orange Free State.
- Stofberg Gedenkskool.
- Modderpoort.
- Moroka Missionary Institution.
- Bantu High School (Bloemfontein).
- Bantu United School (Kroonstad).

(ii) *The South African Native College.*—While native students are not barred from following courses at the European university institutions, very few actually do study there. The only *ad hoc* native institution doing work of a university standard is the South African Native College at Fort Hare. This institution was opened in 1916 as the result of the co-operation of the Union Government, the native councils of the Transkeian Territories and Basutoland, and the important mission societies. It started with an enrolment of 20 students. In 1937 it had 130 students, and its current expenditure was £12,875. Its chief source of income is the government grant. The growth of the institution during the last five years is indicated in the table in this section. A recent important extension of its activities is the institution of a three years' course of training for native medical aids. The course is preceded by a year of scientific training and followed by one of practical work in a large public health or hospital area. Candidates are carefully selected and will, on completion of the course, be employed as medical aids in native areas. This course was made possible by the generous grant of £75,000 by the Transvaal Chamber of Mines. The enrolment dropped in 1937 to 130 as a result of the abolition of some of the pre-matriculation classes. By 1938, except for special courses for the training of native ministers, all the work undertaken at the college was of post-matriculation standard. The rapid growth in recent years in the number of secondary schools for non-Europeans in the Union and adjacent territories encourages the expectation that the enrolment of the college will soon rise substantially. Out of the 130 students at the college 79 students did work of a university (i.e. post-matriculation) standard. Eight students studied theology, 38 education, 4 commerce, 15 medical aid, and 23 studied for matriculation.

The students sit for the examinations of the University of South Africa, an external examining body. In 1937, 7 obtained the B.A. degree, 2 the B.Sc. Degree, and 4 the Diploma in Education.

SOUTH AFRICAN NATIVE COLLEGE (FORT HARE): GOVERNMENT GRANT AND ENDOWMENT, 1933 TO 1937.*

Heading.	1933.	1934.	1935.	1936.	1937.
Government grant.....£	4,565	6,483	6,500	7,035	8,000
Total number of students.....	128	147	153	165	130
Matriculated students.....	43	60	65	81	79

* For further information in regard to finance see Table (*d*) in § 1, para. 9 (ii), Chapter VIII.

3. **Orange Free State Imperial Grant.**—Out of a grant of £2,000,000 made by the Imperial Government as war compensation in the Orange Free State, a sum of £171,000 was allocated to natives and of this £27,400 remained unexpended when all claims had been met. This fund, which at 31st March, 1938, stood at £36,049, is now being used for educational extension. Loans are made from the capital fund for the erection of school buildings, mostly in urban areas, and the interest charged on these loans provides the funds for bursaries to students at approved institutions. Up to 31st March, 1938, loans ranging from £150 to £5,000 had been made to twenty-two bodies for the provision of school buildings. The total amount of loans outstanding at this date was £22,931.

Originally grants of £15 per annum were made to approved institutions in respect of each native student from the Orange Free State attending it and receiving education in standards above Standard IV or in industrial training. In consequence of the exhaustion of accrued interest on the fund, grants had to be reduced to £12 per student, and the number of these had to be strictly limited. The regulations under which these grants were made have now been superseded by a comprehensive set of regulations, which came into force on the 1st January, 1934, and provide for the grant of bursaries varying from £5 to £25 per annum to students training as teachers, attending high schools, taking agricultural, industrial, or commercial courses, training as nurses, or taking the Matriculation course, or a post-Matriculation course culminating in a degree at the South African Native College. Various conditions governing these bursaries are laid down, one being that no bursary will be given to a student attending an institution outside the Orange Free State, unless no institution within that province can provide the course which he desires to follow.

The amounts awarded in bursaries for a series of years were as follows:—

BURSARY AWARDS MADE FROM THE ORANGE FREE STATE IMPERIAL GRANT-IN-AID, 1933-34 TO 1937-38.

1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
£ 784	£ 483	£ 625	£ 624	£ 616

4. Inter-departmental Committee on Native Education, 1935.—In July, 1935, the Minister of Education, after consultation with the Provincial Administrations, appointed an inter-departmental committee to inquire into the various aspects of native education.

The Committee's report was published in March, 1936 (U.G. No. 29, 1936), and a summary of the main findings and recommendations contained in the report was published in *Official Year Book* No. 18.

5. Native Separatist Churches.—There are already several hundred native separatist churches, and the number continues to increase. The policy followed in dealing with applications for the recognition of these organizations for government privileges, such as the appointment of marriage officers, railway concessions, and the occupation of Crown land for church and school purposes, is that laid down by the first report of the Select Committee on Native Affairs, 1925. The recommendations of that committee were as follows:—

> "With regard to applications by churches or religious bodies for sites or other privileges depending upon Government recognition, that as a general rule permission shall only be granted to churches long established and enjoying universal public recognition, and in all other cases before any application is considered by the Native Affairs Department a report shall be submitted by the Native Affairs Commission in regard to the applicant body as to the demand for its existence, its stability, its capacity both financially and educationally and its general fitness for work amongst natives."

Up to the present only eight purely native churches have been accorded recognition, viz., the Ethiopian Church of South Africa, the Presbyterian Church of South Africa, the Bantu Presbyterian Church of South Africa, the African Methodist Episcopal Church, the Lutheran Bapedi Church, the Lutheran Bapedi Church of South Africa, the African Congregational Church, and the Independent Presbyterian Church. Apart from the question of special facilities, the attitude of the Government towards these organizations is one of non-interference so long as law and order are observed.

The most fruitful cause leading to the increased establishment of such churches is to be found in jealousies and differences, which frequently lead to open quarrels amongst natives over the question of supremacy in the church. Repeated schisms occur, each side claiming to have expelled the other from the church for insubordination, and both coming separately to the Government with a request for State recognition of their church. In 1921 a commission was appointed to inquire into the origin and activities of these bodies. The report of the commission was published in 1925 (U.G. No. 39—'25).

§ 8. The Dipping of Stock.

In 1930 there were, in the native areas of the Union, approximately 5,500,000 head of large and 10,000,000 head of small stock. It will readily be appreciated that, in a country such as South Africa, which has been subject to the ravages of animal diseases, particularly East Coast Fever in cattle and scab in sheep, it is a matter of national importance to ensure the regular and efficient dipping of these vast herds of native-owned stock, as this alone can keep disease in check. The Native Affairs Department, working in co-operation with the Department of Agriculture and Forestry, has, therefore, assumed responsibility for the construction and maintenance of dipping tanks and the adequate supervision of dipping operations in native areas.

Prior to the establishment of the Native Development Account, under the provisions of Act No. 41 of 1925, the requisite funds for dipping had been raised in the different native areas in a variety of ways, viz., by voluntary levies, by the imposition of specific rates under the provisions of the *Dipping Tanks Advances Act*, No. 20 of 1911, by stock rates, by imposing a definite charge in respect of each beast dipped, etc.

The position now is that as regards scheduled native areas, other than such as fall under the jurisdiction of a council or a reserve board, the cost of the erection and maintenance of dipping tanks and the expenditure incurred in dipping operations, including the wages of European supervisors, native assistant supervisors, and native foremen, are met from the South African Native Trust funds. In scheduled native areas falling under a council or a reserve board, expenditure is ordinarily met from the revenue of the council or the board concerned. This revenue is derived almost exclusively from the proceeds of the local tax and native quitrent paid over to such body in terms of Act No. 41 of 1925 from the local fund of the Development Account. The only exception to this rule is in respect of the districts falling under the jurisdiction of the United Transkeian Territories General Council. Dipping operations are carried out in the districts under the aegis of the Council, but the cost, except as regards the dipping of small stock, is not met from the revenue of the Council, but from the proceeds of a special rate levied for the purpose in each district on either a stock or a poll basis.

§ 9. Control of Natives.

1. **Natives in Urban Areas.**—Control of the conditions of native residence in European towns and villages is governed by the *Natives (Urban Areas) Act*, No. 21 of 1923. It is a comprehensive enactment providing, in terms of the title—

> for improved conditions of residence for natives in or near urban areas and the better administration of native affairs in such areas; for the registration and better control of contracts of service with natives in certain areas and the regulation of the ingress of natives into and their residence in such areas; for the exemption of coloured persons from the operation of pass laws; for the restriction and regulation of the possession and use of kaffir beer and other intoxicating liquor by natives in certain areas and for other incidental purposes.

This enactment was amended by Act No. 25 of 1930 in certain details as a result of experience gained in the working of the original Act. During 1937 in furtherance of its native policy the Government placed on the statute book the *Native Laws Amendment Act*, No. 46 of 1937, which brought about important changes in the original Act.

Generally these Acts define and describe the powers and the duties of urban local authorities in respect of the native population within their areas, requiring such authorities to set aside land for the accommodation of the natives who are legitimately within their boundaries, and prohibiting the acquisition by natives of any interest in any land situated within any urban area or rural township except with the approval of the Governor-General.

Subject to certain exemptions these Acts contain provisions for the compulsory residence in native locations, villages, or hostels, of all natives residing within an urban area. This is in accordance with the policy of segregation of natives adopted by the Government. To enable local authorities to carry out their obligations in this direction, these bodies are empowered to expropriate land and to borrow money for the purposes of establishing locations, native villages, and hostels, of erecting the necessary buildings, and/or lending money to natives individually to enable them to build their own houses in established locations.

It is of interest to note that provision has been made by the Government for the lending of money at economic and sub-economic interest rates to local authorities to assist them in financing their schemes for improved housing conditions in locations.

The Acts further make provision for the prohibition of entry into an urban area of natives not employed therein and for the removal therefrom, at the cost of the Government, and for settlement in areas acquired by the South African Native Trust, of natives who are surplus to the labour requirements of such an area as ascertained by means of a biennial census, and also of natives unlawfully within any such area, as well as idle and dissolute natives.

In order further to limit and control the influx of natives into urban areas, foreign natives, i.e. natives not domiciled within the Union of South Africa, South West Africa Mandated Territory, Basutoland, Bechuanaland Protectorate, or Swaziland, may not enter or be employed in an urban area except under certain circumstances.

According to the Acts all revenue accruing to local authorities from locations, native villages, hostels, and beer halls, as well as other specified revenue derived from natives generally, is required to be maintained in a special account, from which expenditure on services rendered to or in respect of any area of land set apart as a location, native village, or hostel, or for the welfare or benefit of the native residents within urban areas, is met. No such expenditure may, however, take place until after the estimates thereof have received the approval of the Minister.

Provision is made for the appointment of departmental inspecting officers to advise and report on the administration of the Acts and for the licensing of the municipal employees who are placed in charge of urban native administration. As a link between such administration and the natives themselves provision is made for the establishment of native advisory boards representing locations. These boards have received increased status by being created voting units in terms of the *Representation of Natives Act*, No. 12 of 1936. The various established boards have, outside the provisions of the Act, organized an annual congress of delegates, at which matters affecting urban native administration are discussed from the native point of view.

The introduction by any person of intoxicating liquor into a location, native village, or hostel is prohibited, but, whereas the original enactment permitted the brewing of kaffir beer for domestic consumption by natives in urban locations only when specially allowed, the *Native Laws Amendment Act* has provided that brewing of kaffir beer for domestic consumption in locations shall prevail where the urban local authority has not the exclusive right to brew and supply, or has not licensed individual natives to brew and supply, kaffir beer. Prior to the coming into operation of the last-named Act, eleven local authorities in Natal exercised the exclusive right to brew and supply kaffir beer in their areas, while brewing for domestic consumption was permitted in 111 local areas. Since the passing of the Act nineteen additional local authorities have been granted the exclusive right to brew and supply kaffir beer, and in all other urban areas domestic brewing is permitted in locations established therein.

The right to trade in a location or native village is reserved in certain circumstances to natives, but the local authority itself may under certain conditions engage in trade. Trading is carried on by natives in a number of urban locations.

Location regulations have been promulgated under section 23 of the Act in respect of numerous urban areas, and make due provision for the control of locations and the establishment of native advisory boards. The system of registration and control provided for in section 12 of the Act has been applied to the principal urban, mining, and industrial areas in the Transvaal, and is administered by the Government in continuance of the pre-existing practice in that province. The system has been extended to other urban areas outside the Transvaal, where, however, the regulations are administered by the local authorities.

A number of municipalities have shown increasing interest in the health, education, and recreation of the natives within their areas by providing hospitals, clinics, schools, playing fields, and communal halls.

2. **Pass Laws.**—The laws relating to travelling passes in the Transvaal and Orange Free State were consolidated under Proclamation No. 150 of 1934. This proclamation defines the provinces mentioned, excluding scheduled native areas, as pass areas and provides for the carrying of passes by natives entering, leaving, or travelling within such areas. Section 14 further makes adequate provision for the exemption of certain classes of natives, including amongst others those who are certified by Native Commissioners to be of good character and repute. Up to the end of 1938, 8,229 exemptions had been issued.

In Natal natives do not require passes to travel within the province, but Law No. 48 of 1884 requires every native entering or leaving the province to be in possession of a pass.

In the Cape Province natives enjoy entire freedom of movement except in British Bechuanaland and the Transkeian Territories, where natives entering or leaving are required to be in possession of passes.

3. **Native Service Contract Act, No. 24 of 1932.**—The intention of this Act, as expressed in its preamble, was to amend the Transvaal and Natal Laws relating to masters and servants, to amplify the *Natives Land Act*, 1913, to impose a tax on certain owners of land, and to provide for other matters incidental thereto. The Act was brought into operation on the 10th March, 1933, by Proclamation No. 54 of 1933. It has, however, no application to the Cape Province and affects the Orange Free State only in so far as the operation of the *Natives Land Act*, 1913, is concerned.

The essential provisions affecting the Transvaal and Natal are:—

(*a*) The prohibition of the employment of any male native domiciled in the Union or of the issue of a pass to any such native to proceed to a place other than his home, unless he can produce a document of identification, and the further provision prohibiting his employment for any period, should it appear from his document of identification that he is domiciled in the Transvaal or Natal on land outside a native location, unless he can produce a labour tenant contract between himself and the owner of such land or a statement signed by such owner that he is not obliged to render the owner service during such period;

(*b*) the prohibition of the employment of any such native male under the age of eighteen without the consent of the owner of the land whereon the guardian of such native resides and of the employment of any native male or female under that age without his or her guardian's consent;

(*c*) the authority granted to the guardian of any native, male or female, between ten and eighteen years of age on his or her behalf to enter into a labour tenant or other service contract with the owner of the land on which such guardian is domiciled.

These provisions are designed to ensure that natives observe their service obligations as labour tenants, to counteract the tendency of native juveniles to flout the authority of their parents, and to prevent the uncontrolled settlement of natives on European farms.

The Act further contains a number of incidental provisions subsidiary to the main principles.

4. **Exemption Laws.**—Provision for granting Letters of Exemption from certain laws affecting natives is included in section 31 of the *Native Administration Act*, No. 38 of 1927. Regulations under this section make provision for the exemption of natives from any or all of the following laws:—

(*a*) Any curfew or night pass proclamation promulgated under section 19 of the *Natives (Urban Areas) Act*, 1923, *Amendment Act*, No. 25 of 1930.

(*b*) Sub-section (1) of section 12 of the *Natives (Urban Areas) Act*, No. 21 of 1923.

(*c*) The pass laws promulgated under—

(i) Proclamation No. 150 of 1934 (Transvaal and Orange Free State).

(ii) Natal Laws Nos. 48 of 1884 and 52 of 1887.

(*d*) In Natal, subject to certain provisos, the Natal Code of Native Law.

At the end of 1938, 84 exemptions had been issued under these regulations.

§ 10. Taxation.

1. **Direct Taxes on Natives.**—Natives are subject to direct taxation under the provisions of the *Natives Taxation and Development Act*, No. 41 of 1925, and amending Acts Nos. 28 of 1926 and 37 of 1931. Every male native, who has reached the age of 18 years, pays a personal tax, known as the General Tax, of £1 per annum; and in addition, the occupier of every hut or dwelling in a native location pays a Local Tax of 10s. per hut per annum. The maximum amount payable as Local Tax by any native is £2, and the tax is not payable in respect of land held on quitrent tenure. Provision is made for the exemption of indigent natives not able to earn, of natives whose permanent residence is outside the Union, of natives attending approved educational institutions, and of natives aged 65 years and over.

The proceeds of the local tax and quitrent payable within their areas are paid to the various native local councils established throughout the Union. Two-fifths of the general tax accrues to the Union Revenue Account, while the remaining three-fifths and local tax collected in areas in which there is no

local council accrue to the South African Native Trust Fund. The revenue of this Fund derived from the three-fifths of the General Tax is used for the promotion of scholastic education among natives by subsidy to the Provincial Councils, for agricultural education directly by the Department, and for works of a national character.

The following tables show the amount paid in taxation by natives.

(i) GENERAL TAX.

Financial Year.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Total.
	£	£	£	£	£
1933–34	192,292	242,078	565,845	69,363	1,069,578
1934–35	224,340	271,179	642,647	94,205	1,232,371
1935–36	225,116	272,242	681,362	96,375	1,275,095
1936–37	317,499	288,062	574,070	103,047	1,282,678
1937–38	230,169	292,050	795,370	94,866	1,412,455

NOTE.—The above figures include the amounts paid to the Native Development Account up to the 31st August, 1936, in terms of Act No. 41 of 1925.

(ii) LOCAL TAX.

Financial Year.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Total.
	£	£	£	£	£
1933–34	115,246	46,057	18,519	767	180,589
1934–35	130,820	52,230	21,836	1,153	206,039
1935–36	135,608	52,100	20,980	1,197	209,885
1936–37	132,429	51,838	21,283	1,339	206,889
1937–38	142,629	57,068	23,805	1,405	224,907

(iii) HUT TAX* AND POLL TAX*.

Financial Year.	Hut Tax.		Poll Tax.		Total.
	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	
	£	£	£	£	£
1933–34	1,790	3	200	374	2,367
1934–35	1,908	679	144	556	3,287
1935–36	1,276	9	231	700	2,216
1936–37	1,222	—8	—113	762	1,863
1937–38	1,429	4	21	973	2,427

* Accrued prior to 1926 under former laws.

(iv) QUITRENT.

Financial Year.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Total.
	£	£	£	£	£
1933–34	55,854	—	—	—	55,854
1934–35	62,603	—	—	—	62,603
1935–36	63,814	—	—	—	63,814
1936–37	63,306	—	—	—	63,306
1937–38	66,951	—	—	—	66,951

(v) PASS FEES.†

Financial Year.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Total.	Assigned to Transvaal Province.
	£	£	£	£	£	£
1933–34	994	10,192	460,571	1,306	473,063	421,202
1934–35	962	10,618	510,984	1,411	523,975	482,449
1935–36	599	12,462	572,222	1,379	586,662	537,015
1936–37	578	11,921	629,712	1,535	643,746	591,203
1937–38	472	12,020	652,222	1,416	666,130	604,007

† Only a negligible amount of the revenue from Pass Fees is paid by natives. The great bulk is paid by employers of labour in respect of the registration of contracts under the *Natives (Urban Areas) Act.*

2. **Quitrents and Squatting Fees.**—The following is a summary of the other principal sources of native revenue in the various provinces (as distinct from rents, rates and fees, etc., paid by natives to properly constituted bodies and trusts).

(i) *Cape Province* (apart from Transkeian Territories).—Quitrents are imposed either in surveyed locations under the *Glen Grey Act*, No. 25 of 1894, or in locations falling under the purview of Proclamation No. 117 of 1931.

(ii) *Transkeian Territories.*—On surveyed Crown land locations a quitrent is substituted for the Local Tax. Private location fees are imposed in lieu of the Local Tax in respect of natives residing on private property in the Matatiele and Mount Currie districts.

(iii) *Natal.*—Natives living on Crown lands in Natal proper pay a squatters' rent of £2 per annum, but in Zululand, where no squatters' rent is payable, the Crown land residents are liable for Local Tax under Act No. 41 of 1925.

(iv) *Transvaal.*—Natives squatting on Crown lands as distinct from locations have to pay a rent of £1. 10s. per annum, plus a grazing fee for stock in excess of a limited number.

3. **Departmental Committee of Inquiry into Methods of Collection of Native Tax.**—A departmental committee of inquiry into the methods of collection of native tax was appointed by the Minister of Finance in September, 1937; the committee consisted of: Mr. A. F. Corbett, Commissioner for Inland Revenue; Mr. A. L. Barrett, Chief Native Commissioner, Ciskeian Territories; Mr. R. R. Campbell, Magistrate, Department of Justice; Mr. A. M. Slade, Chief Surveyor, Inland Revenue Department; Capt. G. Kruger, South African Police.

Its terms of reference were:—

(1) To invite from all interested persons evidence upon the existing methods of collecting native tax.

(2) To receive from any person desirous of offering it any suggestion for the modification or alteration of the existing methods or for the introduction of new methods which will ensure the most efficient collection with the infliction of the least possible hardship on the native taxpayer.

(3) To receive from any person desirous of offering it any suggestion for enabling natives convicted of non-payment of tax to earn money wherewith to meet their liabilities, such as the institution of a system of work camps or other methods of attaining the object.

(4) To analyse all evidence and suggestions and to report thereon to the Honourable the Minister of Finance.

The Report of this Committee was laid on the Table of the House on the 7th February, 1939, and effect is being given to the recommendations contained in the Report.

§ 11. Native Labour.

1. **The Native Labour Regulation Act.**—The recruitment of native labour throughout the Union is governed by Act No. 15 of 1911. The executive duties under the Act are carried out by an officer styled the Director of Native Labour, with headquarters in Johannesburg. This officer is vested with the duty of issuing licences to labour agents and employers desiring to recruit natives, and to compound managers. He has extensive powers, including the assessment of compensation, the cancellation of contracts under certain circumstances, the control of conditions under which natives are employed, housed, and fed, more particularly in labour districts proclaimed under the Act, and the repatriation of natives becoming unfitted for work on account of accidents or sickness. The labour districts in the Transvaal are Randfontein, Krugersdorp, Roodepoort, Johannesburg, Germiston, Boksburg, Benoni, Springs,

Witbank, Breyten, Heidelberg, Vereeniging, Christiana, Lichtenburg, Kaalplaats, Klerksdorp, and Ventersdorp. In the Orange Free State, labour districts are situated in the districts of Boshof, Viljoensdrift-Coalbrook, and Fauresmith, while the Cape Province has four labour districts, viz., Barkly West, Herbert, Hopetown, and Zwemkuil. There are two labour districts in Natal, viz., Vryheid and Dundee, the former including, in addition to collieries in the Vryheid magisterial district, certain portions of Ngotshe, Utrecht, and Paulpietersburg districts, while the latter includes also certain farms on which coal mining is proceeding in the magisterial districts of Newcastle and Ladysmith.

The following table gives the number of recruiting licences issued under the Act for a period of years.

ISSUE OF RECRUITING LICENCES, 1934 TO 1938.

Year.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Total.
1934.....	372	47	39	7	465
1935.....	416	54	50	9	529
1936.....	443	58	54	8	563
1937.....	470	71	69	7	617
1938.....	610	75	79	6	770

The fees payable annually for licences are as follows:—

(a)	For a district labour agent's licence.....	£ 6
*(b)	" provincial labour agent's licence.....	25
*(c)	" Union labour agent's licence.....	50
(d)	" compound manager's licence.....	1
(e)	" conductor's licence.....	1
(f)	" employer's recruiting licence.....	1

If a licence be issued after the 30th June in any year, only half the above fees are payable, while endorsements for additional districts beyond the first are obtainable on payment of a fee of £1 in respect of each endorsement.

The extent to which labour agents may exercise their calling is governed by regulation, as it has been found necessary to safeguard districts that possess only sufficient native population to meet their own requirements. While labour agents are precluded from recruiting in certain areas, there is no obstacle placed in the way of natives voluntarily leaving such areas either to take, at their own expense, the journey to centres of employment, or to proceed to the nearest labour agent in an open area, to offer themselves as recruits. While the mining industry was at one time almost the only well-paid source of employment for natives, other industries and undertakings are making increased use of native labour, and, by improving conditions of employment, are becoming formidable competitors in the labour market. The time has arrived when the extent to which employers will be able to obtain native labour will depend on how their conditions of employment and observance of contractual obligations compare with those of their rivals.

2. **Union-Mozambique Convention.**—The entry into the Union of native labourers from the Portuguese Colony of Mozambique is governed by the convention between the Union Government and the Government of the Portuguese Republic entered into at Pretoria on the 11th September, 1928, the terms of which were revised by both Governments on the 17th November, 1934, and again on the 8th June, 1936. The convention, in its revised form, provides that the number of Portuguese natives to be recruited for employment on the mines shall not exceed ninety thousand, the mines being allowed, if they so desire, to employ a minimum of sixty-five thousand. These numbers may, however, be altered by arrangement between the two Governments in order to solve any difficulties which may arise in Mozambique or the Union in regard to native labour. Such an arrangement has been arrived at and the number is to be reduced to 80,000 by June, 1939. The duration of contracts of service in

* No provincial or Union labour agents' licences have as yet been issued.

respect of Portuguese natives is limited to a period of twelve months (313 shifts worked), subject to a renewal at the option of the labourer for a further period of six months (156 shifts worked). The maximum period of service is thus restricted to eighteen months. The convention further provides that, after the first nine months' service and during any period or periods of re-engagement, an amount representing approximately one-half of the wages earned shall be deferred and paid to the natives in Mozambique on their return home.

3. **Tropical Native Labour.**—In 1935 the Transvaal Chamber of Mines was given authority to introduce 3,000 natives from Nyasaland with a view to ascertaining the suitability, both as regards health and service, of such natives for work on the mines in the Transvaal. The number was increased to 5,000 in 1936, to 10,000 in July, 1937, and in November, 1937, authority to recruit tropicals to an unlimited number was given.

4. **Natives Employed in Labour Districts and Kimberley.**—The subjoined tables give an analysis of the natives employed in proclaimed labour districts, classified according to the territory from which the labour has been obtained.

NATIVES EMPLOYED IN LABOUR DISTRICTS, 1934 TO 1938.

Year.	Union.				Mozambique.	Basutoland.	Bechuanaland Protectorate.	Swaziland.	Other Territories.	Grand Total.
	Cape Province.	Natal and Zululand.	Transvaal.	Orange Free State.						
(i) TOTAL NUMBER EMPLOYED AT 31ST DECEMBER OF EACH YEAR.										
1934..	132,974	44,115	105,528	14,762	64,247	43,559	9,165	8,275	11,734	434,359
1935..	146,144	53,552	121,702	18,782	80,659	49,451	10,314	8,961	11,253	500,818
1936..	155,064	58,450	125,281	23,125	89,883	59,099	10,441	8,446	11,691	541,480
1937..	134,669	62,468	130,358	24,957	93,143	53,273	12,642	8,326	25,402	545,238
1938..	143,790	71,931	129,963	25,630	89,686	59,692	17,424	8,122	24,896	571,134
(ii) AVERAGE NUMBER EMPLOYED OVER YEAR.										
1934..	131,940	42,858	104,320	13,778	59,109	40,520	7,929	7,641	9,736	417,831
1935..	143,870	50,002	117,852	17,409	72,012	45,802	10,193	8,463	11,343	476,946
1936..	159,780	57,995	126,717	21,710	77,833	52,498	10,784	8,992	11,994	528,303
1937..	150,112	63,361	132,526	25,170	92,374	54,120	12,356	8,576	18,385	556,980
1938..	149,068	64,271	136,317	26,587	91,120	59,507	16,456	8,835	24,735	576,896
(iii) NUMBER EMPLOYED (MINES ONLY) AT 31ST DECEMBER OF EACH YEAR.										
1934..	117,721	17,647	25,958	3,938	63,829	37,840	7,005	7,357	2,606	283,901
1935..	127,163	20,345	26,908	3,769	79,545	41,999	7,838	7 891	1,238	316,696
1936..	133,139	21,295	25,184	4,233	89,104	49,582	7,521	7,316	3,833	341,207
1937..	111,858	21,230	25,840	4,382	92,256	43,430	8,972	7,125	11,333	326,426
1938..	118,733	21,503	29,608	5,387	89,223	50,758	12,605	7,148	15,448	350,413

5. **Remittance Agency.**—New regulations relative to the Native Remittance Agency, Johannesburg, were published under Government Notice No. 1729, dated the 21st October, 1938, and came into operation on the 1st November, 1938. Natives may now make remittances free of charge through any Native Commissioner (in the case of Johannesburg District, through the Pass Officer). Since 1913 the following amounts have passed through the books of this agency:—

REMITTANCE AGENCY ACCOUNT, 1913 TO 1938.

Year.	Remittances.	Deposits.	Year.	Remittances.	Deposits.
	£	£		£	£
1913	40,573	30,930	1926	17,489	16,765
1914	40,401	21,982	1927	16,776	15,216
1915	41,742	1,450	1928	17,101	21,760
1916	52,409	2,740	1929	14,424	5,799
1917	80,138	14,279	1930	14,323	—
1918	99,469	17,723	1931	14,665	—
1919	41,745	21,273	1932	13,687	—
1920	28,567	21,595	1933	13,377	—
1921	21,323	10,058	1934	13,547	—
1922	19,909	6,687	1935	14,792	—
1923	15,794	8,879	1936	12,146	—
1924	15,031	11,181	1937	9,216	—
1925	13,804	16,609	1938	6,907	—

Many natives, however, still continue to remit large sums of money through the agency of friends returning home, employers, and recruiting organizations. Certain of the latter, with the consent of the Government, recruit on contracts, under which a portion of the wages stipulated for is paid on the return of the natives to their homes. The deposit work of the agency was taken over by the Post Office during the year 1929.

6. **Compensation.**— In 1934 the *Workmen's Compensation Act*, No. 59 of 1934, was passed and it came into operation on the 1st July, 1935. This Act repealed section 22 of Act No. 15 of 1911. The Director of Native Labour has been appointed as "the officer" for all proclaimed labour districts, and as such is charged with the duty of assessing and recovering from employers the amounts payable under the Act for accidents to native workmen in labour districts, and of distributing such amounts to beneficiaries. He is also charged with the assessment and distribution of compensation payable under the *Miners' Phthisis Act*, No. 35 of 1925.

The number of accidents to natives reported under the *Workmen's Compensation Act* and the number of natives compensated and the amount of compensation paid under the *Miners' Phthisis Act* from 1936 are given hereunder:—

Workmen's Compensation Act.

		1936.	1937.	1938.
Accidents reported—Labour Districts	No.	18,747	19,768	20,274
Miners' Phthisis Act.				
Cases compensated	No.	1,157	1,128	1,260
Compensation paid	£	62,999	59,791	66,587

7. **Health and Disease.**—The following tables give particulars of mortality amongst natives in certain classes of work and in certain areas.

(i) TERRITORIAL ANALYSIS OF MORTALITY FROM DISEASE (RATE PER 1,000 PER ANNUM) AMONGST NATIVES EMPLOYED ON GOLD AND COAL MINES IN LABOUR DISTRICTS, 1936 TO 1938.

Territory.	1936.		1937.		1938.*	
	Gold Mines.	Coal Mines.	Gold Mines.	Coal Mines.	Gold Mines.	Coal Mines.
UNION OF SOUTH AFRICA—						
Cape Province	5·03	21·96	4·66	17·65	3·63	14·61
Natal and Zululand	6·80	8·24	5·66	12·22	4·11	11·01
Orange Free State	4·66	9·04	4·52	6·63	5·54	14·10
Transvaal	5·82	6·81	5·51	7·53	4·68	5·36
TOTAL	5·28	10·75	4·86	11·30	3·88	9·52
OTHER BRITISH TERRITORIES—						
Basutoland	9·23	15·62	7·50	15·21	5·01	13·71
Bechuanaland Protectorate	11·22	4·05	10·82	8·47	8·17	6·10
Northern and Southern Rhodesia	15·87	45·45	16·26	12·35	—	—
Swaziland	8·22	6·40	8·96	7·43	6·32	16·60
TOTAL	9·37	13·73	8·19	13·32	5·68	13·40
PORTUGUESE TERRITORIES—						
East Coast, South of Lat. 22° S.	9·63	16·09	11·38	21·48	7·38	15·04
TROPICAL NATIVES	16·50	10·75	17·49	14·12	8·77	14·53
GRAND TOTAL	7·09	12·73	7·49	14·89	5·34	11·74

* Figures for Bechuanaland Protectorate are in respect of Non-Tropical Bechuanaland Natives only, i.e. those from areas south of lat. 22° S; Northern and Southern Rhodesia Natives are included under Tropical Natives.

(ii) COMPARATIVE STATEMENT OF MORTALITY AMONGST NATIVES EMPLOYED ON MINES IN PROCLAIMED LABOUR DISTRICTS, 1933 TO 1938.

Heading.		1933.	1934.	1935.	1936.	1937.	1938.
Average Number Employed		252,205	274,455	303,343	329,809	338,066	356,699
Deaths from Disease	No.	1,672	2,260	2,292	2,492	2,757	2,097
	Rate per 1,000 p.a.	6·63	8·23	7·50	7·56	8·16	5·88
Deaths from Accident	No.	609	623	737	746	818	725
	Rate per 1,000 p.a.	2·41	2·27	2·43	2·26	2·42	2·03
Total Deaths	No.	2,281	2,883	3,029	3,238	3,575	2,822
	Rate per 1,000 p.a.	9·04	10·50	9·93	9·82	10·58	7·91

8. **Sources of Native Labour.**—The industries of the Union are very largely dependent on native labour, which is drawn from the native population resident—

(*a*) in rural locations and reserves within the borders of the Union;

(*b*) on European-owned farms;

(*c*) in urban areas;

(*d*) in extra-Union territories.

The mines derive their labour supply mainly from the sources mentioned in (*a*) and (*d*). The information and statistics furnished in paragraphs 2 to 4 above are of interest in this connexion. Other employers of natives in urban areas, both in industry and in domestic service, may be said to rely to some extent on all these sources. Section 5 *quater* of the *Natives (Urban Areas) Act*, 1923, as amended, however, now prohibits the employment of foreign natives in urban areas.

In the agricultural industry the supply is derived from the sources mentioned under (*a*), (*b*), and (*c*). The conditions under which natives are employed on farms are set out in paragraph 10. Here it may be stated that the vast majority of the natives employed on farms reside on those farms. It is only where this source fails that labour is derived from other sources, mostly through the medium of labour agents. This happens commonly in the case of industrialized forms of agriculture, such as sugar-cane growing in Natal, the wattle industry in Natal and the Transvaal, and other forms of industrialized agriculture in the Eastern Transvaal. Native labourers are not obtained from adjoining territories in terms of a recognized convention or arrangement between the Union and those territories, as is the case in the mining industry. On the contrary, reliance is placed on the number of natives, from Portuguese East Africa, Nyasaland, and Northern and Southern Rhodesia, who enter the Union clandestinely in search of employment. The regulations prescribing the conditions of labour agents' and employers' licences regulate the recruiting of these natives after their entry into the Union. In Natal the fact that Portuguese natives are malaria tolerant is recognized and it is provided by Government Notice No. 217 of 1937, as amended, that they may only be recruited for employment in what are termed "restricted areas" (*vide* Government Notice No. 1311 of 1935) where malaria is endemic. In the Transvaal in terms of Government Notice No. 217 of 1937 quoted above, foreign natives, other than those from Portuguese territory, may be recruited for employment exclusively as farm labourers in the districts of Zoutpansberg, Pietersburg, Pilgrims Rest, Middelburg, Potgietersrust, Carolina, Bethal, Ermelo, Lydenburg, Barberton, Belfast, Letaba, Nelspruit, Waterberg, and certain farms in the district of Pretoria. As these natives enter the Union without passports, they are granted temporary permits, for which a fee of 5s. is payable, permitting them to remain in the Union for a period of six months. These permits are, however, renewable.

In addition to those mentioned above numbers of natives come from the neighbouring High Commission territories under permit. These are dealt with on the same footing as Union natives.

9. **General Conditions of Native Labour.**—Certain particulars regarding the general conditions of native labour and employment are given in Chapter VI. The subject has not yet been adequately investigated, apart from its bearing on the mining industry, but certain determinations of the Wage Board under the *Wage Act* of 1925 gave legal sanction to rates of pay, which had hitherto been a matter of arrangement between employer and employee. It is clear that the position of the native in the industrial development and organization of the country is one of increasing importance and must continue to receive the closest attention. The industrializing of natives brings in its train a number of problems which, unless adequately ventilated and discussed, must lead to industrial and political unrest. Recent years have been remarkably free from anything in the way of native strikes, but there is, nevertheless, evidence of an increasing insistence amongst native workers upon improved conditions, particularly in regard to wages.

The question of conditions of labour of natives engaged the attention of the Native Economic Commission appointed under Government Notice No. 1074, dated the 13th June, 1930. The commission made an exhaustive study of the facts, and published its report (U.G. No. 22, 1932) in May, 1932. A résumé of the report appears in the appendix of *Year Book* No. 13.

10. **Conditions of Employment of Natives on Farms.**—After the total prohibition under the *Natives Land Act*, 1913, of the residence of natives on farms as squatters on rent-paying terms or as share farmers, the labour tenant system remained popular in large areas of the Union as the system retained for the natives a close connexion with the soil and the right to keep cattle, to which they are greatly attached. It was also popular with farmers as land was plentiful and it permitted them to pay for their labour in kind. Under this system a native is allowed to reside on a farm with his family, to cultivate a certain area of land, and to graze a specified number of cattle on condition that he and/or such members of his family as are stated in the agreement should render service to the farmer for a specified period. The system varies from area to area and in fact from district to district, particularly as regards the period of service to be rendered per annum. The most usual periods of service are three months in the Transvaal and six months in Natal. But this is not the maximum period, which may extend to twelve months, while what is known as the "two days a week system" is also encountered in some districts. Further information in regard to the system is obtainable from Part II of the report of the Native Economic Commission, 1930-1932 (U.G. 22—1932.

The system, while admirably suited to the early days when land was plentiful and markets scarce, has given rise to many complaints by both natives and farmers of late years as it no longer satisfies modern conditions. By a gradual process the system has, therefore, disappeared entirely in some areas and been modified considerably in others. In the Cape Province it is now almost unknown and in the Orange Free State it exists only in a few districts. In the Transvaal and Natal, it retains, mostly in a modified form, a firmer footing. Contracts nowadays usually stipulate for the payment of a wage and for the supply of food to the tenant during the service period. The payment of a cash wage was unknown in earlier days. Natives who are unable to earn sufficient cash on the farms for their needs are allowed to proceed to urban and industrial areas to work during their free period. This has given rise to many complaints amongst farmers that these natives do not return for their service period, and an endeavour has been made to counteract the trouble by legislation (*vide* paragraph 95, sub-paragraph 3, of the *Native Service Contract Act*, 1932). Chapter IV of the *Native Trust and Land Act*, 1936, also deals with the position. In many districts in Natal it is now usual to offer to tenants who desire to work during their free period full market wages for employment on farms.

In areas where the labour tenant system is now defunct, cash wages are paid, but these are generally low, averaging from 10s. to 20s. per month. Rations consisting mostly of mealie meal or mealies, with irregular additions of meat and milk, are as a rule supplied to those members of the family of the labourer who actually work. The family resides on the farm in a dwelling, which is usually constructed in the native way by the labourer himself. Where climatic conditions make gardening possible, the family is allowed to cultivate a small vegetable garden, and almost invariably a limited number of stock (mainly milch cows) is allowed to graze on the farm free of charge. Unlike the labour tenant, these natives render continuous service throughout the year. Natives resident on farms are, on the whole, poor, but are not in a worse position than those urbanized natives who work as unskilled labourers for wages which are depressed as a result of competition from native temporary workers from rural areas. Although the wages of natives resident on farms are considerably lower than the wages paid in towns, the privileges which they enjoy in the way of free housing, fuel, water, milk, etc., for all of which the urban resident has to pay, must be taken into account in making any comparison. There are, further, many good employers who take an interest in their servants and provide conditions which enable the thrifty to increase their possessions.

The conditions of those labourers who are not permanently resident on farms and who, as explained in an earlier paragraph, are mostly employed on sugar and other estates where industrialized forms of agriculture are practised, are vastly different from those described above. As on the mines, wages are calculated on a "per shift basis" and range from £1. 10s. to £2. 10s. per month.

On the larger estates labourers are usually housed in compounds, and free rations are almost invariably given. These natives only remain on the estates for the periods of their contracts (mostly six months) and thereafter return to their homes.

11. **Shortage of Native Labour.**—Owing to phenomenal mining and industrial development during recent years, an acute shortage of native labour was experienced early in 1937, and as for some years past a tendency had developed for natives to drift to towns, where the work is as a rule lighter, conditions are more attractive, and wages higher, this shortage was felt more particularly by the farming community. The Minister of Native Affairs therefore decided to appoint a committee consisting of Major J. F. Herbst (Chairman), Major H. S. Cooke, O.B.E., Mr. W. Elliot, Mr. J. P. Jooste, M.P., Lieut.-Col. J. S. Lendrum, and Mr. J. H. Viljoen, M.P., to inquire into and report upon:—

(1) The shortage of native labour in the farming industry in the Transvaal, Orange Free State, and Natal Provinces.

(2) What steps should be taken to improve the amount of native labour offering itself for employment in the industry; and, in particular, in how far it is possible and advisable to use the existing government machinery or specially created machinery for the purpose.

(3) The economic condition of native farm labourers, the rate of wages or other remuneration paid to them, and generally the treatment they receive on the farms.

(4) Generally any question or proposal that may commend itself to the Committee as promoting the more effective supply of native labour on farms and the equitable distribution of available supplies between the farming and other industries.

The investigations of the Committee were subsequently extended to include the Cape Province. The Committee has completed its deliberations and submitted its report to the Government.

§ 12. Miscellaneous.

Ethnography of South African Natives.—An ethnographic review dealing with the physical,* cultural,† and linguistic‡ aspects of the South African natives appears in *Year Books* Nos. 7 and 8.

The results of the Government Ethnologist's activities are being made available in a series of ethnological publications. Volume I of the series, entitled "Transvaal Ndebele Texts," appeared in 1930; Volume II, entitled "Kinship Terminology of the South African Bantu," in 1931; Volume III, entitled "Contributions towards Venda History, Religion and Tribal Ritual," in 1932; Volume IV, entitled "Marriage Customs in Southern Natal," in 1933; Volume V, entitled "A Preliminary Survey of the Bantu tribes of South Africa", in 1935; Volume VI, entitled "Tshivenda-English Dictionary", in 1937; and Volume VII, entitled "History of Matiwane and the amaNgwane Tribe", in 1938. These are obtainable from the Government Printer, Pretoria.

* By Prof. R. A. Dart, Witwatersrand University.
† By Mrs. R. F. A. Hoernlé, B.A., Witwatersrand University.
‡ By C. M. Doke, M.A., Witwatersrand University.

CHAPTER XII.

HARBOURS, LIGHTHOUSES, AND SHIPPING.

§ 1. Harbours.

1. **General.**—Harbours and lighthouses are owned and managed by the Government. They are associated under the *South Africa Act* with the railways for the purposes of control and administration, and financially are upon the same footing as the railways, under the provisions of the constitution dealing with the Railways and Harbours Fund. The administration is required to be upon business principles, due regard being had to agricultural and industrial development.

2. **Harbour Advisory Boards.**—Harbour Advisory Boards are constituted at the harbours of Walvis Bay, Table Bay, Mossel Bay, Port Elizabeth, East London, and Durban. Each advisory board consists of seven members. One member is nominated by the Municipal Council of the town at which the harbour is situate, three by the Chamber of Commerce of such town, and the remaining three members are nominated by the Governor-General. In the nomination of the last-mentioned three members, one is selected to represent shipping interests and one to represent persons paying harbour dues and charges.

The General Manager of Railways and Harbours furnishes the boards with such information and affords them such reasonable facilities as may be necessary for the determination of any matter under consideration, or for the due and proper fulfilment of their duties and functions. It is the duty of the boards to advise the Administration upon any matter affecting the interest or welfare of the respective harbours; the construction, maintenance, and upkeep of harbour works; the landing, shipping, and transhipping of cargo; the charges upon goods and upon shipping; and the regulations affecting importers, shippers, and the trade of the port generally. The boards also furnish the Administration with their opinion upon any subject or question referred to them for advice.

3. **Harbours: Financial Statements.**—Particulars are given in the following tables of (i) the principal sources of harbour revenue, (ii) the principal heads of expenditure, and (iii) the accumulated capital expenditure and the annual financial position as a result of operating the harbours from 1934. Figures for earlier years will be found in previous issues of this *Year Book*.

(i) HARBOURS—REVENUE, 1934 TO 1938.

Year ending 31st March.	Dues on Ships.	Dues on Goods and Live Stock.	Tugs and Lighters.	Cranage Service.	Other Revenue.	Total.
	£	£	£	£	£	£
1934	190,524	784,965	117,125	71,465	121,428	1,285,507
1935	234,429	935,519	143,870	100,689	146,206	1,560,713
1936	276,711	1,063,940	150,728	125,729	159,779	1,776,887
1937	279,093	1,212,808	163,587	146,761	157,201	1,959,450
1938	183,496	1,405,464	121,407	204,750	158,050	2,073,167

(ii) HARBOURS—EXPENDITURE, 1934 TO 1938.

Year ending 31st March.	Maintenance of Assets.	Operating Expenses.	General Charges, etc.	Total Ordinary Working Expenditure.	Depreciation.	Total Working Expenditure.
	£	£	£	£	£	£
1934	244,449	245,171	52,315	541,935	104,927	646,862
1935	267,303	277,257	56,242	600,802	102,488	703,290
1936	279,717	295,850	50,515	626,082	102,781	728,863
1937	284,826	321,249	47,383	653,458	99,784	753,242
1938	325,970	350,003	48,331	724,304	101,376	825,680

(iii) HARBOURS—CAPITAL EXPENDITURE, GROSS REVENUE AND EXPENDITURE (INCLUDING INTEREST PAYMENTS), AND PROFIT AND LOSS, 1934 TO 1938.

Year ending 31st March.	Capital Expenditure to Date.	Revenue.			Expenditure.				Profit or Loss (-).
		Harbours.	Miscellaneous.	Total.	Maintenance and Working, including Depreciation.	Interest.	Miscellaneous.	Total.	
	£	£	£	£	£	£	£	£	£
1934.	17,141,106	1,285,507	29,108	1,314,615	646,862	622,639	455	1,269,956	44,659
1935.	16,750,151*	1,560,718	26,748	1,587,461	703,290	588,211	586	1,292,087	295,374
1936.	17,187,744	1,776,887	23,873	1,800,760	728,863	559,275	776	1,288,914	511,846
1937.	17,699,639	1,959,450	14,231	1,973,681	753,242	558,486	64	1,311,792	661,889
1938.	18,366,817	2,073,167	15,694	2,088,861	825,680	565,818	253	1,391,751	697,110

* £656,350 "dead" assets written off plus £23,294, representing the proportion debitable to Port Alfred and Port Shepstone in respect of discount and expenses in connexion with Loan Capital (Harbours).

4. **Government-Owned Steamers.**—Originally three steamers were handed over by the Imperial Government free of cost. These vessels were later disposed of and replaced by three steamers built to the Administration's order.

The following table gives the revenue and expenditure in connexion with Government-owned steamers from the year 1934:—

STEAMSHIPS—REVENUE AND EXPENDITURE, 1934 TO 1938.

Year ending 31st March.	Revenue.			Expenditure.			Surplus or Deficit (-).
	Freight.	Miscellaneous.	Total.	Working Expenditure.	Miscellaneous.	Total.	
	£	£	£	£	£	£	£
1934.....	101,349	900	102,249	88,040	10,598	98,638	3,611
1935.....	95,905	4,364	100,269	87,915	10,598	98,513	1,755
1936.....	101,067	372	101,439	88,249	13,028	101,277	162
1937.....	101,851	848	102,699	96,157	13,028	109,185	- 6,486
1938.....	115,400	2,095	118,395	94,507	20,028	114,535	3,860

5. **Harbours: Staff Employed.**—The subjoined table gives the number of staff employed at the harbours at 31st March, 1938, classified according to race and distinguishing salaried, daily paid, and casual employees:—

HARBOURS—STAFF, 31st MARCH, 1938.

Classification.	Regular.				Casual.				Total.
	European.	Native.	Indian.	Other Coloured.	European.	Native.	Indian.	Other Coloured.	
Salaried.....	332	—	—	—	—	—	—	—	332
Daily paid.....	1,158	420	20	262	188	518	—	14	2,580
Railworkers.....	83	—	—	—	68	—	—	—	151
Total.....	1,573	420	20	262	256	518	—	14	3,063

6. **Pensions to Ex-Harbour Employees.**—The subjoined table gives particulars of pensions payable to ex-harbour servants as at 30th September during the period 1934 to 1938:—

PENSIONS PAYABLE TO EX-HARBOUR SERVANTS AS AT 30th SEPTEMBER, 1934 TO 1938.

Year.	Chargeable to Harbour Revenue (Pension Vote).				Chargeable to Pension Funds.	Total.
	Superannuation (Age Limit).	Invalid (Ill-health).	Compensation (Added Years).	Extra-Statutory.		
	£	£	£	£	£	£
1934.....	515	128	7,640	947	14,355	23,585
1935.....	515	128	6,870	808	15,541	23,862
1936.....	515	128	5,781	808	16,577	23,789
1937.....	515	128	3,732	658	19,771	24,804
1938.....	515	128	2,521	658	19,811	23,633

Note.—Particulars of pensions payable to ex-lighthouse officials are shown under "Lighthouses" below, and to ex-railway officials in Chapter XIII.

7. **Safety of Shipping.**—Under the powers conferred by section 4 of the *Railways and Harbours Regulation, Control and Management Act*, 1916, the port captain of any port may adopt such measures as he may think necessary for the prevention of ships from leaving any harbour overloaded or improperly loaded, or insufficiently manned or without duly qualified officers or engineers, or with a number of passengers on board in excess of the number that can be carried with reasonable safety, or improperly found or otherwise unseaworthy, and in any such case the port captain may, by written order, detain such ship until the defect complained of by him has been remedied to his satisfaction. The seasonal dates for loadline purposes, affecting Union ports are: Winter, 16th April to 15th October; Summer, 16th October to 15th April.

8. **Berthing Facilities.**—The following particulars give details of harbour works at the ports, together with information as to berthing facilities, depth of water, and other matters. The South West Africa ports are dealt with in Chapter XXVII. The most recent harbour plans may be seen in the Annual Report of the General Manager of Railways and Harbours.

(*a*) TABLE BAY HARBOUR, CAPETOWN.

Particulars.

Wharfage.	Length.	Depth at L.W.O.S.T.		Cranes (Electric).	
		Max.	Min.	No.	Lifting Capacity in Tons of 2,240 lb.
VICTORIA BASIN (67 Acres).	Lin. ft.				
No. 1 Jetty.....	520	22 ft. 9 in.	19 ft. 9 in.	—	—
	480	19 ft. 9 in.	17 ft. 9 in.	—	—
No. 2 Jetty.....	640	37 ft.	35 ft.	3	4 tons.
	640	37 ft.	36 ft.	4	3 tons.
No. 4 Jetty.....	709	33 ft.	20 ft.	2	3 tons.
	694	32 ft.	24 ft.		
No. 1 Quay, South Pier.....	1,970	32 ft.	27 ft.	17	4 tons.
No. 2 Quay, South Pier Elbow...	530	34 ft.	32 ft.	4	3 tons.
				1	7 tons.
No. 3 Quay, South Pier Elbow (Outer Berth).....	700	32 ft.	32 ft.	—	—
No. 4 Quay.....	240	10 ft.	10 ft.	—	—
No. 5 Quay.....	310	23 ft. 6 in.	14 ft.	—	—
No. 6 Quay.....	603	34 ft.	27 ft.	1	4 tons.
				4	3 tons.
No. 7 Quay.....	630	38 ft.	37 ft.	2	3 tons.
				3	4 tons.
No. 8 Quay, East Pier.....	786	36 ft.	35 ft.	4	4 tons.
				2	3 tons.
Barge Wharf.....	450	21 ft.	20 ft.	—	—
ALFRED BASIN (8¼ Acres).					
No. 1 Quay (West).....	860	24 ft.	22 ft.	1	4 tons.
No. 2 Quay (North).....	440	24 ft.	24 ft.	2	3 tons.
				2	4 tons.
No. 3 Quay.....	200	18 ft.	9 ft	—	—
No. 4 Quay.....	330	19 ft.	19 ft.	—	—
No. 5 Quay.....	310	24 ft.	24 ft.	—	—
Coaling Jetty.....	210	24 ft.	24 ft.	—	—
NEW BASIN (196 Acres).					
Berth A (Knuckle Berth).....	900	38 ft.	38 ft.	6	4 tons.
Berth B, South Side, South Pier...	800	37 ft.	36 ft.	6	4 tons.
Berth C, South Side, South Pier...	700	36 ft.	34 ft.	5	4 tons.
Berth D, South Side, South Pier...	607	32 ft.	28 ft.	1	15 tons.
				1	3 tons.
				3	4 tons.

Total length of existing quayage, 15,259 lineal feet.
Total length of quay shed frontage, 6,554 lineal feet.

Storage of Coal.—Sites for 54,000 tons. Two 4-ton cranes provided at Amsterdam coal yard.

Shed and Storage Accommodation.
Floor space for cargo in sheds..... 796,013 square feet.
Cubic capacity of sheds..... 9,151,178 cubic feet.

Pre-cooling facilities.—Pre-cooling Stores of a capacity of 4,750 shipping tons are available at Berth C, South Pier, New Basin, and pre-cooled commodities can be shipped either direct from these stores to ship at Berth C, or at adjoining Berth D via underground tunnel. Fruit may also be loaded at Nos. 3 and 4 berths, South Arm. Accommodation for the cool storage of 1,500 shipping tons is available at berth D.

Oil-fuel Tanks.—Fourteen tanks, with a total capacity of 52,267 tons. The tanks, which are all privately owned, are equipped with pumping plant and service pipe lines to quays.

Bulk Refined Oil Storage.—Fourteen tanks of aggregate capacity of 11,398,572 gallons of petrol and eleven tanks of aggregate capacity of 6,169,689 gallons of paraffin, all privately owned.

Grain Elevator.—One terminal grain elevator of 30,000 tons storage capacity, with loading conveyors to No. 4 jetty. Intake capacity of elevator, 1,000 tons per hour; shipping capacity, 1,000 tons per hour.

Entrance Depth to Harbour.—At L.W.O.S.T., 38 feet.
Anchorage in roadstead for vessels of any draught.

(a) Table Bay Harbour—(*continued*).

Lighters (used for coaling purposes).—Six lighters of aggregate capacity of about 1,910 tons.

Tugs.—The port is equipped with four powerful tugs and two small craft. The four large tugs are fitted with modern salvage and fire appliances and are equipped with wireless.

Repairing Facilities.

Graving dock.—Length on keel blocks..... 500 ft.
Width at coping..... 90 ft.
Width at entrance top..... 68 ft.
Maximum width at bottom (keel block height) 56½ ft.
Depth on sill, H.W.O.S.T..... 26 ft.
The dock can be emptied in three hours.

Floating dock (off-shore).
Overall length..... 137 ft. 6 in.
Overall width..... 37 ft. 6 in.
Height of keel blocks..... 3 ft. 8 in.
Depth on sill, H.W.O.S.T..... 17 ft. 3 in.
Lifting capacity..... 450 tons.

The dock is designed to submerge to a depth of 15 feet below H.W.O.N.T. to top of keel blocks, and can take vessels up to 23 feet 2 inches in beam.

Slips.—Patent slip for craft up to 750 tons, with accommodation for two vessels at a time. Draught forward end of slip, 10 feet; aft end, 18 feet. Length of slipway, 183 feet 10 inches. Also two boat slips for yachts and small craft.

Floating Crane.—Lifts 60 tons at 80 feet radius.

Recent Developements.—The Government recently agreed to a comprehensive long-range scheme, estimated to cost approximately £6,000,000, of harbour development at Capetown. Briefly the proposal involves the construction of a new random block mole from Woodstock beach in the direction of the South Arm return knuckle, and necessitates the demolition of the recently constructed mole. The enlarged basin thus made available will enable extensive deep-water berths and other facilities to be provided.

An initial expenditure of £3,130,916 on the following major works, representing a substantial portion of the long-range scheme, has been sanctioned:—

(*a*) Construction of three new deep-water berths (E, F, and G) complete with shed and crane equipment;
(*b*) construction of new random block mole;
(*c*) removal of existing mole;
(*d*) construction of temporary pile embankment;
(*e*) reclamation of land, including filling behind new berths.

The undermentioned portion of the work has been let to an overseas engineering firm at a contract price of £1,125,262:—

(i) The carrying out of the total reclamation and dredging programme;
(ii) the removal of rock;
(iii) the construction of the temporary embankment;
(iv) the construction of a retaining wall;
(v) the removal of the existing random block mole; and
(vi) the construction of the new eastern mole in steel sheet piling.

The contractors have commenced operations, and good progress is being made with their portion of the work, while the construction of the three new berths, which is being carried out departmentally, is well advanced.

An agreement has been reached between the Administration and the Capetown City Council in regard to the land to be reclaimed on the sea front between Table Bay Docks and Woodstock Beach. The area thus made available will be utilized to establish a new railway goods depot and marshalling yard, and will enable a new passenger station to be built nearer the sea front. The municipality will also be able to give effect to a replanning of the city area in the vicinity of the existing railway station which they are desirous of carrying out.

(b) MOSSEL BAY HARBOUR.

PARTICULARS.

WHARFAGE.	Length.	Depth at L.W.O.S.T.	CRANES. No.	CRANES. Lifting Capacity in Tons of 2,240 lb.
No. 1 Jetty	350 ft.	10 ft.	2	4 tons (steam).
(Exclusive of pile-work approach from abutment—length, 130 ft.).			1	2 tons (hand).
No. 2 Jetty	120 ft.	8 ft.	1	3 tons (steam).
No. 2 Quay	250 ft.	6 ft.	1	10 tons (steam).

Shed and Storage Accommodation.
Floor space..... 13,300 square feet.
Cubic capacity..... 206,000 cubic feet.

Anchorage.—Open anchorage with unlimited depth.

Lighterage.—Twelve lighters with an aggregate capacity of 1,350 tons.

Tugs.—The port is equipped with two tugs fitted with modern salvage and fire appliances.

Repairing Facilities.—Slipway.—Capacity, 250 tons dead-weight.

(c) PORT ELIZABETH HARBOUR (ALGOA BAY).

PARTICULARS.

Wharfage.	Length.	Depth at L.W.O.S.T.	Cranes. No.	Cranes. Lifting Capacity in Tons of 2,240 lb.	Cranes. Description.
	Feet.	Feet.			
No. 1 (Charl Malan) Quay	3,540	36	2	15 tons....	Electric.
			23	4 tons....	Electric.
North Jetty Wharf	800	14 to 20	5	2 tons....	Hydraulic
No. 2 Quay	1,700	36	1	15 tons....	Electric.
			11	4 tons....	Electric.
South Jetty	1,162	13 to 15	1	20 tons....	Electric.
			1	7 tons....	Hydraulic.
			9	3 tons....	Hydraulic.
Dom Pedro Wharf	860	13 to 24	2	3 tons....	Hydraulic.
			1	2 tons....	Hydraulic.
			1	1 ton.....	Hand.

Shed and Storage Accommodation (exclusive of warehouses let to the public):—
Floor space..... 402,250 square feet.
Cubic capacity (approximately)..... 4,525,300 cubic feet.

Breakwater.—Total length from end of Dom Pedro Jetty, 4,850 feet at base.

Fruit Export Facilities.—A pre-cooling store of a capacity of 4,500 shipping tons is available at No. 2 Quay.

Lighters.—Five lighters, aggregate capacity 810 tons.

Tugs.—The port is equipped with two powerful tugs fitted with salvage pumps, fire appliances, and wireless.

Recent Developments.—An important scheme for transforming Port Elizabeth from an open roadstead port worked exclusively by the lighterage system to a completely sheltered harbour has recently been completed. The scheme involved the construction of—

(*a*) A breakwater 4,850 feet in length extending from the end of Dom Pedro Jetty in an easterly and then a northerly direction;
(*b*) an arm extending eastward of the North jetty for a distance of 3,570 feet, this arm to have a quay on the south or enclosed side, named the Charl Malan (or No. 1) Quay;
(*c*) a new arm 1,000 feet south of and parallel to Charl Malan Quay, with a quay on the north side 1,700 feet in length equipped with modern pre-cooling facilities;
(*d*) the dredging of the area embraced by the Charl Malan and No. 2 Quays, together with the entrance thereto, to a minimum depth of 36 feet L.W.O.S.T.

The construction of the breakwater and the new arms has formed an enclosed harbour with a water area of 314 acres and the scheme allows for the construction of additional berths within the enclosed area if required in the future.

A scheme for the provision of bulk oil and petrol facilities at an estimated cost of £45,537 was sanctioned in October, 1937, and a commencement was made with the work shortly thereafter. In general, the facilities will consist of an area of approximately 8·2 acres to be reclaimed at the south side of the Dom Pedro jetty, on which storage tanks, etc., are to be erected by the interests concerned.

(d) EAST LONDON (BUFFALO) HARBOUR.

PARTICULARS.

WHARFAGE.	Length.	Depth at L.W.O.S.T.	CRANES. No.	CRANES. Lifting Capacity in Tons of 2,240 lb.
EAST BANK.				
No. 1 Wharf	650 ft.	10 ft.	—	—
Export Wharf	366 ft.	8 ft.	—	—
No. 2 Wharf	340 ft.	20 ft.	—	—
			1	10-ton electric.
No. 3 Wharf	1,180 ft.	32 ft.	1	5-ton electric.
			6	4-ton electric.
No. 4 Wharf	433 ft.	27 ft. 9 in.	1	5-ton electric.
			3	4-ton electric.
No. 5 Wharf	175 ft.	35 ft.	—	—
No. 6 Wharf	1,000 ft.	35 ft.	1	15-ton electric.
			5	4-ton electric.
Fish Wharf	360 ft.	20 ft.	—	—
Passenger Jetty	283 ft.	13 ft.	—	—
WEST BANK.				
West Quay	1,500 ft.	27 ft. 9 in.	1	20-ton electric.†
			2	5-ton electric.
			10	3-ton electric.
Oil Tanker Berth	454 ft.	30 ft.	—	—
Repair Wharf	105 ft.	18 ft.	—	—
Coaling Wharf	228 ft.	21 ft.	1	3-ton Temperley transporter.
Slipway Wharf	200 ft.	15 ft.	—	—

† Working radius 47 feet.

Shed and Storage Accommodation.
Shed floor space (East Bank)..... 144,241 sq. ft.
(West Bank)..... 108,000 sq. ft.
TOTAL..... 252,241 sq. ft.

(d) East London Harbour—(*continued*).

Shed capacity (East Bank)	2,134,503 cubic ft.
(West Bank)	1,836,000 cubic ft.
TOTAL	3,970,503 cubic ft.

Ten acres of open storage ground for rough goods.

Fruit Export Facilities.—A pre-cooling store for the export of citrus and deciduous fruit is available at the quay in the "C. W. Malan" Basin (No. 6 Wharf). The capacity of the cooling chamber is 332,466 cubic feet.

Bulk Oil Storage.—Ten petrol tanks of aggregate capacity of 8,678,925 gallons, seven paraffin tanks of aggregate capacity of 2,944,410 gallons, and three fuel-oil tanks of an aggregate capacity of 1,056,000 gallons, all privately owned.

Working Depth at Harbour Entrance at L.W.O.S.T.—35 feet.

Tugs.—The port is equipped with three powerful tugs and two small craft. The large tugs are fitted with salvage appliances, and two are fitted with wireless telegraph and telephone and direction finder.

Lighterage.—Seven lighters, 930 tons aggregate capacity.

Repairing Facilities.

Slipway.—Length of cradle, 200 feet.
Capacity, 1,000 tons dead-weight.

Recent Developments.—A turning basin or swinging area capable of being made use of by the largest ocean-going vessels at present visiting South African waters has recently been constructed in the harbour near the entrance. In the western wing of the new basin a wharf 454 feet in length has been specially constructed to accommodate ocean-going oil tankers, whilst a concrete quay 1,000 feet in length, with 35 feet of water alongside at L.W.O.S.T., has been completed in the eastern wing of the basin. This quay, which is used for the accommodation of mail boats, is now being extended to 1,500 feet.

To afford protection to the larger mail boats now plying to and from South Africa: the south breakwater has recently been extended by 600 feet and a further extension of 400 feet is under construction, while the channel from the harbour entrance to the turning basin is being deepened to 35 feet L.W.O.S.T.

(e) DURBAN HARBOUR (PORT NATAL).

PARTICULARS.

WHARFAGE.	Length.	Depth at L.W.O.S.T.		CRANES.	
		Maximum.	Minimum.	No.	Lifting Capacity in Tons of 2,240 lb.
POINT.					
Quay Wall	6,266 ft.	38 ft. 6 in.	23 ft.	1	Electric 80 tons (fixed).*
				7	Electric, 3 tons (travelling).
				52	Electric, 4 tons (travelling).
				4	Steam, 10 tons (travelling).
				26	Electric wharf capstans.
				2	Electric, 3½ tons (mobile).
				3	Electric, 5 tons (mobile).
Repairing Quay	600 ft.	22 ft.	22 ft.	—	—
BLUFF.					
Quay Wall	2,365 ft.	35 ft.	30 ft.	—	—
Timber Wharf (for explosives)	100 ft.	25 ft.	25 ft.	—	—
CONGELLA.					
Timber and Reinforced Concrete Wharf	6,960 ft.	32 ft. 6 in.	25 ft.	—	—
Quay Wall (Graving Dock)	700 ft.	36 ft.	36 ft.	—	—
Fish Wharf (Timber)	400 ft.	20 ft.	20 ft.	—	—
ISLAND VIEW.					
Timber Wharf	1,000 ft.	35 ft.	30 ft.	—	—

* Working radius 62½ feet.

Shed and Storage Accommodation.

Floor-space for cargo in sheds	781,008 sq. ft.
Cubic capacity of sheds	10,367,812 cubic ft.
Cubic capacity of outside storage accommodation	7,216,139 cubic ft.

Working Depth at Harbour Entrance.—At L.W.O.S.T., average 37½ feet, outer channel; 35 feet inner channel.

Lighters and Punts.—Five lighters and two punts of an aggregate capacity of about 1,030 tons.

Tugs.—The port is equipped with five powerful tugs fitted with modern salvage and fire appliances; four of them are fitted with wireless. There is also one pilot boat fitted with wireless.

Coaling Appliances.—Belt conveyor and bucket transporter coaling appliances are installed at the Bluff. These appliances are electrically driven and capable of coaling at the rate of 1,000 tons per hour. Capacity of dumpers, 100 tons and 80 tons respectively. Capacity of storage bins, 10,000 tons. Concrete bins of 60,000 tons capacity, for ground coal storage, are also available. The mechanical plant is capable of loading bins at the rate of 400 tons per hour and off-loading at 300 tons per hour.

Grain Elevator.—One terminal elevator of 42,000 tons storage capacity, with shipping gallery. Intake capacity of elevator, 1,000 tons per hour; shipping capacity, 1,000 tons per hour.

Oil Facilities.—The oil storage sites are located at Island View, where a timber wharf 1,000 feet in length exists, with a depth alongside of 30 to 35 feet. Petrol and paraffin in bulk are discharged into tanks direct from this wharf through the medium of pipe lines. The petrol storage comprises 21 tanks, with a total capacity of 18,215,000 gallons, and the paraffin storage, 10 tanks of 4,833,000 gallons capacity. There are also seven oil-fuel tanks of a total capacity of 5,893,000 gallons and two crude oil tanks with a total capacity of 2,500,000 gallons erected at the oil sites. All tanks are privately owned.

Fruit Export Facilities.—A pre-cooling store for the export of citrus and deciduous fruit is available at the Point wharf. The capacity of the cooling chambers is 1,800 tons.

(e) Durban Harbour—(*continued*).

Manganese Ore Loading Facilities.—Electrical conveyor plant, at Congella, privately owned. Shipping capacity, 500 tons per hour.

Repairing Facilities.

Graving Dock.—Length, 1,150 feet; width at entrance, 110 feet; at coping, 138½ feet; divided into two compartments—outer, 678 feet 10 inches and inner, 450 feet; depth on sill H.W.O.S.T., 41 feet; L.W.O.S.T., 35 feet. Cranage equipment: one 25-ton with 90 feet radius; one 10-ton and two 5-ton.

Floating Dock.—Lifting capacity, 4,000 tons; overall length, 350 feet; overall width, 88 ft.; height of keel blocks, 4 feet; depth of water over keel blocks, 17½ feet.

Floating Crane.—Lifting capacity 25 tons.

Recent Developments.—An expenditure of £620,000 was recently authorized for the provision of additional deepwater berthage, but, owing to the appreciable expansion of the import and export trade of Durban harbour during the last few years, it became necessary to give further consideration to the question of providing additional berthage facilities at that port, and it was eventually decided to proceed with the construction of a new projecting or T wharf. This jetty, when completed will have a berthage of 2,150 feet made up as follows:—

South side	2,150 feet.
North side	2,034 feet.
End of T jetty	858 feet.

The cost of the revised scheme, including the cost of equipping the jetty with cranes, sheds, rail tracks, etc., is estimated at £1,921,592.

A comprehensive investigation by a committee of departmental officers and representatives of the various local interests into the question of the future development of Durban harbour has recently been concluded, and the report submitted in this connexion is now under consideration.

Among other works lately embarked upon at Durban harbour is the construction, at a cost of £60,017, of a new marine airport and the provision of a new floating dock, the expenditure for which will amount to £214,884.

(f) MINOR HARBOURS.

Particulars of the facilities at the minor Union harbours are set out in the following statement:—

Nature of Facility.	Name of Harbour.				
	Port Nolloth.	Simonstown (Naval station).	Knysna.	Port St. John.	Kalk Bay.
Accommodation	Open roadstead	Bay: depth 40–60 ft.	River harbour (14 ft. L.W.O.S.T. on inner bar)	River harbour.	Enclosed harbour
Quayage	Jetty	—	400-ft. wharf	172 ft.	—
Depth alongside	12 ft.	—	—	—	—
Cranes	Two 5-tons	One 50-ton, one 20-ton, two 5-ton.	—	One 5-ton	—
			—	—	—
			—	—	—
Repairing facilities	Slip, 500 tons	Graving dock 756 ft. × 95 ft.	—	—	Boat slipway.

§ 2. Lighthouses.

1. **Lighthouses.**—The following list gives particulars in regard to the lighthouses, fog signals, whistle buoys, life-saving appliances, etc., under the control of the Union Government:—

(a) LIGHTHOUSES, HARBOUR LIGHTS, ETC., ON THE SOUTH AFRICAN COAST.

Station.	Class of Light or Fog Signal.	Candle Power.	Range of Light.	Remarks.
SOUTH WEST AFRICA.			Miles.	
Swakopmund	5th Order Dioptric.	21,000	16	Revolving white, two flashes every 10 secs.
Walvis Bay, Pelican Point	6th Order Dioptric.	1,500	12	Automatic harbour light, white flash every 4 secs.
" "	Fog Signal, 8½-inch Diaphone	—	—	Blast every 40 secs.
Walvis Bay, Outer Entrance	Wigham Light Buoy	—	—	White flash every 10 secs.
Walvis Bay, Spit Buoy	Light and Bell Buoy	—	3	Automatic white, flash every 6 secs.
Diaz Point	3rd Order Dioptric.	120,000	18	Revolving white, flash every 4 secs.
"	Subsidiary Light	—	—	Fixed, with white and red sectors. White from 200° to 230° red thence to 240°.
"	Fog Signal, 2-inch Diaphone	—	—	One blast every 20 secs.
Luderitz—				
Shark Island	6th Order Dioptric.	500	5	Automatic, flash 2½ secs., eclipse 7½ secs., with coloured sectors. Green from 39° through east to 136°, white thence to 161°, red to 180°.
"	Light and Bell Buoy	500	3	Automatic white, flash every 3 secs.

(a) LIGHTHOUSES, HARBOUR LIGHTS, ETC., ON THE SOUTH AFRICAN COAST—(*continued*).

Station.	Class of Light or Fog Signal.	Candle Power.	Range of Light.	Remarks.
CAPE PROVINCE.			Miles.	
Port Nolloth.....	5th Order Dioptric.	4,000	13	Revolving white, flash every 5 secs., and rocket apparatus.
,, ...	Fog Signal..... (Nautophone)	—	—	Sound 2 secs., silence 2 secs.; sound 4 secs., silence 2 secs.; sound 4 secs., silence 42 secs.
,, ...	Bell Buoy.....	—	—	—
Hondeklip Bay.....	Leading Light.....	150	4	Automatic white, flash every 3 secs. Arc of beam 15 degrees over entrance.
,, ,, ...	Fog Signal, 1-inch Diaphone	—	—	Two blasts every 30 secs., when distant craft are at sea.
Berg River Mouth..	6th Order Dioptric.	250	5	Automatic, white flash every 5 secs.
Stompneus Point....	6th Order Dioptric.	200	5	Automatic white, flash 0·3 sec., eclipse 2·7 secs.
Cape Columbine.....	3rd Order Dioptric.	9,500,000	24	Revolving white, flash every 15 secs.
,, ,, ...	Fog Signal twin 8½-in. Diaphone	—	—	One blast every minute.
,, ,, ...	Radio Beacon.....	—	—	(*a*) Name of Station: Cape Columbine Phare. (*b*) Characteristic signal:— (i) Calling code ZSZ once only, approximately..... 4 secs. (ii) Silent period, approximately..... 2 secs. (iii) Continuous long dash, approximately..... 20 secs. (iv) Silent period, approximately..... 4 secs. TOTAL..... 30 secs. (*c*) Wavelength, 960 metres (312 kilocycles). (*d*) Type of wave, A2. (*e*) Frequency of modulation, 1,000. (*f*) Hours of Service: During clear weather H+00 to H+05 and H+30 to H+35 of each hour. During fog, continuous.
Hoedjes Point.....	6th Order Dioptric.	500	8	Automatic, flash every 10 secs., with red and white sectors. White from 16° to 46°, red thence to 146°, white to 326°, red to 16°.
Dassen Island.....	1st Order Dioptric.	180,000	18	Revolving white, flash 3 secs., eclipse 4 secs.; revolving white, flash 3 secs., eclipse 20 secs.: and wireless telegraph and telephone, 270 metres.
Robben Island.....	1st Order Dioptric.	38,000	18	Occulting white, flash 5 secs., eclipse 2 secs.
,, ,, ...	Twin, 7-in. Diaphone Fog-syren	—	—	One blast every 20 secs.
Green Point (Capetown)	3rd Order Dioptric.	850,000	13	Revolving white, flash every 10 secs.
,, ,,	5-in. Diaphone Fog-syren	—	—	One blast every 30 secs.
Table Bay (Breakwater)	6th Order Dioptric.	500	4	Automatic red light, flash 2 secs., eclipse 8 secs. On end of breakwater.
,, ,,	Fog Signal (Nautophone)	—	—	Sound 5 secs., silence 2 secs.; sound 5 secs., silence 2 secs.; sound 2 secs., silence 14 secs.
,, (New Basin)	6th Order Dioptric.	200	3	Automatic red, flash every second.
,, ,,	6th Order Dioptric.	150	3	Automatic green, flash every second.
,, ,,	6th Order Dioptric.	200	3	Automatic white, flash every 5 secs.
,, ,, *	6th Order Dioptric.	100	2	Near beacon, red flash every 5 secs. (leading light).
,, ,, *	6th Order Dioptric.	150	2	Distant beacon, white flash every 2 secs. (leading light).
Slangkop.....	1st Order Dioptric.	16,750,000	18	Revolving white, four flashes every 30 secs., and rocket apparatus.
Cape Point.....	1st Order Dioptric.	19,000,000	23	Flash 0·6 sec., eclipse 3·6 secs.; flash 0·6 sec., eclipse 12·3 secs.; flash 0·6 sec., eclipse 12·3 secs.; and rocket apparatus and signal station.
,, ,, ...	Subsidiary Light...	—	—	Fixed red over Bellows and Anvil Rocks.
Roman Rock (Simons Bay)	4th Order Dioptric.	5,000	12	White, flash every 6 secs., automatic.
Kalk Bay Harbour..	6th Order Dioptric.	200	5	Automatic red, flash 2·5 secs., eclipse 12·5 secs.
Danger Point.....	1st Order Dioptric.	4,750,000	18	Revolving white, three flashes every 40 secs.
Cape L'Agulhas.....	1st Order Dioptric.	12,000,000	17	Revolving white, flash every 3 secs., rocket apparatus and signal station.
Cape St. Blaize.....	4th Order Dioptric.	20,000	22	Revolving white, two flashes every 15 secs., and signal station.

* Temporary.

(a) LIGHTHOUSES, HARBOUR LIGHTS, ETC., ON THE SOUTH AFRICAN COAST—(*continued*).

Station.	Class of Light or Fog Signal.	Candle Power.	Range of Light.	Remarks.
CAPE PROVINCE—(*contd.*)			Miles.	
Cape St. Blaize.....	Fog Signal (Nautophone)	—	—	Sound 6 secs., silence 2 secs.; sound 2 secs., silence 2 secs.; sound 6 secs., silence 12 secs.
Mossel Bay Harbour Jetty	6th Order Dioptric.	200	4	Automatic, flash every 5 secs., red and green sectors. Green from shore west of light to 174°, red thence to shore east of light.
Cape St. Francis....	2nd Order Dioptric.	2,750,000	16	Revolving white, flash every 5 secs., with red sector, and signal station. Red from 186° to 232°.
,, ,, ...	Fog Signal (Nautophone)	—	.	Sound 4 secs., silence 2 secs.; sound 1·5 secs., silence 2 secs.; sound 4 secs., silence 2 secs.; sound 1·5 secs., silence 13 secs.
Cape Receife.....	1st Order Dioptric.	4,067,000	15	Fixed and flashing white, flash every 60 secs., with red sector and signal station. Red 162° to 190°.
,, ,,	Fog Signal, 8½ in. Diaphone	—	—	Blast 2 secs., silence 58 secs.
Algoa Bay, Roman Rock	Light and Bell Buoy	80	2	Two flashes every 10 secs., red.
Algoa Bay Anchorage Lights	6th Order Dioptric.	500	7	Near light, red flash 4 secs., eclipse 1 sec., automatic.
,, ,,	6th Order Dioptric.	500	7	Distant light, white flash every sec., automatic.
Port Elizabeth.....	4th Order Dioptric.	15,000	12	Flash 5 secs., eclipse 5 secs., red and white sectors, wireless telephone and signal station. Red from 172° to 206°, white to 274°, red to 308°.
Port Elizabeth (Southern Breakwater)	6th Order Dioptric.	150	3	Automatic red, flash every 5 secs.
,, ,,	Fog Signal (Nautophone)	—	—	Sound 4 secs., silence 2 secs.; sound 4 secs., silence 2 secs.; sound 2 secs., silence 2 secs.; sound 4 secs., silence 10 secs.
Port Elizabeth (Staging at end of North Arm Mole)	6th Order Dioptric.	150	1	Automatic green, flash every second.
Bird Island.....	1st Order Dioptric.	180,000	16	Revolving white, flash 3 secs., eclipse 4 secs.; flash 3 secs., eclipse 20 secs.; and wireless telephone.
Great Fish point.....	1st Order Dioptric.	600,000	23	Revolving white, flash every 10 secs.
Hood Point.....	1st Order Dioptric.	375,000	19	Revolving white, four flashes every 40 secs., and signal station.
East London (Beach) Anchorage	6th Order Dioptric.	500	4	Automatic red, flash every 3 secs.
East London Western Breakwater (Temporary)	6th Order Dioptric.	200	3	Automatic white, flash 2 secs., eclipse 8 secs.
East London Eastern Breakwater	4th Order Dioptric.	2,000	3	Automatic green, 3 flashes every 9 secs.
East London Leading Light	5th Order Dioptric.	2,000	4	Automatic red, flash 3 secs., eclipse 2 secs.
Bashee.....	3rd Order Dioptric.	225,000	18	Revolving double and single white, flash 0·2 sec., eclipse 2·7 secs. Revolving double and single white, flash 0·2 sec., eclipse 8·35 secs. Revolving double and single white, flash 0·2 sec., eclipse 8·35 secs.
Cape Hermes.....	5th Order Dioptric.	5,000	19	Automatic white, flash every 3 secs., and signal station.
South Sand Bluff....	5th Order Dioptric.	5,000	20	Three flashes every 20 secs., automatic.
NATAL.				
Port Shepstone.....	5th Order Dioptric.	27,000	14	Revolving white, flash every 10 secs., and signal station.
Green Point.....	2nd Order Dioptric.	240,000	23	Revolving white, two flashes every 15 secs.
,, ...	Subsidiary Light...	—	—	Fixed red over Aliwal Shoals, 268° to 298°.
The Bluff (Durban)..	3rd Order Dioptric.	3,000,000	23	Revolving white, three flashes every 20 secs.
Port Natal Leading Lights	4th Order Dioptric.	2,000	4	Near light, red flash every sec., automatic.
,, ,,	5th Order Dioptric.	2,000	4	Distant light, white flash 4 secs., eclipse 1 sec., automatic.
Port Natal (Anchorage)	5th Order Dioptric.	2,000	5	Complex group: automatic red flash 0·3 sec., eclipse 2·7 secs.; automatic red flash 0·3 sec., eclipse 2·7 secs.; automatic red flash 3·0 secs., eclipse 6·0 secs.
Port Natal—				
South Breakwater Light	Electric.....	200	3	Fixed white light.
North Pier Light.	Electric.....	200	2	Automatic occulting green light, flash 3 secs., eclipse 1 sec.
Durnford Point.....	4th Order Dioptric.	6,000	15	Automatic white, flash every 5 secs.
Cape St. Lucia.....	4th Order Dioptric.	6,000	15	Automatic white, two flashes every 10 secs.

(b) LIGHTHOUSES, HARBOUR LIGHTS, ETC., UNDER CONSTRUCTION.

Dassen Island	Electrification of light to increase candle power.
Robben Island	Electrification of light to increase candle power.
Great Fish Point	Electrification of light to increase candle power from 600,000 to 20,000,000.
Robben Island	Installation of radio beacon.
Walvis Bay (Swakopmund)	Installation of radio beacon.
Cape L'Agulhas	Installation of radio beacon.
Cape Receife	Installation of radio beacon.
North Head, Saldanha Bay	Installation of automatic light for coasters, etc.
East London	Nautophone fog signal on breakwater.

2. **Lighthouses: Finance.**—The following table gives details of the capital cost, revenue, and expenditure on lighthouses, beacons, bells, etc., from 1934. It must, however, be observed that the capital cost is part and parcel of the Harbours capital expenditure shown in the table in § 1 (3) above, and profit or loss is introduced into the miscellaneous revenue and expenditure items of the same statement.

CAPITAL COST, REVENUE, AND EXPENDITURE—LIGHTHOUSES, BEACONS, BELLS, ETC., 1934 TO 1938.

Year ending 31st March.	Capital Cost.	Revenue (Light Dues).	Expenditure.					Profit or Loss (—).
			Maintenance.	Salaries, Transport, and Stores.	Depreciation and Miscellaneous Expenses.	Interest.	Total.	
	£	£	£	£	£	£	£	£
1934	278,140	46,548	4,202	28,855	6,623	4,703	44,383	2,165
1935	286,193	55,396	2,304	30,153	6,379	4,577	43,413	11,983
1936	301,614	70,204	2,689	29,453	6,598	4,582	43,322	26,882
1937	303,516	60,511	4,068	30,703	7,475	2,739	44,985	15,526
1938	309,889	65,550	3,662	30,093	7,349	2,716	43,820	21,730

3. **Pensions to Ex-Lighthouse Employees.**—The following table gives particulars of pensions payable to ex-lighthouse servants as at 30th September each year from 1934 to 1938:—

PENSIONS PAYABLE TO EX-LIGHTHOUSE SERVANTS AS AT 30th SEPTEMBER, 1934 TO 1938.

Year.	Chargeable to Lighthouse Revenue (Pension Vote).				Chargeable to Pension Fund.	Total.
	Superannuation (Age Limit).	Invalid (Ill health).	Compensation (Added Years).	Extra-Statutory.		
	£	£	£	£	£	£
1934	—	147	273	—	1,971	2,391
1935	—	147	164	—	2,080	2,391
1936	—	147	30	—	2,317	2,494
1937	—	147	30	—	2,709	2,886
1938	—	—	30	—	2,877	2,907

Note.—Particulars of pensions payable to ex-harbour officials are shown under "Harbours" above, and to ex-railway officials in Chapter XIII.

§ 3. Shipping.

1. **Vessels Entered at Union Harbours.**—The following Table (i) and (ii) give particulars as to the number and tonnage of vessels entered at harbours from 1934. These figures represent the gross number of vessels entered and cleared, each visit by the same vessel being counted as a separate entry. Table (iii) gives the number and tonnage of vessels under the heading of nationality entered during the same period.

(i) NUMBER AND TONNAGE OF VESSELS ENTERED AT HARBOURS, 1934 TO 1938.

Year.	Steam-Coastwise.		Steam-Overseas.		Sailing.		Total.	
	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.
1934...	2,767†	11,273,392†	1,397†	5,548,973†	318	9,891	4,482†	16,832,256†
1934§...	639	2,844,080	285	1,069,883	—	—	924	3,913,963
1935...	3,254†	13,041,534†	1,669†	6,724,228†	334	4,973	5,257†	19,770,735†
1935§...	848	3,581,886	385	1,460,010	—	—	1,233	5,041,896
1936...	3,500†	14,044,466†	2,065†	8,524,899†	378	5,021	5,943†	23,174,386†
1936§...	950	4,849,031	525	2,261,949	—	—	1,475	7,110,980
1937...	3,677†	15,026,515†	2,158†	8,959,920†	288	14,700	6,123†	24,001,135†
1937§...	1,156	5,744,936	599	2,563,810	—	—	1,755	8,308,746
1938...	3,752†	15,572,093†	2,190†	9,291,269†	240	5,723	6,182†	24,869,085†
1938§...	1,329	6,138,722	639	2,758,952	—	—	1,968	8,897,674

† Includes motor vessels. § Motor vessels only.

(ii) VESSELS ENTERED AT HARBOURS, 1934 TO 1938.

Year.	Capetown.	Mossel Bay.	Port Elizabeth.	East London.	Durban.	Other Ports.	Total.
				(a) Number.			
1934	1,374	204	683	730	1,386	105	4,482
1935	1,629	263	789	820	1,632	124	5,257
1936	1,906	282	871	864	1,887	133	5,943
1937	2,039	246	898	930	1,850	160	6,123
1938	2,028	257	908	887	1,873	229	6,182
				(b) Net Registered Tonnage.			
1934	4,636,088	821,861	3,258,116	3,145,194	4,924,119	46,878	16,832,256
1935	5,454,376	1,008,298	3,830,342	3,530,820	5,895,817	51,082	19,770,735
1936	6,627,489	1,079,935	4,403,521	3,985,134	7,014,861	63,446	23,174,386
1937	7,325,850	1,034,403	4,438,240	4,130,009	7,015,191	57,442	24,001,135
1938	7,623,824	1,161,035	4,547,588	4,278,195	7,185,519	72,924	24,869,085

(iii) VESSELS OF VARIOUS NATIONALITIES ENTERED* AT HARBOURS, 1934 TO 1938.

Year.	British.†	American.	Dutch.	German.	Italian.	Japanese.	Portuguese.	Scandinavian.	Other Nationalities.	Total.
					(a) Number.					
1934	934	24	80	67	58	62	25	135	15	1,400
1935	1,078	60	92	108	50	68	17	169	28	1,670
1936	1,328	92	126	114	55	78	12	193	67	2,065
1937	1,379	90	136	118	57	87	40	220	36	2,163
1938	1,381	82	111	120	54	62	46	210	125	2,191
					(b) Net Registered Tonnage.					
1934	3,701,913	98,708	253,523	264,325	347,134	309,155	117,545	399,272	64,207	5,555,812
1935	4,344,025	230,393	347,656	441,551	309,597	337,529	76,262	532,110	106,939	6,726,071
1936	5,551,232	361,326	493,659	487,789	346,479	382,007	56,604	624,080	221,723	8,524,899
1937	5,728,310	371,811	523,716	570,863	346,639	425,216	184,491	700,034	119,756	8,970,836
1938	5,783,930	346,015	478,619	609,558	366,057	329,669	216,212	760,391	463,245	9,293,696

* First port of call.
† Including South African vessels.

2. **Passengers and Cargo.**—Particulars are given in the following tables of passengers landed and embarked and live stock and cargo handled (i) at all harbours from the year 1934 and (ii) at the several ports for the latest available year:—

(i) PASSENGERS, LIVE STOCK, AND CARGO DEALT WITH AT HARBOURS*, 1934 TO 1938.

Year ending 31st March.	Passengers.		Live Stock.		Cargo.			
	Landed.	Embarked.	Landed.	Shipped.	Landed.	Shipped.	Transhipped.	Total.
	No.	No.	No.	No.	Tons.†	Tons.†	Tons.†	Tons.†
1934	70,215	65,067	705	163	2,832,388	2,872,302	39,592	5,745,282
1935	83,178	75,360	340	281	3,655,987	3,728,095	36,397	7,420,479
1936	90,180	79,562	908	1,668	4,200,833	4,250,495	58,154	8,509,482
1937	101,956	89,057	813	710	5,043,934	3,932,882	64,194	9,041,010
1938	98,296	95,664	720	462	5,740,585	5,539,343	105,696	11,385,624

* Including Walvis Bay and Luderitz (S.W.A.).
† 2,000 lb.

(ii) PASSENGERS, LIVE STOCK, AND CARGO DEALT WITH AT VARIOUS HARBOURS, 1937-38.

Heading.	Capetown.	Mossel Bay.	Port Elizabeth.	East London.	Durban.	* Other Union Harbours.	Total.
PASSENGERS—							
Landed.....No.	41,792	210	9,192	8,347	36,344	2,411	98,296
Embarked...No.	39,678	161	9,565	8,925	35,235	2,100	95,664
TOTAL.....No.	81,470	371	18,757	17,272	71,579	4,511	193,960
LIVE STOCK—							
Landed.....No.	177	—	105	7	364	67	720
Shipped.....No.	55	—	32	—	275	100	462
TOTAL.....No.	232	—	137	7	639	167	1,182
CARGO—							
Landed.....Tons	1,833,632	37,772	874,967	598,367	2,279,037	116,760	5,740,535
Shipped....Tons	1,319,849	15,671	290,429	119,052	3,713,314	81,028	5,539,343
TranshippedTons	16,103	—	1,908	572	64,679	22,434	105,696
TOTAL....Tons	3,169,634	53,443	1,167,304	717,991	6,057,030	220,222	11,385,574

* Includes Walvis Bay and Luderitz (S.W.A.).

3. **Coal Bunkered and Exported.**—The subjoined table shows the quantity of South African coal bunkered at and exported from the principal harbours and also via Lourenco Marques from the year 1934:—

SOUTH AFRICAN COAL BUNKERED AT AND EXPORTED OVERSEAS FROM PRINCIPAL PORTS AND LOURENCO MARQUES, 1934 TO 1938.

Year Ending 31st March.	CAPETOWN.		DURBAN.		OTHER PORTS (including Lourenco Marques and Walvis Bay).		TOTAL.	
	Bunkered.	Exported.	Bunkered.	Exported.	Bunkered.	Exported.	Bunkered.	Exported.
	Tons.*	Tons.*	Tons.*	Tons.*	Tons.*	Tons.*	Tons.*	Tons.*
1934...	83,729	—	634,447	720,053	227,058	72,260	945,234	792,313
1935...	92,579	1,004	754,150	978,391	244,123	96,089	1,090,852	1,075,484
1936...	104,536	—	946,361	980,279	313,594	122,816	1,364,491	1,103,095
1937...	114,635	13	945,768	874,393	302,636	124,259	1,363,039	998,665
1938...	124,592	—	962,866	621,979	312,404	175,627	1,399,862	797,606

* 2,000 lb.

4. **Register of Shipping.**—The statement given hereunder shows the number and net tonnage of steam, sailing, and motor vessels entered on the registers at the ports of Capetown, Port Elizabeth, East London, and Durban at the end of each of the years specified:—

REGISTER OF SHIPPING, 1934 TO 1938.

Year.	Capetown.		Port Elizabeth.		East London.		Durban.		Total.	
	No.	Tonnage (N.R.T.).	No.	Tonnage (N.R.T.).	No.	Tonnage (N.R.T.).	No.	Tonnage (N.R.T.).	No.	Tonnage (N.R.T.).
STEAM VESSELS.										
1934.....	79	26,662	11	312	8	2,489	42	13,359	140	42,822
1935.....	81	24,207	12	312	9	2,685	40	12,080	142	39,284
1936.....	88	25,455	12	264	9	2,685	42	13,821	151	42,225
1937.....	82	24,158	11	261	9	2,485	54	22,298	156	49,202
1938.....	83	24,097	10	261	10	2,792	53	22,594	156	49,744
MOTOR VESSELS.										
1934.....	23	632	1	15	—	—	6	242	30	889
1935.....	23	615	1	15	—	—	7	250	31	880
1936.....	25	746	1	15	—	—	8	255	34	1,016
1937.....	25	818	1	15	—	—	9	266	35	1,099
1938.....	27	942	1	15	—	—	9	179	37	1,136
SAILING VESSELS.										
1934.....	10	1,311	—	—	—	—	1	169	11	1,480
1935.....	10	1,311	—	—	—	—	1	169	11	1,480
1936.....	10	1,311	—	—	—	—	—	—	10	1,311
1937.....	11	559	—	—	—	—	1	14	12	573
1938.....	12	566	—	—	—	—	1	14	13	580

REGISTER OF SHIPPING, 1934 TO 1938—(*continued*).

Year.	Capetown.		Port Elizabeth.		East London.		Durban.		Total.	
	No.	Tonnage (N.R.T.).	No.	Tonnage (N.R.T.).	No.	Tonnage (N.R.T.).	No.	Tonnage (N.R.T.).	No.	Tonnage (N.R.T.).
TOTAL ALL VESSELS.										
1934.....	112	28,605	12	327	8	2,489	49	13,770	181	45,191
1935.....	114	26,133	13	327	9	2,685	48	12,499	184	41,644
1936.....	123	27,512	13	279	9	2,685	50	14,076	195	44,552
1937.....	118	25,535	12	276	9	2,485	64	22,578	203	50,874
1938.....	122	25,605	11	276	10	2,792	63	22,787	206	51,460

5. **Distances from Union to certain Overseas Ports.**—The following table gives the approximate distances by sea from the principal Union ports to important overseas ports. It must be noted, however, that the distances shewn do not necessarily reflect the actual direct distance between two points but are the nautical mileages of the routes followed by steamship lines offering the most direct and expeditious outlet.

DISTANCES IN NAUTICAL MILES FROM UNION PORTS TO CERTAIN OVERSEAS PORTS.

FROM—				TO—
Capetown.	Port Elizabeth.	East London.	Durban.	
5,978	6,416	6,547	6,800	Southampton.
6,889	7,309	7,447	7,709	Hamburg.
6,180	6,606	6,737	6,972	Rotterdam.
6,060	6,498	6,629	6,924	Marseilles.
5,978	6,399	6,430	6,783	Genoa.
6,786	7,215	7,346	7,593	New York.
7,338	7,776	7,907	8,160	Montreal.
3,267	3,667	3,737	4,057	Rio de Janeiro.
4,480	4,852	4,987	5,244	Buenos Aires.
5,569	5,131	5,000	4,747	Bombay.
9,732	9,294	9,163	8,910	Kobe.
4,708	4,421	4,290	4,037	Fremantle.
5,603	5,548	5,417	5,164	Adelaide.
5,814	5,759	5,628	5,375	Melbourne.
6,504	6,851	6,720	6,467	Sydney.
7,737	8,084	7,953	7,700	Wellington.

6. **Legislation.**—The Navigation Laws at present in force are the *Local Merchant Seaman's Act*, No. 13 of 1855 (Cape), Law No. 10 of 1883 (Natal), and the *Merchant Shipping (Certificates of Competency) Act*, No. 45 of 1925. The principles of the Imperial *Merchant Shipping Act*, 1894, are also followed with the exception of certain parts thereof which are not applicable to the Union.

The *Merchant Shipping (Certificates of Competency) Act* provides for the granting of certificates of competency or service to persons employed as masters, mates, and engineers, and in certain other capacities on certain vessels; for the suspension and cancellation of such certificates; and for other matters incidental thereto.

7. **Shipping Casualties.**—All matters relating to casualties to vessels along the Cape coast fall under the control of the Department of Customs and Excise. In terms of section 17 of the *Local Merchant Seaman's Act*, 1855 (Cape), a magistrate and two master mariners, preferably in active employment, are appointed by the Governor-General as president and assessors, respectively, to constitute courts of inquiry for the purpose of investigating the circumstances attending casualties to vessels.

If, upon any investigation made by the above courts, any master or mate is found guilty of misconduct, negligence, or any serious offence, his certificate may be suspended or cancelled by the Governor-General.

A similar procedure is followed in regard to casualties to vessels along the Natal coast, except that all such casualties are under the control of the Department of Justice and courts of inquiry are held under Natal Law No. 10 of 1883.

Statements showing particulars of vessels wrecked, foundered, stranded, or otherwise damaged or disabled are published in the Annual Statements of Trade and Shipping for the Union of South Africa and South West Africa.

8. **Distressed Seamen.**—Particulars are given in the following statement in regard to the number of distressed South African seamen repatriated to South Africa and the amounts expended in this connexion for a series of years.

DISTRESSED SEAMEN REPATRIATED TO SOUTH AFRICA, 1934 TO 1938.

Year.	No.	Cost.
		£
1934	22	179
1935	22	115
1936	10	38
1937	10	45
1938	20	78

9. **South African Shipping Board.**—The South African Shipping Board was established on the 1st June, 1929, under the provisions of Act No. 20 of 1929. The Board consists of nine members, of whom six only have voting powers. Of the six members with voting powers three are nominated by the Governor-General, and may not be members of the Public Service or of the Railways and Harbours Administration. Of the remaining three, one is nominated by the Association of Chambers of Commerce, one by the Federated Chamber of Industries, and one by the South African Agricultural Union. The three members not possessing voting powers are persons in the employ of the Government or the Railways and Harbours Administration.

Members are appointed for such periods and upon such conditions as the Governor-General may determine. The present members of the Board are shown in Chapter XXVIII.

The functions and duties of the Board are:—

To investigate and report to the Minister upon any matters relating to ocean transport to, from, or between Union ports, including more particularly any question—

(a) as to whether the rate of freight charged by any shipowner on any particular commodity exported from the Union is prejudicial to Union exporters as compared with their overseas competitors;

(b) as to whether the rate of freight charged by any shipowner on any particular commodity imported is unreasonably high having regard to the rate of freight for that particular commodity operating on other ocean routes;

(c) as to failure on the part of a shipowner to give reasonable notice of changes in freight classifications or rates;

(d) as to the levying by any shipowner of differential freight or other charges as between one shipper and another in respect of the ocean conveyance of goods to, from, or between Union ports;

(e) as to differential or unfair treatment by any shipowner of any shipper in respect of the allocation of space accommodation or any other matter.

Under the provisions of Act No. 29 of 1933, the cost of administration of the Board is a charge to be defrayed from the Railways and Harbours Fund.

CHAPTER XIII.

RAILWAYS, AIRWAYS, ROADS, AND ROAD TRANSPORT.

§ 1. Railway Development.

1. **General.**—In the first three issues of the *Year Book*, an account was given of the more important stages of railway development.

2. **Comparison with other Dominions.**—The following table gives comparative figures regarding mileage of open line, mileage of line per 1,000 square miles of territory, and mileage of open line per 1,000 of estimated population for Australia, Canada, New Zealand, and the Union at the latest date for which particulars are available:—

Heading.	Australia. (30th June, 1937.)	Canada. (31st Dec., 1936.)	New Zealand. (31st March, 1937.)	Union of South Africa.* (31st March, 1938.)
Mileage of open line	27,955	42,916	3,323	13,620
Mileage of line per 1,000 square miles	9·40	12·38	32·26	17·4
Mileage of line per 1,000 of estimated population:—				
European	4·10	3·89	2·11	6·48
All Races	—	—	—	1·32

* Including South West Africa.

3. **Railway Construction.**—(i) *General.*—Particulars of railway construction undertaken prior to 1937 will be found in *Year Book* No. 19 and earlier issues.

In 1937 the construction of the following three new lines on the Witwatersrand was authorized:—

Midway-Bank	22 miles.
Crown-Langlaagte	approximately 3 miles.
Germiston-Jupiter (double line)	approximately 3 miles.

These lines, the first-mentioned of which was opened for traffic in December, 1938, are in the nature of relief lines and are necessitated by the extraordinary growth of traffic in the Witwatersrand mining area.

(ii) *Main Line Improvements, etc.*—The Government has recently adopted a policy of improving the main lines of railway by means of reduction of grades and elimination or easing of curves. Opportunity is also taken of replacing, where necessary, existing level crossings by overhead bridges or subways. Another object of the scheme is to provide employment.

The first large work to come under this scheme was the improvement of the Natal main line between Uithoek and Volksrust with the object of eliminating the reversing stations at Inkwelo and Boscobello and at the same time improving grading and curvature. All the improvements on the Glencoe-Volksrust section have been carried out, and work on the Uithoek-Glencoe section is nearing completion.

In connexion with this work, model villages, including accommodation for schooling and recreation, were established at Ingogo and Mount Prospect, where accommodation for approximately 450 men and their families was provided. The model villages were established with a view to making the men's position more permanent and ensuring their regular employment, and generally to enable them to bring up their families under more favourable conditions. These villages have since been transferred to the Cape Eastern system.

A comprehensive scheme for the straightening and relocating of the Cape Eastern main line between East London and Springfontein at a cost exceeding £1,500,000 was recently authorized. The work is likely to extend over a considerable length of time and, by virtue of its magnitude, it offers scope for a continuance of the system of model villages, so successfully applied in connexion with the Northern Natal main line improvements. The model villages have, therefore, been transferred from Natal to Toise River and Dohne, respectively, and work has commenced on the first of the deviations.

The following are brief particulars of other important works recently approved by the Government:—

Witwatersrand: Electrification of Reef suburban area, provision of additional running tracks, reduction of curvature, elimination of level crossings, lowering of tracks through populous areas, and provision of new goods depot and marshalling yard at Prospect Township.

Germiston-Pretoria: Doubling and electrification of line, elimination of level crossings, reduction of curvature, and improved location of the line at several points; this work has since been completed.

Pretoria: Provision of a new goods depot at Potgieter Street, and the remodelling of the Pretoria West yard; provision of a new loco depot and marshalling yard at Capital Park; elimination of level crossings in the Pretoria area; modernization of the mechanical workshops at Pretoria, etc.

(iii) A Commission styled the Railway Line Revision Commission with Mr. A. Kuit, Chief Railway Commissioner, as chairman was recently appointed to investigate and report on all railway lines in the Union which (*a*) terminate in dead-ends; (*b*) should be straightened and linked up with adjacent main lines; or (*c*) are inefficient on account of gauge; which could be economically converted into relief lines for the convenience of the Department or the public; and which would at the same time contribute to the general development of the country.

4. **Electrification of Railways.**—Act No. 30 of 1922 provides for the electrification of any line of railway, in respect of which moneys have been appropriated by Parliament, and for the erection of the necessary power stations and equipment. Provision is also made for the use, subject to existing rights, of the water in public streams for the purpose of working electric generating stations.

In terms of Act No. 42 of 1922, provision has been made for power for electric traction purposes to be generated and supplied by the Electricity Supply Commission. The Electricity Supply Commission furnishes the Railway Administration with power for railway requirements and deals generally with the co-ordination of the production of electrical energy for commercial and municipal purposes.

The following are details of the railway lines in South Africa which have been electrified:—

(i) *Natal-Orange Free State Area.*—In 1922 the Government decided to electrify the section from Glencoe Junction to Pietermaritzburg on the Natal main line, together with the short Howick branch line, a total distance of 174 route miles. The scheme was completed and brought into operation in April, 1926. In February, 1932, electrification was extended from Pietermaritzburg to Cato Ridge, a distance of 28 miles, and a further extension of the electrified system from Danskraal (on the Natal main line) to Harrismith in the Orange Free State, a distance of 59 miles, was completed and brought into commercial operation in February, 1935.

In August, 1934, the electrification of two further sections of the Natal main line was authorized, namely from Cato Ridge to Durban and from Glencoe to Volksrust, involving route mileages of 45 and 77, respectively. The Cato Ridge-Durban section was completed in December, 1936, and the Glencoe-Volksrust section in October, 1937. The whole of the Natal main line—between Durban and Volksrust—a distance of 323 route miles, is now operated by electric traction and constitutes the longest stretch of electrified line in the British Empire.

In July, 1938, a commencement was made with the electrification of the 23 mile Rossburg-Hillcrest section, and on completion of this work the electrified track in Natal and the Orange Free State will total 413 route miles, which is equal to 698 miles of single track.

The power station at Colenso (which generates the power for the Natal railway electrification scheme), together with the twelve sub-stations and the high tension cross-country transmission lines as far as Pietermaritzburg, erected for the original electrification scheme, was handed over to the Electricity Supply Commission in December, 1926.

An 88,000-volt transmission line is carried on extensions to the track structures between Danskraal and Harrismith to feed the two sub-stations situated at Colworth and Van Reenen. A special feature of this construction was the use, for the first time for railway electric traction, of mercury arc rectifiers (mutators) equipped for regenerative working. The results obtained were most satisfactory, and this type of mutator sub-station was provided in connexion with subsequent electrification schemes. The method of carrying the 88,000-volt transmission line on the track structures as adopted on the Danskraal-Harrismith route was employed on all subsequent electrification works.

The catenary suspension system (single contact wire) is adopted for the overhead equipment of the permanent way. The track structures are steel latticed masts erected on concrete foundations, and, in the case of the recent extensions, the masts have been fabricated principally from old rails.

(ii) *Capetown Suburban Electrification.*—Railway electrification in the Cape Peninsula commenced in 1927-28 with the conversion of the 22-mile Capetown-Simonstown line, followed by the electrification of the sections Salt River to Bellville (10 miles), Maitland to Dieprivier (10 miles), and Pinelands to Langa (3 miles). The total electrified route mileage is 45.

The power for the electrified services is supplied from the Electricity Supply Commission's power station near Salt River Junction through seven rotary converter traction sub-stations owned and operated by the Electricity Supply Commission.

To cope with the accelerated and augmented train service resulting from electric operation, the manual system of signalling previously in vogue at Capetown has been replaced by an all-electric installation, and automatic and semi-automatic colour-light signalling has been introduced between Capetown and Wynberg and between Salt River and Bellville.

(iii) *Witwatersrand Area.*—As part of a comprehensive scheme for the improvement of rail transport facilities in the Witwatersrand area, authority was given for the electrification of 132 miles of track comprising: Randfontein-Springs, Germiston-Pretoria-Pretoria West, Apex-Welgedacht via Geduld, Langlaagte-Canada-Pimville, Canada-Booysens-Village Main, Germiston-Alberton, and Germiston-Wattles.

Twelve sub-stations of the mercury-arc rectifier type without regeneration have been provided. The system of supply is 3,000 volts D.C., the power being supplied from the joint systems of the Victoria Falls and Transvaal Power Company, Ltd., and the Electricity Supply Commission. The sub-stations are owned by the Commission, but were constructed and are being operated by the railways on behalf of the Commission.

On 15th March, 1937, steam haulage was replaced by electric traction on the Germiston-Alberton and Germiston-Wattles sections; then followed the various sections on the East Rand. At 31st January, 1938, electric working was extended to Randfontein, thus completing the conversion of the Main Reef line. Both the Germiston-Pretoria and Pretoria-Pretoria West sections were electrified during December, 1938, and the only section still to be converted is that from Canada to Booysens and Village Main, which, it is expected, will be completed during 1939.

When all the work referred to has been completed, South Africa will possess an electrified route mileage of 590 or single track equivalent totalling 1,217 miles.

§ 2. Construction and Open Mileage of Railways.

1. **Mileage of Government Railways.**—The following table gives the mileage of new railway lines in each province opened in each year, and the total mileage of government lines at the end of each of five financial years. Particulars for the period 1897 to 1934-35 will be found in *Year Book* No. 17 and for later years in succeeding *Year Books*.

MILEAGE OF NEW RAILWAY LINE IN EACH PROVINCE OPENED IN EACH YEAR AND TOTAL MILEAGE OF GOVERNMENT LINE OPEN AT 31st MARCH, 1934 TO 1938.

Year ending 31st March.	Cape of Good Hope.		Natal.		Transvaal.		Orange Free State.		Union.		South West Africa.	
	Mileage Opened during Year.	Total Mileage at End of Year.	Mileage Opened during Year.	Total Mileage at End of Year.	Mileage Opened during Year.	Total Mileage at End of Year.	Mileage Opened during Year.	Total Mileage at End of Year.	Mileage Opened during Year.	Total Mileage at end of Year.	Mileage Opened during Year.	Total Mileage at End of Year.
1934.....	—	5,218	—	1,520	29	3,297	—	1,633	29	11,668	—	1,462
*1935.....	7	5,224	—	1,520	39	3,336	—	1,633	46	11,713	—	1,462
†1936.....	5	5,229	—	1,509	20	3,356	—	1,633	25	11,727	—	1,462
1937.....	22	5,251	2	1,511	—	3,356	—	1,633	24	11,751	—	1,462
1938.....	—	5,251	—	1,511	—	3,356	—	1,636	—	11,751	—	1,462

* One mile uplifted as result of Mimosa–Alicedale deviation.
† Eleven miles uplifted, New Leigh–Willow Grange.

2. **Mileage and Gauge of Government and Private Railways.**—The subjoined table gives particulars of government and private railway lines in the several provinces, showing the total mileage according to gauge at the latest available date.

GOVERNMENT AND PRIVATE RAILWAY LINES: MILEAGE AND GAUGE, 31st MARCH, 1938.

Province.	Government Lines.			Private Lines.				All Lines.			
	3′ 6″	2′	Total.	3′ 6″	2′ 6″	2′	Total.	3′ 6″	2′ 6″	2′	Total.
	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.
Cape of Good Hope..	4,969	282	5,251	119	109	21	249	5,088	109	303	5,500
Natal.....	1,263	248	1,511	76	—	8	84	1,339	—	256	1,595
Transvaal	3,356	—	3,356	—	—	—	—	3,356	—	—	3,356
Orange Free State...	1,633	—	1,633	—	—	—	—	1,633	—	—	1,633
South West Africa...	1,108	354	1,462	—	—	74	74	1,108	—	428	1,536
TOTAL: UNION AND SOUTH WEST AFRICA	12,329	884	13,213	195	109	103	407	12,524	109	987	13,620

The following is a list of the privately-owned railways operating in the Union and South West Africa as at 31st March, 1938.

PRIVATELY-OWNED RAILWAYS OPERATING IN THE UNION AND SOUTH WEST AFRICA, 31st MARCH, 1938.

Line of Railway.	Gauge.		Length.
	Ft.	In.	Miles.
Verulam–Tugela.....	3	6	50*
Vryburg–Ramathlabama.....	3	6	112
Milnerton Junction–Milnerton.....	3	6	7
Utrecht Junction–Utrecht.....	3	6	26
Port Nolloth–O'okiep.....	2	6	109
Knysna–Templeman.....	2	0	21
Stanger–Kearsney.....	2	0	8
Kolmanskop–Bogenfels.....	2	0	74
TOTAL.....	—		407

* Leased to Government.

3. **Main and Branch Railways.**—The following table shows the total mileage of government main and branch lines in each of the provinces, including South West Africa, classified according to gauge, at the latest available date:—

GOVERNMENT RAILWAY LINES: MILEAGE AND GAUGE OF MAIN AND BRANCH LINES, 31st MARCH, 1938.

Province.	Main Lines.			Branch Lines.			Total Main and Branch Lines.		
	3′ 6″	2′	Total.	3′ 6″	2′	Total.	3′ 6″	2′	Total.
	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.
Cape of Good Hope.....	2,584	—	2,584	2,385	282	2,667	4,969	282	5,251
Natal.....	445	—	445	818	248	1,066	1,263	248	1,511
Transvaal.....	1,104	—	1,104	2,252	—	2,252	3,356	—	3,356
Orange Free State.....	638	—	638	995	—	995	1,633	—	1,633
South West Africa.....	790	—	790	318	354	672	1,108	354	1,462
TOTAL: UNION AND SOUTH WEST AFRICA.....	5,561	—	5,561	6,768	884	7,652	12,329	884	13,213

4. **Mileage in relation to Area and Population.**—The subjoined table gives particulars as to the total mileage of open lines of railway, owned by the Government or privately owned, during a period of years, in respect of each province, with the number of miles of line to each 100 square miles of territory, and the number of inhabitants per mile of line. The figures relating to the population are based upon the estimated (mean) population of the Union and South West Africa.

MILEAGE OF OPEN LINES IN THE UNION AND SOUTH WEST AFRICA, 1934 TO 1937, AND IN EACH PROVINCE AT 31st MARCH, 1938, IN RELATION TO THE AREA AND POPULATION.

At 31st March.	Mileage.					Number of Miles of Line per 100 Square Miles of Territory.	Number of Inhabitants per Mile of Line.		
	Government Lines.	Private Lines.*	Total.	Proportion to Total Mileage.	Increase over Previous Year.		Europeans.	Non-Europeans.	All Races.
1934.....	13,130	407	13,537	—	29	1·73	144	561	705
1935.....	13,164	407	13,571	—	34	1·73	147	571	718
1936.....	13,189	407	13,596	—	25	1·73	150	581	731
1937.....	13,213	407	13,620	—	24	1·74	152	591	743
1938.									
Cape of Good Hope	5,251	249	5,500	40·38	—	1·99	147	512	659
Natal.....	1,511	84	1,595	11·71	—	4·52	123	1,138	1,261
Transvaal.....	3,356	—	3,356	24·64	—	3·04	259	788	1,047
Orange Free State	1,633	—	1,633	11·99	—	3·29	122	360	482
South West Africa	1,462	74	1,536	11·28	—	0·49	20	215	235
UNION AND SOUTH WEST AFRICA...	13,213	407	13,620	100·00	—	1·74	154	602	756

* Private lines include Natal–Zululand Railway (Verulam–Tugela, 50 miles), leased to the Government.

§ 3. Administration of Government Railways.

1. **Administration of Union Government Railways.**—The railways (and harbours—see Chapter XII) are, with few exceptions, the property of the Government, and since the constitution of the Union have been administered under the provisions of the *South Africa Act*, 1909.* This provides *inter alia* that:—

> subject to the authority of the Governor-General-in-Council the control and management of the railways, ports and harbours of the Union shall be exercised through a Board consisting of not more than three Commissioners, who shall be appointed by the Governor-General-in-Council, and a Minister of State, who shall be chairman. Each Commissioner shall hold office for a period of five years, but may be reappointed.

A further Act to interpret the provisions of the above-mentioned law relating to the Railway Board and to define the functions of that board was passed in the year 1916.

The pertinent provisions of this later Act are as follows:—

> The management and working of the Railways and Harbours shall, subject to the control of the Minister, be carried out by the General Manager, who shall be governed by such regulations as the Minister may from time to time frame after consultation with the Board.

The executive head of the Department is the General Manager of Railways and Harbours, with headquarters at Johannesburg. In him is vested the entire management and control, as set out in the foregoing extract from the Act of 1916.

The General Manager is assisted by two Assistant General Managers (one commercial, the other technical) at headquarters; in addition to which there are nine System Managers (each in charge of a system), a Chief Civil Engineer, a Chief Mechanical Engineer, a Chief Traffic Manager, and a Chief Accountant, each of whom is responsible to the General Manager.

The headquarters of the eight systems in the Union are situated at Capetown, Bloemfontein, Johannesburg, Durban, Port Elizabeth, East London, Pretoria, and Kimberley respectively.

In terms of Act No. 20 of 1922, the railways and harbours in the territory of South West Africa became an integral part of the railways and harbours of the Union, and are controlled by a System Manager stationed at Windhoek.

Under each system manager there is a system engineer, as well as superintendents in charge of the technical, operating, and commercial work, by whom the staff operating the railways is immediately controlled.

2. **Principles of Railway Administration.**—The principles upon which the Railways and Harbours of the Union are administered are clearly defined in the following extract from the *South Africa Act*:—

> The railways, ports and harbours of the Union shall be administered on business principles, due regard being had to agricultural and industrial development within the Union, and promotion, by means of cheap transport, of the settlement of an agricultural and industrial population in the inland portions of all provinces of the Union;

and the following further extract as to the financing of the railways indicates the principle on which the rates leviable for the conveyance of traffic are based:—

> So far as may be the total earnings shall not be more than are sufficient to meet the necessary outlays for working, maintenance, betterment, depreciation and the payment of interest due on capital, not being capital contributed out of railway or harbour revenue.

3. **The Union and Rhodesia Railway Agreement.**—In January, 1937, an agreement was entered into between the Mashonoland Railway Company, Ltd., the Rhodesia Railways, Ltd., the Government of Southern Rhodesia, and the Government of the Union of South Africa in regard to certain railway matters. Summarized the treaty provides:—

(a) That the two Rhodesian railway companies admit the right of the Union Government to purchase the section of line between Vryburg and Palapye, and that the Union Government will not exercise such right for a period of 33½ years from the date of the signing of the agreement;

(b) that the Rhodesian signatories will not take any action which may directly or indirectly divert import traffic from Union ports to Beira;

(c) that the section of line between Vryburg and Ramathlabama is to be treated, for railway tariff purposes, as though such line formed part of the South African Railways.

*For particulars of the administration of the South African railway system prior to 1910 reference should be made to the sixth and earlier issues of this *Year Book*.

4. **Railways and Harbours Fund.**—In the *South Africa Act* provision is made for the establishment of a Railways and Harbours Fund, into which all revenues raised or received from the administration of the railways and harbours are paid, and from which are withdrawn all moneys necessary to meet such expenditure of the Railways and Harbours Department as has received the approval of Parliament. Withdrawals from the fund may be made for unforeseen expenditure to the extent of £500,000 or such additional sum as is represented by the excess of the actual revenue over the estimated revenue. Such expenditure, however, must be reported as soon as Parliament meets. All profits earned remain to the credit of the fund and are not paid to the Treasury, as was the practice prior to the constitution of the Union. Expenditure on Capital Account is made from moneys received from the Treasury out of Loan Funds. Unexpended balances are returned to the Treasury. The Administration has no liability in respect of the cost of raising, or discount expenses in connexion with the flotation of, loans. Such expenses are wholly defrayed by the Treasury, jointly with expenses for meeting the requirements for public works and other purposes served by loans.

5. **Capital Expenditure.**—The Select Committee on Public Accounts in its fourth report of 1912 recommended that the sum of £86,252,960 should be regarded as the amount of the capital charge as at the date of Union, upon which interest should be paid by the Railways and Harbours Administration. This amount includes a sum of £13,138,263 derived from pre-Union railway profits re-invested in the railways, upon which an annual interest charge amounting to £459,839 at the rate of 3½ per cent. has had to be paid to the Consolidated Revenue Fund, although no equivalent liability has had to be met by the Treasury. The justice of this exaction against railway earnings has been questioned by the Railways and Harbours Administration on several occasions, and in 1933-34 the Government specially appropriated the amount of interest due on these thirteen millions out of General Revenue, thus relieving the Railways and Harbours of the charge for that year. This concession was followed up at the next session of Parliament by the adoption of a provision, introduced into the *Finance Act* of 1934 (section 2), for determining the amount of capital invested in the Railways and Harbours as at the 31st May, 1910, and defining the true rate of interest to be paid by the Administration in respect of post-Union capital loans, and on Treasury Bills outstanding at the end of each financial year.

The total Railways and Harbours capital investment at the 31st May, 1910, is deemed to have been £73,247,750, and the interest charges payable on this sum are, in future, to be calculated at the rate of £3. 8s. 8d. per cent. per annum.

6. **Staff.**—The following table gives details as to the staff employed in the government railways at the 31st March, 1934, and succeeding years:—

GOVERNMENT RAILWAYS—STAFF EMPLOYED AT 31st MARCH, 1934 TO 1938.

At 31st March.	Regular Staff.				Casual Staff.		Grand Total.
	European.			Non-European.	European.	Non-European.	
	Salaried.	Other.	Total.				
1934.....	8,315	38,021	46,336	18,767	2,506	9,506	77,115
1935.....	8,816	40,040	48,856	19,923	3,255	13,055	85,089
1936.....	9,349	42,734	52,083	20,772	4,140	20,698	97,693
1937.....	10,023	44,694	54,717	21,528	5,014	26,884	108,143
1938.....	10,704	47,853	58,557	23,236	5,702	30,409	117,904

7. **Railways and Harbours Service Commission.**—A permanent Commission, somewhat on the lines of the Public Service Commission (Chapter II), has been established under the chairmanship of Mr. Graham Cross, with Mr. C. G. C. Rocher and Mr. H. Cheadle as members, for the purpose of dealing with recommendations for appointments and promotions in the Railways and Harbours service.

8. **Principal Officers of the Railway Administration.**—A list of the principal officers of the Railways and Harbours Administration will be found in Chapter XXVIII.

9. **Expenditure on Salaries, Wages, and Pensions.**—The following tables show (i) the expenditure of the Railways Administration on salaries and wages from 1933-34, compared with the average during 1910-11 to 1913-14, under various headings, and (ii) the amounts paid in pensions each year from 1931:—

(i) SOUTH AFRICAN RAILWAYS—TOTAL AMOUNT EXPENDED ON SALARIES AND WAGES AND CHARGED TO WORKING EXPENSES, 1933-34 TO 1937-38, WITH AVERAGE FOR THE YEARS 1910-11 TO 1913-14.

Heading.	Average 1910–11 to 1913–14.	1933–34.	1934–35.	1935–36.	1936–37.	1937–38.
	£	£	£	£	£	£
* General Administration.....	175,411	408,530	407,593	432,873	476,130	506,431
Permanent Way.....	758,454	1,281,934	1,726,218	1,842,197	1,932,455	2,177,611
Rolling Stock.....	747,466	1,575,193	1,797,780	1,916,818	1,971,370	2,156,224
Running Expenses.....	1,131,021	2,393,293	2,930,641	3,284,202	3,493,880	3,877,227
Traffic Expenses.....	1,322,786	3,080,599	3,435,507	3,762,644	4,092,956	4,492,910
† Cartage Service.....	41,918	169,208	190,163	219,584	242,212	271,196
Renewing and Strengthening Permanent Way.....	‡41,148	—	—	—	—	—
Catering.....	89,516	151,406	170,155	181,185	194,888	208,735
Bookstalls, Advertising, and Automatic Machines.....	9,435	24,320	38,200	39,025	41,393	44,969
Bedding and Equipment on Trains.....	7,803	23,742	28,352	32,578	38,277	41,517
† Road Motor Services.....	—	161,289	169,476	179,910	210,943	210,679
Grain Elevators.....	—	49,535	53,275	55,812	50,564	49,995
Tourist Traffic.....	—	3,058	4,225	5,586	5,532	7,758
TOTAL.....£	4,325,018	9,333,107	11,001,585	11,952,444	12,720,600	14,054,853

* A proportion of the expenditure under this heading relates to harbours and steamships under the control of the Administration, but in the nature of the case it has not been possible to separate such expenditure from the total, the bulk of which represents expenditure incurred in connexion with the railways.
† Official estimate. Expenditure details not available.
‡ Year 1913–14 only.

(ii) SOUTH AFRICAN RAILWAYS—PENSIONS PAYABLE TO EX-RAILWAY OFFICIALS AT 30th SEPTEMBER, 1934 TO 1938.

Year.	Chargeable to Railway Revenue (Pension Vote).				Chargeable to Pension Funds.	Total.
	Super-annuation.	Invalid.	Com-pensation.	Extra-statutory.		
	£	£	£	£	£	£
1934.....	2,430	957	259,249	544	627,160	890,340
1935.....	2,062	758	209,510	871	675,368	888,569
1936.....	1,852	652	188,515	786	733,866	925,671
1937.....	1,651	614	152,382	770	794,800	950,217
1938.....	1,436	519	126,872	758	852,069	981,654

Note.—Details for earlier years will be found in previous issues of the *Year Book* and particulars of pensions payable to ex-harbour and ex-lighthouse officials are shown in Chapter XII.

10. **South African Railways and Harbours Publicity and Travel Department.**—The Publicity and Travel Department of the South African Railways and Harbours is controlled by a Publicity and Travel Manager and two assistant managers, with headquarters at Johannesburg, branches at Capetown, Durban, and Pretoria, and sub-offices at Port Elizabeth, East London, Bloemfontein, Kimberley, Windhoek, and Lourenco Marques, at which places tourist bureaux are established. The Department is also represented in Great Britain by the Director, South African Government Travel Bureau, attached to the staff of the High Commissioner for the Union of South Africa, South Africa House, Trafalgar Square, London, and is in close touch with tourist and travel agencies all over the world. A Tourist Development Corporation has recently been established by Act of Parliament, No. 15 of 1938, the primary object of which shall be, by means of advertisement and the dissemination of information about Southern Africa, i.e. south of the equator, to encourage persons who reside elsewhere to visit Southern Africa and to tour therein.

The purely commercial activities of the Department include—

(*a*) the control of all bookstalls and automatic machines at stations on the Administration's lines throughout the Union;

(*b*) the control of poster display and of public advertisements of every description on the Administration's property and in various publications, such as the Transvaal Telephone Directory, the railway time tables, Hotel and Boarding House Guide for the Union of South Africa, the *South African Railways and Harbours Magazine* (a monthly journal produced by the Publicity and Travel Department and dealing with transportation and travel topics), and *South African Travel News*.

Under what may be styled technical activities, the functions of the Department are more diverse and include—

(*a*) a large photographic section, where photographs, enlargements, lantern slides, and other pictorial media are prepared for propaganda purposes. Arrangements are also made by the Publicity and Travel Department for the production of cinema films representing scenic and other South African subjects for use as travel propaganda. These are exhibited throughout the world;

(*b*) a designing section, which is responsible for the Departmental displays at exhibitions and shows, and for the production of posters, window displays, brochure cover designs, show cards, advertisement layouts, and for such other designing work as may be needed for advertising purposes;

(*c*) a press-cutting section;

(*d*) a section responsible for placing the numerous advertisements of the Administration in the local and overseas press;

(*e*) a journalistic section.

The work of the last-named varies in character, and embraces the production of periodicals and press articles treating of tourist interests, and the compilation of brochures, both for the Administration and for public bodies, designed to attract tourists and holiday-makers to specific resorts or areas. The Department's most important function is that of being the Government's official organization for disseminating propaganda overseas relative to South Africa, such propaganda having for its object the attraction to South Africa of tourists and others who may be interested in the country.

The function of the tourist bureaux is to provide for passengers' care-free travel, embracing inclusive bookings to cover rail, road, air, and steamer reservations, meals and bedding on trains, hotel or boarding-house accommodation, collection and delivery of luggage, and sightseeing excursions where desired.

11. **Railway Housing Commission.**—During August, 1937, the Minister of Railways and Harbours appointed a Housing Commission—

to investigate, report upon and make recommendations in connexion with the housing of railway and harbour servants.

The Commission consisted of—

Mr. C. M. Hoffe, Chief Accountant (Chairman);
Mr. W. Bührmann, Economist, Department of Agriculture (Nominated Member);
Mr. R. S. Williams and Mr. D. K. Geddes (elected members representing staff associations).

The Commission submitted five interim reports, together with a final report dealing with housing policy generally.

12. **Railway House-Ownership Scheme.**—The house-ownership scheme, which was recommended by the Railway Housing Commission and accepted by the Administration, enables railway servants to acquire their own homes under very favourable terms. Briefly the scheme provides for the advancing of loans at 3½ per cent. interest in connexion with the purchase of houses by railwaymen. No deposit will be called for, as the whole amount required for the acquisition or erection of a house may be advanced. The capital sum is to be redeemed by payments spread over periods ranging from ten to thirty years.

§ 4. Locomotives and Rolling Stock.

1. **Rolling Stock in Service.**—The following table gives the number of locomotives and coaching and wagon stock in service at 31st March, 1934 to 1938.

LOCOMOTIVES AND ROLLING STOCK IN SERVICE AT 31st MARCH, 1934 TO 1938.

31st March.	Locomotives.			Coaching Stock.		Wagon Stock.		
	Steam.		Electric.	3' 6"	2'	3' 6"		2'
	3' 6"	2'	3' 6"					
	No.	No.	No.	No.	No.	No.	Carrying Capacity. Tons.	No.
1934...	2,039	67	95	3,737	125	38,974	910,634	1,030
1935...	2,051	65	95	3,768	125	39,670	929,686	1,030
1936...	2,018	62	98	3,908	125	41,498	969,822	1,029
1937...	2,011	64	116	4,058	125	45,434	1,076,106	1,026
1938...	2,019	63	123	4,308	135	47,280	1,125,832	1,076

2. **Railway Workshops, Rolling Stock Built, etc.**—The following statement indicates the number of engines and other rolling stock built, erected, and repaired at the various railway workshops, which are situated at Salt River, Durban, Uitenhage, Pietermaritzburg, East London, Bloemfontein, Pretoria, and Germiston:—

OUTPUT OF NEW AND REPAIRED ROLLING STOCK—RAILWAY WORKSHOPS, 1934 TO 1938.

Year ending 31st March.	New Rolling Stock.		Repaired Rolling Stock.	
	Built.	Erected.	Heavy.	Light.
1934—Electric Locomotives	—	—	83	13
Steam Locomotives	—	—	663	244
Coaches	124	—	1,050	2,745
Wagons	598	—	11,595	7,229
1935—Electric Locomotives	—	—	49	52
Steam Locomotives	—	43	808	319
Coaches	50	—	1,217	3,097
Wagons	1,178	—	11,502	9,502
1936—Electric Locomotives	2	—	81	65
Steam Locomotives	—	29	819	321
Coaches	174	—	990	3,338
Wagons	1,622	—	11,674	10,585
1937—Electric Locomotives	—	—	71	119
Steam Locomotives	—	29	796	301
Coaches	174	—	1,076	3,679
Wagons	1,802	—	11,456	9,872
1938—Electric Locomotives	—	7	70	228
Steam Locomotives	—	53	772	324
Coaches	123	—	1,006	3,190
Wagons	1,904	—	11,762	10,845

§ 5. Traffic.

1. **Mileage Run and Passengers and Goods Carried.**—The subjoined table gives the average route mileage of open lines, the train mileage run, the number of passengers carried (journeys), and the tonnage of goods carried for a series of years:—

AVERAGE ROUTE MILEAGE OF OPEN RAILWAY LINES, TRAIN MILEAGE RUN, PASSENGERS CARRIED (JOURNEYS), AND TONNAGE OF GOODS CARRIED, 1934 TO 1938.

HEADS.	1934.*	1935.*	1936.*	1937.*	1938.*
† Average Route Mileage of Open Lines (owned and leased) worked during year	13,154	13,203	13,223	13,260	13,263
Train Mileage	43,653,289	46,713,496	51,421,713	54,766,261	60,397,400
Engine Mileage	55,934,068	59,724,596	65,401,610	70,284,151	77,749,189
Passengers carried (journeys), No.	75,757,764	83,280,993	89,800,870	96,496,033	105,475,637
Tonnage of Goods and Minerals other than Coal (Revenue Earning)	13,195,413	15,371,406	16,725,608	17,461,986	20,155,009
Tonnage of Coal (Revenue Earning)	7,228,082	8,414,170	9,522,294	9,612,201	9,819,807
Gross Tonnage Revenue Earning Traffic	20,423,495	23,785,576	26,247,902	27,074,187	29,974,816

* Year ending 31st March. † Includes 50 miles leased from the Natal-Zululand Railway Company.

2. **Train and Engine Mileage, etc.**—The following tables give the train and engine mileage run, tonnage of goods carried, and ton mile statistics for a series of years to 1938.

(a) TRAIN AND ENGINE MILEAGE RUN, 1934 TO 1938.

Year Ending 31st March.	Passenger Train Mileage.	Mixed Train Mileage.	Goods Train Mileage.	Total Train Mileage.	Total Engine Mileage.
1934	13,145,690	4,471,050	26,036,549	43,653,289	55,934,068
1935	14,225,248	4,498,182	27,990,066	46,713,496	59,724,596
1936	14,985,882	4,721,685	31,714,146	51,421,713	65,401,610
1937	16,144,183	4,839,509	33,782,569	54,766,261	70,284,151
1938	16,748,874	5,265,535	38,382,991	60,397,400	77,749,189

(b) TONNAGE OF REVENUE-EARNING GOODS AND MINERAL TRAFFIC UNDER MAIN HEADS, 1934 TO 1938.

Year Ending 31st March.	Grain and Cereals.	Other Produce.†	General Traffic.†	Coal.	Total Revenue Earning Traffic.
	Tons.	Tons.	Tons.	Tons.	Tons.
1934	1,203,563	4,419,490	7,572,360	7,228,082	20,423,495
1935	1,516,669	4,652,093	9,202,644	8,414,170	23,785,576
1936	1,633,676	4,935,764	10,156,168	9,522,294	26,247,902
1937	1,318,140	4,962,316	11,181,530	9,612,201	27,074,187
1938	2,089,912	5,519,386	12,545,711	9,819,807	29,974,816

(c) TON MILE STATISTICS, 1934 TO 1938.

Particulars (Revenue-Earning Traffic).	1934.*	1935.*	1936.*	1937.*	1938*.
	Ton Miles.	Ton Miles.	Ton Miles.	Ton Miles.	Ton Miles.
Goods and Minerals (other than Coal)	2,391,050,266	3,058,906,178	3,442,830,870	3,565,893,078	4,937,745,625
Coal	1,603,087,471	1,837,570,185	2,051,101,165	2,100,888,126	2,283,829,496
TOTAL TON MILES.	3,994,137,737	4,896,476,363	5,493,932,035	5,666,781,204	7,221,575,121

* Year ending 31st March.
† Amended figures.

3. **Speed of Trains.**—The speed of main line trains varies according to loads, grades, and other local conditions. Between Capetown and Johannesburg, and between Durban and Johannesburg, the times for express journeys work out as follows:—

SPEED OF EXPRESS TRAINS.

Section.	Miles.	Time in Hours.	Miles per Hour (Average).
Capetown-Johannesburg	956	27¼	35·1
Johannesburg-Capetown	956	25¾	37·1
Durban-Johannesburg	494	17¾	27·8
Johannesburg-Durban	494	17¾	27·8

These averages include all stops at stations and depots en route; the actual running speed on short sections, where the conditions are favourable, is frequently 40 to 45 miles an hour with ordinary main line trains, and 50 to 55 miles with express trains. Fast non-stop electric trains are run between Capetown and Muizenberg at a speed of 38½ miles per hour throughout the journey of 15¼ miles, and between Pretoria and Germiston at a speed of 39 miles per hour throughout the journey of 34 miles.

4. **De Luxe Express Trains.**—Express trains run twice a week between Johannesburg and Capetown and vice versa, connecting once weekly with the incoming and outgoing mail steamers.

These trains consist of first class "de luxe" articulated saloon units, a twin dining-car being placed in the middle with a lounge car adjoining. The whole train is finished externally in rich blue and cream enamel.

The articulated saloon units comprise two coach bodies and underframes, each 45 feet long, mounted on three four-wheeled bogies, the central bogie being placed at the junction of the two coaches. This arrangement ensures smoother running, eliminates vibration over the bogies, and adds generally to the comfort of travelling. The articulated saloons are more commodious than the ordinary type and have hot and cold water laid on in each compartment and coupé, and also in the shower bath with which each unit is provided. Each saloon has an attendant, who, in addition to supplying beds and keeping the saloons clean, is available for personal services. An electric bell is provided in each compartment and coupé to enable passengers to summon the attendant. The latter, in turn, is able, by means of a telephone installed in his quarters, to communicate passengers' catering requirements to the dining-car. A conductor accompanies each train throughout the journey. Passengers travelling by these trains are required to pay ordinary first class fares, plus a surcharge of 20 per cent. on the ordinary single fare.

The Administration has on order twelve new first class "de luxe" saloons for use on these trains. The coaches will be of steel construction, fully air-conditioned, and will embody the very latest improvements in coaching stock construction and equipment.

5. **Length of Journeys.**—Particulars in regard to the length of journeys between some of the principal railway centres are contained in the subjoined table:—

LENGTH OF JOURNEYS BETWEEN PRINCIPAL CENTRES IN MILEAGE AND TIME.

Points between.		Mileage.	Hours.
Bloemfontein-	Beira	1,483	81
	Bulawayo	813	34½
	Capetown	755	21½
	Durban	516	21
	East London	401	16¼
	Johannesburg	263	9¼
	Kimberley	106	2¼
	Lourenco Marques	614	25¼
	Port Elizabeth	451	16¼
	Pretoria	288	10½
	Victoria Falls	1,093	56½
	Windhoek	1,132	52½
Capetown-	Beira	2,025	91¼
	Bloemfontein	755	21½
	Bulawayo	1,355	45½
	Durban	1,271	43½
	East London	888	41¼
	Johannesburg	956	25¾
	Kimberley	649	18¼
Capetown—(*cont.*)			
	Lourenco Marques	1,325	46[illegible]
(Via De Aar)	Port Elizabeth	841	30½
(Via Mossel Bay)	Port Elizabeth	675	28¾
	Pretoria	999	27¾
	Victoria Falls	1,635	66¼
	Windhoek	1,383	63[illegible]
Durban-	Beira	1,838	87[illegible]
	Bloemfontein	516	22
	Bulawayo	1,168	47[illegible]
	Capetown	1,271	47
	East London	917	43¼
	Johannesburg	494	17[illegible]
	Kimberley	622	26
	Lourenco Marques	727	38¼
	Port Elizabeth	967	43½
	Pretoria	519	18¼
	Victoria Falls	1,448	63
	Windhoek	1,634	88[illegible]

LENGTH OF JOURNEYS BETWEEN PRINCIPAL CENTRES IN MILEAGE AND TIME—*continued.*

Points between.		Mileage.	Hours.
East London-	Beira	1,924	113¼
	Bloemfontein	401	17¼
	Bulawayo	1,254	67½
	Capetown	901	43½
	Durban	917	44¼
	Johannesburg	664	27½
	Kimberley	507	22½
	Lourenco Marques	1,015	47½
	Port Elizabeth	301	17
	Pretoria	689	28¾
	Victoria Falls	1,534	89
	Windhoek	1,269	65
Johannesburg-	Beira	1,344	68½
	Bloemfontein	263	8¾
	Bulawayo	674	28
	Capetown	956	25¾
	Durban	494	17½
	East London	664	25½
	Kimberley	307	7½
	Lourenco Marques	369	12½
	Port Elizabeth	714	25¼
	Pretoria	453	1½
	Victoria Falls	954	43½
	Windhoek	1,336	62¼
Kimberley-	Beira	1,377	71¼
	Bloemfontein	106	3
	Bulawayo	707	25
	Capetown	649	18
	Durban	622	25
	East London	507	25¾
	Johannesburg	307	8½
Kimberley—(*cont.*)			
	Lourenco Marques	678	28
	Port Elizabeth	487	23
	Pretoria	350	10½
	Victoria Falls	987	47
	Windhoek	1,029	47½
Port Elizabeth-	Beira	1,864	105½
	Bloemfontein	451	17¾
	Bulawayo	1,194	59½
(Via De Aar)	Capetown	841	40¾
(Via Mossel Bay)	Capetown	675	28¾
	Durban	967	40¾
	East London	301	17
	Johannesburg	714	27¾
	Kimberley	557	22½
	Lourenco Marques	1,065	43½
	Pretoria	739	28¼
	Victoria Falls	1,474	81
	Windhoek	1,222	63¼
Pretoria-	Beira	1,387	70[illegible]
	Bloemfontein	288	10½
	Bulawayo	717	30½
	Capetown	999	27¾
	Durban	519	18½
	East London	689	27¾
	Johannesburg	43	1½
	Kimberley	350	9¼
	Lourenco Marques	352	12
	Port Elizabeth	739	27¾
	Victoria Falls	997	46¾
	Windhoek	1,379	64¾

The longest continuous journey which can be performed over the Union railways is from Bitterfontein in the Cape Province to Goliel in Southern Swaziland, the distance being 1,760 miles.

The railway to the north has now been extended to Port Francqui, which is about 1,141 miles beyond the Belgian Congo border at Sakania, and a continuous journey can be made from Capetown to Port Francqui, a distance of about 3,292 miles.

§ 6. Casualties.

The subjoined table gives the total number of persons killed or injured on the railways during the past five years, specifying whether Europeans or others:—

PERSONS KILLED OR INJURED IN ACCIDENTS, 1934 TO 1938.

Category of Accident.	1934.*			1935.*			1936.*			1937.*			1938.*		
	E.	O.	T.	E.	O.	T.	E.	O.	T.	E.	O.	T.	E.	O.	T.
ACCIDENTS TO PASSENGERS.															
(*a*) *Due to train accidents*—															
Killed	1	13	14	—	—	—	—	—	—	6	—	6	—	1	1
Injured	8	17	25	2	3	5	1	1	2	11	6	17	—	—	—
Number of casualties per million passengers carried—															
Killed	—	—	0·19	—	—	—	—	—	—	—	—	0·06	—	—	·009
Injured	—	—	0·33	—	—	0·05	—	—	0·02	—	—	0·18	—	—	—
(*b*) *From other causes including accidents as a result of misconduct or neglect of caution*—															
Killed	2	10	12	1	11	12	7	19	26	4	17	21	2	18	20
Injured	26	30	56	17	28	45	15	23	38	13	33	46	23	44	67
ACCIDENTS AT LEVEL CROSSINGS, TRESPASSERS, SUICIDES, ETC.—															
Killed	42	92	134	55	100	155	44	104	148	52	96	148	43	110	153
Injured	46	63	109	58	51	109	30	54	84	43	55	98	47	75	122
GRAND TOTAL—															
Killed	45	115	160	56	111	167	51	123	174	62	113	175	45	129	174
Injured	80	110	190	77	82	159	46	78	124	67	94	161	70	119	189

* Year ending 31st March. E.—Europeans; O.—Others; T.—Total.

§ 7. Passenger Fares and Goods and Live Stock Rates.

1. **Tariff Policy.**—The tariff policy of the South African Railways is governed by section 127 of the *South Africa Act*, which provides as follows:—

> The railways shall be administered on business principles, due regard being had to agricultural and industrial development within the Union, and promotion, by means of cheap transport, of the settlement of an agricultural and industrial population in the inland portions of all provinces of the Union. So far as may be, the total earnings shall not be more than are sufficient to meet the necessary outlays for working, maintenance, betterment, depreciation, and the payment of interest due on capital, not being capital contributed out of railway or harbour revenue.

Prior to the establishment of the Union, the government railways of the four provinces were administered separately, those of the Cape of Good Hope and Natal being known as the *Cape Government Railways* and the *Natal Government Railways* respectively, and those of the Transvaal and the Orange Free State, subsequent to the Anglo-Boer War, as the *Central South African Railways*.

2. **Supplementary Wharfage Dues.**—Under the powers conferred by Act No. 22 of 1916 and Act No. 20 of 1922, the Railways and Harbours Administration, by notification in the *Gazette* (Government Notice No. 1150, dated the 27th June, 1930), imposed supplementary wharfage dues of 1s. per 100 lb. on goods imported into the harbours of the Union or of South West Africa, the additional charges to be imposed upon persons using wagons or other vehicles for the transportation of their goods along routes which, in the opinion of the Administration, are regarded as competing with railway transport.

The Railways and Harbours Administration requires any person upon whom it may call to enter into a written contract with the Administration to have all his goods conveyed by rail between competitive points, and thus secure for himself the advantages of the rebate of the supplementary wharfage dues. The consignor of imported goods, who has entered into this contract and who is required to transport them at the request of a consignee along a competitive route, is required to render a return to the Administration within ten days, giving certain particulars concerning the consignment, in order that the amount rebated in the first instance to the consignor may be recovered from the consignee.

3. **Passenger Fares.**—Three classes of accommodation are provided for passenger traffic, viz., first, second, and third. In addition, special native fares lower than third class fares apply for distances over 150 miles to natives travelling by recognized native trains.

The fares in operation are (*a*) ordinary, (*b*) excursion, (*c*) special suburban and inter-urban, and (*d*) season, applicable as follows:—

(*a*) The ordinary mileage scale of fares applies to the total mileage travelled in respect of any single or return journey or extensive tour including side journeys, forming a continuous all-rail journey or tour. The cost in pence per mile for various total distances travelled is:—

Total mileage travelled.	1st *Class.*	2nd *Class.*	3rd *Class.*
	d.	d.	d.
100	2·34	1·56	1·17
1,000	2·06	1·38	1·04
2,000	1·59	1·06	0·89
3,000 and over	1·34	0·90	0·75

The special native fares range from 0·8 penny per mile at 225 miles to 0·6 penny per mile at 1,050 miles and are available for travel by goods trains and recognized native trains, with a reduction for native youths under 18 years of age recruited for agricultural or industrial purposes to 0·6 penny per mile at 225 miles and 0·33 penny per mile at 600 miles and over.

(*b*) The excursion fare scale for return journeys applies: (i) to the periods of general excursion booking, approximately 36 days at midsummer, 11 days at Easter, and 22 days at midwinter; (ii) under certain conditions to first and second class seasonal seaside excursions applicable to recognized seaside resorts during their respective seasons, and affords excursion facilities to one or other of the resorts during most months of the year; (iii) to week-end and evening excursions; (iv) to other occasions on which ordinary excursion fares are quoted; and (v) to concessionary fares based on the excursion fare scale. The cost of travel at the excursion fare scale for various total mileages travelled outward and homeward is in pence per mile:—

Total mileage travelled.	1st *Class.*	2nd *Class.*	3rd *Class.*
	d.	d.	d.
100	1·38	0·93	0·69
1,000	1·30	0·86	0·62
2,000	1·21	0·81	0·61
3,000	1·01	0·67	0·54

(*c*) Special suburban and inter-urban fares on a considerably lower basis than the ordinary fares apply in the vicinity of the large towns, and between such towns and adjoining urban centres.

(*d*) Short distance and long distance season ticket scales are in operation, the latter being based upon the total route mileage of the lines over which the ticket is available, and the charge for 2,000 route miles, for example, is £113 first class and £90 second class per annum.

The following figures illustrate the short distance monthly season ticket scale. Weekly, half-monthly, quarterly, half-yearly, and yearly tickets are issued at charges more or less proportionate to the monthly rate:—

Monthly Season Rate.	1st *Class.*	2nd *Class.*
Miles.	£ s. d.	£ s. d.
5	0 16 9	0 14 0
10	1 6 6	1 2 0
20	1 16 6	1 10 6
40	2 10 0	2 1 9

4. **Parcels Rates.**—Parcels and excess luggage are conveyed by passenger train and are charged for according to weight and distance. The following are a few examples of rates:—

RAILWAY PARCELS AND EXCESS LUGGAGE RATES.

Miles.	½ lb.	2 lb.	5 lb.	30 lb.	50 lb.	100 lb.
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
50	0 4	0 4	0 9	1 5	2 1	2 9
100	0 4	0 9	1 0	2 1	2 9	4 2
200	0 4	1 0	1 5	3 9	5 2	7 11
300	0 4	1 4	1 9	5 2	7 7	11 4
500	0 4	1 4	2 5	7 11	11 4	17 3
1,000	0 11	1 10	3 9	12 0	17 11	26 6

Certain produce, such as bread, butter, meat, fruit, fish, eggs, etc., is conveyed at half parcels rates.

5. **Live Stock Rates.**—Large animals are cattle, horses, donkeys, camels, mules, and ostriches.

Small animals are calves and foals under three months old, ewes, goats, pigs, and sheep, and also ostrich chicks under four months old.

A minimum charge as for four head of large animals or twenty-one head of small animals per truck is levied, while a maximum charge, based upon floor space of the truck used, operates.

RAILWAY LIVE STOCK RATES.

A=Rate per head (large animals).
B=Rate per 7 head (small animals).
C=Charge per mile for 8 large animals loaded in a short truck.
D=Charge per mile for 49 small animals loaded in a short truck.

Miles.	A.	B.	C.	D.
	s. d.	s. d.	d.	d.
100	5 9	5 9	5·52	4·83
250	11 3	11 3	4·32	3·78
500	18 7	20 7	3·57	3·46
750	24 10	28 5	3·18	3·18
1,000	27 11	31 11	2·68	2·68
1,500	34 2	47 11	2·19	2·68

6. **Railway Rates for Tourists' Motor Cars.**—The following special return rates apply for conveyance of motor cars by rail when accompanying passengers holding *two or more* first or second class return adults' tickets:—

When the forward journey does not exceed 500 miles £3 10 0
When the forward journey does not exceed 750 miles 4 4 0
When the forward journey exceeds 750 miles 5 0 0

7. **Goods Rates.**—The rates charged for the conveyance of goods are divided broadly into four classes, viz., (*a*) Mileage, (*b*) Distribution, (*c*) Port, (*d*) Export and Coal Rates.

(*a*) *Mileage Rates.*—The following table shows mileage rates per ton of 2,000 lb., and rates per ton per mile at certain distances for the various classes of traffic enumerated:—

RAILWAY RATES PER TON AND PER TON PER MILE FOR GIVEN DISTANCES.

Tariff No.	Examples of Commodities included in Tariff referred to.	50 Miles.	100 Miles.	250 Miles.	500 Miles.	750 Miles.	1,000 Miles.
1	Clothing, Liquors, Furniture, and General Luxuries..... Per ton	30s. 0d.	60s. 0d.	143s. 4d.	230s. 0d.	286s. 8d.	322s. 4d.
"	" " †	7·2d.	7·2d.	6·88d.	5·52d.	4·59d.	3·86d.
2	Structural Steelwork, Bolts and Nuts, and Groceries.. Per ton	23s. 4d.	45s. 0d.	105s. 0d.	166s. 8d.	210s. 0d.	233s. 4d.
"	" " †	5·6d.	5·4d.	5·04d.	4·00d.	3·36d.	2·68d.
3	Machinery, Iron and Steel Rails and Tramway Track, Enamels and Paints..... Per ton	16s. 8d.	33s. 4d.	80s. 0d.	126s. 8d.	158s. 4d.	175s. 4d.
"	" " †	4d.	4d.	3·84d.	3·04d.	2·53d.	2·11d.
4	Planed Timber, Pigiead, Agricultural Implements (unpacked), and Trade Vehicles. Per ton	15s. 0d.	28s. 4d.	66s. 8d.	105s. 0d.	131s. 8d.	145s. 4d.
"	" " †	3·6d.	3·4d.	3·2d.	2·52d.	2·11d.	1·75d.
5	Agricultural Implements (packed)..... Per ton	10s. 0d.	16s. 8d.	43s. 4d.	68s. 4d.	90s. 0d.	105s. 0d.
"	" " †	2·4d.	2·0d.	2·08d.	1·64d.	1·44d.	1·26d.
	(These rates are based on Tariff 5, less 20 per cent.; maximum deduction, 9d. per 1,000 lb.).						
"	Jams, Beer, S.A. Tea, Tobacco, Vinegar, and Leather..... Per ton	11s. 8d.	21s. 8d.	53s. 4d.	83s. 4d.	105s. 0d.	120s. 0d.
"	" " †	2·8d.	2·6d.	2·56d.	2d.	1·68d.	1·44d.
6	S.A. Cheese, Butter, Sugar, Ginned Cotton, Crude Oils for Manufacturing, Power Paraffin, and Crude Fuel Oil..... Per ton	8s. 4d.	16s. 8d.	36s. 8d.	63s. 4d.	80s. 0d.	85s. 4d.
"	" " †	2·0d.	2·0d.	1·76d.	1·52d.	1·28d.	1·02d.
"	Galvanized Iron and Imported Rough Timber..... Per ton	8s. 4d.	16s. 8d.	36s. 8d.	63s. 4d.	80s. 0d.	85s. 4d.
"	" " †	2·0d.	2·0d.	1·76d.	1·52d.	1·28d.	1·02d.
	[Rate 5, less 20 per cent. (maximum deduction,	9d. per 1	00 lb.), a	pplies as	a maxim	um.]	
7	‡ Grain and Products, Vegetables, S.A. Farm Seeds, Raw Cotton, Fencing Materials, Disinfectant, and Cattle Dip..... Per ton	5s. 7d.	7s. 9d.	14s. 1d.	23s. 4d.	29s. 1d.	32s. 4d.
"	" " †	1·34d.	·93d.	·68d.	·56d.	·47d.	·38d.
9	S.A. Bricks, Stone, Mining Poles..... Per ton	5s. 4d.	7s. 4d.	11s. 8d.	15s. 3d.	18s. 5d.	21s. 1d.
"	" " †	1·28d.	·88d.	·56d.	·37d.	·29d.	·26d.
10	Lime and Fertilizers..... Per ton	3s. 11d.	5s. 5d.	9s. 6d.	13s. 0d.	14s. 3d.	15s. 0d.
"	" " †	·94d.	·65d.	·46d.	·31d.	·23d.	·18d.
*	Coal in Truck loads..... Per ton	4s. 6d.	6s. 6d.	10s. 10d.	14s. 5d.	17s. 7d.	19s. 2d.
"	" " †	1·08d.	·78d.	·52d.	·34d.	·28d.	·23d.

* Special.
† Per ton per mile.
‡ Maximum rate on S.A. maize and maize meal, 20s. per 2,000 lb.; S.A. wheat, wheaten meal, and wheaten flour, 22s. 6d. per 2,000 lb.; S.A. kaffir-corn and rye, in bulk, 27s. 6d. per 2,000 lb.

(*b*) *Distribution Rates.*—Certain important inland towns are known as "distribution centres," from which goods may be forwarded at special

"distribution" rates, thus stimulating the development of commerce in the inland towns. The broad underlying basis of the distribution rates is as follows: Schedule rate§ to ultimate destination from the port governing the distribution centre, via the distribution centre, *less* the rate§ from the same port to the distribution centre, plus cartage where applicable.

(*c*) *Port Rates.*—Special rates apply from the ports to inland towns. The following are the rates from the principal ports to Johannesburg:—

RAILWAY RATES PER TON AND PER TON PER MILE FROM CERTAIN PORTS TO JOHANNESBURG.

(*a*) Rates per ton of 2,000 lb., exclusive of cartage.
(*b*) Rates per ton per mile.

Tariff No.	Port and Mileage.							
	Table Bay (Capetown), 951 miles.		Algoa Bay (Port Elizabeth), 713 miles.		Buffalo Harbour (East London), 666 miles.		Point (Durban), 486 miles.	
	(*a*) s. d.	(*b*) d.	(*a*) s. d.	(*b*) d.	(*a*) s. d.	(*b*) d.	(*a*) s. d.	(*b*) d.
1.....	318 4	3·99	221 8	3·73	216 8	3·90	216 8	5·35
2.....	235 0	2·94	160 0	2·69	155 0	2·79	155 0	3·83
3.....	175 0	2·19	125 0	2·10	120 0	2·16	120 0	2·97
4.....	145 0	1·82	105 0	1·77	100 0	1·80	100 0	2·47
5.....	118 4	1·48	85 0	1·43	80 0	1·44	80 0	1·98
6.....	86 8	1·09	63 4	1·07	58 4	1·05	58 4	1·44
Motor Spirit	166 8	2·09	101 8	1·71	96 8	1·75	96 8	2·4

(*d*) *Export Rates and Bunker and Export Coal Rates.*

The following table shows (*a*) rates per ton of 2,000 lb. and (*b*) rates per ton per mile for the various classes of traffic enumerated:—

(1) *Export Traffic excepting Coal.*

RAILWAY RATES PER TON AND PER TON PER MILE FOR CERTAIN EXPORT TRAFFIC.

Commodity.		100 miles.	200 miles.	300 miles.	500 miles.	1,000 miles.
S.A. Grain.....	(*a*)	7s. 9d.	12s. 1d.	15s. 0d.	15s. 0d.	15s. 0d.
"	(*b*)	·93d.	·73d.	·60d.	·36d.	·18d.
* S.A. Kaffir-corn, Maize Meal, Lucerne Hay, Lucerne Meal, and Forage.....	(*a*)	7s. 9d.	10s. 0d.	10s. 0d.	10s. 0d.	10s. 0d.
" " "	(*b*)	·93d.	·60d.	·40d.	·24d.	·12d.
S. A. Fruit.....	(*a*)	11s. 8d.	12s. 6d.	12s. 6d.	13s. 6d.	17s. 6d.
"	(*b*)	1·40d.	·75d.	·50d.	·32d.	·21d.
S.A. Tobacco.....	(*a*)	7s. 9d.	12s. 1d.	12s. 6d.	13s. 6d.	17s. 6d.
"	(*b*)	·93d.	·73d.	·50d.	·32d.	·21d.
S.A. *unireated* Minerals, e.g. Antimony, Lead Ore, Corundum Ore, Iron Oxide, Asbestos, Copper and Tin Ore, Graphite, and Kieselguhr.....	(*a*)	6s. 7d.	8s. 10d.	10s. 10d.	13s. 9d.	19s. 2d.
" " "	(*b*)	·79d.	·53d.	·43d.	·33d.	·23d.
Iron Ore.....	(*a*)	3s. 8d.	6s. 5d.	9s. 3d.	13s. 9d.	19s. 2d.
"	(*b*)	·44d.	·39d.	·37d.	·33d.	·23d.

* Temporary rate.

(2) *Bunker and Export Coal.*

Special rates are in force for export and bunker coal from all collieries to the ports. The following are a few examples of the rates charged, in pence per ton of 2,000 lb.:—

RAILWAY RATES IN PENCE PER 2,000 LB. FOR BUNKER COAL.

From.	Bunker.		
	To Table Bay (Capetown).	To Point, Natal (Durban).	To Lourenco Marques.
	d.	d.	d.
Witbank.....	171	—	90
Hattingspruit.....	173	88·5	—
Hlobane.....	174	91·0	—

Subject to such conditions and on production of such proof as may be prescribed from time to time by the Administration, a rebate is granted in respect of coal shipped as cargo overseas beyond South or South West Africa.

§ Excluding cartage.

(2) *Bunker and export coal*—(continued).

This rebate is also allowed on coal utilized in bunkering ships carrying export cargo coal equal to 5,000 tons, or three-quarters of the ship's cargo carrying capacity (whichever is less), from Port Natal and Lourenço Marques to places overseas beyond South or South West Africa. The rebates are:—

Point ... ... 2s. 3d. per ton of 2,000 lb.
Lourenço Marques ... ... 2s. 3d. ,, ,,

§ 8. Railway Finance.

1. **Earnings.**—The subjoined tables give particulars of earnings of the South African Railways under various headings for a series of years. A graph is included, showing *inter alia* the variations of net revenue in relation to capital cost.

Figures for the period 1910-11 to 1934-35 were published in *Year Book* No. 17 and for later years in succeeding *Year Books*.

(i) EARNINGS CLASSIFIED UNDER MAIN HEADS, 1934 TO 1938.

Year ending 31st March.	Coaching.		Goods.	Coal.	Live Stock.	Miscellaneous.	Total.
	Passengers.	Parcels and other Traffic Receipts.					
	£	£	£	£	£	£	£
1934.....	4,532,651	734,892	13,985,115	2,965,476	761,094	728,296	23,707,524
1935.....	4,907,899	780,034	16,664,473	3,328,521	568,198	772,690	27,021,815
1936.....	5,209,538	827,166	18,955,143	3,613,936	718,048	726,023	30,049,854
1937.....	5,768,878	864,340	20,033,340	3,739,468	696,653	700,112	32,502,791
1938.....	5,750,035	869,188	21,403,112	3,729,971	763,840	872,627	33,388,773

(ii) EARNINGS UNDER EACH HEAD PER AVERAGE OPEN MILE AND PER TRAIN MILE, 1934 TO 1938.

Year ending 31st March.	Passengers.	Parcels and Other Traffic Receipts.	Goods.	Coal.	Live Stock.	Miscellaneous.	Total.
Per Average Open Mile:	£	£	£	£	£	£	£
1934.....	345	56	1,063	225	58	55	1,802
1935.....	371	59	1,260	251	43	59	2,043
1936.....	394	63	1,434	273	54	55	2,273
1937.....	435	65	1,511	282	52	60	2,405
1938.....	433	65	1,614	281	58	66	2,517
Per Train Mile:—	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
1934.....	2 0·9	0 4·0	6 4·9	1 4·3	0 4·2	0 4·0	10 10·3
1935.....	2 1·2	0 4·0	7 1·6	1 5·1	0 2·9	0 4·0	11 6·8
1936.....	2 0·3	0 3·8	7 4·5	1 4·9	0 3·4	0 3·4	11 8·3
1937.....	2 1·3	0 3·8	7 3·8	1 4·4	0 3·1	0 3·4	11 7·8
1938.....	1 10·9	0 3·4	7 1·1	1 2·8	0 3·0	0 3·5	11 0·7

(iii) EARNINGS—PERCENTAGE OF TOTAL EARNINGS CLASSIFIED UNDER MAIN HEADS, 1934 TO 1938.

Year ending 31st March.	Coaching.		Goods.	Coal.	Live Stock.	Miscellaneous.
	Passengers.	Parcels and Other Traffic Receipts.				
	%	%	%	%	%	%
1934.....	19·12	3·10	58·99	12·51	3·21	3·07
1935.....	18·16	2·89	61·67	12·32	2·10	2·86
1936.....	17·34	2·75	63·08	12·03	2·39	2·41
1937.....	18·09	2·71	62·81	11·73	2·18	2·48
1938.....	17·22	2·60	64·10	11·17	2·29	2·62

(iv) COACHING RECEIPTS PER AVERAGE OPEN MILE AND PER TRAIN MILE, 1934 TO 1938.

Year ending 31st March.	Average Open Mileage. *	Number of Passenger Train Miles.	Number of Passenger Journeys.	Coaching Receipts.		
				Total.	Per Open Mile.	Per Passenger Train Mile.
				£	£	d.
1934.....	13,154	15,338,143	75,757,764	5,267,543	401	82·42
1935.....	13,203	16,342,392	83,280,993	5,687,933	431	83·53
1936.....	13,223	17,241,541	89,800,870	6,036,704	457	84·03
1937.....	13,260	18,263,055	96,496,033	6,633,218	500	87·17
1938.....	13,263	18,864,784	105,475,637	6,619,223	498	84·21

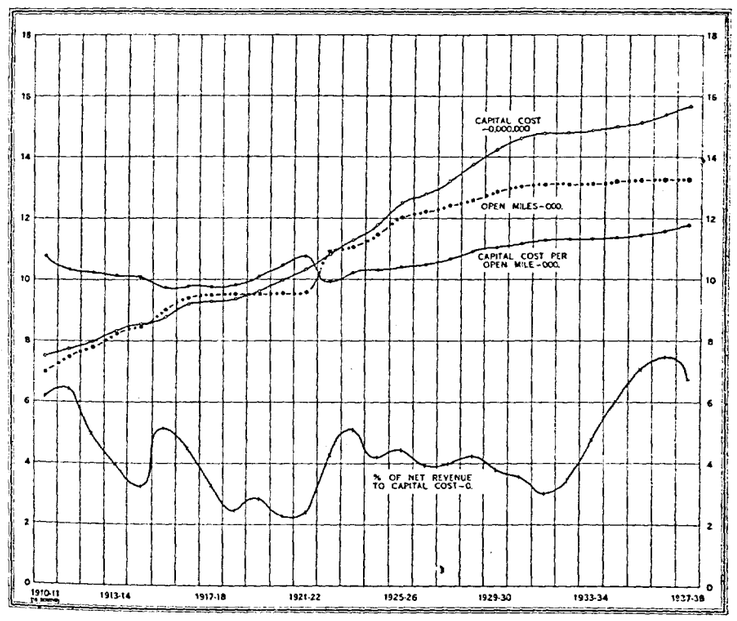
* Includes 50 miles leased from the Natal-Zululand Railway Company.

(v) GOODS, COAL, AND LIVE STOCK RECEIPTS, PER OPEN MILE, PER GOODS TRAIN MILE, AND PER TON CARRIED, 1934 TO 1938.

Year ending 31st March.	Average Open Mileage. *	Number of Goods Train Miles.	Number of Tons Carried. †	Goods Receipts.			
				Total.	Per Open Mile.	Per Train Mile.	Per Ton Carried (Goods and Coal).
				£	£	d.	d.
1934.....	13,154	28,315,146	20,423,495	17,711,685	1,346	150·12	199·19
1935.....	13,203	30,371,104	23,785,576	20,561,192	1,557	162·48	207·47
1936.....	13,223	34,180,172	26,247,902	23,287,127	1,761	163·51	212 93
1937.....	13,260	36,503,206	27,074,187	24,469,461	1,845	160·88	216·91
1938.....	13,263	41,532,616	29,974,816	25,896,923	1,953	149·65	207·35

* Includes 50 miles leased from the Natal-Zululand Railway Company.
† Exclusive of live stock tonnage.

(vi) CAPITAL COST OF GOVERNMENT RAILWAYS AND PER CENT. OF NET REVENUE TO CAPITAL COST, 1910-11 TO 1937-38.



Year ending 31st March.

2. **Working Expenditure.**—Particulars as to the working and recurrent expenditure of the South African Railways are given under various headings in the subjoined tables for the financial years stated in each case:—

(i) TOTAL WORKING EXPENDITURE, 1933-34 TO 1937-38.

Expenditure.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
	£	£	£	£	£
Maintenance of Way and Works	2,330,076	2,492,607	2,610,194	2,808,219	3,108,830
Maintenance of Rolling Stock:—					
Locomotives	1,760,584	2,049,848	2,211,224	2,255,447	2,483,955
Coaching Stock	604,722	693,104	711,941	755,589	836,188
Goods Stock	824,136	891,962	962,469	943,101	1,090,079
Running Expenses	4,304,796	4,590,984	5,017,947	5,308,143	6,271,713
Traffic Expenses:—					
Superintendence and Station Expenses	3,518,073	3,799,670	4,154,323	4,510,750	5,149,785
Advertising	37,241	44,805	60,421	89,974	98,521
Compensation	51,190	49,641	46,320	61,701	103,612
General Charges	446,440	466,027	498,886	552,190	593,620
Superannuation	878,189	815,746	873,922	712,374	714,938
Cartage	386,009	434,924	465,568	503,572	562,966
TOTAL ORDINARY WORKING EXPENDITURE £	15,141,456	16,329,318	17,613,215	18,501,060	21,014,207
Depreciation:—					
Permanent Way and Works } Rolling Stock }	1,778,064	2,011,904	2,044,401	2,092,800	2,204,711
TOTAL WORKING EXPENDITURE £	16,919,520	18,341,222	19,657,616	20,593,860	23,218,91
Balance (being Surplus of Revenue over Expenditure)	6,788,004	8,680,593	10,392,238	11,298,931	10,169,85
TOTAL £	23,707,524	27,021,815	30,049,854	31,892,791	33,388,77

(ii) WORKING EXPENDITURE UNDER EACH MAIN HEAD PER AVERAGE OPEN MILE AND PER TRAIN MILE, 1933-34 TO 1937-38.

Head of Expenditure.	Per Average Open Mile.					Per Train Mile.				
	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
	£	£	£	£	£	s. d.	s. d.	s. d.	s. d.	s. d.
Maintenance of Permanent Way and Works	177	189	197	212	234	1 0·8	1 0·8	1 0·2	1 0·3	1 0·4
Maintenance of Rolling Stock—										
Locomotives	134	155	167	170	187	0 9·7	0 10·5	0 10·3	0 9·9	0 9·9
Coaching Stock	46	52	54	57	63	0 3·3	0 3·6	0 3·3	0 3·3	0 3·3
Goods Stock	63	68	73	71	82	0 4·5	0 4·6	0 4·5	0 4·1	0 4·3
Running Expenses	327	347	379	400	473	1 11·7	1 11·6	1 11·4	1 11·3	2 0·9
Traffic Expenses—										
Superintendence and Station Expenses	267	287	314	340	388	1 7·3	1 7·5	1 7·4	1 7·8	1 8·5
Advertising	3	3	5	7	8	0 0·2	0 0·2	0 0·3	0 0·4	0 0·4
Compensation	4	4	4	5	8	0 0·3	0 0·3	0 0·2	0 0·3	0 0·4
General Charges	34	35	38	41	45	0 2·5	0 2·4	0 2·3	0 2·4	0 2·4
Superannuation	67	62	66	54	54	0 4·8	0 4·2	0 4·1	0 3·1	0 2·8
Cartage	29	33	35	38	43	0 2·1	0 2·2	0 2·2	0 2·2	0 2·2
TOTAL (excluding Renewals)	1,151	1,235	1,332	1,395	1,585	6 11·2	6 11·9	6 10·2	6 9·1	6 11·5
Renewals— Rolling Stock, Permanent Way	135	152	155	158	166	0 9·8	0 10·3	0 9·5	0 9·2	0 8·8
TOTAL (including Renewals, etc.)	1,286	1,387	1,487	1,553	1,751	7 9·0	7 10·2	7 7·7	7 6·3	7 8·3

(iii) WORKING EXPENDITURE UNDER EACH MAIN HEAD PER CENT. OF EARNINGS AND EXPENDITURE, 1933-34 TO 1937-38.

Head of Expenditure.	Per Cent. of Total Earnings.					Per Cent of Expenditure.				
	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.
Maintenance of Permanent Way and Works	9·83	9·22	8·69	8·81	9·31	13·77	13·59	13·28	13·64	13·39
Maintenance of Rolling Stock—										
Locomotives	7·42	7·59	7·36	7·07	7·44	10·41	11·18	11·25	10·95	10·70
Coaching Stock	2·55	2·57	2·37	2·37	2·50	3·58	3·78	3·62	3·67	3·60
Goods Stock	3·48	3·30	3·20	2·96	3·27	4·87	4·86	4·89	4·58	4·69
Running Expenses	18·16	16·99	16·70	16·65	18·78	25·44	25·03	25·53	25·78	27·01
Traffic Expenses—										
Superintendence and Station Expenses	14·84	14·06	13·82	14·14	15·42	20·79	20·72	21·13	21·90	22·18
Advertising	0·16	0·17	0·20	0·28	0·30	0·22	0·24	0·31	0·44	0·42
Compensation	0·22	0·18	0·16	0·19	0·31	0·30	0·27	0·24	0·30	0·45
General Charges	1·88	1·72	1·66	1·73	1·78	2·64	2·54	2·54	2·68	2·56
Superannuation	3·70	3·02	2·91	2·23	2·14	5·19	4·45	4·44	3·46	3·08
Cartage	1·63	1·61	1·55	1·58	1·69	2·28	2·37	2·37	2·44	2·43
TOTAL (excluding Renewals)	63·87	60·43	58·62	58·01	62·94	89·49	89·03	89·60	89·84	90·51
Renewals— Rolling Stock, Permanent Way	7·50	7·45	6·80	6·56	6·60	10·51	10·97	10·40	10·16	9·49
TOTAL (including Renewals, etc.)	71·37	67·88	65·42	64·57	69·54	100·00	100·00	100·00	100·00	100·00

3. **Financial Statements.**—The following tables contain data in respect of the working of the South African Railways, Harbours, and Steamships for a series of years. The financial year, which ends on the 31st March, is used in each case and in all tables.

(i) *Revenue and Expenditure.*—The table given below contains information relative to the revenue and expenditure (including interest payments on capital) of the South African Railways from 1933-34, and shows the surplus or the deficit on each year of working.

REVENUE AND EXPENDITURE ACCOUNT, 1933-34 TO 1937-38.

Heading.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
	£	£	£	£	£
REVENUE—					
Gross Traffic Receipts	23,707,524	27,021,815	30,049,854	31,892,791	33,388,773
Miscellaneous Receipts	1,354,225	1,451,469	1,541,907	1,493,735	1,656,117
TOTAL.....£	25,061,749	28,473,284	31,591,761	33,386,526	35,044,890
EXPENDITURE—					
Gross Working Expenditure	16,919,521	18,341,222	19,657,616	20,593,860	23,218,919
Interest	5,324,338	5,147,920	5,107,133	5,038,655	4,923,625
Miscellaneous Expenditure	1,004,384	1,095,417	1,203,854	1,289,990	1,320,240
TOTAL.....£	23,248,243	24,584,559	25,968,603	26,922,505	29,462,784
SURPLUS.....£	1,813,506	3,888,725	5,623,158	6,464,021	5,582,106
DEFICIT.....£	—	—	—	—	—

(ii) *Capital Expenditure: Profit and Loss, Railways.*—The following tables give (*a*) particulars concerning the capital expenditure on open lines, the net revenue from all sources, working expenses, profit and loss (after deduction of interest charges), and percentage of profit and loss to capital, for each financial year for a series of years; (*b*) the general balance sheet of the government railways and harbours, at the 31st March, 1938.

(*a*) CAPITAL EXPENDITURE, NET REVENUE, WORKING EXPENDITURE, PROFIT AND LOSS, AFTER PAYMENT OF INTEREST CHARGES, 1933-34 TO 1937-38.

Heading.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Capital Expenditure at End of Period.....£	148,758,522	149,871,077	151,234,778	153,807,469	156,698,405
Net Revenue.....£	7,137,844	9,036,645	10,730,291	11,502,676	10,505,732
Per Cent. of Capital*	£4. 15s. 11d.	£6. 0s. 7d.	£7. 1s. 11d	£7. 9s. 9d.	£6. 14s. 3d.
Per Average Open Mile....£	543	684	811	867	792
Per Train Mile.....d.	39·24	46·43	50·08	50·41	41·75
Working Expenses.....£	16,919,521	18,341,222	19,657,616	20,593,860	23,218,919
Per Average Open Mile....£	1,286	1,389	1,487	1,553	1,751
Per Train Mile.....d.	93·02	94·23	91·75	90·25	92·26
Profit and Loss (−).....£	1,813,506	3,888,725	5,623,158	6,464,021	5,582,106
Percentage of Profit or Loss to Capital†.....%	1·22	2·59	3·72	4·20	3·56

* Excluding interest payments.
† After payment of interest.

(*b*) RAILWAYS AND HARBOURS—GENERAL BALANCE SHEET AT 31st MARCH, 1938.

DR.	£	CR.	£
To Capital Account—		*By* Cash at Bankers, with Treasury, with High Commissioner, London, and on hand	262,125
„ Balance at Credit	4,851,398	„ Investments—	
„ Betterment Fund	1,516,049	Union Government Securities (at cost) £31,628,371	
„ General Renewals Fund	4,375,498	Other Government Securities (at cost) 739,583	
„ General Insurance Fund	1,225,983	Securities Guaranteed by Union Government (at cost) 782,975	
„ Rates Equalization Fund	3,000,000	Public Debt Commissioners (temporarily invested) 764,585	
„ S.A.R. and Harbours Sick Fund	28,606		33,915,514
„ Staff Guarantee Fund	42,418	„ Stores on hand, in transit, and in course of manufacture	5,981,481
„ Railway Institutes Fund	22,734	„ Amounts due by other Railway Administrations	29,333
„ Charitable Fund	19,194	„ Sundry Outstanding Accounts and Debit Balances	2,459,530
„ Superannuation Fund	21,944,803	„ Equipment and Other Assets of Subsidiary Departments	201,006
„ Pension Fund	2,433,689	„ Railway Sleeper Plantations	60,327
„ Cape Widows' Pension Fund (Railways)	819,653		
„ Amounts due to other Railway Administrations	32,182		
„ Sundry Outstanding Accounts and Credit Balances	2,276,340		
„ Finance Department—Loan Balances surrendered	—		
„ Net Revenue Appropriation Account	320,769		
TOTAL.....£	42,909,316	TOTAL.....£	42,909,316

(iii) *Profit and Loss.*—The statement shown below contains information as to the profit and loss on the working of the government railways, ports and harbours, steamships, and airways, together with the contributions to various funds, for each financial year for a series of years. The final profit and loss carried to the Distribution Account, and its adjustment throughout the period covered by the statement, is shown in the table under paragraph (iv).

RAILWAYS, HARBOURS, STEAMSHIPS, AND AIRWAYS—FINAL PROFIT OR LOSS ON WORKING, 1933-34 TO 1937-38.

Heading.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
	£	£	£	£	£
Profit or Loss (−) on—					
Railways	1,813,506	3,888,725	5,623,158	6,464,021	5,582,106
Harbours	46,823	307,357	538,728	677,414	718,840
Ships	4,006	1,756	3,655	−2,749	7,781
Airways	−3,528	−33,493	−63,999	−68,001	−150,643
TOTAL.....£	1,860,807	4,164,345	6,101,542	7,070,685	6,158,084
Contributions to—					
Pensions Fund	287,000	287,000	487,000	487,000	487,000
Betterment & Renewals Fund	50,000	650,000	3,300,000	2,100,000	4,700,000
*Other	—	679,644	2,568,818	2,753,203	2,505,952
TOTAL.....£	337,000	1,616,644	6,355,818	5,340,203	7,692,952
Balance—					
Credit	1,523,807	2,547,701	—	1,730,482	—
Debit	—	—	254,276	—	1,534,868

* Represents contributions to—	1934-35.	1935-36.	1936-37.	1937-38.
Rates Equalization Fund	—	1,000,000	1,000,000	1,000,000
Reduction Interest Bearing Capital	—	1,000,000	250,000	250,000
Writing Out Dead Assets	679,644	400,000	250,000	753,154
Responsibility Allowance	—	168,818	1,226,274	482,798
Writing down value of obsolete Aircraft	—	—	26,929	—
Workmen's Compensation Insurance Fund	—	—	—	20,000

(iv) *Distribution Account.*—The subjoined table shows the adjustment of the final balance of profit and loss in the working of the government railways, ports and harbours, steamships, and airways for each financial year for a series of years.

REVENUE DISTRIBUTION ACCOUNT, 1933-34 TO 1937-38.

Year.	Balance Forward from Table under (iii). Cr.	Balance Forward from Table under (iii). Dr.	Balance at End of Each Year.
	£	£	£
1933-34	1,523,897	—	−2,168,270
1934-35	2,647,701	—	+379,431
1935-36	—	254,276	+125,155
1936-37	1,730,482	—	+1,855,637
1937-38	—	1,534,868	+ 320,769

(v) *Subsidiary Services.*—The following table gives for a series of years the results of the working of the subsidiary services, e.g. catering, publicity, bedding, grain elevators, and road motor transport, conducted by the South African Railways. These services represent activities of some magnitude in themselves, and as only the final figures of profit and loss are carried into the financial statement in 3(i) above, under the heading of miscellaneous revenue and expenditure, this large volume of work tends to be lost sight of entirely.

SUBSIDIARY SERVICES, 1933-34 TO 1937-38.

(a) Revenue.

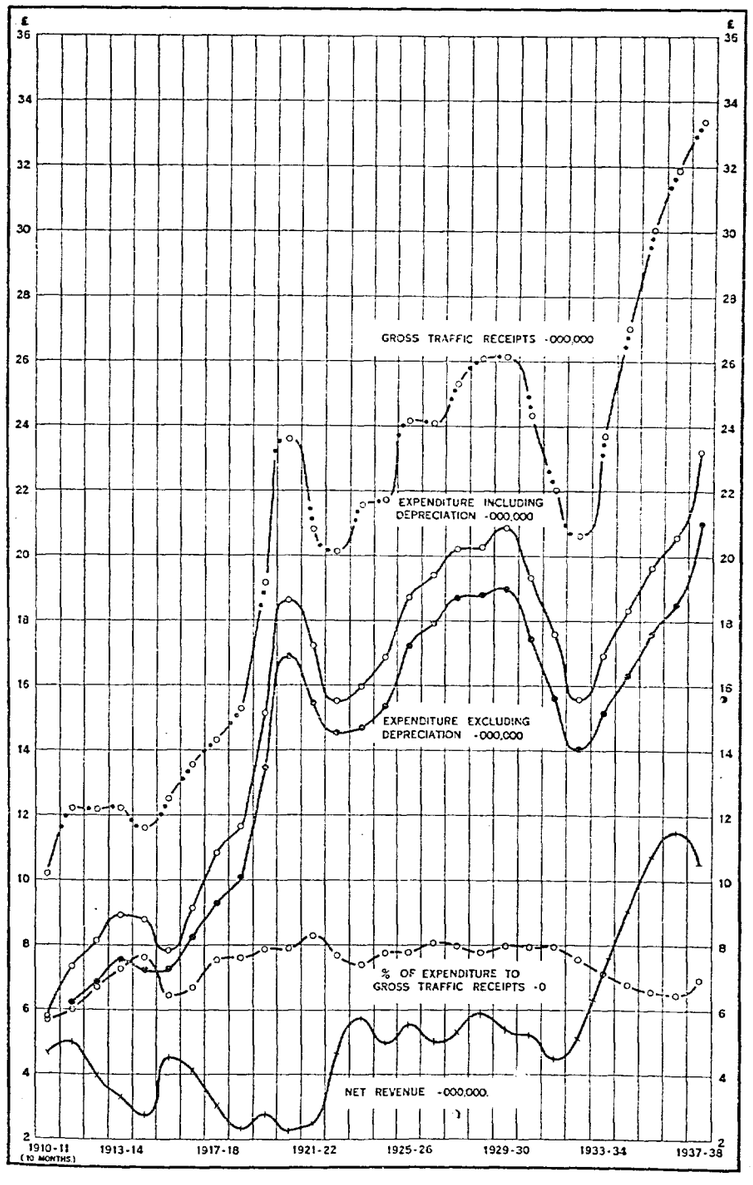
Heading.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
	£	£	£	£	£
Catering Service	404,523	445,792	477,264	534,788	547,507
Publicity, Bookstalls, etc.	188,237	204,632	214,796	233,225	245,365
Bedding Service	53,155	59,521	64,879	78,654	78,312
Grain Elevators	147,297	182,012	229,984	94,752	356,622
Road Motor Service	452,166	483,761	496,781	571,685	612,875
Miscellaneous	44,068	65,199	78,591	99,069	80,555
TOTAL £	1,289,446	1,440,917	1,562,295	1,612,173	1,921,234

(b) Expenditure.

	£	£	£	£	£
Catering Service	428,297	463,544	487,367	534,623	561,131
Publicity, Bookstalls, etc.	169,112	185,818	193,745	211,007	224,776
Bedding Service	37,609	47,527	52,546	62,198	69,761
Grain Elevators	221,736	221,487	222,524	210,192	230,071
Road Motor Service	419,070	424,604	429,916	526,315	586,753
*Miscellaneous and Adjustments	39,335	62,914	77,081	95,993	82,571
TOTAL £	1,315,159	1,405,894	1,463,179	1,640,328	1,755,363
	£	£	£	£	£
Final Profit or Loss (−) £	−25,713	35,023	99,116	−28,155	165,871

* The adjustments, which in some instances produce a minus amount, are the differences produced when the value of stocks in hand at the end of the financial year is greater or less than the value of the stocks at the beginning of the same year.

REVENUE AND EXPENDITURE OF GOVERNMENT RAILWAYS, YEARS 1910-11 TO 1937-38.



4. **Cost of Construction.**—The subjoined table gives particulars as to the cost of construction of new lines completed since the establishment of Union. The details relating to the lines opened prior to 1931 are available in No. 17 and previous *Year Books*.

The cost per open mile at 31st March, 1938, of lines of 3 ft. 6 in. gauge averaged £9,619 and of 2 ft. gauge £3,254. These amounts include expenditure on new works on open lines.

COST OF NEW LINES COMPLETED FROM THE ESTABLISHMENT OF UNION TO THE 31st MARCH, 1938.

Year of Opening.	Line.	Length.		Expenditure since 31/5/10.	Total Expenditure to 31/3/38.
	3 ft. 6 in. gauge:—	Miles.	Ch.	£	£
	Total constructed between 1910 and 1930.....	4,139	55	16,491,163	17,523,995
1931	Molteno–Jamestown.....	41	73	214,141	214,141
1931	Chalfey–Mt. Alida.....	25	15	108,015	108,015
1934	Northam–Thabazimbi.....	23	65	120,669	120,669
1935	Kleinstraat–Matroosberg (Loop Line).....	8	20	112,344	112,344
1935	Elsburg–Germiston (Loop Line).....	2	60	134,611	134,611
1935	Tuinplaats–Marble Hall.....	36	10	102,522	102,522
1936	Springs–Nigel.....	20	05	162,652	162,652
1936	Postmasburg–Beeshoek.....	4	46	11,606	11,606
1937	Point-Congella.....	1	56	215,732	215,732
1937	Beeshoek-Lohathla.....	21	77	93,313	93,313
		4,331	2	17,790,768	18,835,513
	2 ft. gauge:—				
	Total constructed between 1910 and 1930.....	281	63	655,292	524,674
1931–38	Nil.	—		—	—
		4,612	65	18,452,060	19,360,187

§ 9. Aviation and Air Transportation.

1. **Civil Aviation.**—(i) *Aviation Control.*—The *Aviation Act*, No. 16 of 1923, which was passed to enable effect to be given to the International Air Navigation Convention and to make provision for the control, regulation, and encouragement of flying within the Union, came into force on the 1st July, 1924. The Act provides for the adoption of the convention, and empowers (*a*) the issue of proclamations to give effect to the convention; (*b*) the ratification of and giving effect to amendments; and (*c*) the application within the Union of any of the provisions of the convention. Section 3 provides for the making of regulations, which cover, *inter alia*, the licensing and certificating of personnel, machines, and aerodromes, the registration of aircraft, the safety and security of persons and property, the holding of accident inquiries, etc.

Section 4 provides for the appointment of a Civil Air Board to advise the Minister, and the Act gives powers of control, after issue of special proclamation, to provide for a state of war or great national emergency.

Provision is made (*a*) for the establishment and maintenance, out of any moneys appropriated by Parliament for the purpose, of aerodromes and road approaches thereto; (*b*) for the acquisition of land for this purpose; and (*c*) for land being expropriated for aerodromes, as though the acquisition were a defence purpose in terms of section 87 of the *Defence Act* (No. 13 of 1912). Aerodromes used for public purposes must be approved or licensed.

Actions for *trespass or nuisance* against aircraft for flying over private property are barred, provided reasonable height and the rules of flight are observed, but it is laid down that damages may be recoverable for *loss or damage* caused by the aircraft or by articles falling from the aircraft. The Act provides for the investigation of accidents to aircraft, and empowers the detention of aircraft for breach of law or regulations.

The provisions of the Act are made applicable to all aircraft except those used for military, naval, or government purposes, but they may be applied to government aircraft or aerodromes by proclamation.

In September, 1931, the administration of civil aviation was transferred from the Department of Posts and Telegraphs to the Department of Defence.

(ii) *Air Navigation Regulations.*—The *Air Navigation Regulations and Amendments*, 1935, were promulgated on the 4th October, 1935. Copies of this publication are obtainable from the Secretary for Defence, Defence Headquarters, Pretoria.

(iii) *Wireless.*—Thirteen D/F Wireless Stations for the use of civil aircraft are now in operation in the Union at Durban, East London, Port Elizabeth, Kimberley, Vryheid, Maclear, Piquetberg, Bethlehem, Beaufort West, Pietersburg, Wingfield (Capetown), Germiston, and Mossel Bay.

In connexion with the contemplated air route from the Rand Airport to Mossamedes in conjunction with the west coast service, further stations will be erected in the near future at Palapye and Maun in the Bechuanaland Protectorate and at Windhoek and Outjo in the South West African Mandated Territory. D/F stations are also contemplated at Nelspruit in connexion with the service to Portuguese East Africa (Lourenço Marques), and at Bloemfontein in connexion with the extension of the arterial services.

The new stations are planned to work in the shortwave band with direct cathode ray indication of bearings observed on aircraft.

(iv) *Flying Clubs and Schools.*—At the end of 1938 the following flying clubs and schools were in operation in the Union:—Johannesburg Light Plane Club; Rand Flying Club, Germiston, Klerksdorp, Potchefstroom, Benoni; Witwatersrand Technical College, Johannesburg, Randfontein, Vereeniging, Witbank, Bethal, and Standerton; African Air Transport (Pty.), Limited, Kimberley and Capetown; Natal Aviation (Pty.), Ltd., Durban; Haller Aviation (Pty.), Ltd., East London, Port Elizabeth, and Grahamstown; Bethlehem Flying Club; Bloemfontein Light Plane Club, Free State Aviation, Kroonstad, Harrismith, Senekal, and Theunissen; Pretoria Flying School; Union Aviation Co. (Pty.), Ltd.; Air Taxi Co. (Pty.), Ltd.; African Flying Services (Pty.), Ltd.; and Aero Services (Pty.), Ltd.

During 1938 these clubs and schools flew a total of 41,204 hours, carried 27,831 passengers, and trained 357 pupils for their "A" Pilots' licences, besides numerous pupil pilots for the Air Force Reserve.

(v) *Charter and Private Flying.*—During 1938, 6,515 hours were flown and 4,505 passengers carried on charter flights and in private aircraft.

(vi) *Pupil Pilots Training Scheme.*—A new scheme for the training of pupil pilots came into operation on the 1st April, 1937, under which the Government proposes to train, over a period of approximately six years, 1,000 pilots for the South African Air Force Reserve of Pilots. Courses of training are in accordance with a prescribed syllabus, which includes 110 hours' training in actual flying and 104 hours' ground instruction. This training is carried out by pupil pilots at approved flying clubs and schools in their spare time whilst following their civil occupations. In addition, pupil pilots are required to undergo continuous training at the Central Flying School, Voortrekkerhoogte, viz., one period of 30 days and one period of 15 days in both the 1st and the 2nd year of training.

Forty-six pupil pilots were enrolled under this scheme on 1st April, 1937, and in addition approximately 90 pupil pilots who had enrolled under former schemes were absorbed under the new scheme. It has been arranged to enrol 50 pupils in each subsequent quarter.

Under the scheme a grant of £30 is paid to approved flying clubs and schools in respect of Union nationals of either sex who have qualified for an "A" Pilot's licence and have completed 25 hours' dual and solo flying on club or school aircraft. This grant is shared with the pilot concerned.

(vii) *Aviation Licences and Certificates.*—The number of civil aviation licences and certificates issued in the Union up to the 31st December, 1938, and the number current at that date were as follows:—

Licences and Certificates.	*Issued.*	*Current.*
	No.	No.
"A" Pilots.....	932	476
"B" Pilots.....	223	140
Ground Engineers.....	219	135
Aerodromes.....	110	76
Aircraft.....	378	255

(viii) *Civil Aircraft Registered.*—The following table shows the number of civil aircraft registered in the Union since 1929:—

Year.	Registered.	Cancelled.	Current.	Year.	Registered.	Cancelled.	Current.
	No.	No.	No.		No.	No.	No.
1929	22	8	33	1934	16	6	72
1930	15	8	40	1935	21	3	90
1931	24	12	52	1936	53	11	132
1932	15	10	57	1937	94	17	209
1933	17	12	62	1938	75	25	259

2. **South African Airways (S.A.R. and H.).**—In terms of Act No. 21 of 1931, powers were granted to the South African Railways and Harbours Administration to operate its own departmental aircraft for the transport of passengers and goods, and on the 1st February, 1934, the Administration took the first step to implement the provisions of the Act, and assumed control, under the title of South African Airways (South African Railways and Harbours), of the services hitherto operated by Union Airways between Durban and Capetown and Durban and Johannesburg.

In pursuance of the policy of having all scheduled air services State-owned, the Administration took over the South West African Airways from the 1st February, 1935.

On 1st April, 1936, South African Airways took over the whole of the services south of Germiston, which were previously operated by Imperial Airways, and in June, 1937, coincident with the introduction by Imperial Airways of its flying boat service terminating at Durban, South African Airways took over the route from Germiston to Lusaka jointly with Rhodesia and Nyasaland Airways. This service was extended to Kisumu during July of the same year.

Since then the Administration has been actively developing its air services, the route mileage of which now aggregates 7,206, and there has been a remarkable growth of passenger and mail traffic on all sections of the scheduled routes in South Africa, as will be seen from the subjoined statement:—

NUMBER OF PASSENGERS AND AMOUNT OF FREIGHT AND MAILS CONVEYED, AND MILEAGE FLOWN, 1934 TO 1938.

Class of Traffic.	1934.	1935.	1936.	1937.	1938.
S.A. Airways (S.A.R. & H.) (Union).					
Passengers carried.....No.	1,973	8,121	15,256*	18,498*	34,162*
Freight and Mails carried.....lb.	93,031	369,773	851,717*	1,589,451*	3,005,639*
Mileage flown.....Miles	240,306	374,712	577,980*	1,110,076*	1,862,193*
S.A. Airways (S.A.R. & H.) (South West Africa)					
Passengers carried.....No.	135	426	—	—	—
Freight and Mails carried.....lb.	6,017	4,840	—	—	—

* Includes South West Africa services.

Including additional aircraft on order the Administration's fleet of aircraft is as follows:—

JU.86 Junkers (10-seater)	18
JU.52 Junkers (14/16-seater)	11
JU.90 Junkers (40-seater)	2
F.13 Junkers	2
Miles Magister (Training)	1
TOTAL	34

Lorenz blind landing equipment has been installed and satisfactorily tested at the Wingfield Aerodrome, Capetown, and the installation of similar equipment at Durban and Port Elizabeth is nearing completion. All new aircraft are being equipped for the operation of this system.

Particulars of the services operated by the South African Airways are subjoined:—

Section.	*Services per week in each direction.*
Rand–Durban	10
Durban–Capetown	6
Rand–Capetown	6
Rand–Port Elizabeth	3
Rand–Windhoek	2
Rand–Bulawayo	3, with an extension between Bulawayo and Kisumu once per week.

In conjunction with local authorities the Administration has given special attention to the provision of emergency landing grounds at regular intervals throughout the Union and South West Africa, and under normal circumstances the aircraft performing services over the regular routes are always within approximately 10 to 15 minutes flying distance from a landing ground.

3. **Air Mails.**—(i) *England-South Africa.*—A regular twice weekly air service carrying mails between Southampton and Durban is operated by Imperial Airways, Limited. "C" class flying-boats are used. The route followed is via France, Italy, Greece, Egypt, Sudan, and Uganda, then along the coast via Mombasa, Dar-es-Salaam, Beira, and Lourenço Marques. The journey occupies approximately 4½ days inwards and 5½ days outwards.

(ii) *South Africa-Australia and Far East.*—In conjunction with the South Africa-England air service, which connects at Alexandria in Egypt with the eastbound services of Imperial Airways, Limited, and associated companies, a regular twice weekly service by air between South Africa and Australia and the Far East is in operation. The route is via Palestine, Iraq, the Persian Gulf, India, Burma, Malaya, Java, and Darwin. "Feeder" air services operate between Karachi and Ceylon and between Bangkok and Hong Kong. The journey occupies six days to India, nine to Malaya, and eleven to Australia.

(iii) *Empire Air Mail Scheme.*—The first stage of the Empire Air Mail Scheme, having for its object the conveyance of all first class mail matter (letters and postcards) within the Empire by air without surcharge, was inaugurated by the flying-boat which left England on the 29th June, 1937, and arrived at Durban on the 5th July, 1937. In the reverse direction the first flying-boat to convey all first class mail matter posted in the Union and addressed to the United Kingdom left Durban on the 4th July, 1937. A further step towards the fulfilment of this object was made when the Empire Air Mail Scheme was extended, amongst other countries, to India, Malaya, Canada, and Newfoundland. The first mails from the Union for these countries under the "all letters by air" service left Durban by flying-boat on the 20th February, 1938. The first "all-up" mail arrived in the Union from India on the 8th and from Malaya on the 11th March, 1938.

(iv) *Air Mail Statistics.*—(a) *Within the Union.*—The weights of mail matter conveyed by air within the Union, including mails conveyed by Union Air Services to and from the flying boats and to and from South West Africa, for a series of years were as follows:—

AIR MAIL MATTER CONVEYED IN UNION AND SOUTH WEST AFRICA, 1934 TO 1938.

Direction.	1934.*	1935.*	1936.*	1937.*	1938.*
	lb.	lb.	lb.	lb.	lb.
Within the Union	20,561	24,331	54,308	105,099	991,854
Union to South West Africa	2,259	3,500	821	1,084	9,357
South West Africa to Union	744	1,254	1,085	1,877	7,881

* Year ending 31st March.

(*b*) *Union to Other Countries.*—The weights of mail matter dispatched from offices in the Union for a series of years were as follows:—

AIR MAIL DISPATCHED FROM UNION, 1934 TO 1938.

Destination.	1934.*	1935.*	1936.*	1937.*	1938.*
	lb.	lb.	lb.	lb.	lb.
Southern and Northern Rhodesia	885	2,062	4,238	5,122	12,679
Kenya, Uganda, and Tanganyika	2,108	2,979	3,861	4,293	1,161
Sudan	23	28	50	118	251
Egypt	679	801	944	1,068	1,218
United Kingdom	13,239	25,972	49,795	63,819	264,305
India	243	797	1,206	1,189	2,926
Malaya	—	—	340	872	1,105
Australia	—	135	292	357	512
Europe (excluding United Kingdom)	5,231	8,312	14,218	20,811	52,203
†Belgian Congo	—	—	—	—	526
†Portuguese East Africa	—	—	—	—	3,270
†Nyasaland	—	—	—	—	6,516

* Year ending 31st March.
† Service commenced 1st July, 1937.

(*v*) *Postage Rates.*—For air mail postage rates see Chapter XIV.

§ 10. Southern Africa Transport Conference.

On the initiative of the Union Government, a Transport Conference, at which the territories of Southern Africa were represented, was held in Johannesburg from the 7th to the 14th September, 1936. Distinguished and representative delegations attended from Angola, Basutoland, Bechuanaland Protectorate, Belgian Congo, Kenya, Madagascar, Mozambique, Northern Rhodesia, Nyasaland, Southern Rhodesia, Swaziland, Tanganyika, Uganda, and Zanzibar, in addition to Union delegates from the appropriate Departments of State.

While the Conference was originally conceived to serve as a venue for the exchange of views upon railway matters of common interest, its scope was subsequently enlarged to embrace all forms of transport.

At its initial plenary session the Conference resolved to appoint—

(i) a committee on surface transport; and
(ii) a committee on airways.

These committees considered various subjects concerning their respective groups and submitted recommendations in regard thereto.

An important recommendation of the Conference was to the effect that a permanent secretariat be established for the purpose of maintaining an interchange of views between the territories represented at the Conference. This recommendation was accepted and a permanent secretariat has been established in the office of the Minister of Railways and Harbours, Union Buildings, Pretoria.

The record of proceedings of the Conference was printed and is obtainable from the South African Railways Publicity Department, Johannesburg.

§ 11. Road Motor Services, Motor Vehicles, and Tramways.

1. **South African Railways and Harbours—Road Motor Services.**—The South African Railways and Harbours Administration has a large number of road motor services in operation, the total route mileage over which these services were in operation at 31st March, 1938, being as follows:—

Province.	*Route Miles.*
Cape of Good Hope (including Bechuanaland)	6,850
Natal	1,287
Transvaal (including Swaziland)	3,421
Orange Free State	1,049
South West Africa	805
TOTAL	13,412

The route mileages of the road motor services at the end of each financial year since 1934 are given below:—

Year.	1934.	1935.	1936.	1937.	1938.
Route mileage	10,535	10,971	11,292	11,940	13,412

The road motor services, which are mainly operated for the development of rural areas and which act as feeders to the railway, deal with the conveyance of all classes of traffic, particularly agricultural products, merchandise, and general farming and household requirements.

The majority of vehicles at present in use are pneumatic-tyred vehicles with a net carrying capacity of 5 to 10 tons. Improved types of vehicles are being introduced and the utility of the services is being extended. Trailers of 2 to 7-ton nett carrying capacity are utilized in certain districts where road conditions permit, and the haulage of as much as 15 to 20 tons per trip is possible, which facilitates the transport of large quantities of seasonal traffic such as wheat, maize, wool, etc. Altogether 545 motor vehicles and 301 trailers were in operation on the 31st March, 1938.

The operating results for the financial years ending 31st March from 1934 were as follows:—

	1934.	1935.	1936.	1937.	1938.
Vehicle mileage	5,049,918	5,245,956	6,141,763	7,484,221	8,653,534
Passengers conveyed.....No.	2,036,354	2,155,243	2,605,803	3,823,170	4,862,205
Goods conveyed.....Tonnage	318,109	395,546	421,810	474,376	597,554
Cream conveyed.....Galls.	810,486	1,008,080	1,377,815	1,503,229	1,391,063
Earnings.....£	452,166	483,761	496,781	571,685	612,867
Expenditure.....£	419,070	424,604	429,916	526,314	586,741

The experience of the Administration is that these services are extremely valuable in encouraging development of country districts, where farmers are often handicapped through being situated long distances from the railway. The services have been particularly useful in the development of dairy, poultry, and fruit farming, where regular and expeditious transportation is so necessary.

Repairs to road motor vehicles are executed in the Administration's repair shops, situate at Capetown, Kimberley, Port Elizabeth, East London, Durban, and Johannesburg, while at Langlaagte a large centralized workshop has recently been opened permitting the greater concentration of heavy motor repairs. The Langlaagte shop is also equipped with machinery capable of manufacturing any description of bus body for road motor vehicles.

2. **Tramways and Motor Bus Services.**—(i) *Tramways.*—All public tramways used for the conveyance of passengers now employ electric traction. The tramways of Capetown, Kimberley, and Port Elizabeth are owned by companies; but elsewhere they are owned and controlled by the municipalities. The following are the existing tramways in operation:—

Cape of Good Hope: Capetown and Suburbs, Kimberley, and Port Elizabeth.
Natal: Durban.
Transvaal: Pretoria and Johannesburg.
Orange Free State: Bloemfontein.

The following table shows the length of route in the case of each tramway system and other particulars as to equipment, revenue, expenditure, and other matters.

TRAMWAY SYSTEMS, 1937-38.

(a) TRACK TRAMS.

Heading.	Cape of Good Hope.			Natal.	Transvaal.	
	*Capetown City Tramways Co., Ltd.	*Kimberley De Beers Tramway Service.	Port *Elizabeth. Electric Tramway Co., Ltd.	Durban.	Johannesburg.	Pretoria.
Date of establishment	1896.	1905.	1897.	1902.	1906.	1910.
Gauge	4' 8½"	3' 6"	4' 8½"	4' 8½"	4' 8½"	4' 8½"
Length of route.....Miles	9·16	38·83	9·77	21·24	39·60	8·56
Length of track.....Miles	13·28	38·50	18·27	33·53	78·74	14·29
Revenue.....£	215,875†	15,578	65,940	197,005	624,911	22,004
Expenditure.....£	189,654†	31,076	64,974	204,701	702,704	37,272
Passenger Cars.....No.	46	22	42	85	242	13
Car miles run.....No.	1,237,756	431,104	744,922	1,994,372	6,110,416	222,133
Passengers carried.....No.	11,406,249	2,977,395	5,040,814	22,214,491	61,296,523	2,200,879
Units of power consumed...No.	6,351,145†	1,116,492	1,653,250	6,220,110	26,921,852	774,710

* Company-owned. † Includes trackless trams.

(b) TRACKLESS TRAMS.

Heading.	Cape of Good Hope.	Transvaal.	Natal.	O.F.S.
	Capetown City Tramways Co., Ltd.‡	Johannesburg.	Durban.	Bloemfontein.
Date of establishment	1934.	1936.	1935.	1915.
Length of route.....Miles	15·14	13	3·76	12·5
Revenue.....£	*	65,601	57,091	†
Expenditure.....£	*	66,543	44,496	†
Passenger Vehicles.....No.	50	38	22	9
Vehicle Miles run.....No.	1,229,156	843 829	541,393	89,188
Passengers carried.....No.	13,045,625	5,348,292	6,315,408	†
Units of power consumed.....No.	*	2,111,318	1,027,030	136,378

* Included in (a) above. † Included in Bus Services. ‡ Company-owned.

(ii) *Motor Bus Services.*—The following tables give particulars for 1937-38 of motor bus services operated by municipal authorities or/and by private enterprise:—

MUNICIPAL BUS SERVICES, 1937-38.

(a) CAPE OF GOOD HOPE, NATAL, AND ORANGE FREE STATE.

Heading.	Cape of Good Hope.			Natal.		O.F.S.
	*Capetown City Tramways Co., Ltd.	East London.	*Port Elizabeth. Electric Tramway Co., Ltd.	Durban.	Pietermaritzburg.	Bloemfontein.
Date of establishment	†	1926.	1924.	1925.	1924.	1923.
Length of route.....Miles	100·15	10·47	29	45·91	21·45	33·5
Gross Value of Assets.....£	717,322‡	198,983	240,018‡	422,100‡	131,431	155,378‡
Revenue.....£	301,120	33,428	79,510	21,019	19,684	20,358§
Expenditure.....£	258,411	39,911	74,657	39,564	25,267	28,468§
Buses.....No.	114	20	48	27	18	20
Bus miles run.....No.	5,167,637	574,355	1,489,217	537,871	529,089	357,162
Passengers carried.....No.	23,116,427	4,126,686	6,382,943	1,533,245	2,138,285	1,499,223§
Fuel consumed.....Galls.	555,530	53,458	157,983	95,486	46,175	41,047

* Company-owned. † No record. ‡ Including tramways. § Includes trackless trams.

MUNICIPAL BUS SERVICES, 1937-38—(*continued*).

(b) TRANSVAAL.

Heading.	Transvaal.						
	Benoni.	Boksburg.	Brakpan.	Germiston.	Johannesburg.	Pretoria.	Springs.
Date of establishment	1916.	1925.	1922.	1920.	1927.	1914.	1917.
Length of route....Miles	50	49·50	36·70	16	81·94	48·71	87
Gross Value of Assets. .£	45,404	22,045	18,999	32,954	2,555,116*	602,350*	45,447
Revenue.....£	18,539	9,958	4,564	13,905	216,268	82,413	20,138
Expenditure.....£	19,333	9,705	6,269	11,275	311,869	91,033	21,895
Buses.....No.	21	10	9	10	144	40	20
Bus miles run.....No.	373,187	215,918	156,167	272,220	3,105,334	1,292,423	463,628
Passengers carried...No.	1,426,323	799,721	354,227	1,028,574	17,589,602	7,137,373	†
Fuel consumed....Galls.	31,455	20,558	10,170	22,833	367,312	245,719	45,870

* Including tramways. † No record.

(iii) *Employees.*—Particulars are given hereunder as to the number of persons employed in tramways and municipal bus services:—

TRAMWAYS AND MUNICIPAL BUS SERVICES—EMPLOYEES—1937-38.

(a) CAPE OF GOOD HOPE, NATAL, AND ORANGE FREE STATE.

Heading.	Capetown City Tramways Co., Ltd.	East London.	Kimberley De Beers Tramway Service.	Port Elizabeth. Electric Tramway Co., Ltd.	Durban.	Pietermaritzburg.	Bloemfontein.
European—	No.	No.	No.	No.	No.	No.	No.
Administrative, Technical, and Clerical..	57	4	4	11	38	5	3
Running Staff (Inspectors, Drivers, and Conductors).....	666	45	54	204	340	29	33
Artisan Staff.....	104	9	8	26	59	11	5
Other.....	84	2	8	—	—	—	1
TOTAL.....No.	911	60	74	241	437	45	42
Non-European— Total Employees.....	285	19	36	85	141	25	9
GRAND TOTAL....No.	1,196	79	110	326	578	70	51

(b) TRANSVAAL.

Heading.	Benoni.	Boksburg.	Brakpan.	Germiston.	Johannesburg.	Pretoria.	Springs.
European—	No.	No.	No.	No.	No.	No.	No.
Administrative, Technical, and Clerical..	4	2	1	2	75	13	2
Running Staff (Inspectors, Drivers, and Conductors).....	18	9	8	19	1,350	111	23
Artisan Staff.....	4	2	2	3	224	11	3
Other.....	—	—	2	—	—	16	—
TOTAL.....No.	26	13	13	24	1,649	151	28
Non-European— Total Employees.....	6	4	2	8	417	52	6
GRAND TOTAL..No.	32	17	15	32	2,066	203	34

3. **Motor Vehicles Licensed.**—Statistics of motor vehicles licensed are not collected under the *Statistics Act*, but are derived solely from details contained in duplicate motor tax receipt forms as supplied to the Census and Statistics Office by licensing officers throughout the Union.

(a) *General Statistics.*—The following tables give the numbers of motor vehicles licensed in the Union over a period of years, as well as detailed statistics for the year 1938 regarding the number and description of motor vehicles licensed in each province.

Detailed information is not taken out in respect of horse-power, country of origin, and purpose for which vehicles are used. In this respect the 1930 figures, which appeared in *Official Year Book* No. 13, are the latest available.

(i) NUMBER AND DESCRIPTION OF MOTOR VEHICLES LICENSED, UNION, 1934 TO 1938.

Year.	Cars and Taxis.		Buses, Vans, and Lorries.		Tractors, etc.		Cycles.	
	Number.	Percentage Increase over Previous Year.	Number.	Percentage Increase over Previous Year.	Number.	Percentage Increase over Previous Year.	Number.	Percentage Increase or Decrease(-) over Previous Year.
1934...	184,555	20·23	24,549	30·17	*	—	32,399	0·31
1935...	212,787	15·29	28,938	17·88	*	—	31,213	−3·67
1936...	246,724	15·96	35,107	21·32	*	—	29,657	−5·05
1937...	281,981	14·29	42,103	19·93	651	—	27,485	−7·32
1938...	302,069	7·12	48,212	14·51	819	25·81	25,314	−7·90

* No record prior to 1937.

(ii) NUMBER AND DESCRIPTION OF MOTOR VEHICLES LICENSED, PROVINCES, 1938.

Province.	Description of Motor Vehicle.					Total.
	Cars.	Buses.	Lorries, etc.	Tractors, etc.	Cycles.	
1938.	No.	No.	No.	No.	No.	No.
Cape of Good Hope	103,817	569	19,109	267	4,403	128,165
Natal	35,577	274	5,404	115	4,385	45,755
Transvaal	132,056	856	19,126	422	14,995	167,455
Orange Free State	30,619	100	2,774	15	1,531	35,039
* UNION, 1938.....No.	302,069	1,799	46,413	819	25,314	376,414
1937.....No.	281,981	1,650	40,153	651	27,485	352,220

(b) *New Motor Vehicles.*—(i) *Number Licensed.*—From the beginning of the year 1928 details of new motor vehicles became available. Summarized figures in this regard for the year 1938, with 1937 totals, are shown in the table hereunder. For monthly totals reference should be made to *Special Reports* Nos. 117 and 131, which contain motor vehicle statistics for these years.

NEW MOTOR VEHICLES LICENSED, 1938.

Province.	Cars.	Buses, Lorries, Vans, Tractors, etc.	Cycles.	Total.
1938.	No.	No.	No.	No.
Cape of Good Hope	11,996	3,447	302	15,745
Natal	4,988	1,149	290	6,427
Transvaal	17,869	3,844	1,190	22,903
Orange Free State	3,144	520	99	3,763
UNION, 1938.....No.	37,997	8,960	1,881	48,838
1937.....No.	48,011	9,523	2,357	59,891

(ii) *Index of New Motor Cars Licensed, 1931 to 1939.*—Monthly figures of the number of new motor cars licensed have been available from 1928. Indexes for a twelve months' moving average based on 1928=1000 have been calculated and are given below.

INDEX OF NEW MOTOR CARS LICENSED.—TWELVE MONTHS' MOVING AVERAGE, 1928=1000.

End of Month.	Year.								
	1931.	1932.	1933.	1934.	1935.	1936.	1937.	1938.	1939.
January	599	557	486	716	1378	1601	1942	2047	1579
February	589	553	481	743	1410	1669	1947	2015	1567
March	583	549	486	767	1452	1729	1975	1957	1564
April	578	544	485	822	1481	1761	1995	1907	1559
May	575	532	495	904	1486	1802	1988	1865	1547
June	574	530	516	970	1496	1816	1995	1840	*
July	574	502	546	1041	1519	1833	2006	1786	*
August	571	491	570	1113	1521	1844	2017	1753	*
September	570	489	590	1174	1520	1866	2030	1709	*
October	563	480	624	1232	1540	1888	2032	1653	*
November	560	483	661	1275	1561	1894	2041	1632	*
December	554	497	689	1312	1573	1930	2044	1618	*

* Not available.

(c) *Comparison with other Countries.*—The following comparative summary gives information regarding the proportion of motor vehicles registered per thousand of the population in the Union and certain other countries:—

PROPORTION OF MOTOR VEHICLES REGISTERED TO POPULATION: UNION AND CERTAIN OTHER COUNTRIES.

Country.	Year.	Population.	Motor Vehicles.	
			No.	Per 1,000 of Population.
Union of South Africa	1938	2,081,400 (European Population)	376,414	180·8
		9,979,900 (Total Population)		37·7
	1937	2,043,700 (European Population)	352,220	172·3
		9,797,200 (Total Population)		36·0
	1936	2,003,857 (European Population)	311,488	155·4
		9,589,898 (Total Population)		32·5
United Kingdom	1937	47,289,000	2,720,491	57·5
Australia	1937	6,881,556	791,497	115·0
Canada	1936	11,028,000	1,240,124	112·5
New Zealand	1937	1,587,221	254,017	160·0
Eire	1936	2,968,420	*55,548	18·7
India	1936	374,200,000	161,812	0·4
United States	1936	128,429,000	28,221,000	219·7
Germany	1937	68,072,000	2,772,932	40·7
France	1937	41,950,000	2,684,593	64·0
Italy	1937	43,504,000	649,220	14·9
Netherlands	1937	8,639,539	197,920	22·9
U.S.S.R.	1936	175,500,000	*352,820	2·0
Sweden	1937	6,285,000	237,100	37·7
Czechoslovakia	1937	15,239,000	144,034	9·5
Japan	1937	71,253,000	223,000	3·1

* Excluding motor cycles. Separate figures not available.

4. **Revenue Derived from Motor Industry.**—Steps have been taken to collect figures showing the revenue derived by the Provincial Administrations and by Transvaal local authorities from taxation imposed under the Motor Vehicle Ordinances in the various provinces, the revenue derived by the Union Government from customs duties levied on items in connexion with the motor industry, and the value of imports of motor cars, etc. The three following tables contain summaries of these details. Lubricating oil is not included in Table (i), as only a relatively small portion of the imports thereof is utilized for the purposes of the motor industry.

So far as railway rates are concerned, no data are available.

(i) NET REVENUE DERIVED FROM IMPORT DUTIES IMPOSED BY GOVERNMENT UPON ITEMS RELATING TO THE MOTOR INDUSTRY, 1933 TO 1937.

Classification.	1933.	1934.	1935.	1936.	1937.
	£	£	£	£	£
Motor cars	311,268	541,615	614,231	819,761	923,240
Motor car chassis	63,129	68,522	203	319	229
Motor car parts and accessories	90,573	132,513	95,557	108,136	125,950
Motor vans, trucks, and buses	6,077	29,978	64,122	50,131	71,059
Motor truck chassis	8,721	23,460	27,902	32,866	37,511
Motor truck parts and accessories	6,287	11,364	17,288	30,215	31,929
Motor cycles	19,571	23,465	20,500	15,624	14,150
Motor cycle parts				5,765	6,947
Motor spirit	1,659,883	1,967,437	2,877,785	2,732,040	2,823,697
Tyres, motor car	258,572	446,401	247,238	271,969	169,632
Tyres, motor cycle				1,162	1,011
Tubes, motor car	20,681	35,273	19,460	20,375	8,836
Tubes, motor cycle	969	998	288	125	38
Motor and motor cycle head, tail, and dashlights	1,376	2,158	1,578	2,050	2,152
Materials for building motor cars	—	82,413*	192,891	218,071	210,171
TOTAL.....£	2,447,107	3,365,587	3,679,043	4,314,652	4,521,195

* New tariff item.

(ii) REVENUE COLLECTED UNDER PROVINCIAL MOTOR VEHICLE ORDINANCES, 1933-34 TO 1937-38.

Province.	Registration Fees.	Motor Licences.	Drivers' and Learners' Licences.	Other.	Total.
	£	£	£	£	£
1933-34.					
Cape of Good Hope	—	406,835	14,697	—	421,532
Natal	63,903	147,837	3,434	1,046	216,220
Transvaal	23,121	434,506	13,926	7,672	479,225
Orange Free State	7,567	87,117	2,213	39	96,936
TOTAL.....£	94,591	1,076,295	34,270	8,757	1,213,913
1934-35.					
Cape of Good Hope	—	478,976	20,125	—	499,101
Natal	67,903	174,985	3,945	1,673	248,506
Transvaal	34,683	569,855	21,123	9,752	635,413
Orange Free State	12,405	98,576	3,712	—	114,693
TOTAL.....£	114,991	1,322,392	48,905	11,425	1,497,713
1935-36.					
Cape of Good Hope	—	671,874	27,533	—	699,407
Natal	80,766	212,182	5,664	1,482	300,094
Transvaal	37,662	700,270	25,421	12,253	775,606
Orange Free State	19,648	126,346	5,621	—	151,615
TOTAL.....£	138,076	1,710,672	64,239	13,735	1,926,722
1936-37.					
Cape of Good Hope	—	720,854	29,968	—	750,822
Natal	92,126	185,704	5,371	782	283,983
Transvaal	45,014	855,614	32,049	7,707	940,384
Orange Free State	24,099	149,541	7,832	—	181,472
TOTAL.....£	161,239	1,911,713	75,220	8,489	2,156,661

(ii) REVENUE COLLECTED UNDER PROVINCIAL MOTOR VEHICLE ORDINANCES, 1933-34 TO 1937-38—(*continued*).

Province.	Registration Fees.	Motor Licences.	Drivers' and Learners' Licences.	Other.	Total.
	£	£	£	£	£
1937-38.					
Cape of Good Hope	—	790,564	29,524	—	820,088
Natal	102,725	210,543	6,256	16,036	335,560
Transvaal	48,054	999,769	37,752	12,577	1,098,752
Orange Free State	12,284	160,670	6,417	—	179,371
TOTAL.....£	163,063	2,161,546	79,949	28,613	2,433,771

(iii) VALUE OF IMPORTS FROM OVERSEAS (EXCLUDING GOVERNMENT STORES) OF MOTOR CARS, MOTOR CYCLES, ETC., CHASSIS, TYRES, AND PARTS, 1934 TO 1938.

Classification.	1934.	1935.	1936.	1937.	1938.
	£	£	£	£	£
Motor cars	2,796,344	3,181,298	4,160,190	4,807,340	3,307,473
Motor car chassis	1,230,952	1,413,325	1,280,032	1,615,282	1,183,473
Motor car parts and accessories	1,073,419	1,168,772	1,161,854	1,439,915	1,207,206
Motor trucks, vans, and buses	67,708	184,059	283,154	479,072	404,737
Motor truck chassis	887,642	932,994	1,176,672	1,454,757	1,169,762
Motor truck parts and accessories	61,151	87,839	157,821	259,320	265,445
Motor cycles	111,749	95,185	103,621	92,171	67,202
Motor cycle parts	45,476	40,166	37,540	39,827	25,770
Tyres, motor car	548,424	362,958	392,935	281,331	224,823
Tyres, motor cycle	4,737	1,699	1,370	1,239	700
Tubes, motor car	75,069	43,636	43,743	25,247	26,112
Tubes, motor cycle	1,603	484	211	64	100

In addition to the above, certain revenue accrued to the Railway Administration under the *Motor Carrier Transportation Act*, No. 30 of 1930, as amended by Act No. 31 of 1932. This revenue is derived from fees in respect of Motor Carrier Certificates, Vehicle Identification Cards, and Security Certificates. The collections have been as follows:—

Year.	£
1933-34	17,715
1934-35	22,635
1935-36	22,683
1936-37	26,365
1937-38	29,129

5. **Garage Licences and Petrol Pumps.**—Since 1927-28 and 1929 respectively statistics have been secured in regard to garage licences and petrol pumps. Act No. 32 of 1925 makes provision for the payment of a licence of £3 per annum by all motor garages. Petrol pumps include kerbside, wall, and portable pumps.

The relative figures are given in the table hereunder. Though the two sets of figures are not related, they are shown in one table for the sake of convenience.

GARAGE LICENCES, 1936-37 AND 1937-38, AND PETROL PUMPS, 31st JANUARY, 1938 AND 1939.

Province.	Motor Garage Licences.			Petrol Pumps.		
	1936-37.	1937-38.	Per Cent. Increase or Decrease(-)	31st January, 1938.	31st January, 1939.	Per Cent. Increase.
	No.	No.		No.	No.	
Cape of Good Hope	1,287	1,340	4·12	7,065	7,307	3·43
Natal	579	619	6·91	2,602	2,780	6·84
Transvaal	1,420	1,386	−2·39	6,632	7,176	8·20
Orange Free State	343	386	12·54	1,514	1,784	17·83
UNION	3,629	3,731	2·81	17,813	19,047	6·93

6. **Motor Vehicle Insurance.**—The following table gives the number of motor vehicles, by classes, insured with insurance companies as at the 31st December, 1938, and the percentages of insurances to total vehicles licensed. Totals for the years 1934 to 1938 are also given.

MOTOR VEHICLES INSURED AS AT 31st DECEMBER, 1934 TO 1938.

Type of Vehicle.	Insured with Third Party Risk.	Insured without Third Party Risk.	Total.	Percentage of Total Registrations.
1938.	No.	No.	No.	
Motor cars	122,997	37	123,034	40·73
Motor buses	1,368	—	1,368	76·04
Motor lorries, trucks, and vans	17,633	18	17,651	38·03
Motor cycles	981	1	982	3·82
TOTAL: 1938	142,979	56	143,035	38·60
1937	129,415	25	129,440	36·75
1936	112,432	38	112,470	36·10
1935	90,247	57	90,304	33·08
1934	70,954	101	71,055	29·42

7. **Robots.**—Statistics have been collected of robots installed. The following table shows the number of intersections at which robots have been installed and the relevant towns:—

ROBOTS AND TOWNS IN WHICH INSTALLED, 1937-38.

Town.	Number of Intersections at which Robots are Installed.		Town.	Number of Intersections at which Robots are Installed.	
	Time-operated.	Vehicle-operated.		Time-operated.	Vehicle-operated.
Capetown	7	18	Nigel	1	—
Durban	14	10	Pretoria	3	11
Benoni	7	—	Roodepoort-Maraisburg	1	—
Boksburg	4	—	Springs	3	—
Brakpan	2	—	Vereeniging	2	—
Germiston	9	—	Bloemfontein	19	—
Johannesburg	78	13	TOTAL	164	32
Krugersdorp	9	—			

8. **Motor Carrier Transportation.**—In the 1930 session of Parliament the *Motor Carrier Transportation Act* (No. 39 of 1930) was passed "to provide for the control of certain forms of motor carrier transportation and matters incidental thereto," and during the 1932 session the Act was amended in several important respects.

Whereas the original Act defined motor carrier transportation as "the conveyance of persons and/or goods for reward (by means of certain types of vehicles)", the amending Act extended the scope of the definition to include, in addition to conveyance for reward, the conveyance also of persons or goods in the course of any industry, trade, or business of whatever nature. In terms of section 1, however, certain classes of conveyance are not regarded as motor carrier transportation within the meaning of the Act, e.g. the conveyance of farm products by their producer and of farming requisites by a farmer by means of vehicles belonging to such producer or farmer, the operations of ordinary taxis (not running regularly between points served by other reasonable facilities), the conveyance (other than the conveyance of persons or goods for reward) by a local authority in its own vehicles within the area of its jurisdiction, the conveyance of patients in an ambulance, the towing of breakdowns, the conveyance of hotel or boarding-house guests between a station or a wharf and such hotel or boarding-house, and the conveyance of school children to and from school. Certain areas and public roads have been proclaimed as transportation areas and transportation routes

respectively. The definition of these areas and routes is contained in Proclamation No. 210, 1930 (as amended by Proclamations No. 342, 1931, No. 134, 1933, No. 158, 1933, No. 1, 1936).

A Central Road Transportation Board* has been appointed consisting of a chairman and two members, and a local transportation board has been appointed for each of the proclaimed transportation areas, whose headquarters are at Bloemfontein, Capetown, Durban, East London, Johannesburg, Kimberley, Pietermaritzburg, Port Elizabeth, Pretoria, and more recently Windhoek in South West Africa.

Any person who carries on motor carrier transportation, as defined, within a proclaimed transportation area, or over a proclaimed transportation route, requires the sanction of the Central Board or of a local board, as the case may be, failing which an offence is committed.

Motor carrier transportation, as appears from the definition, falls under two main heads:—

(i) The conveyance of persons or goods for reward, and
(ii) the conveyance of persons or goods in the course of any industry, trade, or business.

Normally a carrier who conveys goods or persons for reward requires a motor carrier certificate, but the Act makes provision for the granting of exemption in respect of the conveyance under this head in certain instances, e.g. the conveyance of goods within the area of jurisdiction of a town council, town board, etc., with a population of not more than 20,000 persons; the conveyance of farm products from the place of production to the nearest town or station, or goods from the nearest town or station to a farm, if no other reasonable facilities for their conveyance exist; the conveyance of scholars and sports teams; and the conveyance of picnic or other parties, organized by religious associations or for charitable purposes.

Motor carrier transportation under the second head embraces the conveyance by merchants, manufacturers, industrialists, etc., of their own goods. In respect of such conveyance the Board or a local board is compelled to grant exemption (*a*) within certain exempted areas defined by regulation, and (*b*) for the conveyance of goods by their owner between his place of business and the nearest railway station. The normal exempted area is the magisterial district in which an applicant has his place of business, but in certain cases two or more magisterial districts comprise one exempted area, while in a few instances one or more magisterial wards have been excluded from the normal area of exemption. For certain classes of transportation, however, wider areas have been defined, e.g. the conveyance of bona fide commercial travellers' samples, the conveyance of newspapers, the conveyance of building plant and scaffolding, etc.

The procedure to be followed by applicants for motor carrier certificates or exemptions is outlined in the *Motor Carrier Transportation Regulations*, 1932, published in Government Notice No. 1028, dated the 10th August, 1932.

The north-western districts of the Cape Province (i.e. Gordonia, Kenhardt, Carnarvon, Williston, Calvinia, and Namaqualand) were not affected as there were no proclaimed transportation areas or routes in that part of the Cape Province; during the year 1936 the Board found it expedient to recommend to the Government the proclamation of certain routes in Zululand and from Port Nolloth eastwards. Simultaneously the whole system of proclaimed routes throughout the rest of the Union was reconsidered, and a revised Proclamation, No. 1 of 1936, amending and extending routes previously proclaimed and creating additional routes, was duly promulgated with operative effect as from the 1st August, 1936.

The following tables show (*a*) the seating capacity and/or carrying capacity of vehicles employed, and (*b*) the number of passengers conveyed and weight of goods carried in terms of motor carrier certificates issued under

* For personnel see Chapter XXVIII.

Road Motor Transportation Acts during the years 1933 to 1937. The tonnage of goods carried excludes goods carried within the municipal areas, but passenger-carrying vehicles include all those licensed by the Transportation Board under the Act.

(a) SEATING AND/OR CARRYING CAPACITY OF VEHICLES EMPLOYED, 1937, WITH COMPARATIVE TOTALS FOR 1933 TO 1936.

Proclaimed Transportation Area.	Passenger Vehicles.		Goods Vehicles.*		Dual-purpose Vehicles.		
	No.	Seating Capacity.	No.	Net Load Capacity.	No.	Seating Capacity.	Net Load Capacity.
		No.		Ton.		No.	Ton.
Central Board	70	2,020	608	2,577	599	15,068	2,477
Bloemfontein	34	1,005	49	107	17	132	43
Capetown	187	7,585	755	1,753	665	18,482	1,479
Durban	162	4,880	548	1,484	7	150	14
East London	35	840	113	188	72	1,291	156
Johannesburg	384	13,765	1,565	5,445	—	—	—
Kimberley	3	75	75	210	51	1,011	125
Pietermaritzburg	41	1,205	35	104	1	10	1
Port Elizabeth	66	2,180	229	455	2	35	5
Pretoria	96	3,625	246	704	96	1,940	257
TOTAL, 1937	1,078	37,300	4,223	13,027	1,510	38,119	4,557
„ 1936	979	32,279	3,646	10,545	1,241	21,731	3,546
„ 1935	923	26,545	3,081	7,406	1,054	17,712	2,512
„ 1934	866	22,853	2,756	6,663	905	21,951	2,461
„ 1933	835	22,108	1,954	4,739	814	18,705	2,388

* The following statistics in respect of goods trailers are included in these figures:—

	Goods Trailers.	
	No.	*Tonnage*
1933	155	793
1934	244	1,072
1935	236	1,084
1936	357	1,365
1937	403	1,605

(b) PASSENGERS AND GOODS CONVEYED, 1937, WITH COMPARATIVE TOTALS FOR 1933 TO 1936.

Proclaimed Transportation Area.	Total Number of Passengers Carried.	Average Number of Passengers Carried Per Seat.	Total Tonnage of Goods Carried.	Average Tonnage Carried Per Ton Load Capacity.
Central Board	596,134	34·9	419,280	88·9
Bloemfontein	997,503	833·3	33,660	224·4
Capetown	30,995,953	1,189·1	261,375	80·9
Durban	9,353,209	1,859·5	79,685	53·2
East London	4,889,858	2,294·6	24,813	72·1
Johannesburg	33,327,269	2,421·2	1,271,200	233·5
Kimberley	22,547	20·8	275,657	822·9
Pietermaritzburg	2,214,615	1,737·0	5,638	53·7
Port Elizabeth	7,403,013	3,344·5	108	0·2
Pretoria	8,286,663	1,489·1	278,794	290·1
TOTAL, 1937	98,091,794	1,300·6	2,680,210	140·5
„ 1936	88,792,776	1,644·0	1,739,304	123·4
„ 1935	70,039,873	1,582·6	1,137,378	114·7
„ 1934	63,909,737	1,426·4	721,752	79·1
„ 1933	55,498,460	1,359·8	554,618	77·8

9. **Motor Vehicle Legislation.**—Information in regard to the provisions of provincial motor vehicle legislation was given in *Year Book* No. 17 and previous issues. The provincial Motor Vehicle Ordinances and amending Ordinances are as follows:—

PROVINCIAL MOTOR VEHICLE ORDINANCES AND AMENDING ORDINANCES.

	Cape of Good Hope.	*Natal.*	*Transvaal.*	*Orange Free State.*
Main Ordinance.	No. 15 of 1938. No. 19 of 1929 (Omnibus Traffic Control).	No. 10 of 1937.	No. 17 of 1931.	No. 18 of 1931.
Amending Ordinance....	No. 4 of 1938 (Omnibus Traffic Control).	No. 4 of 1938.	No. 19 of 1933. No. 16 of 1938.	No. 3 of 1933. No. 12 of 1933. No. 12 of 1934. No. 14 of 1935. No. 8 of 1937. No. 8 of 1938.

§ 12. Road Vehicle Accident Statistics.

Statistics in regard to road vehicle accidents have been collected by the Office of Census and Statistics since March, 1934. Under the system which was in force from March, 1934, to December, 1937, the officer-in-charge of each police station in the Union furnished his District Commandant with particulars of all accidents reported at his station during the month. Each commandant, of whom there were about 45 in the Union, then summarized the returns for his district and forwarded a copy of the summary to the Census Office, where a summary for the whole Union was compiled.

On 1st January, 1938, a new system of collecting statistics was introduced, whereby detailed reports on all accidents which occur in the Union are submitted to the Census and Statistics Office. The information obtained from these reports is regularly published in the *Monthly Bulletin of Statistics*. A comprehensive report on accidents which occurred during 1938 has also been published; this is obtainable from the Government Printer, Pretoria.

During the year 1938, 43,868 accidents were reported, involving 75,434 vehicles, of which 60,480 were motor vehicles, 10,868 pedal cycles, 95 railway trains, 2,343 animal-drawn vehicles, and 1,648 other vehicles; in addition, collisions occurred with 5,614 pedestrians, 2,032 animals, and 3,213 fixed objects, and there were 1,443 cases of skidding or capsizing. Casualties included: 1,074 persons killed, of whom 396 were Europeans; 3,372 persons seriously injured; and 13,082 persons slightly injured. Of the 1,074 persons killed 448 were drivers of vehicles, including 287 pedal cyclists, 291 were passengers of vehicles, and 335 were pedestrians.

(i) ROAD VEHICLE ACCIDENTS, 1934 TO 1938.

Year.	Accidents.	Deaths.	Persons Injured.
	No.	No.	No.
1934*	21,183	601	9,014
1935	31,759	897	12,635
1936	39,276	1,015	14,406
1937	45,947	1,046	15,710
1938	43,868	1,074	16,454
Urban	37,449	570	12,296
Rural	6,419	504	4,158

* April to December.

(ii) PERSONS KILLED IN ROAD VEHICLE ACCIDENTS AND NUMBER OF PROSECUTIONS, 1934 TO 1938.

Item.	*1934.	1935.	1936.	1937.	1938.
	No.	No.	No.	No.	No.
Drivers of Vehicles—					
European :					
Pedal cyclists	†	178	51	45	46
Others	†		135	139	129
Non-European :					
Pedal cyclists	†	167	213	212	241
Others	†		41	43	32
Passengers—					
European	†	120	128	130	125
Non-European	†	114	115	121	166
Pedestrians—					
European	†	91	84	80	96
Non-European	†	227	248	276	239
Total—					
European	†	389	398	394	396
Non-European	†	508	617	652	678
GRAND TOTAL...No.	601	897	1,015	1,046	1,074

* April to December. † Not available.

(iii) ROAD VEHICLE ACCIDENTS CLASSIFIED ACCORDING TO MANNER OF OCCURRENCE, DEATHS, AND PERSONS INJURED, 1938.

	Motor Car.	Motor Cycle.	Motor Lorry.	Other Mechanical Vehicle.	Pedal Cycle.	Animal-drawn Vehicle.	Unknown Vehicle.	Total.
	No.	No.	No.	No.	No.	No.	No.	No.
IN COLLISION WITH—								
Motor car	13,096	—	—	—	—	—	—	13,096
Motor cycle	1,371	41	—	—	—	—	—	1,412
Motor lorry	2,632	104	356	122	—	—	—	3,204
Other mechanical vehicle	1,719	56	134	87	91	—	—	2,087
Animal-drawn vehicle	1,554	46	223	105	172	17	—	2,117
Pedal cycle	7,734	370	807	180	336	—	—	9,427
Train	68	2	10	3	4	8	—	95
Pedestrian	4,058	259	414	236	562	71	14	5,614
Animal	1,659	56	225	67	17	4	4	2,032
Fixed object	2,416	102	347	79	148	103	18	3,215
Unknown vehicle	18	—	—	—	9	1	—	28
Skidding, Capsizing	912	91	282	34	102	22	—	1,443
TOTAL	37,237	1,187	2,828	913	1,441	226	36	43,868
PERSONS KILLED.								
Motor car	44	—	—	—	—	—	—	44
Motor cycle	44	5	—	—	—	—	—	49
Motor lorry	18	6	21	—	—	—	—	45
Other mechanical vehicle	5	3	—	1	5	—	—	14
Animal-drawn vehicle	7	3	4	—	3	—	—	17
Pedal cycle	221	2	31	3	6	—	—	263
Train	20	—	4	—	2	1	—	27
Pedestrian	228	8	58	30	13	6	3	346
Animal	1	—	—	—	—	—	—	1
Fixed object	40	6	15	3	5	5	—	74
Unknown vehicle	—	—	—	—	2	—	—	2
Skidding, capsizing	87	10	78	4	7	6	—	192
TOTAL	715	43	211	41	43	18	3	1,074
PERSONS INJURED.								
Motor car	1,828	—	—	—	—	—	—	1,828
Motor cycle	779	40	—	—	—	—	—	819
Motor lorry	511	95	95	35	—	—	—	736
Other mechanical vehicle	180	31	17	11	37	—	—	276
Animal-drawn vehicle	335	35	30	7	55	1	—	463
Pedal cycle	3,581	215	375	82	174	—	—	4,427
Train	52	3	8	5	2	10	—	80
Pedestrian	3,263	254	322	173	505	53	9	4,579
Animal	40	21	6	—	17	—	—	84
Fixed object	897	101	163	41	121	18	—	1,341
Unknown vehicle	—	—	—	—	7	—	—	7
Skidding, capsizing	1,013	87	555	50	88	21	—	1,814
TOTAL	12,479	882	1,571	404	1,006	103	9	16,454

(iv) ROAD VEHICLE ACCIDENTS, PERSONS KILLED OR INJURED IN CERTAIN URBAN AREAS, 1934 TO 1938.

Year.	Cape-town.	Port Eliza-beth.	East London.	Kim-berley.	Pieter-maritz-burg.	Durban.	Pre-toria.	Johan-nesburg.	Other Reef Towns.	Bloem-fontein.
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
ACCIDENTS.										
1934*.	3,044	547	265	183	269	1,887	1,241	6,455	2,554	324
1935..	4,071	849	423	221	231	2,488	1,720	10,202	3,786	431
1936..	4,568	916	427	337	409	2,622	2,219	12,971	4,731	609
1937..	5,482	1,073	480	437	319	3,141	2,949	14,715	5,170	646
1938..	5,242	786	489	231	498	4,038	2,724	13,467	4,396	482
PERSONS KILLED.										
1934*.	55	12	2	6	9	52	18	81	100	9
1935..	69	27	5	7	10	85	30	129	138	8
1936..	59	31	6	6	18	66	32	162	147	11
1937..	68	28	7	12	10	56	32	158	140	8
1938..	69	14	4	3	7	60	36	106	161	8
PERSONS INJURED.										
1934*.	1,148	349	123	74	135	758	594	2,118	1,076	83
1935..	1,488	481	204	97	114	899	736	3,146	1,488	131
1936..	1,599	497	166	141	143	914	934	3,458	1,746	245
1937..	1,709	492	174	140	113	1,289	900	3,414	1,780	224
1938..	1,755	400	195	94	136	1,343	1,019	3,543	1,662	187

* April to December.

§ 13. Roads and Bridges.

1. **Provincial.**—(i) *Cape of Good Hope.*—In this province the roads are divided into main, divisional, and public roads. Main roads are those established by the *Roads Ordinance, No.* 21 of 1927, as amended by Ordinance No. 32 of 1937; divisional roads are established by proclamation under the provisions of the *Divisional Councils and Roads Ordinance,* No. 13 of 1917; public roads are those, not being main or divisional roads, over which a right-of-way exists in favour of the public. The Administrator is empowered by proclamation to close divisional and public roads, and to divert main, divisional, and public roads. It is the duty of divisional councils to determine the width of roads within the area under their control. Where it is necessary to redetermine the width of roads, the approval of the Administrator is required. The Provincial Roads Engineer and District Roads Engineers are charged with the duty of inspecting roads, bridges, pontoons, and ferries.

Ordinance No. 21 of 1927, as amended, provides for the payment to divisional councils by the Provincial Administration of a subsidy in respect of main roads (and bridges on the line of such roads) and a grant in respect of divisional roads. Provision is also made for the payment of subsidy to municipalities in respect of main roads. Both divisional and municipal councils are empowered to raise loans for road and bridge construction. In the case of roads connecting two divisions, the councils of both divisions may agree to contribute to the construction and maintenance of such roads.

Ordinance No. 31 of 1935 provides for the establishment of a Provincial Road Fund, from which loans may be granted to divisional councils, free of interest, for the purpose of constructing roads or acquiring road-making plant and machinery.

National road construction in the Cape Province is financed by the National Road Board, but the Provincial Administration is responsible for the actual construction and maintenance of the roads.

With the introduction of Ordinance No. 1 of 1935 an Advisory Road Board has been constituted which advises the Cape Provincial Administration in allocating an amount of £50,000 provided annually for a period of five

years from loan funds, plus revenue expenditure voted each year, for the construction and maintenance of the main roads in the Transkeian Territories.

(ii) *Natal.*—The maintenance of Government roads is under the control of a Provincial Road Engineer, and the system is purely departmental. Since the establishment of Union, some 1,100 miles of government roads have been constructed, the total mileage at the end of the year 1937-38 being 6,600. The average annual expenditure on main roads since the constitution of the Union, including new construction and salaries, approximates £200,000. The total number of bridges erected on main roads in the Province is 613.

There were approximately 35 Europeans employed on road construction whose wages were met from provincial funds, and 20 coloured persons were employed in similar services, for whom the Province received a subsidy from the Government.

In Natal 583 miles of roads will eventually become national routes. The construction of these roads will be carried out by the Natal Provincial Roads Department on behalf of the National Road Board.

The expenditure on national routes (mechanical plant, roads, and bridges) for the period under review amounted to £241,557.

The mileage of bituminous roads completed was 16·4, of gravel roads 26·1, and of earth roads 38·5. The number of bridges erected was 13.

(iii) *Transvaal.*—The roads in the Transvaal are governed by the *Roads Ordinance*, No. 9 of 1933 (Transvaal), as amended by the *Roads Amendment Ordinances* Nos. 8 of 1937 and No. 17 of 1938.

During the financial year 1937-38 an amount of £349,210 was expended on the construction, betterment, and maintenance of district and main country roads. This sum includes an amount of £8,860 which was expended on the repair of roads serving schools, as a result of the Administration's School Centralization Schemes.

There are approximately 21,000 miles of district and main country roads in the Transvaal, and in consequence of the Administration's policy of light construction work instead of patchwork maintenance, which has been followed in the past, the improvement in these roads has become very marked. Some 1,600 miles of light construction work was carried out during 1937-38, and in addition numerous small bridges and culverts were built.

In accordance with the policy of the Mines Department to assist mining companies in outlying areas that Department allocated £21,330 to the Provincial Administration for the repair of selected roads in many areas serving the mines. The work consisted mainly of minor repairs and improvements.

The Administration has also carried out work for the Native Affairs Department in respect of roads serving native areas. An amount of £4,350 was made available for this purpose during the year under review.

A Roads Fund is provided for under Chapter 6 of the *Roads Ordinance*, No. 9 of 1933, which re-enacts the provisions of Ordinance No. 19 of 1927, under which a portion of the taxation on motor vehicles is earmarked for work solely on provincial roads; this has allowed of increased road construction work and maintenance. Work was commenced during the latter part of 1927, and at the end of the financial year 1937-38 some 2,750 miles of main inter-town roads had been constructed. This total of 2,750 miles, including 165 miles of tarmac surfacing, has cost the Provincial Road Fund approximately £1,882,000. The cash balance at the disposal of the Roads Fund for the purpose of constructing and maintaining Provincial Roads amounted at 31st March, 1938, to £647,344.

During the financial year 1937-38, the National Road Board made available an amount of £508,660 for the construction and maintenance of National Roads in the Transvaal. In consequence considerable improvement in the construction and tarmac surfacing of the declared sections of National Roads was effected. This has also allowed of more provincial funds being made available for provincial and district roads.

Chapter 4 of the *Roads Ordinance*, No. 9 of 1933, as amended by the *Roads Amendment Ordinance*, No. 17 of 1938, makes provision for the extension of provincial roads into municipal areas as far as the boundary of surveyed erven. It is the policy of the Administration to proclaim these sections provincial roads so as to bring them under the provisions of the Roads Fund.

The *Main Reef Road Ordinance*, No. 17 of 1928, defines and makes provision for the reconstruction and maintenance of the Main Reef Road which is vested in the local authorities through whose areas it passes, but the cost of reconstruction and maintenance is shared between those authorities and the Provincial Administration. The construction of the Main Reef Road has been completed.

Control of roads is vested in the Administrator-in-Executive-Committee. The control is exercised through a Provincial Roads Engineer, assisted by an Assistant Provincial Roads Engineer and technical officers. The field assistants and road inspectors are stationed in magisterial areas in respect of which there are roads boards appointed by the Administrator in terms of sections 11 to 20 of the *Roads Ordinance*, No. 9 of 1933, as amended by the *Roads Amendment Ordinance*, No. 8 of 1937, to assist and advise the Administration on road matters generally falling within their areas. A close connexion with local requirements is thus maintained.

The approximate mileage of roads within the Province (exclusive of those within municipal areas) is as follows:—

Main Reef Road	50 miles.
Main Roads (including Provincial and National Roads) ...	6,000 miles.
District and Country Roads	21,500 miles.

(iv) *Orange Free State.*—In this province the roads are divided into three classes: Proclaimed main roads with a width of 80 Cape feet (in the case, however, of main roads proclaimed as national roads under the *National Roads Act*, No. 42 of 1935, the width is 100 Cape feet); proclaimed district roads with a width of 80 Cape feet; and farm roads with a width of 50 Cape feet. The farm roads are not proclaimed, nor is any complete registration or record kept of them; they become public roads through undisturbed and uninterrupted use by the public for a period of fifteen years. Further modifications of this general principle are embodied in the *Roads Ordinance*, No. 6 of 1932.

No public road, whether proclaimed or not, may be closed or deviated without formal application to and the consent of the Provincial Administration. The construction and the maintenance of roads in the province are done departmentally under the supervision of the Provincial Roads Engineer, who reports to the Provincial Secretary. Only the proclaimed main roads are regularly maintained.

A wheel tax was introduced in 1917, and in 1930 the tax was increased. There are fifty-nine district road boards in the province.

There are approximately 5,000 miles of main roads and approximately 6,500 miles of district roads. The provincial roads of the province are well bridged and drained, and it is possible to travel over the greater portion of the province without danger from flooded rivers or spruits. The estimated expenditure on roads and bridges for the year 1938-39 is £381,000. In addition the sum of £435,000 has been made available from the National Road Fund under the *National Roads Act*, 1935, in connexion with the construction of national roads in the province. Some 5,500 miles of road are now being maintained under the patrol system.

The following is a list of Ordinances under which the control of roads is provided for in the Orange Free State:—

Ordinance No. 14 of 1931.	Ordinance No. 4 of 1936.
Ordinance No. 6 of 1932.	Ordinance No. 9 of 1936.
Ordinance No. 7 of 1932.	Ordinance No. 5 of 1937.
Ordinance No. 7 of 1935.	Ordinance No. 11 of 1937.
Ordinance No. 8 of 1935.	Ordinance No. 10 of 1938.

(v) *Statistics.*—The following tables show the mileage of roads and the number of bridges under the control of Provincial Administrations, together with the expenditure during a period of years:—

(a) MILEAGE OF ROADS, NUMBER OF BRIDGES, AND EXPENDITURE, 1933-34 TO 1937-38.

Heading.	1933-34.	1934-35.	1935-36.†	1936-37.†	1937-38.†
Cape of Good Hope—					
Roads.....Miles	35,734	36,894	36,894	36,944	37,601
Bridges.....Number	540	554	571	686	751
Expenditure: Roads and Bridges*.....£	782,285	709,867	1,122,041	1,197,987	979,836
Natal—					
Roads.....Miles	6,600	6,600	6,600	6,600	6,600
Bridges.....Number	330	344	348	353	374
Expenditure: Roads and Bridges*.....£	444,321	561,398	566,620	575,780	668,086
Transvaal—					
Roads.....Miles	19,900	25,721	26,000	26,000	26,956
Bridges.....Number	175	196	200	253	307
Expenditure: Roads and Bridges*.....£	590,783	758,201	975,715	1,242,428	1,572,215
Orange Free State—					
Roads.....Miles	11,500	11,500	11,510	14,257	14,271
Bridges.....Number	376	399	432	439	463
Expenditure: Roads and Bridges.....£	243,724	311,310	345,280	461,958	582,866
Total all Provinces—					
Roads.....Miles	73,734	80,715	81,004	83,801	85,428
Bridges.....Number	1,421	1,493	1,551	1,731	1,895
Expenditure: Roads and Bridges.....£	2,061,113	2,340,776	3,009,656	3,478,053	3,803,003

* Excluding grants to urban authorities.

† Expenditure on roads and bridges includes funds granted by the National Road Board as follows:

	1935-36.	1936-37.	1937-38.
	£	£	£
Cape of Good Hope	330,000	417,981	152,170
Natal	110,859	180,548	241,557
Transvaal	136,121	209,292	503,659
Orange Free State	88,719	181,682	243,527

(b) CLASSIFICATION OF ROADS AND BRIDGES, 1937-38.

Classification.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Union.
	Miles.	Miles.	Miles.	Miles.	Miles.
Roads—					
Asphalt or Bituminous	550	132	465	18	1,165
Concrete	10	2	—	—	12
Crushed Stone or Gravel	22,700	2,250	4,991	3,232	33,173
Earth or Ground	14,341	4,216	21,500	11,021	51,078
TOTAL	37,601	6,600	26,956	14,271	85,428
	No.	No.	No.	No.	No.
Bridges (20-foot span and over)— Single traffic way (12 feet wide) Double traffic way (20 feet wide)	751	374	307	463	1,895

2. Urban Authorities.—The following table shows the mileage of streets and roads and the number of bridges under the control of municipalities, village councils, village management boards, health committees, health boards, and townships, and the expenditure thereon, in the four provinces during 1936-37.

MILEAGE OF STREETS AND ROADS, NUMBER OF BRIDGES, AND EXPENDITURE, 1936-37.

Heading.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Total.
	Miles.	Miles.	Miles.	Miles.	Miles.
Streets:—					
Asphalt or Bituminous	820	375	1,239	84	2,518
Concrete	14	1	—	—	15
Wood Blocks or Stone Setts	35	—	—	2	37
Crushed Stone or Gravel	1,358	223	683	454	2,718
Earth or Ground	398	232	1,152	162	1,944
Other	30	377	265	—	672
TOTAL	2,655	1,208	3,339	702	7,904
	No.	No.	No.	No.	No.
Bridges (20-ft. span and over)— Single Traffic-way (12-ft. wide)	102	56	65	24	247
Double traffic-way (20-ft. wide)	174	75	119	25	393
TOTAL	276	131	184	49	640
* Expenditure during year on Street, Road, and Bridge Construction and Maintenance—	£	£	£	£	£
Ordinary Expenditure (excluding Loan Redemption and Interest)	271,946	135,400†	456,282	54,634	918,262
Capital Expenditure	460,202	124,402	594,093	28,333	1,207,030
TOTAL.....£	732,148	259,802	1,050,375	82,967	2,125,292

* Municipalities and village councils only.

† Public works generally. A separation as between roads and bridges and other works cannot be made.

3. National Roads.—(i) *National Roads Act*, 1935.—By this Act was created a National Road Fund and a National Road Board entrusted with the administration of the fund. The National Road Fund derives its funds from—

(a) an allocation of the customs tax on petrol at the rate of 3d. per gallon;

(b) such other moneys as may be appropriated by Parliament; and

(c) interest on the invested cash balances of the fund.

As an initial contribution to the fund an amount of £500,000 was allocated by Parliament out of the surplus revenue of 1934-35.

The National Road Board consists of a chairman and five members appointed by the Minister, four members being appointed from nominations made by each of the four provinces. The Board with the approval of the Minister has appointed a technical and administrative staff to assist in carrying out its duties.

The Board itself is not empowered to construct, reconstruct, repair, or maintain roads: these duties are carried out by the provincial authorities to whom funds are voted for work on declared roads, and the work is required to be in accordance with pre-determined plans and completed to the satisfaction of the Board.

Among the functions of the Board are—

(a) to submit to the Minister for his approval a five-year scheme of works to be undertaken on declared roads at the expense of the fund;

(b) to recommend to the Governor-General for declaration in the *Gazette* any road which, in the national interest, it considers should be declared a national or a provincial road, or a special road which in the Board's opinion would serve substantially to develop some part of the Union or would otherwise serve the public interest;

(c) to supervise and co-ordinate the works carried out at the expense of the fund;

(d) on its own initiative or at the request of the Minister to investigate any question appertaining to roads in the Union;

(e) generally to promote the improvement of road services in the Union.

(ii) *Five-Year Scheme.*—On the 22nd February, 1936, the Board submitted a five-year scheme of works framed by it in pursuance of the provisions of section 15 (1) (*f*) of the *National Roads Act*, 1935 (see Report, U.G. No. 20 of 1936). This scheme has received the approval of the Minister of the Interior.

The scheme provides for the construction, reconstruction or repair, and maintenance, at the sole cost and charge of the National Road Fund, of approximately 5,396 miles of roads recommended for declaration as national roads under section 4 (*a*) of the Act. No provision is made in the scheme for either provincial or special roads to be declared under section 4 (*b*) and (*c*) of the Act.

The following is an outline of the routes recommended and the estimated mileages:—

ROUTES RECOMMENDED.

No. of Route.	Outline Description.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Total Mileage of Route.
		Miles.	Miles.	Miles.	Miles.	
1	Belt Bridge-George	363	—	398	352	1,113
2	Capetown-Durban	999	126	—	—	1,125
3	Durban-Johannesburg	—	258	148	—	406
4	Pretoria-Komatipoort	—	—	275	—	275
5	Winburg-Ladysmith	—	37	—	165	202
6	Reddersburg-East London	247	—	—	99	346
7	Middelburg-Port Elizabeth	224	—	—	—	224
8	Kimberley-Bloemfontein	4	—	—	111	115
9	Capetown-Colesberg	506	—	—	—	506
10	Mount Ayliff-Pietermaritzburg	79	69	—	—	148
11	Capetown-Van Rhynsdorp	195	—	—	—	195
12	Doorn River-Cango Caves	48	—	—	—	48
13	Johannesburg-Kimberley-Nelspoort	346	—	254	—	600
14	Durban-Eshowe	—	93	—	—	93
	TOTAL	3,011	583	1,075	727	5,396

The standards of construction will provide as far as possible for safe, rapid, economical, and all-weather transport. The minimum legal servitude width for national roads will be 100 Cape feet in the case of the Transvaal, Orange Free State, and Cape Provinces, and 100 English feet in Natal, except on sections where the Board considers it impracticable.

Special attention is being given to such matters as the bridging of river crossings; the elimination of, protective measures at, and improvement to railway crossings; the erection of warning signs and direction and identification posts; the provision of road patrol depots; the planting of trees along roads where considered advisable; and systematic and efficient maintenance.

Provision was originally made in the five-year scheme for the construction of approximately 20 to 25 per cent. of the 5,396 miles of roads to bituminous standards. The Board has now decided that all national roads shall be bituminized.

It is estimated that the amount required for the completion of the scheme will be approximately £20,000,000. This amount includes interest and redemption on Provincial and Divisional Council loans raised prior to the 1st April, 1935, which under the Act form a first charge against the National Road Fund.

(iii) *Progress.*—The following is a summarized statement of approximate progress on national roads up to 31st December, 1938:—

Heading.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Total.
Surveys—					
Total mileage completed	1,120	180	540	280	2,120
Bridge Construction—					
Number of bridges completed and bridges on which work was proceeding	50	18	32	20	120
Road Construction other than Bituminous Surfacing—					
Mileage completed	610	116	374	195	1,295
Construction of Bituminous Surfacing—					
Mileage completed	90	70	205	45	410

The Board has submitted the *Advertising and Ribbon Development Restriction Draft Bill* for the consideration of the Provincial Administrations and the Government.

CHAPTER XIV.

POSTS, TELEGRAPHS, AND TELEPHONES.

§ 1. Posts.

1. **Origin and Development of Postal Service in South Africa.**—An article entitled "An Outline of the Development of the Postal, Telegraph, and Telephone Services of South Africa" was published in *Year Book* No. 18.

The foundation of the South African Postal Union was laid in 1883 by means of separate Conventions entered into between the several South African Governments. The first South African Postal Union Convention came into force in 1898. This secured uniformity of practice and rates of postage between the Cape, Natal, Transvaal, and the Orange Free State. The Portuguese Province of Mozambique became a party to the Postal Union at a later date.

2. **Postal Service.**—The postal laws and ordinances of the four provinces of the Union, dating from 1882 in the case of the Cape of Good Hope and Natal, from 1898 in the case of the Transvaal, and from 1903 in the case of the Orange Free State, continued to have effect until the 1st September, 1911, when the "Act to consolidate and amend the laws in force in the Union relating to the Post Office, and to impose certain charges to discourage shipping combinations" (Act No. 10, 1911) was brought into operation. The Act provides that the administration and control of the Department shall, under the Minister of Posts and Telegraphs, be vested in the Postmaster-General, who has the supervision and control of all persons in the service of the Department and of all post offices and post and telegraph services. He is authorized to establish, maintain, and abolish mail services, post offices, and savings bank offices; to make and alter postal and telegraph arrangements with other postal and telegraph administrations; and to make regulations for the conduct and guidance of officers and for the conduct of any business entrusted to him, or as to the manner of exercising the powers and duties assigned to him by the Act. He may prescribe the fees, rates, or charges for the conveyance of postal articles and for the transmission, conveyance, or delivery of telegrams, and for any other service rendered by the Department. The headquarters of the Department are at Pretoria. Mails are conveyed by every description of transport: by the aboriginal runner, the post-cart, the motor car, the travelling (railway) post office, and the aeroplane. There are in all 1,598 posts exclusive of those conveyed by rail.

3. **Postal Facilities.**—The following statement shows the number of offices open, posting receptacles in use, and private bags in use for a series of years, and also the number of inhabitants and the number of square miles to each post office:—

POSTAL FACILITIES, 1934 TO 1938.

Year ending 31st March.	Number of Post Offices Open.	Number of Posting Receptacles in Use (excluding those at Post Offices).	Number of Private Bags in Use.	Number of Inhabitants * (all Races) to each Post Office.	Number of Square Miles to each Post Office.
1934	3,178	1,497	4,744	2,908	149
1935	3,212	1,584	4,908	2,935	147
1936	3,241	1,657	5,108	2,967	146
1937	3,304	1,760	5,421	2,965	143
1938	3,317	1,852	5,736	3,009	142

* Estimated mean population 30th June.

There are 56,391 private boxes installed at 587 post offices in the Union, the numbers in the various provinces being:—

PRIVATE BOXES IN POST OFFICES AT 31st MARCH, 1938.

Province.	Total Number of Post Boxes.	Number of Post Boxes Let.	Number of Post Offices Concerned.
Cape of Good Hope	16,850	11,082	218
Natal	7,933	4,595	104
Transvaal	24,030	18,140	168
Orange Free State	7,578	4,341	97

Private boxes are available for rental purposes at most of the large post offices, and the fees vary, according to size and according to whether an office is in an urban or a rural area, from 15s. to £3. 5s. per annum.

4. **Mail Matter Dealt With.**—The following tables show for a series of years mail matter dealt with:—

(i) MAIL MATTER POSTED IN UNION FOR DELIVERY THEREIN, 1932 TO 1937.

Year ending 31st March.	Letters.	Post Cards.	Newspapers.	Book and Sample Packets; Printed Matter.	Parcels.	Express Articles.	Official Articles.	Total.	Registered Articles (included in other columns).
	1,000.	1,000.	1,000.	1,000.	1,000.	1,000.	1,000.	1,000.	1,000.
1932..	141,820	7,890	28,303	74,468	5,468	6	27,407	285,362	2,518
1933..	132,060	7,507	26,040	63,639	5,059	5	28,036	262,346	2,303
1934..	137,421	7,938	24,818	65,810	5,703	6	29,092	270,788	3,423
1935..	186,848	10,360	23,212	42,995	6,498	5	29,858	299,776	4,069
1937*.	202,288	9,696	29,323	94,921	7,102	7	29,062	372,399	5,025

(ii) FOREIGN MAIL MATTER DISPATCHED, 1932 TO 1937.

Year ending 31st March.	Letters.	Post Cards.	Newspapers.	Book and Sample Packets; Printed Matter.	Parcels.	Express Articles.	Official Articles.	Total.	Registered Articles (included in other columns).
	1,000.	1,000.	1,000.	1,000.	1,000.	1,000.	1,000.	1,000.	1,000.
1932..	12,155	496	1,658	2,340	225	2	134	17,010	323
1933..	10,735	379	1,452	2,160	157	2	68	14,962	261
1934..	11,429	524	1,443	2,870	164	1	118	16,549	250
1935..	13,910	565	1,624	2,193	191	1	176	18,660	285
1937*.	16,715	663	1,741	2,841	238	1	154	22,353	415

(iii) FOREIGN MAIL MATTER RECEIVED, 1932 TO 1937.

Year ending 31st March.	Letters.	Post Cards.	Newspapers.	Book and Sample Packets; Printed Matter.	Parcels.	Express Articles.	Official Articles.	Total.	Registered Articles (included in other columns).
	1,000.	1,000.	1,000.	1,000.	1,000.	1,000.	1,000.	1,000.	1,000.
1932..	15,396	869	3,040	6,985	616	2	174	27,982	413
1933..	13,629	715	3,740	4,724	515	2	124	23,449	310
1934..	15,743	885	3,348	6,269	458	1	95	26,799	331
1935..	16,098	974	4,074	4,903	591	—	161	26,891	413
1937*.	20,934	1,065	3,423	8,370	663	1	304	34,760	484

* No statistics were taken during the years ending 31st March, 1936 and 1938.

(iv) TOTAL ARTICLES OF MAIL MATTER HANDLED, 1932 TO 1937.

Year ending 31st March.	Letters.	Post Cards.	Newspapers.	Book and Sample Packets; Printed Matter.	Parcels.	Express Articles.	Official Articles.	Total.	Registered Articles (included in other columns).
	1,000.	1,000.	1,000.	1,000.	1,000.	1,000.	1,000.	1,000.	1,000.
1932..	169,371	9,255	33,001	83,793	6,309	10	27,715	330,354	3,254
1933..	156,424	8,601	31,232	70,532	5,731	9	28,228	300,757	2,964
1934..	164,593	9,347	29,609	74,949	6,325	8	29,305	314,136	4,004
1935..	216,856	11,899	28,910	50,181	7,280	6	30,195	345,327	4,758
1937*.	239,037	11,424	34,487	106,132	8,003	9	29,520	429,512	5,924

* No statistics were taken during the years ending 31st March, 1936 and 1938.

5. **Cost of Mail Conveyance.**—The following tables show the cost of mail conveyance, exclusive of the ocean mail service, during a series of years:—

COST OF MAIL CONVEYANCE, 1934 TO 1938.

Year ending 31st March.	Main and Branch Posts.	Conveyance over Union Railways.*	Landing and Shipping Mails.	Total.
	£	£	£	£
1934	69,511	196,078	833	266,422
1935	75,739	195,566	622	271,927
1936	78,788	193,951	1,402	274,141
1937	86,777	194,245	2,425	283,447
1938	81,200	203,111	1,543	285,854

* Includes railway road motor services.

6. **Number of Employees.**—The following table shows the number of persons employed by the Department of Posts, Telegraphs, and Telephones during a series of years:—

NUMBER OF EMPLOYEES, AT 31st MARCH, 1934 TO 1938.

Year.	Administrative, Clerical, and Professional Division.	General Division and Non-Classified Posts.	Probationer Post and Telegraphs Assistants.	Local Officials and Railway Officials performing Post Office Work.	Total.
1934	4,161	5,217	49	3,244	12,671
1935	4,313	5,854	186	2,920	13,273
1936	4,482	6,051	153	2,987	13,673
1937	4,640	6,390	203	3,016	14,249
1938	4,876	6,760	255	3,097	14,988

7. **Financial.**—The following tables give particulars of (i) the financial aspect of the working of the Department of Posts, Telegraphs, and Telephones, and (ii) postal revenue only during a series of years:—

(i) POSTS, TELEGRAPHS, AND TELEPHONES—FINANCIAL STATISTICS, 1934 TO 1938.

Year ending 31st March.	Cash Receipts.	Value of Free Services Given to Government Departments.	Cash Payments.	Value of Free Services Received from Government Departments.	Total Amount of Money dealt with. *	Revenue Collected for other Departments.
	£	£	£	£	£1,000	£
1934	4,420,071	334,472	2,896,771	202,328	39,455	1,162,445
1935	4,400,150	270,974	3,021,570	159,665	43,247	1,301,046
1936	4,625,726	280,922	3,179,591	168,495	45,100	1,386,086
1937	5,021,954	317,682	3,559,923	182,235	50,325	1,481,255
1938	5,510,254	323,572	3,868,476	189,385	55,970	2,201,219

* All expenditure (including loan expenditure), savings bank deposits and withdrawals, money order and postal order issues and repayments, Savings Bank and Union Loan Certificates, payment of pensions, revenue collections, etc.

(ii) PARTICULARS OF POSTAL REVENUE, 1934 TO 1938.

Year ending 31st March.	Postage.	Commission, Money Orders and Postal Orders.	Box and Bag Rents.	Ocean Mail Service.	Miscellaneous.	Total.	Value of Free Services Given to Government Departments.
	£	£	£	£	£	£	£
1934.....	1,923,126	64,883	46,425	182,674	65,087	2,282,195	205,292
1935.....	1,627,880	71,074	47,770	171,536	82,079	2,000,339	226,578
1936.....	1,629,947	76,647	43,253	148,381	107,425	2,005,653	226,409
1937.....	1,754,302	83,064	46,383	148,191	101,744	2,133,684	261,445
1938.....	2,025,197	88,300	48,684	124,247	120,353	2,406,781	261,782

8. **Rates of Postage.**—(i) *General.*—The following are the principal post office charges:—

RATES OF POSTAGE FROM UNION OF SOUTH AFRICA.

Country.	Letters.	Postcards.	Newspapers.	Printed and Commercial Papers.	Sample Packets.
A. Union of South Africa, Basutoland, Bechuanaland Protectorate, Swaziland, and South West Africa.	1d. per ½ oz. air conveyance; 1d. per oz. surface conveyance.	1d. each for air conveyance; ½d. each for surface conveyance.	½d. per 4 oz. per copy. Limit of weight for each packet 1 lb.	½d. per 2 oz.	½d. per 2 oz. with a minimum of 1d. for packets addressed to places outside the Union.
B. Southern Rhodesia, Northern Rhodesia, Mozambique, Kenya, Uganda, and Tanganyika, Nyassaland, Angola, and Belgian Congo.	1½d. per ½ oz.*	1½d. each.*	½d. per 4 oz. per copy. Limit of weight for each packet 1 lb.	½d. per 2 oz.	½d. per 2 oz. with a minimum of 1d.
C. Aden, Australia, Bahrein, Banks Islands, Brunei, Burma, Canada, Ceylon, Cook Islands, Dubai, Eire (Irish Free State), Egypt, Fanning Island, Fiji Islands, Gilbert and Ellice Islands, Great Britain, Hong Kong, India (British and French), Labuan, Malay States (Federated and Unfederated), Mauritius, Muscat, Nauru, Newfoundland, New Guinea (Mandated Territory), New Hebrides, New Zealand, Norfolk Island, North Borneo, Northern Ireland, Palestine, Papua, Persian Gulf Ports (Bahrein, Dubai, and Muscat only), Samoa (Territory under British Administration), Sarawak, Seychelles, Solomon Islands, Straits Settlements, Sudan (Anglo-Egyptian), Tibet, Tonga, Transjordan, and Zanzibar.	1½d. per ½ oz.*	1½d. each.*	½d. per 2 oz.	½d. per 2 oz.†	½d. per 2 oz. with a minimum of 1d.
D. For remainder of British Commonwealth.	1d. per oz.	1d. each.	½d. per 2 oz.	½d. per 2 oz.†	½d. per 2 oz. with a minimum of 1d.
E. For Foreign Countries.	3d. the first oz. and 1½d. for each additional oz.	1½d. each.	½d. per 2 oz.	½d. per 2 oz.†	½d. per 2 oz. with a minimum of 1d.

* Conveyed by air mail only. † With a minimum of 3d. in the case of commercial papers.

Cash on Delivery Fees.

For trade charges up to and including £1	1s.
For every additional £1 or part thereof	3d.

Parcels (Surface Mail).

Agricultural parcels addressed to any place within the Union and Basutoland...	Up to 1¼ lb.	3d.
	Over 1¼ lb., but not exceeding 3 lb...	6d.
	Over 3 lb., but not exceeding 6 lb....	8d.
	Over 6 lb., but not exceeding 9 lb....	10d.
	Over 9 lb., but not exceeding 11 lb...	1s.
Agricultural parcels addressed to the Bechuanaland Protectorate (except Kasane and Ghanzi).....	Up to 3 lb.....	1s.
	Over 3 lb. but not exceeding 7 lb.	1s. 6d.
	Over 7 lb. but not exceeding 11 lb.	2s.
Ordinary parcels.—For places within the Union and for Mozambique and South West Africa.....	Not exceeding 4 oz.....	2d.
	Not exceeding 8 oz.....	4d.
	Not exceeding 1 lb.....	6d.
	For every additional 1 lb. or portion thereof.....	6d.
For Bechuanaland Protectorate.....	1s. per lb. (Kasane 1s. 3d. per lb.).	
For Rhodesia (Southern).....	1s. 1d. per lb.	
For Rhodesia (Northern).....	1s. 3d. per lb.	
For United Kingdom.....	9d. per lb.	
For British possessions and foreign countries	Special rates have been fixed on an average traffic basis.	

(ii) *Air Mail Letter Rates.*—On and from the 1st July, 1937, new postage rates were introduced as a result of the decision to transmit by air mail all letters and postcards addressed to countries participating in the Empire Air Mail Scheme, as well as to the Belgian Congo, Angola, and Mozambique.

As from 1st October, 1937, alternative air mail and surface mail rates were introduced for letters addressed to destinations within the Union and South West Africa only. The standard rate is 1d. per half-ounce and letters must be stamped according to this rate, unless they are clearly marked "By surface conveyance", when the rate is 1d. per ounce. Surface transport is also used where speedier delivery can be effected by this means. The ½d. postcard is still available within the Union, South West Africa, and the Protectorates, but is only eligible for conveyance by surface mail.

Letters addressed to the overseas countries mentioned under B and C in the schedule above travel by air mail and are rated at 1½d. per half-ounce (postcards 1½d. each). There are no alternative surface mail postage rates for these countries.

Higher rates, as specified below, apply to letters conveyed by air to the countries not mentioned under A, B, and C above. The weight basis is half an ounce. Postcards may be forwarded by air mail at half the minimum rates for air mail letters, except where the rate for this class of mail matter is specifically mentioned. The ocean mail rates are given in paragraph (i) above and these are the only instances in which there are alternative air mail and ocean mail rates.

AIR MAIL—RATES OF POSTAGE.

Country of Destination.	Letters per ½-oz.	Post Cards.
	s. d.	s. d.
Europe.....	1 0	0 6
Asia—		
Russia (in Asia).....	1 0	0 6
All other countries.....	1 6	0 9
Africa—		
Gold Coast, Nigeria, Gambia, Sierra Leone via Lagos.....	0 6	0 3
Other Countries—		
East Coast.....	0 9	0 4½
North and West Coast.....	1 3	0 7½
America—		
United States.....	1 0	0 6
Argentine, Bolivia, Brazil, Chili, Paraguay, Uruguay.....	4 0	2 0
All other countries.....	1 6	0 9

The foregoing rates include air transmission by all international and internal services available.

(iii) *Air Mail Parcel Rates*:—

Within the Union and South West Africa: 9d. per ½ lb.

Air mail parcels are not accepted for destinations other than the above.

9. **Money Orders.**—Money Order Conventions are in force between the Union of South Africa and the Commonwealth of Australia, Dominion of Canada, Ceylon, Holland, Hong Kong, India, Netherlands East Indies, France (including Algeria), Germany, Irish Free State, Italy, Kenya Colony, Malaya, Mauritius, Mozambique, New Zealand, Nyasaland Protectorate, Northern and Southern Rhodesia, St. Helena, Tanganyika Territory, United States of America, and Zanzibar. There is also direct money order exchange with the United Kingdom.

There are 973 money order offices in the Union. The maximum amount of a single money order is £40.

(i) MONEY ORDERS AND COMMISSION, 1934 TO 1938.

Year ending 31st March.	Money Orders Issued.		Money Orders Paid.		Commission Collected—Amount accruing to Union Government.
	Number.	Value.	Number.	Value.	
		£		£	£
1934	633,199	2,731,217	544,472	2,347,751	26,336
1935	658,970	2,898,959	582,878	2,567,519	25,288
1936	671,575	3,053,571	606,327	2,626,204	26,619
1937	716,749	3,350,390	653,786	2,901,593	28,603
1938	752,946	3,584,849	691,467	3,154,478	30,915

(ii) MONEY ORDERS ISSUED IN THE UNION FOR PAYMENT IN THE UNION AND IN OTHER COUNTRIES, 1934 TO 1938.

Country.	Year ending 31st March.				
	1934.	1935.	1936.	1937.	1938.
	(*a*) NUMBER.				
Australia	3,686	5,297	6,346	5,130	5,196
Canada	1,408	1,537	1,677	1,647	1,790
Ceylon	40	46	37	51	37
Eire	4,928	2,776	2,166	1,754	1,825
France	103	—	259	932	1,169
Germany	4,707	3,627	3,155	2,826	2,567
Holland	3,763	2,062	2,212	2,949	3,618
Hong Kong	158	190	223	291	295
India	12,409	12,312	12,122	11,672	11,655
Italy	674	715	645	667	718
Kenya Colony	310	248	258	229	303
Malaya	—	—	—	9	25
Mauritius	383	304	284	273	297
Mozambique	270	271	303	302	408
Netherlands Indies	59	73	78	92	91
New Zealand	432	438	447	481	468
Nyasaland	1,053	1,662	2,135	1,509	1,323
Rhodesia—					
Northern	520	466	564	492	538
Southern	3,183	3,447	5,248	7,015	4,706
St. Helena	102	86	56	46	68
South West Africa	1,841	2,132	2,264	2,166	2,354
Tanganyika Territory	73	63	49	56	73
United Kingdom	81,265	66,595	65,797	67,010	71,060
United States of America	11,814	15,450	16,629	17,707	18,514
Zanzibar	35	9	39	46	35
Total issued in Union for payment in other countries	133,225	119,746	122,993	125,482	129,323
Total issued in Union for payment in Union	499,894	539,224	548,582	591,267	623,623
GRAND TOTAL	633,119	658,970	671,575	716,749	752,946

(ii) MONEY ORDERS ISSUED IN THE UNION FOR PAYMENT IN THE UNION AND IN OTHER COUNTRIES, 1934 TO 1938—(*continued*).

Country.	Year ending 31st March.				
	1934.	1935.	1936.	1937.	1938.
	(*b*) VALUE.				
Australia	£ 9,860	£ 12,040	£ 14,442	£ 13,880	£ 14,114
Canada	4,351	4,622	4,278	4,480	4,720
Ceylon	154	233	152	209	177
Eire	24,875	18,654	13,878	10,933	12,100
France	326	—	525	2,195	2,520
Germany	18,330	12,234	11,338	9,187	7,517
Holland	9,449	4,364	6,757	12,026	11,834
Hong Kong	780	617	653	977	669
India	111,063	127,538	132,631	132,061	135,380
Italy	2,891	2,870	2,843	2,716	3,223
Kenya Colony	1,792	1,567	1,561	1,894	2,448
Malaya	—	—	—	22	222
Mauritius	1,407	1,218	1,487	1,295	1,521
Mozambique	1,121	1,747	2,071	2,884	3,058
Netherlands Indies	81	188	137	216	135
New Zealand	1,653	1,905	2,261	2,471	2,362
Nyasaland	5,644	10,444	16,438	13,328	12,567
Rhodesia—					
Northern	3,262	3,805	4,606	4,166	4,886
Southern	19,579	24,744	34,619	48,287	33,958
St. Helena	385	584	382	376	594
South West Africa	17,562	16,573	18,476	18,570	19,037
Tanganyika Territory	747	780	474	533	859
United Kingdom	333,201	343,054	349,114	375,168	393,321
United States of America	19,132	22,272	24,490	25,461	27,656
Zanzibar	160	140	209	202	478
Total issued in Union for payment in other countries	587,814	612,203	643,822	683,597	695,356
Total issued in Union for payment in Union	2,143,403	2,286,756	2,409,749	2,666,793	2,889,493
GRAND TOTAL £	2,731,217	2,898,959	3,053,571	3,350,390	3,584,849

(iii) MONEY ORDERS ISSUED IN OTHER COUNTRIES FOR PAYMENT IN THE UNION, 1934 TO 1938.

Country.	Year ending 31st March.				
	1934.	1935.	1936.	1937.	1938.
	(*a*) NUMBER.				
Australia	976	968	1,047	1,196	1,500
Canada	978	1,165	1,213	1,448	1,882
Ceylon	10	14	9	13	21
Eire	373	361	354	309	329
France	—	—	90	387	321
Germany	1,482	3,222	6,589	10,875	10,337
Holland	482	518	523	751	810
Hong Kong	16	7	18	19	26
India	129	147	169	156	190
Italy	25	42	186	96	81
Kenya Colony	105	134	201	179	221
Malaya	—	—	—	3	16
Mauritius	256	336	407	408	480
Mozambique	25	17	5	11	9
Netherlands Indies	47	40	57	56	93
New Zealand	179	188	221	284	399
Nyasaland	56	47	77	65	63
Rhodesia—					
Northern	1,405	2,273	1,973	1,783	2,608
Southern	5,106	6,997	6,857	7,485	8,175
St. Helena	68	50	42	42	29
South West Africa	20,828	22,664	22,363	23,051	24,129
Tanganyika Territory	32	20	41	53	43
United Kingdom	11,100	10,601	10,785	10,822	11,868
United States of America	2,279	2,678	3,335	3,782	3,613
Zanzibar	4	6	9	3	1
TOTAL	46,021	52,495	56,562	63,277	67,244

(iii) MONEY ORDERS ISSUED IN OTHER COUNTRIES FOR PAYMENT IN THE UNION, 1934 TO 1938—(*continued*).

Country.	Year ending 31st March.				
	1934.	1935.	1936.	1937.	1938.
(*b*) VALUE.					
	£	£	£	£	£
Australia	3,043	2,292	2,528	2,978	3,497
Canada	1,803	1,892	2,121	3,026	4,279
Ceylon	63	49	4	23	25
Eire	2,008	1,562	1,543	943	1,369
France	—	—	585	2,147	1,140
Germany	8,481	7,601	8,406	13,313	11,955
Holland	1,628	1,779	1,708	2,089	1,982
Hong Kong	34	12	12	23	15
India	334	419	280	432	460
Italy	255	167	630	71	42
Kenya Colony	825	669	1,526	1,217	1,553
Malaya	—	—	—	11	59
Mauritius	355	525	639	583	707
Mozambique	69	65	51	19	49
Netherlands Indies	153	154	111	165	334
New Zealand	480	441	541	776	1,008
Nyasaland	490	393	608	646	706
Rhodesia—					
Northern	12,035	20,448	16,150	14,551	23,002
Southern	37,535	52,335	48,905	55,381	58,398
St. Helena	808	536	418	391	361
South West Africa	58,450	65,342	66,785	70,697	79,523
Tanganyika Territory	335	115	339	204	295
United Kingdom	69,166	59,938	59,661	58,429	65,113
United States of America	7,252	8,376	8,683	10,319	9,739
Zanzibar	11	6	16	10	1
TOTAL £	205,813	225,116	222,310	238,465	265,612

(iv) *Rates of Commission on Money Orders.*—The rates of commission charged on money orders issued in the Union of South Africa are as follows:—

For payment in the Union of South Africa, South West Africa, and Bechuanaland Protectorate ...	6d. per unit of £4 or part thereof.
For payment in Northern Rhodesia and Mozambique	9d. per unit of £4 or part thereof.
For payment in Southern Rhodesia	9d. per unit of £4 or part thereof plus 2d. exchange per £1 or part thereof.
For payment elsewhere	1s. per unit of £4 or part thereof.

(v) *Foreign Telegraph Money Orders.*—A service exists between the Union of South Africa on the one hand, and the United Kingdom, Germany, Irish Free State, Mauritius, Nyasaland, Kenya, Uganda, and Tanganyika Territory on the other, by which remittances may be telegraphed to or from money order offices in those countries. The maximum amount of an overseas or foreign telegraph money order is £40 and the charges in the Union are:—

(*a*) The money order commission at overseas rates, viz. 1s. for every £4 or part thereof, and

(*b*) The cost of the telegram of advice at full or deferred rates for telegrams addressed to the country of destination.

10. **Postal Orders.**—Union and British postal orders are issued and paid throughout the Union.

Union postal orders are payable in the Union, the Bechuanaland, Basutoland, and Swaziland Protectorates, South West Africa, Northern and Southern Rhodesia, Nyasaland, Kenya, Uganda, and Tanganyika Territory, and Portuguese East Africa.

British postal orders carrying a higher poundage charge are used for remittances to Great Britain and a number of overseas countries which accept and pay them.

(i) POSTAL ORDERS ISSUED AND PAID, 1934 TO 1938.

Year ending 31st March.	Postal Orders Issued.		Postal Orders Paid.		Union Share of Poundage on Issues and Rebate on Issues and Payments.
	Number.	Value.	Number.	Value.	
		£		£	£
1934	4,426,808	1,955,358	4,159,533	1,838,739	40,801
1935	4,649,230	2,197,019	4,308,268	2,014,455	45,785
1936	5,144,023	2,422,265	4,722,265	2,186,047	50,029
1937	5,542,071	2,666,160	5,034,474	2,366,054	54,161
1938	5,893,030	2,829,751	5,311,769	2,495,128	57,385

(ii) DENOMINATION AND RATE OF POUNDAGE CHARGED ON EACH DENOMINATION OF POSTAL ORDER ISSUED.

Denomination.	Poundage.
(*a*) Union series—	
6d., 1s., 1s. 6d., 2s., 2s. 6d.	1d.
3s., 3s. 6d., 4s., 4s. 6d., 5s., 5s. 6d., 6s., 6s. 6d., 7s., 7s. 6d., 8s., 8s. 6d., 9s., 9s. 6d., 10s., 10s. 6d.	2d.
12s., 12s. 6d., 13s. 6d., 14s., 14s. 6d., 15s.	3d.
20s., 21s.	4d.
(*b*) British series—	
6d., 1s., 1s. 6d., 2s., 2s. 6d.	2d.
3s., 3s. 6d., 4s., 4s. 6d., 5s.	3d.
7s. 6d., 10s.	4d.
15s., 17s. 6d., 20s.	6d.

11. **Postal Drafts.**—A system of postal drafts is in force, by means of which a member of the public can draw upon another at any point in the Union and South West Africa where there is a money order office, for any sum up to £10 A *demand* is made by the postmaster, on a date specified by the drawer, upon the person from whom the money is to be collected. If paid, the postmaster issues a receipt and remits the amount collected to the drawer by money order. The Department's fee is 1s. for one demand and 1s. 9d. for two. The presentation of a postal draft has the same force and effect as a legal demand, and in any suit or action the production of a dishonoured draft, with the postmaster's report thereon, is taken as evidence of the facts stated in that report, unless the contrary be proved.

POSTAL DRAFTS ISSUED AND COLLECTED, 1934 TO 1938.

Year ending 31st March.	Number of Demands.	Number Collected.	Amount Collected.	Fees.
			£	£
1934	18,141	1,615	2,798	1,018
1935	16,270	1,743	2,761	929
1936	15,347	1,462	2,612	868
1937	13,198	1,396	2,593	761
1938	11,406	1,352	2,361	665

12. **Ocean Mail Service.**—The present contract for the conveyance of mails between South Africa and the United Kingdom, which is held by the Union-Castle Mail Steamship Company, has been in existence since 1st January, 1937, and provides that the duration of the voyage shall not exceed 14 days in each direction. The subsidy paid is £225,000 per annum, of which £27,000 is paid in consideration of the mail ships commencing and terminating their voyage at Durban instead of Capetown.

Postal communication is maintained between South Africa and South America by means of private ships as opportunity offers, and with India, the Far East, and Australia by means of either the Empire Air Mail Scheme or private ships.

MAIL MATTER CONVEYED (ALL ROUTES), 1934 TO 1938.

Year ending 31st March.	Number of Mail Bags.				Number of Parcel Receptacles.			
	To South Africa.		From South Africa.		To South Africa.		From South Africa.	
	Mail Ships.	Private Ships.	Mail Ships.	Private Ships.	Mail Ships.	Private Ships.	Mail Ships.	Private Ships.
1934	131,521	6,451	48,842	4,240	53,195	14,156	4,946	1,482
1935	141,684	9,269	51,192	5,436	53,785	17,526	5,014	1,651
1936	147,213	13,338	52,054	6,973	53,467	18,914	4,618	1,737
1937	147,631	15,795	51,339	8,204	56,582	22,683	4,950	1,697
1938	152,818	12,712	44,707	6,548	54,064	21,567	6,469	1,733

13. **Air Mail Service.**—Particulars in connexion with postal matter conveyed by air will be found in Chapter XIII.

§ 2. Telegraphs and Wireless Communication.

1. **Development of Service.**—Particulars of the development of the telegraph services were given in an article entitled "An Outline of the Development of the Postal, Telegraph, and Telephone Services in South Africa" published in *Year Book* No. 18.

2. **Statistics of Working.**—The following table gives particulars regarding the mileage of wire, number of offices, and number of telegrams dealt with during a series of years:—

WORKING OF TELEGRAPHS, 1934 TO 1938.

Year ending 31st March.	Mileage of Wire.	Number of Offices.	Forwarded Telegrams dealt with.		Cash Revenue.	Total Capital Expenditure to End of Year.
			Number.*	Value.		
			1,000	£	£	£1,000
1934	36,533	2,944	5,093	453,353	482,151	1,492
1935	20,901	3,012	5,854	469,859	511,466	1,544
1936	21,060	3,095	6,252	493,360	550,091	1,593
1937	21,074	3,185	6,978	545,642	605,714	1,656
1938	21,289	3,273	7,065	555,304	626,350	1,763

* All classes, including radio-telegrams and overseas telegrams, but excluding railway service messages handed in at telegraph offices worked by the Railway Administration.

3. **Rates for Transmission of Telegrams.**—The following are the present rates for transmission of telegrams:—

For the Union of South Africa, South West Africa, Basutoland, and Swaziland	1s. for the first 12 words or portion thereof and 1d. for every additional word.
For Southern Rhodesia, British Bechuanaland, and the districts of Lourenco Marques and Inhambane (P.E.A.)	2s. for the first 12 words or portion thereof and 2d. for every additional word.
For transmission from aeronautical wireless stations to Imperial Airways and South African Airways aircraft whilst in flight	11d. per word.
For transmission from Slangkop Radio, Jacobs Radio, East London Radio, Algoa Bay Radio, and Walvis Bay Radio by wireless telegraphy to ships at sea	11d. per word.*

*This charge is reduced to 6d. a word for radio-telegrams exchanged with vessels of the Union-Castle Line, the German African Lines, the City and Hall Lines, the Canadian-South African Lines, the Holland-Africa Line, the Indian African Line, the India-Natal Line, the Natal Line, the K.P.M. Line, the Swedish South Africa Line, Norwegian, Africa and Australia Line, and Lloyd Triestino Line (Duilio and Guilio Cesare only), while on the coast between Capetown and Durban.

4. **Wireless Telegraphy.**—(i) *Coast Stations for Ship to Shore Working.*—Departmental wireless coast stations have been established at Slangkop (near Capetown), Algoa Bay (Port Elizabeth), Jacobs (near Durban), and Walvis Bay. These stations are equipped with up-to-date apparatus and are able normally to communicate with ships up to a distance of 2,000 miles. To ships fitted with short-wave installations communication is possible over much greater distances. A coast station of small power is also established at East London.

Provision is made for the principal ports from which succour can be sent to be notified of distress calls from ships at sea, and a continuous watch, which is maintained at all wireless stations, ensures an immediate response to such calls.

A news service and a wireless time signal are broadcast daily from Slangkop Radio for the information of ships at sea. The news service is also broadcast daily from Walvis Bay Radio. In addition, a wireless station, known as Table Bay Radio, is established at the Docks, Capetown, in connexion with the safe navigation of vessels into port during times of fog or haze. Similar wireless stations are established at Durban and Algoa Bay Harbours for communication with the harbour tugs.

(ii) *Wireless Stations for Aeronautical Working.*—To aid air navigation, departmental wireless stations have been established at Bethlehem, Beaufort West, Durban, East London, Germiston, Kimberley, Maclear, Maitland, Mossel Bay, Pietersburg, Piquetberg, Port Elizabeth, and Vryheid. Provision is made for the exchange direct between aerodrome stations and aircraft in flight of messages comprising meteorological and other data to ensure safety of aircraft and regularity of air traffic.

(iii) *Overseas Wireless Telegraphy.*—Wireless telegraphic communication is established between the Union of South Africa and Great Britain by means of the Beam system of transmission. As from the 1st October, 1930, the Eastern Telegraph Company's cables and the Beam wireless system have been worked jointly by a single South African operating company known as Overseas Communications of South Africa, Limited. The provision of a direct land line between Johannesburg and the Company's Office in Capetown affords, in effect, direct telegraphic communication between Johannesburg and London.

WORKING OF COAST WIRELESS STATIONS (INCLUDING WALVIS BAY), 1934 TO 1938.

Year ending 31st March.	Number of Messages.			Number of Words.			Value of Messages (Amount Accruing to Union Government).
	Outwards.	Inwards.	Total.	Outwards.	Inwards.	Total.	
							£
1934	8,829	14,192	23,021	271,332	185,902	457,234	8,506
1935	9,651	18,756	28,407	302,049	280,070	582,119	9,561
1936	10,565	22,838	33,403	298,696	360,551	659,247	10,430
1937	12,499	26,048	38,547	320,291	405,033	725,324	12,835
1938	11,978	27,567	39,545	196,812	394,766	591,578	13,226

5. **Wireless Broadcasting.**—In view of the development of wireless telephony, regulations dealing with the subject of broadcasting, and also with the question of wireless experimenting, were published in August, 1923. Under these the Postmaster-General was empowered to grant licences, under certain conditions, for the establishment of a broadcasting wireless telephony service, as well as for the installation of receiving-sets by listeners, who were required to enter into a contract with broadcasters licensed in particular areas. Receiving-set licences were charged for at the rate of 5s. per annum, and in addition prescribed charges were payable to the broadcaster. The regulations also made provision for the control and licensing of amateur wireless experimenting.

The opening on the 1st July, 1924, of a broadcasting station at Johannesburg, and the subsequent establishment of similar stations at Capetown and Durban, stimulated the public interest in wireless telephony, as is shown

by the marked increase in the number of wireless licences issued. Stations have also been established at Bloemfontein, Pietermaritzburg, Pretoria, and Grahamstown.

In 1926 a *Radio Act*, No. 20 (subsequently amended by Act No. 23 of 1928 and Act No. 22 of 1936), was passed by the Legislature. This Act, which repealed the previous regulations, makes provision for the control of radio activities within the Union, and places the exclusive privilege of transmitting and receiving radio-telegrams under the control of the Postmaster-General, who is empowered to issue licences under prescribed conditions to persons operating wireless stations, to experimenters, broadcasters, and listeners.

Fees are payable annually in advance, and are as follows:—

Description.	Within 100 miles of nearest main broadcasting centre.	Beyond 100 miles but not exceeding 250 miles.	Beyond 250 miles.
(*a*) TARIFF I.			
	£ s. d.	£ s. d.	£ s. d.
All classes of radio receiving apparatus, except loud-speaker extensions specified in Tariff II.	1 15 0	1 5 0	1 0 0
(*b*) TARIFF II.			
Each loud-speaker extension from a master radio receiving apparatus installed in a block of flats, hotel, or any other communal or collective establishment	0 17 6	0 17 6	0 17 6

In special circumstances such fees are payable as the Board of Governors of the South African Broadcasting Corporation may prescribe.

(*c*) Listener's licences may be issued free of charge to:—

(i) Educational institutions approved by the Board, provided that the receiving sets are used solely for educational purposes and are installed in class-rooms for this purpose.

(ii) Public hospitals.

(iii) Charitable institutions recognized and approved by the board of governors as such.

(*d*) Listener's licences may be issued to the following persons on payment of a fee of 2s. 6d.:—

(i) Blind persons whose applications for such licences are supported by recommendations from societies for the care of the blind recognized by the board of governors.

(ii) Indigent invalids whose circumstances are deemed by the board of governors to be such as to warrant the granting of a 2s. 6d. licence;

The granting of any licences under (*c*) and (*d*) is in the entire discretion of the board of governors.

The number of listener's licences current at the 31st March in each of the last nine years is shown in the following table:—

1930	19,138	1935	108,428
1931	28,343	1936	139,494
1932	42,719	1937	166,344
1933	53,670	1938	189,321
1934	73,704		

6. **South African Broadcasting Corporation.**—The *Broadcasting Act*, No. 22 of 1936, which provides for the establishment of the South African Broadcasting Corporation, came into force on 1st August, 1936. The Act provides for the appointment of nine governors and of local councils at Johannesburg, Pretoria, Capetown, Grahamstown, Durban, Pietermaritzburg, and other centres

as required, to advise the board on matters connected with the broadcasting service. The Corporation is empowered to make regulations for fixing the amount of listener's licence fees, but any regulations dealing with fees must be approved by the Minister before they become effective. Section 14 of the Act provides that the Corporation shall frame and carry out its broadcasting programme with due regard to the interests of both English and Afrikaans culture.

One of the major developments in broadcasting since the establishment of the Corporation is the introduction towards the end of 1937 of two additional independent programmes which are predominantly Afrikaans. These programmes were originally broadcast only from Roberts Heights and Klipheuvel short-wave transmitters, which the Corporation hires from the Postmaster-General and Overseas Communications of South Africa, Ltd., respectively, but are now also relayed by medium-wave transmitters in Johannesburg, Pretoria, Bloemfontein, and Capetown.

The earlier transmissions from the Roberts Heights and Klipheuvel transmitters, and also those from the experimental long-wave transmitter in Johannesburg, undertaken during 1937-38, formed part of an experiment which was undertaken on the advice of the Corporation's own experts and the foremost overseas authorities in order to obtain data as to the suitability of different wavelengths in the Union before formulating a comprehensive coverage scheme.

Another interesting development which has been achieved is the erection near Johannesburg of a receiving station, similar to the British Broadcasting Corporation's station at Tatsfield. This station will enable the Corporation to receive and to relay suitable overseas programme material.

The Corporation now broadcasts five entirely independent programmes and one semi-independent programme (that from the Grahamstown transmitter) for approximately twelve hours daily and had twelve transmitters in operation at the end of 1938. This number will be increased to sixteen during 1939.

A comprehensive survey of the Corporation's activities from 1st August, 1936, to 31st December, 1937, is contained in the Annual Report issued in April, 1938. Details of later developments will appear in future annual reports, which will be published in April each year.

Particulars of wave lengths and power of broadcasting stations are:—

Station.	Metres.	Kilocycles.	Power in Kilowatts.
Bloemfontein	371·01	808·6	2·0
*Bloemfontein	483·87	620·0	(?)
Capetown	500	600·0	10·0
*Capetown	340·91	880·0	2·0
Capetown (Klipheuvel)—			
Daylight Transmission	31·23	9,606·0	5·0
Evening Transmission	49·2	6,097·5	5·0
Durban	400·21	749·6	0·5
Durban—			
Daylight Transmission	30·75	9,752·85	0·2
Evening Transmission	61·5	4,876·42	0·2
Grahamstown	535·71	560·0	10·0
Johannesburg	465·12	645·0	10·0
Johannesburg	384·6	780·0	0·2
Johannesburg—			
Daylight Transmission (6.45 a.m.–6.45 p.m.)	49·2	6,097·5	0·2
Evening Transmission (10.30 p.m.–11 p.m.)	49·94	6,007·0	0·2
Johannesburg (Roberts Heights)—			
Daylight Transmission	31·5	9,523·0	5·0
Evening Transmission	49·94	6,007·0	5·0
*Kimberley	414·94	723·0	(?)
Pietermaritzburg	430·00	697·7	10·0
Pretoria	315·0	952·38	2·0
*Pretoria	449·1	668·0	(?)

* Will be put in operation during 1939.

7. **Cable and Beam Services.**—The cables connecting South Africa with Great Britain, Australia, South America, India, and the Far East are owned by the Eastern Telegraph Company, but they are operated by the Overseas Communications of South Africa, Limited, working in conjunction with the Beam wireless system between the Union of South Africa and Great Britain. There are five principal cable routes:—

(1) To the United Kingdom via St. Helena and St. Vincent.

(2) To Australia and the Far East via Cocos.
(3) To the United Kingdom via the West Coast stations serving the Gold Coast, etc.
(4) To the United Kingdom and India via East Coast stations.
(5) To South America via Ascension and St. Vincent.

OVERSEAS TELEGRAMS DEALT WITH ON BEHALF OF THE OVERSEAS COMMUNICATIONS OF SOUTH AFRICA, LTD., 1934 TO 1938.

Year ending 31st March.	Number of Messages.			Value of Terminal Charges accruing to the Union Government from Overseas Telegrams.
	Outwards.	Inwards.	Total.	
				£
1934	355,257	317,995	673,252	35,219
1935	388,914	311,862	700,776	37,586
1936	385,472	358,702	744,174	38,885
1937	451,348	409,589	860,937	42,315
1938	423,995	419,735	843,730	41,257

Communication with overseas countries is maintained through Overseas Communications of South Africa, Ltd., and, unless routed by the sender, traffic circulates via either the cable system or the beam wireless at the discretion of the company. The charges for both routes are identical. Beam wireless communication was established in 1927, when it was operated by an independent company, but as from 1st October, 1930, the beam wireless and the cable system have been worked under the control of the above-mentioned Company. From 1st April, 1931, all traffic has circulated via Capetown.

8. **Overseas Telegram Tariffs.**—The lowest charges per word for ordinary private telegrams addressed to the countries mentioned below are as follows:—

Europe—	
Bulgaria, France, Italy, Portugal, Switzerland, and Jugoslavia	1s. 4d.
Czechoslovakia, Germany, Holland, Hungary, Roumania, Turkey	1s. 5d.
Denmark, Iceland, Lithuania, Norway, Poland, Sweden	1s. 6d.
Estonia	1s. 8d.
Finland, Latvia	1s. 7d.
Great Britain and Northern Ireland, Eire, Belgium, Greece, Spain, Gibraltar	1s. 3d.
Soviet Socialist Republics	1s. 9d.
Other Countries—	
Argentina, Chile, Peru	3s. 9d.
Australia	1s. 3d.
Brazil	2s. 10d. and 3s. 7d.
British West Africa	1s. 3d.
British West Indies	1s. 3d.
Burma	1s. 3d.
Canada	1s. 3d.
Canary Islands	1s. 5d.
Ceylon	1s. 3d.
China	3s. 10d. to 4s.
Dutch East Indies	2s. 5d.
Hong Kong	1s. 3d.
India	1s. 3d.
Japan, Manchuria, Taiwan	4s.
Kenya and Uganda	1s. 3d.
Madeira	1s. 8d. and 1s. 9d.
Mauritius, St. Helena	1s. 1d.
New Zealand, Tanganyika	1s. 3d.
United States of America (according to State)	2s. to 2s. 7d.

Half-rate, i.e. deferred, telegrams in plain language are accepted for most destinations. These messages may be delayed in transmission in favour of higher-rated traffic. An *urgent* class of telegram, charged at double rates, is accepted for most countries. Telegrams expressed in code language are subject to special conditions as to word construction; they are charged at approximately six-tenths of the ordinary tariff and are admitted for all destinations. Letter telegrams, which are transmitted as traffic conditions permit, are accepted for a number of countries at approximately one-third of the ordinary tariffs.

§ 3. Telephones and Beam Telephone Service.

1. **First Exchange and Development of Service.**—In 1882 the first telephone exchange in South Africa was opened at Port Elizabeth, followed in 1884 by the opening of a similar exchange at Capetown. In quick succession exchanges were established at all the principal towns throughout the Cape Colony, Natal, Transvaal, and Orange Free State. At the 31st March, 1938, there were 1,509 exchanges in existence in the Union. The largest exchange system is situated at Johannesburg, where 39,115 subscribers' lines and 720 public call offices were in use at 31st March, 1938. Automatic exchanges have been established throughout the areas served by the exchange systems at Johannesburg, Durban, Port Elizabeth, East London, Pietermaritzburg, Kingwilliamstown, and in the Cape Peninsula, with the exception of Bellville and Parow, where the work of conversion from manual to automatic working is in hand. In addition, automatic exchanges have been established on the Reef at Germiston and Springs, and arrangements have been made gradually to convert the remaining Reef exchanges to automatic working.

Long distance communication by telephone has been effected by the introduction of repeaters at various points, and conversation can be carried on between all the larger centres of the Union. The further extension of long-distance telephone communication is receiving attention.

In addition to the extension of long-distance communication within the borders of the Union, communication has also been established between the Union and Lourenco Marques, Southern and Northern Rhodesia, and South West Africa. A service is also in operation between the Union and Kenya by means of radio telephony.

Particulars of the development of the telephone service were given in an article entitled "An Outline of the Development of the Postal, Telegraph, and Telephone Services of South Africa", published in *Year Book* No. 18.

2. **Farm Telephone Lines.**—In order to assist in the development of agriculture and of rural areas, close attention has been given for some time past to the expansion of the farm line system. Specially advantageous conditions, including reduced rates, have been applied to this class of business, and its growth continues to be marked. The 4,520 miles of farm line serving 2,221 farmers in 1924 had grown by March, 1938, to 45,631 miles, giving service to 18,009 farmers.

3. **Telephone Tariff Rates.**—(i) *Flat Rate Exchanges.*—The annual rental covers unlimited service to the exchange to which the subscriber is connected. The following tariffs are applicable:—

Description.	Business Premises.	Private Residences.	Two-party Lines to Private Residences only.
	£ s. d.	£ s. d.	£ s. d.
At exchanges consisting of not more than fifty subscribers	7 0 0	5 0 0	4 10 0
At exchanges consisting of more than fifty subscribers	10 0 0	7 0 0	5 0 0

For lines extending beyond the radius of one mile from the exchange the excess mileage is charged for at the rate of £1. 10s. per annum per quarter mile or portion thereof.

(ii) *Message Rate Exchanges—*

Kingwilliamstown and Kroonstad:

	£	s.	d.
Annual rental for an exchange line to premises not more than two miles distant from the exchange	2	10	0
Excess mileage per quarter mile or portion thereof per annum	1	10	0
For each local call	0	0	1½

Bloemfontein, East London, Kimberley, Pietermaritzburg, and Port Elizabeth:

	£	s.	d.
Annual rental for an exchange line to premises not more than two miles distant from the exchange	3	0	0
Excess mileage per quarter mile or portion thereof per annum	1	10	0
For each local call	0	0	1½

(iii) *Grouped Message Rate Exchange Systems* comprise the following:—

(1) *Witwatersrand Exchange System embracing*:

Zone A. Krugersdorp, Randfontein.
Zone B. Florida, Roodepoort.
Zone C. Auckland Park, Bedford View, City, Hillbrow, Jeppes, Johannesburg, Kensington, Linden, Mayfair, Newlands, Orange Grove, Parkview, Rosebank, Turffontein, Yeoville.
Zone D. Alberton, Boksburg, Edenvale, Germiston.
Zone E. Benoni, Brakpan, Brentwood Park, Petit, Putfontein, Springs.
Zone F. Rivonia, Sandown.

(2) *Pretoria Exchange System embracing*:

Zone A. Hatfield, Pretoria, Pretoria North.
Zone B. Irene.
Zone C. Silverton.
Zone D. Wierda Bridge.

(3) *Capetown Exchange System embracing:*

Zone A. Capetown, Rondebosch, Sea Point, Woodstock, Wynberg.
Zone B. Bellville, Parow.
Zone C. Hout Bay, Muizenberg, Noordhoek.
Zone D. Simonstown, Kommetje.

(4) *Durban Suburban Exchange System embracing*:

Zone A. Overport, Durban North, Rossburgh, Fynnlands, Westville.
Zone B. Isipingo.
Zone C. Hillcrest, Kloof, Malvern, Pinetown.

The annual rental charges applicable in these grouped exchange systems are as follows:—

	£	s.	d.
Exchange Lines:			
To premises not more than two miles distant radially from the exchange	3	12	0
Excess mileage per quarter mile or portion thereof ...	1	10	0
Call Fees:			
For each local call to an exchange situated within the same zone as the exchange to which the calling subscriber is connected	0	0	1½
To exchanges in adjacent zones	0	0	3
To exchanges in the third zone, the subscriber's zone counting as the first	0	0	4½
To exchanges more than three zones distant within the same exchange system	0	0	6

(iv) *Farm Telephone Line Services—*

		Rental.
(a)	For lines connected to the nearest exchange and where the number of subscribers is not less than ten	£7 per party per annum.
(b)	For lines connected to the nearest exchange and where the number of subscribers is less than ten	A total annual rental equivalent to 15s per annum per quarter mile of line or portion thereof, with a minimum of £7 per party per annum and a total maximum of £70 per annum exclusive of the charges for auxiliary services.

Where, for good and sufficient reasons acceptable to the Postmaster-General, a farm telephone line is connected to other than the nearest exchange, even though ten parties are connected, a total annual rental equivalent to 15s. per quarter mile of line or portion thereof is charged according to distance, subject to a minimum of £7 per annum per party.

The annual rental for farm telephone lines covers unlimited service to the exchange to which the subscriber is connected.

(v) *Call Offices and Trunk Services.*—(A) *Call Offices.*—The charges for call office calls are as follows, with a minimum of 3d. for three minutes:—

(*a*) For calls to subscribers or other call offices connected to the same exchange, 3d. for three minutes or portion thereof;

(*b*) for calls within the grouped exchange system—

(i) to exchanges within the same or adjacent zones: 3d. for three minutes or portion thereof;

(ii) to exchanges more than two zones distant: 6d. for three minutes or portion thereof;

(*c*) for calls to any other exchange more than 15 miles distant, measured radially, the rates for trunk calls apply.

The Postmaster-General has the right to terminate any call after expiration of six minutes.

(B) *Trunk Line Calls.*—The charges for trunk line calls are as follows:—

For Distance up to and including.	Between 8 a.m. and 6 p.m.		Between 6 p.m. and 9 p.m., 6 a.m. and 8 a.m.		Between 9 p.m. and 6 a.m.	
Miles—	s.	d.	s.	d.	s.	d.
15	0	3	0	3	0	3
30	0	6	0	6	0	6
45	0	9	0	6	0	6
60	1	0	0	9	0	6
75	1	3	1	0	0	9
90	1	6	1	0	0	9
105	1	9	1	3	1	0
120	2	0	1	6	1	0
145	2	6	1	9	1	3
170	3	0	2	0	1	6
195	3	6	2	6	1	9
220	4	0	2	9	2	0
245	4	6	3	0	2	3
270	5	0	3	6	2	6
295	5	3	3	6	3	0
320	5	9	4	0	3	0
345	6	0	4	0	3	0
370	6	6	4	6	3	0
395	6	9	4	6	3	6
420	7	3	5	0	3	6
445	7	6	5	0	3	6
470	8	0	5	6	3	6
495	8	3	5	6	4	0
520	8	9	6	0	4	0
545	9	0	6	0	4	0
570	9	6	6	6	4	0
595	9	9	6	6	4	6
620	10	3	7	0	4	6
645	10	6	7	0	4	6
670	11	0	7	6	4	6
695	11	3	7	6	5	0
720	11	9	8	0	5	0
745	12	0	8	0	5	0

Trunk Line Calls.—(Continued.)

For Distances up to and including.	Between 8 a.m. and 6 p.m.	Between 6 p.m. and 9 p.m., 6 a.m. and 8 a.m.	Between 9 p.m. and 6 a.m.
Miles—	s. d.	s. d.	s. d.
770	12 3	8 3	5 0
795	12 6	8 6	5 6
820	12 9	8 6	5 6
845	13 0	8 9	5 6
870	13 3	9 0	5 6
895	13 6	9 0	6 0
920	13 9	9 3	6 0
945	14 0	9 6	6 0
970	14 3	9 6	6 0
995	14 6	9 9	6 6
1,020	14 9	10 0	6 6
1,045	15 0	10 0	6 6
1,070	15 3	10 3	6 6
1,095	15 6	10 6	7 0

Unit Period.—The unit period is three minutes from the time that the caller is informed that the connexion required is established, provided that when the charge for a three-minute call is not less than 5s. (3s. 6d. and 2s. 6d. at night) extra time is charged for *pro rata* per minute.

4. **Statistics of Working.**—The following tables give particulars of the operation of the telephone services for a series of years:—

(i) TELEPHONE SERVICES, 1934 TO 1938.

Year ending 31st March.	Exchanges.	Public Call Offices.	Instruments in Use.	Calls.	Instruments per 100 of European Population.
				1,000.	
1934	1,406	6,004	117,451	183,400	6·13
1935	1,435	6,177	130,469	206,302	6·64
1936	1,449	6,422	142,431	228,140	7·02
1937	1,463	6,705	157,188	241,626	7·09
1938	1,509	7,099	175,711	261,269	8·47

(ii) FINANCIAL PARTICULARS OF TELEPHONE SERVICES, 1934 TO 1938.

Year ending 31st March.	Cash Revenue.	Value of Government Traffic.*	Total Capital Expenditure to end of Year.
	£	£	£1,000
1934	1,655,724	348	9,114
1935	1,892,748	284	9,692
1936	2,079,125	291	10,377
1937	2,282,557	33	11,167
1938	2,507,123	98†	12,189

* Union Government traffic paid for from 1st April, 1924. These amounts represent the value of free Imperial Government services, which ceased during 1936–37.
† Represents the unpaid value of services rendered in connexion with the distribution of meteorological reports.

5. **Overseas Beam Telephone Service.**—On the 1st February, 1932, the telephone systems of Great Britain and the Union of South Africa were linked together by means of the Beam radio system of the Overseas Communications of South Africa, Ltd. Wireless transmission takes place from the British Post Office station at Rugby and from the Overseas Communications Company's station at Klipheuvel, and the receiving stations are at Baldock (England) and Milnerton (South Africa) respectively. Telephone subscribers in England and South Africa are connected to the wireless stations by ordinary land line circuits.

At the commencement wireless telephony was restricted in South Africa to Capetown, Port Elizabeth, and a number of country exchanges as far north as De Aar, whilst overseas the range of communication did not extend beyond England, Scotland, Wales, Northern Ireland, and the Isle of Man. At 31st December, 1938, however, the facility was available at all the larger centres and also at many country towns in the Union. By the same date the range of communication for the South African service had been extended overseas to most European countries and to various other parts of the world.

The Union system also serves as the connecting link whereby overseas telephone service is available at a number of points in Rhodesia and also at Windhoek in South West Africa.

The following are the charges for a three-minute conversation between those points in South Africa to which the facility is available and the countries listed:—

Country.	Charge for 3-minute Call, Monday to Friday up to 4 p.m.	Charge for 3-minute Call, Saturday and after 4 p.m. Monday to Friday.	Report Charge.
	£ s. d.	£ s. d.	£ s. d.
Europe—			
England, Wales, Isle of Man, Scotland, and Northern Ireland	4 10 0	3 0 0	0 12 0
Eire	4 13 0	3 3 0	0 13 0
Belgium, France, Holland, Luxemburg	4 16 0	3 6 0	0 14 0
Austria, Danzig, Denmark, Czechoslovakia, Germany, Switzerland	5 2 0	3 12 0	0 16 0
Balearic Islands, Gibraltar, Hungary, Italy (including the Vatican), Latvia, Lithuania, Norway, Poland, Portugal, Spain, Sweden, and Jugoslavia	5 8 0	3 18 0	0 18 0
Finland and Roumania	5 14 0	4 4 0	1 0 0
Other Countries—			
Egypt	5 12 6	5 12 6	0 15 0
Ships at Sea (North Atlantic Liners)	5 12 6	5 12 6	0 16 0
Ceuta (North Africa)	5 14 0	4 4 0	1 0 0
Algeria, French Morocco, and Tangier	5 17 0	4 7 0	0 19 0
Tunis	6 0 0	4 10 0	1 0 0
Canary Islands	6 0 0	4 10 0	1 2 0
Palestine	5 18 6	5 18 6	0 17 0
Syria	6 1 6	6 1 6	0 18 0
French Indo-China	9 0 0	9 0 0	1 0 0
Cuba and Mexico	8 8 0	8 8 0	0 14 0
Australia (including Tasmania)	6 15 0	6 15 0	1 0 0
Canada and United States of America	6 12 0	6 12 0	0 14 0
Iceland	5 14 0	5 14 0	0 16 0
Dutch East Indies	5 14 0	5 14 0	0 18 0
Japan	6 19 6	6 19 6	0 18 0
India	5 12 6	5 12 6	0 16 0
Argentina and Brazil	6 12 0	6 12 0	0 16 0

Calls are divided into two categories: "ordinary" calls and "person-to-person" calls. An ordinary call is booked to a telephone number and is regarded as effective and charged for as soon as any person at the caller's telephone is introduced to any person at the callee's telephone; but if such call cannot be put through for atmospheric or other reasons no charge is raised. When booking a call, however, a subscriber may nominate the person to whom he desires to speak and may also give his own name. Such person-to-person calls are regarded as effective only when the two persons concerned are placed in touch with each other. The charge for a personal call is the same as that for an ordinary call, except that when contact cannot be established with the desired person, or with an acceptable substitute, the "report charge" indicated above is levied in place of the normal charge.

For the purpose of charging, North America is divided into a number of Canadian and American zones. The charge from South Africa to the first American or Canadian zone is £6. 12s. On North American calls to points beyond the first zone an additional charge of 9s. is made for each zone beyond the first; but the report charge of 14s. remains constant, irrespective of the zone to which the call is made.

In the case of the Dutch East Indies and Argentina there are two zones, the charges being: Dutch East Indies—1st zone, £5. 14s.; 2nd zone, £6. 3s. Argentina—1st zone, £6. 12s.; 2nd zone, £6. 18s.. The report charges of 13s. (Dutch East Indies) and 16s. (Argentina) remain constant for both zones of these two countries.

§ 4. Savings Bank and Union Loan Certificates.

1. **Conduct of Savings Bank.**—Savings banks are administered by the Department at Capetown (for the Cape Province) and Pretoria (for the Transvaal, Orange Free State, Natal, certain East Griqualand and Northern and North-Western Cape offices and Basutoland, Swaziland, and Bechuanaland offices). Deposits of any amount (provided the first deposit is not less than one shilling) are received, subject to a limit of £1,000 in any one year ending 31st March. Interest at the rate of 2½ per cent. per annum is paid, and deposits are received at all money order offices. Any depositor may, in addition, invest in Savings Bank Certificates of £100 each up to £1,000. Interest on certificates at the rate of 3 per cent. per annum is credited to the depositor's account half-yearly. Particulars of Post Office savings bank transactions will be found in Chapter XVI.

2. **Union Loan Certificates.**—Under the provisions of Act No. 29 of 1933, section 10, the control, management, issue, and repayment of Union Loan Certificates issued on or after the 1st June, 1932, are vested in the Postmaster-General in place of the Treasury as heretofore. Particulars of these certificates and statistical data relating to them are contained in Chapter XVI of this issue of the *Year Book*.

§ 5. African Postal and Telecommunication Union.

This Union was formed in 1936 with the object of securing by co-ordination the improvement of postal, telegraph, and telephone services in the southern half of the African continent. The Administrations comprised within the Union are: Angola, Basutoland, Bechuanaland Protectorate, Belgian Congo, Kenya, Uganda, Tanganyika Territory, Portuguese East Africa (Colony of Mozambique), Northern Rhodesia, Nyasaland, Southern Rhodesia, South West Africa, Swaziland, and the Union of South Africa.

African inter-territorial telegrams are circulated over communication channels utilized by the African Telecommunication Union as part of the African inter-territorial system.

CHAPTER XV.

STATE FINANCE.

A. GENERAL FINANCIAL SYSTEM OF THE UNION GOVERNMENT.

1. **Statutory Provisions.**—The financial provisions of the constitution are to be found in sections 117 to 133 of the *South Africa Act*. In terms of section 117, all revenues from whatever source arising vest in the Governor-General-in-Council. The section creates a Railways and Harbours Fund, into which are paid all revenues from the administration of the railways, ports, and harbours, while further provision is made as follows: "There shall also be formed a Consolidated Revenue Fund, into which shall be paid all other revenues raised or received by the Governor-General-in-Council, and such fund shall be appropriated by Parliament for the purposes of the Union in the manner prescribed by this Act and subject to the charges imposed thereby." Further provisions relating to the financial system of the Union are those contained in the *Exchequer and Audit Act* of 1911, as amended by Act No. 31 of 1916, Act No. 37 of 1922, and Act No. 27 of 1927, and the *Public Debt Commissioners Act*, 1911, as amended by sections 6 and 7 of Act No. 38 of 1921 and Act No. 50 of 1926. The raising of loans is governed by the *General Loans Consolidation and Amendment Act*, No. 22 of 1917, as amended by Act No. 20 of 1919 and Act No. 21 of 1928.

2. **Consolidated Revenue Fund.**—Under the present financial arrangements, which conform to the provisions of the *South Africa Act*, as more particularly defined in the *Exchequer and Audit Act*, 1911, all revenues, except those of the Railways and Harbours Administration, are carried to the Consolidated Revenue Fund. All Post Office revenue is therefore ultimately accounted for in this fund. The fund comprises the Revenue Account and the Loan Account, the former being credited with all moneys received from revenue proper, the latter with moneys derived from the raising of loans, from repayment of loans, or from the alienation of fixed property and such other moneys as Parliament may direct to be paid to that account. The charges upon the Revenue and Loan Accounts are provided for by annual Appropriation Acts, and, subject to section 26 of the *Exchequer and Audit Act*, it is only under the authority of such Acts that a withdrawal from the Consolidated Revenue Fund may take place. The section referred to provides that withdrawals to meet unforeseen and necessary expenditure, not provided for in an Appropriation Act, or expenditure in excess of an amount so provided, may be made under special warrant of the Governor-General, up to an amount not exceeding on the whole £500,000.

3. **Railways and Harbours Fund.**—The revenues of the Railways and Harbours Administration are carried to a fund styled the Railways and Harbours Fund, and are appropriated for purposes of the Administration by annual Appropriation Acts. A similar provision to that described above exists for meeting unforeseen or excess charges on the fund within certain limits. The Railways and Harbours Fund embraces a capital account and a revenue account, and the funds to meet capital expenditure are in the main provided by the Treasury from the proceeds of loans raised, by way of loan to the Administration at rates of interest corresponding to those paid by the Treasury. (See Chapter XIII.)

4. **Public Debt Commissioners.**—All trust moneys, e.g. Sinking Fund, Pension Fund, Guardians' Fund, and Post Office Savings Bank moneys, coming into the hands of the Government or the Railways and Harbours Administration, and funds held by Provincial Administrations, are handed over for investment and management to the Public Debt Commissioners. The Public Debt Commissioners consist of the Minister of Finance as chairman, *ex officio*, a member of the Railway Board (in 1939, Mr. A. Kuit), and one other member (in 1939 Mr. J. G. Hubball). The powers and functions of the commissioners are governed by the *Public Debt Commissioners Act*, 1911, as amended by sections 6 and 7 of Act No. 38 of 1921 and the *Public Debt Commissioners (Amendment) Act*, No. 50 of 1926. The principal Act had provided that the surplus of revenue over ordinary expenditure in each year should be paid to the commissioners and applied by them to redemption of debt. This was, however, modified in 1926 as explained in the next paragraph.

5. General Sinking Fund.—A very important and (for the maintenance of South Africa's credit in the money market) very salutary new departure was made by Act No. 50 of 1926. The provision mentioned in paragraph 4 above in regard to surplus revenue was withdrawn, and provision was made for the creation of a *General Sinking Fund*. Into this fund is to be paid from the Consolidated Revenue Account the sum of £650,000 per annum for forty years from the commencement of the financial year 1927-28. The object of this measure is to extinguish the non-productive debt of the Union, including the cost of public works and buildings, computed in 1926 to be approximately £55,000,000. The annual accumulation of £650,000 at 4½ per cent. interest will redeem 69½ millions of debt in forty years, which is ample for the existing debt.

As regards future unproductive debt, the proceeds of certain mining leases, appropriated annually to loan funds, are estimated to be more than sufficient to cover the outlay on ordinary capital expenditure. Assuming, therefore, that during the said period of forty years unproductive capital expenditure is not increased through extraordinary causes (e.g. war or an abnormal series of deficits on revenue account), the General Sinking Fund will do very much more than extinguish the unproductive debt.

Under section 3 (1) (*b*) of the Act provision is made for the continuance of the payment of interest by the Consolidated Revenue Account during the full period of forty years on any General Sinking Fund moneys utilized for the cancellation of stock due to be redeemed in a shorter period; similar provision is made under (*c*) in the case of a loan repaid from a special sinking fund.

Section 3 (1) (*c*) reads as follows:—

> "There shall be paid to the commissioners from the Revenue Account for the credit of the General Sinking Fund in each financial year after the repayment of any loan for which a sinking fund was established and thereafter for the remainder of the said period of forty years a sum equal to four and one-half per centum of the amount arrived at by adding the contributions made to the sinking fund of that loan from the General Sinking Fund to the interest on such contributions at four and one-half per centum compounded annually and accumulated to the close of the financial year during which the loan was repaid."

6. Audit.—The audit of all the accounts of the Union Government, including those of the Railways and Harbours Administration, is conducted by the Controller and Auditor-General, who reports annually thereon to Parliament. The appointment, powers, and duties of this officer are prescribed in the *Exchequer and Audit Act* of 1911 and the amending Acts Nos. 31 of 1916, 57 of 1922, and 27 of 1927.

7. Financial Relations between the Union Government and the Provinces.—The powers of the provinces are in the main defined in section 85 of the *South Africa Act* and the *Financial Relations Act* of 1913. The latter Act has been extended and modified from time to time by Acts No. 9 of 1917, No. 6 of 1920, No. 5 of 1921, No. 5 of 1922, No. 21 of 1924, No. 39 of 1927, and No. 50 of 1935, but in the 1925 Session of Parliament an Act (No. 46) was passed, which introduced several radical changes in the provincial position, to which detailed reference is made later. The most important duties of the provinces are the control and administration of education, other than higher education (i.e. up to university matriculation standard) and technical education, hospitals and poor relief, roads and bridges, townships, horse and other racing, betting, and game and fish preservation. From the date of the constitution of the Union until April, 1913, when the *Financial Relations Act* came into operation, the whole of the funds required by the provinces were provided by grants from the Union Exchequer. The Act of 1913 was based on the Majority Report of the Financial Relations Commission, which was composed of a representative of each province, with the Right Honourable Sir G. H. Murray, G.C.B., as Chairman.

In September, 1922, a commission was appointed to inquire into and report upon the finances of the several provinces, and as a result of the report of this commission a further commission was appointed in August, 1923, to investigate the matter of the State's liability for the cost of education and certain other matters in connexion with the education of European children.

Beyond funding the deficits as recommended by the 1922 commission, and making certain minor changes, no action was taken by the Government in regard to any of the commission's recommendations. A new Government came into office in June, 1924, and shortly afterwards a conference of provincial representatives was called by the Minister of Finance at Durban to discuss the vexed question of financial relations.

The results achieved at the conference were embodied in legislation—Act No. 46 of 1925, as amended by Act No. 31 of 1926.

Briefly the changes in financial relations, which have been effected since 1st April, 1925, are as follows:—

(1) The annual subsidy to the provinces is based on the number of European pupils in average attendance at primary and secondary schools, the grants per head up to 30th November, 1931, being: Cape of Good Hope and Natal, £14; Transvaal, £16. 7s. 6d.; Orange Free State, £15. 8s.; though for the first 30,000 pupils in each province the grant is £16. 7s. 6d. per head. From the 1st December, 1931, these amounts have been equalized between the coastal and inland provinces and now stand at £14 for each pupil in excess of 30,000 in all provinces. A subsidy is also given for non-European pupils.

There are other grants in respect of the various other educational activities of the provinces, e.g. training of teachers, native education, etc.

A special additional subsidy of £75,000 each was given to Natal and the Orange Free State. This was increased to £125,000 and £275,000 respectively under the 1935 Act.

In terms of section 14 of Act No. 35 of 1936, the aggregate of the grants payable to any province under sub-sections (1), (2), (3), and (4) of section 2 of Act No. 46 of 1925, in respect of any one of the first three financial years following upon the financial year which ended on the 31st March, 1936, shall not be less than the aggregate of such grants which became payable in respect of the last mentioned financial year.

(2) The general power of the provinces to impose direct taxation, derived under section 85 of the *South Africa Act*, gave rise to a large number of test cases in the courts on the validity of taxing ordinances and has been withdrawn; the sources from which alone they may raise revenue and legislate in regard thereto are set out in the following schedule:—

- (*a*) Hospital fees and fees received in respect of such education as is within the jurisdiction of a Provincial Council.
- (*b*) Licences required for dogs outside urban areas; licences to take, catch, or kill game, fish, or other animals; licences to sell game; licences to pick or sell wild flowers.
- (*c*) Licences to own or drive any motor vehicle or other vehicle propelled by mechanical power.
- (*d*) Wheel tax or tax on vehicles, including motor and other mechanical vehicles.
- (*e*) Amusements or entertainment tax.
- (*f*) Auction dues.
- (*g*) Licensing of totalizators and the imposition on the licencees of a duty in respect of the takings thereof; and licences, taxes, and fees in connexion with the control, regulation, and restriction of horse and other racing, betting, and wagering, and the dissemination of information as to betting and wagering.
- (*h*) Taxes on persons other than companies and on the incomes of persons other than companies subject to certain limits.
- (*i*) A tax on companies other than mutual life insurance companies.
- (*k*) Tax on the ownership of immovable property.
- (*l*) Licences in respect of the importation for sale within the province of goods from beyond the borders of the Union.
- (*m*) Receipts of a miscellaneous nature connected with matters entrusted to a province.

(3) The power to fix the licence fees in respect of trades, professions, and occupations has been taken over by the Union Government (Act No. 32 of 1925). The proceeds derived from this source are, however, transferred to the provinces, together with the proceeds of transfer duty, liquor licences, and native pass fees. Under section 4 of Act No. 17 of 1938, the Provincial Governments may authorize the carrying on of certain specified professions or callings without the payment of licence duties, and will be reimbursed by the Union Government for the loss of such revenue.

(4) The power of the Natal municipalities to impose certain trading licences has been taken away, and the grant in lieu to Natal provided under the 1913 Act has been abolished, as the revenue from licences will accrue to the province in the ordinary way under the arrangement set out in paragraph (3).

(5) In 1933, another Provincial Finance Commission was appointed, with Mr. J. de V. Roos (formerly Controller and Auditor-General of the Union) as chairman. This commission reported towards the end of 1934 (U.G. No. 46—1934) and, as a result of the consideration of the report, Act No. 50 of 1935 was passed and a consultative committee, consisting of the Administrators and the Executive Committees of the four provinces, was established. This committee is presided over by the Minister of the Interior, and meets when necessary to discuss matters common to the four provinces.

Under the 1935 Act the outstanding capital and interest charges upon loans granted to the provinces prior to 1st April, 1935, to meet deficits on their revenue accounts were assumed by the Union Government from that date; this excludes interest which had accrued and was due on the 31st March, 1935.

In view of the increased annual subsidy to Natal (from £75,000 to £125,000), authority was granted to the Provincial Council of Natal to pay to the Municipality of Pietermaritzburg any amount it deemed fit to compensate that city for loss of prosperity through having ceased to be a seat of government.

(6) The passing of the *National Roads Act*, 1935 (Act No. 42 of 1935), gave considerable relief to the provincial taxpayer through the assumption of the National Road Board of the responsibility for the payment of interest and redemption charges on loans raised by the provinces prior to 1st April, 1935, for the construction of roads and bridges. Divisional councils in the Cape Province also received similar relief.

B. PUBLIC REVENUE AND EXPENDITURE OF THE UNION.

§ 1. General Summary.

1. Revenue and Expenditure of States Prior to 1910.—The following table gives particulars regarding the revenue and expenditure of the States now forming the Union from 1881 to 1910. Railway revenue and expenditure have been excluded from the figures, which have been adjusted to uniform fiscal periods (1st April to 31st March). Details for individual years will be found in the sixth and previous issues of this *Year Book*:—

REVENUE AND EXPENDITURE (EXCLUDING RAILWAY REVENUE AND EXPENDITURE) OF STATES NOW FORMING THE UNION, 1881 TO 1910 (ADJUSTED TO UNIFORM FISCAL PERIODS).

Period (1st April to 31st March).	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Total.
		(*a*) REVENUE.			
Average—	£	£	£	£	£
1881–82 to 1884–85.	2,307,700	451,699	174,599	234,945	3,168,943
1885–86 to 1889–90.	2,157,954	636,823	774,798	222,721	3,792,296
1890–91 to 1894–95.	2,580,848	698,161	1,606,544	328,437	5,213,990
1895–96 to 1899–00.	3,470,700	1,080,550	†4,284,803	370,101	†9,052,792
1900–01 to 1904–05.	4,860,905	1,577,294	‡4,689,918	535,230	‡12,353,641
*1905–06 to 1910....	4,293,377	1,660,785	5,208,037	832,136	11,994,335
		(*b*) EXPENDITURE.			
Average—	£	£	£	£	£
1881–82 to 1884–85.	2,737,851	477,659	170,184	221,686	3,607,380
1885–86 to 1889–90.	2,632,085	644,908	692,357	196,347	4,165,757
1890–91 to 1894–95.	3,318,724	886,291	1,478,797	345,901	6,029,713
1895–96 to 1899–00.	4,593,545	1,401,938	†4,150,568	399,402	†10,508,599
1900–01 to 1904–05.	5,976,846	2,186,032	‡4,122,676	516,713	‡13,993,521
*1905–06 to 1910....	5,589,949	2,437,500	4,841,204	800,997	13,669,650

* To 31st May, 1910.

† Average for years 1895–96 to 1898–99. ‡ Average for years 1902–03 to 1904–05.

2. Revenue and Expenditure from 1910.—The following table shows the total ordinary revenue and expenditure of the Union and of the provinces. The revenue of the provinces excludes subsidies from the Union Government, and such subsidies are also excluded from the ordinary expenditure of the Union Government. To maintain comparability the following adjustments

to the audited statements have been made: (i) The revenue of the Union from 1910-11 to 1916-17 excludes receipts from *Bewaarplaatsen* transferred to the Loan Account, and the expenditure of the Union excludes subsidies to the Provincial Councils, and, in the year 1912-13, a contribution of £100,000 to the Miners' Phthisis Compensation Fund, which was a debit against the *Bewaarplaatsen* receipts; (ii) Interest paid by the Railways and Harbours on Loan Capital, which was formerly credited to the Consolidated Revenue Fund, has been credited direct to the Public Debt Commissioners since 1923-24, and has been deducted from both revenue and expenditure and shown separately. Owing to this change the figures are undoubtedly a better guide to the public expenditure of the country.

It should be noted that *primage duty*, which was specially imposed during 1931-32 and 1932-33 for the payment of export subsidies, is included in the revenue tables shown hereunder. Similarly that portion of the export subsidies paid out of primage duty during those two years is included in the expenditure tables. In the Controller and Auditor-General's Report these two items do not figure in the ordinary revenue and expenditure of the Union.

From 1935-36 the heading "Provincial Expenditure" includes expenditure by the Provinces on behalf of the National Road Board.

For certain revenues credited direct to Loan Account see paragraph 11, Section D, of this chapter.

UNION—REVENUE AND EXPENDITURE (INCLUDING PROVINCIAL), 1911-12 TO 1937-38.

Year.	Revenue.			Expenditure.			Interest on Railway Capital (From Railways and Harbours).
	Union.	Provincial.	Total.	Union. (Net.)	Provincial.	Total.	
	£	£	£	£	£	£	£
1911–12.	14,209,361	—	14,209,361	10,225,709	2,883,569	13,109,278	3,019,057
1912–13...	14,175,835	—	14,175,835	10,536,802	3,662,987	14,199,789	3,116,685
1913–14...	12,606,150	1,289,190	13,895,340	11,100,686	3,324,136	14,424,822	3,198,926
1914–15...	10,967,245	1,058,085	12,025,330	10,671,855	3,346,142	14,017,997	3,297,852
1915–16...	13,167,515	1,134,566	14,302,081	10,699,969	3,365,705	14,065,674	3,388,882
1916–17...	14,940,879	1,423,766	16,364,645	12,032,122	3,708,684	15,740,806	3,467,737
1917–18...	16,011,448	1,723,049	17,734,497	12,701,615	4,255,051	16,956,666	3,646,149
1918–19...	18,311,880	2,093,753	20,405,633	14,694,569	5,212,710	19,907,279	3,599,149
1919–20...	23,179,314	3,405,134	26,584,448	17,065,307	6,388,052	23,453,359	3,706,643
1920–21...	25,748,096	3,596,766	29,344,862	21,669,628	8,417,256	30,086,884	3,923,090
1921–22...	24,550,624	3,738,150	28,288,774	21,075,379	8,819,282	29,894,661	4,333,646
1922–23...	22,674,916	3,561,443	26,236,359	19,505,957	8,506,312	28,012,269	4,559,599
1923–24...	24,252,888	3,918,413	28,171,301	19,720,265	9,175,751	28,896,016	4,632,993
1924–25...	25,335,543	4,419,065	29,754,608	20,098,267	9,201,899	29,300,166	4,943,778
1925–26...	26,986,778	4,349,768	31,336,546	21,014,444*	9,499,183	30,513,627	5,231,110
1926–27...	28,577,003	4,460,171	33,037,174	21,850,419	9,948,058	31,798,477	5,490,756
1927–28...	30,094,004	4,850,546	34,944,550	22,840,768	10,549,670	33,390,438	5,674,671
1928–29...	30,501,650	5,186,622	35,688,272	23,180,076	10,886,812	34,066,888	5,917,421
1929–30...	30,486,458	5,234,805	35,721,263	24,414,770	11,344,925	35,759,695	6,174,922
1930–31...	28,563,005	4,919,680	33,482,685	24,249,960	11,486,560	35,736,520	6,367,836
1931–32...	27,740,746‡	5,016,726	32,757,472‡	22,975,664	11,557,257	34,532,921	6,494,206
1932–33...	28,441,852‡	5,000,017	33,441,869‡	22,714,215	11,149,747	33,863,962	6,558,141
1933–34...	37,624,903	5,505,601	43,130,504	27,281,728	11,805,262	39,086,990	6,115,787
1934–35...	38,730,228	6,551,426	45,281,654	29,551,242	12,611,346	42,162,588	5,830,397
1935–36...	39,675,501	6,847,244	46,522,745	30,135,791	14,170,177	44,305,968	5,788,487
1936–37...	43,087,430	7,651,192	50,738,622	30,796,084	14,900,670	45,696,754	5,714,380
1937–38...	43,610,741	8,232,618	51,843,359	32,628,944	17,571,804	50,200,748	5,604,480

* Excluding an amount of £250,000 diverted from the surplus of revenue over expenditure towards reducing the deficiency existing in the Transvaal Administrative and Clerical Pension Fund.

‡ Including primage duty collected for the payment or part-payment of export subsidies.

3. Distribution of Ordinary Revenue under Main Groups.—In classifying the revenue of the Union Government and of the Provincial Administrations in four principal groups, viz. (1) Taxation, (2) Services, (3) Public Estate, and (4) Miscellaneous, the general principles employed in the Union Government estimates of revenue and in the annual reports of the Controller and Auditor-General have been adhered to. The revenue of the Union Government under the various groups consists chiefly of the following:—

(1) *Taxation.*—Customs, excise, diamond export duty, licences, income tax, excess profits duty, surtax on interest, death duties, native taxes, native pass and compound fees, stamp duties, and primage duty. (The last mentioned was collected during the years 1931-32 and 1932-33 only.)

(2) *Services.*—Posts and telegraph receipts, fees of office and court, and approximately half of the departmental receipts.

(3) *Public Estate.*—Mining revenue not credited to income tax, State mining, quitrent, forest revenue, rents of government property, recoveries of advances, and about two-fifths of the departmental receipts.

(4) *Miscellaneous.*—Interest and fines and forfeitures, no matter to which revenue vote these are credited, and the remaining portion of departmental receipts.

The provincial revenue has been allocated on the same principles. Taxation consists chiefly of licences, transfer duty, etc., and services comprise education receipts, hospital fees, etc.

The portion of excess profits duty credited to Loan Account in 1917-18 and 1918-19 is taxation, and has for the purpose of these tables been added to the ordinary revenue for those years with a suitable footnote.

Further tables showing taxation, and taxation per head of the European population, of the Union Government and each Provincial Administration are published below.

In addition to the revenue derived from taxation, shown in the following tables as collected by the Union Government and Provincial Administrations, there are other amounts raised by other taxing bodies, or levied by the Government and credited direct to special accounts. The chief of these are: (i) Taxation receipts of the Cape divisional councils, (ii) native taxation credited direct to the S.A. Native Trust, (iii) levies on commodities for the purpose of subsidizing exports, such as the butter levy, and (iv) as from 1st April, 1935, 3d. per gallon of the import duty on petrol, transferred to the National Road Fund.

Municipalities and other local bodies also levy taxation in the form of rates and taxes, and where differentiation is made in the unit charges for services, such as electric current based on the valuation of immovable property, some part of the revenue from these services might properly be regarded as taxation. Local authorities also receive a portion of taxes on motor cars, etc., which is not included in the provincial returns.

(i) DISTRIBUTION OF ORDINARY REVENUE UNDER MAIN GROUPS.

Year.	Union Government.				Provincial Administrations.				Grand Total.
	Taxation.	Services.	Public Estate.	Miscellaneous.	Taxation.	Services.	Public Estate.	Miscellaneous.	
	£1,000.	£1,000.	£1,000.	£1,000.	£1,000.	£1,000.	£1,000.	£1,000.	£1,000.
1911-12	9,224	2,996*	1,300	689	—	—	—	—	14,209*
1912-13	9,681	2,525*	1,318	652	—	—	—	—	14,176*
1913-14	8,552	2,041	1,289	724	1,175	91	8	15	13,895
1914-15	7,513	1,986	841	627	953	83	10	12	12,025
1915-16	9,390	2,200	942	635	1,025	71	13	26	14,302
1916-17	10,954	2,222	1,046	719	1,306	79	11	28	16,365
1917-18	11,911†	2,485	1,233	652	1,426	102	16	119	18,004†
1918-19	14,530†	2,572	1,352	806	1,860	152	20	62	21,354†
1919-20	17,327	3,094	1,733	1,025	3,107	177	25	96	26,584
1920-21	19,312	3,346	1,982	1,108	3,249	229	24	95	29,345
1921-22	17,841	3,454	2,176	1,080	3,339	260	35	104	28,289
1922-23	15,688	3,542	2,093	1,352	3,194	251	36	80	26,236
1923-24	16,853	3,748	2,187	1,465	3,417	350	62	89	28,171
1924-25	18,351	4,014	1,609	1,462	3,750	543	80	46	29,755
1925-26	19,577	4,142	1,657	1,611	3,776	441	86	47	31,337
1926-27	20,998	4,128	1,665	1,786	3,815	488	91	66	33,037
1927-28	21,635	4,409	1,498	2,552	4,163	514	84	90	34,945
1928-29	21,632	4,570	1,951	2,349	4,503	508	87	88	35,688
1929-30	21,345	4,750	1,927	2,404	4,562	465	89	119	35,721
1930-31	19,721	4,703	1,398	2,741	4,264	452	93	110	33,482
1931-32	18,890‡	4,994	1,138	2,718	4,389	424	114	90	32,757‡
1932-33	19,836‡	4,702	1,125	2,778	4,393	408	113	86	33,141‡
1933-34	28,533	5,059	1,153	2,880	4,905	408	116	76	43,130
1934-35	29,325	5,079	1,185	3,141	5,853	428	137	133	45,281
1935-36	30,538	5,307	1,200	2,631	6,113	448	141	145	46,523
1936-37	32,762	5,793	1,707	2,826	6,821	474	144	212	50,739
1937-38	32,908§	6,369	1,548	3,023	7,324	502	158	249	52,081§

* Includes £1,159,000 in 1911-12 and £500,000 in 1912-13 in respect of a contribution from Railways and Harbours Fund.
† Includes £270,000 in 1917-18 and £948,000 in 1918-19 in respect of excess profits duty credited to Loan Account.
‡ Including primage duty collected for the payment or part-payment of export subsidies.
§ Includes £238,000 credited to Loan Account.

(ii) REVENUE FROM TAXATION.

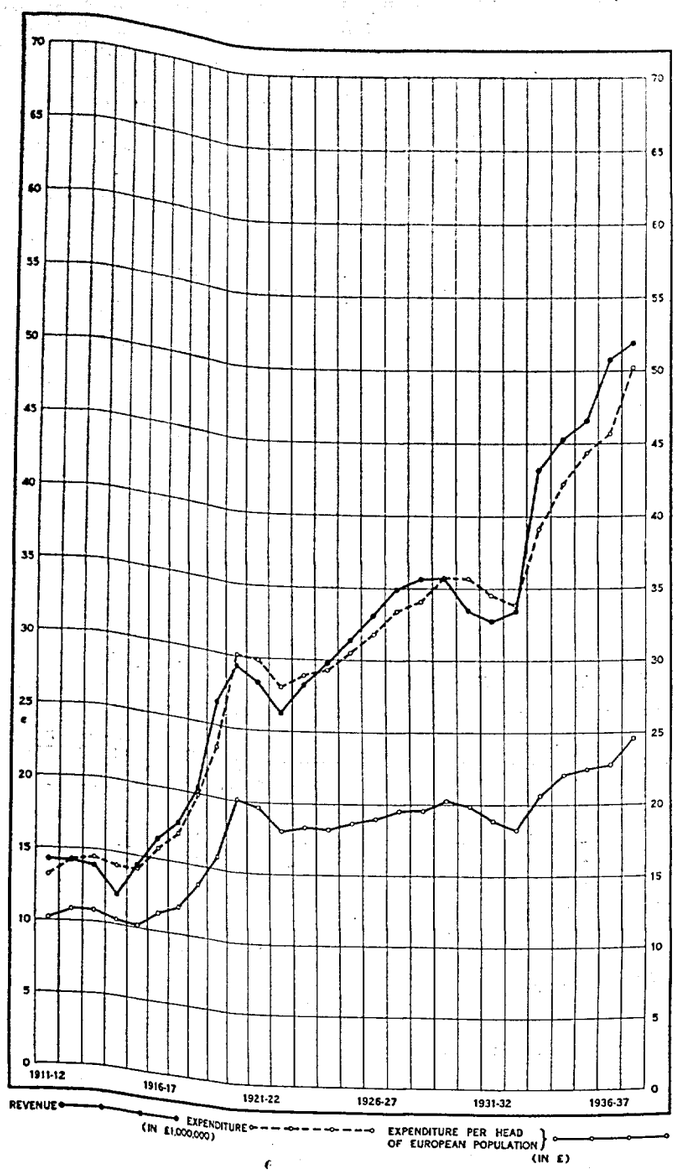
Year.	Union Government.	Provincial Administrations.					Grand Total.
		Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	All Provinces.	
	£1,000.	£1,000.	£1,000.	£1,000.	£1,000.	£1,000.	£1,000.
1911-12	9,224	—	—	—	—	—	9,224
1912-13	9,681	—	—	—	—	—	9,681
1913-14	8,552	400	87	557	131	1,175	9,727
1914-15	7,513	303	68	501	81	953	8,466
1915-16	9,390	315	73	553	84	1,025	10,415
1916-17	10,954	345	88	717	156	1,306	12,260
1917-18	11,911*	376	123	733	194	1,426	13,337*
1918-19	14,530*	658	182	817	203	1,860	16,390*
1919-20	17,327	958	231	1,617	301	3,107	20,434
1920-21	19,312	1,123	249	1,568	309	3,249	22,561
1921-22	17,841	1,012	278	1,743	306	3,339	21,180
1922-23	15,688	1,117	326	1,424	327	3,194	18,882
1923-24	16,853	1,141	341	1,578	357	3,417	20,270
1924-25	18,351	1,245	361	1,770	374	3,750	22,101
1925-26	19,577	1,165	394	1,845	372	3,776	23,353
1926-27	20,998	1,207	523	1,701	384	3,815	24,813
1927-28	21,635	1,288	546	1,862	467	4,163	25,798
1928-29	21,632	1,401	628	1,968	506	4,503	26,135
1929-30	21,345	1,521	642	1,936	463	4,562	25,907
1930-31	19,721	1,364	635	1,835	430	4,264	23,985
1931-32	18,890†	1,461	643	1,885	400	4,389	23,279†
1932-33	19,836†	1,626	556	1,855	356	4,393	24,229†
1933-34	28,533	1,797	622	2,136	350	4,905	33,438
1934-35	29,325	1,994	681	2,708	470	5,853	35,178
1935-36	30,538	1,957	713	3,013	430	6,113	36,651
1936-37	32,762	2,055	732	3,531	503	6,821	39,583
1937-38	32,908‡	2,224	820	3,731	549	7,324	40,232‡

* Includes £270,000 in 1917-18 and £948,000 in 1918-19 in respect of excess profits duty credited to Loan Account.
† Including primage duty collected for the payment or part-payment of export subsidies.
‡ Includes £238,000 credited to Loan Account.

(iii) TAXATION PER HEAD OF EUROPEAN POPULATION.

Year.	Union Government.	Provincial Administrations.					Grand Total.
		Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	All Provinces.	
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1911-12	7 4 1	—	—	—	—	—	7 4 1
1912-13	7 8 4	—	—	—	—	—	7 8 4
1913-14	6 8 7	0 13 5	0 16 5	1 4 10	0 14 10	0 17 8	7 6 3
1914-15	5 10 11	0 10 1	0 12 4	1 1 8	0 9 1	0 14 1	6 5 0
1915-16	6 16 1	0 10 4	0 12 9	1 3 3	0 9 4	0 14 10	7 10 11
1916-17	7 16 0	0 11 2	0 14 10	1 9 5	0 17 3	0 18 7	8 14 7
1917-18	8 6 8	0 12 1	1 0 2	1 9 3	1 1 3	0 19 11	9 6 7
1918-19	9 19 10	1 0 10	1 8 11	1 11 9	1 2 2	1 5 7	11 5 5
1919-20	11 14 9	1 10 1	1 15 7	3 1 9	1 12 6	2 2 1	13 16 10
1920-21	12 17 6	1 14 10	1 17 4	2 18 8	1 13 0	2 3 4	15 0 10
1921-22	11 14 4	1 11 1	2 0 5	3 4 0	1 12 5	2 3 10	13 18 2
1922-23	10 1 7	1 13 8	2 5 10	2 10 11	1 14 1	2 1 1	12 2 8
1923-24	10 13 4	1 14 1	2 6 8	2 15 4	1 16 10	2 3 3	12 16 7
1924-25	11 7 10	1 16 7	2 7 11	3 0 8	1 18 1	2 6 7	13 14 5
1925-26	11 19 1	1 13 10	2 10 11	3 2 0	1 17 5	2 6 2	14 5 3
1926-27	12 10 4	1 14 2	3 5 10	2 15 10	1 17 9	2 5 6	14 15 10
1927-28	12 13 2	1 15 11	3 6 9	2 19 11	2 5 4	2 8 9	15 1 11
1928-29	12 8 10	1 18 6	3 14 11	3 2 0	2 8 6	2 11 9	15 0 7
1929-30	12 1 6	2 1 2	3 14 9	2 10 11	2 3 10	2 11 7	14 13 1
1930-31	10 19 4	1 16 8	3 12 9	2 14 8	2 1 4	2 7 5	13 6 9
1931-32	10 6 6	1 10 0	3 12 5	2 14 1	1 18 11	2 8 0	12 14 6
1932-33	10 12 10	2 2 11	3 1 9	2 11 5	1 14 10	2 7 2	13 0 0
1933-34	15 1 8	2 7 1	3 8 4	2 17 6	1 14 4	2 11 10	17 13 6
1934-35	15 4 9	2 11 9	3 13 10	3 10 7	2 6 5	3 0 10	18 5 7
1935-36	15 10 11	2 10 2	3 16 0	3 15 10	2 2 8	3 2 3	18 13 2
1936-37	16 6 2	2 11 10	3 16 7	4 5 9	2 10 0	3 7 11	19 14 1
1937-38	16 2 1	2 15 6	4 4 9	4 8 0	2 14 8	3 11 8	19 13 9

UNION AND PROVINCIAL REVENUE AND EXPENDITURE AND EXPENDITURE PER HEAD OF EUROPEAN POPULATION, 1911-12 TO 1937-38.

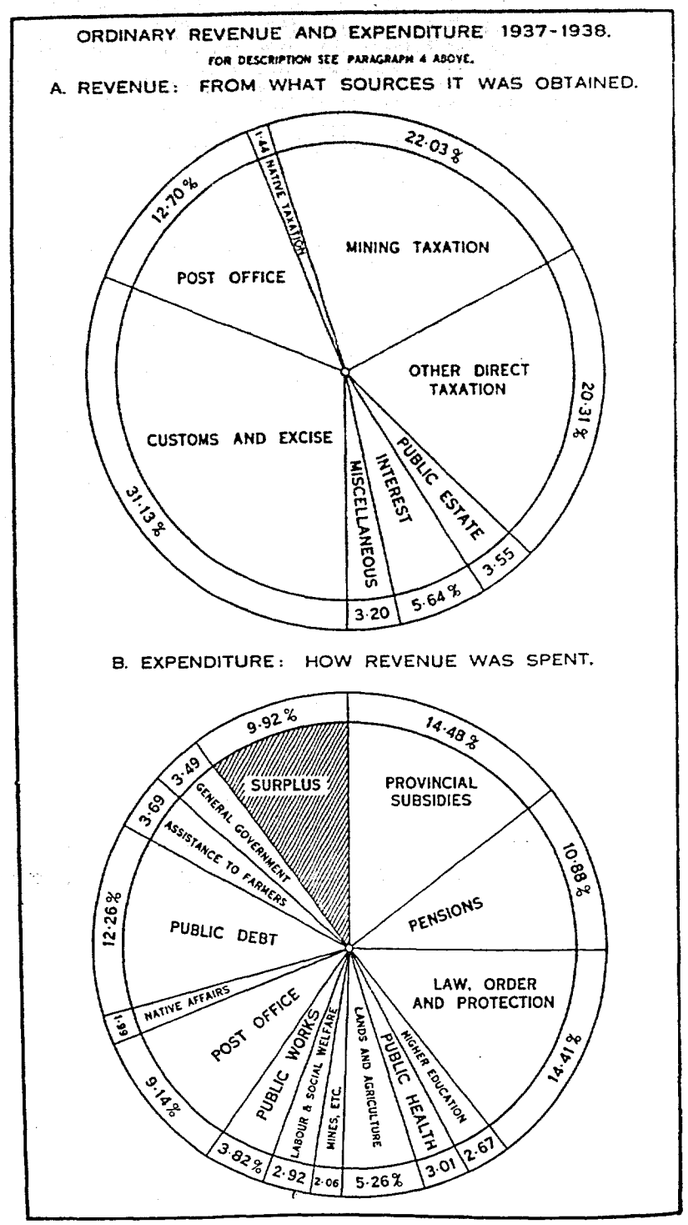


4. **Graphic Representation of Ordinary Revenue and Expenditure, 1937-38.**—The following table shows (*a*) the ordinary revenue and expenditure of the Union (excluding that of the Provinces) for 1937-38 classified under a number of principal heads, and (*b*) the relative percentage which each head bears to the total revenue and expenditure. These percentages have been used in the construction of the circular graphs which follow. It should be noted that the revenue derived from mining taxation includes the income tax collected from the mining industry, but excludes Government ownership revenue, licences, and mynpacht dues, which have been credited to Public Estate, and also the export duty on diamonds.

In comparing the classification of expenditure, as arranged in the graph and the table following, with the table shown in § 3 (2) below, it should be observed that the term General Government in the former includes Miscellaneous, and that Mines, etc., includes Mines and Commerce and Industries. Public Works includes Government Printing Works and the item Native Affairs includes the grant of £340,000 to the S.A. Native Trust.

REVENUE AND EXPENDITURE (EXCLUDING PROVINCIAL), 1937-38, CLASSIFIED UNDER SPECIFIED HEADS, AND THE PERCENTAGE WHICH EACH HEAD BEARS TO THE TOTAL AMOUNT.

Revenue.	Amount.	Per cent. of Total Revenue.	Expenditure.	Amount.	Per cent. of Total Expenditure.	Per cent. of Total Revenue.
	£			£		
Customs and Excise....	13,577,434	31·13	Provincial Subsidies.	6,314,761	16·08	14·48
Posts and Telegraphs..	5,540,254	12·70	Law, Order, and Protection.....	6,284,430	16·00	14·41
Native Taxation.....	629,532	1·44	Post Office.....	3,985,214	10·14	9·14
Mining Taxation.....	9,607,221	22·03	Pensions.....	4,742,968	12·07	10·88
Other Direct Taxation.	8,856,138	20·31	Lands and Agriculture.....	2,294,456	5·84	5·26
Public Estate.....	1,547,735	3·55	Public Health.....	1,312,844	3·34	3·01
Interest.....	2,458,844	5·64	Higher Education..	1,165,049	2·97	2·67
Miscellaneous.....	1,393,583	3·20	Public Works.....	1,664,481	4·24	3·82
			Mines, etc.....	898,386	2·29	2·06
			Labour and Social Welfare.....	1,273,234	3·24	2·92
			Native Affairs.....	868,251	2·21	1·99
			General Government	1,521,578	3·87	3·49
			Public Debt.....	5,348,434	13·61	12·26
			Assistance to Farmers.....	1,609,619	4·10	3·69
			TOTAL ORDINARY EXPENDITURE...	39,283,705	100·00	90·08
			Surplus.....	4,327,036	—	9·92
TOTAL.....	43,610,741	100·00	TOTAL.....	43,610,741	—	100·00



§ 2. Revenue of the Union.

1. **Ordinary Revenue of the Union.**—The total ordinary revenue of the Union for a series of years, with quinquennial comparisons from 1911-12, is given according to financial years (1st April to 31st March) in the subjoined table, together with the revenue per head of the total population and per head of the European population only. The ordinary revenue is taken to exclude railway and harbour revenue and (from 1st April, 1913) collections of revenue on behalf of Provincial Administrations. Receipts from *bewaarplaatsen*, a source of revenue resulting from certain government ownership rights in respect of gold mines in the Transvaal, have been transferred to Loan Account for these years, with the exception of 1921-22, when the revenue under this head was credited to Revenue Account. The unaudited collections for 1938-39 and the estimates of revenue for the year 1939-40 are given in paragraph 14 hereunder. In the appropriation for the financial year 1933-34 the sum of £1,900,000 gold mining lease revenue was diverted from Loan Account to Revenue Account; but, as the financial year ended with a substantial surplus, this amount was returned to the Loan Account during 1934-35. To maintain comparability, the figures have been amended, and the £1,900,000 has been transferred to Loan Account for 1933-34.

ORDINARY REVENUE OF THE UNION AND REVENUE PER HEAD OF THE POPULATION, 1911-12, 1916-17, 1921-22, 1926-27, AND 1929-30 TO 1937-38.

Period.	Customs and Excise.	Posts, Telegraphs, and Telephones.	Inland Revenue.	Total Revenue.	Per Head of Population.	Per Head of European Population.
	£	£	£	£	£ s. d.	£ s. d.
1911-12	4,969,073	1,471,783	7,768,505	14,209,361	2 7 5	11 1 11
1916-17	6,192,810	1,788,553	6,959,516	14,940,879	2 5 8	10 12 9
1921-22	7,003,930	2,893,757	14,652,887	24,550,624	3 10 8	16 2 6
1926-27	10,530,911	3,495,519	14,541,573	28,577,003	3 15 10	17 0 8
1929-30	11,272,005	4,073,232	15,141,221	30,486,458	3 17 3	17 4 11
1930-31	9,261,361	4,026,173	15,272,471	28,563,005	3 11 4	15 17 9
1931-32	10,247,817*	4,359,991	13,132,938	27,740,746*	3 3 8	15 3 4
1932-33	11,240,328*	4,124,956	13,076,568	28,441,852*	3 4 0	15 5 2
1933-34	10,569,344	4,420,070	22,635,489	37,624,903	4 3 0	19 17 9
1934-35	12,320,053	4,400,150	22,010,025	38,730,228	4 3 10	20 2 6
1935-36	11,940,820	4,625,726	23,108,955	39,675,501	4 4 2	20 4 0
1936-37	12,960,930	5,021,955	25,104,545	43,087,430	4 9 7	21 9 0
1937-38	13,589,471	5,540,254	24,481,016	43,610,741	4 9 0	21 6 8

* Including primage duty collected for the payment or part-payment of export subsidies.

2. **Sources of Revenue.**—The ordinary revenue of the Union is derived from (*a*) receipts from customs and excise; (*b*) collections by the Inland Revenue Department under various heads, including income tax payments, taxation of mines, stamp, transfer, and other duties, and native taxes; and (*c*) revenue earned by the postal, telegraph, and telephone services of the Union. The revenue receipts under the main heads are given below for six financial years (1st April to 31st March).

HEADS OF REVENUE OF THE UNION, 1932-33 TO 1937-38.

Description of Revenue.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
	£	£	£	£	£	£
Customs	8,338,216	8,687,603	10,187,502	9,624,099	10,376,755	10,677,913
Excise	1,737,531	1,883,209	2,131,895	2,316,654	2,584,175	2,911,558
State Mining Revenue*	607,413	650,979	692,854	665,287	853,067	582,407
Licences	135,922	141,876	137,424	141,419	156,646	191,114
Stamp Duties and Fees	846,211	1,073,812	1,153,522	1,105,227	1,435,710	1,305,011
Income Tax	5,832,239	8,954,177	10,183,892	10,740,639	16,282,330	16,286,332
Surtax on Interest	349,418	239,615	45,525	740	105	42
Excess Profits Duty, Gold Mines	—	6,000,000	3,865,451	2,413,056	*66,161*†	—
Gold Profits Surtax	—	—	—	2,600,258	3,747	—
Estate and Succession Duty	663,435	816,126	673,893	849,783	1,251,631	1,037,547
Native Taxes	848,120	858,030	989,184	831,269	771,524	567,409
Pass Fees	40,713	51,861	41,536	49,647	52,541	62,123

* Excluding portion of mining revenue which is credited to Loan Account for these years (see paragraph 4).
† Refund of previous year's over-collections.

HEADS OF REVENUE OF THE UNION, 1932-33 TO 1937-38—*(continued)*.

Description of Revenue.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
	£	£	£	£	£	£
Quitrent and Farm Taxes	110,237	112,597	62,732	29,230	23,909	15,393
Forest Revenue	73,574	90,732	111,605	107,894	114,748	141,926
Rents of Government Property	172,694	171,854	184,290	176,107	177,733	177,469
Interest	2,387,055	2,513,032	2,747,525	2,214,885	2,325,900	2,458,844
Departmental Receipts	574,246	611,259	649,006	644,044	722,487	788,074
Fines and Forfeitures	205,676	177,751	211,256	246,701	285,894	328,075
Miscellaneous	229,615	171,788	260,340	292,769	712,734	539,577
Postal	2,208,684	2,282,195	2,000,339	2,005,553	2,133,684	2,400,781
Telegraph and Telephone	1,916,272	2,137,875	2,399,811	2,620,073	2,888,271	3,133,173
Primage Duty*	1,164,591	*1,468*†	656	67	—	—
TOTAL £	28,441,852	37,624,903	38,730,228	39,675,501	43,087,430	43,610,731

* Specially imposed for the payment or part-payment of export subsidies.
† Refund of primage duty overpaid during 1932-33.

3. Customs and Excise Revenue.—(i) The subjoined table gives particulars of revenue derived from customs duties levied in the Union during a series of *calendar* years. Further details as to the customs of the Union are given in Chapter XXIV.

CUSTOMS REVENUE, 1933 TO 1938.

Class.	1933.	1934.	1935.	1936.	1937.	1938.
	£	£	£	£	£	£
Animals, Agricultural and Pastoral Products, and Foodstuffs	1,059,058	1,094,615	872,693	822,020	852,569	1,156,397
Ales, Spirits, Wines, and Beverages	666,251	760,560	842,320	932,099	974,869	1,004,766
Tobacco and Manufactures thereof	65,538	84,456	100,536	121,085	125,628	139,197
Blankets, Rugs, and Shawls	148,809	144,125	188,880	140,931	203,275	183,128
Fibres, Yarns, Textiles, and Apparel, N.O.D	1,716,016	1,891,052	1,850,566	2,013,305	2,240,506	1,916,376
Motor Vehicles, Chassis, and Spares	517,225	934,258	1,054,691	1,312,036	1,474,317	1,130,405
Metals, Metal Manufactures, Machinery, and Vehicles (excluding Motors)	531,189	820,042	856,731	1,032,315	1,120,560	926,031
Minerals, Earthenware, and Glassware	143,226	208,142	254,176	267,802	282,496	214,542
Motor Spirit	1,685,047	1,998,639	2,419,829	2,788,423	2,945,290	2,999,254
Oils, Waxes, Resins, Paints, and Varnishes	269,954	301,172	349,526	377,093	332,101	313,752
Drugs, Chemicals, and Fertilizers	219,334	250,907	267,874	264,642	253,831	233,468
Boots and Shoes	159,230	138,229	135,865	157,616	160,241	150,424
Leather, Rubber, and Manufactures thereof (excluding Boots and Shoes)	379,592	596,174	356,598	394,300	283,342	221,936
Wood, Cane, and Wicker, and Manufactures thereof	125,586	185,712	200,842	265,672	331,169	252,144
Books, Paper, and Stationery	160,401	197,110	208,399	262,795	285,532	278,557
Jewellery, Timepieces, Fancy Goods, and Musical Instruments	215,436	279,775	267,636	274,652	307,351	283,357
Miscellaneous Articles	123,594	152,653	160,079	172,697	192,651	201,965
Duties collected under Tariff 335 for all classes	206,787	284,071	338,538	192,371	149,314*	146,786
TOTAL £	8,397,273	10,321,692	10,726,379	11,792,754	12,515,042*	11,752,395
Surtax	136,647	599	112	91	—	—
Duties Collected on Goods Short-landed, Sold by Government, and Removals, etc.	187,327	143,531	210,025	243,118	324,612*	271,427
GRAND TOTAL £	8,721,247	10,465,822	10,936,516	12,035,963	12,839,654	12,023,822

* Amended figure.

(ii) The subjoined three tables give particulars of gross and net (*a*) customs and (*b*) excise revenue collected by the Union Government on behalf of the Union of South Africa and (*c*) customs and excise revenue collected on behalf of other administrations during a series of *financial* years (1st April to 31st March):—

(*a*) CUSTOMS REVENUE, 1932-33 TO 1937-38.

Description.	1932-33.*	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
	£	£	£	£	£	£
Import Duties	8,330,802	8,678,199	10,175,050	9,615,978	10,365,584	10,665,876
King's Warehouse Rent	1,350	1,075	1,338	1,384	1,967	2,255
Fines and Penalties	714	1,522	4,492	938	1,680	1,288
Bonded Warehouse Licences	4,140	4,060	4,300	4,400	4,460	4,460
Miscellaneous	1,210	2,747	2,322	1,399	3,064	4,034
TOTAL NET UNION REVENUE.	8,338,216	8,687,603	10,187,502	9,624,099	10,376,755	10,677,913
National Road Fund	—	—	—	1,200,532	1,404,208	1,613,462
For other Administrations	280,526	352,324	392,103	302,446	371,955	437,705
Refunds	56,570	69,526	64,447	82,968	95,808	99,878
GROSS COLLECTIONS £	8,675,312	9,109,453	10,644,052	11,210,045	12,248,726	12,828,958

* Excluding an amount of £1,164,581 collected in respect of primage duty specially imposed for the payment or part-payment of export subsidies.

(*b*) EXCISE REVENUE, 1932-33 TO 1937-38.

Description.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
	£	£	£	£	£	£
Spirits	482,310	518,812	591,062	669,075	734,163	903,551
Beer	187,149	207,137	241,694	252,462	283,378	319,244
Cigarettes and Tobacco	836,050	922,206	1,043,514	1,137,364	1,258,619	1,376,626
Sugar	160,885	158,179	174,062	172,598	218,226	213,638
Matches	69,324	73,252	77,590	82,387	86,011	95,606
Miscellaneous	1,813	3,623	3,973	2,768	3,778	2,893
TOTAL NET UNION REVENUE.	1,737,531	1,883,209	2,131,895	2,316,654	2,584,175	2,911,558
For other Administrations	38,873	43,484	43,172	45,384	42,845	49,570
Refunds	197,529	236,832	42,778	39,164	41,099	48,753
GROSS COLLECTIONS £	1,973,933	2,163,525	2,217,845	2,401,202	2,668,119	3,009,881

(*c*) AMOUNTS PAID OVER TO OTHER ADMINISTRATIONS, 1935-36 TO 1937-38.

Administration.	1935-36.		1936-37.		1937-38.	
	Customs.	Excise.	Customs.	Excise.	Customs.	Excise.
	£	£	£	£	£	£
Basutoland	99,170	13,258	97,243	10,783	120,975	18,024
Bechuanaland Protectorate	29,415	3,773	32,453	4,298	31,791	4,435
Swaziland	16,500	2,087	14,461	1,894	23,168	2,527
South West Africa	122,857	25,511	172,372	25,141	104,889	23,686
Southern Rhodesia	8,745	116	8,781	*18**	2,462	139
Northern Rhodesia	25,759	639	46,045	747	64,420	759
TOTAL £	302,446	45,384	371,955	42,845	437,705	49,570

* Refund of previous year's over-payments.

4. Revenue from Mining.—Particulars of the sources of revenue from mining in the Union are given hereunder for six financial years (1st April to 31st March):—

MINING REVENUE, 1932-33 TO 1937-38.

Description.	1932–33.	1933–34.	1934–35.	1935–36.	1936–37.	1937–38.
(a) TOTAL REVENUE.						
Gold Mines—	£	£	£	£	£	£
Income Tax	1,797,876	3,746,590	4,371,225	4,658,031	9,390,075	9,455,889
Excess Profits Duty	—	6,000,000	3,865,451	2,413,056	*66,161†	—
Gold Profits Surtax	—	—	—	2,600,258	3,747	—
State Ownership (Lease Revenue)—						
*Credited to Income Tax	540,449	900,802	968,993	922,367	819,573	—
Credited to Loan	1,857,309	3,773,445	3,877,829	3,587,205	3,366,346	4,037,013
Bewaarplaatsen	69,340	124,526	121,401	118,115	103,309	98,555
Diamond Mines—						
Income Tax	537	42,747	20,600	6,236	25,372	16,402
Export Duty	123,593	143,110	209,536	176,177	270,274	237,863
State Ownership	—	—	—	30,250	98,373	—
State Mining—						
Credited to Revenue	161,205	138,035	146,426	154,115	167,346	183,551
Credited to Loan	306,230	29,601	20,789	10,205	6,610	4,051
Coal Mines—						
Income Tax	60,384	65,579	68,370	53,858	101,100	105,635
Other Mines—						
Income Tax	20,968	21,268	25,357‡	35,504	25,870	29,304
State Ownership	139	473	1,535‡	888	1,228	12,250
Licences and Mynpacht Dues	322,476	360,834	336,269	298,615	316,944	339,656
TOTAL £	5,260,506	15,356,013	14,033,781	15,071,780	14,660,006	14,579,310
Total Mining Revenue from—						
(a) Taxation	2,543,807	10,920,096	9,529,532	10,866,387	10,599,850	9,845,084
(b) Other	2,716,699	4,435,917	4,504,249	4,205,393	4,060,156	4,734,256

(b) STATEMENT SHOWING THE DISTRIBUTION OF THE TOTAL MINING REVENUE BETWEEN REVENUE ACCOUNT AND LOAN ACCOUNT.

(I) Revenue Account—	£	£	£	£	£	£
Mining Revenue	607,413	650,979	692,854	665,287	853,067	582,407
Income Tax	2,420,214	4,776,986	5,454,545	5,676,962	10,391,990	9,607,221
Excess Profits Duty	—	6,000,000	3,865,451	2,413,056	*66,161†	—
Gold Profits Surtax	—	—	—	2,600,258	3,747	—
Total Credited to Revenue Account £	3,027,627	11,427,965	10,012,850	11,355,563	11,182,643	10,189,628
(II) Total Credited to Loan Account £	2,232,879	3,928,048	4,020,931	3,716,217	3,477,363	4,389,712

* In terms of section 3 (*d*) of Act No. 22 of 1917. Discontinued 1st April, 1937 [*vide* section 5 (1) (*a*) of Act No. 50 of 1937].
† Refund of previous year's over-collections.
‡ Amended figure.

5. **Income Tax Act.**—The collection of income tax is governed by the *Income Tax Act*, No. 40 of 1925, as amended by Acts Nos. 36 of 1926, 23 of 1927, 18 of 1928, 29 of 1929, 31 of 1930, 30 of 1931, 28 of 1932, 31 of 1933, 44 of 1934, 28 of 1935, 34 of 1936, 51 of 1937, and 20 of 1938. The Act of 1925 consolidated and amended the previous Act of 1917 as amended by the subsequent Acts of 1919, 1920, and 1921. The principal change introduced was the repeal of the dividend tax, the yield of taxation being maintained by a corresponding increase in the rates of normal tax chargeable upon companies.

The taxes imposed for the years 1930 to 1938 were:—

A. Normal Tax. B. Supertax. C. *Surtax on Fixed Interest. D. †Gold Mines Excess Profits Duty. E. §Gold Profits Surtax.

Returns under the Act (as now amended) are required as follows:—

A. In respect of normal tax from—
- (*a*) every married person, or representative of such person, whose income for the year of assessment exceeded £400;
- (*b*) every unmarried person, or representative of such person, whose income for the year of assessment exceeded £400;
- (*c*) the public officer of every company, the income of which for the year of assessment exceeded £400;
- (*d*) every person to whom a form of return is issued, irrespective of the income of that person for the year of assessment in question.

* This additional tax was in operation in 1932 and 1933 only.
† Introduced in 1933 by Act No. 33 of 1933, and repealed by Act No. 34 of 1936 with effect from 1st January, 1936.
§ Introduced by Act No. 51 of 1935 and repealed by Act No. 34 of 1936 with effect from 1st January, 1936.

The general provisions of the principal Act (as amended from time to time) apply each year to the determination of the taxable amount upon which the normal and the super tax are to be levied and the collection of the amount payable in respect of that taxable amount, but the actual rates to be levied are fixed each year by Parliament in respect of the year of assessment ending on the 30th June of that year. Provision is further made that the rates so fixed shall be applicable to any *interim* assessment made in respect of the following year of assessment, subject to adjustment when the next annual determination of rates is made.

(i) *Rates.*—The rates for the year of assessment ended 30th June, 1938, were:—

A. NORMAL TAX.†—In respect of each taxable amount (as defined below)—
- (*a*) in the case of gold mining companies, for each pound of taxable amount, *three shillings*;
- (*b*) in the case of diamond mining companies, for each pound of taxable amount, *three shillings*;
- (*c*) in the case of all other companies, for each pound of taxable amount, *two shillings and sixpence*;
- (*d*) in the case of persons other than companies, for each pound of taxable amount, *one shilling* and as many *two-thousandths of a penny* as there are pounds in that amount, subject to a maximum rate of *two shillings* in every such pound;
- (*e*) in the case of persons or companies who derive any portion of their income from mining for gold, in respect of each pound of the taxable amount so derived a percentage determined in accordance with the following formula:—

$$y = 40 - \frac{500}{x}$$

in which y represents such percentage and x the ratio, expressed as a percentage, which the taxable income derived from mining for gold bears to the total income derived therefrom.

N.B.—For the purposes of this paragraph income derived from mining for gold shall include any income derived from silver, osmiridium, or other minerals which may be won in the course of the mining for gold, and any income which, in the opinion of the Commissioner, results directly from mining for gold.

Provision is made in cases where production of gold was commenced after the 31st December, 1935, for the redemption of capital expenditure incurred prior to the date of commencement of production over the period of the life of the mine or ten years whichever is the shorter.

B. SUPERTAX.—In respect of each amount subject to supertax (as defined below):—

For each pound of such amount, *one shilling* and as many *five-hundredths of one penny* as there are pounds in that amount, subject to a maximum rate of *five shillings* in every such pound.

(ii) *Taxable Amounts.*—The *Income Tax Act* of 1925 (as amended from year to year) defines the taxable amount and amount subject to supertax in respect of each tax as follows:—

A. NORMAL TAX.—The taxable amount of any income is the amount remaining after deducting from the taxable income such of the abatements set out below as are applicable. (NOTE.—A taxable income is the amount remaining after deducting from gross income, that is, all receipts other than those of a capital nature, all exempted amounts, and all admissible deductions other than abatements.) Act No. 29 of 1929 provides for deduction from the taxable income of any person engaged in farming pursuits of the amount expended by such person during the year of assessment in respect of dipping tanks, dams, water-furrows, boreholes, pumping plants, fences, the eradication of noxious weeds, prevention of soil erosion, erection of buildings for farming purposes, and the establishment of orchards and vineyards. Under the provisions of section 2 of Act No. 29 of 1929 allowance may be made in respect of the value of any machinery, implements, utensils, and articles used by a taxpayer for the purposes of his trade, which have been scrapped during the year of assessment.

† In respect of (*c*) and (*d*), Normal Tax for the tax year ending 30th June, 1934, was subject to a rebate of 20 per cent., for the tax years 1935, 1936, and 1937 to a rebate of 30 per cent., and for the tax year 1938 to a rebate of 20%.

Abatements—

I. In the case of any person other than a company—

(1) (*a*) a sum of—

(i) £400 in the case of every person to whom paragraph (2) (*a*) below is applicable;

(ii) £400 in the case of every person to whom paragraph (2) (*b*) below is applicable,

as the case may be;

(*b*) any sum not exceeding £50 paid by the taxpayer during the period in respect of which a return is made as premiums upon policies under which he, his wife, or his minor children is or are insured against death, accident, or sickness;

(*c*) any fees or subscription, not exceeding £10 in the aggregate, paid by the taxpayer to any benefit or friendly society during any period in respect of which a return is made;

(*d*) a sum of £100 for each unmarried child of the taxpayer under the age of twenty-one years;*

(*e*) a sum of £30 for each dependant of the taxpayer.

"Dependant" means—

(i) any person incapacitated by old age, infirmity, or any other reason satisfactory to the Commissioner from maintaining himself; and

(ii) any child (other than the child or step-child of such taxpayer) to whose maintenance during the year of assessment the taxpayer has contributed, whether in cash or otherwise, to an amount of not less than £30.

(2) The total of the allowances applicable to any person is subject to reduction as follows:—

(*a*) In the case of every person who—

(i) during any portion of the period in respect of which the assessment is made was married; or

(ii) during the whole of the period in respect of which such assessment is made, was divorced, but maintained a child* during any portion of that period,

the reduction shall be by one pound for every completed ten pounds by which the taxable income of such person exceeds six hundred pounds:

Provided that any person who was a widower or widow during the whole of the period in respect of which the assessment was made shall be assessed as though he had been married throughout that period, and any person who has been separated under a judicial order or written agreement throughout that period shall be assessed as though he had been divorced throughout that period.

(*b*) In the case of all persons to whom paragraph (*a*) of this sub-section does not apply, the reduction shall be by one pound for every completed pound by which the taxable income of any such persons exceeds four hundred pounds.

II. In the case of companies the abatement is £400, subject to reduction as provided in paragraph (2) (*b*) above.

III. In the case of persons or companies who derive income from mining for gold which income is subject to tax in accordance with the formula provided in paragraph A (*c*) under "Rates" above, the abatement is £20,000 reduced by £1 for every completed £4 by which the taxable income so derived exceeds £20,000.

IV. In any case in which the period assessed is less than one year, the total of the allowances applicable other than insurance premiums and fees or subscriptions to benefit or friendly societies *actually paid* during the period assessed is proportionately reduced.

Exemptions.—Section 10 (as amended) of the *Income Tax Act* of 1925 provides for certain exemptions, e.g. revenues of the Government of the Union and Provincial Administrations and other local authorities of the Union, revenues of foreign States, revenues of the Imperial Government and of the Governments of the British Dominions, Colonies, and Possessions (other than revenues derived by the last-named Governments from any trade carried on within the Union); receipts of building and friendly societies, mutual savings bank or loan associations, pension, superannuation, or provident funds of a permanent nature, and of trade unions; receipts of bodies or associations which are in the opinion of the Commissioner amateur sporting bodies or associations; receipts of ecclesiastical, charitable, and educational institutions of a public character; receipts of mutual life assurance societies and of companies and associations dealing only with their own members; war pensions and miners' phthisis awards; interest on tax-free loans, on building society contributory shares, on deposits in the Post Office Savings Bank, and on Union Loan Certificates; interest on government and municipal loans, including stock issued by the Electricity Supply Commission, when received by persons non-resident in the Union; salaries and emoluments payable to the Governor-General and his personal staff and to persons holding office in the Union as officials of British and foreign Governments (provided that such persons are stationed in the Union for that purpose and are not ordinarily resident in the Union); dividends received from companies chargeable with or exempt from the normal tax and profits of mining exempted from taxation under the *Gold Law* of the Transvaal.

* "Child" includes step-child and child adopted under the *Children's Act*, No. 31 of 1937.

B. SUPERTAX.—The amount subject to supertax is the amount remaining of the income subject to supertax after allowing an abatement of £2,500, diminished by one pound for every pound by which the income subject to supertax exceeds £2,500. The abatement thus ceases to exist when the income subject to supertax reaches £5,000.

The income subject to supertax is an aggregate of—

(*a*) the taxable income of the taxpayer as determined for the same year of assessment for normal tax purposes;

(*b*) any dividends derived from sources within the Union which were excluded in determining that taxable income;

(*c*) any bonus shares or debentures or other securities awarded to the taxpayer during the year of assessment as the capitalization of the profits of any company in which he was a shareholder;

(*d*) liquidation dividends in so far as they represent a share of profits, whether such profits are earned before or after the commencement of winding up;

(*e*) any amount allocated to the taxpayer by the Commissioner, representing his share of the undistributed profit of a private company as defined in section 32 of the Act.

Deductions.—From the aggregate so determined may be deducted expenditure, other than capital expenditure, incurred in the production of the dividends or bonus shares included in the aggregate, and any loss assessed for normal tax purposes.

"Private Companies", as defined in section 27 of the Act, are now subject to supertax.

(iii) *Summary of Assessments—All Income Tax.*—The subjoined table gives the number and value of assessments of income tax under the various Acts named.

Note.—The term *Tax Year* used in certain of the following tables has for its meaning the twelve months commencing the 1st July and ending the 30th June of the following year. The *Financial Year* commences on the 1st April and ends on the 31st March following.

(*a*) NUMBER OF ASSESSMENTS FOR NORMAL TAX, SUPERTAX, AND SURTAX UNDER EACH ANNUAL ACT, 1928 TO 1937.

Act Imposing Taxation.		Normal Tax.			Supertax.		Grand Total.
No.	Year.	Individuals.	Companies.	Total.	Individuals.	Companies.	
		No.	No.	No.	No.	No.	No.
18	1928	76,965	1,797	78,762	3,504	—	82,266
29	1929	71,130	1,838	72,968	3,496	—	76,464
31	1930	68,459	1,751	70,210	3,068	—	73,278
30	1931	85,758	1,510	87,268	2,555	—	89,823
28	1932	74,253	1,304	75,557	24,375*	493*	100,425
31	1933	69,761	1,411	71,172	17,217*	371*	88,760
44	1934	47,837	1,707	49,544	2,973	201	52,718
28	1935	50,510	2,099	52,609	3,393	235	56,237
34	1936	59,128	2,522	61,650	4,097	368	66,115
51	1937	65,167	2,903	68,070	4,658	339	73,067

* Includes surtax [see note to Table (*b*) hereunder].

(b) VALUE OF ASSESSMENTS FOR NORMAL TAX, SUPERTAX, AND SURTAX, AND THE YIELD UNDER EACH ANNUAL ACT, 1928 TO 1937.

Act Imposing Taxation.		Normal Tax.			Supertax.		Grand Total.
No.	Year.	Individuals.	Companies.	Total.	Individuals.	Companies.	
		£	£	£	£	£	£
18	1928	1,690,915	3,007,964	4,698,879	1,324,401	—	6,023,280
29	1929	1,592,105	3,328,274	4,920,379	1,461,507	—	6,381,886
31	1930	1,750,656	3,400,281	5,150,937	1,222,661	—	6,373,598
30	1931	1,744,632	2,753,874	4,498,506	906,979	—	5,405,485
28	1932	1,426,787	3,038,890	4,465,677	983,017*	189,123*	5,637,817
31	1933	1,511,783	5,302,824	6,814,607	1,125,666*	182,692*	8,122,965
44	1934	1,317,191	6,219,317	7,536,508	1,622,787	286,154	9,445,449
28	1935	1,148,421	6,812,951	7,961,372	1,563,471	365,504	9,890,347
34	1936	1,366,406	12,034,745	13,401,151	1,854,501	451,027	15,706,679
51	1937	1,543,432	12,488,228	14,031,660	2,121,513	277,901	16,431,074

* Includes surtax as follows :—

	Individuals.		*Companies.*	
	No.	*Amount.*	*No.*	*Amount.*
		£		£
Act No. 28 of 1932.....	22,418	323,386	402	133,447
Act No. 31 of 1933.....	15,084	160,698	243	17,934

(iv) *Assessments of Income Tax (Normal).*—The table given hereunder shows the number of payers of income tax as assessed during the year ending 30th June, 1938, the amount of taxed incomes, and of tax payable, in respect of the tax-year ending 30th June, 1937, in the Union and each province :—

NORMAL TAX.—NUMBER OF ASSESSMENTS, AMOUNT OF TAXED INCOMES, AND AMOUNT OF TAX, IN RESPECT OF THE TAX YEAR ENDING 30th JUNE, 1937.

Province.	Number of Taxpayers.			Amount of Taxable Incomes.			Amount of Tax Payable.		
	Total.	Individuals.	Companies.	Total.	Individuals.	Companies.	Total.	Individuals.	Companies.
	No.	No.	No.	£	£	£	£	£	£
Cape of Good Hope	19,939	19,184	755	31,394,093	20,079,736	11,314,357	1,454,577	459,736	994,841
Natal.....	8,813	8,384	429	12,858,483	8,583,977	4,274,506	575,661	199,336	376,325
Transvaal..	35,843	34,165	1,678	79,021,280	35,073,330	43,947,950	11,920,063	826,543	11,093,520
O.F.S.....	3,475	3,434	41	3,413,325	3,141,610	271,715	81,359	57,817	23,542
TOTAL.....	68,070	65,167	2,903	126,687,181	66,878,653	59,808,528	14,031,660	1,543,432	12,488,228

(v) *Assessments of Normal Tax Classified.*—The tables given hereunder show the classifications of assessments (*a*) according to the amount of taxed incomes, (*b*) according to sources of income, (*c*) according to sources of income in respect of individuals, and (*d*) according to districts where the total amount of tax paid in the district exceeded £10,000 :—

(a) NORMAL TAX.—CLASSIFICATION OF ASSESSMENTS ISSUED IN RESPECT OF INCOMES FOR THE YEAR ENDING 30th JUNE, 1937, UNDER CATEGORIES ACCORDING TO AMOUNTS OF TAXABLE INCOMES (COMPILED TO 30th JUNE, 1938).

Income Category.	Number of Taxpayers.				Amount of Taxable Incomes.				Amount of Tax Payable.			
	Total.	Individuals.		Companies.	Total.	Individuals.		Companies.	Total.	Individuals.		Companies.
		Married.	Unmarried.			Married.	Unmarried.			Married.	Unmarried.	
	No.	No.	No.	No.	£	£	£	£	£	£	£	£
*Not exceeding £400.	554	453	70	31	128,032	102,883	17,691	7,458	2,429	1,779	343	307
401– 600.....	12,936	7,622	5,057	257	5,865,240	3,475,268	1,276,874	1,113,098	28,001	11,418	14,324	2,259
601– 700.....	11,284	8,709	2,340	166	6,109,243	4,827,852	1,279,660	901,731	55,430	25,907	21,903	7,620
701– 800.....	8,689	7,458	1,120	111	5,631,389	4,839,922	697,447	794,020	62,132	39,661	18,503	4,068
801– 900.....	6,415	5,692	661	92	4,820,538	4,262,350	491,022	67,166	66,370	44,007	15,972	6,391
901– 1,000.....	4,805	4,319	399	87	4,082,287	3,668,321	330,490	83,476	67,149	48,312	12,184	6,653
1,001– 1,250.....	8,406	7,569	564	63	9,321,601	8,010,664	851,551	459,386	67,664	47,003	9,192	5,469
1,251– 1,500.....	5,989	4,950	434	106	6,221,078	5,518,262	482,597	220,219	143,190	105,419	17,735	20,036
1,501– 1,750.....	3,992	2,916	264	112	4,500,343	3,984,101	361,402	154,840	118,626	90,983	13,444	14,199
1,751– 2,000.....	3,122	2,839	176	107	3,432,803	2,976,996	283,811	171,996	103,365	77,151	10,680	15,534
2,001– 2,250.....	1,622	1,369	138	115	3,030,401	2,557,759	257,111	215,531	101,034	71,805	9,693	19,531
2,251– 2,500.....	1,626	1,426	101	99	2,590,203	2,177,320	213,517	199,366	91,414	65,348	8,186	17,884
2,501– 3,000.....	1,221	1,062	59	100	2,917,319	2,456,918	140,110	320,291	86,240	64,747	5,360	16,103
3,001– 3,500.....	787	697	70	76	2,536,772	2,270,276	189,978	76,518	100,895	72,596	7,466	20,833
3,501– 4,000.....	577	443	52	123	3,321,221	2,700,276	167,874	453,071	100,053	72,721	6,776	20,556
4,001– 4,500.....	406	315	27	92	2,159,470	2,070,277	101,993	87,200	70,382	61,956	4,182	4,244
4,501– 5,000.....	295	223	16	105	2,716,187	1,661,169	66,811	988,207	101,478	82,230	2,747	16,501
5,001– 6,000.....	382	256	19	62	4,306,860	1,316,497	48,466	2,941,897	42,455	25,039	2,039	15,377
6,001– 7,000.....	254	157	21	105	4,081,203	1,384,905	116,133	2,580,165	114,579	56,551	5,001	53,027
7,001– 8,000.....	154	87	13	84	1,657,916	1,056,096	83,864	517,956	96,354	29,813	3,726	62,815
8,001– 9,000.....	111	45	4	62	1,555,520	651,939	39,853	863,728	73,858	18,161	1,686	54,011
9,001–10,000.....	97	44	4	49	913,283	384,510	32,598	496,175	66,709	20,443	1,588	44,678
10,001–12,000.....	138	53	5	80	1,502,676	418,317	9,025	1,075,334	66,307	20,443	472	45,392
12,001–14,000.....	83	33	5	45	1,505,009	578,556	86,388	840,065	107,627	59,681	4,388	43,558
14,001–16,000.....	50	10	1	39	751,582	420,760	66,505	264,317	76,528	39,681	3,019	33,828
16,001–18,000.....	49	18	2	29	829,330	151,469	15,053	662,808	60,750	18,893	857	41,000
Over 20,000.....	387	29	4	354	51,744,431	365,098	32,387	51,346,946	60,077	4,461	1,127	54,489
TOTAL.....	68,070	53,835	11,332	2,903	126,687,181	58,583,179	8,295,474	59,808,528	14,031,660	1,331,277	212,165	12,488,223

* Assessed for a period of less than twelve months.

(b) NORMAL TAX.—TAXED INCOMES IN RESPECT OF THE TAX YEARS ENDING 30th JUNE, 1933 TO 1937, CLASSIFIED ACCORDING TO SOURCES (COMPILED TO 30th JUNE, 1938).

Year of Collection.	Source of Income.							
	Trade and Manufacture.	Banking and Insurance.	Mining.	Employment and Professions.	Farming.	Investments.	Miscellaneous.	Total.
	£	£	£	£	£	£	£	£
INDIVIDUALS.								
1933–34	8,120,304	—	61,606	30,672,824	717,309	9,707,834	753	49,280,631
1934–35	11,595,817	—	138,983	24,425,271	2,256,496	8,010,595	—	46,427,162
1935–36	11,471,248	—	51,074	26,827,823	1,621,487	8,871,408	—	48,843,040
1936–37	14,295,525	—	80,302	32,037,191	2,374,090	9,431,677	—	58,218,785
1937–38	16,090,742	—	75,998	36,885,791	3,709,755	10,116,367	—	66,878,653
COMPANIES.								
1933–34	8,546,147	1,208,348	19,123,220	—	548,964	1,337,683	—	30,764,362
1934–35	12,317,993	3,015,003	22,478,054	—	780,370	1,461,032	—	40,051,452
1935–36	16,122,822	4,499,637	24,012,825	—	951,559	1,700,058	—	47,286,901
1936–37	18,854,574	5,104,156	25,287,078	—	798,608	1,984,767	—	52,029,183
1937–38	23,824,125	7,462,537	25,134,228	—	1,087,901	2,239,737	—	59,748,528
TOTAL.								
1933–34	16,666,451	1,208,348	19,184,826	30,672,824	1,266,273	11,045,521	753	80,044,993
1934–35	23,913,810	3,015,003	22,617,042	24,425,271	3,045,866	10,380,627	—	87,397,619
1935–36	27,594,070	4,499,637	24,063,899	26,827,823	2,573,046	10,571,466	—	96,129,946
1936–37	33,150,099	5,104,156	25,367,080	32,037,191	3,172,698	11,416,444	—	110,248,571
1937–38	39,914,867	7,462,537	25,210,226	36,885,791	4,797,656	12,116,104	—	126,587,181

(c) NORMAL TAX.—TAXED INCOMES OF INDIVIDUALS, CLASSIFIED IN PROVINCES, ACCORDING TO SOURCES, IN RESPECT OF TAX YEAR ENDING 30th JUNE, 1937.

Source of Income.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Total.
	£	£	£	£	£
Trade (excepting Liquor Trade).	4,462,068	1,605,394	8,042,058	743,236	14,852,756
Liquor Trade	476,180	210,340	468,852	82,614	1,237,986
Mining	38,109	10,968	24,978	1,943	75,998
Legal Profession	535,956	207,253	926,833	98,859	1,768,901
Medical Profession	508,426	241,388	750,430	129,019	1,629,263
Other Professions	405,731	242,122	869,082	54,457	1,571,392
Public Service	1,647,177	788,267	2,131,937	330,619	4,898,000
Other Employment	5,928,563	3,043,030	17,492,748	553,894	27,018,235
Sugar Farming and Milling	—	333,602	—	—	333,602
Other Farming	1,926,459	268,091	383,215	798,388	3,376,153
Rents	1,315,269	657,891	2,179,079	146,517	4,298,756
Interest	2,835,798	975,631	1,804,118	202,064	5,817,611
TOTAL.....£	20,079,736	8,583,977	35,073,330	3,141,610	66,878,653

Particulars are given hereunder as to the number of assessments of individuals, amount of taxed incomes, and amount of tax payable in districts in which more than £10,000 was assessed, in respect of the tax-years ending 30th June, 1936 and 1937:—

(d) NORMAL TAX.—NUMBER OF ASSESSMENTS OF INDIVIDUALS, AMOUNT OF TAXED INCOMES, AND AMOUNT OF TAX PAYABLE IN DISTRICTS IN WHICH MORE THAN £10,000 WAS ASSESSED, IN RESPECT OF THE TAX YEARS ENDING 30th JUNE, 1936 AND 1937.

District.	Tax Year, 1935–36.			Tax Year, 1936–37.		
	Number of Assessments.	Amount of Taxed Incomes.	Amount of Tax Payable.	Number of Assessments.	Amount of Taxed Incomes.	Amount of Tax Payable.
		£	£		£	£
Cape of Good Hope—						
Capetown	7,396	7,846,665	185,745	7,688	8,371,455	207,962
East London	1,094	1,042,850	21,663	1,223	1,230,387	27,383
Kimberley	539	607,639	15,594	646	723,990	17,878
Port Elizabeth	1,833	1,976,217	47,176	2,118	2,368,928	59,913
Natal—						
Durban	4,770	4,922,069	114,955	5,310	5,655,329	139,516
Pietermaritzburg	938	895,616	19,054	1,050	999,190	21,087
Transvaal—						
Benoni	1,331	1,129,750	21,147	1,544	1,263,898	23,180
Brakpan	—	—	—	941	715,341	11,244
Germiston	1,370	1,325,170	31,009	1,563	1,452,719	31,326
Johannesburg	14,887	17,810,621	482,235	17,067	20,277,976	550,093
Krugersdorp	—	—	—	721	625,552	11,877
Pretoria	3,476	3,182,593	60,993	3,797	3,506,789	68,253
Springs	1,552	1,157,665	17,601	1,950	1,463,037	23,154
Orange Free State—						
Bloemfontein	994	887,942	16,158	1,107	1,012,035	19,140

(vi) *Supertax.*—The table hereunder gives particulars as to the number of assessments and tax payable as supertax, compiled up to 30th June, 1937 and 1938, the tax being assessed as for the years ending 30th June, 1936 and 1937.

SUPERTAX.—NUMBER OF ASSESSMENTS, AMOUNT OF SUPERTAXABLE INCOMES, AND AMOUNT OF SUPERTAX PAYABLE, TAX YEARS ENDED 30th JUNE, 1936 AND 1937.

Province.	Tax Year, 1935–36.			Tax Year, 1936–37.		
	Number of Taxpayers.	Amount of Supertaxable Incomes.	Amount of Supertax Payable.	Number of Taxpayers.	Amount of Supertaxable Incomes.	Amount of Supertax Payable.
		£	£		£	£
Cape of Good Hope...	1,178	5,820,669	538,005	1,468	7,187,739	649,416
Natal	534	2,846,281	296,268	640	3,516,555	378,465
Transvaal	2,439	13,505,229	1,407,048	2,767	14,292,851	1,346,804
Orange Free State....	102	403,890	22,634	122	463,338	24,730
UNION.....	4,253	22,576,069	2,263,955	4,997	25,460,483	2,399,415

6. **Estate and Succession Duties.**—Act No. 29 of 1922, as amended, makes provision for a duty to be levied in respect of the estate of every person dying on or after 1st July, 1922. The duty is chargeable only in respect of estates the dutiable value of which exceeds £15,000, and is leviable at a progressive scale rising from ½ per cent. and reaching the maximum of 17 per cent. at £75,000.

The Act further provides for the levy, in the case of any person becoming entitled to property, of a succession duty as follows:—

Degree of Relationship of Successor to Predecessor.	Rate of Duty upon Dutiable Amount of Succession.
	Per cent.
Where the successor is the direct descendant or ascendant of the predecessor	2
Where the successor is the brother or sister of the predecessor	4
Where the successor is the descendant of the brother or sister of the predecessor	6
Where the successor is otherwise related to the predecessor or is a stranger in blood or is an institution	10

Succession duty is chargeable only in respect of successions exceeding £100 in value. Successions between £101 and £200 in value are subject to a diminishing abatement which disappears when the value of the succession exceeds £200.

The following are exempt from succession duty:—

(*a*) Any succession accruing from any predecessor to his surviving spouse;

(*b*) any succession accruing to any public institution within the Union of a charitable, educational, or ecclesiastical nature, or required to be devoted wholly to charitable, educational, or ecclesiastical purposes of a public nature within the Union or accruing to a public institution within the Union, which has for its purpose the advancement of science or art;

(*c*) any succession accruing to any provincial administration or municipality or other local authority.

The following table shows the amount collected in death duties during five financial years.

DEATH DUTIES COLLECTED, 1933-34 TO 1937-38.

Year.	Estate Duty.				Succession Duty.				Total.
	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	
	£	£	£	£	£	£	£	£	£
1933-34	202,441	86,486	220,605	12,905	133,905	39,922	99,356	20,596	816,126
1934-35	167,793	50,130	112,384	14,295	130,953	46,026	124,119	28,193	673,893
1935-36	213,164	39,115	203,329	5,942	165,503	49,497	152,857	20,376	849,783
1936-37	383,276	137,180	300,895	3,402	199,118	46,913	159,593	21,254	1,251,631
1937-38	184,611	105,590	284,346	27,109	178,506	70,927	163,813	22,315	1,037,547

The number and gross value of the assets, arranged under principal headings, in the estates dealt with under the *Death Duties Act* of 1922, during the financial years ended 31st March, 1935 to 1938, are given hereunder.

	1935.	1936.	1937.	1938.
Number of Estates	10,574	10,359	11,506	12,030
Value of—	£	£	£	£
Immovable Property	6,839,262	6,505,733	8,195,171	8,037,145
Money Lent on Mortgage	1,697,754	1,810,057	1,925,483	2,150,571
Income Due, Book and other Debts	1,518,036	1,472,004	1,567,487	2,243,582
Stocks, Shares, and Debentures	5,317,838	6,664,461	8,127,070	8,170,894
Insurance Policies	1,072,135	1,196,304	1,208,353	1,295,518
Limited Interests in Property	2,106,611	2,126,733	2,083,818	2,166,006
Cash in Hand and at Bank	1,885,394	1,992,016	2,106,484	2,146,316
Stock in Trade, Goods, Live Stock, and other Movable Property	1,176,031	1,182,974	1,565,031	1,584,269
TOTAL VALUE OF ASSETS £	21,613,061	23,041,182	26,778,897	28,173,301

7. **Native Taxes.**—Under the provisions of the *Natives Taxation and Development Act*, No. 41 of 1925, which consolidated the various pre-Union and Union laws relating to the taxation of natives in the different provinces, a general tax of one pound (£1) sterling is levied upon every male adult native under the age of 65 who is domiciled in the Union, or who has resided in the Union for a period of twelve months, and, in addition, a local tax of 10s. per hut, subject to a maximum of £2, is imposed upon the occupier of every hut or dwelling in a native location in the Union, unless the occupier is the owner of an allotment of land held under quitrent title in the location in which the hut or dwelling is situated. The Act had effect as from the 1st January, 1926.

Originally, one-fifth of the general tax, together with any local tax or native quitrent collected in respect of any area not falling within the jurisdiction of certain named councils or boards, was paid into a special account called the "Native Development Account". In terms of section 5 of the *Native Trust and Land Act*, No. 18 of 1936, the Native Development Account was merged in the South African Native Trust with effect from the 31st August, 1936. The amounts paid in are applied to the maintenance, extension, and improvement of educational facilities amongst the natives, and for the further development and advancement of their welfare. As from 1st April, 1935, the share allocated for this purpose was increased from one-fifth to seven-twentieths; as from 1st April, 1936, to two-fifths; and as from 1st April, 1937, to three-fifths.

The subjoined table shows the collections, exclusive of the share which accrued to the S.A. Native Trust, during five financial years.

NATIVE TAX COLLECTIONS, FINANCIAL YEARS 1933-34 TO 1937-38.

Nature of Tax.	Province.				Total.
	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	
1937-38.	£	£	£	£	£
Under Act No. 41 of 1925 (after transfer of amounts due to the S.A. Native Trust)	92,068	116,820	318,148	37,946	564,982
Under previous legislation	1,429	4	21	973	2,427
TOTAL 1937-38 £	93,497	116,824	318,169	38,919	567,409
1936-37 £	123,763	161,895	429,604	56,262	771,524
1935-36 £	147,617	177,153	443,147	63,352	831,269
1934-35 £	181,380	217,622	514,262	75,920	989,184
1933-34 £	155,624	193,666	452,876	55,864	858,030

8. **Land Revenue.**—All quitrent charges, except in respect of certain special levies in the Cape Province, were abolished throughout the Union by Act No. 54 of 1934 (as amended by Act No. 49 of 1935 and Act No. 33 of 1937), with effect from 31st December, 1934. A short reference to the conditions under which quitrent was collected was contained in *Official Year Book* No. 15 and earlier issues.

The statement hereunder shows the amount of quitrent and farm taxes collected over a series of years.

QUITRENT AND FARM TAXES COLLECTED, 1913 TO 1938.

Year Ending 31st March.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Total.
	£	£	£	£	£
1913	101,322	5,082	20,075	15,699	142,178
1917	110,827	3,700	20,467	15,957	150,951
1921	105,124	3,044	20,169	16,082	144,419
1931	73,132	2,325	23,940	15,851	115,248
1932	63,265	2,310	18,704	17,091	101,370
1933	69,386	2,616	20,466	17,769	110,237
1934	69,557	2,349	22,809	17,882	112,597
1935*	44,769	686	14,706	2,571	62,732
1936*	22,137	239	6,421	433	29,230
1937*	19,120	526	4,004	259	23,909
1938*	12,088	42	2,215	148	15,393

* The majority of quitrents and all farm taxes were abolished as from 31st December, 1934, in terms of Act No. 54 of 1934, as amended.

9. **Interest.**—In the following table certain details are given of the revenue collected under the heading Interest during a series of financial years (1st April to 31st March):—

REVENUE FROM INTEREST, FINANCIAL YEARS 1932-33 TO 1937-38.

Interest from—	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
	£	£	£	£	£	£
Irrigation Loans	10,208	8,486	6,112	7,842	11,323	11,571
Lands	130,855	159,049	138,882	106,022	188,162	190,104
Cash Balances	917	1,986	30,631	32,305	29,335	1,041
Electricity Supply Commission Loans	401,240	473,077	487,609	—	—	—
S.A. Iron & Steel Industrial Corporation, Ltd.	—	—	—	—	—	170,039
Housing Loans and Local Loans Fund	184,276	190,291	187,745	152,683	134,916	123,104
Land Bank	687,783	631,013	637,067	580,611	528,811	518,597
Land Bank—Act No. 29 of 1933	—	2,707	200,605	319,465	421,140	450,552
Other Advances to Farmers*	73,579	130,514	100,372	105,065	137,855	209,291
Provincial Administrations	678,031	685,589	701,416	663,751	162,025	172,023
School and College Loans	120,347	128,254	120,600	124,431	103,219	97,387
South West Africa—Advances	82,668	97,105	104,038	108,931	117,169	161
National Road Board—Advances	—	—	—	—	167,718	161,535
Other	17,151	24,961	20,443	13,774	20,974	26,079
TOTAL.....£	2,387,055	2,513,032	2,747,525	2,214,885	2,325,900	2,470,544

* Includes advances under the Farmers' Special Relief Act and Drought Relief.

10. **Departmental Receipts.**—Full details of departmental receipts are now published in the annual reports of the Commissioner for Inland Revenue under more than one hundred and twenty headings. The following table gives a selection of the more important headings for a series of financial years (1st April to 31st March):—

REVENUE FROM DEPARTMENTAL RECEIPTS, FINANCIAL YEARS 1932-33 TO 1937-38.

Classification.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
	£	£	£	£	£	£
Agricultural Department—						
Guano	42,222	45,769	40,221	41,489	40,802	36,172
Veterinary	25,307	31,228	38,815	40,170	55,807	54,167
Other	44,921	46,101	36,651	42,409	49,083	54,129
Agricultural Schools and Farms	27,916	28,982	27,864	29,538	32,804	33,383
Defence	6,860	5,608	14,149	13,415	13,272	17,457
Education Department—						
Manufactures and Farm Produce	12,403	16,399	16,352	18,920	20,041	18,506
Railways (Audit and High Commissioner, London)	30,873	42,727	43,949	38,804	38,008	41,425
Mental Hospital Fees	64,974	68,967	73,160	76,992	76,721	75,583
Land Settlement Revenue	9,546	9,183	11,968	10,983	16,748	46,805
Assize Fees	28,488	27,519	29,436	30,268	31,153	33,641
Police	14,787	13,823	15,461	15,892	17,462	17,349
Printing and Stationery	61,217	64,450	78,673	70,451	87,024	92,637
Prison Labour	64,159	72,571	83,064	63,791	62,216	62,052
Public Health Fees	20,647	25,084	24,932	25,547	29,387	36,147
Artificial Limb Factory	3,453	4,409	3,026	3,552	4,530	2,796
Other	116,473	108,349	111,285	121,832	147,328	165,582
TOTAL.....£	574,246	611,259	649,006	644,044	722,486	788,074

11. **Miscellaneous Revenue.**—The subjoined table gives certain details of the revenue collected under the heading Miscellaneous Revenue during a series of financial years (1st April to 31st March):—

MISCELLANEOUS REVENUE, FINANCIAL YEARS 1932-33 TO 1937-38.

Classification.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
	£	£	£	£	£	£
Guardians' Fund — Surplus Interest	44,970	43,027	49,202	39,865	61,198	56,958
Royal Mint, Pretoria	60,319	20,625	31,024	22,731	361,277	174,603
South African Reserve Bank	—	—	40,572	87,111	103,773	98,969
Other	104,766	77,872	104,340	102,268	118,897	171,830
TOTAL.....£	210,055	141,524	225,138	251,975	645,145	502,360
Recoveries of Advances	19,550	30,077	35,121	40,671	67,527	36,857
Reparation Receipts	10	187	81	123	62	20
GRAND TOTAL.....£	229,615	171,788	260,340	292,769	712,734	539,237

12. **Postal Revenue.**—Particulars are given below of postal receipts and telegraph and telephone revenue for six financial years (1st April to 31st March):—

POSTAL REVENUE, FINANCIAL YEARS 1932-33 TO 1937-38.

Description of Revenue.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
	£	£	£	£	£	£
Postage	1,846,451	1,923,126	1,627,880	1,629,947	1,754,302	2,025,197
Commission (Money Orders and Postal Orders)	47,451	64,883	71,074	76,647	83,064	88,300
Rents of Private Boxes and Bags	45,787	46,425	47,770	43,253	46,383	48,684
Ocean Mail Service	139,731	182,674	171,536	148,381	148,191	124,247
Miscellaneous Postal Revenue	129,264	65,087	82,079	107,425	101,744	120,353
Telegraphs	395,320	456,922	481,629	516,007	578,352	592,561
Telephones	1,407,990	1,556,415	1,783,778	1,961,158	2,156,433	2,371,847
Official Telegraphs and Telephones	112,962	124,538	134,404	142,908	153,486	169,065
TOTAL.....£	4,124,956	4,420,070	4,400,150	4,625,726	5,021,955	5,540,254

13. Revenue Collected for Provinces.—Particulars are given below of revenue collected by government departments on behalf of the provinces, and passed through the account of the Commissioner for Inland Revenue, for a series of financial years (1st April to 31st March).

REVENUE COLLECTED FOR PROVINCES, FINANCIAL YEARS 1932-33 TO 1937-38.

Province.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
	£	£	£	£	£	£
Cape of Good Hope	1,350,591	1,568,337	1,770,289	1,821,896	2,004,[illegible]	2,[illegible]
Natal	421,111	465,112	505,091	519,963	559,[illegible]	[illegible]
Transvaal	1,585,018	1,806,407	2,237,767	2,455,307	2,81[illegible]	2,915,[illegible]
Orange Free State	357,341	356,108	476,910	439,666	511,184	562,784
TOTAL £	3,714,061	4,198,964	5,010,060	5,236,832	5,902,[illegible]	6,[illegible]

14. Revenue Collections, 1938-39 and 1939-40.—The following table gives the revenue collections (preliminary figures) for 1938-39 and the original estimates for 1939-40.

SUMMARY OF REVENUE COLLECTIONS.

Head.	1938-1939 Unaudited.	1939-1940 Estimates.
	£1,000	£1,000
Customs	9,555	10,011
Excise	2,914	3,000
Postal	2,387	2,353
Telegraphs and Telephones	3,334	3,360
State Mining	531	489
Income Tax	17,170	17,248
Licences	170	175
Stamp Duties and Fees	1,249	1,250
Death Duties	1,268	1,100
Native Taxes	547	525
Native Pass and Compound Fees	72	75
Quitrents and Farm Taxes	12	5
Forest Revenue	181	205
Rents of Government Property	184	175
Interest	2,758	2,635
Fines and Forfeitures	333	320
Departmental Receipts	832	810
Recoveries of Advances	26	34
Miscellaneous	440	340
TOTAL*	43,993	44,110

* Excludes amounts collected and credited to National Road Fund and S.A. Native Trust account.

§ 3. Expenditure of the Union.

1. Ordinary Expenditure of the Union.—The subjoined table gives the total expenditure of the Union Government charged against the Consolidated Revenue Fund [excluding, however, subsidies to Provincial Administrations, Grant to the S.A. Native Trust, and interest on Railway capital (see C. § 2 (2) and (3), and B. 1 (2)], during certain financial years (1st April to 31st March) from 1911-12. Expenditure is also shown (*a*) per head of the total population, and (*b*) per head of the European population only.

It should be noted that the portion of the export subsidies paid out of primage duty during 1931-32 and 1932-33 is included in the expenditure tables shown hereunder, although the Controller and Auditor-General's Report excludes the relevant amounts from the ordinary expenditure of the Union.

The estimates of expenditure for the years 1938-39 and 1939-40 are given in § 3, 2, hereunder.

ORDINARY EXPENDITURE OF THE UNION GOVERNMENT, AND EXPENDITURE PER HEAD OF THE POPULATION, FINANCIAL YEARS 1911-12 TO 1937-38.

Period.	Public Debt.	Posts, Telegraphs, and Telephones. *	General Government.	Total Ordinary Expenditure.	Per Head of Population.	Per Head of European Population.
	£	£	£	£	£ s. d.	£ s. d.
1911-12	1,629,001	1,491,204	7,105,504	10,225,709	1 14 2	7 19 9
1916-17	2,818,283	1,703,016	7,510,823	12,032,122	1 16 9	8 11 4
1921-22	3,452,896	3,202,585	14,419,898	21,075,379	3 0 8	13 16 10
1926-27	4,434,331	2,907,671	14,508,417	21,850,419	2 18 0	13 0 6
1929-30	4,854,390	3,231,432	16,328,048	24,414,770	3 1 10	13 16 3
1930-31	5,011,148	3,203,153	16,035,659	24,249,960	3 0 6	13 9 9
1931-32	4,567,827	3,089,141	15,318,696	22,975,664	2 16 6	12 11 2
1932-33	3,713,297	2,930,231	16,070,687	22,714,215	2 15 1	12 4 4
1933-34	5,870,075	3,006,813	18,404,840	27,281,728	3 5 2	14 8 8
1934-35	5,796,255	3,100,015	20,654,972	29,551,242	3 9 10	15 8 8
1935-36	5,575,217	3,426,190	21,134,384	30,135,791	3 3 10	15 5 4
1936-37	5,570,861	3,571,051	21,654,172	30,796,084	3 4 1	15 6 7
1937-38	5,348,434	3,985,214	23,295,296	32,628,944	3 6 7	15 19 4

* Includes civil aviation.

2. Ordinary Expenditure (Union).—Table (i) following shows in summarized form the amount (exclusive of interest on Railway capital) expended by the Union Government under various classes of ordinary expenditure, and Table (ii) gives an analysis of the various items of expenditure under each class, for each of six financial years (1st April to 31st March).

(i) GENERAL SUMMARY OF UNION EXPENDITURE, 1934-35 TO 1939-40.

Head.	1934-35.	1935-36.	1936-37.	1937-38.	1938-39.*	1939-40.*
	£	£	£	£	£	£
General Government	1,135,731	1,222,298	1,347,007	1,371,680	1,500,013	1,515,677
Law, Order, and Protection	5,057,876	5,324,573	5,740,401	6,284,430	6,544,407	6,663,843
Higher Education, Science, etc.	909,468	964,558	1,039,769	1,165,049	1,296,921	1,309,475
Labour and Social Welfare	901,273	1,383,144	955,860	1,273,234	2,119,423	1,719,721
Public Health	1,027,507	1,106,168	1,170,131	1,312,844	1,549,426	1,626,300
Commerce and Industries	194,569	271,477	409,141	280,206	321,908	141,643
Mining	508,336	486,140	520,812	618,180	825,900	816,161
Native Affairs	485,092	514,414	504,563	528,251	687,770	727,780
Land and Agriculture	2,950,752	2,082,323	2,162,408	2,294,456	2,708,801	2,576,939
Assistance to Farmers	2,968,524	3,036,496	2,348,192	1,609,619	1,803,000	1,272,400
Public Works	1,001,927	1,079,089	1,198,415	1,313,337	1,441,690	1,479,629
Posts and Telegraphs	3,100,015	3,426,190	3,571,051	3,985,214	4,244,930	4,374,970
Pensions	3,155,497	3,260,878	3,823,743	4,742,963	5,055,625	5,250,025
Public Debt	5,796,255	5,575,217	5,570,861	5,348,434	5,579,378	6,029,373
Government Printing Works	224,511	263,113	305,371	351,144	370,422	382,991
Miscellaneous	133,909	139,713	122,359	149,893	78,290	75,450
TOTAL	29,551,242	30,135,791	30,796,084	32,628,944	36,127,904	35,962,382
Provincial Subsidies, etc.†	5,905,024	6,383,978	6,451,311	6,654,761	6,764,474	6,857,225
GRAND TOTAL	35,456,266	36,519,769	37,247,395	39,283,705	42,892,378	42,819,607

* Estimates. See also paragraph 7.

† Includes a grant of £340,000 per annum, in respect of Native Education, to the S.A. Native Trust.

(ii) ANALYSIS OF UNION EXPENDITURE, 1934-35 TO 1939-40.

Head.	1934-35.	1935-36.	1936-37.	1937-38.	1938-39.*	1939-40.*
GENERAL GOVERNMENT.	£	£	£	£	£	£
Governor-General	23,602	25,115	28,543	25,671	27,750	25,170
Legislature—						
Senate	37,123	36,451	37,453	41,094	43,604	43,272
Assembly	135,923	133,986	136,200	139,752	133,362	143,282
Voters (Registration, etc.)	5,198	41,107	8,205	50,095	33,060	50,500
Prime Minister and External Affairs	128,170	141,743	136,750	131,535	180,199	167,979
Finance—						
Treasury	40,121	41,690	42,931	46,975	47,920	48,870
Pensions	33,503	33,190	36,935	48,808	45,780	50,225
Inland Revenue	150,702	159,212	170,030	177,935	189,942	200,170
Customs and Excise	231,785	249,672	268,934	291,929	326,200	315,185
Provincial Administrators	9,058	9,033	8,926	9,033	9,300	9,300
Commissions, Expenses of	22,955	17,759	12,004	10,196	13,000	8,000
High Commissioner	70,133	72,766	75,035	79,096	77,052	78,000
Audit, Union and Provincial	67,168	69,327	70,235	76,876	82,923	82,503
Interior—						
Administration	50,222	55,341	57,078	64,572	67,160	73,550
Archives	9,219	8,677	9,998	13,956	14,245	13,550
Census and Statistics	20,064	35,864	145,103	65,062	56,200	61,110
Immigration	55,508	53,531	62,322	49,933	72,165	63,400
Translation Bureau	4,776	4,725	5,415	8,124	8,450	11,080
Other	6,714	6,906	7,572	9,074	33,100	33,150
Public Service Commission	24,427	26,203	27,428	28,956	32,520	31,350
TOTAL	1,135,731	1,222,298	1,347,007	1,371,680	1,500,013	1,515,677
LAW, ORDER, AND PROTECTION.						
Justice	92,210	96,066	104,593	105,358	93,000	95,000
Superior Courts	243,729	259,283	254,908	265,796	266,500	277,670
Magistrates	598,299	613,567	640,721	686,191	699,720	750,250
Prisons and Gaols	609,885	631,791	644,314	663,367	712,823	712,823
Police	2,430,179	2,519,264	2,575,203	2,719,969	2,932,618	3,057,719
Defence—						
Replacement Funds	170,000	90,000	320,000	231,500	—	—
Special Service and Pioneer Battalions	67,287	92,556	91,479	85,506	93,000	101,000
Other	793,661	972,642	1,064,200	1,471,124	1,669,100	1,717,930
Deeds Registration	47,626	49,404	50,978	55,619	67,346	69,951
TOTAL	5,057,876	5,324,573	5,746,401	6,284,450	6,544,107	6,802,843
HIGHER EDUCATION, SCIENCE, ETC.						
Higher Education	853,605	903,321	972,155	1,093,216	1,216,178	1,231,105
Meteorology	14,090	16,616	18,602	20,645	25,573	21,930
Museums, Astronomy, and Archaeology	4,358	7,101	6,953	7,348	7,995	7,500
Grants to Libraries, Art Galleries, etc.	37,415	37,520	42,059	43,840	47,265	45,940
TOTAL	909,468	964,558	1,039,769	1,165,049	1,296,921	1,306,475
LABOUR AND SOCIAL WELFARE.						
Administration	88,233	93,737	116,251	151,204	213,304	220,067
Special Service and Pioneer Battalions	67,244	92,685	91,329	85,677	78,000	84,000
Rural Unemployment	22,747	22,442	23,015	18,610	9,800	9,535
Other Unemployment	403,245	676,720	167,409	208,514	330,000	307,000
Industrial Schools and Reformatories	137,203	148,069	159,051	178,458	178,358	183,491
Child Welfare	153,963	217,683	238,644	297,061	382,940	365,000
Other Social Expenditure	26,650	123,910	157,016	329,625	923,371	545,978
Other Expenditure	1,988	2,889	3,145	4,085	3,650	4,650
TOTAL	901,273	1,383,144	955,860	1,273,234	2,119,423	1,719,721
PUBLIC HEALTH.						
Administration	45,395	50,496	52,337	53,798	63,461	65,763
Venereal Diseases Hospitals	50,910	52,628	57,575	64,580	74,424	77,469
Tuberculosis	31,560	47,006	46,674	71,273	122,726	109,980
Leper Institutions	101,120	105,556	111,284	115,671	122,278	125,526
Mental Hospitals	554,166	587,585	620,236	684,948	729,000	807,850
Other	244,356	262,297	282,025	322,574	437,537	437,612
TOTAL	1,027,507	1,106,168	1,170,131	1,312,844	1,549,426	1,626,300

* Estimates.

(ii) ANALYSIS OF UNION EXPENDITURE, 1934-35 TO 1939-40—(*continued*).

Head.	1934-35.	1935-36.	1936-37.	1937-38.	1938-39.*	1939-40.*
COMMERCE AND INDUSTRIES.	£	£	£	£	£	£
Administration	26,995	26,842	32,856	34,116	37,534	41,114
Assize Division	21,804	23,747	24,680	25,499	28,455	35,458
Trade Commissioners	15,592	19,878	20,628	21,314	19,981	20,895
Fisheries and Marine Biological Survey	7,936	7,811	9,466	12,968	12,734	13,556
Fuel Research Institute	—	6,700	9,722	8,548	9,000	9,000
Shipping Subsidies	112,500	150,000	150,000	150,000	187,500	—
Other	9,742	36,499	161,789	27,761	26,644	21,620
TOTAL	194,569	271,477	409,141	280,206	321,908	141,643
MINING.						
Administration	67,828	73,178	74,911	82,124	86,405	86,442
Engineering	83,122	105,511	106,255	122,932	134,905	127,876
Geological Survey	17,039	21,751	28,013	31,001	36,545	42,593
Miners' Phthisis	93,617	63,050	64,983	68,352	78,660	80,000
Miners' Training Schools	15,139	20,000	27,050	33,831	40,920	40,000
District Mining Development	68,907	30,416	28,463	73,651	233,150	224,925
Diamond Diggings	15,393	14,467	14,214	13,601	9,200	9,000
State Alluvial Diggings	140,285	150,880	165,044	181,613	200,000	200,000
Other	6,767	6,887	11,249	9,075	6,115	5,325
TOTAL	508,336	486,140	520,812	618,180	825,900	816,161
NATIVE AFFAIRS.						
Administration	319,938	333,171	367,477	399,825	495,070	541,280
Subsidies and Allowances to Chiefs	37,154	37,750	37,692	39,371	40,000	50,000
Soil Erosion	22,010	37,272	43,332	48,394	75,000	50,000
Blind Natives	—	—	—	18,070	46,000	60,000
Other	105,990	106,221	56,062	22,591	31,700	26,500
TOTAL	485,092	514,414	504,563	528,251	687,770	727,780
LANDS AND AGRICULTURE, ETC.						
Lands	181,010	243,321	219,728	257,295	411,000	357,727
Agriculture	2,129,245	1,158,691	1,235,920	1,262,367	1,384,245	1,250,080
Surveys	88,508	104,774	106,777	97,069	110,759	111,545
Agriculture (Education)	154,989	166,013	170,720	191,001	213,960	216,378
Forestry	202,728	206,690	215,320	236,651	270,410	288,509
Irrigation	194,272	202,834	213,943	250,073	318,427	322,700
TOTAL	2,950,752	2,082,323	2,162,408	2,294,456	2,708,801	2,576,939
ASSISTANCE TO FARMERS.						
Administration	85,985	99,970	117,304	113,076	122,300	121,700
Export Subsidies	1,850,000	2,000,000	1,191,428	306,825	150,000	140,000
Interest Subsidies	834,005	755,702	674,093	592,906	750,000	620,000
Rebates on Railway Rates	165,534	134,886	233,869	283,584	274,700	274,700
Other	33,000	47,938	131,498	313,228	506,000	116,600
TOTAL	2,968,524	3,036,496	2,348,192	1,609,619	1,803,000	1,272,400
PUBLIC WORKS.						
Administration	225,159	253,891	283,407	313,145	324,850	333,439
Rents, Rates, Lighting, etc.	275,443	269,843	282,625	324,302	335,000	357,500
General Maintenance Services	92,340	97,614	113,013	135,339	131,000	135,000
Repairs and Alterations	177,349	182,264	194,164	216,797	250,000	240,000
Minor Works	89,174	104,682	110,390	134,591	153,800	171,000
Defence Properties	75,399	90,644	88,489	84,963	135,200	116,200
Other	67,063	80,151	126,327	104,200	111,840	126,490
TOTAL	1,001,927	1,079,089	1,198,415	1,313,337	1,441,690	1,479,629
POSTS AND TELEGRAPHS.						
Administration	2,065,985	2,185,900	2,309,685	2,510,177	2,609,300	2,687,300
Conveyance of Mails	472,945	475,479	485,335	600,388	700,500	702,200
Maintenance	431,567	454,320	485,845	573,816	599,000	648,000
Renewals and Replacements	—	186,000	186,000	186,000	186,000	186,000
Civil Aviation	78,445	60,599	44,341	29,404	37,130	38,370
Other	51,073	63,892	59,845	85,429	113,000	113,100
TOTAL	3,100,015	3,426,190	3,571,051	3,985,214	4,244,930	4,374,970

* Estimates.

(ii) ANALYSIS OF UNION EXPENDITURE, 1934-35 TO 1939-40—(*continued*).

Head.	1934-35.	1935-36.	1936-37.	1937-38.	1938-39.*	1939-40.*
	£	£	£	£	£	£
PENSIONS.						
War Allowances and Payments.	671,663	671,286	685,619	666,376	656,075	627,025
Civil Pensions and Allowances..	942,884	941,748	1,026,379	1,077,303	1,066,100	1,042,900
Contributions to Pension Funds	453,314	503,923	743,417	809,107	938,200	837,350
Old Age Pensions	1,025,262	1,075,433	1,291,389	2,050,032	2,250,000	2,500,000
Blind Persons' Pensions	—	—	5,445	57,389	67,000	75,200
Miscellaneous	62,374	68,488	71,503	82,761	78,250	80,750
TOTAL	3,155,497	3,260,878	3,823,743	4,742,968	5,055,625	5,250,025
Public Debt	5,790,255	5,575,217	5,570,861	5,348,434	5,579,378	6,020,378
Government Printing Works	224,511	263,113	305,371	351,144	370,422	382,091
Miscellaneous	133,909	139,713	122,359	149,808	78,290	75,450
PROVINCIAL SUBSIDIES, ETC.						
Cape of Good Hope	2,402,003	2,513,633	2,527,718	2,625,799	2,677,975	2,730,535
Natal	560,728	641,733	649,584	669,926	678,035	687,200
Transvaal	1,866,858	1,951,851	1,997,248	2,081,149	2,131,702	2,176,527
Orange Free State	735,435	936,761	936,761	937,887	936,762	936,762
S.A. Native Trust	340,000	340,000	340,000	340,000	340,000	340,000
TOTAL	5,905,024	6,383,978	6,451,311	6,654,761	6,764,474	6,870,225

* Estimates.

3. Pensions.—Details of civil and war pensions for which the Union Government was responsible at 30th September, 1938, are given in the subjoined tables:—

PARTICULARS OF PENSIONS AT 30th SEPTEMBER, 1938.

Details.	No.	Amount.*
		£
CIVIL PENSIONS.		
Male Pensioners	8,523	1,460,865
Female Pensioners	1,602	80,228
Industrial Disturbances, 1922—		
Disability Pensions	34	1,982
Widows' and other Dependants' Pensions	52	5,514
TOTAL	10,211	1,554,589
WAR PENSIONS.		
Disability Pensions	4,699	289,934
Widows' and other Dependants' Pensions	4,046	310,962
Grants to Aged or Infirm ex-Soldiers (Indigents)	31	1,110
Grants to Aged or Infirm Widows of ex-Soldiers (Indigents)	4	144
TOTAL	8,780	602,150

* Net annual value.

4. **State Assistance to Farmers.**—(i) *Functions of State Advances Recoveries Office.*—The State Advances Recoveries Office was established with effect from the 1st April, 1935, in terms of section 1 (i) of the *State Advances Recoveries Act*, No. 37 of 1935, for the purpose of centralizing, as far as possible, the collection and administration of all loans granted for the purpose of assisting farmers. As a commencement the loans previously administered by the Land and Agricultural Bank and granted in terms of the *Drought Distress Relief Act*, No. 16 of 1924, the *Farmers' Special Relief Act*, No. 4 of 1931, and the *Drought and Flood Distress Relief Act*, No. 25 of 1927, were transferred to this office, together with loans granted to small tenant farmers.

The rights and powers conferred upon the Managing Director and the General Manager of the Land and Agricultural Bank under prior legislation were transferred to the Secretary of the State Advances Recoveries Office by Act No. 37 of 1935.

During the year 1935-36 the administration of certain loans was taken over from the Department of Agriculture and Forestry, such as advances for seed wheat, 1920, 1923, 1924, 1925, and 1926, tenant farmers' scheme, 1931-32, and advances for the issue of maize, 1933. The foregoing were all from loan funds.

The office also took over the collection of the following advances from revenue funds:—

(*a*) From the Department of Agriculture and Forestry: Advances in connexion with fencing, flood distress relief, issue of seed wheat, 1927, branding irons, and conveyance of stock from drought-stricken areas; and

(*b*) from the Departments of Labour and Social Welfare: Advances in connexion with the relief of distress, rehabilitation, and housing loans.

The rest of the loans to be transferred from these departments were taken over at the 1st April, 1937, and the loans of certain Agricultural Credit Societies and Livestock Societies were taken over from the Land and Agricultural Bank during the year 1936-37.

(ii) *Farmers' Assistance Act*, 1935.—Owing to the severe drought and depression during the previous few years, it was found necessary during the 1935 Session of Parliament to make further provision for assisting the farming community. As a result the *Farmers' Assistance Act*, No. 48 of 1935, was passed, which makes provision for loans for rehabilitating farmers and sets up machinery for arranging compromises with their creditors, while section 5 of the *State Advances Recoveries Act*, No. 37 of 1935, provides for the granting of loans to purchase stock.

In terms of section 2 of the *Farmers' Assistance Act*, No. 48 of 1935, a board, known as the Farmers' Assistance Board and consisting of three persons, was appointed by the Minister, together with a consultative member for each province. This Board is responsible for the consideration of applications under the Act and the granting of assistance in terms of its provisions.

Local committees were established in the various districts throughout the Union for the purpose of investigating local applications and furnishing the Board with their recommendations thereon.

Section 9 of the Act provides that for the purpose of carrying out the provisions of the Act the Board may perform any one or more of the following Acts:—

(*a*) On such terms as it may deem fit, lend money to an applicant on mortgage of the whole or any part of his immovable property;

(*b*) acquire the whole or any part of the movable or immovable property belonging to an applicant or to his insolvent or assigned estate, or to the estate of the deceased spouse, child, or parent of an applicant;

(*c*) upon such terms as it may deem fit, let or sell any property so acquired to the applicant in question or to his spouse, child, or parent, or to any other person;

(*d*) acquire any live stock or other farming requisites and let or sell them, on such terms as it may deem fit, to the applicant or to any person to whom the Board has let or sold any property in terms of paragraph (*c*).

The principal object of this legislation is to assist farmers—

(a) whose liabilities exceed the reasonable value of their assets, when efforts are made to arrange a compromise with creditors, or,

(b) who, by reason of the extent of their liabilities, or owing to the lack of stock or the means of properly working their land, are unable to continue farming operations with a reasonable prospect of success.

The Act came into force on the 1st June, 1935, and some time was naturally required to bring the necessary machinery into full operation. Thousands of applications for assistance were received from farmers who found themselves in financial difficulties, or who required additional stock to enable them to continue farming.

All purely re-stocking applications were closed as at 31st March, 1936, but applications for rehabilitation advances were continued, money being granted for stock where necessary, in addition to assistance for the payment of debts.

The following disbursements were made from loan and revenue funds during the financial years 1935-36 to 1937-38 in connexion with loans granted to farmers:—

	1935-36.	1936-37.	1937-38.
Loan Funds.	£	£	£
Tenant Farmers, section 5 of Act No. 37 of 1935	555,759	511,314	[illegible]
Farmers' Assistance Act, No. 48 of 1935	543,157	2,241,258	[illegible]
Properties purchased, section 9 (b) of Act No. 43 of 1935	572	157,238	[illegible]
Restocking loans granted prior to 1st April, 1935, but paid out during 1935-36, 1936-37, and 1937-38	98,823	2,873	[illegible]
	£1,198,311	2,915,683	[illegible]
Revenue Funds.			
Compulsory Fencing Private Lands, Act No. 17 of 1912	—	378	[illegible]
Rural Rehabilitation and Housing Scheme	263	1,301	[illegible]
	£263	1,679	[illegible]

(iii) *Loans Outstanding.*—The sum outstanding against farmers in respect of loans granted by the Land and Agricultural Bank of South Africa and other government departments, the administration of which was transferred to the State Advances Recoveries Office, in terms of Act No. 37 of 1935, as well as in respect of loans granted by the Farmers' Assistance Board, increased from £8,664,095 at 31st March, 1937, to £10,800,009 at 31st March, 1938.

Capital repayments by farmers increased from £376,413 during 1936-37 to £469,374 during 1937-38.

For advances made by the Land and Agricultural Bank on behalf of the Government under section 20 of Act No. 29 of 1933, see Chapter XVI. § 3.

(iv) *Administration Costs.*—The cost of administering the loans taken over and the loans granted by the Farmers' Assistance Board, and the cost of the Board and local committees, totalled £77,900 in 1936-37 and £84,785 in 1937-38.

5. **Special Assistance to Farmers.**—The subjoined table gives a summary of special assistance given by the Government to farmers from 1934-35.

SPECIAL ASSISTANCE TO FARMERS, 1934-35 TO 1939-40.

Service.	1934-35.	1935-36.	1936-37.	1937-38.	1938-39.*	1939-40.*
	£	£	£	£	£	£
Administration Expenses, State Advances Recoveries Office	31,981	66,438	78,004	85,285	93,600	98,000
Landbank—Act No. 29 of 1933	43,841	25,805	35,345	25,000	25,000	20,000
Farm Mortgage Interest Act	10,163	7,727	3,955	2,791	3,700	3,700
Export Subsidy Account	1,850,000	2,000,000	1,191,428	306,825	150,000	110,000
Interest Subsidies	834,005	753,702	674,093	592,906	750,000	620,000
Wheat Pool Deficit	33,000	—	—	—	—	—
Contribution for Wheat Storage Adjustment of Outstanding Promissory Notes	—	—	4,085	6,360	—	—
Rebate on Railway Rates	165,534	37,962	1,257	460	1,000	1,000
Mealie Quota Certificates (Redemption)	—	134,886	233,869	283,584	274,700	274,700
Subsidy to Purchase Bulls	—	—	51,104	200,000	300,000	—
Other Assistance	—	9,976	74,802	102,744	100,000	100,000
	—	—	250	3,664	15,000	15,000
TOTAL £	2,968,524	3,036,496	2,348,192	1,609,619	1,803,000	1,272,400

* Estimates.

6. **Salaries, Wages, and Allowances.**—The following table gives the expenditure on salaries, wages, and allowances in all government departments for a period of years:—

EXPENDITURE—TOTAL SALARIES, WAGES, AND ALLOWANCES PAID IN GOVERNMENT DEPARTMENTS, 1911-12 TO 1937-38.

Department.	1911-12.	1916-17.	1921-22.	1926-27.	1932-33.	1935-36.	1936-37.	1937-38.
	£	£	£	£	£	£	£	£
Agriculture....*m*	352,842	309,227	576,147	588,731	535,490	626,025	674,521	730,355
Audit	50,894	40,575	72,687	67,810	61,006	64,414	64,978	71,608
Census and Statistics....*n*	100,114*i*	7,825	60,743	33,826	27,534	23,258	32,702	23,957
Deeds Registration	27,382	26,899	50,188	47,580	44,312	48,315	49,641	53,918
Defence	152,022	2,991,349*d*	810,055*c*	411,725	339,435	423,293	473,218	540,801
External Commercial and Diplomatic Representatives	*e*	*e*	*e*	14,101	34,168	74,959	75,316	72,563
Forestry	34,214	40,546	85,967	86,779	91,570	100,354	103,776	118,046
Governor-General's Office...*a*	7,489	5,497	7,256	6,194	3,774	4,708	5,739	5,946
High Commissioner	22,613	21,397	52,509	34,917	26,623	36,752	37,931	41,002
Higher Education and Science...*f*	14,115	13,307	16,175	32,477	36,033	55,008	62,474	69,952
Industrial Schools and Child Welfare	2,370	6,937	26,351	36,222*g*	40,973*g*	46,496*g*	47,561*g*	52,369*g*
Interior	55,418	39,086	47,177	46,453	47,559	58,674	63,555	84,164
Irrigation	27,273	35,412	62,633	109,168*h*	89,279*h*	99,180*h*	106,085*h*	115,625*h*
Justice	50,420	51,281	68,316	65,154	66,161*k*	79,824*k*	86,293*k*	89,852
Labour, Factories, and Social Welfare	1,863	2,813	34,780	77,826	68,252	87,870	106,648	136,312
Lands	29,115	39,007	83,369	86,510	92,044	94,489	104,359	120,087
Legislature—								
Elections, etc.*b*	16,464	19,536	32,945	38,452	38,276	46,833	50,048	52,029
Magistrates	340,944	344,618	482,798	489,274	443,243	517,702	540,622	575,689
Mines and Commerce and Industries	126,152	110,043	179,073	166,289	133,751	183,994	202,765	230,907
Native Affairs	211,261	198,112	317,749	239,507	249,712	283,999	313,616	343,195
Police	1,078,602	1,118,870	2,425,470	2,154,020	1,901,134	2,068,956	2,109,493	2,246,311
Posts, Telegraphs, etc.	1,025,738	1,237,494	2,412,005	2,207,762	2,199,278	2,299,041	2,570,468	2,805,247
Prime Minister and External Affairs	7,092	6,450	8,719	9,848	14,415	22,261	22,195	22,191
Printing and Stationery	81,106	67,977	122,325	128,606	81,723	106,702	118,748	129,774
Prisons	247,171	296,828	553,182	476,684	395,866*k*	446,233*k*	454,753*k*	485,409
Public Health	158,723	182,048	398,559	427,661	447,229	539,283	563,126	582,914
Public Service Commission	—	4,918	11,154	25,885	17,579	24,065	25,218	27,249
Public Works	142,733	123,220	225,346	203,859	176,757	228,352	253,221	282,990
Reformatories	7,387	17,859	40,518	35,701	32,370	26,820	30,824	37,212
Superior Courts	145,621	128,999	166,494	165,092	157,784	184,312	186,633	191,580
Survey	35,456	30,124	59,669	53,417	59,093	67,519	73,617	81,913
Treasury	226,148	208,143	412,185	387,084	394,727*j*	461,516*j*	516,954*j*	565,535*j*
TOTAL £	4,778,657	7,717,397	9,902,547	8,954,614	8,347,150	9,436,207	10,127,108	10,983,602

a Excluding salary of Governor-General (£10,000).
b Excluding allowances paid to Senators and Members of the House of Assembly.
c Includes £42,534 for industrial disturbances.
d The major portion of this expenditure was met from Loan Account.
e Included in the amount paid to the staff of the High Commissioner.
f Includes Museums, Astronomy, and Meteorology, but excludes Vocational Schools.
g The amount paid out in respect of the Head Office administration included in "Higher Education and Science."
h Includes salaries paid in respect of reconnaissance surveys, boring, and maintenance of government irrigation works.
i Includes cost of Population, Agricultural, and Industrial Census enumerations.
j Includes salaries paid to customs investigation officers, from 1930-31, and to State Advances Recoveries Office (formerly Farmers' Special Relief Board) from 1931-32.
k Includes expenditure on the Head Office administration of the Prisons Department, for the years 1932-33, 1935-36, 1936-37.
l For these years the expenditure on Head Office administration is included in that of the Department of Justice.
m Includes expenses of Export Subsidy Account from 1931-32.
n Up to 1936-1937, included salaries of Births, Marriages and Deaths Registries. From 1937-38 this item is included under Interior.

7. **Estimates of Revenue and Expenditure.**—The following table shows the estimates of ordinary revenue and expenditure for 1938-39 and 1939-40.

The details of expenditure for 1938-39 given in paragraph 2 above do not include the additional appropriations, which amounted to £488,344. The chief items comprised: Additional Grants to Provincial Administrations, £73,202; Agriculture, £237,300; and Public Works, £50,902. For 1939-40 the details do not include the Supplementary Estimates (U.G. No. 23-1939), the chief of which are: Police, £110,000; Special Grant to Provinces, £160,000; Defence, £378,750; Social Welfare, £27,000; Agriculture, £41,386; and Assistance to Farmers, £856,500 (including special contribution towards reduction of transport costs, £800,000).

ESTIMATES OF REVENUE AND EXPENDITURE.

Heading.	1938-39.	1939-40.
	£	£
Expenditure—		
Original Estimate of Expenditure*	42,892,378	44,442,011
With Additional Appropriations	43,380,722	—
Issues less Expected Surrenders	42,400,000	—
Revenue—		
Original Estimate of Revenue	42,346,000	44,110,000
Revised Estimate of Revenue	43,757,000	—
SURPLUS	1,357,000	– 332,011

* Including supplementary estimates.

C. REVENUE AND EXPENDITURE OF PROVINCES.

§ 1. Financial System of Provinces.

There is a provincial revenue fund in every province, into which all revenues raised or received by the province are paid. Appropriations are effected by Ordinance of the Provincial Council. It is only under the authority of such an Appropriation Ordinance that any withdrawal from the fund may take place. The provincial accounts are audited in each case by an auditor appointed and paid by the Union Government.

With the approval of the Treasury, a Provincial Administration may borrow during any financial year such sum as may be required to meet a deficit in the provincial revenue fund.

§ 2. Ordinary Revenue of Provinces.

1. **Sources of Revenue.**—From the date of Union (31st May, 1910) until the 31st March, 1913, after which date the *Financial Relations Act*, No. 10 of 1913, became operative, the provincial expenditure was met from subsidies issued by the Union Government [see Section A (7) of this chapter]. From the 1st April, 1913, until the 31st March, 1925, the Union Government contributed an annual subsidy amounting, broadly speaking, to one-half of the ordinary expenditure for the year, though the grant was curtailed from 1921. In the case of Natal and the Orange Free State a special annual grant was provided for by section 5 (i) (*b*) of the Act above mentioned, under which each of these two provinces received £100,000 in addition from the Union Treasury. Certain other sources of revenue within each province were made available from the 1st April, 1913, particulars of which are contained in the tables relating to revenue collections (par. 3 hereunder).

Under the *Provincial Subsidies and Taxation Powers (Amendment) Act* of 1925, which became effective on the 1st April, 1925, the sources of provincial revenue were restricted to (i) a subsidy from the Union Government based on the number of pupils and students in average attendance at educational institutions within the province; (ii) certain revenues collected by the Union Government and transferred to the provinces, e.g. transfer duty, native pass fees, liquor licences, and trading, professional, and occupational licences; (iii) a specified list of taxes or fees [see Section A (7) of this chapter], in regard to which the province has full legislative powers.

In the Transvaal a special source of revenue exists in the pass fees paid by natives. In the Cape, Natal, Transvaal, and Orange Free State Provinces there are taxes on totalizators. The Cape, Natal, and Orange Free State Provinces, and the Transvaal since the 1st December, 1931, have obtained revenue from an entertainment tax. In the Transvaal and Orange Free State Provinces some revenue is derived from auction dues. In the Cape Province a considerable revenue is obtained from the property tax. With these exceptions the revenue collected may be grouped under the main heads of (*a*) transfer duty, (*b*) liquor licences, (*c*) general licences, including trading and vocational licences, motor licences, and various other licences, including those for dogs, game, and fisheries, (*d*) personal and provincial income taxes, and (*e*) miscellaneous departmental receipts, of which school and educational fees make up a considerable part, and hospital fees some further part.

The following statement contains information regarding taxes payable in each province. Particulars of trading and other licences in operation in the different provinces will be found in Chapter XXIV of this *Year Book*.

PARTICULARS OF PROVINCIAL TAXATION.

Designation of Tax.	Particulars.
Auction Dues.....	*Transvaal.*—1 per cent. on amount of each sale of fixed property or lease, and agricultural and pastoral produce (including meat), and 2½ per cent. on amount of each sale of all other produce (*Ordinance No. 9 of 1923*). *Orange Free State.*—1 per cent. on amount of each sale of immovable property and 2 per cent. on amount of each sale of movable property or live stock (*Ordinance No. 9 of 1934*). Sales by the market master of any local authority of ordinary farming produce, including wild animals and the skins and hides of wild animals, but excluding live stock and wool, are exempt. Sales of wool by a licensed auctioneer who has an established wool auction market are exempt, subject to compliance with certain prescribed conditions (*Ordinance No. 9 of 1934*).
Betting and Racing Taxes (*a*) *Bookmakers*.....	*Cape of Good Hope.*— (i) Annual registration fee (licence)..... £5 0 0 (ii) For the right to bet at Tattersalls :— In Capetown and Port Elizabeth..... 50 0 0 Elsewhere..... 25 0 0 (iii) For every race meeting at which the bookmaker carries on his occupation :— Gold Ring— If he has paid the fee for the right to bet at Tattersalls, for each race meeting :— In the Cape Division..... 2 2 0 Elsewhere..... 1 1 0 If he has not paid the fee for the right to bet at Tattersalls, for each race meeting :— In the Cape Division..... 5 5 0 Elsewhere..... 3 3 0 Silver Ring— For each race meeting in the Cape Division and elsewhere..... 1 1 0 (iv) On his winnings arising from bets made on any race course on races which are run on the same day on that race course..... 5 per cent. On the gross amount staked with him in respect of bets which he has made at Tattersalls and which he has won 5 per cent. On the gross amount staked with him in respect of bets which he has made on a race course on races run elsewhere than on such race course, and which he has won 5 per cent. (*Ordinance No. 8 of 1921* as amended by *Ordinance No. 6 of 1937*). *Natal.**—Annual licence. Gold Ring, £50 per annum; Silver Ring, £15 per annum. *Transvaal.*—5 per cent. of gross losings, to be paid by bookmakers, in certain cases 2½ per cent. (*Ordinance No. 26 of 1925*). *Orange Free State.*—(i) Bookmaker's licence, £10 per annum; (ii) Tax on bookmaker's bettings: (*a*) £2. 2s. 0d. per diem in respect of every race meeting he attends; (*b*) 5 per cent. on his winnings on any race run in the Union; (*c*) 10 per cent. on his winnings on any race run outside the Union; (iii) Tax on public betting: 5 per cent. on winnings from bookmakers (*Ordinance No. 4 of 1931*).
(*b*) *Bettors*.....	*Cape of Good Hope.*—5 per cent. upon any amount payable to him by a bookmaker at Tattersalls; 5 per cent. upon amount payable to him by a bookmaker on a racecourse, in respect of any bet made on races run elsewhere than on such racecourse (*Ordinance No. 23 of 1932*, as amended by *Ordinance No. 15 of 1934*). *Natal.*—½ per cent. on all bets made on a racecourse, and 6¼ per cent. when made in a betting club room, the bookmaker or bettor paying on his winnings (*Ordinance No. 17 of 1922*, as amended by *Ordinance No. 6 of 1923*).

* A reduction is made in respect of licences issued after the 30th June in any year.

PARTICULARS OF PROVINCIAL TAXATION—(*continued*).

Designation of Tax.	Particulars.
Betting and Racing Taxes—(continued).	
(c) *Betting Room*.....	*Natal.**—Annual licence from £25 to £100 per annum according to area.
	Orange Free State.—Annual licence £25 in respect of a specified room established in Bloemfontein by Orange Free State Tattersalls Club and in respect of a specified room in any other town in which the said club may establish a branch (*Ordinance No. 4 of 1931*).
(d) *Racecourse*.....	*Natal.**—Annual licence from £5 to £50 per annum according to area.
	Transvaal.—Licence for any period of twelve calendar months payable only in respect of dog or whippet racecourse, £15 (*Ordinance No. 3 of 1926*, as amended by *Ordinance No. 15 of 1933*).
(e) *Totalizators*.....	*Cape of Good Hope.*—4¼ per cent. of amount of commission (exclusive of the first £200 of gross takings in respect of totalizators other than at Kenilworth and Milnerton) received by licence-holder; commission of latter must not exceed 12½ per cent. of gross takings (*Ordinance No. 28 of 1931*, as amended by *Ordinance No. 23 of 1932*, *Ordinance No. 15 of 1934*, and *Ordinance No. 16 of 1935*).
	Natal.—6¼ per cent. of total amount paid in, 3 per cent. when total is less than £1,000 and 4 per cent. when total is less than £2,500 (*Ordinance No. 12 of 1918*, as amended by *Ordinance No. 7 of 1921*), 5 per cent. when total is less than £7,000 (*Ordinance No. 12 of 1918*, as amended by *Ordinance No. 7 of 1921* and *Ordinance No. 15 of 1927*).
	Transvaal.—(i) Horseracing—4½ per cent. of gross takings; 2 per cent. of net takings which are undistributed after a dividend has been declared; 2 per cent. on dividends unpaid three months after they are declared (*Ordinance No. 9 of 1927*); (ii) Dog (other than whippet) racing—at the same rates payable in respect of horseracing, but only in respect of those race meetings at which the gross takings of the totalizators exceed £350 (*Ordinance No. 3 of 1926*, as amended by *Ordinance No. 15 of 1933*); (iii) Whippet racing—at the same rates payable in respect of dog (other than whippet) racing, provided that in respect of any race meeting at which the gross takings exceed £350 the first £350 of the gross takings are exempt. The holder of a totalizator licence is, however, subject to a minimum totalizator tax of £15 (*Ordinance No. 3 of 1926*, as amended by *Ordinance No. 15 of 1933* and *Ordinance No. 8 of 1934*).
(f) *Admission to Racecourses*	*Transvaal.*—20 per cent. of all payments for admission to a racecourse (*Ordinance No. 18 of 1917*).
Companies Tax.....	(See under Personal, Income, and Company Taxes below.)
Dog Tax.....	*Natal.*—10s. per annum for each dog over six months (*Dog Tax Law No. 27, 1875*, as amended by *Ordinances Nos. 6, 1921; 22, 1926; and 5, 1927*). Dog tax collectable in areas under the jurisdiction of boroughs or townships accrues to the borough or township revenue funds—*vide* section 3, Law No. 27 of 1875, section 10, Law No. 39 of 1884, and section 2, *Ordinance No. 11 of 1926*.
	Orange Free State.—Annual tax of 10s. for each dog of the age of six months or over, provided that in respect of any dog which is acquired, or which attains the age of six months, after the 30th September in any year the tax shall be 5s. Registered members of recognized vermin hunt clubs may be granted exemption in respect of *one dog only*, for which a fee of 1s. is payable. Exemption is also granted for a period of one month in respect of dogs brought into the province for purposes of exhibition (*Ordinance No. 8 of 1932* as amended by *Ordinance No. 5 of 1935*).
	Transvaal.—Kaffir hunting dog, or greyhound or dog of a similar kind, over the age of six months, £5 per annum; greyhound or dog of a similar kind kept solely for racing purposes, 10s. per annum; any other kind of dog, 10s. per annum; a breeder of dogs which are registered with the South African Kennel Union, £5 per annum for more than ten dogs. The tax is not payable within the area of any municipality or health committee in which by-laws or regulations governing the licensing of dogs are in force (*Ordinance No. 18 of 1933*).
Entertainment Tax.....	*Cape of Good Hope.*—Where payment, excluding the amount of tax, does not exceed 6d., 2d.; exceeds 6d. but does not exceed 1s. 6d., 3d.; exceeds 1s. 6d. for every 6d. or portion of 6d. an additional 1d. (*Ordinance No. 23 of 1930*, as amended by *Ordinance No. 30 of 1932*).
	Natal.—Tax for every payment not exceeding 6d., 1d.; 1s., 2d.; 1s. 6d., 3d.; 2s., 4d.; 2s. 6d., 5d.; 3s., 6d.; 4s., 9d.; 5s., 1s. Exceeding 5s. tax is 6d. for every succeeding 2s. 6d. or part thereof; bioscope tea rooms and the like, where no charge for admission: 5 per cent. on gross takings (*Ordinance No. 11 of 1917*, amended by *No. 9 of 1920*, *No. 12 of 1921*, and *No. 15 of 1929*). Provision is made for exemption in the case of entertainments promoted in aid of certain objects.

* A reduction is made in respect of licences issued after the 30th June in any year.

PARTICULARS OF PROVINCIAL TAXATION—(*continued*).

Designation of Tax.	Particulars.
Entertainment Tax—(continued).	*Transvaal.*—Tax for every payment exceeding 1s., but not exceeding 2s., 3d.; 3s., 4d.; 4s., 5d.; 5s., 6d.; 7s. 6d., 9d.; 10s., 1s. 3d.; 12s. 6d., 1s. 6d.; exceeding 12s. 6d., 2s. 6d. for first 12s. 6d. and 2s. for every succeeding 10s. or part thereof. Provision is made for exemption from tax in the case of entertainments promoted for certain objects (*Ordinance No. 19 of 1931* as amended by *Ordinance No. 6 of 1936*).
	Orange Free State.—Tax for every payment for admission not exceeding 6d., 1d.; 1s., 2d.; 1s. 6d., 3d.; 2s., 4d.; 3s., 6d.; 5s., 1s.; 7s. 6d., 1s. 6d.; 12s. 6d., 2s. Exceeding 12s. 6d., tax is 2s. 6d. for first 12s. 6d. and 2s. for every succeeding 10s. or part thereof. In certain circumstances the tax may take the form of a lump sum, based on gross takings; the amount of the tax to be 15 per cent. of the gross takings (*Ordinance No. 9 of 1927*). In the case of a restaurant where no admission is charged and where instrumental music is given or a vocalist or concert or entertainment party is engaged, tax of 10s. per day; £2. 0s. 0d. per week; £4. 0s. 0d. per month; £10. 0s. 0d. per quarter; £15 0s. 0d. per six months; or £25 0s. 0d. per year, is levied. Cinematograph, bioscope, or like exhibition given in a restaurant; a tax of 1d. per person for every person admitted is levied. Provision is made for exemption from tax in the case of entertainments promoted for certain objects (*Ordinance No. 9 of 1927*, as amended by *Ordinance No. 7 of 1931* and *Ordinance No. 5 of 1933*).
Licences—Importers....	*Cape of Good Hope.*—In respect of goods imported for sale within the Cape Province from beyond the borders of the Union, for every completed £100 of the value of such goods £1. An importer whose importations during any calendar year do not exceed £500 is exempt. (*Ordinance No. 19 of 1930* as amended by *Ordinance No. 3 of 1937.*)
Motor Tax.....	*Cape of Good Hope.*—Drivers' Licences :— Learner: Motor vehicle other than motor cycle (2 months), 10s.; motor cycle (2 months), 5s. Competency Certificate: Motor vehicle other than motor cycle, 10s.; motor cycle, 5s. Final: Motor vehicle other than motor cycle (perpetual), £2; motor cycle (perpetual), £1. Occasional driver's licences valid for 3 months for bona fide visitors to the Cape Province, 10s. Competency certificate (visitors), 5s. *Annual Licence Fees for Motor Vehicles :—*

Weight in lb.	Motor Cars.		Goods Vehicles and Omnibuses.		Trailers.		Motor Cycles.
	Pneumatic tyred.	Solid tyred.	Pneumatic tyred.*	Solid tyred.	Pneumatic tyred.	Solid tyred.	
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1–500...	4 0 0	6 0 0	4 0 0	6 0 0	1 5 0	2 0 0	•
501–1,000.	4 0 0	6 0 0	4 0 0	6 0 0	3 2 6	5 0 0	
1,001–1,500.	4 0 0	6 0 0	4 0 0	6 0 0	3 15 0	6 0 0	Solo
1,501–2,500.	5 0 0	8 0 0	5 0 0	8 0 0	5 0 0	8 0 0	£1. 5s. 0d.
2,501–3,000.	7 10 0	12 0 0	7 10 0	12 0 0	7 10 0	12 0 0	
3,001–4,000.	7 10 0	12 0 0	9 0 0	12 0 0	9 0 0	12 0 0	Combined
4,001–5,000.	12 10 0	20 0 0	12 0 0	20 0 0	15 0 0	20 0 0	with
5,001–6,000.	12 10 0	20 0 0	15 0 0	20 0 0	15 0 0	20 0 0	side-car
6,001–7,000.	25 0 0	40 0 0	22 10 0	40 0 0	30 0 0	40 0 0	£2. 10s. 0d.
7,001–8,000.	25 0 0	40 0 0	30 0 0	40 0 0	30 0 0	40 0 0	
8,001–9,000.	37 10 0	60 0 0	45 0 0	60 0 0	45 0 0	60 0 0	
9,001 and over.....	62 10 0	100 0 0	75 0 0	100 0 0	75 0 0	100 0 0	

* In respect of so-called traction engines fitted with pneumatic tyres and used solely for hauling a trailer carrying the produce of the farm on which the owner of the said traction engine is *bona fide* farming, or supplies for use on the said farm, the licence fee payable in respect of such traction engine shall be £7. 10s. In lieu of the fees set out in the column under the heading " Goods Vehicles and Omnibuses, Pneumatic tyred ".

The annual licence fee is subject to a reduction of $^1/_{12}$th in respect of every completed calendar month of the year which has elapsed up to the time ownership of the vehicle is acquired.

Annual General Licences for Motor Vehicles—Motor Dealers, Manufacturers, or Repairers.

In respect of all motor vehicles owned and kept at each business premises, whether principal business premises or branch business premises

Motor vehicle other than motor cycle: Annual fee of £10 for first vehicle, and £3 for each additional vehicle.

Motor Cycle: Annual fee for every motor cycle with or without side-car, £3.

If such general licence is taken out for one-half of the year, beginning the 1st January or the 1st July, the fee is ⅔ths of the annual fee.

PARTICULARS OF PROVINCIAL TAXATION—(*continued*).

Designation of Tax.	Particulars.	£	s.	d.
Motor Tax—(contd.)...	*Natal*.—Drivers' Licences:—			
	Provisional Licence (1 Month): Motor cycle, 2s.; other motor vehicle, 5s.			
	Competency Certificate: Motor cycle, or motor cycle with side-car, 2s.; other motor vehicle, 10s.			
	Final (valid for 5 years from issue): Motor cycle, 5s.; motor cycle with side-car, 5s.; motor car, 10s.; other motor vehicle, 10s.			
	Renewal of a driver's licence (valid for 5 years from issue), 2s. 6d.			
	Fees Payable for Annual Registration of Motor Vehicles:—			
	(1) On the registration of a motor cycle		10	0
	(2) On the registration of a motor cycle with side-car or similar attachment		15	0
	(3) On the registration of a motor omnibus	5	10	0
	(4) On the registration of a motor vehicle having three wheels (not being a motor cycle with side-car or similar attachment)—			
	(*a*) if the weight does not exceed 1,000 lb.	2	0	0
	(*b*) if the weight exceeds 1,000 lb.	5	0	0
	(5) On the registration of any other motor vehicle	5	0	0
	(6) Upon the issue of a motor vehicle dealer's certificate of registration—			
	(*a*) in respect of motor vehicles other than motor cycles, for each motor vehicle included in the certificate of registration—			
	(i) when the licence granted is a motor vehicle dealer's general licence	2	0	0
	(ii) when the licence granted is a motor vehicle dealer's limited licence	1	10	0
	(*b*) in respect of motor cycles, for each motor cycle included in the certificate of registration—			
	(i) when the licence granted is a motor vehicle dealer's general licence		10	0
	(ii) when the licence granted is a motor vehicle dealer's limited licence		5	0
	The Administrator may by regulation or, in the case of a borough registering authority, the city or town council may by by-law reduce any of the above charges and may differentiate the fees according to horse-power.			
	Fees Payable for Annual Licences for Motor Vehicles:—	£	s.	d.
	(1) For a motor cycle	1	0	0
	(2) For a motor cycle with side-car or similar attachment	1	5	0
	(3) For a motor omnibus—			
	(*a*) if certified to carry not more than twelve passengers	8	0	0
	(*b*) if certified to carry more than twelve and not more than sixteen passengers	10	10	0
	(*c*) if certified to carry more than sixteen and not more than twenty passengers	15	10	0
	(*d*) if certified to carry more than twenty passengers	18	0	0
	(4) For any motor vehicle having three wheels (not being a motor cycle with side-car or similar attachment)—			
	(*a*) if the weight does not exceed 1,000 lb.	2	0	0
	(*b*) if the weight exceeds 1,000 lb., the licence fee shall be as provided in the next succeeding item (5).			
	(5) For any other motor vehicle—			
	(*a*) if the weight does not exceed 1,000 lb.	2	0	0
	(*b*) if the weight exceeds 1,000 lb., then, in addition to the above amount, for every 500 lb. weight or part thereof in excess a further amount of £1 up to a maximum fee of £25.			
	(6) Upon the issue of a motor vehicle dealer's licence—			
	(*a*) in respect of motor vehicles other than motor cycles, for each motor vehicle included in the licence—			
	(i) in the case of a motor vehicle dealer's general licence	8	0	0
	(ii) in the case of a motor vehicle dealer's limited licence	3	0	0
	(*b*) in respect of motor cycles, for each motor cycle included in the licence—			
	(i) in the case of a motor vehicle dealer's general licence	£1	0	0
	(ii) in the case of a motor vehicle dealer's limited licence		15	0
	(7) For a trailer fitted with rubber tyres or Athey or similar wheels and used or intended to be used on public roads by any person in the course or for the purposes of his business or trade—			
	(*a*) if the weight does not exceed 1,000 lb.	2	0	0
	(*b*) if the weight exceeds 1,000 lb., then, in addition to the above amount, for every 1,000 lb. weight or part thereof in excess a further amount of £1 up to a maximum fee of £15.			
	(8) For a trailer used or intended to be used on public roads by any person in the course or for the purposes of his business or trade, if fitted with metal tyres, the fee shall be double the amount which would be payable if the trailer were fitted with rubber tyres or Athey or similar wheels.			

PARTICULARS OF PROVINCIAL TAXATION—(*continued*).

Designation of Tax.	Particulars.	s.	d.
Motor Tax—(contd.)...	*Natal*—(continued).		
	(9) For a trailer used for purposes other than the purposes described in item (7) if fitted with rubber tyres and used or intended to be used as an attachment to a motor car, for every 500 lb. of weight or part thereof	10	0
	Where a motor vehicle is acquired after the 1st January in any year, the registration and licence fees are reduced by one-twelfth for every completed month between 1st January and the date of acquisition. (*Ordinance No.* 10 *of* 1937.)		
	Transvaal.—Registration fees: Motor cycle, 10s.; motor car, £1; any other motor vehicle, £1. 10s.		
	Licence Fees:—		
	For every motor cycle	£1	0 0
	For every motor cycle with side-car or similar attachment	1	10 0
	For every motor vehicle up to a weight not exceeding 3,000 lb.		
	(*a*) not exceeding 1,500 lb. in weight	4	0 0
	(*b*) exceeding 1,500 lb., but not exceeding 3,000 lb., for every 100 lb. or part thereof an additional	0	3 6
	For every motor vehicle over 3,000 lb. in weight—		
	(*a*) for the first 3,000 lb.	7	0 0
	(*b*) for every 100 lb. or part thereof in excess of 3,000 lb. the rate is increased.		
	For every trailer fitted with rubber tyres or Athey or similar wheels	10	0 0
	For every trailer fitted with metal tyres	25	0 0
	For every trailer fitted with rubber tyres used as an attachment to a motor car	1	0 0
	Fees are also imposed for examination for drivers' licences and for certificates of competency (*Ordinance No.* 17 *of* 1931).		
	Orange Free State.—Registration Fee:—		
	On a motor cycle, without side-car	£1	0 0
	On a motor cycle, with side-car	1	10 0
	On a motor car	2	0 0
	Licence Fees:—		
	Motor cycle, without side-car	£1	0 0
	Motor cycle, with side-car	2	0 0
	Motor cars: weight 1,500 lb. or under, £3; 1,501–2,500 lb., £4; 2501–4,000 lb., £6; 4,001–6,000 lb., £10; 6,001–8,000 lb., £20; 8,001–9,000 lb., £30; over 9,000 lb., £50.		
	Lorries or other self-propelled vehicles designed for conveyance of goods: similar rates, plus 50 per cent. Trailers: not exceeding 1,000 lb. in weight, £1; 1,001–3,000 lb., £5; 3,001–5,000 lb., £20; and over 5,000 lb., £30.		
	Where a motor vehicle is acquired after the 1st January in any year, the licence fees, but not the registration fees, are reduced by one-twelfth for every completed month between the 1st January and the date of acquisition.		
	General Motor Trade Licences:—		
	(*a*) Annual licence of £10 authorizing the use of one set of plates, issued to manufacturers or repairers of, or dealers in, all motor vehicles except motor cycles, for purpose of demonstration and sale. £10 for each additional set of plates required. Licences may be taken out for one quarter of year beginning on 1st January, 1st April, 1st July, or 1st October: a fee of £3 is payable per quarter.		
	(*b*) Annual licence for motor cycles only, £3 for each set of plates (*Ordinance No.* 18 *of* 1931, as amended by *Ordinance No.* 12 *of* 1933 and *Ordinance No.* 12 *of* 1934).		
Personal, Income, and Company Taxes	*Cape of Good Hope.*—(*a*) *Personal Tax*: Due by every person 21 years of age or over resident in the Cape Province: (i) if married, 10s. on an income of £250 per annum and an additional 2s. 6d. on every completed £10 of income in excess of £250, subject to a maximum of £3; (ii) if unmarried, £1 on an income of £150, and 2s. 6d. on every completed £10 of income in excess of £150, subject to a maximum of £5.		
	(*b*) *Income Tax* (*Normal*): Due by every Union income tax payer resident within the Cape Province, on each completed shilling of the amount of normal income tax payable to the Union Government, (i) if married, 15 per cent., (ii) if unmarried, 22½ per cent.		
	(*c*) *Income Tax* (*Super*): Due by every Union income tax payer resident within the Cape Province on each completed shilling of the amount of super-tax payable to the Union Government, (i) if married, 20 per cent., (ii) if unmarried, 30 per cent.		

PARTICULARS OF PROVINCIAL TAXATION—(*continued*).

Designation of Tax.	Particulars.
Personal, Income, and Company Taxes (continued)	***Cape of Good Hope*—(continued).** **(*d*) *Companies Tax:* Due by every company carrying on a business in the Cape Province, 4½d. on each £1 of "taxable income" derived from sources within the Cape Province (excluding mining operations).** ***Exemptions:* (1) Married females who are not separated from their husbands under judicial order or written agreement, provided that any married woman who is liable for Union Income Tax by virtue of rendering separate income tax returns is liable for Provincial Income Tax; (2) indigents; (3) natives upon whom a Provincial Council may not by reason of section 3 (2) of Act No. 5 of 1921 impose direct taxation; (4) married persons with incomes less than £250; (5) unmarried persons with incomes less than £150; (6) officials of outside Governments who are not liable to Union income tax (*Ordinance No. 31 of* 1932 as amended by *Ordinances Nos.* 12 of 1933, 31 of 1934, 21 of 1935, and 24 of 1938).** ***Natal*.—(*a*) *Personal Tax:* (i) Persons with incomes of less than £450, £1; (ii) persons with incomes of £450 or over, £2; (iii) persons in certain defined circumstances, with incomes of less than £250, 10s.** **(*b*) *Income Tax:* Rate 10 per cent. of the normal or super-tax assessed under the Union *Income Tax Act*.** **(*c*) *Company Tax:* Three pence for each £1 of taxable income determined by the Commissioner for Inland Revenue as having been derived from sources within the Province.** ***Exemptions:* Females not liable for income tax; indigent males; male adults attending educational institutions as whole-time students and not liable for income tax; lepers or mentally deficient persons not liable for income tax; any person in receipt of a war pension, whose taxable income did not exceed £250; any person of 60 years or over during any part of the year of assessment who is not liable for Union income tax; persons or the income of persons who have become liable to a tax upon persons or the income of persons under the law of another province; mutual life insurance companies, building societies, friendly societies and companies which do not carry on business for gain; income derived from mining operations; natives (*Ordinance No. 17 of* 1928, as amended by *Ordinance No. 17 of* 1931 and *Ordinance No. 10 of* 1935).** ***Transvaal*.—*Ordinance No. 10 of* 1928, as amended by *Ordinance No. 20 of* 1930 and *Ordinance No. 14 of* 1933.—The incidence of taxation is as follows:—** **(*a*) *Personal Tax:* Tax on persons resident in the province of the age of 21 and over:—** **Married, £1. 10s. 0d.** **Unmarried and under the age of 25, £1. 10s. 0d. Unmarried and of the age of 25 or over:—(i) If his income was under £100, £1. 10s. 0d.; (ii) if his income was £100 or over, £2. 5s. 0d.** **(*b*) *Income Tax:* Tax on the income of persons resident in the province:—** **Married: 15 per cent. calculated on each completed shilling of the amount of Union normal and/or supertax assessed in respect of the previous year.** **Unmarried: 22½ per cent. calculated on each completed shilling of the amount of Union normal and/or supertax assessed in respect of previous year. A widow, widower, divorced person, or a person who is separated by judicial order or written agreement is deemed to be unmarried, provided that any such person who supports a minor child, and an unmarried person who supports an adopted child or who is the sole support of a parent, shall be deemed to be married.** ***Exemptions:* All females, except those who are income tax payers; unmarried males with an income of less than £50; married males with an income of less than £100; indigents; students who attended an educational institution during three months immediately preceding due date of tax and not liable for income tax; lepers and mentally deficient persons not liable for income tax; male adults who have attained the age of sixty and over not liable for income tax; natives.** **(*c*) *Companies Tax* (*Ordinance No. 12 of* 1933): Subject to a minimum payment annually of £5 the rates of tax payable by companies shall be:—In respect of companies other than financial companies, for each pound of taxable income, sixpence; in respect of financial companies, for each pound of dividend distributed, one shilling.** ***Exemptions*:—Any portion of a taxable income or any portion of a dividend distributed which is derived from mining operations or rights in or to mines or minerals; any taxable income that is derived from a source outside the province; any company which does not carry on business for the purpose of profit or gain which is to be divided amongst or credited to the shareholders or members thereof; any portion of a dividend distributed by a financial company out of dividends which have already been taxed as a dividend

PARTICULARS OF PROVINCIAL TAXATION—(*continued*).

Designation of Tax.	Particulars.
Personal, Income, and Company Taxes—(continued)	*Transvaal*—(continued). distributed under this Ordinance; any dividend distributed on the winding up of a company; any mutual life assurance company; any portion of the taxable income of a non-mutual life insurance company which is distributed amongst its policy holders; any company, which on the due date of the tax is in a dormant state, is in receipt of no income, and conducts no active operations for the benefit of its shareholders. *Orange Free State*.—(*a*) *Personal Tax:* On married and unmarried adults: minimum tax, £1, plus 2s. in the case of married adults, and 3s. in the case of unmarried adults, for every completed £10 by which the taxable incomes of such adults exceed £100. (*b*) *Income Tax:* Married adults: 20 per cent; unmarried, 30 per cent. on each completed shilling of amount paid or payable for Union income tax. A widower, a widow, or a divorced person is deemed to be unmarried, provided that any such person who supports a minor child or children and an unmarried person who is the sole support of a parent shall be deemed to be married. (*c*) *Company Tax:* Minimum of £5 on each company having an office or place of business within the province, to which no taxable income accrued from sources within the province, or whose taxable income from sources within the province does not exceed £200. For every other company 6d. on each £1 taxable income derived from sources within the province. *Exemptions:* (1) Income derived directly from mining operations; (2) co-operative societies registered as such under Act No. 28 of 1922; (3) companies not carrying on business for profit or gain to be divided among members or shareholders; (4) mutual life insurance companies; (5) portions of taxable income of non-mutual life insurance companies credited to or distributed among policy holders; (6) unmarried females with income less than £100; (7) married females except those liable for income tax; provided that any woman who marries during the tax year and who is liable for income tax for a period of less than one year, and any married woman who is liable for income tax by virtue only of section 46 of Act No. 40 of 1925, shall be exempt from personal tax; (8) indigents; (9) students with incomes less than £100; (10) natives as defined by section 19 of Act No. 41 of 1925; (11) coloured persons liable to poll tax, *vide* O.R.C. *Ordinance No. 2 of* 1904; (12) lepers, lunatics, and persons mentally deficient unless Union income tax payers; (13) building societies registered under the *Building Societies Act* 1934; (14) adults 60 years of age or over whose taxable income is less than £100; (15) officials of other Governments who are not liable to income tax (*Ordinances No. 4 of* 1928 as amended by *Ordinances Nos. 4 of* 1937 and 13 *of* 1938).
Native Pass Fees	*Transvaal*.—2s. per head per month payable by employer in certain defined proclaimed labour areas in respect of every male native registered to him under a service contract (*Act No. 21 of* 1923).
Transfer Duty	*Cape of Good Hope*.—2 per cent. (*Act No. 5 of* 1884, as amended by *Act No. 11 of* 1913). *Natal*.—2 per cent. (*Law No. 5 of* 1860, as amended by *Law No. 20 of* 1865, *Law No. 19 of* 1883, *Law No. 19 of* 1884, *Law No. 5 of* 1890, *Law No. 6 of* 1891, *Act No. 7 of* 1903, *Act No. 23 of* 1907, *Act No. 31 of* 1908, *Act No. 11 of* 1909, *Act No. 12 of* 1909, *Act No. 11 of* 1913). *Transvaal*.—2 per cent. Leases liable for 1½ per cent. (*Proclamation No. 8 of* 1902 as amended by *Ordinance No. 14 of* 1905 and *Acts No. 28 of* 1919 and *No. 10 of* 1913). *Orange Free State*.—2 per cent. on sale of immovable property (*Ordinance No. 12 of* 1906 as amended by *Act No. 30 of* 1908 and *Act No. 11 of* 1913). In all provinces duty is payable within six months of date of contract, thereafter interest at rate of 12 per cent. per annum on amount of duty becomes payable.
Wheel Tax	*Natal*.—On every vehicle other than a traction engine, motor lorry, motor omnibus, motor car, or motor cycle, 2s. 6d. per wheel; excludes vehicles running on rails; also bicycles and rickshas, or other vehicles which are propelled or drawn by human power (*Ordinance No. 13 of* 1918, as amended by *Ordinance* No. 7 of 1919, and section 3 of *Ordinance No. 8 of* 1921). Provision is made for exemption of certain vehicles. *Orange Free State*.—Any vehicle other than a motor vehicle or trailer, 5s. per wheel; any bicycle, 2s. 6d. per wheel. A tax at one-half these rates is payable in respect of a vehicle or bicycle acquired between the 30th September and the 31st December in any year. Vehicles used solely and bicycles used principally for the conveyance of children to and from school are exempt (*Ordinance No. 17 of* 1931, as amended by *Ordinances Nos. 8 of* 1933, 11 *of* 1934, and 6 *of* 1935).

2. Total Revenue of Provinces.—The subjoined tables give (i) the total amount of the Union Government subsidy, and (ii) the total revenue collected in the case of each province (1st April to 31st March each year).

(i) SUBSIDIES OF UNION GOVERNMENT TO PROVINCES—FINANCIAL YEARS 1911-12 TO 1937-38.

Year.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Total.
	£	£	£	£	£
1911-12	1,084,640	431,311	1,267,075	419,389	3,202,415
1916-17	935,161	354,328	710,999	345,929	2,346,417
1921-22	1,758,000	639,999	1,635,999	648,000	4,681,998
1926-27	2,053,700	480,241	1,901,169	735,978	5,171,178
1931-32	2,220,464	520,418	1,947,389	737,640	5,425,911
1932-33	2,294,657	541,402	1,834,639	727,040	5,397,738
1933-34	2,344,222	552,208	1,845,397	727,298	5,469,125
1934-35	2,402,003	560,729	1,866,858	735,435	5,565,025
1935-36	2,513,633	641,733	1,951,851	936,762	6,043,979
1936-37	2,527,718	649,584	1,997,248	933,612	6,108,162
1937-38	2,634,463	669,926	2,081,149	933,619	6,319,157

(ii) REVENUE COLLECTIONS OF EACH PROVINCE—FINANCIAL YEARS 1911-12 TO 1937-38.

Year.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Total.
	£	£	£	£	£
1911-12	—	—	—	—	—
1916-17	366,389	124,665	729,257	203,455	1,423,766
1921-22	1,152,872	359,320	1,573,625	352,333	3,438,150
1926-27	1,580,685	616,298	1,843,449	419,739	4,460,171
1931-32	1,849,751	769,193	1,956,421	441,361	5,016,726
1932-33	1,988,102	683,746	1,931,981	396,188	5,000,017
1933-34	2,152,588	744,915	2,216,060	392,038	5,505,601
1934-35	2,380,006	809,307	2,825,001	536,212	6,551,126
1935-36	2,348,485	856,787	3,142,259	499,713	6,847,244
1936-37	2,501,694	890,855	3,686,726	571,917	7,651,192
1937-38	2,701,752	1,002,254	3,905,729	622,883	8,232,618

3. Details of Revenue Collections and Total Revenue.—The subjoined tables give (i) the total sum under each head of revenue collected for all provinces during five financial years (1st April to 31st March) together with revenue provided by the Union Government subsidy; and (ii) details of ordinary revenue received by each province for the same period.

(i) DETAILS OF ORDINARY PROVINCIAL REVENUE, ALL PROVINCES, 1933-34 TO 1937-38.

Classification.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Revenue Collections.	£	£	£	£	£
Auction Sales Tax	50,029	65,888	65,530	61,070	58,805
Companies Tax	309,359	373,869	485,898	634,738	749,006
Departmental Receipts	209,849	289,611	306,021	387,581	452,906
Education Receipts	376,750	393,834	404,689	416,546	429,537
Entertainment Tax	272,223	309,885	324,380	320,442	340,289
Fines and Forfeitures	13,811	20,112	24,155	26,556	26,486
Licences—Dog, Fish, and Game	40,693	39,131	44,965	47,428	66,030
Importers	90,065	105,786	109,938	116,530	98,950
Liquor	186,054	175,116	178,499	170,238	178,809
Motor Vehicles	1,093,535	1,424,495	1,614,924	1,863,248	2,136,830
Trades and Professions	439,983	451,451	470,752	492,284	516,350
Native Pass Fees	421,202	482,449	537,015	591,205	601,007
Personal and Income Tax	925,958	1,016,215	1,042,651	1,035,976	1,180,691
Provincial Property Tax	231,905	229,814	134,482	49,052	13,947
Racing Taxation	249,929	300,142	301,485	381,596	400,259
Transfer Duty	530,284	786,724	719,485	1,002,330	922,263
Transkeian Roads Tax	—	—	6,455	8,010	7,025
Wheel Tax	63,972	86,904	75,920	39,462	51,614
TOTAL COLLECTIONS.....£	5,505,601	6,551,426	6,847,244	7,651,192	8,232,618
Union Government Subsidies	5,469,125	5,565,025	6,043,979	6,108,162	6,319,157
Grant—S.A. Native Trust	572,180	598,564	670,024	727,255	816,507
National Road Fund	—	—	726,175	1,040,802	1,808,866
Other	145,535	72,213	13,997	6,000	10,429
TOTAL REVENUE.....£	11,692,441	12,787,228	14,301,419	15,533,411	17,187,517

DETAILS OF ORDINARY PROVINCIAL REVENUE IN EACH PROVINCE, 1933-34 TO 1937-38.

(a) CAPE OF GOOD HOPE.

Classification.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Revenue Collections.	£	£	£	£	£
ax	69,743	96,269	108,311	117,383	153,726
l Receipts	69,694	80,941	79,314	124,296	146,766
ceipts	281,301	295,826	302,467	311,566	321,004
t Tax	110,049	122,369	126,990	134,489	145,511
rfeitures	4,842	9,426	9,460	10,392	10,224
g, Fish, and Game	3,527	3,707	3,824	4,345	4,662
porters	90,065	105,786	109,938	116,530	98,950
quor	89,921	87,395	88,989	90,953	86,869
otor Vehicles	473,616	572,682	662,649	772,751	848,471
ades and Professions	174,603	178,323	182,679	185,933	190,078
Income Tax	314,381	317,573	269,321	255,030	307,720
operty Tax	231,905	229,814	134,482	49,052	13,947
tion	66,777	61,024	47,823	57,215	65,171
y	172,164	219,771	215,783	263,749	301,568
oads Tax	—	—	6,455	8,010	7,025
AL COLLECTIONS.....£	2,152,588	2,380,906	2,348,485	2,501,694	2,701,752
nment Subsidies	2,344,222	2,402,003	2,513,633	2,527,718	2,634,463
Native Trust	336,935	347,035	368,535	389,000	427,000
nal Road Fund	—	—	330,000	445,997	814,763
AL REVENUE.....£	4,833,745	5,129,944	5,560,653	5,864,409	6,577,978

(b) NATAL.

Classification.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Revenue Collections.	£	£	£	£	£
ax	28,444	35,496	42,764	43,648	61,613
l Receipts	56,085	60,559	70,912	85,142	105,086
ceipts	64,906	65,978	70,127	70,510	72,839
nt Tax	42,246	48,367	51,287	54,166	60,999
rfeitures	1,881	1,904	2,613	3,531	3,657
g, Fish, and Game	22,463	17,189	18,924	17,826	25,380
quor	31,154	25,956	23,891	24,523	21,313
otor Vehicles	186,047	216,625	243,101	225,211	255,598
ades and Professions	66,945	66,570	68,460	70,300	73,978
l Income Tax	118,671	121,503	112,764	118,151	131,062
tion	64,519	74,532	74,476	84,107	87,299
ty	55,199	68,264	71,876	88,398	98,024
	6,355	6,064	5,592	5,342	5,206
TAL COLLECTIONS.....£	744,915	809,307	856,787	890,855	1,002,254
rnment Subsidies	552,208	560,729	641,733	649,584	669,926
Native Trust	107,417	113,191	128,191	144,241	157,740
ional Road Fund	—	—	121,331	203,404	241,557
er	12,966	5,913	6,022	6,000	4,585
TAL REVENUE.....£	1,417,506	1,489,140	1,754,064	1,894,084	2,076,062

(c) TRANSVAAL.

Classification.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Revenue Collections.	£	£	£	£	£
es Tax	36,605	43,381	45,077	43,449	43,095
Tax	211,172	242,104	334,823	459,791	515,165
al Receipts	63,694	104,879	108,831	134,192	151,864
Receipts	10,502	10,834	10,848	11,030	13,066
ent Tax	108,999	126,198	132,856	116,901	117,507
Forfeitures	5,756	7,086	10,565	10,515	10,312
Dog, Fish, and Game	10,388	13,041	15,499	18,316	18,907
Liquor	53,017	52,335	56,726	51,812	61,275
Motor Vehicles	338,684	460,461	570,803	701,220	829,314
Trades and Professions	167,011	175,102	187,170	203,339	219,012
s Fees	421,202	482,449	537,015	591,205	604,007
d Income Tax	387,738	463,350	544,267	543,745	625,764
ation	116,563	162,462	176,929	237,946	245,338
uty	257,991	451,071	375,385	563,211	451,103
	26,738	30,248	35,465	54	—
OTAL COLLECTIONS.....£	2,216,060	2,825,001	3,142,259	3,686,726	3,905,729
ernment Subsidies	1,845,397	1,866,853	1,951,851	1,997,248	2,081,149
Native Trust	90,878	106,429	122,965	139,723	170,467
tional Road Fund	—	—	175,064	269,292	508,659
her	132,569	66,300	7,975	—	5,844
OTAL REVENUE.....£	4,284,904	4,864,588	5,400,114	6,032,989	6,671,848

(ii) DETAILS OF ORDINARY PROVINCIAL REVENUE IN EACH PROVINCE, 1933-34 TO 1937-38—(*continued*).

(*d*) ORANGE FREE STATE.

Classification.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Revenue Collections.	£	£	£	£	£
Auction Sales Tax	13,424	22,507	20,453	18,521	15,716
Companies Tax	†	†	†	13,916	18,592
Departmental Receipts	20,376	43,232	46,964	43,951	48,500
Education Receipts	20,041	21,196	21,247	23,449	22,269
Entertainment Tax	10,929	12,951	13,247	14,886	16,272
Fines and Forfeitures	1,332	1,696	1,517	2,118	2,020
Licences—Dog, Fish, and Game	4,315	4,894	6,718	6,941	10,520
Liquor	11,062	9,430	8,803	8,950	9,452
Motor Vehicles	95,188	174,727	138,371	164,966	204,417
Trades and Professions	31,424	31,456	32,413	32,712	33,452
Personal and Income Tax*	105,168	113,789	116,299	119,050	117,515
Racing Taxation	2,070	2,124	2,227	2,328	2,451
Transfer Duty	44,930	47,618	56,441	86,972	71,953
Wheel Tax	30,879	50,592	34,863	34,966	46,405
TOTAL COLLECTIONS.....£	392,038	536,212	499,713	571,917	622,564
Union Government Subsidies	727,298	735,435	936,762	933,612	971,040
Grant—S.A. Native Trust	36,950	31,909	50,333	54,291	46,000
National Road Fund	—	—	99,780	182,109	211,357
TOTAL REVENUE.....£	1,156,286	1,303,556	1,586,588	1,741,929	1,851,961

* Includes Companies Tax for 1933-34 to 1935-36.
† Included in Personal and Income Tax.

§ 3. Ordinary Expenditure of Provinces.

1. **Classification of Provincial Expenditure.**—The tables contained in this section give particulars of ordinary expenditure for certain years from 1911-12 in each province and in all provinces under the main heads. The provinces classify their ordinary expenditure as follows:—(*a*) Administration, (*b*) Education, (*c*) Hospitals and Charitable Institutions, (*d*) Roads, Bridges, and Local Works, (*e*) Miscellaneous Services, and (*f*) Interest and Redemption Charges. An analysis along these lines has been made of the figures for the last five years, and details thereof will be found below. Sub-head (*d*) includes expenditure on behalf of the National Road Board from 1935-36.

Expenditure prior to the 1st April, 1913, was covered by grants of the Union Government, and from that date has been met in each case from the provincial revenues derived from the sources described in the preceding section of this chapter.

Chapter II gives particulars as to the functions of Provincial Administrations and the various services for which the Administrations are responsible.

2. **Total Expenditure and Expenditure per Head.**—The tables given below contain particulars as to the total ordinary expenditure in each province from 1911-12 and the expenditure per head of the mean total population and the mean European population:—

ORDINARY EXPENDITURE OF THE PROVINCES, AND EXPENDITURE PER HEAD OF THE POPULATION, 1911-12 TO 1937-38.

(i) Total Ordinary Expenditure.

Period.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Total.
	£	£	£	£	£
1911-12	930,624	376,100	1,200,069	376,776	2,883,569
1916-17	1,286,038	477,089	1,425,584	519,973	3,708,684
1921-22	3,314,476	991,812	3,436,638	1,076,356	8,819,282
1926-27	3,910,284	1,090,431	3,740,306	1,207,037	9,948,058
1931-32	4,750,978	1,409,482	3,973,001	1,422,895	11,557,257
1932-33	4,550,107	1,384,791	3,828,028	1,386,761	11,149,747
1933-34	4,613,992	1,449,153	4,276,816	1,465,301	11,805,262
1934-35	4,858,371	1,558,811	4,534,372	1,659,792	12,611,346
1935-36	5,768,439	1,624,196	5,248,443	1,529,099	14,170,177
1936-37	5,744,360	1,930,958	5,516,029	1,709,323	14,900,670
1937-38	6,688,764	2,098,783	6,947,981	1,836,276	17,571,804

ORDINARY EXPENDITURE OF THE PROVINCES AND EXPENDITURE PER HEAD OF THE POPULATION, 1911-12 TO 1937-38—(*continued*).

(ii) Average Expenditure per Head of Mean Population.

Year.	Cape of Good Hope.		Natal.		Transvaal.		Orange Free State.		All Provinces.	
	Total Population.	European Population.	Total Population.	European Population.	Total Population.	European Population.	Total Population.	European Population.	Total Population.	European Population.
	s. d.	£ s. d.	s. d.	£ s. d.	s. d.	£ s. d.	s. d.	£ s. d.	s. d.	£ s. d.
1911-12	7 3	1 11 11	6 3	3 16 2	14 2	2 16 9	14 3	2 3 0	9 7	2 5 1
1916-17	9 5	2 1 8	7 2	4 0 9	14 11	2 18 5	17 10	2 17 5	11 4	2 12 10
1921-22	23 9	5 1 9	13 10	7 4 4	32 10	6 6 2	34 2	5 14 1	25 5	5 15 10
1926-27	26 5	5 10 8	13 11	6 17 2	32 4	6 2 10	34 8	5 18 11	26 5	5 18 7
1931-32	29 10	6 6 9	15 10	7 18 9	27 5	5 14 1	38 9	6 18 6	26 6	6 6 4
1932-33	27 3	6 0 11	15 8	7 19 3	27 9	5 15 1	39 1	7 3 10	26 1	6 4 10
1933-34	27 3	6 6 1	16 7	8 9 0	28 7	5 18 3	43 10	8 3 11	27 3	6 11 1
1934-35	28 4	6 7 10	16 11	8 13 2	32 2	6 12 2	40 0	7 11 7	30 1	7 4 3
1935-36	33 1	7 7 11	16 11	8 13 2	32 11	6 13 11	44 2	8 10 1	31 0	7 8 5
1936-37	32 6	7 4 11	19 9	10 2 1	32 11	6 13 11	44 2	9 2 9	35 11	8 12 0
1937-38	37 4	8 7 0	21 2	10 16 9	40 4	8 3 11	46 11			

3. **Classified Summary of Ordinary Expenditure.**—The subjoined table gives summaries of the total ordinary expenditure of the four Provincial Administrations for each financial year from 1933-34.

ORDINARY EXPENDITURE: GENERAL SUMMARY OF ALL FOUR PROVINCES, 1933-34 TO 1937-38.

Details.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
	£	£	£	£	£
Administration	306,088	329,934	368,582	421,898	458,275
Education	7,681,009	8,140,341	8,711,487	9,024,483	9,610,821
Hospitals and Charitable Institutions	1,042,915	1,179,490	1,261,732	1,362,943	1,515,576
Roads, Bridges, and Local Works	1,468,357	1,718,804	2,729,916	3,369,401	4,384,857
	44,009	50,627	81,488	78,403	929,733
Miscellaneous Services	1,261,984	1,192,150	1,016,972	643,542	672,542
Interest and Redemption Charges					
TOTAL.....£	11,805,262	12,611,346	14,170,177	14,900,670	17,571,804

4. **General Administration.**—Particulars are given below for certain financial years (1st April to 31st March) of ordinary expenditure on the general administration of the four provinces. These figures do not include the administration expenses relative to Education and Roads, Bridges, and Local Works. Expenditure relating to these is shown under the respective headings below.

PROVINCIAL GENERAL ADMINISTRATION EXPENSES, 1933-34 TO 1937-38.

Province.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
	(*a*) ADMINISTRATION EXPENSES.				
	£	£	£	£	£
Cape of Good Hope	135,898	144,187	155,041	173,227	173,436
Natal	55,940	54,747	59,651	63,240	70,476
Transvaal	76,941	92,463	112,333	138,560	165,841
Orange Free State	37,309	38,537	41,557	46,871	48,522
TOTAL.....£	306,088	329,934	368,582	421,898	458,275
	(*b*) PROVINCIAL COUNCIL AND EXECUTIVE COUNCIL [Included in (*a*) above].				
	£	£	£	£	£
Cape of Good Hope	8,323	10,606	14,469	11,911	17,594
Natal	4,018	4,886	6,581	5,206	6,376
Transvaal	7,866	5,784	11,983	9,082	12,069
Orange Free State	3,755	5,049	6,388	5,932	6,580
TOTAL.....£	23,962	20,325	39,421	32,131	42,619

5. **Expenditure of Provinces on Education.**—In accordance with the provisions of section 85 (iii) of the *South Africa Act*, for a term of five years (1910-15) and thereafter until otherwise determined by Parliament, education, other than higher education (for which the Union Government is responsible), was placed under the control of the Provincial Administrations. This arrangement still obtains except that as from the 1st April, 1925, all industrial and trades schools were taken over by the Union Education Department and classified under Higher Education [see Chapter VIII, § 2 (1)]. Expenditure on education forms by far the largest item of expenditure in the provinces. The subjoined table gives for all provinces the ordinary expenditure on education for certain financial years (1st April to 31st March) and the distribution of expenditure under main headings in each province for the same period. Further details in respect of expenditure on education are given in Chapter VIII.

PROVINCIAL ORDINARY EXPENDITURE—EDUCATION (OTHER THAN HIGHER EDUCATION), 1933-34 TO 1937-38.

Details.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
			(*a*) ALL PROVINCES.		
	£	£	£	£	£
Administration	62,403	58,994	64,593	70,616	72,513
School Boards and Committees	84,216	90,114	90,164	90,368	93,559
School Inspection	80,798	82,438	86,529	91,514	93,930
Medical Inspection	34,896	34,451	37,779	44,903	50,801
European Education—					
Training of Teachers	127,652	131,271	140,985	150,233	158,473
Secondary Education	667,333	689,339	740,435	763,478	806,782
Primary Education	3,713,005	3,956,271	4,153,501	4,229,033	4,310,030
Combined Primary and Secondary Education	1,360,443	1,411,961	1,454,738	1,519,193	1,559,227
Native Education	586,028	624,457	684,232	737,376	827,058
Coloured and Asiatic Education	566,187	635,783	684,594	750,054	812,825
General (including Minor Works)	397,548	425,259	573,933	574,775	775,876
TOTAL.....£	7,681,009	8,140,341	8,711,487	9,024,483	9,610,821
			(*b*) CAPE OF GOOD HOPE.		
	£	£	£	£	£
Administration	21,819	20,451	25,034	28,831	30,276
School Boards and Committees	51,041	53,468	55,205	54,407	55,142
School Inspection	34,289	34,302	35,853	38,682	37,790
Medical Inspection	9,118	9,313	10,726	13,467	18,557
European Education—					
Training of Teachers	47,109	50,813	51,060	53,491	58,453
Secondary Education	183,818	201,886	226,490	243,762	268,092
Primary Education	1,236,986	1,325,514	1,355,334	1,374,716	1,393,452
Combined Primary and Secondary Education	837,724	905,347	926,799	958,153	993,494
Native Education	347,505	358,586	379,662	399,137	436,020
Coloured and Asiatic Education	409,106	461,373	493,465	533,501	574,270
General (including Minor Works)	143,400	173,271	271,293	212,536	369,387
TOTAL.....£	3,321,915	3,594,324	3,830,921	3,910,683	4,236,474
			(*c*) NATAL.		
	£	£	£	£	£
Administration	8,803	8,946	9,500	9,734	10,462
School Boards and Committees	2	8	3	1	1
School Inspection	11,613	10,311	10,720	12,582	12,628
Medical Inspection	4,754	4,982	5,823	5,908	5,184
European Education—					
Training of Teachers	9,372	9,841	10,865	11,688	12,673
Secondary Education	79,249	78,193	79,013	79,149	83,817
Primary Education	316,852	337,938	341,947	378,144	361,598
Combined Primary and Secondary Education	109,065	118,949	128,573	144,881	163,036
Native Education	105,160	112,562	124,734	139,438	155,380
Coloured and Asiatic Education	96,661	111,446	117,508	130,599	139,589
General (including Minor Works)	29,804	31,470	30,384	31,789	36,028
TOTAL.....£	771,335	824,646	859,070	943,913	980,094

PROVINCIAL ORDINARY EXPENDITURE—EDUCATION (OTHER THAN HIGHER EDUCATION), 1933-34 TO 1937-38—(*continued*).

Details.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
			(*d*) TRANSVAAL.		
	£	£	£	£	£
Administration	21,507	18,925	18,465	20,832	20,387
School Boards and Committees	22,080	25,221	23,241	23,790	25,992
School Inspection	22,871	24,742	27,198	30,136	30,495
Medical Inspection	17,918	17,210	18,425	22,241	23,687
European Education—					
Training of Teachers	57,035	57,937	66,256	69,568	70,872
Secondary Education	358,208	360,756	386,736	387,397	418,972
Primary Education*	1,812,170	1,940,610	2,095,417	2,118,060	2,195,223
Combined Primary and Secondary Education	86,700	39,453	41,435	43,557	42,374
Native Education	96,413	110,322	126,269	144,510	174,358
Coloured and Asiatic Education	57,158	59,416	69,256	81,657	93,335
General (including Minor Works)	166,568	174,488	219,962	257,279	286,322
TOTAL.....£	2,718,678	2,829,080	3,092,660	3,199,027	3,383,017

* Includes school farms and hostels from 1935-36.

			(*e*) ORANGE FREE STATE.		
	£	£	£	£	£
Administration	10,274	10,672	11,594	11,219	11,388
School Boards and Committees	11,093	11,417	11,715	12,110	12,221
School Inspection	12,025	13,083	12,753	13,114	13,357
Medical Inspection	3,106	2,949	2,805	3,287	3,373
European Education—					
Training of Teachers	14,086	12,680	12,804	15,486	16,473
Secondary Education	46,558	48,504	48,196	53,170	55,281
Primary Education	346,997	352,209	360,803	358,113	359,759
Combined Primary and Secondary Education	326,954	348,212	357,931	372,602	389,323
Native Education	36,950	42,987	53,567	54,291	61,300
Coloured and Asiatic Education	3,262	3,548	4,369	4,297	4,622
General (including Minor Works)	57,776	46,030	52,294	73,171	63,139
TOTAL.....£	869,081	892,291	928,836	970,860	991,236

6. **Expenditure on Hospitals and Charitable Institutions.**—Particulars are given in the subjoined table for certain financial years (1st April to 31st March) of ordinary expenditure by the four provinces on hospitals, charitable institutions, and poor relief. Subsidies in respect of semi-fit persons employed by local authorities have been included under Poor Relief. Further details regarding these services are given in Chapters IV, V, and VI.

PROVINCIAL ORDINARY EXPENDITURE—HOSPITALS AND CHARITABLE INSTITUTIONS, 1933-34 TO 1937-38.

Details.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
			(*a*) ALL PROVINCES.		
	£	£	£	£	£
Hospitals	814,310	939,853	983,386	1,081,960	1,213,355
Charitable Institutions	75,103	76,114	84,172	77,951	81,024
Poor Relief	130,735	134,558	146,606	162,622	168,017
Public Health	18,334	23,983	26,952	35,083	48,398
Miscellaneous	4,428	4,982	20,616	5,327	4,782
TOTAL.....£	1,042,915	1,179,490	1,261,732	1,362,943	1,515,576

PROVINCIAL ORDINARY EXPENDITURE—HOSPITALS AND CHARITABLE INSTITUTIONS, 1933-34 TO 1937-38—(*continued*).

Details.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
	£	£	£	£	£
(b) CAPE OF GOOD HOPE.					
Hospitals	219,153	232,729	250,027	263,783	[illegible]
Charitable Institutions	29,640	30,582	36,107	29,671	[illegible]
Poor Relief	43,839	44,099	45,471	49,341	[illegible]
Public Health	1,097	1,341	5,493	10,304	[illegible]
Miscellaneous	653	612	15,636	1,034	[illegible]
TOTAL £	294,382	309,473	352,734	354,133	[illegible]
(c) NATAL.					
Hospitals	186,397	202,983	218,219	266,473	[illegible]
Charitable Institutions	12,417	11,655	13,205	13,230	[illegible]
Poor Relief	8,321	9,896	10,201	12,723	[illegible]
Public Health	12,931	13,886	11,381	13,408	[illegible]
Miscellaneous	801	524	1,410	795	[illegible]
TOTAL £	220,887	238,944	254,416	306,719	[illegible]
(d) TRANSVAAL.					
Hospitals	369,516	405,764	435,491	459,929	[illegible]
Charitable Institutions	31,761	31,754	32,760	32,850	[illegible]
Poor Relief	48,776	48,420	55,737	60,055	[illegible]
Public Health	2,855	3,867	7,708	9,313	[illegible]
Miscellaneous	2,974	3,846	3,570	3,498	[illegible]
TOTAL £	455,882	493,651	535,266	565,645	[illegible]
(e) ORANGE FREE STATE.					
Hospitals	39,244	93,377	79,649	91,775	[illegible]
Charitable Institutions	1,290	2,123	2,100	2,200	[illegible]
Poor Relief	29,799	32,233	35,197	40,503	[illegible]
Public Health	1,431	4,689	2,370	1,968	[illegible]
Miscellaneous	—	—	—	—	[illegible]
TOTAL £	71,764	137,422	119,316	136,446	[illegible]

7. **Expenditure on Roads, Bridges, and Local Works.**—Particulars are given in the tables below for certain financial years (1st April to 31st March) for all provinces and for each province separately, as to ordinary expenditure by Provincial Administrations on roads, bridges, and local works. Payments from the National Road Fund through the various provinces are also shown from 1935-36. In the case of the Province of the Cape of Good Hope the moneys received from the National Road Fund on account of interest and redemption due on divisional council loans have been transferred to the Provincial Roads Fund account. Further details as to roads and bridges are given in Chapter XIII.

PROVINCIAL ORDINARY EXPENDITURE—ROADS, BRIDGES, AND LOCAL WORKS, 1933-34 TO 1937-38.

Details.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
	£	£	£	£	£
(a) ALL PROVINCES.					
Administration	105,540	112,383	127,776	176,155	203,314
Road Boards and Commissions	3,065	3,152	3,082	2,826	3,417
National Road Fund Expenditure	—	—	335,699	940,214	1,723,493
Contribution to Provincial Roads Fund	300,268	407,603	887,184	795,847	877,685
Roads—Maintenance, Repairs, Betterment, and Purchase of Plant	679,365	743,860	848,121	897,696	993,609
	348,239	400,976	471,529	500,490	507,456
Grants to Local Authorities	11,143	20,814	19,535	19,064	19,534
Bridges and Ponts	14,377	21,748	27,337	29,931	38,716
Local Works	6,360	8,268	9,653	16,178	17,633
Miscellaneous					
TOTAL £	1,468,357	1,718,804	2,729,916	3,369,401	4,384,857
(b) CAPE OF GOOD HOPE.					
Administration	21,653	21,154	27,565	47,380	67,856
National Road Fund Expenditure	—	—	—	248,518	757,870
Contribution to Provincial Roads Fund	—	—	380,000	173,623	145,079
Roads—Maintenance, Repairs, Betterment, and Purchase of Plant	23,243	31,291	39,821	39,219	45,504
	345,418	396,197	464,696	488,645	491,875
Grants to Local Authorities	876	5,755	1,427	1,273	1,648
Bridges and Ponts	4,084	6,416	6,483	8,914	10,020
Local Works	803	1,106	1,879	3,098	4,641
Miscellaneous					
TOTAL £	396,077	461,919	921,871	1,010,670	1,524,493
(c) NATAL.					
Administration	22,325	24,322	25,719	31,120	34,183
Road Boards and Commissions	7	37	40	84	82
National Road Fund Expenditure	—	—	110,859	213,876	262,199
Roads—Maintenance, Repairs, Betterment, and Purchase of Plant	157,444	181,744	177,573	225,962	232,223
	2,148	4,278	6,484	8,524	10,110
Grants to Local Authorities	3,879	6,279	5,890	5,280	6,915
Bridges and Ponts	3,010	3,407	3,486	4,202	5,508
Local Works	3,691	3,863	4,217	7,408	8,977
Miscellaneous					
TOTAL £	192,504	223,930	334,268	496,456	560,197

PROVINCIAL ORDINARY EXPENDITURE—ROADS, BRIDGES, AND LOCAL WORKS, 1933-34 TO 1937-38—(*continued*).

Details.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
(*d*) TRANSVAAL.					
	£	£	£	£	£
Administration	40,662	44,614	52,231	57,092	[illegible]
Road Boards and Commissions.	1,880	1,934	1,761	1,381	[illegible]
National Road Fund Expenditure	—	—	136,121	247,436	[illegible]
Contribution to Provincial Roads Fund	300,268	407,603	507,184	622,224	[illegible]
Roads—Maintenance, Repairs, Betterment, and Purchase of Plant	340,313	330,422	411,421	435,077	[illegible]
Grants to Local Authorities	673	501	349	3,321	[illegible]
Bridges and Ponts	1,290	815	2,127	866	[illegible]
Local Works	5,246	9,243	13,892	12,629	[illegible]
Miscellaneous	1,333	2,768	2,837	5,043	[illegible]
TOTAL £	691,665	797,900	1,127,923	1,385,069	1,7[illegible]
(*e*) ORANGE FREE STATE.					
	£	£	£	£	£
Administration	20,000	22,293	22,261	30,562	[illegible]
Road Boards and Commissions.	1,178	1,181	1,281	1,361	[illegible]
National Road Fund Expenditure	—	—	88,719	230,384	[illegible]
Roads—Maintenance, Repairs, Betterment, and Purchase of Plant	158,365	200,403	219,306	197,438	[illegible]
Bridges and Ponts	5,098	7,905	10,091	2,645	[illegible]
Local Works	2,037	2,682	3,476	4,186	[illegible]
Miscellaneous	533	531	729	629	[illegible]
TOTAL £	188,111	235,055	345,854	467,206	[illegible]

8. **Miscellaneous Expenditure.**—The following tables give for certain financial years (1st April to 31st March) a summary of miscellaneous expenditure by the Provincial Administrations. For the Province of Natal the item includes General Stores and Recoverable Advances.

PROVINCIAL ORDINARY EXPENDITURE—MISCELLANEOUS, 1933-34 TO 1937-38.

Details.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
(*a*) ALL PROVINCES.					
	£	£	£	£	£
Fish and Game Preservation	6,060	6,672	6,418	7,400	[illegible]
Destruction of Vermin	1,269	4,821	10,930	10,090	[illegible]
Eradication of Noxious Weeds	4,908	2,699	5,972	2,381	[illegible]
Grants-in-Aid	24,300	31,788	48,738	50,477	[illegible]
Other	8,372	4,647	9,421	8,055	[illegible]
TOTAL £	44,909	50,627	81,488	78,403	[illegible]

PROVINCIAL ORDINARY EXPENDITURE—MISCELLANEOUS, 1933-34 TO 1937-38—(*continued*).

Details.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
(*b*) CAPE OF GOOD HOPE.					
	£	£	£	£	£
Fish and Game Preservation	1,107	1,150	904	963	1,123
Destruction of Vermin	1,104	4,639	10,486	9,846	16,616
Eradication of Noxious Weeds	4,908	2,676	5,972	2,381	2,381
Grants-in-Aid	20,062	23,642	25,245	26,804	26,469
Other	22	33	13	386	17
TOTAL £	27,203	32,140	42,620	40,380	46,606
(*c*) NATAL.					
	£	£	£	£	£
Fish and Game Preservation	4,589	5,045	4,943	6,024	6,225
Destruction of Vermin	151	138	399	128	94
Eradication of Noxious Weeds	—	23	—	—	—
Grants-in-Aid	1,213	2,396	16,388	18,307	17,470
Other	7,100	2,825	7,310	1,923	6,738
TOTAL £	13,053	10,427	29,040	26,382	30,527
(*d*) TRANSVAAL.					
	£	£	£	£	£
Destruction of Vermin	14	44	54	116	81
Eradication of Noxious Weeds	—	—	—	—	—
Grants-in-Aid	3,025	5,750	7,105	5,366	5,475
Other	647	763	875	745	844,665†
TOTAL £	3,686	6,557	8,034	6,227	850,221
(*e*) ORANGE FREE STATE.					
	£	£	£	£	£
Fish and Game Preservation	364	477	571	413	189
Destruction of Vermin	—	—	—	—	—
Eradication of Noxious Weeds	—	—	—	—	—
Other	603	1,026	1,223	5,001*	2,190
TOTAL £	967	1,503	1,794	5,414	2,379

* Includes £3,303 refund of 1932-33 salary reductions.
† Includes £315,519 refund of 1932-33 salary reductions and £528,268 revenue surplus transferred to Capital Account.

9. **Interest and Redemption.**—Particulars are given hereunder in respect of each province as to the interest and redemption charges paid by the Provincial Administrations for a certain number of years. The reduction from 1936-37 against the heading Roads, Bridges, and Local Works is mainly due to the fact that certain liabilities have been taken over by the National Road Board.

PROVINCIAL ORDINARY EXPENDITURE—INTEREST AND REDEMPTION, 1933-34 TO 1937-38.

Details.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
			(a) ALL PROVINCES.		
	£	£	£	£	£
Education	462,994	473,561	775,996	450,893	443,550
Hospitals	125,013	133,638	181,693	162,028	159,296
Roads, Bridges, and Local Works	347,606	355,773	47,490	24,415	29,102
General	326,371	229,177	11,793	6,201	5,494
TOTAL £	1,261,984	1,192,149	1,016,972	643,542	637,442
			(b) CAPE OF GOOD HOPE.		
	£	£	£	£	£
Education	188,492	194,139	379,170	181,041	181,122
Hospitals	43,601	47,388	54,291	61,926	77,841
Roads, Bridges, and Local Works	21,678	21,187	21,607	5,597	11,937
General	184,745	53,614	10,184	3,703	3,842
TOTAL £	433,516	316,328	465,252	255,267	274,743
			(c) NATAL.		
	£	£	£	£	£
Education	56,551	58,781	60,078	59,956	61,438
Hospitals	20,757	21,538	23,142	26,552	39,151
Roads, Bridges, and Local Works	110,142	119,001	2,294	6,423	12,377
General	7,984	6,797	1,337	1,317	1,158
TOTAL £	195,434	206,117	87,751	94,248	105,130
			(d) TRANSVAAL.		
	£	£	£	£	£
Education	148,516	150,943	205,045	145,721	145,589
Hospitals	41,074	44,815	83,322	52,204	69,465
Roads, Bridges, and Local Works	97,382	93,306	23,580	12,395	2,294
General	42,992	25,657	271	1,181	2,464
TOTAL £	329,964	314,721	372,227	211,501	219,812
			(e) ORANGE FREE STATE.		
	£	£	£	£	£
Education	69,435	69,698	70,803	64,180	61,431
Hospitals	19,581	19,897	20,938	18,346	17,930
Roads, Bridges, and Local Works	118,404	122,270	—	—	2,494
General	90,650	143,109	1	—	—
TOTAL £	293,070	354,983	91,742	82,526	81,855

10. **Classified Summary of Provincial Ordinary Expenditure.**—The following table gives a summary of the unaudited expenditure of the various Provincial Councils for a period of one year subsequent to the period covered by the tables in the preceding paragraphs of this section, which contain only the audited and final figures. The heading Roads, Bridges, and Local Works includes expenditure from funds supplied by the National Road Board.

SUMMARY OF PROVINCIAL ORDINARY EXPENDITURE, 1938-39.

Heading.	Cape of Good Hope.	Natal.	Transvaal.*	Orange Free State.	All Provinces.
	£	£	£	£	£
General Administration	176,329	74,309	181,021	44,527	476,186
Education	4,312,891	1,015,044	3,539,712	893,489	9,761,136
Hospitals and Charitable Institutions	467,731	376,992	676,941	112,000	1,633,664
Roads, Bridges, and Local Works	864,570	835,064	1,947,849	558,249	4,205,732
Miscellaneous	59,053	29,285	37,150	13,377	138,865
Interest and Redemption	306,008	120,608	237,126	85,651	749,393
TOTAL £	6,186,582	2,451,302	6,619,799	1,707,293	16,964,976

* Estimates.

D. PUBLIC DEBT AND EXPENDITURE FROM LOANS.

1. **Public Debt of the Union.***—The table below gives particulars (i) of the total amount of the gross public debt of the Union, the amount of the sinking fund, and the net public debt at the close of each financial year (31st March) 1911 to 1939, and (ii) the amount of gross and net debt respectively per head of the mean total population and per head of the mean European population. Comparisons under this head with other Dominions are difficult to effect, because of the numerical preponderance of the coloured races in the Union. If it were possible to determine the relative economic position of the individual of the coloured races and the individual of European race, it might be in reason to institute comparisons. The figures for the Union have, however, been given for both the mean total population and the mean European population. The true means of comparison with other countries lies in figures some way between those given, probably in each case in an amount per head approximately half of that given in respect of the European population. Nevertheless, it is of interest to note the following amounts, representing for various countries the gross public indebtedness per head of the population:—

			£	s.	d.
New South Wales	at 30th June,	1937	130	3	5
Victoria	,,	,,	95	3	0
Queensland	,,	,,	125	18	1
South Australia	,,	,,	181	5	8
Western Australia	,,	,,	203	7	6
Tasmania	,,	,,	108	16	6
Commonwealth of Australia (i.e. The State Debts added to the Commonwealth Debt less Debts counted twice)	,,	,,	184	18	10
New Zealand (per head of European population)	at 31st March,	1937	182	4	3
Canada	,,	1938	62	15	2
Union of South Africa (per head of European population)	,,	1937	125	5	9
	,,	1938	126	15	2

The system in the Union, under which the responsibility for the whole of the public debt is vested in the Union Government, distinguishes it from that in Australia, where each State has separate responsibility, and where the Commonwealth debt forms only a small proportion of the whole. In any comparison with Canada also differences of provincial government, differences in regard to railways and other undertakings, have to be examined, without which comparison is likely entirely to mislead. Speaking generally, apart from differences in the elements of the population, the conditions in Australia and New Zealand most nearly approximate to those in the Union.

* A statement showing the position of the public debt at the establishment of the Union, when it amounted to £116,036,978 (see paragraph 2 below), will be found in the sixth and previous issues of this *Year Book*.

GROSS AND NET PUBLIC DEBT (ON 31st MARCH), 1911 TO 1939.

Year.	Gross Debt.	Sinking Funds.*	Net Debt.	Gross Debt per Head.		Net Debt per Head.	
				Total Population.	European Population.	Total Population.	European Population.
	£	£	£	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1911..	114,238,969	5,054,620	109,182,349	19 3 1	89 12 11	18 6 2	85 13 7
1912..	117,260,534	5,780,246	111,480,288	19 6 0	90 5 5	18 7 0	85 16 5
1913..	117,828,994	6,269,194	111,559,800	19 0 11	89 0 1	18 0 8	84 5 5
1914..	126,296,250	6,930,611	119,365,639	20 1 1	93 12 11	18 19 1	88 10 1
1915..	138,210,778	7,382,961	130,827,817	21 11 4	100 12 6	20 8 4	95 5 9
1916..	150,832,734	7,981,801	142,850,933	23 2 9	107 17 4	21 18 3	102 3 2
1917..	154,582,673	8,588,213	145,994,460	23 6 3	108 12 4	22 0 5	102 11 8
1918..	160,436,840	9,322,065	151,114,775	23 16 0	110 15 11	22 8 4	104 7 2
1919..	166,367,869	9,144,035	157,223,834	24 16 7	113 2 8	23 9 4	106 15 4
1920..	173,904,818	9,856,196	164,048,622	25 10 9	116 8 0	24 1 10	109 16 1
1921..	178,607,939	11,153,198	167,454,741	25 16 3	117 13 11	24 4 0	110 6 11
1922..	191,784,936	11,575,502	180,209,434	27 5 8	124 9 1	25 12 9	116 15 10
1923..	199,685,853	12,505,627	187,180,241	27 18 8	126 17 6	26 3 8	118 15 7
1924..	205,232,528	11,389,625	196,842,903	28 13 3	129 18 0	27 1 11	122 15 10
1925..	214,332,683	12,312,319	202,020,364	29 0 10	131 8 6	27 7 6	124 17 6
1926..	221,956,431	13,799,923	208,156,508	29 12 1	133 11 9	27 15 3	125 5 7
1927..	231,475,948	15,078,538	216,397,410	30 6 7	135 18 1	28 7 1	127 1 1
1928..	238,926,064	15,693,254	223,232,810	30 16 8	137 19 11	28 16 2	128 18 7
1929..	244,044,513	16,346,315	227,698,198	31 0 0	138 12 5	28 19 0	129 6 9
1930..	249,651,197	17,560,544	232,090,653	31 6 3	139 7 10	29 1 4	129 11 8
1931..	256,845,100	18,863,580	237,981,520	31 13 6	140 11 5	29 7 0	130 4 11
1932..	263,946,830	20,252,568	243,694,262	29 16 8	142 5 8	27 10 11	131 7 6
1933..	272,133,818	21,789,136	250,344,682	30 3 3	144 7 10	27 15 0	132 16 7
1934..	274,311,564	23,277,432	251,034,132	29 16 5	143 2 11	27 5 10	132 9 9
1935..	274,115,401	24,063,781	250,051,620	29 4 5	140 5 5	26 13 1	127 19 1
1936..	251,086,694	4,679,904	246,406,790	26 4 0	125 14 2	25 15 0	125 7 3
1937..	254,936,935	5,709,609	249,227,326	26 2 10	125 5 9	25 11 2	122 9 8
1938..	262,617,905	6,780,374	255,837,531	26 8 9	126 15 2	25 15 1	123 9 9
1939..	278,876,359	7,885,046	270,991,313	27 11 5	132 6 5	26 15 10	128 11 7

* Securities taken in at cost. Nominal value of these in 1939, £8,457,695.

2. External and Internal Debt.—Particulars are given below of the external and internal debt of the Union from 1910 to 1939, showing the amount of debt under each head and the percentage of such amount in relation to the total debt:—

EXTERNAL AND INTERNAL DEBT, 1910 TO 1939.

Date.	External Debt.		Internal Debt.		Total Debt.
	Amount.	Per Cent. of Total Debt.	Amount.	Per Cent. of Total Debt.	
	£		£		£
31st May, 1910.....	106,897,510	92·12	9,139,168	7·88	116,036,678
31st March, 1911.....	103,950,241	91·00	10,286,728	9·00	114,236,969
" 1912.....	103,223,341	88·10	14,037,193	11·90	117,260,534
" 1913.....	102,762,700	87·22	15,066,294	12·78	117,828,994
" 1914.....	111,808,560	88·53	14,487,690	11·47	126,296,250
" 1915.....	123,306,421	89·22	14,904,357	10·78	138,210,778
" 1916.....	131,984,773	87·50	18,847,961	12·50	150,832,734
" 1917.....	131,328,802	84·96	23,253,871	15·04	154,582,673
" 1918.....	126,939,352	79·12	33,497,488	20·88	160,436,840
" 1919.....	125,074,173	75·18	41,293,696	24·82	166,367,869
" 1920.....	123,390,311	70·95	50,514,507	29·05	173,904,818
" 1921.....	123,059,063	68·89	55,548,876	31·11	178,607,939
" 1922.....	128,721,583	67·11	63,063,353	32·89	191,784,936
" 1923.....	131,656,404	65·93	68,029,464	34·07	199,685,868
" 1924.....	133,363,220	64·05	74,869,299	35·95	208,232,528
" 1925.....	139,156,701	64·92	75,175,982	35·08	214,332,683
" 1926.....	144,157,212	64·95	77,799,219	35·05	221,956,431
" 1927.....	147,810,623	63·85	83,665,325	36·15	231,475,948
" 1928.....	151,479,656	63·40	87,446,408	36·60	238,926,064
" 1929.....	150,551,776	61·69	93,492,737	38·31	244,044,513
" 1930.....	155,995,953	62·49	93,655,244	37·51	249,651,197
" 1931.....	161,190,746	62·76	95,654,354	37·24	256,845,100
" 1932.....	159,686,122	60·50	104,260,708	39·50	263,946,830
" 1933.....	165,655,780	60·87	106,478,038	39·13	272,133,818
" 1934.....	165,037,130	60·17	109,274,434	39·83	274,311,564
" 1935.....	156,676,273	57·16	117,439,128	42·84	274,115,401
" 1936.....	122,653,522	48·85	128,433,171	51·15	251,086,694
" 1937.....	103,972,708	40·78	150,964,227	59·22	254,936,935
" 1938.....	101,123,208	38·51	161,494,697	61·49	262,617,905
" 1939.....	101,123,208	36·26	177,753,151	63·74	278,876,359

3. Particulars of Public Debt.—The subjoined table gives particulars as t the public debt on the 31st March, 1939, showing the rate of interest i respect of each item of debt, the nature of the security, the dates whe interest is payable in each year, the years in which the debt is redeemable and where the debt in each case was floated:—

PARTICULARS AS TO THE PUBLIC DEBT OF THE UNION, 31st MARCH, 1939.

Rate of Interest.	Nature of Security.	Amount of Debt.	Date (in brackets) and Month when Interest Payable.	When Debt Redeemable.	Where Floated.
Per Cent.	CAPE OF GOOD HOPE—	£			
3	Consolidated Stock...	4,432,182	Feb.-Aug. (1)	1933–43	London.*
3	" " ...	3,664,657	Feb-May-Aug-Nov. (1)	1924–44	Capetown.*
4½	Perpetual Annuities..	53,652	Jan.-July (1)	Not Specified †	Capetown.
5	" " ..	329,699	April-Oct. (15)	Not Specified †	Capetown.
	TOTAL.....	8,481,190			
	NATAL—				
3	Consolidated Stock...	6,000,000	Jan.-July (1)	1929–49	London.
	TRANSVAAL—				
3	Guaranteed Stock....	5,000,000	Jan.-July (1)	1958	London.
	UNION—				
3	Local Registered Stock	19,061,346	Jan.-July (1)	1951–56	Union.
3	Inscribed Stock.....	11,000,000	May-Nov. (1)	1954–64	London.
3	Local Registered Stock	10,000,000	April-Oct. (1)	1960–65	Union.
3½	Inscribed Stock.....	8,000,000	June-Dec. (1)	1953–73	London.
3½	" "	13,000,000	Jan.-July (15)	1955–65	London.
3½	Local Registered Stock	5,912,258	Jan.-July (15)	1955–65	Union.
3½	" " "	12,000,000	Mar.-Sept. (31–30)	1943–53	Union.
3½	" " "	10,033,000	June-Dec. (1)	1945–55	Union.
3½	" " "	3,500,000	April-Oct. (15)	1953–58	Union.
3½	" " "	20,420,846	Mar.-Sept. (15)	1948–58	Union.
4	Consolidated Stock...	7,900,000	Mar.-Sept. (1)	1943–63	London.
4	Local Registered Stock	7,827,859	Jan.-July (1)	1951	Union.
4	" "	100,000	Mar.-Sept. (1)	1943–63	Union.
4	Savings Stock.....	177,152	Feb.-Aug. (15)	1943–53	Union.
4½	Local Registered Stock	590,000	Mar.-Sept. (1)	1955–75	Union.
4½	" "	14,914,250	May-Nov. (15)	1953	Union.
4½	Inscribed Stock.....	4,410,000	Mar.-Sept. (1)	1955–75	London.
5	" "	7,900,000	Jan.-July (1)	1940–60	London.
5	" "	22,629,826	Jan.-July (1)	1945–75	London.
5	" "	10,850,200	May-Nov. (1)	1950–70	London.
5	Local Registered Stock	14,229,045	Feb.-Aug. (1)	1940–50	Union.
5	Savings Stock.....	361,026	April-Oct. (1)	1940	Union.
5	Local Registered Stock	3,700,000	May-Nov. (1)	1946	Union.
5	Inscribed Stock.....	100,000	Jan.-July (1)	1940–60	Union.
5	" "	370,174	Jan.-July (1)	1945–75	Union.
5	" "	100,000	May-Nov. (1)	1950–70	Union.
4	Pension Stock.....	23,188,900	Mar.-Sept. (31–30)	Not Specified‡	Union.
	TOTAL.....£	241,275,882			
	TOTAL FUNDED DEBT.....£	260,757,072			
	TEMPORARY LOANS—				
¾	Treasury Bills.....	7,765,383	Various dates	Various dates	Union.
1½	"	9,023,500	"	"	Union.
3	"	95,752	"	"	Union.
3½	"	43,648	"	"	Union.
4½	Union Loan Certificates	1,186,004§	"	"	Union.
	TOTAL FLOATING DEBT.....£	18,119,287			
	TOTAL DEBT.....£	278,876,359			

* These stocks were originally floated in London and Capetown. Registers are held at each centre and the stock is transferable between the two registers at the option of the holder. Transfers from the London to the Union register can be effected only at the prevailing rate of exchange (Proc. No. 402, 1931).

† Perpetual annuities.
‡ Acts Nos. 32 and 35 of 1936 (Pension Stocks).
§ Issued by Treasury and included in amount of £6,633,313 shown in the table in Chapter XVI, § 2, para. 16.

4. **Rates of Interest.**—Particulars are given below as to the rates of interest payable on loans of various classes on the 31st March, 1931, and at the close of each subsequent year, together with the average rate per cent. on stock and debentures, on temporary loans, and on all loans combined:—

RATE OF INTEREST ON LOANS, 1934 TO 1939.

Rate of Interest.	31st March, 1934.	31st March, 1935.	31st March, 1936.	31st March, 1937.	31st March, 1938.	31st March, 1939.
Stock and Debentures.	£	£	£	£	£	£
3	54,097,840	54,097,840	40,097,840	59,159,185	59,159,185	59,159,185
3½	62,762,444	60,182,902	70,362,602	53,652,258	56,664,858	61,415,058
3¾	23,420,846	23,420,846	23,420,846	20,420,846	20,420,846	20,420,846
4	33,034,690	33,013,502	33,008,789	30,871,875	37,293,443	34,193,941
4½	27,917,001	19,968,001	19,968,001	19,968,002	19,968,002	19,968,002
5	67,583,216	60,585,440	60,581,036	60,576,011	60,573,413	60,570,970
TOTAL.....£	268,816,037	271,268,531	247,439,314	244,648,177	254,070,747	256,727,002
Temporary Loans.						
London Day to Day Rate	—	—	—	—	—	—
Non-Interest Bearing....	—	—	—	300,000	2,600,000	—
1	167,000	240,000	1,352,207	5,893,000	3,184,500	7,755,383
1½	108,000	—	—	2,073,000	191,000	9,028,500
1¾	—	—	—	—	900,000	—
2	2,015,000	—	—	—	—	—
3	315,556	94,768	94,671	94,730	95,753	95,752
3½	—	—	—	149,071	83,467	43,048
4	17,492	5,721	4,342	—	—	—
4½	2,755,885	2,421,257	2,081,249	1,773,957	1,483,439	1,185,004
5	116,594	85,124	114,911	—	—	—
TOTAL.....£	5,495,527	2,846,870	3,647,380	10,288,758	8,538,159	18,110,287
GRAND TOTAL...£	274,311,564	274,115,401	251,086,694	254,936,935	262,617,906	274,837,289
Average Rates per Cent.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Stock and Debentures...	3 19 3	3 17 9	3 19 1	3 18 4	3 18 3	3 18 1
Temporary Loans.....	3 8 11	4 2 11	3 1 8	1 11 9	1 7 0	1 7 9
All Loans.....	3 19 0	3 17 10	3 18 10	3 16 5	3 16 8	3 14 10

5. **Treasury Bills.**—The Union Government issues from time to time Treasury Bills for sums of £500 and over for fixed periods of 90 days and six and twelve months, through the Secretary for Finance, Pretoria, the Treasury Representative, Capetown, and the Receivers of Revenue at Pietermaritzburg, Durban, Bloemfontein, East London, Port Elizabeth, and Kimberley.

RATES OF INTEREST ON TREASURY BILLS AT CERTAIN DATES.

Description.	1st April, 1931.	26th Oct., 1931.	18th Nov., 1931.	19th Jan., 1932.	7th Oct., 1932.	11th Jan., 1933.	20th Jan., 1933.	28th Jan., 1933.	2nd June, 1936.
	%	%	%	%	%	%	%	%	%
90 days.....	2‡	3‡	3½‡	4‡	3‡	2½	2	†	½‡
6 months' bills.	3‡	3½‡	4‡	4½‡	3½‡	3	2½	2*	¾‡
12 months' bills	3½‡	4‡	4½‡	5‡	4‡	3½	3	3*	1½‡

* Issue discontinued 13th February, 1933.
† Issue discontinued 28th January, 1933.
‡ Discount.

6. **Annual Debt Charge.**—Particulars are given below of the amount of the annual debt charge in the Union, and the amount per head of the mean total population, and also of the European population, for six years.

ANNUAL DEBT CHARGE, 1932-33 TO 1937-38.

Heading.	1932–33.	1933–34.	1934–35.	1935–36.	1936–37.	1937–38.
	£	£	£	£	£	£
Management Expenses.....	36,331	54,675	46,176	80,698	66,433	48,392
Redemption (Statutory Contribution).....	650,739	650,916	651,537	681,384	848,677	849,023
Exchange on Remittances.....	9,120	63,084	91,533	110,018	151,852	65,740
Interest (paid from Revenue)..	3,017,107	5,101,400	5,007,009	4,703,117	4,503,899	4,385,279
Total Charge on Consolidated Revenue Fund (*a*).....	3,713,297	5,870,075	5,796,255	5,575,217	5,570,861	5,348,434
Interest on Railway and Harbour Debt.....	6,558,141	6,115,787	5,830,397	5,788,487	5,714,380	5,604,480
TOTAL DEBT CHARGE.....	10,271,438	11,985,862	11,626,652	11,363,704	11,285,241	10,952,914
Debt charge per head of Population*—	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
(i) European.....	5 10 3	6 6 9	6 0 10	5 15 8	5 12 4	5 7 2
(ii) All Races.....	1 3 1	1 6 5	1 5 2	1 4 1	1 3 6	1 2 4
Percentage of Revenue absorbed by Public Debt Charges in (*a*)	13·05	15·60	14·96	14·05	12·93	12·26

* As at 30th June. Revised calculations.

7. **Prices of Government Stock.**—The subjoined table gives the prices of Government Stock for a period of eight years, calculated at the middle price, less accrued interest, at 31st March of each year:—

UNION GOVERNMENT STOCK—MIDDLE PRICES, 1931 TO 1938.

Designation of Stock.	31st March, 1931.	31st March, 1932.	31st March, 1933.	31st March, 1934.	31st March, 1935.	31st March, 1936.	31st March, 1937.	31st March, 1938.
5 PER CENT.								
Union Local Registered (1929–39)	100¼	91	101¼	*d*	—	—	—	—
Union Local Stocks, 1935	100¼	94	102	102	*f*	—	—	—
Union of South Africa Inscribed (1933–43)	100¼	98	100¼	*e*	—	—	—	—
Union of South Africa Inscribed (1940–60)	100¼	99	107	108¼	108¼	108	107¾	107¾
Union of South Africa Inscribed (1945–75)	100¼	99¼	110¼	112¼	113¼	114	116	116
Union of South Africa Inscribed (1950–70)	102¼	98	113¼	114½	117½	118¼	119	119
Union of South Africa Local Registered (1940–60)	102	90½	109¼	111½	109	107½	104	103
Union of South Africa Local Registered (1946)	—	90	110	116½	116½	116¼	115	116
Union of South Africa Debentures (1929–47)	100¼	*b*	—	—	—	—	—	—
Union of South Africa Savings (1940)	100	100	100	100	100	100	100	100
Cape Colonial (Perpetual Annuities)	100	89	112½	115½	119	119	115	115
4½ PER CENT.								
Union Local Registered (1929–39)	100	*c*	—	—	—	—	—	—
Union Local Registered (1953)	90	79	106	112	117½	116	114	111
Union of South Africa Inscribed (1955–75)	—	—	—	—	116¼	116¼	115½	113½
Cape Colonial (Perpetual Annuities)	90	80¼	106¼	111¼	116	116	111	112½
4 PER CENT.								
Union of South Africa Local Registered (1951)	89¼	75¼	104	107	109¼	110¼	106	104½
Union of South Africa 4 per cent. Consolidated Stock, (1943–63)	90½	80	104¼	105	107¼	107¼	103½	104½
Union of South Africa Local Registered Stock (1933–53)	—	—	101¼	103	101¼	100	*j*	—
Union of South Africa Savings (1943–53)	—	—	100	100	100	100	100	100
Cape Colonial (1916–36)	95¼	90¼	98¼	101	101¼	100	*k*	—
Cape Colonial (1918–48)	88¼	77¼	98¼	104¼	101¼	100	*l*	—
Natal Consolidated Inscribed (1937)	95	97	101¼	103¼	103¼	102¼	100	*a*
3½ PER CENT.								
Union of South Africa Local Registered (1933–53)	—	—	99½	101½	101	100	*j*	—
Union of South Africa Local Registered (1948–58)	—	—	—	104½	107½	107¼	104	102½
3¼ PER CENT.								
Union of South Africa Inscribed (1953–73)	—	—	98½	101¼	105½	107	104	101½
Union of South Africa Local Registered (1943–53)	—	—	—	100	100	103¼	101	101¼
Union of South Africa Local Registered (1945–55)	—	—	—	100	100	103¼	101	100¼
Union of South Africa Inscribed (1955–65)	—	—	—	101¼	106¼	107¼	102½	100¼
Cape Colonial (1930–50)	81¾	70¼	90¼	99¼	104¼	100	*j*	—
Natal Inscribed (1914–39)	89¼	91½	100½	101½	100½	*g*	—	—
Natal Consolidated (1934–44)	86½	84½	100½	102½	101½	*h*	—	—
3 PER CENT.								
Union of South Africa Local Registered (1951–56)	—	—	—	—	—	—	95¼	94¼
Union of South Africa Inscribed (1954–04)	—	—	—	—	—	100¼	96¼	93½
Union of South Africa Local Registered (1960–65)	—	—	—	—	—	100	96¾	93½
Cape Colonial (1924–44)	81¼	72¼	92¼	98¼	99¼	100	98½	97¼
Natal Consolidated Inscribed (1929–49)	78¼	77¼	95¼	97¼	99¼	101¼	98¼	99¼
Transvaal Guaranteed (1923–53)	85¼	85¼	98¼	99¼	100¼	*i*	—	—
Transvaal Guaranteed (1958)	85¼	81¼	98¼	99¼	102¼	101¼	99¼	99¼

a Redeemed April, 1937.
b Redeemed December, 1931.
c Redeemed June, 1931.
d Converted October, 1933.
e Converted January, 1934.
f Redeemed, converted, and cancelled January, 1935.
g Redeemed August, 1935.
h Redeemed and cancelled February, 1936.
i Redeemed, converted, and cancelled June, 1935.
j Converted July, 1936.
k Converted October, 1936.
l Converted May, 1936.

8. **Dates of Maturity of Funded Debt.**—The following table shows the dates of maturity of the funded debt of the Union as it stood on the 31st March, 1937. The remoter date of maturity has been taken for loans in trust at 3 per cent. and under, and the earlier date for loans above 3 per cent. (except where otherwise stated).

FUNDED DEBT OF THE UNION, 31st MARCH, 1937—DATES OF MATURITY.

Date.	Amounts Payable.			Date.	Amounts Payable.		
	In London.	In South Africa.	Total.		In London.	In South Africa.	Total.
	£1,000	£1,000	£1,000		£1,000	£1,000	£1,000
Indefinite	—	21,668	21,668	1950	10,850	100	10,950
1940	7,900	14,693	22,593	1951	—	7,828	7,828
1943	12,333	12,281	24,614	1953	8,000	14,914	22,914
1944	—	3,665	3,665	1955	17,410	6,502	23,912
1945	22,630	18,123	40,753	1956	—	19,061	19,061
1946	—	3,700	3,700	1958	5,000	—	5,000
1948	—	20,421	20,421	1964	11,000	—	11,000
1949	6,000	—	6,000	1965	—	10,000	10,000

9. **Colonial Stock Act.**—The *Colonial Stock Acts*, 1877 to 1900, passed by the Imperial Government gave the privilege of Trustee Stocks to such stocks of the Colonies as were registered in the United Kingdom in accordance with the provisions of those Acts. The *Trustee Investment in Union Government Securities Act*, No. 6 of 1913, made provision for the payment of money due to holders of such stocks. In view of the *Statute of Westminster*, 1931, the Imperial Government undertook to modify the Treasury conditions with regard to those stocks, provided the Union Government gave a suitable undertaking to safeguard the interests of stockholders. This undertaking is embodied in the *Colonial Stock Act* 1900 *Declaration Act*, No. 49 of 1934.

10. **Expenditure from Loans.**—In the subjoined table particulars are given for six years of the expenditure from loans under the main heads.

Expenditure under the heads of Public Works and Buildings, Lands, and Local Works and School Loans includes capital expenditure incurred by the Provincial Administrations.

EXPENDITURE FROM LOANS, 1932-33 TO 1937-38.

Loan Vote.	1932–33.	1933–34.	1934–35.	1935–36.	1936–37.	1937–38.
	£	£	£	£	£	£
Railways and Harbours	689,476	855,772	801,331	608,928	1,384,992	3,500,000
Public Works and Buildings	472,251	420,346	709,539	1,118,894	1,634,466	1,488,605
Telegraph and Telephone Works	393,763	411,673	692,632	861,427	1,070,095	1,198,356
Agriculture	97,474	384,628	702,252	219,817	188,898	668,618
Lands	250,195	344,626	567,233	673,303	728,310	1,455,266
Irrigation	369,620	537,296	1,086,041	1,399,343	1,570,208	1,768,697
Local Works and School Loans	1,286,793	1,436,625	1,559,774	1,588,783	1,639,171	2,860,962
Land and Agricultural Bank	500,000	—	—	200,000	500,000	1,000,000
Native Affairs	10,550	46 172	100	123	1,000,223	1,000,005
Forestry	309,352	355,390	336,220	300,582	276,261	571,032
Labour	751,522	1,109,167	415,981	37,552	515,768	471,789
Withdrawal of Silver Coin	—	500,000	—	—	—	—
Iron and Steel Industry	1,749,043	1,652,157	486,320	1,490,460	—	—
Capital for Advances	—	—	—	10,000	—	—
Police (Standard Stock Account)	—	—	—	—	—	10,000
Printing and Stationery (Standard Stock)	—	—	10,000	—	—	30,000
Assistance to Farmers*	1,732,865	4,023,070	4,402,904	3,913,677	4,057,706	2,995,597
Fishing Harbours	1,571	4,741	7,266	9,472	—	—
GRAND TOTAL.....£	8,614,475	12,081,672	11,777,593	12,342,426	14,566,098	19,019,127

* Includes Farmers' Special Relief in terms of the 1931 Act and advances in terms of section 20, Act No. 29 of 1933.

The total appropriation for loan expenditure in 1938-39 was £25,553,324, and the issues required for expenditure were £22,885,000.

11. **Loan Receipts.**—The following table gives, for six financial years, the loan recoveries and other loan credits under the main heads. Certain revenue, chiefly derived from public estate, is not included in ordinary revenue but is credited direct to the Loan Account under Other Loan Credits. The table does not include Capital receipts (temporary or funded loans raised) nor surrenders of previous years' unexpended balances.

LOAN RECEIPTS, 1932-33 TO 1937-38.

Heading.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
LOAN RECOVERIES :—	£	£	£	£	£	£
Crown Lands	44,736	85,007	46,816	43,795	67,345	[illegible]
Land Settlement, etc.	52,784	73,468	126,424	91,543	153,915	[illegible]
Provincial Administrations and South West Africa :—						
Capital Expenditure	269,112	291,118	313,488	693,713	349,887	[illegible]
Special Advances	221,673	277,663	213,958	8,505	—	—
Unemployment Advances	24,495	24,488	24,832	22,201	508	689
National Road Board :—						
Capital Expenditure	—	—	—	—	141,233	[illegible]
Unemployment Advances	—	—	—	—	—	17,415
Local Loan Funds	—	—	—	1,127,607	80,000	—
Agriculture	18,122	119,775	108,089	70,868	110,716	[illegible]
Irrigation	46,845	59,312	54,122	59,969	50,418	[illegible]
Labour	19,751	68,852	58,579	25,806	29,536	650
Universities and Colleges	27,631	30,958	73,245	32,434	173,671	[illegible]
Drought Distress†	56,680	66,116	40,072	41,507	—	—
Farmers' Special Relief*	22,907	103,596	177,397	187,828	374,604	[illegible]
Section 20, Act No. 29 of 1933	—	8,373	334,776	287,157	437,664	[illegible]
Famine Relief	10,114	6,806	3,056	2,101	565	833
Local Works Loans	160	167	174	182	191	193
Native Affairs	1,747	—	—	—	—	—
Native Development	—	—	—	—	—	—
Cost of Raising Loans	—	11,523	38,101	35,655	33,921	[illegible]
Survey of Native Locations	—	1,503	1,455	1,347	854	731
Withdrawal of British Silver	—	14,500	58,200	144,056	283,244	—
Electricity Supply Commission	—	2,115,588	5,406,502	—	—	—
Co-operative Societies—						
1932–33 Wheat Crop	—	38,458	9,637	—	—	—
Total Loan Recoveries £	816,757	3,397,271	7,087,953	2,876,364	2,288,292	[illegible]
OTHER LOAN CREDITS :—						
Gold Mining Leases	1,857,309	3,773,445	3,577,620	3,587,205	3,366,316	[illegible]
Other Mining Leases	—	473	912	692	1,098	[illegible]
Bewaarplaatsen	69,340	124,526	121,401	118,115	103,309	[illegible]
State Mining	306,230	29,604	20,789	10,205	6,609	1,052
Miscellaneous	36,902	3,673	4,584	21,994	5,716	[illegible]
Revenue Surplus	—	—	—	1,000,000	500,000	[illegible]
Post Office Contribution from Revenue	—	—	—	186,000	186,000	[illegible]
Export Duty on Diamonds	—	—	—	—	—	[illegible]
GRAND TOTAL £	3,086,538	7,328,992	11,113,468	7,500,575	6,757,400	[illegible]

* From 1936–37 represents recoveries by State Advances Recoveries Office.
† From 1936–37 included in Farmers' Special Relief.

The revised estimate for 1938-39 for Loan Receipts was £5,400,000, and Exchequer Receipts amounted to £5,461,420. In addition, an amount of £3,927,036 being portion of the surplus on revenue account for 1937-38 was transferred and credited to loan account during 1938-39.

12. Loan Expenditure and Recoveries.—The following table shows, allocated to the various services, (*a*) the net expenditure from loan at 31st March, 1938, (*b*) the net expenditure from loan at Union, (*c*) the net expenditure from loan since Union, i.e. from 31st May, 1910, to 31st March, 1938, (*d*) recoveries on loan account since Union, and (*e*) the gross expenditure from loan account during the same period.

The net expenditure at 31st May, 1910, in the case of Lands, Agriculture, and Irrigation was £4,225,396. An estimate of the amount spent by each department has been made and accepted by the departments concerned to represent as close approximations as can be made in the circumstances.

The net expenditure now shown as at the date of Union differs from the total net expenditure given in No. 7 and earlier issues of the *Year Book*, chiefly owing to the fact that the cost of the raising and conversion of loans is excluded.

A reconciliation statement as between the net expenditure from loan and the public debt is given at the foot of the table.

LOAN EXPENDITURE AND RECOVERIES AT 31st MARCH, 1938.

Service.	Net Expenditure. At 31st March, 1938.	Net Expenditure. At 31st May, 1910.	Net Expenditure. 31st May, 1910, to 31st March, 1938.	Recoveries, 31st May, 1910, to 31st March, 1938.	Gross Expenditure 31st May, 1910, to 31st March, 1938.
	£	£	£	£	£
Railways and Harbours	(*a*)156,000,241	74,414,920	81,585,321	20,000	81,605,321
Railways and Harbours (Special Advance)	—	—	—	1,500,000	1,500,000
Telegraphs and Telephones	13,761,537	1,245,566	12,515,971	654,207	13,170,178
Public Works and Buildings	(*b*) 19,035,079	4,267,469	15,367,610	658,255	16,025,865
Lands	10,650,586	2,972,597	7,677,989	6,209,569	13,887,558
Agriculture	1,123,088	546,656	576,432 (*g*)	1,449,581	2,026,013
Irrigation	14,835,824	706,143	14,129,681	1,248,604	15,378,285
Forestry	4,693,429	—	4,693,429	9,377	4,702,806
Loans to Provincial Administrations and South West Africa	17,208,295	—	17,208,295	6,799,960	24,008,255
Local Works Loans	120,287	456,915	(*f*) 336,628 (*h*)	595,932	259,304
University and College Loans	3,506,584	1,003,940	2,502,644 (*i*)	771,996	3,274,640
Local Loans Fund	4,477,944	—	4,477,944	1,207,698 (*r*)	5,685,642
New Territory and Liability of Territory annexed	3,476,107	3,466,071	10,036	—	10,036
Immigration	499,179	499,179	—	—	—
War and Defence	40,540,507	10,812,137	29,728,370	2,909,241	32,637,611
Repatriation	5,980,697	6,507,915	(*f*) 527,218	527,218	—
Land and Agricultural Bank	(*d*) 16,519,638	2,171,562	14,348,076	—	14,348,076
Deficiency in Revenue	—	4,939,719	(*f*) 4,939,719 (*k*)	6,952,184	2,012,465
Capital for Advances	70,000	—	70,000	—	70,000
Relief of Distress	459,740	—	459,740	1,066,078	1,525,818
Farmers' Special Relief	10,089,130	—	10,089,130	964,180	11,053,310
National Road Board	3,379,486	—	3,379,486	289,435 (*l*)	3,668,921
Defence (Stores, Standard Stock)	410,000	—	410,000	—	410,000
Police (Stores, Standard Stock)	90,000	—	90,000	60,000	150,000
Printing and Stationery (Stores, Standard Stock)	60,000	—	60,000	—	60,000
Public Health, Sanatoria, Hospitals, etc.	108,410	—	108,410	2,601	111,011
Purchase and Distribution of Flour	587,641	—	587,641	796,936	1,384,577
Purchase and Distribution of Tobacco	16,110	—	16,110	50,496	66,606
Unemployment Expenditure	3,306,860	—	3,306,860	662,719	3,969,579
Electricity Supply Commission	—	—	—	7,522,090	7,522,090
Iron and Steel Industry	5,877,980	—	5,877,980	—	5,877,980
Grant to South West Africa for Land Settlement	339,000	—	339,000	—	339,000
Special Grants to Provinces for Road Construction	1,127,500	—	1,127,500	—	1,127,500
Currency Depreciation	1,757,317	—	1,757,317	—	1,757,317
Fishing Harbours	24,070	—	24,070	—	24,070
Withdrawal of Silver Coin	—	—	—	500,000	500,000
Advances to Farmers (Under section 20 of Act No. 29 of 1933)	11,068,977	—	11,068,977	1,735,103	12,804,080
Soil Erosion	497,117	—	497,117	38,255	535,372
Co-operative Livestock and Agricultural Credit Societies	365,757	—	365,757	64,541	430,298
Purchase of Land for Native Settlement	2,000,000	—	2,000,000	—	2,000,000
	354,664,117	114,010,789	240,653,328	45,266,256	285,919,584
Cost of Raising and Conversion	(*c*) 10,980,265	4,710,604	6,269,661	148,342	6,418,003
TOTAL £	365,644,382	118,721,393	246,922,989	45,414,598	292,337,587

(*a*) £2,739,372 transferred to Electricity Supply Commission in respect of Colenso Electricity Undertaking in terms of section 19, Act No. 43 of 1925.
(*b*) Includes £2,270 transferred from University and College Loans, and £8,297 in respect of the Old Pretoria Hospital buildings which were handed back to the Union Government by the Transvaal Provincial Administration.
(*c*) Includes £4,788,604 transferred from the Housing Loans Fund to the Local Loans Fund.
(*d*) £121,500 transferred to Lands Department in respect of advances made to the Umfolozi Co-operative Sugar Planters Limited in terms of section 2 of Act No. 45 of 1931.
(*e*) £212,126 transferred to Electricity Supply Commission.
(*f*) Recoveries greater than expenditure.
(*g*) Includes £192,398 transferred to Land Bank under section 3 (5), Act No. 18 of 1912.
(*h*) Includes £265,800 transferred to capital of Local Loans Fund in terms of section 2, Act No. 19 of 1926.
(*i*) Includes £17,231 transferred to Public Works Department in respect of State-aided Institutions transferred to Union Government in terms of section 11 of Act No. 5 of 1922 as amended by Act No. 46 of 1925.
(*k*) Includes £1,900,000 and £1,000,000 transferred from Revenue Account in 1934–35 and 1935–36, respectively, previously included in other credits to Loan Account, and £479,333 transferred from Revenue Account, 1936–37.

(i) Liability in respect of Capital Expenditure (£3,484,807) and Unemployment Expenditure (£214,114) transferred from Provincial Administrations in terms of section 9 (1) of Act No. 42 of 1935.			
Net Expenditure to 31st March, 1938			£
Add—			
In transit 31st March, 1938, Loan Recoveries		£17,597	
Surrenders Loan Votes 1937-38 in transit at 31st March, 1938		75,165	
Amount overdrawn from Exchequer in respect of repayment of Union Loan Certificates during 1937-38		182	92,944
			£
Deduct—			
Debit Balance on Loan Account at 31st March, 1938		£3,497,072	
Other Credits to Loan Account at 31st March, 1938:—			
Gold Mining Leases	£32,834,866		
Other Mining Leases	56,880		
Bewaarplaatsen Receipts	2,292,919		
State Mining	4,789,353		
Excess Profits Duty	1,218,241		
Miscellaneous	89,758		
Export Duty on Diamonds	237,863		
Transferred from Revenue Account in terms of section (1) (*b*) of Act No. 50 of 1937	2,511,202	44,031,082	
		55,552,446	
Debt paid off		38,729	
Issues Loan Votes 1937-38 (Late issue)		92	
Balance due from Exchequer for 1943-53 Savings Stock redeemed 1937-38			
Debt outstanding at 31st March, 1938			£

13. System of Capital Expenditure in Provinces.—Prior to the passing of the *Financial Relations Act*, No. 10 of 1913 (as amended), capital expenditure in connexion with services controlled by the Provincial Administrations was covered by the general expenditure of the Union Government. In terms of section 6 (3) of the Act of 1913, however, specific issues from loans are provided for the provinces in respect of capital or non-recurrent expenditure, defined as expenditure (whether directly or by loan to local bodies) upon the erection, construction, acquisition, extension, or improvement of any building, bridge, pont, or upon any work or undertaking of a permanent nature in relation to a matter entrusted to the province, but not expenditure upon the construction of a road, unless authorized by the Treasury in special cases; provided that—

(*a*) if the expenditure upon any such building or extension thereof does not exceed £500, or

(*b*) if the expenditure upon any bridge, pont, or other such work or undertaking does not exceed £500, such expenditure is deemed to be normal or recurrent expenditure, except by provision of the Executive Committee of a province on the annual estimates of expenditure, with the approval of the Treasury, or

(*c*) if the expenditure appears clearly to be of a capital or non-recurrent nature, the Treasury may in its discretion authorise such expenditure to be regarded as capital or non-recurrent expenditure, notwithstanding that the amount of such expenditure is less than £500 (section 1 of Act No. 21 of 1924).

In 1925, the objects for which loans could be made from capital expenditure were extended so as to include the purchase of provincial stores and requisites.

The amount, which may from time to time be required by any province for the purpose of meeting any capital or non-recurrent expenditure, is advanced to that province upon loan as required, in such amounts as Parliament authorizes by annual appropriation. Any such advance has to be repaid by the province to the Treasury by equal half-yearly instalments, so calculated that the whole advance and the interest thereon will be repaid within a period of not less than fifteen years and not exceeding forty years, but the Treasury may prescribe a shorter period for the repayment of any such advance as is made for the construction of any road. Advances made prior to the 1st July, 1921, bear interest at the rate of 5 per cent. per annum, but under the provisions of section 1 (1) of Act No. 42 of 1917 the Minister of Finance fixed the rate of interest on advances made on or after the 1st July, 1921, at 6 per cent. per annum. On and from the 1st January, 1923, the rate of interest was fixed at 5 per cent. per annum, and was again reduced to 4 per cent. per annum as from the 1st January, 1933, and to 3½ per cent. per annum as from 1st April, 1934. On the 31st December, 1936, an overall rate of interest at 4¼ per cent. per annum was fixed with effect from 1st July, 1936, on the balances outstanding at 1st July, 1936, of loans for capital expenditure made to Provincial Administrations prior to

1st July, 1935, under section 9 (1) of Act No. 10 of 1913. The rates of interest now applicable to loans to the provinces are, therefore, 4¼ per cent. per annum on the balances of loans made prior to 1st July, 1935, and 3½ per cent. per annum on loans made subsequently. The instalments and interest aforesaid are treated in the *Appropriation Ordinance* and in the accounts of the province as part of its normal or recurrent expenditure.

The amounts received by a province for capital expenditure are paid into the capital account of the Provincial Revenue Fund.

14. **Details of Capital Expenditure in Provinces.**—Table (i) below gives the total capital expenditure in each province for a period of years (1st April to 31st March) and the total capital expenditure for the whole of that period. Table (ii) gives in respect of each province the capital expenditure for a number of years under the main heads of expenditure. The whole of this expenditure is covered in the table contained in paragraph 12 of this section.

(i) CAPITAL EXPENDITURE OF PROVINCES, 1913-14 TO 1937-38.

Financial Year ending 31st March.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Total.
	£	£	£	£	£
1914 to 1918	1,375,477	322,921	802,460	392,325	2,893,183
1919 to 1923	1,242,401	883,917	1,758,843	936,608	4,821,769
1924 to 1928	1,122,777	936,452	1,459,888	1,034,242	4,553,359
1929 to 1933	1,209,839	1,229,010	1,833,234	1,321,251	5,593,334
1934	143,391	193,427	107,998	72,664	517,480
1935	233,540	316,826	173,787	84,270	810,423
1936	348,311	236,446	344,027	14,785	943,569
1937	730,417	222,215	665,380	56,481	1,674,493
1938	502,015	275,936	1,120,152	81,236	1,979,339
TOTAL £	6,910,168	4,617,150	8,265,769	3,993,862	23,786,949

(ii) CAPITAL EXPENDITURE UNDER MAIN HEADS IN EACH PROVINCE, 1913-14 TO 1937-38.

Financial Year ending 31st March.	Cape of Good Hope.					Natal.		
	Buildings.	Hospitals.	Roads and Bridges.	Other.	Total.	Buildings.	Roads and Bridges.	Total.
	£	£	£	£	£	£	£	£
1914 to 1918	947,369	287,324	132,784	8,000	1,375,477	219,379	103,542	322,921
1919 to 1923	898,852	153,605	65,650	124,294	1,242,401	502,621	381,296	883,917
1924 to 1928	760,434	122,707	113,675	125,961	1,122,777	375,789	560,663	936,452
1929 to 1933	859,789	327,727	22,323	—	1,209,839	416,353	812,657	1,229,010
1934	56,898	84,255	2,238	—	143,391	48,742	144,685	193,427
1935	101,862	121,896	3,782	8,000	235,540	94,952	221,874	316,826
1936	148,998	169,235	30,078	—	348,311	124,873	111,573	236,446
1937	261,192	416,926	52,299	—	730,417	137,231	84,984	222,215
1938	218,731	230,478	52,806	—	502,015	151,064	104,872	275,936*
TOTAL £	4,254,125	1,914,153	475,635	266,255	6,910,168	2,071,004	2,526,146	4,617,150

Financial Year ending 31st March.	Transvaal.					Orange Free State.			
	Buildings.	Roads and Bridges.	Acquisition of Land.	Other.	Total.	Road Construction.	Buildings.	Bridges.	Total.
	£	£	£	£	£	£	£	£	£
1914 to 1918	701,810	39,230	44,655	16,765	802,460	139,561	219,463	33,301	392,325
1919 to 1923	1,224,874	317,975	86,667	129,327	1,758,843	243,870	574,984	117,754	936,608
1924 to 1928	785,592	524,332	50,943	99,021	1,459,888	537,213	264,497	232,532	1,034,242
1929 to 1933	848,206	750,660	64,386	169,982	1,833,234	667,898	490,205	163,148	1,321,251
1934	38,516	11,445	1,833	56,204	107,998	52,723	15,989	3,952	72,664
1935	68,340	24,503	18,135	62,809	173,787	65,814	8,757	9,699	84,270
1936	147,911	24,308	54,635	117,173	344,027	—	14,785	—	14,785
1937	341,798	33,841	83,996	205,745	665,380	36,395	13,027	7,059	56,481
1938	676,620	34,455	76,690	332,387	1,120,152	9,342	66,401	5,493	81,236
TOTAL £	4,833,667	1,760,749	481,940	1,189,413	8,265,769	1,752,816	1,668,108	572,938	3,993,862

* Includes £20,000 for capitalization of provincial stores.

15. Provincial Loan Indebtedness.—The table hereunder is a summary of the provincial loan accounts for the year ending 31st March, 1938. The figures have been sub-divided to show the indebtedness of each province as regards (a) capital expenditure, and (b) loans to meet revenue deficits. These figures do not include amounts raised for the purpose of granting housing loans to local authorities.

PROVINCIAL LOAN INDEBTEDNESS—SUMMARY FOR YEAR 1937-38.

Details.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Total.
	£	£	£	£	£
For Capital Expenditure— Balance, 31st March, 1937...	4,763,617	1,882,096	3,773,403	1,337,802	11,756,918
Loans raised, 1937-38.....	658,000	300,000	600,000	85,000	1,643,000
TOTAL.....£	5,421,617	2,182,096	4,373,403	1,422,802	13,399,918
Repayments, 1937-38.....	81,619	31,410	59,968	26,095	199,092
Outstanding, 31st March, 1938. £	5,339,998	2,150,686	4,313,435	1,396,707	13,200,826
To meet Revenue Deficits— Balance, 31st March, 1937....	—	—	—	—	—
Loans raised, 1937-38.....	—	—	—	—	—
TOTAL.....£	—	—	—	—	—
Repayments, 1937-38.....	—	—	—	—	—
Outstanding, 31st March, 1938. £	—	—	—	—	—
GRAND TOTAL OUTSTANDING. £	5,339,998	2,150,686	4,313,435	1,396,707	13,200,826

16. Trust Funds.—Particulars are given below for a period of years of the amounts standing to the credit of various trust funds administered by the Public Debt Commissioners. The amount is stated as at the 31st March, the last day of each financial year:—

TRUST FUNDS, 1932 TO 1938.

*Fund.	1932.	1933.	1934.	1935.	1936.	1937.	1938.
	£	£	£	£	£	£	£
Guardians' Fund.	3,577,401	3,439,234	3,625,988	3,996,561	4,188,108	4,375,902	4,183,022
Pension Funds*..	15,914,826	17,019,421	18,395,975	20,795,285	23,178,118	27,442,430	30,302,458
Post Office Savings Bank.....	5,786,048	7,358,724	11,818,859	14,789,820	16,902,506	19,330,819	21,070,554
Sinking Funds...	20,277,580	21,814,702	23,311,366	24,063,782	4,679,904	5,709,609	6,750,374
Railways and Harbours Administration Funds.	19,278,506	20,078,506	23,078,506	26,968,363	30,592,745	31,245,161	33,915,513
Local Loans Fund	4,069,040	4,186,208	4,253,478	4,303,071	3,305,154	3,454,419	4,618,274
Other Funds.....	1,505,734	2,365,421	4,805,841	6,067,008	8,061,377	9,868,339	11,690,714
TOTAL.....£	71,409,135	76,262,216	89,290,013	100,983,890	90,908,002	101,426,682	112,560,909

* Exclusive of pension funds belonging to the Railways and Harbours Administration.

CHAPTER XVI.

CURRENCY, BANKING, AND GENERAL FINANCE.

§ 1. Coinage.

1. **The Transvaal Mint.**—A State Mint was established by the South African Republic in 1890 and continued to function until November, 1902. During its existence the Mint struck coins to the value of £2,722,027. 8s. 4d.

2. **The Pretoria Branch of the Royal Mint.**—(i) *General.*—The establishment of a branch of the Royal Mint at Pretoria was provided for by Act No. 45 of 1919. A Royal Proclamation, dated 14th December, 1922, determined the Pretoria Mint to be a branch of the Royal Mint, London, for the purpose of the manufacture of the British sovereign and half-sovereign. Governor-General's Proclamation No. 37 of 1923 (the *Pretoria Mint Proclamation*, 1922) gave effect to the Order-in-Council as from 1st January, 1923, from which date the Mint began to function.

In 1937 the Union Defence Department made preparations for the manufacture of ·303 ammunition in South Africa and placed orders for the necessary plant, etc., with the successful tenderers, Imperial Chemical Industries, Ltd. The Mint, Pretoria, was entrusted with the carrying out of this work in view of the fact that it already possessed many of the necessary facilities and had a skilled staff suitable for this type of work. During 1938 the scheme was inaugurated after the necessary buildings and plant had been erected and the additional staff obtained. Accounts and statistics for this section are not included in the figures given below.

Further particulars regarding the establishment and functions of the Mint, which have been omitted from this issue owing to considerations of space, will be found in *Year Book* No. 17 and previous issues.

The following are the names of the principal officers of the Pretoria Branch:—

Deputy Master.....	J. T. Becklake, A.M.I.E.E.
Assayer.....	C. R. Robson, B.Sc., A.I.C.
Chief Clerk and Accountant....	R. E. Hill.
Senior Technical Officer.....	J. Wilson, M.B.E.

(ii) *Coinage.*—The designs of the Union silver and bronze coins are as follows:—

Obverse for all denominations—Uncrowned effigy of His Majesty the King with the inscription GEORGIUS VI REX IMPERATOR.

Reverses—

Two-and-a-half shillings..	A shield containing the arms of the four provinces of the Union, surmounted by a Crown, the denomination expressed as 2½ *Shillings*.
Florin.....	Shield as for above coin, no Crown. Denomination expressed as 2 *Shillings*.
Shilling.....	Figure of Hope with an anchor, a star above. Denomination expressed as *Shilling*.
Sixpence.....	Protea surrounded by six bundles of four rods each, the rods being symbolical of the four united provinces. Denomination expressed as "6d."
Threepence.....	As for 6d. but with three bundles of four rods each and "3d."
Penny.....	A Dutch East India merchantman in full sail, *Penny* or ½ *Penny*.
Halfpenny.....	
Farthing.....	Two heraldic sparrows. ¼ *Penny*.

"South Africa" and "Suid-Afrika" with date on all denominations.

The silver coin is composed of 800 parts of pure silver to 200 parts of copper; whilst the bronze coin is made of a mixture of copper, tin, and zinc.

Union silver and bronze token coin passes as legal tender in South West Africa, Basutoland, British Bechuanaland, and Swaziland.

(iii) *Statistics.*—The coining and other activities of the Mint, excluding the ammunition manufacturing section, are illustrated in the following tables:—

(i) TOTAL REVENUE AND EXPENDITURE OF THE PRETORIA MINT TO THE 31st DECEMBER, 1938.

Item.	1923-35.	1936.	1937.	1938.	TOTAL.
REVENUE.					
	£	£	£	£	£
Gold Assaying, Refining and Coining Charges	89,470	537	462	469	[illegible]
Profits on Silver Coinage	951,654	564,272	268,897	26,251	1,811,074
Profits on Bronze Coinage	29,345	8,180	9,831	7,200	[illegible]
Miscellaneous, including Medal Work	71,188	11,729	15,893	12,958	111,768
TOTAL £	1,142,157	584,738	295,083	46,869	2,068,847
EXPENDITURE.					
	£	£	£	£	£
Mint Annuity	386,305	24,521	26,417	27,736	464,979
Gold Coinage, sundry	28,022	3	— 5*	—	[illegible]
Medals, Licence Badges, etc.	60,597	10,216	10,700	12,034	93,547
TOTAL £	474,924	34,740	37,112	39,770	[illegible]

* Gain.

(ii) ISSUES OF NEW GOLD, SILVER, AND BRONZE COINS FROM THE PRETORIA MINT, 1923 TO 31st DECEMBER, 1938.

VALUE.

Denomination.	1923-35.	1936.	1937.	1938.	TOTAL.
	£	£	£	£	£
Sovereigns	83,414,575	—	—	—	83,414,575
Half-sovereigns	876,000	—	—	—	876,000
TOTAL (GOLD) £	84,290,575	—	—	—	84,290,575
Half-crowns	1,059,423	69,648	126,693	38,267	1,294,031
Florins	814,981	69,012	148,988	22,126	1,055,107
Shillings	516,604	37,776	66,624	13,713	[illegible]
Sixpences	256,133	18,805	43,426	4,407	322,771
Threepences	249,387	19,612	40,926	14,206	324,131
TOTAL (SILVER) £	2,896,588	214,853	426,657	92,719	3,630,817
Pence	33,429	8,692	12,212	7,617	61,950
Half-pence	3,311	962	1,202	1,050	6,525
Farthings	505	25	38	49	617
TOTAL (BRONZE) £	37,245	9,679	13,452	8,716	69,092
GRAND TOTAL £	87,224,408	224,532	440,109	101,435	87,990,484

(iii) IMPERIAL AND SOUTH AFRICAN REPUBLIC GOLD AND SILVER COIN WITHDRAWN AND RECOINED AT THE PRETORIA MINT.

Denomination.	1923-35.	1936.	1937.	1938.	TOTAL.
(a) IMPERIAL COINAGE.					
old—	£	£	£	£	£
Sovereigns	1,504,180	—	—	—	1,504,180
Half-sovereigns	454,327	—	—	—	454,327
TOTAL (GOLD) £	1,958,507	—	—	—	1,958,507
ilver—					
Crowns	3,160	51	5	16	3,232
Double-florins	461	6	—	2	469
Half-crowns	1,056,507	7,215	1,360	5,804	1,070,886
Florins	849,730	5,447	1,043	4,567	860,787
Shillings	641,327	4,670	1,146	4,343	651,486
Sixpences	240,597	2,479	491	2,358	245,925
Threepences	104,609	1,530	326	1,279	107,744
TOTAL (SILVER) £	2,896,391	21,398	4,371	18,369	2,940,529
(b) SOUTH AFRICAN REPUBLIC COINAGE.					
Denomination.	1923-35.	1936.	1937.	1938.	TOTAL.
old—	£	£	£	£	£
Sovereigns	677,072	—	—	—	677,072
Half-sovereigns	48	—	—	—	48
TOTAL (GOLD) £	677,120	—	—	—	677,120
ver—					
Crowns	—	—	—	—	—
Double-florins	—	—	—	—	—
Half-crowns	57,155	253	50	352	57,810
Florins	48,197	251	30	264	48,742
Shillings	29,986	201	26	189	30,402
Sixpences	525	61	3	38	627
Threepences	25	7	1	—	33
TOTAL (SILVER) £	135,888	773	110	843	137,614

NOTE.—Excluding illegally used coin purchased at bullion value.

In addition to the above, Union of South Africa coin to the total value of 8,925 was withdrawn from circulation during the year 1937.

(iv) WORK PERFORMED IN THE NON-COINAGE SECTION OF THE PRETORIA MINT.

Classification.	1923-34.	1935.	1936.	1937.	1938.
lals—					
Gold	4,643	479	420	534	796‡‡
Silver	19,613	6,411‡	2,067‖	4,935**	5,404‡‡
Bronze	194,804*†	286,579§	121,390¶	336,706††	48,975‡‡
ls	986	332	66	135	200
nage Dies	3,207	238	328	769	342
cial Dies	1,312	148	83	749	342
nce Badges—					
Vehicle and Dog	6,621,755	707,955	605,272	535,166	420,303
Various	361,950	38,271	37,964	22,801	92,321
dries (metal)	460,565	325,270	66,471	94,883	47,092
cellaneous items (engraving, c.)	13,263	582	711	1,277	1,464

* Chiefly struck in 1925 in commemoration of the visit to South Africa of His Royal Highness he Prince of Wales.
† Includes 3,519 aluminium medals struck in 1923.
‡ Includes 4,344 (fine silver) Jubilee Medals, 1935.
§ Includes 285,096 (bronze) Jubilee Medals, 1935.
‖ Includes 639 (fine silver) Empire Exhibition Medals, 1936.
¶ Includes 100,114 (bronze) Empire Exhibition Medals, 1936.
** Includes 250 (fine silver) Empire Exhibition Medals and 2,161 Coronation Medals, 1937.
†† Includes 6,587 (bronze) Empire Exhibition Medals and 240 271 Coronation Medals, 1937.
‡‡ Includes Voortrekker Medals: 75 Gold, 3,112 silver, and 46,160 bronze.

§ 2. Currency and Banking.*

1. **South African Reserve Bank.—The South African Reserve Bank was established at Pretoria under the *Currency and Banking Act*, No. 31 of 1920. The original Act was amended by Acts No. 22 of 1923, No. 26 of 1930, section 7 of the *Financial Adjustments Act*, No. 25 of 1932, and by the *Currency and Exchanges Act*, No. 9 of 1933.**

The Bank management consists of a board of eleven directors, of whom six are elected by stockholders, three must be or have been actively engaged in commerce or finance, one in agriculture, and two in other industrial pursuits, three are government representatives, while the Government also appoints the Governor and the Deputy-Governor of the bank. No person may be nominated as a director, if he is a director, officer, or employee of another bank or a Member of Parliament or of a Provincial Council. All the directors must be British subjects and must reside in the Union. The capital of the Bank is £1,000,000. No stockholder other than a subscribing bank or the Treasury may hold more than £10,000 of the capital stock. If any bank parts with its stock in excess of £10,000 it may not re-acquire it.

The capital of the Bank may be increased with Treasury approval, and the price of stock for that purpose may be fixed by the board with the approval of the Treasury.

The reserve fund has reached the maximum of £1,000,000 provided for in the Act. Declared net profits in excess of a 10 per cent. dividend to shareholders are paid over to the Government.

The classes of business the Bank may or may not engage in were set forth in *Official Year Book* No. 17 and in previous issues.

The Bank has the sole right to issue bank notes in the Union for a period of twenty-five years, from the 17th December, 1920. These notes are legal tender even when tendered by the Bank itself. The denominations of notes are prescribed by the Treasury, and the notes are no longer redeemable in gold. The note issue is secured to an amount of not less than 30 per cent. in gold, of which not more than one half may be held outside the Union, and by a first charge on all the assets of the Bank. Further provision is made for the suspension of reserve requirements for certain limited periods.

The Bank must hold in gold or specie a reserve of at least 30 per cent. of its deposits and bills payable in addition to the gold reserve required for bank notes (not more than one-fifth of this reserve may be silver specie).

Every bank transacting business in the Union is required to hold reserve balances in the Reserve Bank, equal to at least 10 per cent. of its demand liabilities in the Union, other than notes, and 3 per cent. of its time liabilities to the public in the Union.

The use of the word "bank" is prohibited in a business name, unless it was a lawful designation on the 1st of May, 1930, or the Treasury has given written permission for its use.

The Reserve Bank is authorized to make investments to prevent undue fluctuations in the exchange value of Union currency in relation to the currency of the United Kingdom. Any loss suffered by the Bank as a result of depreciation in any gold or bills or securities so acquired, caused by variations in rates of exchange, will be charged against revenue, and any profits will accrue to revenue.

The Governor-General is given power to make regulations in regard to any matter directly or indirectly relating to currency, banking, or exchanges. He may suspend in whole or in part the *Currency and Exchanges Act* or any other Act of Parliament or any other law relating to or affecting or having any bearing upon currency, banking, or exchange.

The principal Act came into operation on 17th December, 1920, and the Bank opened on 30th June, 1921. In December of the same year it notified the Treasury that it was in a position to issue notes. A proclamation (No. 14 of 1922) was issued declaring that on 30th June, 1922, all other banks should cease to issue or re-issue bank notes. The Treasury subsequently prescribed the following denominations of notes to be issued: 10s., £1, £5, £20, and £100. As, however, there was found to be a shortage of £1 notes

* In issues of the *Official Year Book* prior to No. 9 will be found information relating to the passing of the *Currency and Banking Act*, 1920, the Gold Standard Inquiry Commission 1924-25, and the issue and withdrawal of the Gold Certificates.

the Reserve Bank, at the request of the other banks, actually began issuing notes in April. By the end of July the change over was practically accomplished. Under the Act the commercial banks transferred the liability for their outstanding notes, amounting to £443,084, to the Reserve Bank on the 30th June, 1924.

Until the issue of its notes the business of the Reserve Bank was chiefly confined to granting advances to the Government and acting as a clearing-house for other banks. Since then it has been engaged in building up a re-discount business, and as its activities include the marketing of the gold production, it is able to control the South Africa-London exchange. In 1927 the accounts of the Union Government were transferred to the Bank.

Act No. 26 of 1930, which came into force on the 30th May of that year, incorporated the chief recommendations of the Gold Standard Inquiry Commission of 1924-25.

Act No. 9 of 1933, some of the provisions of which came into force as from 28th December, 1932, and some as from 20th January, 1933, was passed to meet the problems arising from South Africa's leaving the gold standard and pegging the exchange to sterling. An article entitled "Currency, Banking, and Exchange in the Union, 1931 to 1933, and Cognate Matters" appeared in the Appendix to *Official Year Book* No. 14.

In returns for 1938 "Other Assets" include an amount of £9,652,000, which represents the "Gold Premium Account." The difference between the price the Reserve Bank pays for gold and its statutory value, viz. 77s. 10½d. per standard ounce, is debited to this account. If any such gold is realized, the premium is credited to the account (*vide* Report of the thirteenth ordinary general meeting of the S.A. Reserve Bank, 1933). The potential profit as on 31st March, 1938, was £1,465,807. Gold shown in the first column of assets below is valued at the standard price.

In the latter part of 1938 the Bank instituted facilities for earmarking gold on behalf of foreign buyers. On the 31st December, 1938, the amount of gold so held was valued at £20,715,000.

Section 3 of Act No. 49 of 1935 guarantees the Bank against any loss in discounting bills under the wool purchase scheme with Germany entered into on 31st December, 1934.

Branches of the Bank have been opened in Johannesburg, Capetown, Durban, Port Elizabeth, East London, and Bloemfontein.

SOUTH AFRICAN RESERVE BANK—LIABILITIES AND ASSETS, 1932 TO 1939.

NOTE.—In the table hereunder the figures in the column headed "Capital and Reserve" include the amount appropriated to the reserve after the close of the financial year. The figures in the column headed "Undivided Profits" represent chiefly the final dividend due to shareholders and the share of the profits accruing to the Government.

(SUBSCRIBED CAPITAL, £1,000,000.)

At 31st March.	Capital and Reserve.	Notes in Circulation.		Deposits.			Other Liabilities.	Undivided Profits.	Total of Liabilities and of Assets.	Ratio of Cash Reserve to Liabilities to Public.
		Reserve Bank.	Other Banks.	Bankers.	Government.	Other.				
LIABILITIES.										
	£1,000.	£1,000.	£1,000.	£1,000.	£1,000.	£1,000.	£1,000.	£1,000.	£1,000.	Per cent.
1932..	1,009	8,422	149	4,000	1,449	310	1,296	60	16,695	48·1
1933..	1,624	9,847	144	19,690	1,368	1,259	693	30	34,660	35·8
1934..	1,880	11,997	139	27,823	3,459	2,175	583	111	48,172	39·9
1935..	2,000	13,156	138	25,734	7,904	2,593	827	147	52,504	57·8
1936..	2,000	14,627	136	27,089	5,655	2,563	1,151	164	53,385	59·0
1937..	2,000	16,398	135	22,881	4,830	3,540	1,363	159	51,306	59·7
1938..	2,000	17,396	134	17,573	1,577	2,720	2,536	165	44,101	59·7
1939..	2,000	18,577	133	18,817	6,438	2,717	1,381	169	50,232	57·9

SOUTH AFRICAN RESERVE BANK—(*continued*).

ASSETS.

At 31st March.	Gold Coin and Bullion.	Subsidiary Coin.	Overseas Balances.	Union Government Treasury Bills.	Bills Discounted.		Investments.	Loans and Advances.	Fixed Property, etc.	Other Assets.
					Foreign. *	Domestic.				
	£1,000.	£1,000.	£1,000.	£1,000.	£1,000.	£1,000.	£1,000.	£1,000.	£1,000.	£1,000.
1932..	6,521	458	127	1,649	63	2,756	1,846	2,650	[illegible]	403
1933..	10,998	555	828	2	14,437	813	2,249	2,262	[illegible]	[illegible]
1934..	17,740	365	458	—	22,424	5	1,750	180	[illegible]	5,051
1935..	28,283	116	1,636	—	6,531	217	1,751	—	[illegible]	18,765
1936..	29,393	128	656	—	5,293	156	1,764	—	[illegible]	15,817
1937..	28,346	91	1,057	—	5,592	21	1,757	—	[illegible]	14,153
1938..	23,513	196	701	—	5,852	373	1,754	990	[illegible]	19,662
1939..	26,813	174	658	—	7,592	144	1,785	—	[illegible]	12,749

* Includes British Government Treasury Bills.

2. **Banking in South Africa.**—A brief account of the history of banking in the Union will be found in the sixth and previous issues of this *Year Book*.

Tables giving the liabilities and assets of all banks operating in South Africa since 1891, with the exception of the Banque Française de l'Afrique du Sud, which operated in the Transvaal for a few years, but the returns of which have not been fully traced, will be found in the ninth and previous issues of the *Official Year Book*.

3. **Commercial Banks.**—There are eight banks trading in the Union. Of these the Standard Bank of South Africa, Limited, and Barclays Bank (Dominion, Colonial and Overseas) have their head offices in London, the Netherlands Bank of South Africa in Amsterdam, Holland, the Stellenbosch District Bank, Limited, in Stellenbosch, in the Cape Province, the Colonial Banking and Trust Company, Limited, in Johannesburg, the Union Bank of South Africa, Limited, in Johannesburg, and the United Dominions Corporation (S.A.), Limited, in Capetown. The Public Liberal Bank and the South African Commercial Bank went into voluntary liquidation, the former during September, 1938, and the latter during November, 1938.

Subject to the amending clauses of the *Currency and Banking Act*, 1920, the amending Acts, No. 22 of 1922 and No. 26 of 1930, and the *Currency and Exchanges Act*, No. 9 of 1933, which repealed the *Finance Emergency Regulations Act*, No. 48 of 1931, the following laws exist to control banking:—

Transvaal Law No. 2 of 1893.
Orange Free State Ordinance No. 20 of 1902.
Cape Colony Act No. 6 of 1891.
Union Act No. 7 of 1917.

Under the *Banks Act* of 1917 all banks are required to render to the Union Treasury detailed returns of their assets and liabilities within and without the Union as at the 31st March, 30th June, 30th September, and 31st December in each year. In terms of section 31 of the *Currency and Banking Act*, 1920, as amended by Act No. 22 of 1923, all banks are required to make a monthly return showing, for the Union, their liabilities to the public, their cash reserves, the total amount of their advances and discounts and the value of South African Reserve Bank notes held by them.

Under section 2 of Act No. 49 of 1935 the Government is authorized to give the necessary guarantees against loss to the banks participating in the Government's wool and mohair credit scheme to meet the need of short-term credit facilities by farmers.

4. **Branch Banking.**—The following table gives the numbers of branches, sub-branches, and agencies of the various banks in the Union in the years 1914, 1937, and 1938.

BRANCH BANKS, SUB-BRANCHES, AND AGENCIES, 1914, 1937, AND 1938.

Bank.	1914.	31st December, 1937.				31st December, 1938.			
	Total.	Branches.	Sub-Branches.	Agencies.	Total.	Branches.	Sub-Branches.	Agencies.	Total.
Standard Bank	197	241	15	49	305	243	13	53	309
Barclays Bank	202	258	16	67	341	261	15	75	351
Netherlands Bank	7	17	—	1	18	17	—	2	19
Stellenbosch Bank	1	1	—	1	2	1	—	1	2
African Banking Corporation	39	—	—	—	—	—	—	—	—
Natal Bank	41	—	—	—	—	—	—	—	—
Colonial Banking & Trust Company	—	11	4	*	15	11	4	*	15
Public Liberal Bank†	—	1	—	—	1	—	—	—	—
S.A. Commerical Bank‡	—	1	—	—	1	—	—	—	—
Union Bank of S.A., Ltd.	—	1	—	2	3	1	—	2	3
United Dominions Corporation (S.A.), Ltd.§	—	—	—	—	—	1	—	—	1
TOTAL	487	531	35	120	686	535	32	133	700

* The Colonial Banking and Trust Company had 55 agencies at 31st December, 1937, and 47 at 31st December, 1938. As it is not a cheque-paying bank, these figures have been omitted from the above table.
† Voluntary Liquidation, November, 1938.
‡ Voluntary Liquidation, September, 1938.
§ Registered March, 1937.

In 1914 there was one bank or agency per 2,782 European persons, while in 1937 and 1938 there was one bank or agency per 2,979 and 2,973 European persons respectively.

5. **Banking Statistics.**—The subjoined statements (i) and (iii) give particulars for a number of years as to the total liabilities and assets of all commercial banks in the Union, and (ii) and (iv) for the year 1938 as to the total liabilities and assets of each bank. The form of presentation is based upon that prescribed by the *Banks Act* of 1917, which differs in certain respects from the form adopted for previous years.

Separate tables showing the liabilities and assets in the Union from 1913 to 1926 were published in *Official Year Book* No. 9. Figures for later years have been published in subsequent issues.

(i) COMMERCIAL BANKS—TOTAL LIABILITIES (AT 31st DECEMBER), 1914 AND 1935 TO 1938, AND LIABILITIES IN THE UNION, 1938.

Heading.	1914.	1935.	1936.	1937.	1938.	
					Total.	In the Union.
	£1,000.	£1,000.	£1,000.	£1,000.	£1,000.	£1,000.
Subscribed Capital	10,408	17,865	17,716	17,716	18,224	586
Paid-up Capital	5,154	8,355	8,207	8,206	8,465	327
Reserve Fund	2,052	4,778	4,806	5,438	5,545	115
Notes	2,404	1,412	1,647	1,910	2,103	—
Government Deposits*	—	4,303	2,705	2,677	3,254	173
Savings Bank Deposits*	—	9,330	10,186	10,755	11,128	5,952
Fixed Deposits	21,855	35,460	39,127	40,448	36,426	18,050
Current Deposits	28,542	90,540	103,291	96,433	106,346	74,808
Balances due to other Banks	198	1,934	2,382	2,971	3,753	861
Balances due to Head Office and Branches	6,993	1,435	691	360	81	81
Bills Payable	1,258	2,117	2,245	2,093	1,968	124
Other Liabilities	3,942	14,928	14,774	15,255	15,153	1,982
TOTAL†.....£1,000	68,298	174,592	181,061	186,546	194,222	102,473

* In 1917, owing to the operation of the *Banks Act*, No. 7 of that year, statistics as to government and savings bank deposits became available.
† Excludes "Bills received for collection," as figures in this connexion are not published under the *Banks Act* of 1917.

(ii) COMMERCIAL BANKS—TOTAL LIABILITIES OF EACH BANK AT 31st DECEMBER, 1938.

Heading.*	Standard Bank of South Africa, Ltd.	Barclays Bank (Dominion, Colonial and Overseas).	Netherlands Bank of South Africa.	Stellenbosch District Bank, Ltd.	Colonial Banking and Trust Company, Ltd.	Union Bank of South Africa, Ltd.	United Dominions Corporation (S.A.), Ltd.†
	£	£	£	£	£	£	£
Subscribed Capital.	10,000,000	6,975,500	663,030	16,800	20,000	49,663	[illegible]
Paid-up Capital...	2,500,000	4,975,500	663,030	8,400	20,000	48,124	[illegible]
Reserve Fund.....	3,000,000	2,100,000	330,189	51,000	64,076	—	—
Notes.....	913,956	1,188,975	—	—	—	—	—
Government Deposits.....	613,491	2,640,883	—	—	—	—	—
Savings Bank Deposits.....	2,130,914	7,952,800	167,962	25,830	842,962	7,691	—
Fixed Deposits....	13,222,547	21,272,376	1,166,919	296,524	399,488	612	[illegible]
Current Deposits..	45,775,497	57,959,554	2,468,955	97,188	43,262	1,819	—
Balances due to other Banks...	392,108	2,880,238	225,877	8,149	—	—	[illegible]
Balances due to Head Offices and Branches.....	—	—	—	—	80,538	—	—
Bills Payable.....	1,074,975	708,134	127,890	—	6,572	—	[illegible]
Other Liabilities...	7,389,616	7,216,763	441,099	21,588	22,051	1,872	[illegible]
TOTAL.....£	77,013,104	108,895,223	5,591,921	508,679	1,478,949	59,518	675,348

* For the total against each heading, see Table (i) above.
† Established March, 1937.

(iii) COMMERCIAL BANKS—TOTAL ASSETS AT 31st DECEMBER, 1914 AND 1935 TO 1938, AND ASSETS IN THE UNION, 1938.

Heading.	1914.	1935.	1936.	1937.	1938.	
					Total.	In the Union.
	£1,000.	£1,000.	£1,000.	£1,000.	£1,000.	£1,000.
Coin and Gold Certificates in hand and in Transit.....	7,824	2,280	2,155	3,080	3,281	633
Bullion in hand and in Transit	548	169	374	424	436	142
Reserve Bank Balances.....	—	27,815	22,401	16,850	24,299	24,293
Money at Call.....	*	4,733	3,976	4,095	2,879	—
Notes of S.A. Reserve Bank..	—	2,946	2,716	2,943	3,494	3,389
Notes of other Banks.....	487	1,872	1,365	1,738	2,226	27
Balances due by other Banks..	1,013	12,268	7,528	12,535	13,376	494
Balances due by Head Offices and other Branches.....	8,185	3,805	5,906	3,953	3,533	539
Securities—						
(a) Union Government.....	4,629	4,566	12,144	10,595	14,531	13,876
(b) British and Colonial Governments.....		31,047	33,011	33,193	36,665	—
(c) Other Securities.....		1,795	2,814	3,407	3,483	1,082
Bills under Discount—						
(a) Current.....	10,792	16,171	15,311	17,062	13,395	7,555
(b) Overdue and unpaid.....	1,194	177	162	155	200	128
Loans and Advances other than Bills—						
(a) Secured.....	23,300	50,289	54,739	56,895	53,986	37,667
(b) Unsecured.....	3,707	5,998	7,497	9,890	8,298	6,245
Advances—						
(a) To Government.....	—	458	908	700	1,041	8
(b) To Public Bodies.....	2,310	698	964	774	1,800	1,341
Landed Property other than Bank Premises.....	372	438	401	325	249	187
Bank Premises, Furniture.....	1,509	4,388	4,427	4,378	4,607	3,350
Other Assets.....	2,428	2,679	2,262	2,564	2,443	749
TOTAL.....£1,000	68,298	174,592	181,061	186,546	194,222	102,612

* Included in "Other Assets."

(iv) COMMERCIAL BANKS—TOTAL ASSETS OF EACH BANK AT 31st DECEMBER, 1938.

Heading.*	Standard Bank of South Africa, Ltd.	Barclays Bank (Dominion, Colonial and Overseas).	Netherlands Bank of South Africa.	Stellenbosch District Bank, Ltd.	Colonial Banking and Trust Company, Ltd.	Union Bank of South Africa, Ltd.	United Dominions Corporation (S.A.), Ltd.†
	£	£	£	£	£	£	£
Coin and Bullion..	1,344,206	2,350,032	21,769	502	497	51	13
Reserve Bank Balances.....	10,098,055	13,745,124	322,070	28,500	104,335	980	258
Money at Call.....	1,746,598	1,015,000	117,053	—	—	—	—
Notes of S.A. Reserve Bank...	2,064,438	1,354,763	58,495	7,506	7,473	900	210
Notes of other Banks	567,254	1,614,810	13,944	30	174	—	—
Balances due by other Banks....	1,498,923	11,508,259	331,653	10,400	26,489	—	496
Balances due by Head Offices and Branches.....	1,821,358	1,334,670	286,151	—	90,924	—	—
Securities :							
(a) Union Government.....	5,716,818	8,776,993	5,138	32,225	—	—	—
(b) British and Colonial Governments.....	10,890,998	25,732,878	41,304	—	—	—	—
(c) Other Securities	1,976,524	1,231,048	127,699	3,246	130,350	14,498	—
Bills under Discount							
(a) Current.....	5,475,990	5,403,296	2,241,157	36,707	201,729	1,543	34,912
(b) Overdue and Unpaid.....	74,445	115,674	2,485	1,716	4,713	169	633
Loans and Advances — other than Bills :							
(a) Secured.....	25,090,266	25,630,845	1,485,103	253,706	879,532	22,388	624,323
(b) Unsecured....	3,874,463	4,091,666	199,196	109,043	19,666	2,498	1,305
Advances :							
(a) To Government	570,741	469,785	—	—	—	—	—
(b) To Public Bodies.....	468,751	1,317,426	34	13,519	—	—	—
Landed Property other than Bank Premises.....	201,727	37,971	2,317	6,641	—	—	—
Bank Premises, Furniture.....	1,789,961	2,609,122	194,801	4,050	9,319	180	—
Other Assets.....	1,741,588	525,861	141,552	888	3,748	16,311	13,198
TOTAL.....£	77,013,104	108,895,223	5,591,921	508,679	1,478,949	59,518	675,348

* For the total against each heading, see Table (iii) above.
† Established March, 1937.

6. Deposits, Advances and Discounts, and Cash Reserves of the Commercial Banks.—The monthly return of deposits, advances, discounts, and cash reserves in the Union, to which reference is made in paragraph 3 above, is published in the *Monthly Bulletin of Statistics* for the month following the date to which the information refers. The figures are not in complete agreement with the quarterly statements, but the difference is inconsiderable. This important return gives a useful picture of seasonal and other trends of the chief banking factors. Details by month since 1931 are shown in the following table.

COMMERCIAL BANKS—DEPOSITS, ADVANCES AND DISCOUNTS, AND CASH RESERVES IN THE UNION, 1931 TO 1938.

Month.	1931.	1932.	1933.	1934.	1935.	1936.	1937.	1938.
	£1,000.	£1,000.	£1,000.	£1,000.	£1,000.	£1,000.	£1,000.	£1,000.
	(a) DEPOSITS IN THE UNION.							
January.....	64,131	55,280	59,608	83,810	86,967	88,365	96,887	94,093
February.....	62,554	51,310	63,264	79,836	81,489	83,581	92,631	89,194
March.....	63,178	52,552	67,897	80,393	82,641	85,296	93,689	91,850
April.....	64,219	52,304	70,223	82,607	83,182	83,828	92,595	91,099
May.....	63,556	53,334	72,990	83,736	83,776	84,287	92,150	91,347
June.....	62,789	54,659	74,084	87,433	85,597	86,486	92,048	94,412
July.....	61,592	52,399	74,854	82,404	85,023	88,708	92,063	94,585
August.....	60,901	52,280	72,472	81,153	83,843	85,154	90,380	92,749
September.....	61,399	53,443	76,729	82,147	84,754	87,194	91,879	94,850
October.....	58,784	54,202	78,368	81,997	83,676	90,150	92,223	97,646
November.....	58,356	54,902	79,944	83,385	86,841	92,491	92,452	98,678
December.....	56,637	54,574	81,219	85,022	88,488	95,057	93,888	99,457

COMMERCIAL BANKS—DEPOSITS, ADVANCES AND DISCOUNTS, AND CASH RESERVES IN THE UNION, 1931 TO 1938—(*continued*).

Month.	1931.	1932.	1933.	1934.	1935.	1936.	1937.	1938.
	£1,000.	£1,000.	£1,000.	£1,000.	£1,000.	£1,000.	£1,000.	£1,000.
(b) ADVANCES AND DISCOUNTS IN THE UNION.								
January	45,415	43,582	36,872	35,418	46,011	46,387	53,261	59,227
February	44,351	41,347	35,185	35,198	45,261	45,562	52,726	57,659
March	43,338	40,801	34,710	35,740	44,839	46,547	54,189	57,646
April	42,960	41,075	34,003	36,467	45,615	47,279	54,626	57,195
May	43,148	39,814	33,916	36,932	45,563	47,040	55,018	56,460
June	43,204	38,790	33,847	37,797	45,188	47,580	55,524	57,009
July	45,206	37,163	33,652	38,802	45,607	48,828	57,184	56,025
August	44,562	37,580	34,832	41,245	45,768	49,351	58,166	55,054
September	45,621	37,946	36,227	43,172	46,564	50,633	58,821	55,012
October	44,066	38,644	35,301	44,650	46,244	51,567	59,295	54,717
November	43,892	37,849	35,467	45,568	46,053	51,540	59,189	53,866
December	43,548	38,635	35,191	45,596	46,109	52,920	58,821	52,092
(c) CASH RESERVES IN THE UNION.								
January	7,859	6,626	9,964	32,053	23,787	31,415	27,441	20,333
February	7,598	6,792	18,226	28,341	24,348	28,289	23,216	19,028
March	7,723	6,746	22,175	29,960	28,269	30,121	26,507	20,913
April	7,486	6,839	23,851	30,693	27,470	24,325	21,855	20,529
May	7,013	6,580	27,218	30,725	27,715	25,411	21,391	22,704
June	7,294	7,071	28,819	31,530	30,034	25,837	21,185	24,000
July	7,384	6,903	29,437	26,921	29,728	26,777	19,999	23,112
August	7,303	6,476	22,724	22,845	28,990	23,510	20,117	23,342
September	7,175	6,330	25,616	22,721	29,518	20,927	20,972	20,173
October	6,973	6,299	29,968	23,140	28,134	21,952	20,941	27,952
November	6,823	6,685	29,720	23,395	31,001	24,757	20,515	28,092
December	6,925	6,938	29,333	25,113	31,353	25,746	20,480	28,466

7. Bank Debits to Individual Accounts.—From the beginning of 1928 the banks have supplied the Census Office with the monthly bank debits to individual accounts within the Union, for the seven clearing-house centres and for the four provinces separately. The current figures are published in the *Monthly Bulletin of Statistics*. The following tables contain information of these debits, (i) in each of the provinces and certain of the larger towns for the years 1934 to 1938, and (ii) during each month for a series of years.

(i) BANK DEBITS TO INDIVIDUAL ACCOUNTS, 1934 TO 1938.

Province and Town.	1934.	1935.	1936.	1937.	1938.
	£1,000.	£1,000.	£1,000.	£1,000.	£1,000.
Capetown	152,065	175,312	192,133	214,101	212,264
Port Elizabeth	53,726	58,448	69,231	74,638	71,437
East London	31,045	26,713	29,299	32,967	32,013
Other, Cape	152,600	132,769	157,820	176,576	144,943
TOTAL, CAPE OF GOOD HOPE	389,436	393,242	448,483	498,282	460,657
Durban	123,258	131,106	142,292	165,435	169,502
Other, Natal	37,359	34,618	37,404	40,390	42,134
TOTAL, NATAL	160,617	165,724	179,696	205,825	211,636
Johannesburg	867,695	805,647	1,004,406	1,141,738	954,240
Pretoria	80,344	69,416	80,944	94,324	87,012
Other, Transvaal	144,604	107,397	128,199	143,375	145,673
TOTAL, TRANSVAAL	1,092,643	982,460	1,303,549	1,379,437	1,186,925
Bloemfontein	18,562	17,503	19,602	20,087	21,886
Other, Orange Free State	29,908	31,214	37,016	40,065	37,150
TOTAL, ORANGE FREE STATE	48,470	48,717	56,618	61,652	59,036
TOTAL, UNION...£1,000	1,691,166	1,590,143	1,988,346	2,145,196	1,918,254

* Amended figures.

(ii) BANK DEBITS TO INDIVIDUAL ACCOUNTS—TOTALS FOR EACH MONTH (£1,000,000), 1931 TO 1938.

Month.	1931.	1932.	1933.	1934.	1935.	1936.	1937.	1938.
January	107·85	97·23	122·99	139·09	145·46	151·62	218·97	166·43
February	106·93	91·07	126·23	143·18	141·99	155·38	225·79	156·03
March	109·73	89·47	107·88	132·34	138·80	145·87	200·13	160·74
April	97·79	83·47	99·85	149·36	118·94	140·88	207·71	149·86
May	95·18	75·40	101·02	133·23	114·49	152·51	157·30	141·15
June	102·81	80·97	118·54	152·91	127·43	175·07	172·83	171·58
July	105·49	91·95	108·01	162·69	139·33	188·32	177·53	171·72
August	99·71	80·99	125·72	145·99	132·84	170·77	166·77	168·48
September	96·40	80·91	116·84	136·02	118·61	157·71	147·25	150·96
October	106·34	76·81	111·15	141·06	138·06	176·23	151·53	155·30
November	92·39	77·93	104·82	133·54	140·05	175·44	147·94	152·34
December	95·50	85·57	105·81	121·77	134·16	198·54	171·44	173·67

8. Clearing-House Returns.—On account of the fact that banking in South Africa is almost entirely confined to a few large corporations, and that transactions between different branches of the same bank are not put through a clearing house, the clearing-house returns in the Union, though not without considerable interest, must be interpreted with caution. Clearings take place in every town in which two banks have branches, and the returns of the seven chief towns are given below. Since the South African Reserve Bank commenced business, clearing-house settlements throughout the country have been effected by drawing on balances with the Reserve Bank. The South African Reserve Bank is in effect the clearing-house of all the clearing-houses.

CLEARING-HOUSE RETURNS, 1934 TO 1938.

Date.	Capetown.	Port Elizabeth.	East London.	Durban.	Pretoria.	Johannesburg.	Bloemfontein.
	£	£	£	£	£	£	£
1934	70,453,710	26,333,375	10,317,347	66,144,503	82,307,698	475,726,952	5,806,650
1935	80,557,035	30,321,068	11,683,282	69,921,106	74,991,846	422,889,521	6,013,570
1936	93,850,759	32,938,085	12,133,131	80,560,322	88,895,181	580,252,124	7,034,311
1937	102,079,081	36,042,840	13,833,789	92,308,409	97,626,812	600,980,806	7,051,842
1938	101,779,942	34,554,406	14,582,774	97,003,568	99,437,822	581,185,326	6,937,861

9. Average Exchange Rates.—The average exchange rates, *South Africa on London*, for each year since 1931 are published below. The calculations have been confined solely to the Telegraph Transfer, Sight, and Ninety Days' Sight Buying and Selling Rates. The seventh column, headed "Mean Value of £100 Sterling," has been calculated by taking the mean point between the buying and the selling T.T. rate, and represents the average price of sterling in terms of South African money. The eighth column, headed "Average Discount Rate per Annum," is calculated from the difference between the ninety days' sight and the T.T. buying rate. The percentages given represent the average annual discount rates charged by the banks on money advanced on exporters' bills, and eliminate charges for exchange accommodation. Prior to 1st July, 1937, bills forwarded by air mail at the request of customers, on which a small concession in the normal rates was made, were not taken into account in the calculations, and the period allowed for sight was taken as twenty days. From 1st July, 1937, however, with the introduction of the air mail service, whereby all first class postal matter is carried by air, the rates of exchange were amended and the period allowed for sight is now taken as seven days.

AVERAGE ANNUAL EXCHANGE RATES, SOUTH AFRICA ON LONDON, AND PRICE OF £100 IN LONDON IN TERMS OF SOUTH AFRICAN MONEY, 1931 TO 1938.

Year.	Buying Rates.			Selling Rates.			Mean Value of Sterling (£100).	Average Discount Rate per Annum.
	Telegraph Transfers.	Sight.	Ninety Days' Sight.	Telegraph Transfers.	Sight.	Ninety Days' Sight.		
	£	£	£	£	£	£	£	Per Cent.
1931*..	100·250	99·856	98·294	100·750	100·563	100·188	100·500	6·49
1933*..	99·875	99·625	98·087	100·875	100·875	†	100·375	5·93
1934...	99·990	99·740	98·202	100·875	100·875	†	100·433	5·93
1935...	100·125	99·875	98·338	100·875	100·875	†	100·500	5·93
1936...	100·125	99·875	98·338	100·875	100·875	†	100·500	5·93
1937...	100·125	99·925	98·387	100·875	100·875	†	100·500	6·14
1938...	100·125	99·975	98·536	100·875	100·875	†	100·500	5·98

* Omitting September, 1931, to April, 1933. For intermediate rates see table in *Year Book* No. 14. † Not quoted.

In view of the departure of Great Britain from the gold standard on the 21st September, 1931, the figures in the foregoing table have not been calculated for the period September, 1931, to April, 1933.

10. **Bank Rate of Discount.**—The South African Reserve Bank, under section 12 (3) of the *Currency and Banking Act*, is obliged to "fix and publish from time to time the rates at which it will discount the various classes of bills." The first announcement made on the 29th December, 1922, fixed the following rates:—

6 per cent. for first class commercial bills of not more than ninety days' currency.
6½ per cent. for first class agricultural bills with a maturity exceeding ninety days but not exceeding six months.

On the 21st November, 1924, the above rates were changed to 5½ per cent. and 6 per cent.; on the 10th September, 1927, to 6 per cent. and 6½ per cent.; on the 9th January, 1928, to 5½ per cent. and 6 per cent.; on the 17th August, 1929, to 6 per cent. and 6½ per cent.; on the 29th September, 1930, to 5½ per cent. and 6 per cent.; on the 13th March, 1931, to 5 per cent. and 5½ per cent.; on the 13th November, 1931, to 6 per cent. and 6½ per cent.; on the 7th October, 1932, to 5 per cent. and 5½ per cent.; on the 20th February, 1933, to 4 per cent. and 4½ per cent.; and on the 15th May, 1933, to 3½ per cent. and 4 per cent. respectively. By an amendment of section 13 of the principal Act, the currency for first class commercial bills was extended to one hundred and twenty days.

The minimum advance rate previously quoted by the other banks may perhaps be regarded as corresponding to the above rate for the period before the Reserve Bank quoted a rate. The rates for a period of ten years were:—2nd February, 1913, 6 per cent.; September, 1915, 6½ per cent. (coastal, 6 per cent.); 1st March, 1920, 7 per cent.; 16th August, 1920, 7½ per cent.; 1st May, 1922, 7 per cent.

The commercial banks deal in the same class of business as the Reserve Bank at the same rates. On first class secured overdrafts and unsecured overdrafts of undoubted clients their rate was 6½ per cent., increased to 7½ per cent. on 17th August, 1929, decreased to 6½ per cent. on 1st October, 1930, increased to 7½ per cent. on 20th November, 1931, and reduced to 6½ per cent. on 10th October, 1932, to 6¼ per cent. on 15th February, 1933, to 6 per cent. on 20th March, 1933, and to 5½ per cent. on 30th April, 1934.

11. **Fixed Deposit Rates.**—The following table shows the fixed deposit rates in force in South African commercial banks since 18th December, 1922. The rates in force from the 23rd June, 1913, to that date will be found in earlier issues of this *Year Book* (Nos. 9 to 12).

FIXED DEPOSIT RATES OF COMMERCIAL BANKS.

Date.	3 Months.	6 Months.	9 Months.	12 Months.
	Per cent.	Per cent.	Per cent.	Per cent.
18/12/22	2	3	3·5	4
1/ 8/27	3	3·5	4	4·5
26/ 8/29	3·25	3·75	4·25	4·75
1/ 1/30	3·25	3·75	4·25	5
1/10/30	3	3·5	4	4·5
26/ 1/31	2·5	3·5	3·75	4
1/ 4/31	2	3	3·5	4
29/10/31	3·5	3·75	4	4·25
20/11/31	3·75	4	4·25	4·5
20/ 1/32	4·25	4·75	5	5
10/10/32	3·25	3·75	4	4·25
11/ 1/33	2·75	3·25	3·5	3·75
20/ 1/33	2·25	2·75	3	3·25
25/ 1/33	1	2	2·5	3·25
15/ 2/33	—	1·5	2	3
20/ 3/33	—	·5	1	2·5
5/ 6/33	—	·5	·5	2*
1/ 7/37	·5†	·5	·5	2‡

* From the 24th April, 1934, the twelve months' rate of 2 per cent. per annum on deposits was limited to £10,000 by any one depositor; for amounts in excess of £10,000 the rate is 1 per cent. per annum.

† On deposits up to £10,000 by any one depositor.

‡ On deposits up to £5,000 by any one depositor, thereafter 1 per cent.

From 1st August, 1927, the banks accepted deposits of £10,000 and over, subject to 31 days' notice of withdrawal at the rate of 2½ per cent. per annum, reduced to 2 per cent. when notice of withdrawal is given. On the 2nd April, 1929, the amount of £10,000 was reduced to £5,000, subject to the same rates of interest. On the 26th August, 1929, the rate of interest was changed from 2½ per cent. to 2¾ per cent., reduced to 2½ per cent. on giving notice of withdrawal. On the 1st January, 1930, one rate only, viz., 2¾ per cent., was introduced, and the period of notice was reduced from 31 days to 14 days, such notice not to be given within seventeen days of deposit. This rate was changed to 2½ per cent. on 1st October, 1930; to 2 per cent. on 26th January, 1931; to 1½ per cent. on 1st April, 1931; to 2½ per cent. on 29th October, 1931; to 2¾ per cent. on 20th November, 1931; to 3 per cent. on 20th January, 1932; to 2½ per cent. on 10th October, 1932; to 2 per cent. on 28th November, 1932; to 1 per cent. on 20th January, 1933; and it was finally suspended on 25th January, 1933.

12. **Bank Amalgamations.**—Details of the merging of the National Bank of South Africa in Barclays Bank (Dominion, Colonial and Overseas) and the amalgamation between the Netherlands Bank of South Africa and the Transvaal Commercial Bank were given in *Official Year Book* No. 8.

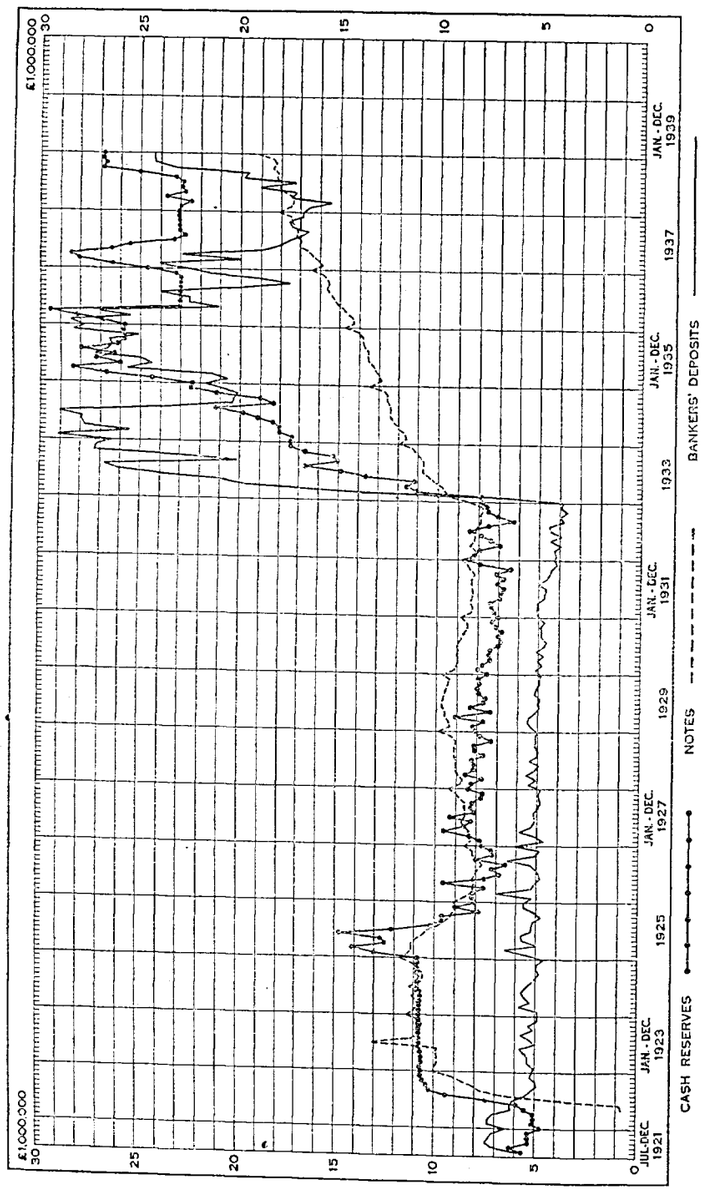
13. **People's Banks.**—There are four banks in the Union, which may be classified under the general designation of "People's Banks", viz., (*a*) Ons Eerste Volksbank (Pretoria), (*b*) Die Volkskas (Koöperatief) Beperk (Pretoria), (*c*) Die Afrikaanse Verbond-, Spaar- en Voorskotkas, Beperk (Bloemfontein), and (*d*) The South African Savings and Credit Bank Ltd. (Bloemfontein). They are run on a quasi-philanthropic basis, their main object being to assist on a commercial basis persons who would ordinarily have recourse to the money-lender. In *Official Year Book* No. 17 and previous issues, details were given as to their history and functions, but owing to limitations of space these particulars have now been omitted. The following table gives a summary of their operations during the last five years and particulars for each bank separately for the latest period available. The financial year for (*a*) Ons Eerste Volksbank and (*b*) Die Volkskas ends on 30th June, for (*c*) Die A. Verbond-, Spaar- en Voorskotkas on 30th September, and for (*d*) The S.A. Savings and Credit Bank on the 31st August.

PEOPLE'S BANKS—SUMMARY OF PRINCIPAL ASSETS AND LIABILITIES.

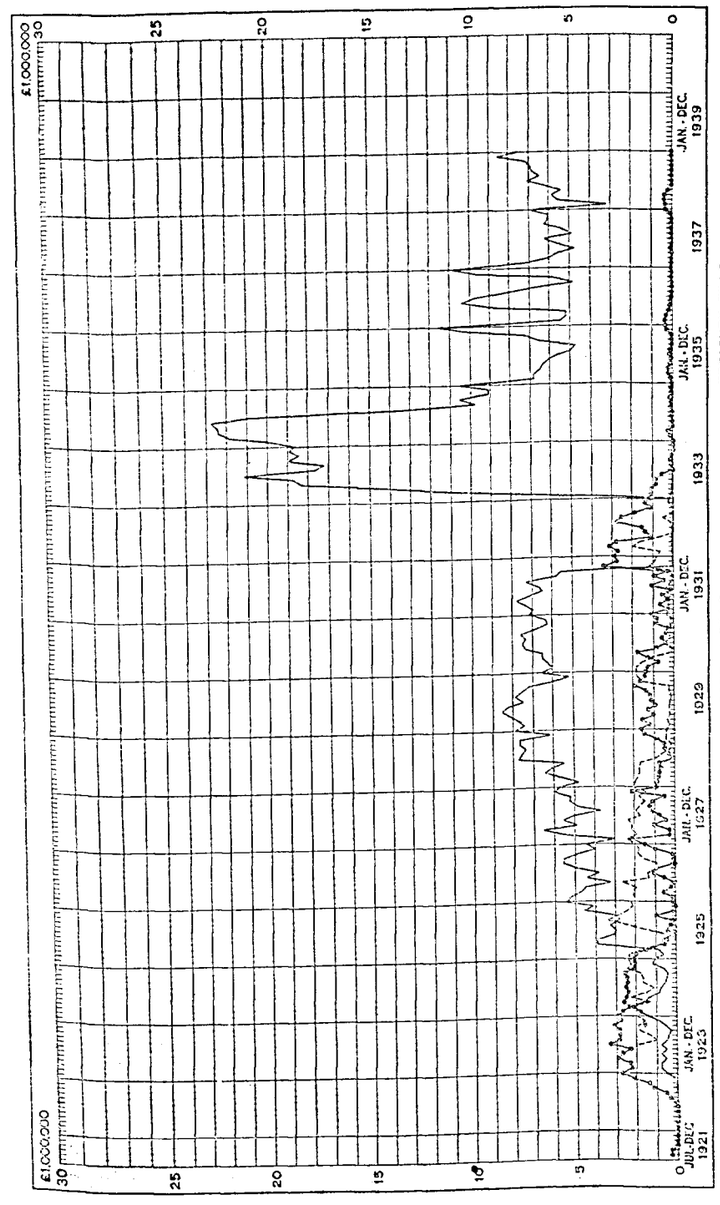
Period.	Capital and Reserve.	Fixed Deposits.	Current Deposits.	Property	Mortgages.	Advances.	Other Investments and Cash.	Total Assets.
	£	£	£	£	£	£	£	£
1934	23,575	197,482	87,793	42,393	99,088	114,988	52,573	309,959
1935	25,821	215,662	93,149	43,338	86,044	141,061	65,654	337,070
1936	29,695	257,788	117,474	42,531	79,070	216,520	69,719	409,677
1937	36,280*	405,374*	131,304	57,296	66,771	349,880	105,160*	613,410*
1938	44,692	597,781	184,935	54,652	78,814	527,567	176,056	894,640
(*a*) To 30/6/38	16,995	42,640	50,185	14,001	25,063	57,845	16,212	113,392
(*b*) To 30/6/38	13,687	170,897	44,283	10,256	—	177,260	46,335	289,338
(*c*) To 30/9/38	2,782	16,825	11,049	5,764	1,289	16,329	7,774	31,176
(*d*) To 31/8/38	11,228	367,419	79,418	24,631	52,462	276,133	105,735	460,734

* Amended figure.

SOUTH AFRICAN RESERVE BANK.
(*a*) CASH RESERVES, NOTES, AND BANKERS' DEPOSITS, 1921 TO 1938.

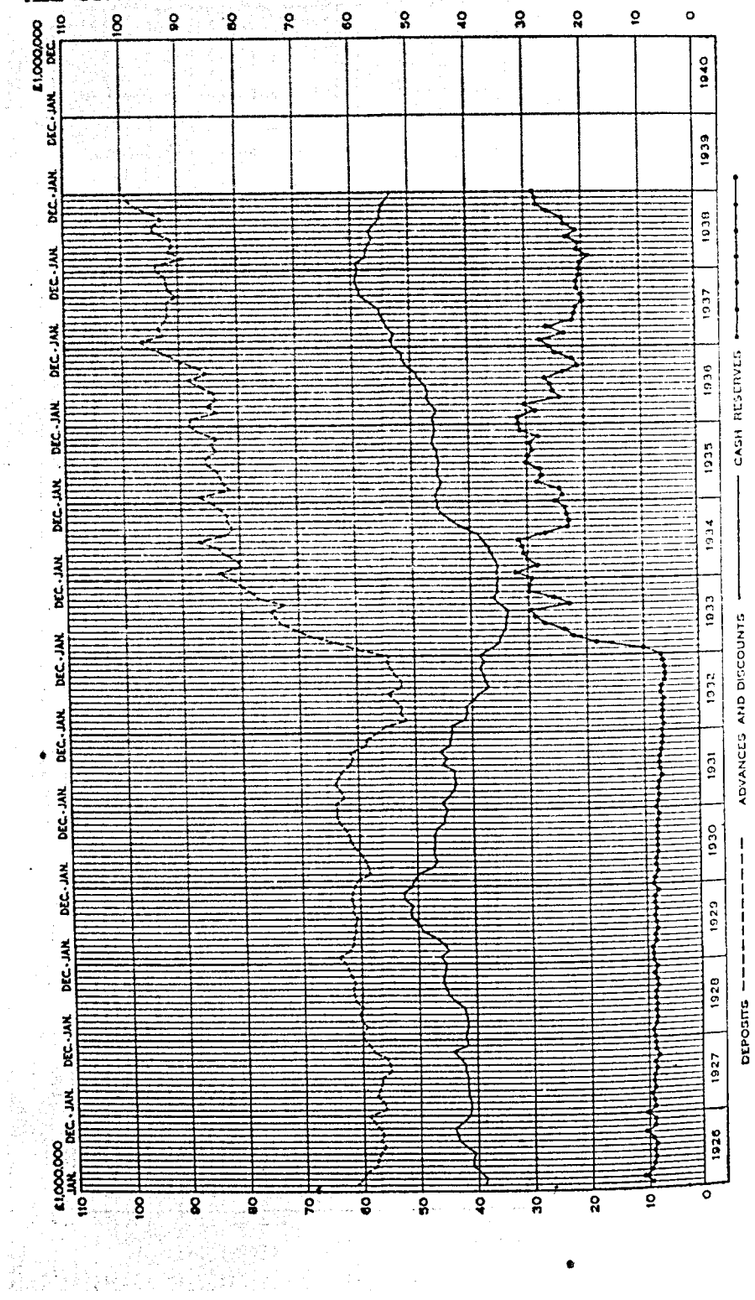


SOUTH AFRICAN RESERVE BANK.
(*b*) DOMESTIC, FOREIGN, AND TREASURY BILLS, 1921 TO 1938.

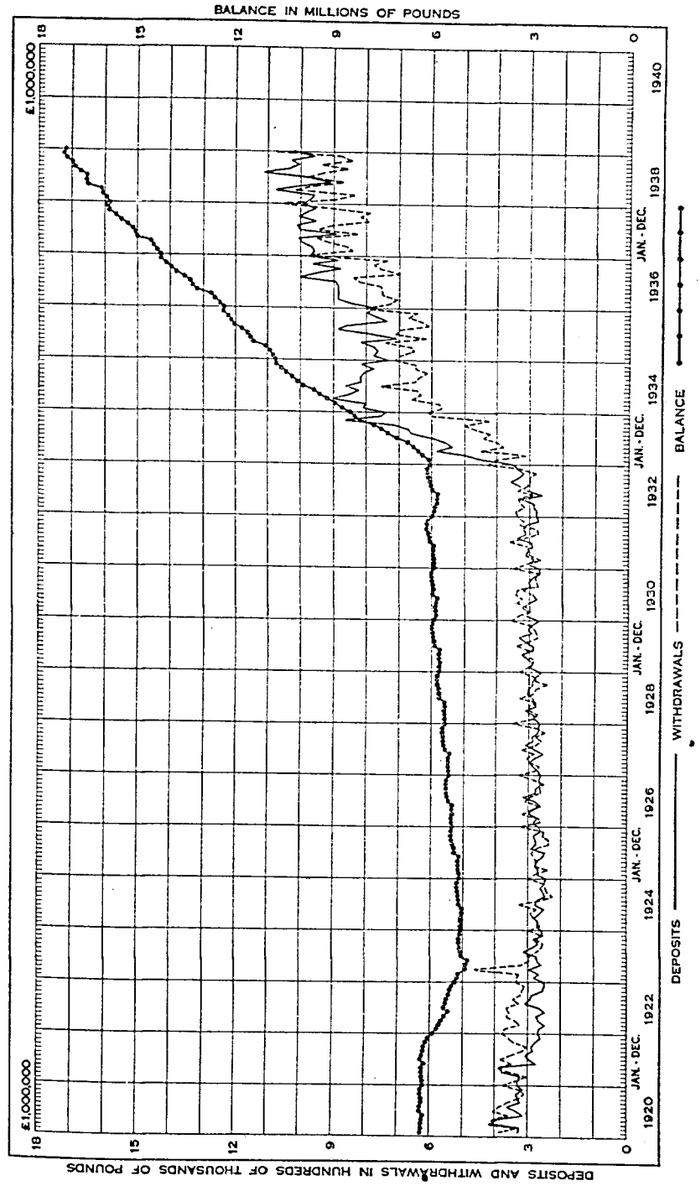


COMMERCIAL BANKS.

DEPOSITS, ADVANCES AND DISCOUNTS, AND CASH RESERVES OF THE COMMERCIAL BANKS IN THE UNION.—MONTHLY SINCE 1926.



POST OFFICE SAVINGS BANK CURRENT ACCOUNT—MONTHLY TRANSACTIONS AND BALANCES, 1920, TO DECEMBER, 1938.



14. **Post Office Savings Bank.**—The subjoined statement shows the transactions in depositors' accounts in the Post Office Savings Bank for a period of years.

POST OFFICE SAVINGS BANK, 1934 TO 1938.

Year ending 31st March.	Deposits and Interest.	Withdrawals.	Balance Due to Depositors.		Average Amount to Credit of Each Depositor in Current Account.	Accounts.		
			Current Account.	Certificate Account.		Opened.	Closed.	Remaining Open.
	£	£	£	£	£ s. d.	No.	No.	No.
1934.....	8,968,201	6,203,271	9,364,449	2,060,600	17 6 0	96,058	45,860	541,709
1935.....	10,078,726	8,168,687	11,274,488	3,013,660	18 11 3	118,258	52,160	607,807
1936.....	10,203,232	8,433,528	13,044,192	3,217,500	19 6 1	127,206	58,884	675,729
1937.....	11,810,381	9,973,955	14,880,618	3,537,300	19 11 2	140,047	54,996	760,780
1938.....	12,574,487	11,015,410	16,439,695	3,541,000	19 3 1	158,350	60,989	858,141

15. **Other Savings Banks.**—The following tables give particulars for a period of years of savings banks operating in the Union. The information is collected under the *Statistics Act*. The figures are inclusive of the four people's banks mentioned above, but are exclusive of savings bank departments of the commercial banks and building societies, details of which are respectively shown in the tables in paragraph 5 above and § 4 hereunder. Statistics of the Post Office Savings Bank are given in the preceding paragraph.

SAVINGS BANKS, 1933-34 TO 1937-38.

(i) NUMBER OF BANKS AND ACCOUNTS.

Year.	Number of Banks.	Accounts Opened During Year.	Accounts Closed During Year.	Accounts Open at End of Year.	
				Current.	Fixed Deposit.
1933-34.....	11	4,274	6,417	33,318	1,911
1934-35.....	12	3,562	4,881	31,923	1,687
1935-36.....	11	5,733	3,201	34,425	2,017
1936-37.....	11	5,195*	3,536	35,774*	2,327
1937-38.....	11	7,682	4,572	37,727	3,184

* Amended figure.

(ii) DEPOSITS AND INTEREST.

Year.	Deposits during Year.		Withdrawals.		Deposits at End of Year.*		Interest Added.
	Current.	Fixed.	Current.	Fixed.	Current.	Fixed.	
	£	£	£	£	£	£	£
1933-34.....	891,855	182,708	939,858	157,794	2,309,830	223,544	93,220
1934-35.....	800,397	94,780	792,680	71,842	2,317,547	246,482	92,980
1935-36.....	941,653	107,814	842,663	69,074	2,416,537	284,622	93,323
1936-37.....	1,037,415	378,768	959,394	227,736	2,494,558	435,654	97,595
1937-38.....	1,355,301	548,686	1,161,330	345,184	2,688,529	639,156	109,090

* Including accrued interest added to deposits.

(iii) LIABILITIES.

Year.	Deposits with Interest.	Reserve Fund.	Other Funds.	Other Liabilities.	Total.
	£	£	£	£	£
1933-34.....	2,533,374	317,817	44,680	35,965	2,931,836
1934-35.....	2,565,128*	328,781	46,656	42,877	2,983,442
1935-36.....	2,701,662*	348,934	51,550	43,841	3,145,987
1936-37.....	2,950,212*	374,652	47,172	96,029	3,468,065
1937-38.....	3,347,685*	398,435	59,118	126,491	3,931,729

* Includes the following amounts on loan deposit; £1,099 in 1934-35; £503 in 1935-36; £20,000 in 1936-37; and £20,000 in 1937-38.

SAVINGS BANKS, 1933-34 TO 1937-38—*(continued)*.

(iv) ASSETS.

Year.	Securities.		Loans.	Landed and House Properties.	Cash in Hand and on Deposit.	Other Assets.	Total.
	Union Government.	Other.					
	£	£	£	£	£	£	£
1933-34.....	252,478	111,789	2,267,931	86,177	158,498	54,963	2,931,836
1934-35.....	284,785	135,321	2,290,764	96,131	110,060	66,381	2,983,442
1935-36.....	331,571	153,264	2,355,345	88,205	165,033	52,569	3,145,987
1936-37.....	379,522	187,674	2,543,895	122,991	138,776	95,207	3,468,065
1937-38.....	454,850	215,174	2,812,090	117,672	208,182	123,761	3,931,729

16. **Union Loan Certificates.**—Act No. 20 of 1919 authorized the raising of money by means of Union Loan Certificates. These certificates offer a suitable investment for small sums in a government security, bearing a high rate of interest, if left to mature, free of Union income tax and super tax. Certificates of nominal values of £1, £10, and £25, and forms of application for certificates of larger amounts are obtainable at any money order office in the Union and South West Africa. No individual is entitled to hold more than £1,000 (face value). Limited liability or other registered companies, partnerships, or public bodies are not permitted to hold certificates, but friendly, charitable, and provident societies, clubs, and funds, approved of by the Postmaster-General, may invest and, provided they can produce a certificate from the Commissioner for Inland Revenue certifying that their funds are wholly exempt from income tax, there is no limit to their investments. As from the 1st February, 1935, a new series of certificates has been issued; the purchase price of a single certificate has been increased from 16s. to 16s. 3d. and at the end of six years the value is 20s. The purchase price, together with any accrued interest, is repayable at short notice any time prior to the date of maturity, on application to the Accountant, Union Loan Certificate Section, G.P.O., Pretoria (in the case of certificates issued at Transvaal or Natal offices) or Capetown (in the case of certificates issued at Cape of Good Hope and Orange Free State offices). The annual compound interest rate for the six years is 3.54 per cent. For particulars of earlier series of certificates see *Official Year Book* No. 15 and earlier issues.

The total number of individual holders of single and multiple certificates is estimated at between 80,000 and 90,000.

The following table shows the number of units and the value of Union Loan Certificates issued and repaid during certain years from 1920. For the intervening years see *Year Book* No. 19 and previous issues.

NUMBER AND VALUE OF UNION LOAN CERTIFICATES ISSUED AND REPAID, 1920 TO 1939.

At 31st March.	Number.			Amounts.*			Interest Paid.
	Issued.	Repaid.	Balance.	Issued.	Repaid.	Balance.	
	Units.	Units.	Units.	£	£	£	£
1920.....	2,132,593	60,278	2,072,315	1,652,760	46,716	1,606,044	—
1925.....	7,867,597	2,601,865	5,265,732	6,139,263	2,022,478	4,116,785	190,107
1930.....	12,204,695	6,554,740	5,649,955	9,608,941	5,129,814	4,479,127	952,623
1935.....	19,404,031	11,427,782	7,976,249	15,370,463	8,987,426	6,383,037	2,357,803
1936.....	20,508,083	12,197,664	8,310,419	16,267,505	9,604,110	6,663,395	2,544,314
1937.....	21,396,029	12,954,277	8,441,752	16,988,961	10,211,318	6,777,643	2,722,906
1938.....	22,139,882	13,766,419	8,373,463	17,593,341	10,863,729	6,729,612	2,918,832
1939.....	22,853,413	14,607,030	8,246,383	18,173,085	11,539,273	6,633,812	3,140,129

* Calculated at Issue Value of Certificates, i.e. 15s. 6d. per unit up to the 8th April, 1923, 16s. per unit to 31st January, 1935, and thereafter 16s. 3d. per unit.

17. **Savings Clubs.**—The object of the Union Loan Certificate issue is to encourage thrift among the people, and in order to foster that ideal the National Thrift Committee, with headquarters at the General Post Office, Capetown, was appointed by the Government. The functions of the committee include the establishment of local committees in appropriate centres, the adoption of schemes for promoting thrift, and control of the club movement. Special facilities for the accumulation of small sums for investment in Union Loan Certificates are provided by means of the savings clubs. These clubs may be formed among groups of people in the same office, business house, factory, school, society, etc., provided not fewer than five members are enrolled, the necessary books being supplied free of charge. Each club appoints its own treasurer, who accepts deposits of small amounts from members, and immediately invests the collective savings in Union Loan Certificates. These certificates are subsequently distributed among members. The club scheme was commenced at Capetown in March, 1920, and clubs are now established in almost all the principal towns. On the 31st March, 1938, there were 1,322 clubs on the register, of which 1,263 were school clubs. The certificates purchased by all savings clubs amounted to 96,661 units, school clubs being responsible for 82,565.

§ 3. Land and Agricultural Bank of South Africa.

1. **Establishment.**—The Land and Agricultural Bank of South Africa was established on the 1st October, 1912, by Act No. 18 of 1912. Prior to that date land banks (referred to as "provincial banks") existed in the Transvaal under the name of the *Transvaal Land and Agricultural Bank* (Act No. 26 of 1907), in the Orange Free State as the *Land and Agricultural Loan Fund of the Orange Free State* (Act No. 33 of 1909), and in Natal under the name of the *Land and Agricultural Loan Fund of Natal* (Act No. 27 of 1907). In the Cape of Good Hope the *Agricultural Credit Bank Act*, No. 25 of 1907, was passed, but remained inoperative. On the 1st October, 1912, the three provincial banks ceased to exist, and their assets and liabilities were transferred to and vested in the Land and Agricultural Bank of South Africa, referred to for convenience as the Union Land Bank.

The Union Land Bank took over the assets and liabilities of the three provincial banks at an amount "mutually agreed between the Minister of Finance and the central board of the bank." Under that agreement the value of the assets and liabilities of the Transvaal and Natal banks were taken at the figure shown in the balance-sheets as at the 30th September, 1912, but in the case of the Orange Free State bank the balance-sheet figures were reduced by £3,560, the assets *Advances against Promissory Notes* (£105,960) and the liability *Reserve Funds* (£4,816) being reduced by the amount mentioned.

2. **Capital.**—The Union Land Bank commenced business on the 1st October, 1912, with a capital of £2,735,000. Its capital is not fixed and consists of the amount mentioned, together with—

(*a*) such further moneys as Parliament may from time to time by appropriation authorize the Minister of Finance to pay to the bank;

(*b*) any moneys paid to the Bank under any law, or under any regulation under any law, as part of its capital; and

(*c*) such further amounts as the Bank was authorized to raise, under section 3 of Act No. 36 of 1921 as amended or added to by Act No. 40 of 1922 and Act No. 24 of 1938, for the purpose of financing individual farmers or co-operative organizations by means of—

(i) discounting with other banks bills of co-operative organizations;

(ii) overdrafts with other banks;

(iii) issuing Land Bank bills; and

(iv) receiving moneys on deposit withdrawable at not less than one month's notice.

Further moneys authorized by Parliament are contained in the following statement:—

Year.	Amount.	Year.	Amount.
	£		£
1912-13	200,000	1926-27	950,000
1913-14	825,000	1927-28	658,000
1914-15	400,000	1928-29	500,000
1917-18	225,000	1929-30	700,000
1918-19	400,000	1930-31	1,900,000
1919-20	300,000	1931-32	1,145,000
1920-21	250,000	1932-33	500,000
1921-22	500,000	1933-34	—
1922-23	500,000	1934-35	—
1923-24	830,000	1935-36	1,000,000
1924-25	700,000	1936-37	500,000
1925-26	850,000	1937-38	1,000,000
		1938-39	750,000
		TOTAL £	15,583,000

At the 31st December, 1938, the Bank's capital was as follows:—

	Amount.
Capital Fund	£17,314,006
Reserve Fund	£1,174,306

3. **Cost of Capital.**—The Act provides that the Bank shall pay interest at the rate of 3¾ per cent. per annum on its capital, but this rate may be increased or reduced by resolution of Parliament, and it is further provided that the Bank shall not pay a higher rate than is recovered on any advances made by any of the provincial banks. By resolution Parliament, in 1914, increased the rate to 4 per cent. per annum on amounts paid to the Bank after the 1st April, 1914. Later on it was again increased in terms of section 20 of Act No. 18 of 1912, and the Bank was required to pay a rate which was based on the cost of the money to the Government. As a result of representations made by the board during 1935 the Government was able to reduce the rate of interest payable by the Bank on its capital as from 1st April, 1935. Part of the Bank's capital thereafter bore a rate of 4 per cent. and the balance 3½ per cent. As a result of further representations made by the board in this connexion, the Government agreed during the same year, to reduce the overall rate of interest charged on the Bank's capital to 3½ per cent. as from the 1st April, 1936, and the Bank now pays a rate of 3½ per cent. on its capital.

4. **Management and Control.**—(i) *The Central Board.*—The bank is a body corporate, and its operations and policy are controlled by a central board consisting of a chairman and six ordinary members, each of whom is nominated by the Governor-General. The central board meets in Pretoria, where the Bank's head office is situated. The General Manager is the chief executive officer of the Bank, and in the absence of the chairman of the Central Board, he acts as chairman.

(ii) *Local Boards.*—In addition to the central board, there are local boards consisting of three members each, who are also nominated by the Governor-General, and the chairman of each local board is designated by the Governor-General. These local boards are purely advisory, and have been established (1) at Capetown for the Cape Western area, (2) at Cradock for the Cape Eastern area, (3) at Bloemfontein for the Orange Free State area, (4) at Pietermaritzburg for the Natal area, and (5) at Vryburg for the Cape North-Western area.

(iii) *Land Bank Areas and Branch Offices.*—As from the 1st April, 1939, three new branches of the Bank have been established and the six existing Land Bank areas have been subdivided into nine new Land Bank areas, as follows:—

(A) CAPE PROVINCE.

(1) The *Cape Western Area*, with branch office at Capetown to serve the districts of:—

Bellville.	Ladismith.	Simonstown.
Bredasdorp.	Malmesbury.	Somerset West.
Caledon.	Montagu.	Swellendam.
Calitzdorp.	Mossel Bay.	Stellenbosch.
Capetown.	Namaqualand.	Tulbagh.
Ceres.	Oudtshoorn.	Van Rhynsdorp.
Clanwilliam.	Paarl.	Wellington.
George.	Piquetberg.	Worcester.
Hopefield.	Riversdale.	Wynberg.
Knysna.	Robertson.	

including the various sub-districts.

(2) The *Cape Eastern Area*, with branch office at Cradock to serve the districts of:—

Albany.	Humansdorp.	Somerset East.
Aberdeen.	Indwe.	Stockenström.
Adelaide.	Jansenville.	Stutterheim.
Alexandria.	Keiskamahoek.	Transkei, comprising:
Albert.	Kingwilliamstown.	Butterworth.
Aliwal North.	Komgha.	Idutywa.
Bathurst.	Lady Grey.	Kentani.
Barkly East.	Maraisburg.	Nqamakwe.
Bedford.	Maclear.	Tsomo.
Cathcart.	Middelburg.	Willowvale.
Colesberg.	Molteno.	Tarkastad.
Cradock.	Middeldrift.	Tembuland, comprising:
East Griqualand, comprising:	Pearston.	Elliotdale.
Matatiele.	Peddie.	Engcobo.
Mt. Ayliff.	Port Elizabeth.	Mqanduli.
Mt. Currie.	Pondoland, comprising:	St. Marks.
Mt. Fletcher.	Bizana.	Umtata.
Mt. Frere.	Flagstaff.	Xalanga.
Qumbu.	Libode.	Uitenhage.
Tsolo.	Lusikisiki.	Uniondale.
Umzimkulu.	Ngqeleni.	Venterstad.
East London.	Port St. Johns.	Victoria East.
Elliot.	Tabankulu.	Willowmore.
Fort Beaufort.	Queenstown.	Wodehouse.
Graaff-Reinet.	Sterkstroom.	
Glen Grey.	Steynsburg.	
Herschel.	Steytlerville.	

including the various sub-districts.

(3) The *Great Karroo Area*, with branch office to be established at Beaufort West to serve the districts of:—

Beaufort West.	Hanover.	Prieska.
Britstown.	Kenhardt.	Prince Albert.
Calvinia.	Laingsburg.	Richmond.
Carnarvon.	Hopetown.	Sutherland.
De Aar.	Murraysburg.	Victoria West.
Fraserburg.	Philipstown.	Williston.

including the various sub-districts.

(4) The *Cape North-western Area*, with branch office at Vryburg to serve the districts of:—

Barkly West.	Herbert.	Mafeking.
Gordonia.	Kimberley.	Taung.
Hay.	Kuruman.	Vryburg.

including the various sub-districts.

(B) TRANSVAAL PROVINCE.

(5) The *Central Transvaal Area*, with branch office at Pretoria to serve the districts of:—

Benoni.	Johannesburg.	Roodepoort.
Boksburg.	Krugersdorp.	Rustenburg.
Brakpan.	Letaba.	Springs.
Brits.	Pietersburg.	Vereeniging.
Germiston.	Potgietersrust.	Waterberg.
Heidelberg.	Pretoria.	Zoutpansberg.

including the various sub-districts.

(6) The *Eastern Transvaal Area*, with branch office at Ermelo to serve the districts of:—

Barberton.	Lydenburg.	Standerton.
Belfast.	Middelburg.	Volksrust.
Bethal.	Nelspruit.	Wakkerstroom.
Carolina.	Piet Retief.	Witbank.
Ermelo.	Pilgrims Rest.	

including the various sub-districts.

(7) The *Western Transvaal Area*, with branch office at Potchefstroom to serve the districts of:—

Bloemhof.	Lichtenburg.	Schweizer Reneke.
Christiana.	Marico.	Ventersdorp.
Klerksdorp.	Potchefstroom.	Wolmaransstad.

including the various sub-districts.

(C) ORANGE FREE STATE PROVINCE.

(8) The *Orange Free State Area*, with branch office at Bloemfontein to serve the whole province.

(D) NATAL PROVINCE.

(9) The *Natal Area*, with branch office at Pietermaritzburg to serve the whole province.

(iv) *Agents of the Bank.*—Every magistrate, field-cornet, and police officer, and the Postmaster-General and any officer under him, are by law appointed agents of the Bank when required by the central board to assist in any matter.

(v) *Staff.*—The Bank is not a Department of State, and its officers are not members of the public service, although they may be seconded members of the public service.

At the 31st December, 1938, the Bank's staff consisted of 371 officers, of whom 4 were seconded from the public service. Whilst the seconded officers and officers taken over from the provincial banks contribute to the various pension funds of the public service, the Bank established, on the 1st May, 1916, a Superannuation Fund for its own officers, to which it contributes on the £ for £ basis.

The contributions are levied on the basis of the officer's age at date of entry into the service of the Bank and vary from 5 per cent. to 8 per cent. on his total salary.

5. **Operations of the Bank.**—(i) *Objects and Powers.*—The main objects of the bank are to make advances—

(a) to farmers against the security of first mortgage on land. The advance cannot exceed 60 per cent. of the value placed by the central board on the land;

(b) to agricultural co-operative societies and companies and to guarantee the fulfilment of contracts undertaken by co-operative societies and companies individually or by some organization acting

for a group of them. In a "society" members are jointly and severally liable for its debts; in a "company" members' liability is limited to the nominal value of shares subscribed for by them and to any contingent liability attaching to those shares. In addition thereto, in respect of cash credit advances made available to companies, the members thereof are liable to the Bank to the extent of an amount equal to any amounts which they may receive from the company in the form of advances, goods supplied, or services rendered by the company out of such Cash Credit Account;

(c) to regulatory boards established under the *Marketing Act* (No. 26 of 1937) for any purpose for which such regulatory boards may borrow money in terms of that Act;

(d) to farmers to erect boundary and internal fences, to construct dipping-tanks, to construct silos and other contrivances for the making or storage of ensilage, to provide a supply of water, by boring or otherwise, to erect windmills or other mechanical contrivances for pumping water;

(e) to settlers who hold land from the Crown under lease, subject to the repayment of these loans being guaranteed by the Minister of Lands;

(f) to farmers, in the form of cash credit accounts, for the purpose of defraying any costs which in the opinion of the Board are incidental to the production, cultivation, gathering, or marketing of any crops growing or to be grown on any land cultivated by such farmer. These advances are secured by means of a lien or pledge over the crops, and in addition a statutory restraint is placed against transfer of the land upon which such crops are grown until the advance has been repaid. For the time being these advances are only being made to sugar-cane farmers.

(ii) *Co-operation Amongst Farmers.*—The establishment and registration of co-operative societies is under the control of the Registrar of Co-operative Societies, but the Bank is nevertheless interested in the welfare of these organizations in that many of them are financed by it.

The total number of co-operative societies in operation at the end of the year 1938 was 235, and the membership totalled some 105,000.

The purposes for which these societies have been established are varied, and they operate throughout the Union.

The amount owing to the Bank by co-operative societies as at 31st December, 1938, was £2,112,704.

(iii) *Financial Results.*—The loans made by the Bank to farmers and agricultural co-operative societies prior to 1921 carried interest at 5 per cent. per annum, with the exception of dipping-tank and fencing loans, for which the rate was 4 per cent. per annum. From 1921, however, the interest charged was raised to 6 per cent. on ordinary advances and 5 per cent. on dipping-tank, fencing, silo, and water supply loans. Interest on mortgage loans was reduced to 5½ per cent. from the 1st August, 1930. During the operation of the *Farm Mortgage Interest Act*, No. 34 of 1933, the rate of interest charged to mortgage debtors falling under that Act was 5 per cent. per annum. As from 1st April, 1935, a permanent reduction to 5 per cent. on all long date advances prior to 1st April, 1933, was made, and on all such advances after 1st April, 1933, the rate of interest was fixed at 4½ per cent.; but as a result of the reduction of the rate of interest payable on the Bank's capital as from the 1st April, 1936, the Bank was able to pass on the reduction to all its long-date debtors as from the first due date after the 1st April, 1936. The rate of interest fixed for all long-date advances is now 4½ per cent.

From 1st April, 1935, the interest charged to agricultural co-operative organizations has been regulated by the cost of raising the money. The rate of interest charged under cash credit advances granted to sugar-cane farmers is also regulated by the cost of raising the money.

The following table shows the net profits of the Bank from 1912:—

LAND AND AGRICULTURAL BANK—NET PROFITS, 1912 TO 1938.

Year.	*Net Profit.*	*Year.*	*Net Profit.*
	£		£
1/10/12 to 1926	709,316	1933	29,436
1927	64,567	1934	14,721
1928	70,268	1935	12,995
1929	75,573	1936	19,249
1930	69,293	1937	20,320
1931	27,149	1938	69,448
1932	36,794		
		TOTAL £	1,219,129

The Bank's object is not to make large profits, and section 43 of Act No. 18 of 1912, as amended by section 9 of Act No. 40 of 1922, provides that as soon as the reserve fund and the capital of the bank total such amount as is, in the board's opinion, adequate to enable the Bank fully to carry out its objects, an amount determined by the board will be paid to the Minister of Finance out of the profits and the reserve fund of the Bank, but, to meet this payment, the amount of the reserve fund may not be reduced below £350,000.

(iv) *Liabilities and Assets.*—The following table shows the amount of the liabilities and assets of the Bank in each year from 1934:—

LAND AND AGRICULTURAL BANK—LIABILITIES AND ASSETS ON THE 31st DECEMBER, 1934 TO 1938.

Year.	Liabilities.					Assets.			
						Advances.			
	Capital.	Reserve.	Bills and Deposits.	Other Liabilities.	Total.	Individuals.	Co-operative Societies and Companies.	Other Assets.	Total.
	£1,000.	£1,000.	£1,000.	£1,000.	£1,000.	£1,000.	£1,000.	£1,000.	£1,000.
1934...	15,170	941	17	451	16,579	13,769	1,228	1,582	16,579
1935...	15,180	947	23	490	16,640	14,489	949	1,202	16,640
1936...	15,235	963	—	473	16,671	15,344	889	438	16,671
1937...	15,784	1,110	—	1,020	17,914	16,149	1,392	373	17,914
1938...	17,314	1,174	—	1,367	19,855	17,449	2,113	293	19,855

(v) *Statistics of Ordinary Operations.*—Statistics of the ordinary operations of the Bank for a series of years are given in the subjoined tables. Table (*a*) shows the number of applications for ordinary advances under Act No. 18 of 1912, the amount involved, and particulars as to applications granted and advances paid out; table (*b*) gives the number of government advances granted and paid out; tables (*c*) and (*d*) give further particulars as to advances paid out by the Bank; table (*e*) contains details regarding co-operative societies which received advances from the Bank; and table (*f*) gives particulars of advances to co-operative companies.

(a) APPLICATIONS FOR ORDINARY ADVANCES, 1934 TO 1938.

Year.	Applications Received.		Applications Granted.		Total Advances Paid Out.		Average Amount.
	Number.	Amount.	Number.	Amount.	Number.	Amount.	
		£		£		£	£
1934	5,012	8,150,901	2,552	2,529,620	2,417	2,271,575	940
1935	5,201	7,899,378	3,018	2,645,870	2,224	1,983,110	892
1936	4,441	5,139,269	2,783	2,280,060	2,490	2,102,558	845
1937	4,628	5,623,377	3,348	3,225,711	2,391	2,120,875	887
1938	4,041	5,024,423	3,100	3,252,877	2,652	2,682,945	1,012

(b) ADVANCES MADE BY THE BANK ON BEHALF OF THE GOVERNMENT UNDER SECTION 20 OF ACT No. 29 OF 1933.

Year.	Applications Granted.		Total Advances Paid Out.		
	Number.	Amount.	Number.	Amount.	Average Amount.
		£		£	£
1934	1,709	3,905,253	2,092	5,959,420	2,849
1935	1,157	2,823,765	1,144	2,879,555	2,517
1936	602	1,009,400	751	1,574,300	2,096
1937	471	755,640	427	644,995	1,511
1938	203	347,740	298	542,576	1,821

NOTE.—The number of these applications received is included in the figure under "Applications Received" in Table (a).

(c) ANALYSIS OF ORDINARY ADVANCES, 1934 TO 1938.

Year.	Over £10,000.*	£5,001–£10,000.*	£2,001–£5,000.*	£1,001–£2,000.	£501–£1,000.	£500 and under.
	£	£	£	£	£	£
1934	65,660	192,330	643,465	628,235	434,910	306,015
1935	54,065	156,425	548,860	556,485	383,480	283,795
1936	58,575	130,990	526,100	626,285	437,613	322,985
1937	25,050	118,320	611,035	619,960	454,395	292,115
1938	113,570	231,985	757,525	750,250	515,035	314,580

* The limit of £2,000 imposed by section 22 (3) of the *Land Bank Act*, 1912, was removed by section 15 of Act No. 29 of 1933.

(d) PURPOSES FOR WHICH ORDINARY ADVANCES WERE MADE, 1934 TO 1938.

Year.	Improvements.	Purchase of Stock.	Discharge of Existing Liabilities.	Purchase of Land.
	£	£	£	£
1934	29,684	25,948	1,778,913	437,050
1935	31,444	29,748	1,377,089	544,829
1936	38,634	45,959	1,244,905	773,060
1937	41,895	39,506	1,246,316	793,158
1938	57,762	49,450	1,503,289	1,072,444

(e) ADVANCES TO CO-OPERATIVE SOCIETIES, 1934 TO 1938.

Year.	Amount owing to Bank at 31st December.	Applications for New Loans.	
		Amount Applied for.	Amount Granted.
	£	£	£
1934	697,931	2,519,430	2,381,795
1935	388,443	1,441,770	1,417,220
1936	262,937	1,593,600	1,515,600
1937	427,611	1,842,607	1,791,607
1938	618,065	3,601,050	3,599,450

(f) ADVANCES TO CO-OPERATIVE COMPANIES, 1934 TO 1938.

Year.	Amount owing to Bank at 31st December.	Applications for New Loans.	
		Amount Applied for.	Amount Granted.
	£	£	£
1934	529,503	667,625	569,050
1935	475,909	753,950	741,488
1936	626,150	1,635,950	1,560,650
1937	963,966	1,488,670	1,422,720
1938	1,494,638	4,033,600	4,030,937

§ 4. Building Societies.

1. **Historical.**—Apart from pre-Union legislation in Natal, there was, until ct No. 62 of 1934 was passed, no general Act in the Union for the control f building societies. A Bill was drafted as far back as 1922, but its enactent was not proceeded with. Further Bills were drafted between 1932 and 934 and were referred to Select Committees. In 1932 an emergency Act No. 6 of that year) was passed, which permitted every building society or vings bank society approved of by the Minister of Finance to borrow oney for any of the purposes of its business, notwithstanding any previous strictions imposed in this respect. This Act has been repealed by Act No. 2 of 1934 as far as building societies are concerned.

Act No. 62 of 1934, as amended by Act No. 19 of 1935 and Act No. 56 1937, which came into operation on the 2nd August, 1937, makes provision r the appointment of a Registrar of Building Societies, and requires that l building societies, whether permanent or terminating, shall be registered cording to law. The head office of any building society so registered must situated in the Union, and under certain circumstances a deposit, which all be invested in approved securities, the income of which is due to the ciety, must be made with the Treasury as security for the payment of the bility of the society in respect of shares and deposits. The investment of nds is strictly confined to certain forms of security, and the advance which ay be made on mortgage on immovable property is limited to a given perntage of the determined value of the property, or of the sum of the value of e property hypothecated and of any collateral security offered. The paid-up are capital of a registered society may not at any time amount to less than e-third of the total sum received by the society on deposit and loan, and a serve fund of at least ten per cent. of the society's liabilities to depositors and e paid-up share capital of the society must be established and maintained act. The total amount owing to a society on the mortgage bonds registed in its favour may not at any time be less than the total amount reved by the society on deposit and loan and not yet repaid by it. A society ist also hold as security for the prompt repayment of deposits not less

than one-fourth of the total value received by the society on deposit and not yet repaid. This amount may be held in cash, or on deposit with a bank approved by the Registrar and withdrawals on demand or at notice, or in specified securities.

Provision is made for the holding of annual general meetings, audit, and inspection, which may be undertaken by the Registrar at the request of a given number of the members. Half-yearly returns are required to be lodged with the Registrar, and an annual licence of £20 is required to be paid to the Inland Revenue by every registered building society.

The above is only a very brief summary of some of the principal provisions of the enactment, which should be consulted should further information on the subject be desired.

A short account of the early history of the building society movement in South Africa was given in *Official Year Book* No. 12.

2. **General and Statistical.**—Until the end of 1935 statistics of building societies in the Union were collected annually under the *Statistics Act* by the Office of Census and Statistics, the first collection taking place in respect of the year 1919-20. For the purpose of these statistics the term "Building Society" included all associations or organizations having for their object the purchasing, acquisition, or building of houses for members of such associations or for other persons. The tables hereunder give particulars of such societies. As from the beginning of 1936, however, the collection of data in regard to building societies rests with the Registrar of Building Societies, who administers the *Building Societies Act*.

The figures for the years from 1935-36 have been furnished by the Registrar. The particulars for 1935-36 are not reconcilable with those for 1934-35, the reason being that the latter do not agree with the statements furnished by the societies to the Registrar in regard to their position at the beginning of the year 1935-36. These discrepancies are fully dealt with in the report of the Registrar.

It should be explained here that the considerable decrease in the amount owing to investing members in Natal societies for 1935-36 [Table (*b*)] is due to the fact that investors' deposits have, to a very large extent, been converted into shares in terms of the Act [see increase in shares, Table (*a*) (iii)].

At 31st December, 1937, there were 72 building societies operating in the Union, of which 44 belonged to the permanent and 28 to the terminable class.

BUILDING SOCIETIES OPERATING IN THE UNION, 1932-33 TO 1936-37.

(*a*) SHARES.

Year.	Shares taken up during Year. No.	Shares Matured, Withdrawn, or Cancelled during Year. Number.	Shares Matured, Withdrawn, or Cancelled during Year. Value. £	Shares at end of Year. Number.	Shares at end of Year. Value. £	Subscriptions Received during the Year. £	Dividends Accrued and Paid during Year. £
(i) *Subscription Shares.*							
1932-33	23,312	39,817	1,557,496	162,030	3,572,790	922,361	209,131
1933-34	32,872	39,581	1,105,883	155,321	3,463,483	858,303	174,753
1934-35	28,601	30,820	1,019,238	153,102	3,416,228	855,931	171,538
1935-36	28,776‡	30,141‡	1,031,027	155,181‡	3,430,387‡	838,503	160,099
1936-37	45,510	35,689	1,281,579	165,002	3,424,858§	1,100,425	175,425
(ii) *Paid-up Shares.*							
1932-33	23,345	11,742	705,938	123,957	5,221,543	—	273,903
1933-34	190,899*	45,425	1,402,721	269,431	5,405,110	—	295,970
1934-35	62,300	26,717	1,211,944	305,023	0,478,288	—	308,283
1935-36	164,076‡	47,380	2,196,595	424,727‡	9,841,722	—	464,341
1936-37	79,880†	19,290	751,820	485,317	11,817,450	—	591,513

* The increase is largely due to the conversion of some £25 and £50 shares to £1 shares.
† The value of these was £2,727,557.
‡ Amended figure.
§ Including Investment Certificates, £25,269.

BUILDING SOCIETIES OPERATING IN THE UNION, 1932-33 TO 1936-37—(*continued*).

(*b*) INVESTORS' DEPOSITS (NATAL ONLY).

Year.	Amount Received from Investing Members during Year (including Interest and Bonuses credited).	Amount Paid out to Investing Members during Year (including Interest and Bonuses credited).	Amount owing to Investing Members at end of Year (including Interest, Bonuses, and Dividends accrued or credited).	Interest Paid and Accrued on Investors' Deposits.
	£	£	£	£
1932-33	1,306,739	1,688,899	6,504,752	361,717
1933-34	728,989	976,932	6,256,759	265,267
1934-35	699,121	1,020,180	5,935,700	351,062
1935-36	104,889	5,513,650†	565,100*†	45,606
1936-37	29,812	394,755	200,157	8,720

(*c*) LOANS (UNION).

Year.	Loans Granted during Year. Number.	Loans Granted during Year. Amount.	Amount received in Loan Redemption during Year.	Loans at end of Year. Number.	Loans at end of Year. Amount.
		£	£		£
1932-33	4,332	3,320,150	4,937,812	36,036	21,348,986
1933-34	9,937	8,803,280	7,514,266	37,126	22,638,000
1934-35	12,910	11,370,293	8,222,770	41,184	25,785,523
1935-36	15,641	11,344,593	9,573,352	46,659	28,525,576†
1936-37	17,771	17,502,528	11,744,788	52,253	34,283,316
Mortgage	16,119	17,219,220	11,501,826	49,252	33,959,373
Shares and Deposits	1,652	283,308	242,962	3,001	323,943

(*d*) SAVINGS ACCOUNTS (UNION).

(i) *Number of Accounts, Deposits, and Withdrawals.*

Year.	Number of Accounts. Opened.	Number of Accounts. Closed.	Number of Accounts. At end of Year.	Deposits during Year.‡	Withdrawals during Year.
				£	£
1932-33	28,770	21,226	102,536	12,949,116	11,754,095
1933-34	25,126	26,993	100,669	14,294,328	13,511,384
1934-35	38,941	20,201	119,409	17,922,802	14,637,892
1935-36	50,845	23,253†	145,926†	24,637,757	17,659,734
1936-37	42,906	30,230	158,602	29,636,900	24,848,133

(ii) *Deposits at End of Year and Interest Added.*

Year.	Deposits, including accrued interest, at end of Year. Current Account.	Deposits, including accrued interest, at end of Year. Fixed Deposits.	Deposits, including accrued interest, at end of Year. Total.	Interest accrued or Paid out during Year. Current Account.	Interest accrued or Paid out during Year. Fixed Deposits.	Interest accrued or Paid out during Year. Total.
	£	£	£	£	£	£
1932-33	5,430,489	4,593,622	10,024,111	188,156	207,269	395,425
1933-34	6,474,602	4,332,453	10,807,055	196,371	207,877	404,248
1934-35	7,473,165	6,618,800	14,091,965	214,807	216,099	430,906
1935-36	11,794,380	9,318,814†	21,113,194†	373,303	292,359	665,662
1936-37	14,427,424	11,474,537	25,901,961	394,766	402,956	797,722

* See note in letterpress.
† Revised figure.
‡ Including interest accrued on current deposits.

BUILDING SOCIETIES OPERATING IN THE UNION, 1932-33 TO 1936-37—(*continued*).

(e) REVENUE, EXPENDITURE, AND NET PROFIT (UNION).

Year.	Revenue.			Expenditure.	
	Interest.	Other.	Total.	Working Expenses.*	Net Profit.
	£	£	£	£	£
1932-33.....	1,550,789	174,501	1,725,290	1,195,927	[illegible]
1933-34.....	1,344,278	247,886	1,592,164	1,000,767	[illegible]
1934-35.....	1,532,344	241,734	1,774,078	1,023,658	[illegible]
1935-36.....	1,848,341	130,924	1,979,265	1,153,341	[illegible]
1936-37.....	2,201,295†	151,893	2,353,188	1,349,542	[illegible]

(f) LIABILITIES (UNION).

Year.	Paid-up Capital (including accrued Dividends).	Deposits (including accrued Interest).	Loans (including Bank Overdraft).	Reserves.	Other Funds and Undivided Profits.	Other Liabilities.	Total.
	£	£	£	£	£	£	£
1932-33.....	15,299,085	10,024,111	132,778	1,059,838	498,109	635,449	27,649,370
1933-34.....	15,125,352	10,807,055	110,132	1,122,350	708,540	1,616,674	29,490,103
1934-35.....	15,830,216	14,091,965	109,618	1,281,580	512,938	1,895,794	33,722,111
1935-36.....	13,837,409‡	21,113,194‡	89,618‡	1,549,742	376,800	2,732,124‡	39,698,887
1936-37.....	15,442,474	25,901,961	123,625	1,756,693	428,484	3,531,112	47,184,349

(g) ASSETS (UNION).

Year.	Loans.§	Office Premises, Fittings, etc.	Cash Resources.			Other Assets.	Total.
			Current Deposits.	Fixed Deposits.	Securities.		
	£	£	£	£	£	£	£
1932-33.....	21,545,658	877,592	1,038,701	1,848,125	1,665,684	673,610	[illegible]
1933-34.....	22,814,612	1,105,262	848,141	1,313,856	2,434,351	973,878	[illegible]
1934-35.....	25,951,059	1,181,669	1,239,868	686,936	3,590,735	1,071,844	[illegible]
1935-36.....	31,487,463	1,011,932	1,310,412	470,047	5,194,765	224,268	[illegible]
1936-37.....	37,881,530	1,259,149	1,301,752	516,736	6,000,851	224,331	[illegible]

* Includes interest on savings bank deposits and, until 1932-33, interest credited to investors (Natal); thereafter this item is omitted.
† Of which £208,614 from investments.
‡ Amended figure.
§ Including loans granted but not paid out and property in possession; the amounts for 1936-37 were £3,072,339 and £525,875 respectively.

§ 5. Insurance.

1. Union Insurance Act.—The question of the consolidation of the laws of the several provinces relating to insurance had been under consideration practically from the year of the establishment of the Union, and a consolidating Bill was printed in 1917; it was not until the year 1923, however, that an *Insurance Act* for the Union (No. 37 of 1923) was passed by the Legislature. This Act places insurance matters in the Union on a common basis, and repealed the relative old colonial laws wholly or in part. Its provisions had been previously discussed with insurance companies and others concerned.

The Act applies to all persons or bodies of persons (other than local authorities, friendly societies, burial societies, and trade unions) carrying on insurance business in the Union. Provision is made for the registration of insurance companies and for the lodging of security, which may in certain circumstances be increased or decreased, with the Treasury. Every company registered must have a chief office and a principal officer in the Union, and is required to render to the Treasury annually a duly certified revenue account, profit and loss account, and balance-sheet. The classes of insurance subject to the provisions of the Act are accident, bond, investment, burglary, employers' liability, fire, industrial, life, live stock, marine, motor, and plate glass insurance. An actuarial investigation into the financial position of life insurance companies at intervals is provided for. Minors of eighteen years of age and over may insure their lives. Persons insured may, without consent of the insurance companies involved, engage in military or naval service in defence of the Union. Certain protection is given against life insurance policies being taken in execution by creditors of the insured. The contingency of life insurance companies amalgamating or life insurance business being transferred from one company to another is provided for. Companies having their head offices in the Union may be wound up under certain conditions, in the event of their being proved insolvent. Certain requirements must be complied with by persons initiating insurance business in the Union or dealing with insurance in various other ways, and there are penalties for infringements of the Act.

The accounts, abstracts, and statements deposited with the Treasury, or a summary thereof in such form as the Treasury may determine, must be presented to Parliament and published. In the absence of a consolidating *Insurance Act*, annual statistics of insurance, covering the Union as a whole, were from the year 1917 collected and published under the *Statistics Act* (see paragraph 2). Moreover, certain particulars relating to Cape life assurance companies and returnable under the *Life Assurance Act* of 1891 of the Cape of Good Hope were regularly compiled and published (see *Official Year Book* No. 8). The Union *Insurance Act* repealed the Cape Act referred to, and statistics of insurance more complete and in greater detail than it was practicable to procure under the *Statistics Act* have been compiled, as from 1924, from the returns submitted by companies under the *Insurance Act*. Detailed information with regard to individual companies from 1924 onwards will be found in the annual returns issued by the Treasury.

2. Statistics of Insurance.—In the following tables are given for a period of years particulars obtained under the Union *Insurance Act* regarding insurance companies operating in the Union. Particulars of information obtained under the *Statistics Act* from 1917 to 1923, and under the Union *Insurance Act* from 1924 to 1932, will be found in previous issues of the *Official Year Book*. The figures relate to every class of insurance transaction.

(i) INSURANCE COMPANIES OPERATING IN UNION, 1933 TO 1937.

NUMBER AND HEADQUARTERS OF INSURANCE COMPANIES.

At 31st December.	Headquarters in—				Total.
	Union.	United Kingdom.	British Dominions.	Other Countries.	
1933.....	16	56	11	7	90
1934.....	16	58	11	7	92
1935.....	17	58	11	7	93
1936.....	17	58	11	7	93
1937.....	20	58	11	7	96

NOTE.—Particulars of the Mutual Life Insurance Company of New York are excluded from all the insurance tables, because its business in the Union has been taken over by the African Life Assurance Society, Ltd. Certain policies, however, have not been transferred to the latter society and still appear on the books of the original company. Of such policies 172, amounting to £70,325, were in force on the 31st December, 1937, on which date the company had assets in the Union amounting to £4,716.

(ii) LIFE INSURANCE BUSINESS TRANSACTED, 1933 TO 1937.

Year.	Insurance.		Pure Endowments.		Industrial.*		Annuities.	
	Number.	Amount.	Number.	Amount.	Number.	Amount.	Number.	Amount.
(a) NEW POLICIES ISSUED.								
		£1,000.		£1,000.		£1,000.		£
1933	51,943	26,180	675	323	130,969	2,742	248	22,779
1934	60,013	30,507	957	458	120,959	2,619	302	30,098
1935	61,204	33,063	947	515	109,247	2,416	253	30,231
1936	63,752	34,724	1,343	614	91,918	2,283	189	27,747
1937	63,081	34,881	978	411	85,085	2,260	333†	127,239
(b) POLICIES DISCONTINUED.								
		£1,000.		£1,000.		£1,000.		£
TOTAL, 1933	37,470	17,947	750	239	127,197	2,642	89	5,554
TOTAL, 1934	35,794	17,164	716	247	113,676	2,320	89	6,212
TOTAL, 1935	36,538	17,339	754	274	106,564	2,395	90	6,041
TOTAL, 1936	35,817	17,173	709	274	88,663	2,056	202	19,762
1937.								
By Death or Maturity	6,753	2,934	217	62	7,900	192	34	3,540
By Surrender	10,861	4,857	301	165	444	16	94	21,307
By Forfeiture, Transfer, or other Causes	19,185	10,699	265	87	69,310	1,745	9	1,607
TOTAL	36,799	18,490	783	314	77,654	1,953	137	31,454

* Refers to both insurance policies and pure endowment policies.
† 272 Policies are included as a result of a change in one company's method of counting the number and value of policies in force under certain group pension schemes.

(c) POLICIES IN FORCE AT THE END OF EACH YEAR.

Year.	Insurance.		Pure Endowments.		Industrial.*		Annuities.		Total Insurance (excluding annuities) per head of European Population.	
	Number.	Amount.	Number.	Amount.	Number.	Amount.	Number.	Amount.	Number.	Amount.
		£1,000.		£1,000.		£1,000.		£		£
1933	321,519	153,905	5,135	2,093	223,553	5,246	928	76,409	·291	85·233
1934	345,784	166,412	5,380	2,302	230,563	5,530	1,148	100,614	·302	90·535
1935	370,531	182,131	5,575	2,542	233,331	5,553	1,306	123,440	·310	96·842
1936	398,563	199,462	6,222	2,899	236,611	5,779	1,318	232,779†	·319	103·619
1937	424,992	216,051	6,431	3,002	244,047	6,085	1,723	332,757†	·331	110·113

* Refers to both insurance policies and pure endowment policies.
† Includes "Group Pension" schemes.

(iii) CERTAIN TRANSACTIONS RELATING TO THE VARIOUS CLASSES OF INSURANCE, 1933 TO 1937.

(a) LIFE INSURANCE.

Year.	Premiums.	Consideration for Annuities.	Claims.		Annuities.	Surrenders (including Bonuses in Cash and in Reduction of Premiums).	Commission.
			Death.	Maturity.			
	£	£	£	£	£	£	£
1933	5,365,823	234,403	1,654,289	1,358,837	56,599	1,586,119	504,922
1934	5,878,079	255,755	1,851,455	1,404,834	75,979	1,348,991	648,517
1935	6,433,245	236,132	2,002,056	1,433,385	97,455	1,119,182	672,399
1936	7,073,478	202,771	2,031,648	1,488,712	115,473	1,046,256	712,965
1937	7,611,463	166,409	2,222,011	1,654,159	120,701	1,072,285	720,643

(b) INDUSTRIAL LIFE INSURANCE.

Year.	Premiums.	Claims.		Surrenders (including Bonuses in Cash and in Reduction of Premiums).	Commission.
		Death.	Maturity.		
	£	£	£	£	£
1933	300,139	48,379	99,904	12,759	101,189
1934	312,624	52,213	105,495	8,343	103,741
1935	320,614	58,321	91,347	7,029	98,865
1936	329,419	53,832	105,193	5,717	97,871
1937	338,475	55,066	128,455	4,786	100,919

(c) FIRE INSURANCE.

Year.	Premiums.	Claims Paid and Outstanding.	Commission.
	£	£	£
1933	704,767	133,660	130,859
1934	731,992	160,720	139,358
1935	770,120	137,357	143,409
1936	834,040	145,200	159,752
1937	853,213	190,353	156,446

(d) MARINE INSURANCE.

Premiums.*	Claims Paid and Outstanding.
£	£
55,024	25,433
63,334	24,100
69,022	21,470
78,008	27,650
97,454	85,678

* The premiums are net, i.e. after deduction of commission, returns, brokerage, and discount.

CERTAIN TRANSACTIONS RELATING TO THE VARIOUS CLASSES OF INSURANCE, 1933 TO 1937—(*continued*).

(*e*) EMPLOYERS' LIABILITY INSURANCE.

Year.	Premiums.	Payments under Policies.	Commission.	Expenses of Management.
	£	£	£	£
1933..	419,150	281,074	29,660	54,036
1934..	500,111	333,699	36,208	62,510
1935..	949,607	377,663	74,381	141,294
1936..	1,184,533	614,152	76,649	155,260
1937..	1,073,423	720,995	62,230	153,039

(*f*) MOTOR INSURANCE.

	Premiums.	Payments under Policies.	Commission.	Expenses of Management.
	£	£	£	£
1933..	626,235	320,305	122,860	148,089
1934..	732,540	390,326	142,336	153,922
1935..	857,791	520,352	156,400	161,239
1936..	1,062,093	641,875	183,987	187,814
1937..	1,224,740	757,757	212,230	218,342

(*g*) ACCIDENT INSURANCE.

	Premiums.	Payments under Policies.	Commission.	Expenses of Management.
	£	£	£	£
1933..	79,352	38,179	15,793	19,674
1934..	88,905	35,332	19,315	18,554
1935..	102,605	46,067	21,666	16,619
1936..	105,542	49,571	22,637	18,488
1937..	107,959	66,794	17,893	19,752

(*h*) BURGLARY INSURANCE.

	Premiums.	Payments under Policies.	Commission.	Expenses of Management.
	£	£	£	£
1933..	39,178	27,738	8,734	8,422
1934..	42,682	25,916	9,219	9,401
1935..	48,036	24,768	9,576	9,204
1936..	53,823	25,836	10,638	10,855
1937..	63,189	34,311	11,761	12,826

(*i*) GUARANTEE INSURANCE.

	Premiums.	Payments under Policies.	Commission.	Expenses of Management.
	£	£	£	£
1933..	50,880	17,694	9,249	14,066
1934..	52,169	11,257	9,558	13,168
1935..	53,602	17,101	8,682	12,052
1936..	65,264	7,442	8,650	13,187
1937..	65,078	— 4,288	10,067	15,188

(*j*) PLATE GLASS INSURANCE.

	Premiums.	Payments under Policies.	Commission.	Expenses of Management.
	£	£	£	£
1933..	33,608	13,771	7,243	8,079
1934..	34,792	13,569	7,374	7,582
1935..	36,134	16,175	7,198	7,293
1936..	38,780	17,214	7,439	7,939
1937..	40,706	18,131	8,067	8,738

(*k*) LIVE STOCK INSURANCE.

	Premiums.	Payments under Policies.	Commission.	Expenses of Management.
	£	£	£	£
1933..	61	—	12	41
1934..	154	45	28	27
1935..	129	33	17	24
1936..	131	—	27	20
1937..	92	117	10	6

(*l*) OTHER CLASSES OF INSURANCE.

	Premiums.	Payments under Policies.	Commission.	Expenses of Management.
	£	£	£	£
1933..	45,233	20,308	10,013	13,104
1934..	60,550	25,335	11,321	15,690
1935..	61,225	23,195	10,935	13,410
1936..	79,355	31,074	14,058	16,663
1937..	84,356	27,805	14,570	17,017

(iv) ASSETS IN THE UNION HELD BY COMPANIES WITH HEAD OFFICES IN THE UNION AND BY OTHER COMPANIES DURING 1936 AND 1937.

Description of Assets.	1936.		1937.	
	Companies with Head Offices in the Union.*	Other Companies.	Companies with Head Offices in the Union.*	Other Companies.
	£	£	£	£
Union Government Securities	8,807,610	2,744,594	9,220,589	2,867,248
British Government Securities	—	—	—	—
Indian and Colonial Government Securities	—	280,181	—	73,617
Municipal and other Local Government Securities	5,815,421	1,194,316	5,690,381	1,069,215
Mortgages	13,532,068	4,703,226	14,994,707	5,042,593
Loans on the Company's Policies	5,907,012	3,155,949‡	5,995,634	3,203,683
Loans on Personal Security	2,731	568	2,450	614
House and Landed Property	2,037,801	2,353,823	2,359,768	2,375,196
Debentures and Debenture Stocks	1,463,850	1,955,016	2,153,201	241,902
Preference and Guaranteed Shares	400	353,428	400	377,329
Ordinary Shares	709,882	729,886	511,507	704,829
Loans to Municipal and other Public Bodies	4,695,247	11,586	4,953,579	54,091
Other Investments	203,235	1,017,147	533,866	974,827
Agents' Balances, Outstanding Premiums, and Outstanding Interest and Dividends	1,831,325	1,056,074‡	2,012,199	1,089,688
Cash on Deposit, in hand, and on Current Account	1,763,648	1,095,583	1,385,994	1,376,995
Establishment Expenses, Purchase of Business, etc.	83,059	650	92,637	650
Other Assets	198,146	77,571	180,461	66,672
TOTAL† £	47,051,435	20,729,598‡	50,087,373	19,519,154

(v) TOTAL ASSETS IN THE UNION HELD BY ALL COMPANIES TRANSACTING INSURANCE BUSINESS IN THE UNION, 1924 TO 1937.†

	£		£
1924	30,402,747	1934	59,343,888‡
1927	38,182,827	1935	63,331,131‡
1930	48,643,894	1936	67,781,033‡
1933	56,200,618	1937	69,606,527

* These figures exclude the assets of the Federal Insurance Corporation of South Africa, Ltd., whose figures are included in those of the London and Lancashire Insurance Co., Ltd., under "Other Companies."

† See footnote to Table (i).

‡ Revised figure.

§ 6. Registration of Companies.

Registration of Companies.—The data given in early issues of the *Official Year Book* have been abandoned in favour of the information made available since Act No. 46 of 1926 came into force. The earlier figures, owing to the fact that continuous additions had been made without corresponding deduction of defunct companies, or of reduced capital, had become greatly inflated and were, therefore, in a measure misleading.

Act No. 46 of 1926 consolidated and amended the various company laws in force in the four provinces, and came into operation on the 1st January, 1927. The figures given in items 1 to 3 in the following table show only the registration and nominal capital of the companies incorporated and registered after that date. The figures under items 4 to 10, however, include companies registered prior to and after the 1st January, 1927.

An act entitled the *Companies Amendment Act*, 1939, amending Act No. 46 of 1926, was passed during the 1939 session of Parliament and will come into operation on the 1st January, 1940.

REGISTRATION OF COMPANIES, 1935 TO 1938.

Heading.	1935.	1936.	1937.	1938.
1. Companies Registered at 31st December—*				
Local.....No.	7,517	9,029	10,604	12,117
Nominal Capital.....£	99,915,918	126,691,692	151,837,800	177,[illegible]
Foreign.....No.	218	230	236	246
2. New Companies Registered during year—				
Local.....No.	1,200	1,512	1,575	1,515
Nominal Capital.....£	13,676,525	26,775,774	25,146,108	[illegible]
Foreign.....No.	21	12	6	10
3. Situation of Registered Offices of Local Companies registered during year—				
Cape of Good Hope.....No.	228	238	263	279
Natal.....No.	110	123	122	203
Transvaal.....No.	836	1,131	1,170	997
Orange Free State.....No.	17	20	20	28
4. Increases of Capital—				
Number.....	241	277	289	306
Amount.....£	7,666,153	12,564,032	12,414,882	10,346,795
5. Reductions of Capital—				
Number.....	22	24	23	19
Amount.....£	1,344,328	1,601,880	857,808	1,107,439
6. Liquidations (Voluntary)—				
Number.....	171	179	215	218
Total Capital.....£	3,882,789	4,800,974	4,603,447	2,728,554
7. Liquidations (Compulsory)—				
Number.....	38	27	27‡	46
Total Capital.....£	1,084,397	93,239	274,076‡	873,273
8. Defunct Companies removed from Register†.....No.	338	271	374	363
9 Fees of Office.....£	12,849	15,037	16,079	16,203
10. Share Capital Duty paid to Receivers of Revenue in respect of New Registrations and Increases in Capital.....£	53,171	98,363	93,921	40,075

* Totals of progressive annual registrations under Act No. 46 of 1926.
† Includes registrations effected prior to the promulgation of Act No. 46 of 1926.
‡ Amended figure.

§ 7. Insolvencies and Administration of Estates.

1. **Insolvencies.**—Particulars are given in the subjoined tables in regard to insolvencies and assignments. The *Insolvency Act*, No. 24 of 1936, which came into operation on the 1st July, 1936, provides for the administration of insolvent and assigned estates.

(i) INSOLVENCIES, 1934 TO 1938.

Heading.	Number of Insolvencies.				Insolvents' Statements of Assets.*	Insolvents' Statements of Liabilities.*
	Voluntary Surrenders.	Compulsory Sequestrations.	Assignments.	Total.		
(a) UNION.						
					£	£
1934.....	246	252	170	668	1,141,354	1,460,210
1935.....	270	218	170	658	1,404,882	1,959,940
1936.....	379	232	99	710	951,427	1,432,621
1937.....	288	265	—	553	738,881	1,010,150
1938.....	394	407	16	817	1,094,019	1,428,027
(b) PROVINCES, 1938.						
					£	£
Cape of Good Hope	123	80	5	208	305,573	415,821
Natal.....	18	12	—	30	37,824	51,881
Transvaal.....	207	302	11	520	667,952	857,042
Orange Free State	46	13	—	59	82,670	103,283
UNION.....	394	407	16	817	1,094,019	1,428,027

* Exclusive of assets and liabilities not declared. The numbers, however, are included in the total number of insolvencies in the Union, viz. :—

Year.....	1934.	1935.	1936.	1937.	1938.
No.....	31	27	55	48	100

(ii) INSOLVENCIES—RACE AND OCCUPATION OF INSOLVENTS, 1934 TO 1938.

Year.	European.	Asiatic.	Other Coloured.*	Total.	Insolvencies per 10,000 of European and Asiatic Population.	Professional.	Commercial.	Manufacturing.	Agricultural.	Wage Earners.	Miscellaneous
1934.	564	95	9	668	3·16	10	392	15	80	85	86
1935.	577	72	9	658	3·07	15	411	18	44	101	69
1936.	634	67	9	710	3·19	17	367	13	46	178	89
1937.	472	79	2	553	2·49	7	310	15	34	98	89
1938.	703	106	8	817	3·54	22	475	28	61	130	101

* Includes the following numbers of natives :—

Year.....	1934.	1935.	1936.	1937.	1938.
No.....	4	3	6	—	5

2. **Deceased Estates.**—The administration of the estates of deceased persons is regulated by Act No. 24 of 1913 and vested in the Masters of the Supreme Courts at Capetown, Pretoria, Pietermaritzburg, and Bloemfontein, having jurisdiction within the several provinces, and the Assistant Master at Kimberley, who is subordinate to the Master of the Cape of Good Hope and has jurisdiction in the Griqualand West Local Division of the Supreme Court. Provision is made in the Act, *inter alia*, for the registration of wills, the preparation and submission of inventories by surviving spouses and others in the case of persons dying, the issue of letters of administration to executors testamentary or dative, and letters of confirmation to tutors and curators, and the due liquidation and distribution of deceased estates, estates of minors, mental patients, prodigals, and absentees under the supervision of the Master concerned. A Guardians' Fund, consisting of all moneys vested by law in the Masters, is established for each province; these funds are held in trust by the Public Debt Commissioners (see Chapter XV).

The following table gives particulars of work done in the Masters' Offices under the *Administration of Estates Act*:—

ADMINISTRATION OF ESTATES, 1934 TO 1938.

Heading.	Estates Registered.	Wills.	Security Bonds.	Liquidation Accounts.	Executors, Curators, and Tutors Appointed.	Guardians' Fund.*
	No.	No.	No.	No.	No.	£
1934	10,131	7,185	3,202	8,298	8,175	3,625,698
1935	11,559	8,075	3,611	9,160	9,024	3,761,648
1936	11,448	7,744	4,058	9,913	9,405	3,919,253
1937	12,269	8,385	4,012	11,184	10,174	4,041,329
1938	12,283	8,360	4,409	11,263	10,256	4,147,564

MASTERS' OFFICES, 1938.

	No.	No.	No.	No.	No.	£
Capetown	4,835	3,241	1,601	4,847	4,199	1,974,626
Kimberley	384	261	149	371	217	
Pietermaritzburg	1,677	1,129	694	1,767	1,450	145,708
Pretoria	4,366	2,978	1,511	3,168	3,702	1,377,214
Bloemfontein	1,021	751	454	1,110	863	454,358
TOTAL	12,283	8,360	4,409	11,263	10,256	4,147,564

* Funds invested with Public Debt Commissioners as at 31st March each year.

3. **Death Duties.**—All assessments of estate and succession duty are now made by the Masters under the provisions of Act No. 29 of 1922, as amended by Act No. 31 of 1925 and by section 10 of Act No. 34 of 1930.

4. **Trust Moneys.**—The provisions of the *Trust Moneys Protection* Act, No. 34 of 1934, impose upon the Masters the duty of registering all trust deeds where the subjects of the trusts consist wholly or in part of "Settled Moneys".

§ 8. Co-operative Societies and Companies.

In Chapter XIX, § 12, certain information is given in regard to the co-operative movement, and to the legislation by which it is governed. The following tables augment that information by furnishing statistical data on the subject, showing (i) the position of the movement annually over a series of years in relation to the number of associations in existence and their membership; (ii) the classes of agricultural companies and societies formed, their membership, and turnover in the business year 1937-38; and (iii) the liabilities and assets of co-operative associations at the end of the same period.

(i) NUMBER AND MEMBERSHIP OF REGISTERED CO-OPERATIVE COMPANIES AND SOCIETIES, 1934 TO 1938.

Year.	Agricultural (*a*) Companies and and (*b*) Societies.				Consumers' Trading Societies.		Total Societies and Companies.	
	(*a*) Limited Liability.		(*b*) Unlimited Liability.		Limited Liability.			
	No.	Members.	No.	Members.	No.	Members.	No.	Members.
1934	151	43,257	226	29,057	11	14,401	388	86,715
1935	148	46,714	214	26,129	13	13,473	375	86,316
1936	154	48,672	102	21,447	16	14,696	272	84,815
1937	157	57,564	54	17,752	25	16,376	236	91,692
1938	158	63,571	49	17,552	28	23,756	235	104,879

(ii) CO-OPERATIVE ORGANIZATIONS: CLASS OF ASSOCIATION; NUMBER AND MEMBERSHIP AT 30th JUNE, 1938; AND TURNOVER FOR BUSINESS YEAR ENDED DURING PERIOD 1st JULY, 1937, TO 30th JUNE, 1938.

Class of Association.	Number of Associations.			Membership.	Turnover.		
	Companies (Limited Liability).	Societies (Unlimited Liability).	Total.		Produce.	Requisites purchased.	Services Rendered.*
Producers' Associations—					£	£	£
Maize	5	7	12	7,454	2,719,640	344,689	220
Maize and Wheat	1	4	5	2,418	404,053	60,370	—
Wheat	12	7	19	7,735	2,749,921	375,260	1,406
Peanuts	—	1	1	168	35,554	6,315	594
Tobacco	7	5	12	12,029	769,971	14,417	767
Cotton	5	—	5	358	33,406	1,358	1,915
Sugar and Sugar-cane	2	—	2	88	417,302	12,820	—
Lucerne	3	—	3	486	43,986	1,810	—
Chicory	—	1	1	126	7	—	—
General Produce	4	—	4	1,223	86,025	45,185	—
Deciduous Fruit	21	—	21	1,633	107,636	58,861	—
Citrus Fruit	29	2	31	1,049	3,162,415	294,072	19,677
Dried Fruit	1	—	1	1,149	177,687	—	—
Grapes and Wine	7	—	7	5,162	1,138,045	21,624	2,057
Wattle Bark	1	—	1	237	42,338	2,813	146
Meat and Bacon	17	—	17	3,041	454,284	144	72
Live Pigs	1	—	1	40	150	16	—
Wool and Mohair	4	—	4	18,980	4,028,280	89,768	3,415
Dairy Produce	18	6	24	3,600	788,354	7,927	83
Eggs	5	—	5	3,220	158,847	13,803	1,983
Ostrich Feathers	1	—	1	770	2,782	—	—
Supply Associations—							
Farming Requisites	6	1	7	1,852	—	173,150	56
Service Associations—							
Cold Storage	1	—	1	75	—	—	3,103
Threshing	1	2	3	318	4,609	1,123	648
Fumigation	—	1	1	26	—	59	793
Farming Undertakings	1	1	2	35	15,347	—	—
Insurance	3	—	3	7,698	—	—	13,879
Consumers' Associations—							
Trading	26	—	26	17,603	—	777,079	2,978
Savings Banks	2	—	2	6,153	—	—	26,985
Federal	2	—	2	26	1,829,795	188,639	21,952
TOTAL	186	38	224	104,752	19,170,434	2,491,302	102,129
Dairy Cattle (Supply of)	—	1	1	9	—	—	—
Special Live Stock and Draught Animals (Supply of)	—	10	10	118	—	—	—
TOTAL	186	49	235	104,879	19,170,434	2,491,302	102,129

* Represents revenue only, i.e. cold storage fees, fumigation fees, crop insurance premiums, repacking charges, interest, etc., on savings bank loans.

NOTE:—(*a*) The figures are subject to slight revision after receipt of the audited statements of a few associations.

(*b*) Central companies are included in the number, membership, and turnover of the various groups. The aggregate turnover of central companies is £4,637,545 in Produce and £290,106 in Requisites.

(*c*) The business of dairy cattle and live stock societies is confined to acquiring live stock for members on the instalment system, and no turnover is therefore shown

(iii) LIABILITIES AND ASSETS OF CO-OPERATIVE ASSOCIATIONS, 1938.

LIABILITIES.	Consumers' Societies.	Agricultural Societies.	TOTAL.
	£	£	£
Paid up Share Capital	150,935	1,257,344	1,[illegible]279
Reserves	50,472	2,335,716	2,[illegible]188
Unappropriated Profits	30,022	332,310	[illegible]332
Fixed Loans	320,859	965,943	1,[illegible]802
Creditors	249,470	3,372,470	3,[illegible]940
TOTAL £	807,758	8,263,783	9,071,541

ASSETS.	Consumers' Societies.	Agricultural Societies.	TOTAL.
	£	£	£
Fixed Assets	182,976	2,609,748	2,792,724
Floating Assets	601,654	5,395,576	5,997,230
Accumulated Losses and Fictitious Assets	23,128	258,459	281,587
TOTAL £	807,758	8,263,783	9,071,541

NOTE:—(a) The figures reflected are subject to revision after receipt of the audited statements of certain associations.
(b) The assets and liabilities of dairy cattle and live stock societies are not included in this table.

CHAPTER XVII.

LAND SURVEY, TENURE, AND OCCUPATION.

§ 1. Land Survey.

1. **General.**—The system of land registration in the Union requires that every deed granting or conveying landed property should have attached to it a diagram of the property being disposed of, or that a reference must be made back to a previous deed with such a diagram appended. The area of the land, its dimensions, locality, description of its boundaries and other distinguishing features must be clearly set forth in the diagram referred to in the deed of conveyance, of which it forms a component part. The need for accuracy in the survey upon which the diagram is based is obvious, and to ensure this no diagram is accepted for registration with a deed of grant or transfer, unless it is signed by a surveyor duly admitted to practise as such and is further approved of by the Surveyor-General of the province in which the land in question is situate.

Before a diagram is approved by the Surveyor-General, the numerical data are first checked to see that they are consistent; these are then compared with similar data on the diagrams of adjoining holdings to ensure that the property being granted or transferred does not overlap or in any way encroach upon land already alienated. Provision now exists for a thorough examination of the field book, calculations, and working plan of each survey, so that every possible precaution may be taken to determine the accuracy of the diagram attached to the deed. The older surveys naturally did not possess this guarantee of accuracy, but as opportunities arose for checking them, it was realized that some action had to be taken to bring the titles of properties with faulty diagrams into harmony with the boundaries of the land as beaconed or occupied. Laws were promulgated, first in the Cape Colony and later in the Transvaal and the Orange River Colony, under which an owner, finding that the original survey of his property had been incorrectly made, could have a resurvey, and obtain an amended title in accordance with the existing boundaries of his land. In Natal, though there was no actual legislation on the subject, the procedure for obtaining a rectification of an erroneous title was very similar to that followed in the other colonies (now provinces). Recent legislation has made it compulsory for the owner of any property represented by a diagram which is grossly defective to obtain an amended diagram thereof based upon a correct survey, before the land can be transferred. No sub-division which comprises any boundary whose data differ beyond certain prescribed limits from the data on the original diagram of the property can be transferred, until all owners concerned have consented to those boundaries which have been adopted in the new survey and which are not already unimpeachable. Year by year erroneous diagrams and titles are being replaced by others containing correct particulars, and it may safely be asserted that, except in sparsely populated districts where land is of comparatively small value, very few titles now exist which do not properly describe the land and correctly define its boundaries.

2. **Legislation.**—A *Land Survey Act* for the Union was passed in 1927 and came into force on the 1st January, 1929. This Act consolidates all previous laws, regulations, and tariffs of the four provinces, and together with the regulations framed under it governs and controls the following matters:—

The functions and duties of Surveyors-General.
Trigonometrical survey and the appointment of a Director thereof.
The constitution and establishment of a Survey Board and of a Survey Regulations Board.
The recognition and duties of land surveyors.
Survey procedure.
The establishment of beacons and boundaries as unimpeachable.
The settlement of boundary disputes.
Tariff for surveys.

The Act provides for the appointment of a Director-General of Surveys in lieu of the Survey Board, if found expedient, but at present the Survey Board is in existence and is responsible for the policy and principles which the several Surveyors-General have to follow in administering the Act and the Regulations.

Any person who, at the commencement of the Act, was recognized and had the right to practise as a land surveyor in any province of the Union, is now entitled to practise as such in any part of the Union.

The qualifications for recognition as land surveyor under the Act are—

(*a*) attainment of the age of 21 years;

(*b*) the passing of such examination as may be prescribed from time to time by the Joint Committee for Professional Examinations constituted under sub-section (1) of section 23 of the *University of South Africa Act*, 1916 (Act No. 12 of 1916), or any amendment thereof, or by any other examining body lawfully empowered to prescribe any such examinations as such joint committee or such other examining body may declare to be equivalent to such prescribed examinations;

(*c*) after the passing of the examinations mentioned in paragraph (*b*), such training in practical survey work as may be prescribed from time to time by regulation under paragraph (*m*) of sub-section (1) of section 9;

(*d*) the carrying out, to the satisfaction of the Survey Board, of such trial survey as the Survey Board may prescribe;

(*e*) the passing to the satisfaction of the Survey Board, of an examination in the laws in force in the Union relating to the survey, registration, and transfer of land; and

(*f*) the making of a declaration to perform faithfully the duties of a land surveyor in conformity with all existing laws and regulations.

3. **Qualifying Examinations.**—The examination prescribed by the Joint Committee for Professional Examinations is conducted in two parts, which may be taken at the same session or separately; Part 1 may be passed in two separate examinations. A candidate for the examination must have passed the Matriculation examination or an equivalent examination approved by the Committee. The full regulations governing the examination and the syllabuses of the subjects of the examination are published in the *Law and Survey Handbook*. Communications relating to the examination should be addressed to the Secretary, Joint Committee for Professional Examinations, P.O. Box 392, Pretoria.

In 1929 the University of Capetown and the University of the Witwatersrand established a B.Sc. degree in land surveying, which is recognized as equivalent to the abovementioned prescribed examination. The curriculum for the degree extends over four years. First and second-year courses are also conducted at Rhodes University College, Grahamstown, and Natal University College, Durban. Candidates who complete these courses are entitled to complete the remaining courses for the degree at either the University of Capetown or the University of the Witwatersrand.

4. **Government Control of Survey.**—In each province is established a Surveyor-General, who controls the survey of all government land and employs duly admitted surveyors for this work at the tariff fixed by regulation under the Act. After land is once alienated from the Crown, the Surveyor-General's only concern with its subsequent sub-division is the examination of the survey records and diagrams necessary for effecting transfer of the parts. As stated above the diagram must bear his certificate of approval before it will be accepted for registration in a deeds office.

The sub-division of private property may be performed only by admitted surveyors, and the cost is now regulated by the tariff embodied in the survey regulations.

During the years 1937 and 1938 respectively, 20,003 and 22,089 sets of diagrams were examined in the several provinces, details of which are as follows:—

	1937.	1938.
Cape of Good Hope	8,645	9,402
Natal	3,603	4,024
Transvaal	6,683	7,572
Orange Free State	1,072	1,091

5. **The Trigonometrical Survey.**—The Trigonometrical Survey under the provisions of the *Land Survey Act*, 1927, conducts all classes of land survey work other than surveys for land registration; it is also charged with the preparation of maps other than geological maps. Its main functions are to provide for—

(*a*) the establishment of permanently marked trigonometrical stations by triangulation at intervals varying from eight to three miles apart, and of reference marks by precise traverse in urban areas, to serve as an adequate control for all kinds of land survey and mapping operations;

(*b*) a network of bench marks by precise levelling along the main routes of communication, referred to tide gauge determinations of mean sea level at the several ports of the Union, for the purpose of co-ordinating engineering and irrigation surveys and the height determinations of the triangulation survey throughout the country;

(*c*) the air survey of the Union for supplying vertical air photographs for use in topographical, geological, irrigation, forest, soil, road reconnaissance, and native areas reclamation surveys;

(*d*) the topographical mapping of the Union on a scale of 1/50,000;

(*e*) the preparation of topographical, cadastral, and general maps;

(*f*) a continuous record of the magnitude and direction of the earth's magnetic force by means of photographic recording instruments at the magnetic observatory, and periodic observations to be taken at certain permanent field stations established throughout the country, for the purpose of determining the secular variation of the magnetic elements.

With the exception of triangulation surveys, which are mainly carried out on contract by land surveyors in private practice, the above operations are carried out by a staff of professional and technical officers. The field costs of the operations (*a*), (*b*), (*c*), and (*d*) are financed from loan funds.

The primary and secondary orders of triangulation (average density of points, 25 and 8 miles respectively) are now established over the greater part of the Union, and the tertiary triangulation (4 to 3 miles density) is well advanced. Some 1,350 miles of levelling has been completed between Table Bay and Delagoa Bay via Pretoria. This work, which has been in abeyance for several years, is now being recommenced along the main road from Durban to Pretoria and from Pretoria to Beit Bridge.

The air photography of 80,000 square miles of country was completed by January, 1939. The scale of the contact prints is between 1/15,000 and 1/20,000. Enlargements are supplied as required.

The organization of the topographical survey was commenced in 1937. The scheme provides for the establishment of five field parties each comprising 15 officers; four parties have so far been formed to operate in the Transvaal, Natal, and Western and Eastern Cape. Two of these parties are now nearly fully trained. Line maps to the scale of the air photographs are produced by the field parties and copies are made available for immediate purposes pending the preparation of the topographical maps.

Co-ordinates and heights of trigonometrical stations and bench mark data are supplied free of charge by the Trigonometrical Survey Office, Mowbray, Cape Province. Contact prints or enlargements are supplied at cost price by the Trigonometrical Survey Office, Pretoria. Maps and the *Magnetic Year Book* are obtainable from the Government Printer, Pretoria. An account of the history of the Trigonometrical Survey and a description of its organization will be found on page 679, *Official Year Book* No. 19. Details of the progress of the operations and work of the Office can be obtained from the Annual Reports of the Director.

6. **Scale of Fees.**—The following are the more important items in a scale of fees chargeable in the offices of the Surveyors-General as from the 1st April, 1922:—

SCALE OF FEES CHARGED IN THE OFFICES OF THE SURVEYORS-GENERAL.

	£	s.	d.
Examination Fee—			
The examination of a diagram of any piece of land, excluding diagrams of Crown land:—			
For any number of sides up to six inclusive.....	0	10	0
For each additional side over six.....	0	1	0

The examination of general plans of townships, framed in terms of the *Proclamation of Townships (Transvaal) Ordinance*, 1905, and *Townships (Transvaal) Act*, 1907, per figure	0 1 0
Deduction Fee—	
For deduction of each figure which is represented on a diagram or the laying-off of a servitude (e.g. composite diagram made up of three separate figures—fee for deductions, 15s.)	0 5 0
Copies of Diagrams and Tracings, Including Certification—	
Certified copy of each diagram of land not exceeding 10 morgen in extent	0 9 0
Certified copy of each diagram of land exceeding 10 morgen:—	
For a figure of not more than six sides	1 0 0
For each additional side	0 1 0
For each deduction shown on the copy of the diagram	0 1 0
For each copy of a general plan (including plans of townships): for the time taken on the preparation of the plan.....per hour	0 5 0
Miscellaneous Certified Copies—	
For every certified copy of any document not specified above:—	
For the first 100 words	0 2 6
For every additional 100 words or fraction thereof	0 1 0
For checking and certifying additional copies of a diagram	0 3 6
Certificate—	
For each certificate endorsed on a diagram, tracing, or other document	0 1 0
Searches—	
For every search made in the offices of the Surveyors-General:—	
For the first hour or portion thereof	0 3 0
For each subsequent half hour or portion thereof	0 1 0
Land Surveyors' Registration Fee—	
Fee for registration as land surveyors upon admission to practise	5 5 0

§ 2. Land Settlement.

1. **Legislation.**—The allotment of Crown land to intending settlers for agricultural or pastoral purposes takes place mainly under the provisions of the *Land Settlement Act*, No. 12 of 1912, as amended by the *Land Settlement Act Amendment Act*, No. 23 of 1917, the *Land Settlement Acts Further Amendment Act*, No. 28 of 1920, the *Land Settlement Acts Further Amendment Act*, No. 21 of 1922, the *Land Settlement Laws Further Amendment Act*, No. 26 of 1925, the *Land Settlement (Amendment) Act*, No. 6 of 1928, the *Land Settlement (Amendment) Act*, No. 1 of 1931, the *Land Settlement Relief Act*, No. 25 of 1931, the *Land Settlement (Amendment) Act*, No. 57 of 1934, the *Land Settlement (Amendment) Act*, No. 47 of 1935, and the *Land Settlement Amendment Act*, No. 45 of 1937.

2. **General.**—In terms of these Acts, the Minister of Lands is empowered, on a recommendation from the Land Board within whose jurisdiction the land is situate, to allot Crown lands and to purchase, from funds appropriated by Parliament for the purpose, privately-owned land for sub-division into suitable holdings for agricultural and pastoral purposes. The Minister may make advances to the allottees of holdings for the purpose of acquiring stock, equipment, and other things necessary for the development of their holdings, and he may cause permanent improvements to be effected on holdings and the cost thereof to be added to the purchase price of the land. There are six land boards: the Central Land Board which meets in Pretoria, and whose function it is to advise the Minister in all the above matters, and five local land boards, who submit recommendations on various matters to the Central Land Board for consideration. The Western and Transvaal local boards meet at Pretoria, the Cape local land board at Capetown, the Natal local land board at Pietermaritzburg, and the Orange Free State local land board at Bloemfontein. The respective local boards usually meet at least once a month, and intending applicants may arrange to interview the boards through the respective secretaries.

Inspectors of lands are stationed in those districts in which land settlement is proceeding rapidly and, in addition, resident superintendents are maintained on the principal closer settlements. The settlers on closer settlements may form committees of management for the purpose of controlling or safeguarding the use and distribution of water, the pasturing of stock on, or the cultivation of, communal areas, and generally of controlling any matters incidental to the development and improvement of the respective settlements.

Subject to what is stated hereunder with regard to the contributory purchase system of settlement, all rights on Crown lands to minerals, metals, mineral oils, and precious stones are reserved to the Crown, subject, however, to the provisions of the *Reserved Minerals Development Act*, 1926, and the *Precious Stones Act*, 1927, but there is no reservation of rights to minerals, metals, mineral oils, and precious stones to the Crown on the issue of Crown grants in cases where such rights are included in the purchase of the land for the settlers. The rights of heirs in deceased estates and of legal representatives in cases of lunacy, as well as of trustees in insolvencies, are also defined in the Acts.

3. **Purchase and Tenure of Crown Lands.**—The tenure of holdings on Crown lands is a lease for five years, carrying an option of purchase at a price fixed, on the recommendation of the Land Board, when the lease is entered into. No rent is payable during the first two years; two per cent. per annum, calculated on the purchase price, is payable during the third year; and 3½ per cent. per annum, calculated on the purchase price, is payable during the fourth and fifth years. The lease may, at the discretion of the Minister, be extended for a further period of five years, in which event rent at the rate of 3½ per cent. per annum, calculated on the purchase price, is payable. If the option of purchase is exercised during or at the expiration of the lease period, the lessee is required to pay, yearly in advance, interest calculated at the rate of 3½ per cent. per annum on the purchase price. The purchase price must be paid in full not later than 65 years reckoned from the date on which the lessee exercised his option to purchase, but the lessee may, at any time, pay instalments of not less than £25 on account of the purchase price. The lessee is entitled to obtain a Crown grant at the expiration of ten years from the date of the commencement of the lease, provided he has paid the purchase price in full and has complied in all respects with the conditions of his lease. In special circumstances a Crown grant may be issued before the expiration of the ten-year period. There are certain semi-arid areas throughout the Union where reduced rates of rent and interest apply. In these areas also, there is no rent payable for the first two years, but thereafter the rental is calculated at the rate of 1 per cent. on the purchase price, and, on exercise of the option of purchase, the lessee pays interest yearly also at the rate of 1 per cent. on the purchase price, the latter being payable within 65 years as set out above.

If there are no improvements on a holding at the date of the allotment thereof, or if the improvements are of a value less than £100 or less than twenty per cent. of the unimproved value of the land, whichever amount may be the greater, the lessee must within 10 years of the commencement of the lease effect improvements which, together with the existing improvements (if any), will bring the total value of the improvements to £100 or twenty per cent. of the unimproved value of the land, as the case may be. Special conditions, e.g., with regard to tree planting, etc., are inserted in the lease by the Land Board where these are considered advisable. Residence on the holding is required, though the Minister may, on the recommendation of the Land Board, grant exemption from the residential condition either wholly or for a specified period. Permanent exemption is given only in most exceptional circumstances. In the case of holdings allotted under the contributory purchase system hereinafter referred to, the lessee is required to occupy his holding for eleven months in the year, and in other cases the period of occupation is stated in the *Gazette Notice* inviting applications for particular holdings.

The Minister may also, on the recommendation of the Land Board, offer holdings for allotment, subject to the condition that the successful applicants for such holdings shall pay on allotment, and as a condition thereof, an amount to be determined by the Minister not exceeding one-fifth of the purchase price fixed for each holding. In such cases the allottees shall be deemed to have exercised, as from the date of allotment, the right to purchase the land, and the lessee pays interest yearly in advance at the rate of 3½ per cent., the purchase price being payable within 65 years in the manner indicated above.

On the recommendation of the Land Board, the Minister may, provided not less than five years have expired from the date of the commencement of the lease, issue a Crown grant to a lessee, if the valuation of the holding, with the improvements of a permanent and substantial nature thereon, exceeds by one-fourth the total indebtedness of the lessee to the Government in respect of the purchase price of the holding and of any advances that may have been made. Simultaneously with the issue of the Crown grant, the lessee is required to pass a mortgage bond in favour of the Government, specially hypothecating to the Government the land granted, for the balance of the indebtedness due. Restrictions are inserted in the Crown grant, when issued, preventing the owner, for a specified period of years, from hypothecating, subdividing, or transferring the land without the consent of the Government. Such restriction operates for ten years from the date on which the option to purchase the holding was exercised, but does not apply to cases where a lease has been issued subsequent to 1st July, 1934.

4. **Allotment of Crown Lands to Applicants.**—The method of allotment of Crown land holdings is by selection of applicants by the Land Board. All holdings available for disposal are advertised widely, and applications are invited during a stated period of six weeks. At the expiration of that period the Land Board concerned makes its recommendation to the Central Land Board, which in turn advises the Minister as to the applicants to whom, in its opinion, the holdings should be allotted. Holdings may be allotted to any person, male or female, over the age of 18 years.

The allotment of Crown land for agricultural or pastoral purposes also takes place under other laws passed prior to Union, but allotments thereunder are of infrequent occurrence, and it is only under special circumstances that use is made of the provisions of these laws. In the Province of Natal prior to the passing of the *Land Settlement Act* of 1912, allotments were mostly made under proclamations, and this practice was followed for many years even after 1912, especially in respect of the allotment of land in Zululand considered suitable for sugar-cane cultivation. The principal pre-Union statutes under which Crown lands are still allotted are:—Act No. 15 of 1887 (Cape) and Ordinance No. 57 of 1903 (as amended) (Transvaal).

In Natal allotments are made under Proclamation No. 121 of 1924 as amended by Proclamation No. 123 of 1928. Various other land settlement laws were passed after Union, but all these were in connexion with settlement operations prior to Union.

5. **Advances to Settlers.**—The limit of the advances that may be made to a settler for the purchase of stock and equipment is £500. Settlers are not entitled to receive advances; these may be granted only on the recommendation of the Land Board. Every application is dealt with on its merits by the Land Board. Prospective settlers, therefore, must not assume that they will receive advances. The terms of repayment vary according to the purpose for which the advance is granted. Loans carry interest at 3½ per cent. per annum. Advances may be granted for five years subject to the power of the Minister to extend the period of repayment for a further five years.

In addition to the advances referred to in the preceding paragraph, the Minister may, on the recommendation of the Land Board, cause boring operations to be carried out or improvements of a substantial and permanent nature to be erected or constructed on a holding, including boundary fencing and dipping tanks. On completion of such operations or improvements the cost thereof is added to the purchase price of the holding, and the rent or the interest on the purchase price, as the case may be, payable by the lessee in respect of the holding, is increased accordingly.

6. **Purchase and Tenure of Privately-owned Land.**—The Minister may, on the recommendation of the Central Land Board, assist settlers to acquire privately-owned agricultural land for their personal occupation, provided that the amount of the purchase price to be contributed by the Government does not normally exceed £1,500, and provided that the settlers are prepared to contribute not less than one-tenth of the purchase price. Only under exceptional circumstances is the contribution of £1,500 exceeded, and in no case will it exceed £2,250. The contribution of one-tenth of the purchase price by the applicant is a minimum contribution, and, in cases where the

Land Board considers that a larger contribution by the applicant is justified, the applicant may be required to make such larger contribution as may be determined by the Minister on the advice of the board.

The tenure given to the settler is a sixty-five years' lease with an option to purchase, which is deemed to have been exercised from the date of commencement of the lease.

(i) Under the *Land Settlement (Amendment) Act*, No. 57 of 1934, which came into force on the 2nd July, 1934, leases were issued on the following conditions:—

No payment is made by the settler during the first and second years, but in respect of those years interest at the rate of 4 per cent. on the total cost of the holding to the Government is added to the purchase price. The purchase price payable by the settler is made up of—

(*a*) the price paid by the Minister, less the amount contributed by the settler;
(*b*) the costs of transfer of the holding to the Government;
(*c*) interest for a period of two years at the rate of 4 per cent. per annum calculated on the total of items (*a*) and (*b*).

This purchase price, together with interest thereon at the rate of 4 per cent. per annum, is payable in thirty equal annual instalments as from the beginning of the eleventh year from the date of the commencement of the lease, which is the date on which the land is transferred to the Government. From the beginning of the third year of the lease till the end of the tenth year of the lease, that is for a period of eight years, interest at the rate of 4 per cent. per annum on the purchase price is payable.

(ii) Under the *Land Settlement (Amendment) Act*, No. 47 of 1935, which came into force on the 17th May, 1935, the rate of interest payable on the purchase price was reduced to 3½ per cent. per annum.

(iii) Under the *Land Settlement Amendment Act*, No. 45 of 1937, the following amendments were made:—

(*a*) The period of lease is extended from 40 to 65 years.
(*b*) The purchase price, together with interest thereon at 3½ per cent. per annum [*vide* (i) above] is payable in sixty-three equal annual instalments from the beginning of the third year of the lease.
(*c*) These amendments apply—
(1) to all leases entered into subsequent to the date of commencement of this Act, which is the 26th May, 1937;
(2) to leases issued prior to the date of commencement where the lessee submits an intimation in writing to the Minister that he desires the amendments to be made applicable to his lease and the tenure of the lease permits of this being done.

7. **The Unbeneficial Occupation of Farms.**—The *Unbeneficial Occupation of Farms Act* (No. 29 of 1937) aims at remedying a social evil which, broadly speaking, has arisen through the uneconomic sub-division of land used for farming purposes. Land originally large enough in extent to afford the owner or occupier a reasonable subsistence has in many cases been divided among heirs from generation to generation, until many of the sub-divisions are to-day too small as economic units. In other cases again there has not been actual sub-division, but the original farm has become so overpopulated by the persons having an interest in it, or has been burdened with encumbrances to such an extent, that the occupiers or owners cannot subsist on it.

The Act empowers the Minister of Lands to appropriate land not beneficially occupied for farming purposes, subject to the obligation to pay compensation.

Before steps are taken to appropriate any land, the Central Land Board is required to investigate alleged cases of unbeneficial occupation and report to the Minister, who, if satisfied that the land falls within the terms of the Act, may give notice of at least three months to all the owners of, and persons having an interest in, the land that he intends to appropriate such land or any interest which constitutes a burdensome encumbrance thereon. The said notice must specify the amount of compensation offered, and the interested

persons are required to notify the Minister whether they accept the offer. If they do not accept the offer the Water Court for the district must fix the amount of compensation.

In case of dispute or doubt as to who is entitled to the compensation money, the amount thereof is to be paid to the Master of the Supreme Court to be held in trust for the eventual beneficiaries. Provision is also made in the Act for the protection of bondholders, and the Minister is absolved from further liability upon payment of compensation.

The appropriation procedure having been complied with, the appropriated land is registered in favour of the Government, and is then disposed of in terms of the laws relating to land settlement. In allotting such land, the Minister may give preference to applicants who owned or carried on farming operations on the land immediately prior to its appropriation.

8. **Financial.**—At the 31st March, 1938, there were 11,999 debtors on the books of the Department of Lands. The capital sum due to the Government for land sold, for advances made to settlers, etc., in respect of the several provinces, was:—

	£
Cape of Good Hope	1,401,113
Natal	868,961
Transvaal	3,146,616
Orange Free State	1,148,177
Total £	6,564,867

Of the total amount, £90,659 was actually due, but unpaid, at the 31st March, 1938. The balance (£6,474,208) is repayable mainly in yearly and half-yearly instalments over long periods.

The collections during the financial year 1937-38 were: Capital, £287,174; interest, £191,409; rent, £37,336; miscellaneous revenue, £54,422; a total of £570,341. The amounts due, but unpaid, at the 31st March, 1938, were: Capital, £90,659; interest, £252,237; rents, £34,896; miscellaneous revenue, £5,618; a total of £383,410.

9. **General Statistics.**—The following table summarizes the allotment of agricultural holdings made during the financial year ended 31st March, 1938, and during the period 31st May, 1910, to 31st March, 1938, under the several statutes governing the disposal of land for settlement purposes.

ALLOTMENT OF AGRICULTURAL HOLDINGS.

Statute Governing Allotment.	1st April, 1937, to 31st March, 1938.				31st May, 1910, to 31st March, 1938.		
	No. of Holdings.	No. of Settlers.	Area.	Valuation.	No. of Settlers.	Area.	Valuation.
			Morgen.*	£		Morgen.*	£
Land Settlement Act, 1912—							
Section 11	245	268	208,262	387,658	5,701	2,798,386	6,894,133
Section 16	311	320	159,750	298,275	7,801	7,244,919	5,836,907
Crown Land Disposal Ordinance, 1903 (Transvaal)—							
Leases with Option of Purchase	4	5	6,967	1,426	2,145	2,271,778	873,650
Leases without Option of Purchase	1	1	2,380	77	811	1,059,962	339,415
Natal Proclamations	2	2	146	22,952	861	317,819	663,440
Pre-Union Acts (Cape)	15	15	1,749	1,219	1,448	3,574,908	470,724
Pre-Union Acts (Orange Free State)	—	—	—	—	294	42,264	88,150
TOTAL	578	611	379,254	711,607	19,061	17,310,036	15,166,419

* 1 morgen = 2·11654 acres.

Further information as to the working of the Land Settlement Acts and the Acts in force in the provinces prior to Union will be found in No. 12 and previous issues of this *Year Book*.

§ 3. Registration of Deeds.

1. **Deeds Registries Act, 1937.**—The *Deeds Registries Act*, No. 47 of 1937, passed to consolidate and amend the laws in force relating to the registration of deeds, came into operation on the 1st September, 1937. It repealed the existing *Deeds Registries Act*, No. 13 of 1918, but provided that all matters pending in a particular registry immediately prior to the commencement of the new Act should be carried to completion as if the Act had not been passed.

Numerous changes have been introduced into the Act and, while an exhaustive recapitulation of the innovations is impracticable, a brief summary of the more important changes may be of interest.

For the first time in the history of the deeds registries provision has been made for the appointment of a Chief Registrar for the Union. Section 8 provides that the Chief Registrar shall be the chairman and executive officer of the Deeds Registries Regulations Board and shall exercise supervision over all deeds registries in order to ensure uniformity of practice and procedure.

The Deeds Registries Regulations Board, established under section 9 of the Act of 1937, consists of the Registrars of Deeds at Capetown, Pretoria, Bloemfontein, Pietermaritzburg, and Kingwilliamstown, the Rand Townships Registrar, the Government Attorney, one member of the Surveys Regulations Board, and six conveyancers, two of whom shall be appointed by the Minister and shall be recognized country practitioners.

The functions of the Regulations Board are set out in section 10 and include the power to prescribe the form of registers (which may be looseleaf registers) to be kept by a registrar, the manner in which records shall be bound, and the manner and form in which the identity of persons shall be established.

Section 14 provides that transfers of land and cessions of real rights shall follow the sequence of the successive transactions in pursuance of which they are made. There are three exceptions to this provision, which is designed to frustrate attempts at "skipping of transfers".

The Act gives special attention to the position of women in connexion with matters of registration (section 17). It lays down the particulars to be furnished and the methods to be adopted when property has been acquired by a woman married in community of property, or when it is sought to deal with property registered in the name of a married woman.

Where it is sought to transfer land which is an asset in a joint estate, section 21 requires that, except in three instances detailed in the section, the survivor shall be joined in his personal capacity with the executor of the estate of the deceased spouse.

It frequently happens that land is donated or bequeathed to the children already born and the children to be born of a particular person or of a specific marriage. Section 25 lays down the manner in which and the person to whom, as trustee, such land shall be transferred. It also defines the procedure to be followed when the identity of all such children has been established.

Section 26 deals with partition of land and the requirements for passing deeds of partition transfer in accordance with the agreement of partition. This is similar to the provisions of section 8 of the Act of 1918, except that it is no longer possible to obtain a *certificate* of partition title in lieu of a deed of partition transfer.

A person who holds two or more pieces of land by one deed may, under the authority of section 36, obtain a certificate of registered title for one or more of such pieces of land. A similar provision existed in Act No. 25 of 1909 (Transvaal), but this was not re-enacted in Act No. 13 of 1918.

An entirely new provision is found in section 42, which enables an owner of two or more contiguous pieces of land held on different conditions of tenure to obtain, with the consent of the Minister, a certificate of uniform title.

Section 50 deals with the execution of bonds, and permits the registration of bonds to secure existing debts or future debts or both. Section 52 provides that: No cession of any bond intended to secure future debts shall be registered unless the amount already due in respect thereof is disclosed in the cession. On registration of such cession the bond shall be deemed to be a bond securing an existing debt of the amount so disclosed and shall be endorsed accordingly.

The insertion in a bond, attested by a registrar, of the clause known as the General Clause is prohibited by section 53, except in cases provided in any other law.

The period within which a notarial bond may be registered is fixed at two months from the date of execution [section 61 (1)]. Under Act No. 13 of 1918 the period allowed was one month. Sections 61 and 62 deal with the drawing and registration of notarial bonds.

By section 64 a person who has transferred land subject to the reservation in his favour of any real right (other than a right to minerals) may obtain a certificate of registration of that real right.

Important provisions have been made in section 71 relative to the issue of certificates of reservation of rights to minerals, particularly in regard to land on which a township or settlement is established. Any person who transfers land subject to reservation in his favour of rights to minerals, or on whose land a township or settlement is established subject to such reservation, must take out the certificate of rights simultaneously with the passing of transfer or opening of the register of the township or settlement.

By section 87 (1), as in the case of notarial bonds, the period allowed for registration of an antenuptial contract drawn in the Union has been extended to two months from the date of its execution. The period for registration of antenuptial contracts drawn outside the Union has been limited to six months, whereas previously such contracts could be registered at any time.

Section 50 (1) of Act No. 13 of 1918 provided that a special power of attorney to pass a mortgage bond could not be acted upon after the expiration of three months from the date of signature, and that a general power of attorney could not be acted upon for mortgage purposes unless registered within three months from the date of signature. This provision has not been re-enacted in Act No. 47 of 1937.

The enactment of the *Deeds Registries Act*, 1937, marks a further milestone in the progress of the system of land registration, and there can be little doubt as to the advantages to be derived from a more efficient registration system and consequently greater security of title throughout the deeds registries in the Union.

2. **Scale of Fees.**—The regulations framed in accordance with the provisions of the *Deeds Registries Act*, 1937, were published in *Government Notice* No. 1265 of 1938. The following is the schedule of fees of office and the tariff of fees and charges of conveyancers, notaries public, and legal practitioners, in connexion with the preparation, passing, and registration of deeds:—

A.—SCHEDULE OF FEES OF OFFICE.

Item.		£	s.	d.
1	For the registration of a deed of grant from the Crown, excluding grants of land to which the provisions of Act No. 25 of 1894 (Cape) apply	0	15	0
2	For the registration of any deed of transfer	0	15	0
3	For the registration of a deed of partition transfer under the provisions of section 26 of the Act	0	15	0
4	For the registration of a certificate of registered title of land under the provisions of the Act	0	15	0
5	For the registration of a certificate of consolidated or amended title under the provisions of section 40 of the Act	0	15	0
6	For the registration of a certificate of amended title under the provisions of section 41 of the Act	0	15	0
7	For the registration of a certificate of uniform title under the provisions of section 42 of the Act	0	15	0
8	For the registration of a certificate of registered real rights under the provisions of section 64 of the Act	0	15	0
9	For the registration of a certificate of township or settlement title under the provisions of section 46 of the Act	0	15	0
10	For the registration of a certificate of registered title of a share in minerals under the provisions of section 74 of the Act	0	15	0
11	For the registration of a mortgage bond	0	15	0
12	For the registration of a suretyship contained in a mortgage bond	0	15	0
13	(1) For the registration of a notarial bond	0	10	0
	(2) For the registration of a suretyship contained in such bond	0	10	0
14	For the substitution of a bond :—			
	(*a*) Where a new title is issued	0	10	0
	(*b*) Where the existing title is endorsed	0	5	0

Item.		£	s.	d.
15	For the registration of cancellation, cession or cancellation of cession of a bond or of the release of any property or person from a bond or of a part payment on a bond	0	5	0
16	For the registration of a waiver of preference of one bond in favour of another bond or of any registrable real right in favour of a bond if such waiver be contained in the bond	0	5	0
17	For the registration of an agreement varying the terms of a bond	0	5	0
18	For the registration of a notarial deed creating a servitude or other real right or by which such servitude or right is ceded, modified or cancelled	0	10	0
19	For the registration of a servitude contained in a transfer over one piece of land in favour of another for each transfer	0	5	0
20	For the registration of an antenuptial contract or in Natal of a postnuptial contract	0	10	0
21	For the registration of a notarial cession, lease or sub-lease of rights to minerals or of a notarial cession or cancellation of such lease or sub-lease	0	10	0
22	For the registration of a mynpacht brief	0	5	0
23	For the registration of any registrable real right created in a transfer or grant	0	10	0
24	For the registration of a notarial lease or sub-lease or cession or cancellation thereof	0	10	0
25	For the registration of a notarial prospecting contract or of a notarial cession or cancellation thereof	0	10	0
26	For the registration of a power of attorney including eventual cancellation thereof	0	5	0
27	For making any endorsement required under this Act or any other law for each deed	0	2	6
28	For each application under the provisions of section 33 of the Act	2	0	0
29	For each objection lodged under the said section	0	5	0
30	For the registration of a certificate of rights to minerals under the provisions of the Act	0	15	0
31	For noting the termination of registered real rights, for each title	0	2	6
32	For the registration of any notarial deed not otherwise provided for	0	10	0
33	For the registration of a change of name of a person or partnership under section 93 of the Act or of any company or society	0	5	0
34	For a report to the court made by a registrar in terms of section 97 of the Act	1	0	0
35	For the registration of an amendment of an error in the name or description of any person or property under section 4 (1) (*b*) of the Act for each deed	0	5	0
36	For the cancellation of the registration of any prospecting contract under section 85 of the Act or of a lease of land or rights to minerals, servitude or prospecting contract, under section 90 (1) of the Act	0	5	0
37	For a certificate by a Registrar of any fact (in addition to the fee prescribed in respect of the information contained in such certificate)	0	2	6
38	For a certified copy of a deed, power or other document or of the entries on a folio of a register containing not more than 400 words, prepared in a Deeds Registry provided that certificates of authentication or attestation of a power shall be treated as part thereof	0	5	0
	For every additional 100 words or part thereof	0	1	0
	For any such copy if prepared by the applicant therefor, one-half of the above fees.			
39	For every entry note or other act made or performed in a Deeds Registry, not being any of the matters or things elsewhere provided for in this schedule or in the regulations	0	2	6
	Provided no fee shall be payable for the cancellation of any power of attorney.			
40	For each bill of costs taxed :			
	For each £1 or fraction thereof on the amount of the bill submitted for taxation	0	0	6
41	(*a*) For a search of an index to any register :—			
	For each name searched whether of person or property	0	2	0
	(*b*) For an inspection of any one deed, document or diagram or of a register (for each folio, and continuation thereof inspected)	0	2	0
	(*c*) For a search through a title (where no other method available) for each piece of land	0	2	0
	(*d*) For any continuous search for information :—			
	For the first hour of such search	1	0	0
	For each additional hour	0	10	0

Item.		£ s. d.
	Should any of the searches mentioned in this item be made by the applicant or his duly authorized agent one-half of the fees shall be charged: Provided that in the discretion of the Registrar such half fees may also be charged in cases where access to strong-rooms by members of the public is prohibited and application is made in person or by a duly authorized agent.	
	(*c*) For any search not specially provided for, a fee to be fixed by the Registrar provided the minimum fee shall be.....	0 2 0
42	For each search made by a Registrar in the Province of the Cape of Good Hope in connexion with the issue of a certified copy of a lost or destroyed title-deed:—	
	For every hour or fraction of an hour.....	0 2 0
	But not to exceed £1 in the whole.	
43	The fee referred to in regulation 63 shall be.....	0 2 6
44	For the registration of an advance made under the provisions of the dipping tanks or fencing Acts or any other Act which does not provide for an exemption from payment of fees.....	0 5 0
45	For the cancellation, part-payment, release or substitution of such advance	0 5 0
46	For opening a register for a township or settlement.....	1 0 0
47	(*a*) For the cancellation of debentures registered under Act No. 43 of 1895 (Cape):—	
	For every 10 or fraction of 10 up to 100.....	0 2 6
	For every 10 or fraction of 10 after 100.....	0 0 6
	(*b*) For the registration of a release of property from a debenture or an endorsement made thereon in connexion with the registration of a servitude or issue of a certificate of title or any other consent given in connexion with the land thereby secured:—	
	For every 10 or fraction of 10 up to 100.....	0 5 0
	For every 10 or fraction of 10 after 100.....	0 1 0
48	Upon written application being made by any divisional or municipal council or other local authority to search the registers or records of any Deeds Registry, the Registrar, upon being satisfied that the information is required to enable such council or local authority to carry out its statutory powers or duties, may allow such search to be made upon payment of one-eighth of the prescribed fee or fees, unless provision be made in any law allowing such searches to be made on behalf of such council or local authority without charge or at a higher or lower charge: Provided that where any information is supplied to a local authority on application the charge shall be one shilling per entry.	
49	When particulars of all bonds are taken regularly from any register for publication in a newspaper or periodical, there shall be paid, if the Registrar is satisfied that the publication in such newspaper or periodical serves a public purpose, a fee in respect of each bond of threepence if taken direct from the bond. If from the current register the same fees as for copies of deeds provided such information be extracted at the same time.	

EXEMPTIONS.

Item.

1 Any person engaged in research work of an historical character or of general public interest may be permitted, subject to such conditions as the Registrar may stipulate, to search the records and registers free of the payment of any fee: Provided that when an applicant is a student of a university incorporated by an Act of the Union he shall produce a certificate from the principal thereof, any other person a certificate from the Minister describing in the case of each certificate the purposes for which the search is made.

2 (*a*) No fee shall be chargeable if the same would in the meaning of Act No. 30 of 1911 or any amendment thereof, be legally payable and borne by the Government of the Union of South Africa or any Department thereof, or by the Imperial Government.

(*b*) No fee shall be chargeable in respect of any transfer or cession of immovable property to the Government or any Department thereof if such transfer or cession be in pursuance of a donation to or expropriation by the State of such property.

(*c*) No fee shall be levied by a Registrar in respect of the performance of any Act prescribed by section 3 (*w*) and 59 of the Act.

B.—TARIFF OF THE FEES AND CHARGES

of conveyancers and notaries public in connexion with the preparation, passing and registration of deeds or other documents registered or filed or intended for registration or filing in a deeds registry and the fees and charges of any other legal practitioners in connexion with the preliminary work required for the purpose of any such deed or other document and as to taxation of any such fees or charges, framed in terms of sub-section (1) (*c*) of section ten of the *Deed Registries Act*, 1937.

NOTE.—For the purposes of this tariff a "folio" shall contain approximately 27 lines of approximately 8 words.

SECTION I.—PRELIMINARY WORK.

	£ s. d.
(*a*) In connexion with transfers (other than partition transfers):—	
1. Drawing and attending at execution of deed of sale or other document of disposal (including all necessary copies) per folio or part thereof.....	0 10 6
2. Drawing power of attorney to pass transfer (other than partition transfer) including declarations for transfer duty purposes, and paying transfer duty, when the land is of value:—	
£100 and under.....	1 1 0
Over £100 and up to £200.....	1 11 6
Over £200 and up to £500.....	2 2 0
Over £500 and up to £2,000.....	2 12 6
Over £2,000 and up to £5,000.....	3 3 0
Thereafter.....	5 5 0
3. Framing new conditions or servitudes or materially altering or adjusting existing conditions or servitudes, and inserting in power to transfer or to take out certificate of title, per folio or part thereof.....	0 10 6
(*b*) In connexion with partition transfers:—	
Framing agreement embodying power or agreement and separate power and declarations for transfer duty purposes and paying transfer duty when necessary. The fee charged to be according to length and complexity, regard being had especially to the number of persons and properties involved, the number, nature and complexity of conditions or servitudes inserted, and the number of transfers to be passed with a minimum of:—	
In the case of erven or lots.....	3 3 0
In the case of other land.....	4 4 0
(*c*) In connexion with bonds:—	
1. Attendance on instructions and drawing power, including attendance at execution:—	
(*a*) In the case of auxiliary, surety or notarial bonds.....	2 2 0
(*b*) In the case of other bonds:	
When the amount is:—	
£100 or under.....	1 1 0
Over £100 and up to £200.....	1 11 6
Over £200 and up to £500.....	2 2 0
Over £500 and up to £2,000.....	2 12 6
Over £2,000 and up to £5,000.....	3 3 0
Thereafter.....	5 5 0
2. Framing power to insert suretyship or waiver in bond.....	0 10 6
3. Framing tacit declaration.....	0 10 6
(*d*) Other powers:—	
1. Framing a full general power.....	1 1 0
2. Framing a special power, per folio or part thereof.....	0 10 6
But not to exceed.....	1 11 6

SECTION II.—TRANSFERS AND CERTIFICATES OF TITLE.

1. Drawing each transfer, including one copy for Registry and attendances lodgment and execution, when the land is of value:—	
£200 and under.....	2 2 0
Over £200 and up to £500.....	3 3 0
Over £500 and up to £1,000.....	4 4 0
Over £1,000 and up to £10,000 an additional fee, for every £1,000 or part, of.....	1 1 0

	£	s.	d.
Over £10,000 and up to £50,000 an additional fee, for every £2,000 or part, of	1	1	0
Over £50,000 and up to £100,000 an additional fee, for every £5,000 or part, of	1	1	0
Thereafter an additional fee, for every £10,000 or part, of	1	1	0
2. Drawing each of the following deeds including one copy for Registry and attendance on lodgment and execution and framing application where necessary :—			
(*a*) Certificate of registered Crown title under section 18, certificate of registered title under sections 34, 35, 36, 39 and 43	2	2	0
(*b*) Certificate of registration under section 64	2	2	0
(*c*) Certificate of registered title under section 38	3	3	0
(*d*) Certificate of township or settlement title under section 46	3	3	0
(*e*) Certificate of rights to minerals under sections 71, 72, 73 and 74	3	3	0
(*f*) Certificate of consolidated title under section 40	4	4	0
(*g*) Certificate of amended title under section 41	4	4	0
(*h*) Certificate of uniform title under section 42	4	4	0
Partition transfer under section 26 :—			
(*j*) Of an erf	3	3	0
(*k*) Of other land	4	4	0
3. If more than one piece of land is included in the same transfer or certificate, an additional fee :—			
(*a*) In the case of erven or agricultural holdings for each additional property	0	5	3
(*b*) In the case of other land, for each additional property	0	10	6
4. Framing for first insertion and inserting in a partition transfer referred to in item 2 (*k*) of this tariff, conditions or servitudes, an additional fee, per folio or part thereof, of additional matter of	0	10	6
5. If a transfer or certificate is to be lodged in triplicate, an additional fee of	0	10	6
6. Attendance on behalf of transferor or transferee superintending conveyance from or to him when deed prepared and lodged by another conveyancer :—			
(*a*) When the value of the land does not exceed £500	1	1	0
(*b*) When the value of the land exceeds £500 but does not exceed £3,000	2	2	0
(*c*) When the value of the land exceeds £3,000	3	3	0
7. Framing acceptance of servitude by a third party in terms of section 76 (1) (*c*)	1	1	0

SECTION III.—MORTGAGE BONDS.

(The amount of preference for costs shall not be taken into account in calculating the fees.)

	£	s.	d.
1. Drawing each bond, including one copy for Registry and attendances on lodgment and execution, when the amount of the bond is :—			
£200 and under	2	2	0
Over £200 and up to £500	3	3	0
Over £500 and up to £1,000	4	4	0
Over £1,000 and up to £10,000, an additional fee, for every £1,000 or part, of	1	1	0
Over £10,000 and up to £50,000, an additional fee, for every £2,000 or part, of	1	1	0
Over £50,000 and up to £100,000, an additional fee, for every £5,000 or part, of	1	1	0
Thereafter an additional fee, for every £10,000 or part, of	1	1	0
2. Any act of suretyship where immovable property is hypothecated, or waiver when included in a bond, an additional fee for such suretyship or waiver of	1	1	0
3. Attendance on behalf of mortgagor or mortgagee superintending bond when same is prepared and lodged by another conveyancer :—			
(*a*) When the amount of the bond does not exceed £500	1	1	0
(*b*) When the amount of the bond exceeds £500 but does not exceed £3,000	2	2	0
(*c*) When the amount of the bond exceeds £3,000	3	3	0
4. If a bond is to be lodged in triplicate an additional fee of	0	10	6

SECTION IV.—NOTARIAL BONDS.

(The amount of preference for costs shall not be taken into account in calculating the fees.)

	£	s.	d.
1. Drawing bond including minute, signed original for record and another signed original, grosse or notarially certified copy, and attendances on execution and attestation, when the amount of the bond is :—			
£500 and under	5	5	0
Over £500 and up to £1,000	6	6	0
Over £1,000 and up to £10,000, an additional fee, for every £1,000 or part, of	1	1	0
Over £10,000 and up to £50,000, an additional fee, for every £2,000 or part, of	1	1	0
Over £50,000 and up to £100,000, an additional fee for every £5,000 or part, of	1	1	0
Over £100,000, an additional fee, for every £10,000 or part, of	1	1	0
2. Any Act of suretyship included in a notarial bond, an additional fee for such suretyship of	1	1	0
3. Attendance registering such bond at a Deeds Registry	1	1	0
If bond received from another centre is rejected for amendment or other valid reason necessitating searches, investigations, attendances or correspondence, or if such services are necessarily rendered prior to lodgment, additional fees as prescribed under "Miscellaneous" and "Work not Specified", with a minimum of	0	10	6
4. For each additional original, grosse or certified copy (not being a carbon copy) for registration in each additional Registry, per folio or part thereof	0	5	3
5. Attendance registering bond in a Registry after previous registration in another Registry (section 62)	1	1	0

SECTION V.—AUXILIARY OR SURETY BONDS.

(The amount of preference for costs shall not be taken into account in calculating the fees.)

	£	s.	d.
1. Drawing mortgage bond to be passed as additional security for another bond or a surety bond, including one copy for Registry and attendances on lodgment and execution	3	3	0
2. If such bond is to be lodged in triplicate an additional fee of	0	10	6
3. Drawing auxiliary or surety notarial bond, including minute, signed original for record and another signed original, grosse or notarially certified copy, and attendances on execution and attestation	4	4	0
4. Attendance registering auxiliary or collateral notarial bond	1	1	0
If bond received from another centre is rejected for amendment or other valid reason necessitating searches, investigations, attendances or correspondence or if such services are necessarily rendered prior to lodgment, additional fees as prescribed under "Miscellaneous" and "Work not Specified", with a minimum of	0	10	6
5. For each additional original, grosse or certified copy (not being a carbon copy) for registration in each additional Registry, per folio or part thereof	0	5	3
6. Attendance registering bond in a Registry after previous registration in another Registry (section 62)	1	1	0

SECTION VI.—MARRIAGE CONTRACTS.

	£	s.	d.
1. Drawing contract, including minute, signed original for record and another signed original, grosse or notarially certified copy, attendances on execution and attestation, when no settlement is made or trust or testamentary disposition is embodied	3	3	0
2. If contract contains a settlement, trust or testamentary disposition, an additional fee for minute and all copies of, per folio or part thereof, of additional matter to give effect thereto	0	10	6
3. Framing and issuing notarially certified copy of a contract executed outside the Union for registration in a Deeds Registry within the Union, or of any contract for filing in a Deeds Registry, per folio or part thereof	0	5	3
With a minimum of	0	10	6
4. Attendance registering contract under 1, 2 and 3 above	1	1	0

SECTION VII.—OTHER NOTARIAL DEEDS.

	£	s.	d.
1. Framing any notarial waiver of preference by mortgagee, usufructuary or other holder of limited interest, or other notarial consent required under the Act or regulations, including minute, signed original for record and another signed original, grosse or notarially certified copy	3	3	0

	£	s.	d.
2. Framing any notarial lease, servitude, prospecting contract, donation or other notarial deed (other than those provided for above and in 3), including minute, signed original (when necessary) grosse or notarially certified copy for record, and another signed original, grosse or notarially certified copy, according to the length and complexity thereof, with a minimum of	4	4	0
3. Framing any notarial lease or cession of rights to minerals including minute and two signed originals, grosses or notarially certified copies thereof, when the purchase price or value is:—			
£1,000 or under	4	4	0
Over £1,000 and up to £10,000, an additional fee, for every £1,000 or part, of	1	1	0
Over £10,000 and up to £50,000, an additional fee, for every £2,000 or part, of	1	1	0
Over £50,000 and up to £100,000, an additional fee, for every £5,000 or part, of	1	1	0
Thereafter an additional fee, for every £10,000 or part, of	1	1	0
4. Framing notarial cession of any notarial deed mentioned in 2, including minute and two signed originals grosses or notarially certified copies, per folio 10s. 6d., with a minimum of	2	2	0
5. Preparing and issuing each further signed original, grosse or notarially certified copy, of any of 1, 2, 3 or 4, in original type, per folio	0	5	3
Each additional carbon copy duly attested	0	10	6
NOTE.—Original type allowed for first and every fourth copy.			
6. Attendance registering any deed under 1, 2 3 or 4 above	1	1	0
If deed received from another centre is rejected for amendment or other valid reason necessitating searches, investigations, attendances or correspondence, or if such services are necessarily rendered prior to lodgment, additional fees as prescribed under "Miscellaneous" and "Work not Specified", with a minimum of	0	10	6

SECTION VIII.—CESSION, REDUCTION, RELEASE, CANCELLATION, ETC., OF BONDS.

1. Drawing cession, consent to cancellation of cession, or consent to cancellation of bond, reduction of capital or releases of person or property, and attending on signature thereof	0	10	6
2. Attendance registering each of the above mentioned	1	1	0
If documents received from another centre are rejected for amendment or other valid reason necessitating searches, investigations, attendances or correspondence, or if such services are necessarily rendered prior to lodgement, additional fees as prescribed under "Miscellaneous" and "Work not Specified", with a minimum of	0	10	6

SECTION IX.—UNDERHAND WAIVERS, CONSENTS OF MORTGAGEES, USUFRUCTUARIES, LESSEES, ETC.

1. Framing waiver of preference in regard to the ranking of a bond	0	10	6
2. Framing consent of mortgagee, usufructuary, lessee or holder of other limited interest, required by the Act or regulations not otherwise provided for in this tariff (not notarial)	1	1	0
3. Framing consents under section 57, including attendances on mortgagee and new debtor	2	2	0
4. Framing agreement or consent to variation of terms of bond, including attendances on mortgagor and mortgagee	1	1	0
5. Attendance registering each of the documents mentioned in 1, 2, 3 or 4 above, if registered	1	1	0
If documents received from another centre are rejected for amendment or other valid reason necessitating searches, investigations, attendances or correspondence, or if such services are necessarily rendered prior to lodgment additional fees as prescribed under "Miscellaneous" and "Work not Specified", with a minimum of	0	10	6

SECTION X.—MISCELLANEOUS.

1. Drafting form of resolution	0	10	6
2. Issuing or arranging issue of each guarantee and attending to payment thereof	1	1	0
3. Attending on receipt of each guarantee and payment thereof	0	10	6
4. In cases where transactions are dependent upon other deeds by other practitioners, a fee for forwarding documents to registration centre and instructing fully	0	10	6
5. Attendances on other conveyancers arranging preparation or lodging of interdependent deeds, from	0	10	6
to	1	11	6
6. Attendances at office of Master or other proper office and obtaining copies of documents required to complete deed or conveyance or registration (exclusive of searches)	0	10	6
7. Attendances at office of Master, or other proper office and obtaining certificate under Death Duties Act	0	10	6
8. Attendances at office of the Master, applying for and obtaining certificate or consent required from him under Act No. 24 of 1913 for registration purposes in a Deeds Registry (including inspection of will, etc.)	1	1	0
9. Attendances at public or local authority offices (e.g., for clearance certificates, etc., or in connexion with bonds), for any number of attendances at each office	0	10	6
10. Attendances and searching in Deeds, Master's or other offices in connexion with servitudes or other particulars or information necessarily required for the preparation, lodgment or registration of deeds, per half hour or part	0	10	6
11. Attendances searching for tacit hypothecations in connexion with a bond to be passed in respect of each debtor	1	11	6
12. Attendance at Deeds Registry lodging titles and arranging for endorsement under Act No. 24 of 1913 or under section 45 of the Act	1	1	0
13. Obtaining and lodging bond (or having same lodged) for endorsement *re* certificate of registered title taken out	1	1	0
14. Drawing any application required under the Act or by a Registrar	0	10	6
15. Attendances on inspecting, checking, arranging and lodging for endorsement of amendment of title under section 44	1	1	0
16. Attending Deeds Registry for certificate of any act of registration required	1	1	0
17. Attending registration of noting of renewal, cancellation or amendment of any deed, not otherwise provided for	1	1	0
18. Framing any necessary affidavit or declaration, or other document not otherwise provided for, per folio or part thereof	0	10	6
19. Framing affidavits or certificates under regulation 49 of Act No. 18 of 1936, as amended	0	2	6
20. Attendance on and lodging title-deed for endorsement of layout of township or settlement under section 46	1	1	0
21. Procuring registration of change of name under section 93, a minimum of	2	2	0
22. Attendance registering any power	1	1	0
23. Attendance and search at Deeds Registry for information required, per half hour or part	0	10	6
Reporting, per folio	0	5	3
24. Drawing cession of any policy of insurance in connexion with preparation or registration of a deed, and attendance on registration thereof at proper office	0	10	6
25. Attendances in connexion with conversion of leasehold into freehold under provisions of Townships Amendment Act, 1908 (Transvaal), for every ten stands or lots or fraction of ten	1	1	0
26. Drawing cessions of leases in connexion with transfer of leasehold property and attendances in respect thereof at a township owner's office (Transvaal), for every ten stands or lots or fraction of ten	1	1	0
27. Preparing and issuing grosse or notarially certified copy of any notarial deed or other document, not provided for above:—			
In original type, per folio	0	5	3
Each carbon copy duly attested	0	10	6
Note to Section VII, 5, applies.			
28. Framing notice to apply for issue of certified copy of a deed, and attendances on publication thereof	1	1	0
29. Attendances in obtaining certified copy of any deed from Deeds Registry and filing of necessary documents	1	1	0

SECTION XI.—DIAGRAMS AND GENERAL PLANS.

1. Attendance on instructions *re* sub-division and to submit papers to surveyor for framing of sub-divisional or other diagrams for any purpose required under the Act or regulations and instructing surveyor accordingly, per half hour	0	10	6
2. Attendance submitting diagrams to Surveyor-General for approval	0	10	6
When two or more diagrams so submitted are to be deducted from the same original and are submitted simultaneously, the fee for each diagram after the first is	0	5	3

	£	s.	d.
3. Attendance submitting diagrams to Surveyor-General for approval when a diagram is required in connexion with a deed to be passed at a Deeds Registry elsewhere, for the first set	1	1	0
Thereafter per set lodged simultaneously	0	5	3
4. Attendance on municipal or other local authority to obtain approval, in terms of any law, of sub-divisional diagrams	1	1	0
5. Attendance in obtaining certified copy of any diagram including application	1	1	0

SECTION XII.—WORK NOT SPECIFIED.

1. All fees or charges specified in the above tariff shall, save as is otherwise provided, cover the specific respective services set opposite each respective item only. Fees or charges for all other attendances, correspondence or services may be allowed at the discretion of the Registrar, and if so allowed the following scale shall apply:—

Any attendance	0	5	3
Any letter per folio or part thereof	0	5	3
Drawing of any document per folio or part thereof	0	10	6
Copies of documents, per folio or part thereof	0	5	3
2. Attendances on taxation, including drawing of bill and notice of taxation, on the amount of fees allowed on taxation	5 per cent.		

SECTION XIII.—APPORTIONMENT OF FEES UNDER SECTION 10 (4) OF THE ACT.

(*a*) Item applicable to the Province of the Cape of Good Hope [exclusive of the area referred to in paragraph (*b*) of the Second Schedule to the Act] and to the Province of the Transvaal [including the area referred to in paragraph (*h*) of the aforesaid Schedule].

Where in this tariff provision is made for one fee for drawing, lodging, executing or registering any deed of transfer, certificate of registered or other title to land, minerals or other real rights, or mortgage bond, and such deed is drawn by one conveyancer and is lodged and executed or registered by another conveyancer, one-fourth of the fee prescribed therefor shall be the separate fee of the former and three-fourths thereof shall be the separate fee of the latter; provided that if such deed is rejected—

1. on the ground that same requires amendment, the latter conveyancer shall be entitled to charge an additional fee, for attendances, searches, or correspondence thereby occasioned,

of from	0	10	6
to	1	1	0

2. on other grounds necessitating investigations, drawing or copying of documents, attendances or correspondence, the latter conveyancer shall be entitled to charge such additional fees as prescribed under "Miscellaneous" or "Work not Specified" or other relative section of this tariff, in respect of any such services rendered by him in complying with the Registrar's requirements or at the request of the first-mentioned conveyancer.

The aforegoing apportionment of any fees prescribed for the drawing and execution of notarial deeds or bonds shall also apply if any such deed or bond is drawn by one notary and is executed before another and such apportionment shall be the separate fees of the respective notaries.

(*b*) Item applicable to the Province of the Orange Free State and to the area referred to in paragraph (*b*) of the Second Schedule of the Act.

Where in this tariff provision is made for one fee for drawing, lodging, and executing any deed, and such deed is drawn by one conveyancer and lodged and executed by another conveyancer, one-third of the fee prescribed therefor shall be the separate fee of the latter and the remaining two-thirds the separate fee of the former.

(*c*) Item applicable to the Province of Natal.

Where in this tariff provision is made for one fee for drawing, lodging, and executing any deed, and such deed is drawn by one conveyancer and lodged and executed by another conveyancer, one guinea of the fee prescribed shall be the separate fee of the latter and the remainder the separate fee of the former.

3. **Recent Legislation.**—The following legislation directly affecting the deeds registries has been passed in recent years (1934 to 1938):—

Union.

Abolition of Quitrent Act, No. 54 of 1934.
Building Societies Act, No. 62 of 1934, as amended.
Mineral Law Amendment Act, No. 36 of 1934.
Natural and Historical Monuments, Relics and Antiques Act, No. 4 of 1934.
Slums Act, No. 53 of 1934, as amended.
Finance Act, No. 64 of 1934 (section 3).
Succession Act, No. 13 of 1934.
Vaal River Development Scheme Act, No. 38 of 1934.
Farmers' Assistance Act, No. 48 of 1935.
Kopjes Irrigation Settlement Act, No. 38 of 1935.
National Roads Act, No. 42 of 1935.
State Advances Recoveries Act, No. 37 of 1935.
Vyfhoek Management Act, No. 39 of 1935.
Insolvency Act, No. 24 of 1936.
Native Trust and Land Act, No. 18 of 1936.
Orange Free State Metals Mining Act, No. 13 of 1936.
Abolition of Quitrent (Towns and Villages) Act, No. 33 of 1937.
Aliens Act, No. 1 of 1937.
Deeds Registries Act, No. 47 of 1937.
Land Settlement Amendment Act, No. 45 of 1937.
Mapochs Gronden Amendment Act, No. 19 of 1937.
Native Laws Amendment Act, No. 46 of 1937.
Notarial Bonds (Natal) Amendment Act, No. 57 of 1937.
Unbeneficial Occupation of Farms Act, No. 29 of 1937.
Land Bank Amendment Act, No. 24 of 1938.

Provincial Ordinances.

(*a*) *Cape of Good Hope.*
Townships Ordinance, No. 33 of 1934.
Cape Municipal Amendment Ordinance, No. 20 of 1936.
Cape Municipal Amendment Ordinance, No. 22 of 1937.
Divisional Councils and Roads (Amendment) Ordinance, No. 8 of 1937.

(*b*) *Natal.*
Private Townships and Town Planning Ordinance, No. 10 of 1934.
Pietermaritzburg Loan and Extended Powers Ordinance, No. 14 of 1936.
The Durban Borough Extension Amendment Ordinance, 1937 (Section 9).

(*c*) *Orange Free State.*
Small Holdings Ordinance, No. 4 of 1934.
Local Government Consolidation Ordinance, No. 15 of 1935.

4. **Deeds Registries.**—There are seven deeds registry offices, each of which is in charge of an officer styled the Registrar of Deeds. In addition there is the Rand Townships Registration Office, Johannesburg, under the control of the Rand Townships Registrar, whose functions are similar to those entrusted to registrars of deeds. The areas served by the several deeds registries are as follows:—

Capetown	The Province of the Cape of Good Hope, exclusive of the area served by the deeds registries at Kingwilliamstown, Kimberley, and Vryburg.
Kingwilliamstown	The territory known as British Kaffraria, defined by Proclamation of the High Commissioner dated 23rd December, 1847, comprising the divisions of Kingwilliamstown, Komgha, Stutterheim, and portions of the divisions of Cathcart and Victoria East.
Kimberley	The divisions of Kimberley, Barkly West, Hay, and Herbert, together with that portion of the division of Prieska which is situate to the north of the Orange River.
Vryburg	The divisions of Vryburg, Mafeking, Gordonia, Kuruman, and Taung.
Pietermaritzburg	The Province of Natal.
*Pretoria	The Province of the Transvaal.

* The Registrar for the Transvaal has also since 1904 been Registrar of Deeds for Swaziland.

Bloemfontein	The Province of the Orange Free State.
Johannesburg (Rand Townships Registration Office)	The Mining District of Johannesburg as defined by Proclamation No. 14 of 1923.

Information concerning the institution of the various deeds registries and particulars of earlier legislative enactments providing for the registration of deeds, bonds, etc., are given in *Year Book* No. 18 and previous issues.

The functions of the registrars of deeds in the several provinces are laid down in section 3 of Act No. 47 of 1937 and include *inter alia* the following:—

(i) To examine deeds or other documents submitted to them for execution or registration and, if permitted by law and no other valid objection exists, attest or execute and/or register the same, in particular:—
- (*a*) Grants and leases of land lawfully issued by the Government.
- (*b*) Deeds of transfer or hypothecations of land and certificates of title to land.
- (*c*) Cessions of bonds (including cessions made as security), cancellations, part payments, and releases by the legal holders, and variations of the terms of bonds.
- (*d*) Antenuptial contracts, notarial prospecting contracts, general or special notarial bonds, notarial deeds of donation and other notarial deeds registrable by law.
- (*e*) Notarial cessions, leases, subleases, cessions and cancellations of leases and subleases of rights to minerals, and certificates of registration and reservations of such rights, and the issue of mynpachtbrieven.
- (*f*) Any servitude, whether personal or praedial, and other real rights in land.
- (*g*) General plans of erven and sub-divisions of land, notarial leases, subleases of land and cessions and cancellations thereof.

(ii) Generally to exercise all such powers and discharge all such duties as by law may or are to be discharged by them or as are necessary to give effect to the provisions of Act No. 47 of 1937.

It is essential for the purposes of registration that transfer deeds, certificates of title, and mortgage bonds shall have been drawn or prepared by persons duly authorized by law so to do, and be executed in the presence of, or attested by, as the case may be, the registrar concerned. Other deeds, if registrable by law, are generally registered only if executed in the presence of a notary public and attested by him.

5. **Statistics.**—Table (i) hereunder gives a summary of the more important transactions registered at the various deeds registries during 1938. The transactions for each registry separately for a series of years are given in the following tables:—

(i) SUMMARY OF TRANSACTIONS, 1938.

Details.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Union.
Number.	No.	No.	No.	No.	No.
Deeds of Transfer registered	16,071	5,739	23,343	3,810	48,963
Certificate of Registered Title	285	97	598	58	1,038
Deeds of Grant	203	114	278	44	639
Mortgage Bonds registered	12,703	4,038	21,413	3,093	41,247
Collateral Bonds registered	139	24	243	26	432
Notarial Bonds registered	315	188	544	42	1,089
Mortgage Bonds cancelled	10,228	3,312	14,406	3,001	30,947
Collateral Bonds cancelled*	7	19	87	14	127
Notarial Bonds cancelled*	34	191	219	27	471
Mortgage Bonds part-paid	430	255	394	109	1,188
Antenuptial Contracts registered	2,278	779	3,348	533	6,938
Servitudes registered	119	119	1,785	479	2,502
Value.	£	£	£	£	£
Property transferred	17,191,575	5,861,863	19,231,467	4,532,814	46,817,719
Mortgage Bonds registered	14,173,859	5,519,499	23,891,435	2,667,835	46,252,628
Collateral Bonds registered	2,752,838	306,452	2,926,503	249,942	6,235,735
Notarial Bonds registered	654,999	1,530,120	1,333,471	78,191	3,596,781
Mortgage Bonds cancelled	11,051,646	3,066,597	14,290,657	2,809,241	31,218,141
Collateral Bonds cancelled	1,684,461	2,532,794	408,643	2,545,531	7,171,429
Notarial Bonds cancelled	2,986,576	321,801	3,387,659	43,709	6,739,745
Mortgage Bonds part-paid	273,059	110,507	182,198	58,890	624,654

* Capetown figures included in "Mortgage Bonds cancelled."

(ii) DEEDS REGISTRY AT CAPETOWN, 1934 TO 1938.

Description.	1934.	1935.	1936.	1937.	1938.
(a) Number of Deeds Registered.					
Deeds of Transfer registered	No. 11,265	No. 11,112	No. 12,936	No. 13,637	No. 13,622
Certificates of Registered Title	131	141	147	126	278
Deeds of Grant	157	221	156	183	152
Mortgage Bonds registered	10,301	9,889	10,958	11,432	10,983
Collateral Bonds registered			65	439	132
Notarial Bonds registered	486	542	699	†	263
Mortgage Bonds cancelled	10,081	8,766	8,895	8,747	8,704
Collateral Bonds cancelled					
Notarial Bonds cancelled					
Mortgage Bonds part-paid	*	469	520	512	368
Antenuptial Contracts registered	1,789	1,782	1,903	2,012	1,955
Servitudes registered	64	108	115	112	103
(b) Value of Deeds Registered.					
Property transferred	£ 11,084,784	£ 8,504,201	£ 12,588,988	£ 14,470,079	£ 14,586,660
Mortgage Bonds registered	11,822,634	10,776,527	11,649,412	12,661,423	12,571,556
Collateral Bonds registered			536,877	2,419,699	2,685,279
Notarial Bonds registered	655,954	856,449	7,716,779	203,221	534,420
Mortgage Bonds cancelled	9,971,707	7,844,603	8,191,454	9,048,054	7,515,387
Collateral Bonds cancelled			567,480	847,370	1,617,601
Notarial Bonds cancelled			1,176,386	607,698	335,722
Mortgage Bonds part-paid	375,743	355,500	418,794	347,585	237,213
(c) Revenue.					
Fees of Office	£ 23,737	£ 22,743	£ 24,807	£ 25,497	£ 25,183
Stamp Duty on Transfers	45,174	55,896	30,936	35,181	34,855
Stamp Duty on Bonds			18,171	20,866	20,414

(iii) DEEDS REGISTRY AT KINGWILLIAMSTOWN, 1934 TO 1938.

Description.	1934.	1935.	1936.	1937.	1938.
(a) Number of Deeds Registered.					
Deeds of Transfer registered	No. 962	No. 955	No. 1,042	No. 1,192	No.* 1,456
Certificates of Registered Title	5	6	8	4	3
Deeds of Grant	23	36	5	9	26
Mortgage Bonds registered	933	912	962	947	1,020
Collateral Bonds registered			5	9	4
Notarial Bonds registered	37	41	22	23	29
Mortgage Bonds cancelled	873	845	840	902	965
Collateral Bonds cancelled			—	4	6
Notarial Bonds cancelled			23	23	21
Mortgage Bonds part-paid	*	55	68	61	52
Antenuptial Contracts registered	154	177	172	200	186
Servitudes registered	22	44	17	5	5
(b) Value of Deeds Registered.					
Property transferred	£ 874,326	£ 936,517	£ 885,058	£ 1,261,751	£ 1,838,367
Mortgage Bonds registered	883,812	864,327	823,526	872,744	1,127,307
Collateral Bonds registered	505,229	656,361	152,350	1,032,275	66,025
Notarial Bonds registered			217,456	30,084	56,930
Mortgage Bonds cancelled	621,983	676,803	639,107	722,064	785,120
Collateral Bonds cancelled	163,583	233,874	—	353,200	16,860
Notarial Bonds cancelled			69,456	411,183	32,998
Mortgage Bonds part-paid	68,977	38,595	126,453	33,668	33,628
(c) Revenue.					
Fees of Office	£ 2,012	£ 2,014	£ 2,107	£ 2,227	£ 2,544
Stamp Duty on Transfers	2,206	2,200	2,269	3,138	4,083
Stamp Duty on Bonds	1,481	1,474	1,251	1,328	1,859

* Not available.
† Included in "Mortgage Bonds registered."

(iv) DEEDS REGISTRY AT KIMBERLEY, 1934 TO 1938.

Description.	1934.	1935.	1936.	1937.	1938.
(a) NUMBER OF DEEDS REGISTERED.					
Deeds of Transfer registered	No. 231	No. 284	No. 407	No. 435	No. 428
Certificates of Registered Title	2	5	3	5	1
Deeds of Grant	6	3	5	6	6
Mortgage Bonds registered	242	213	250	287	245
Collateral Bonds registered			4	6	6
Notarial Bonds registered	12	8	12	17	15
Mortgage Bonds cancelled	261	222	283	243	251
Collateral Bonds cancelled			6	5	1
Notarial Bonds cancelled	*	*	2	5	4
Mortgage Bonds part-paid	*	10	7	4	4
Antenuptial Contracts registered	59	62	64	72	84
Servitudes registered	4	1	4	5	9
(b) VALUE OF DEEDS REGISTERED.					
Property transferred	£ 191,725	£ 214,829	£ 400,344	£ 287,082	£ 322,625
Mortgage Bonds registered	262,667	169,617	168,197	191,376	177,060
Collateral Bonds registered			3,450	830,860	784
Notarial Bonds registered	31,104	106,760	19,625	43,849	44,959
Mortgage Bonds cancelled	263,274	201,843	198,891	214,210	2,540,410
Collateral Bonds cancelled			18,020	13,132	50,000
Notarial Bonds cancelled	*	*	3,096	24,757	2,565,470
Mortgage Bonds part-paid	†	9,627	2,047	5,578	329
(c) REVENUE.					
Fees of Office	£ 534	£ 566	£ 656	£ 696	£ 681
Stamp Duty on Transfers	473	515	974	745	808
Stamp Duty on Bonds	388	246	223	642	556

* Not available. † Included in "Mortgage Bonds cancelled."

(v) DEEDS REGISTRY AT VRYBURG, 1934 TO 1938.

Description.	1934.	1935.	1936.	1937.	1938.
(a) NUMBER OF DEEDS REGISTERED.					
Deeds of Transfer registered	No. 345	No. 408	No. 461	No. 504	No. 564
Certificates of Registered Title	1	8	—	6	3
Deeds of Grant	7	2	4	6	19
Mortgage Bonds registered	345	312	420	428	455
Collateral Bonds registered			2	—	1
Notarial Bonds registered	15	15	13	8	10
Mortgage Bonds cancelled	366	305	328	315	308
Collateral Bonds cancelled				2	—
Notarial Bonds cancelled	*	*	*	—	9
Mortgage Bonds part-paid	*	10	2	1	6
Antenuptial Contracts registered	49	52	53	67	53
Servitudes registered	10	1	4	5	2
(b) VALUE OF DEEDS REGISTERED.					
Property transferred	£ 284,133	£ 297,258	£ 303,524	£ 387,589	£ 431,522
Mortgage Bonds registered	252,792	173,247	251,050	277,266	297,906
Collateral Bonds registered			3,000	—	750
Notarial Bonds registered	38,156	147,085	17,244	11,809	18,699
Mortgage Bonds cancelled	265,485	366,246	208,514	217,684	210,650
Collateral Bonds cancelled				850,700	—
Notarial Bonds cancelled	*	*	*	—	112,386
Mortgage Bonds part-paid	*	9,519	502	1,150	1,889
(c) REVENUE.					
Fees of Office	£ 796	£ 808	£ 933	£ 943	£ 1,017
Stamp Duty on Transfers	609	643	731	711	1,066
Stamp Duty on Bonds	371	211	303	339	352

* Not available.

(vi) DEEDS REGISTRY AT PIETERMARITZBURG, 1934 TO 1938.

Description.	1934.	1935.	1936.	1937.	1938.
(i) NUMBER OF DEEDS REGISTERED.					
Deeds of Transfer registered	No. 4,142	No. 4,480	No. 5,153	No. 5,502	No. 5,739
Certificates of Registered Title	*	*	126	101	97
Deeds of Grant	129	146	108	111	114
Mortgage Bonds registered	3,581	3,305	3,597	3,858	4,038
Collateral Bonds registered			21	24	24
Notarial Bonds registered	213	232	192	178	188
Mortgage Bonds cancelled	3,250	3,164	3,126	3,363	3,312
Collateral Bonds cancelled			†	21	19
Notarial Bonds cancelled	215	253	177	203	191
Mortgage Bonds part-paid	†	327	243	311	255
Antenuptial Contracts registered	707	769	789	802	779
Servitudes registered	85	96	97	102	119
(ii) VALUE OF DEEDS REGISTERED.					
Property transferred	£ 4,264,061	£ 3,967,097	£ 4,866,522	£ 4,742,525	£ 5,861,863
Mortgage Bonds registered	5,434,407	4,797,466	4,395,418	4,673,675	5,519,499
Collateral Bonds registered			400,155	56,106	306,452
Notarial Bonds registered	172,905	233,062	590,978	680,787	1,530,120
Mortgage Bonds cancelled	3,918,085	4,399,159	3,763,507	3,913,401	3,066,597
Collateral Bonds cancelled			†	217,550	2,532,794
Notarial Bonds cancelled	930,182	1,205,052	1,469,242	858,269	321,801
Mortgage Bonds part-paid	†	796,761	92,999	132,585	110,507
(iii) REVENUE.					
Fees of Office	£ 9,394	£ 9,652	£ 10,419	£ 11,101	£ 11,552
Stamp Duty on Transfers	10,240	9,863	11,947	13,258	14,167
Stamp Duty on Bonds	10,745	8,486	7,738	8,875	10,479

* Included in "Deeds of Transfer registered."
† Not available.

(vii) DEEDS REGISTRY AT PRETORIA, 1934 TO 1938.

Description.	1934.	1935.	1936.	1937.	1938.
(a) NUMBER OF DEEDS REGISTERED.					
Deeds of Transfer registered	No. 7,311	No. 8,729	No. 12,210	No. 11,560	No. 12,403
Certificates of Registered Title	*	*	555	781	445
Deeds of Grant	140	129	190	232	239
Mortgage Bonds registered	6,119	6,008	7,406	8,452	8,985
Collateral Bonds registered				27	170
Notarial Bonds registered	443	419	399	478	544
Mortgage Bonds cancelled	6,477	5,559	5,871	6,268	6,521
Collateral Bonds cancelled				79	57
Notarial Bonds cancelled	†	†	215	265	219
Mortgage Bonds part-paid	†	125	68	142	131
Antenuptial Contracts registered	2,422	2,572	3,033	3,349	3,348
Servitudes registered	697	931	1,119	1,581	1,552
(b) VALUE OF DEEDS REGISTERED.					
Property transferred	£ 6,147,921	£ 5,556,150	£ 8,125,003	£ 9,296,010	£ 9,276,373
Mortgage Bonds registered	6,163,702	6,749,954	7,975,231	6,396,248	8,962,967
Collateral Bonds registered				4,021,692	2,488,256
Notarial Bonds registered	1,684,645	2,501,705	4,575,405	2,595,627	1,333,471
Mortgage Bonds cancelled	8,578,495	4,692,632	16,041,800	3,771,997	3,322,978
Collateral Bonds cancelled				2,500,807	314,768
Notarial Bonds cancelled	†	†	3,143,375	2,465,841	3,387,659
Mortgage Bonds part-paid	†	871,247	96,449	70,787	69,344
(c) REVENUE.					
Fees of Office	£ 16,522	£ 16,603	£ 19,918	£ 22,713	£ 23,312
Stamp Duty on Transfers	15,453	13,099	21,385	22,860	22,613
Stamp Duty on Bonds	8,831	9,529	8,758	10,228	13,307

* Included in "Deeds of Transfer registered."
† Included in "Mortgage Bonds cancelled."

(viii) DEEDS REGISTERED AT THE OFFICE OF THE REGISTRAR OF MINING TITLES AND THE RAND TOWNSHIPS REGISTRAR, JOHANNESBURG, 1934 TO 1938.

Description.	1934.	1935.	1936.	1937.	1938.
(a) NUMBER OF DEEDS REGISTERED.					
Deeds of Transfer registered	No. 9,994	No. 11,467	No. 14,516	No. 12,712	No. 10,940
Certificates of Registered Title	*	114	126	159	158
Deeds of Grant	49	78	78	66	39
Mortgage Bonds registered	10,040	11,347	14,095	14,557	12,428
Collateral Bonds registered		51	43	23	22
Mortgage Bonds cancelled	7,735	7,605	9,407	9,350	7,885
Collateral Bonds cancelled		8	14	24	30
Mortgage Bonds part-paid	†	194	166	152	263
Servitudes registered	‡	346	334	242	265
(b) VALUE OF DEEDS REGISTERED.					
Property transferred	£ 13,315,694	£ 11,094,888	£ 14,820,433	£ 15,223,982	£ 9,955,034
Mortgage Bonds registered	11,945,644	13,006,258	18,032,855	20,378,863	14,928,438
Collateral Bonds registered		400,885	1,028,655	449,125	438,247
Mortgage Bonds cancelled	8,017,720	7,689,228	29,915,075	10,434,570	6,967,679
Collateral Bonds cancelled		22,172	5,584,900	48,512	93,875
Mortgage Bonds part-paid	†	178,719	59,903	80,602	112,854
(c) REVENUE.					
Fees of Office	£ 17,545	£ 21,125	£ 25,978	£ 24,315	£ 22,483
Stamp Duty on Transfers	54,173	27,786	37,207	38,676	24,916
Stamp Duty on Bonds		22,693	31,411	31,845	25,399

* Included in "Deeds of Transfer registered."
† Included in "Mortgage Bonds cancelled."
‡ Not available.

(ix) DEEDS REGISTRY AT BLOEMFONTEIN, 1934 TO 1938.

Description.	1934.	1935.	1936.	1937.	1938.
(i) NUMBER OF DEEDS REGISTERED.					
Deeds of Transfer registered	No. 3,144	No. 3,187	No. 3,681	No. 3,819	No. 3,810
Certificates of Registered Title	*	*	104	67	58
Deeds of Grant	15	13	34	56	44
Mortgage Bonds registered	4,200	3,174	3,456	3,285	3,053
Collateral Bonds registered	‡	‡	13	13	26
Notarial Bonds registered	‡	‡	54	62	42
Mortgage Bonds cancelled	5,087	3,371	3,461	3,179	3,001
Collateral Bonds cancelled	‡	‡	18	18	14
Notarial Bonds cancelled	‡	‡	25	54	27
Mortgage Bonds part-paid	‡	124	133	137	109
Antenuptial Contracts registered	540	541	617	686	533
Servitudes registered	254	233	246	281	479
(ii) VALUE OF DEEDS REGISTERED.					
Property transferred	£ 2,846,594	£ 2,686,389	£ 3,960,039	£ 4,754,754	£ 4,532,814
Mortgage Bonds registered	5,140,142	3,381,710	3,722,573	3,386,168	2,667,835
Collateral Bonds registered	‡	‡	458,115	39,123	249,942
Notarial Bonds registered	124,248	160,606	31,885	425,528	78,191
Mortgage Bonds cancelled	5,106,630	2,742,989	2,964,623	3,323,575	2,809,241
Collateral Bonds cancelled	‡	‡	164,510	1,103,703	2,545,531
Notarial Bonds cancelled	31,055	64,911	109,602	1,078,690	43,709
Mortgage Bonds part-paid	‡	413,768	71,447	76,859	58,800
(iii) REVENUE.					
Fees of Office	£ 8,144	£ 6,613	£ 7,991	£ 8,051	£ 7,696
Stamp Duty on Transfers	6,351	6,008	9,274	10,790	9,352
Stamp Duty on Bonds	9,410	6,028	5,996	5,006	3,864

* Included in "Deeds of Transfer registered." ‡ Not available.

6. **Mortgage Bond Statistics.**—Beginning with the year 1935, a new system was inaugurated whereby the various Registrars of Deeds supply the Census Office with details of mortgage bonds passed, increased, cancelled, or part-paid, and the following tables give the results for 1938. Notarial and collateral bonds are not included in these statistics, nor are cessions, securities, waivers of preference, or transfer of liability. In regard to Land Bank transactions the details were obtained from the Land Bank direct and have been treated as being entirely rural; they include bonds passed under section 20 of Act No. 29 of 1933. The figures for bonds cancelled and part-paid do not include amounts written off in terms of sections 47 and 48 of Act No. 13 of 1918.

(i) MORTGAGE BONDS PASSED AND INCREASED, UNION, 1935 TO 1938.

Class of Bond.	Urban.		Rural.		Total.	
	No.	£	No.	£	No.	£
Government	30	35,533	428	581,552	458	617,085
Land Bank	—	—	*	3,225,521	*	3,225,521
Private Individuals :—						
First Mortgage	8,714	8,211,487	2,886	3,080,655	11,600	11,292,142
Other	2,740	1,143,986	1,265	771,717	4,005	1,915,703
Companies, Societies, etc. :—						
First Mortgage	16,270	22,511,586	1,715	4,008,897	17,985	26,520,483
Other	2,896	1,715,267	582	418,116	3,478	2,133,383
Indistinguishable	38	19,955	37	19,954	75	39,909
TOTAL, 1938	30,688	33,637,814	6,913	12,106,412	37,601	45,744,226
1937	31,331	35,247,495	6,991	11,551,335	38,322	46,798,830
1936	30,331	31,965,975	6,843	13,149,502	37,174	45,115,477
1935	24,525	24,284,089	5,655	11,801,709	30,180	36,085,798

(ii) MORTGAGE BONDS CANCELLED AND PART-PAID, UNION, 1935 TO 1938.

Class of Bond.	Urban.		Rural.		Total.	
	No.	£	No.	£	No.	£
Government	20	18,415	181	170,526	201	188,941
Land Bank	—	—	*	2,571,240	*	2,571,240
Private Individuals :—						
First Mortgage	8,454	6,500,571	3,068	2,985,356	11,522	9,485,927
Other	2,021	749,637	1,099	711,003	3,120	1,460,640
Companies, Societies, etc. :—						
First Mortgage	9,954	10,974,823	1,611	5,563,556	11,565	16,538,379
Other	1,690	766,370	447	329,266	2,137	1,095,636
Indistinguishable	51	69,722	50	69,723	101	139,445
TOTAL, 1938	22,190	19,079,538	6,456	12,400,670	28,646	31,480,208
1937	23,082	20,960,182	7,478	10,274,073	30,560	31,234,255
1936	22,817	21,360,019	7,908	14,472,318	30,725	35,832,337
1935	18,634	16,699,585	7,666	10,169,702	26,300	26,869,287

* Not available.

(iii) RANGE OF INTEREST RATES ON 1st MORTGAGES PASSED AND INCREASED (EXCLUDING GOVERNMENT AND LAND BANK BONDS), 1938.

Range of Interest.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Union.
URBAN.					
Nil	£ 185,764	£ 2,232	£ 240,819	£ 8,923	£ 437,738
Under 3½	269,045	201,600	25,865	1,240	497,750
3½ and under 4	66,609	25,504	250,922	28,633	371,668
4 " " 4½	163,633	11,837	32,767	5,285	213,522
4½ " " 5	327,763	124,821	241,208	—	693,792
5 " " 5½	2,779,070	644,564	993,307	93,574	4,510,515
5½ " " 6	937,974	1,971,727	1,859,734	45,027	4,814,462
6 " " 6½	2,457,758	826,758	2,253,788	235,557	5,773,861
6½ " " 7	140,054	25,837	9,726,286	32,758	9,924,905
7 " " 7½	229,698	40,100	774,181	57,873	1,101,852
7½ " " 8	3,525	1,225	40,115	2,100	46,965
8 " " 9	45,337	10,667	340,737	23,887	420,628
9 " " 10	550	—	32,332	350	33,732
10 " " 12	7,475	1,810	167,153	100	176,538
12 and over	95	60	3,183	45	3,383
Bank Rate	338,153	90,900	1,187,965	57,150	1,674,168
Unknown	4,145	—	23,449	—	27,594
TOTAL £	7,956,648	3,979,612	18,194,311	592,502	30,723,073

(iii) RANGE OF INTEREST RATES ON 1st MORTGAGES PASSED AND INCREASED (EXCLUDING GOVERNMENT AND LAND BANK BONDS), 1938—(*continued*).

Range of Interest.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Union.
			RURAL.		
	£	£	£	£	£
Nil	10,014	6,318	47,483	14,391	78,206
Under 3½	28,490	—	6,560	1,925	36,975
3½ and under 4	950	13,900	4,520	—	19,370
4 " " 4½	180,626	4,500	1,004,801	14,514	1,204,441
4½ " " 5	136,108	19,094	38,993	39,386	233,581
5 " " 5½	1,530,245	150,123	159,530	409,163	2,249,061
5½ " " 6	201,765	39,085	58,630	51,929	351,409
6 " " 6½	252,707	133,014	374,452	166,168	926,341
6½ " " 7	18,306	5,518	368,673	8,145	400,642
7 " " 7½	5,598	10,376	148,850	9,795	174,619
7½ " " 8	—	—	3,626	—	3,626
8 " " 9	12,313	5,897	126,116	5,918	150,244
9 " " 10	370	600	13,160	—	14,130
10 " " 12	150	1,159	9,639	—	10,948
12 and over	85	—	—	—	85
Bank Rate	390,117	154,480	363,247	299,570	1,212,414
Unknown	10,601	—	8,352	4,507	23,460
TOTAL £	2,778,445	544,064	2,741,632	1,025,411	7,089,552

(iv) AVERAGE RATES OF INTEREST ON 1st MORTGAGES PASSED OR INCREASED, 1935 TO 1938. (BONDS WITH INTEREST RATE UNKNOWN, AT NO INTEREST, OR AT BANK RATE EXCLUDED.)

Province.	Urban.			Rural.			Grand Total.
	Private Individuals.	Companies, Societies, etc.	Total.	Private Individuals.	Companies, Societies, etc.	Total.	
	%	%	%	%	%	%	%
Cape of Good Hope.	5·36	5·28	5·31	5·05	5·05	5·05	5·25
Natal	5·15	5·49	5·35	5·47	5·36	5·45	5·38
Transvaal	6·38	6·21	6·25	6·45	4·78	5·30	6·13
Orange Free State	5·86	5·87	5·86	5·28	5·31	5·29	5·54
TOTAL 1938	5·81	5·90	5·87	5·47	4·92	5·21	5·78
1937	5·84	5·93	5·94	5·31	5·23	5·30	5·84
1936	5·85	6·07	6·01	5·43	5·10	5·26	5·87
1935	5·94	6·04	6·01	5·51	5·46	5·49	5·93

§ 4. Valuation of Property.—Cape of Good Hope.

Second and Third General Valuations.—The third general valuation of the province has been commenced; and it has been completed and is in force in respect of certain divisions and the areas of certain local authorities.

The subjoined table gives the result of the second complete general valuation (except where such has been superseded by the third general valuation, in which cases the figures of the latter are shown) of immovable property in the Cape of Good Hope Province (inclusive of the Transkeian Territories), undertaken in terms of Ordinance No. 7 of 1914 and *interim* general valuations framed under Ordinances No. 5 of 1922 and No. 5 of 1926, and shows, by divisions, the number of properties, the site value, the value of buildings and of exempted improvements, the total valuation, and the rateable value in each case. The figures are corrected up to 31st December, 1937. A *division* is defined by the Ordinance as being a rural or divisional council area, including any municipality or village management board area therein, and where there is no rural or divisional council area, a magisterial district or such magisterial districts as may be combined for the purpose of the Ordinance by the Administrator. *Site values* are determined, according to a prescribed procedure, by the ordinary price which a buyer would be willing to give and a seller to accept if the land to be valued were brought at the time of valuation to voluntary sale. The basis of the valuation of *buildings* is the estimated cost of erection at the time of valuation, allowance being made for structural and other depreciation. By *exempted improvements* are meant those "which increase the value of the land for agricultural purposes, and include structural works, dipping and storage tanks, kraals, fences, irrigation works, dams, boreholes, stables, etc., but not residential buildings".

The following table gives information concerning the valuation of immovable property in the Cape Province, taken under the provisions of Ordinance No. 5 of 1926:—

VALUATION OF IMMOVABLE PROPERTY, CAPE OF GOOD HOPE PROVINCE (INCLUDING TRANSKEIAN TERRITORIES).—CORRECTED UP TO 31st DECEMBER, 1937.

NUMBER OF PROPERTIES AND ACTUAL VALUES.

Division.	Number of Properties.	Value of Property.				Total Valuation.	Rateable Value.
		Site.	Buildings.	Rateable Improvements.	Exempted Improvements.		
	£	£	£	£	£	£	£
EAST CENTRAL—							
Albany	3,394	1,721,625	2,305,927	49,658	434,229	4,601,439	4,167,210
Bedford	719	765,123	238,828	1,020	212,435	1,207,406	994,971
Cradock	1,456	1,524,770	886,393	1,190	746,867	3,159,226	2,412,359
Fort Beaufort	2,242	793,403	563,691	3,365	104,230	1,464,689	1,360,459
Graaff-Reinet	1,764	1,344,592	891,433	15,237	533,725	2,784,987	2,251,262
Jansenville	985	569,160	229,200	1,720	268,010	1,068,090	800,080
Maraisburg	515	463,965	136,914	6,285	182,260	789,424	607,164
Middelburg	1,182	1,101,480	606,914	27,655	552,215	2,288,264	1,736,049
Pearston	578	491,814	144,305	5,115	159,065	800,299	641,234
Somerset East	1,241	1,604,691	647,600	12,050	381,760	2,646,101	2,264,341
Steynsburg	733	525,280	224,995	6,380	131,395	891,050	756,655
Steytlerville	951	431,907	169,300	—	109,540	713,747	604,207
Tarka	583	1,034,220	301,786	3,325	321,940	1,661,271	1,339,331
TOTAL	16,443	12,365,036	7,437,286	133,000	4,140,671	24,075,993	19,935,322
EASTERN—							
Cathcart	602	1,273,586	281,205	3,320	250,845	1,808,956	1,558,111
East London	9,538	4,624,264	8,234,962	107,695	431,555	13,398,476	12,960,921
Glen Grey	248	75,388	132,305	3,748	33,382	244,823	211,441
Kingwilliamstown	4,437	5,890,401	1,552,571	38,485	191,740	7,673,197	7,481,457
Komgha	849	545,930	184,490	2,130	111,940	844,490	732,550
Peddie	1,424	324,413	142,900	1,225	73,740	542,278	468,538
Queenstown	3,946	1,595,095	1,084,602	44,100	436,770	3,760,867	3,324,097
Sterkstroom	540	661,054	230,376	5,945	206,185	1,103,560	897,375
Stockenstrom	791	552,120	133,935	1,075	102,405	789,535	687,130
Stutterheim	1,310	825,182	302,501	10,646	226,750	1,365,079	1,138,329
Victoria East	2,347	373,915	235,770	5,010	134,305	749,000	614,695
TOTAL	26,032	16,741,348	13,115,617	223,679	2,199,617	32,280,261	30,980,644
GRIQUALAND WEST—							
Barkly West	2,224	1,002,864	321,725	6,187	191,350	1,522,126	1,330,776
Hay	1,891	1,446,801	315,453	7,990	269,015	2,039,259	1,770,244
Herbert	1,164	766,823	180,015	2,560	170,415	1,119,813	949,398
Kimberley	5,725	1,185,272	3,972,941	98,740	129,945	5,386,898	5,256,953
TOTAL	11,004	4,401,760	4,790,134	115,477	760,725	10,068,096	9,307,371
NORTH CENTRAL—							
Britstown	625	660,548	181,895	3,820	260,205	1,106,468	846,263
Colesberg	972	1,208,046	434,331	43,641	427,195	2,113,213	1,686,018
De Aar	2,788	457,865	540,985	14,020	151,320	1,164,190	1,012,870
Hopetown	952	908,973	204,515	6,640	177,990	1,298,118	1,120,128
Philipstown	1,527	682,656	211,435	9,925	290,182	1,194,198	904,016
Prieska	943	897,512	311,839	13,651	229,045	1,452,047	1,223,002
TOTAL	7,807	4,815,600	1,885,000	91,697	1,535,937	8,328,234	6,792,297
NORTH EASTERN—							
Albert	1,015	1,121,184	491,540	7,425	513,835	2,133,984	1,620,149
Aliwal North	1,336	845,798	648,856	4,781	245,935	1,745,370	1,499,435
Barkly East	1,095	1,153,124	332,303	2,707	279,400	1,767,534	1,488,134
Elliot	1,367	617,808	256,692	6,325	189,334	1,070,159	880,825
Herschel	83	11,105	33,545	885	—	45,535	45,535
Indwe *	—	—	—	—	—	—	—
Lady Grey	695	391,663	167,568	2,000	117,965	679,196	561,231
Maclear	1,157	630,660	207,125	85	139,380	977,250	837,870
Molteno	594	712,977	324,034	2,100	274,345	1,313,456	1,039,111
Venterstad	424	398,714	118,815	2,040	198,775	719,244	520,469
Wodehouse	1,772	1,652,572	556,355	7,357	237,920	2,454,204	2,216,284
TOTAL	9,538	7,535,605	3,136,833	36,605	2,196,889	12,905,932	10,709,043

* Newly created division. Figures included in Wodehouse Division.

NUMBER OF PROPERTIES AND ACTUAL VALUES—*continued.*

Division.	Number of Properties.	Value of Property.				Total Valuation.	Rateable Value.
		Site.	Buildings.	Rateable Improvements.	Exempted Improvements.		
		£	£	£	£	£	£
NORTH WESTERN—							
Calvinia	2,160	1,712,727	413,338	11,405	410,459	2,547,929	2,137,470
Carnarvon	1,034	1,105,855	264,250	12,125	291,015	1,682,245	1,391,230
Ceres	864	729,088	419,497	2,905	545,580	1,697,070	1,151,490
Clanwilliam	1,072	502,192	264,075	1,935	185,005	951,257	766,252
Fraserburg	628	571,585	175,420	3,600	216,330	966,935	750,605
Kenhardt	2,104	1,133,807	462,202	16,880	384,955	1,997,864	1,612,909
Laingsburg	643	310,976	181,218	4,950	75,337	572,491	497,154
Namaqualand	1,492	1,204,741	726,618	286 310	205 005	2,432,677	2,227,672
Sutherland	393	496,435	131,155	6,710	94,450	728,750	634,300
Van Rhynsdorp	903	403,584	194,930	4,080	236,135	838,729	602,594
Williston	511	545,553	105,835	835	178,007	830,230	652,223
TOTAL	11,899	8,716,606	3,238,598	351,795	2,810,278	15,167,277	12,356,999
SOUTH EASTERN—							
Alexandria	960	707,545	244,583	5,720	166,710	1,124,560	957,850
Bathurst	1,520	547,328	427,885	3,539	183,285	1,162,037	978,752
Humansdorp	2,985	1,739,154	518,010	3,726	312,220	2,573,120	2,260,900
Port Elizabeth	12,162	3,592,780	14,078,912	99,030	26,085	17,796,813	17,770,728
Uitenhage	3,651	1,543,352	2,033,508	100,875	758,080	4,436,715	3,677,755
TOTAL	21,278	8,130,159	17,302,900	212,896	1,447,290	27,093,245	25,645,955
SOUTH WESTERN—							
Bredasdorp	1,818	1,236,681	451,970	4,575	263,505	1,956,731	1,693,226
Caledon	4,332	2,174,076	1,450,061	244,019	462,054	4,330,210	3,868,156
Calitzdorp	555	433,301	181,114	1,125	252,820	868,360	615,540
George	2,362	999,497	891,196	13,038	174,715	2,078,446	1,903,731
Heidelberg	1,120	768,004	256,340	2,085	330,785	1,357,214	1,026,429
Knysna	1,579	1,003,461	373,697	210	35,520	1,412,888	1,377,368
Ladismith	1,965	450,857	271,370	2,315	230,500	955,072	724,572
Montagu	833	305,520	357,407	12,655	218,915	894,527	675,612
Mossel Bay	1,729	917,454	844,279	16,514	107,725	1,915,972	1,808,247
Oudtshoorn	3,216	1,417,837	1,214,427	22,553	863,380	3,518,197	2,654,817
Riversdale	3,142	966,889	493,124	6,675	124,454	1,591,142	1,466,688
Robertson	1,390	685,225	637,370	17,715	690,220	2,030,530	1,340,310
Swellendam	3,713	1,780,197	729,005	8,805	442,075	2,960,082	2,518,007
Uniondale	1,456	507,765	232,711	2,125	99,265	842,866	742,601
Worcester	2,231	1,221,362	1,477,888	6,760	872,290	3,578,300	2,706,010
TOTAL	31,791	14,900,126	9,861,959	361,193	5,159,253	30,282,537	25,123,284
WEST CENTRAL—							
Aberdeen	877	799,727	254,413	3,945	369,230	1,427,315	1,058,085
Beaufort West	1,601	1,206,250	513,145	39,780	380,535	2,139,710	2,059,175
Hanover	491	523,253	147,608	2,829	249,070	922,760	673,690
Loxton*	51	—	4,245	145	—	4,390	4,390
Murraysburg	452	674,505	175,540	6,675	266,385	1,123,105	856,720
Prince Albert	825	415,059	205,835	5,325	185,930	812,149	626,219
Richmond	570	748,840	210,630	3,705	458,935	1,422,160	963,225
Victoria West	1,198	1,359,713	343,960	7,173	430,380	2,141,226	1,710,846
Willowmore	1,098	725,324	241,605	7,375	230,330	1,204,634	974,304
TOTAL	7,166	6,452,671	2,396,981	76,952	2,570,845	11,497,449	8,926,604
WESTERN—							
Cape	68,368	32,906,673	53,303,998	732,640	506,930	87,450,241	86,943,311
Malmesbury	3,648	3,905,402	1,970,673	101,540	723,094	6,700,709	5,977,615
Paarl	3,756	2,033,315	3,396,656	36,792	898,290	6,365,053	5,466,763
Piquetberg	1,232	982,278	538,591	8,029	466,795	1,995,684	1,528,889
Stellenbosch	5,101	2,185,105	3,697,745	11,735	722,975	6,617,560	5,894,585
Tulbagh	684	497,248	404,520	3,895	199,740	1,105,403	905,663
TOTAL	82,789	42,510,021	63,312,183	894,622	3,517,824	110,234,650	106,716,826
TOTAL FOR CAPE PROVINCE (excluding Bechuanaland and Transkeian Territories)	225,747	126,568,932	126,527,491	2,497,922	26,339,329	281,933,674	255,594,345

* Only available figures. Interim valuation, 1937.

NUMBER OF PROPERTIES AND ACTUAL VALUES—*continued.*

Division.	Number of Properties.	Value of Property.				Total Valuation.	Rateable Value.
		Site.	Buildings.	Rateable Improvements.	Exempted Improvements.		
		£	£	£	£	£	£
BECHUANALAND—							
Gordonia	1,999	1,043,720	512,714	12,700	202,015	1,771,149	1,569,134
Kuruman	1,644	1,087,583	269,549	12,820	262,693	1,632,595	1,369,902
Mafeking	1,179	551,026	497,247	188,010	132,371	1,369,554	1,237,183
Vryburg	2,366	1,764,359	603,057	52,840	291,890	2,712,146	2,420,256
TOTAL FOR BECHUANALAND	7,188	4,446,688	1,882,567	267,280	888,969	7,485,444	6,596,535
TRANSKEIAN TERRITORIES.							
EAST GRIQUALAND—							
Matatiele	965	786,160	351,806	3,129	125,717	1,266,812	1,141,095
Mount Ayliff	165	14,630	43,895	2,405	—	60,930	60,930
Mount Currie	1,307	1,182,485	572,280	3,970	165,368	1,924,103	1,758,735
Mount Fletcher	131	19,980	63,161	1,544	—	84,685	84,685
Mount Frere	218	34,256	73,428	2,955	1,905	112,544	110,639
Qumbu	221	32,965	39,330	985	2,080	75,360	73,280
Tsolo	321	67,310	69,430	1,610	15,270	153,620	138,350
Umzimkulu	538	445,713	142,805	615	94,525	683,658	589,133
TOTAL	3,866	2,583,499	1,356,135	17,213	404,865	4,361,712	3,956,847
PONDOLAND—							
Bizana	108	19,828	52,069	1,130	—	73,027	73,027
Flagstaff	121	17,699	54,732	785	—	73,216	73,216
Libode	82	23,955	26,965	30	—	50,950	50,950
Lusikisiki	132	55,899	44,135	695	—	100,729	100,729
Ngqeleni	91	23,140	34,305	1,075	415	59,535	59,120
Port St. Johns	367	53,710	92,385	185	9,898	156,178	146,280
Tabankulu	107	10,800	35,155	995	—	46,950	46,950
TOTAL	1,008	205,031	339,746	5,495	10,313	560,585	550,272
TEMBULAND—							
Elliotdale	82	26,435	28,790	—	—	55,225	55,225
Engcobo	149	64,235	141,770	1,435	—	207,440	207,440
Mqanduli	109	36,309	40,475	1,580	—	78,364	78,364
St. Marks	176	72,180	69,000	3,000	3,125	147,305	144,270
Umtata	1,371	267,984	655,510	4,700	19,235	947,429	928,194
Xalanga	671	96,575	110,635	1,470	35,185	243,865	208,680
TOTAL	2,558	563,718	1,046,270	12,185	57,545	1,679,718	1,622,173
TRANSKEI—							
Butterworth	262	74,095	155,610	155	7,055	236,915	229,860
Idutywa	317	35,695	114,915	3,310	—	153,920	153,920
Kentani	164	33,045	61,110	2,655	125	96,935	96,810
Nqamakwe	99	12,935	81,955	520	—	95,410	95,410
Tsomo	99	31,339	56,503	1,574	—	89,416	89,416
Willowvale	156	26,995	81,520	1,650	—	110,165	110,165
TOTAL	1,097	214,104	551,613	9,864	7,180	782,761	775,581
TOTAL FOR TRANSKEIAN TERRITORIES	8,529	3,566,352	3,293,764	44,757	479,903	7,384,776	6,904,873
GRAND TOTAL	241,464	134,581,972	131,703,822	2,809,959	27,708,141	296,803,894	269,095,753

§ 5. Transfers of Rural Immovable Property.

Information has been published in the Special Report Series with regard to transfers of rural immovable property from the year ending 31st March, 1928, for each district from data supplied to the Office of Census and Statistics

by the registrars of deeds. The following table gives the Union totals for each year and the provincial totals for 1938-39:—

TRANSFERS OF RURAL IMMOVABLE PROPERTY, 1927-28 TO 1938-39.

Year.	Area Transferred.	Total Value.	Value per Morgen.	Percentage of Rural Area.	Properties Transferred.	Average Size of Property.
	1,000 Morgen.	£1,000.	£	%	No.	Morgen.
1927-28	7,540	18,932	2·511	5·35	*	*
1928-29	7,303	19,643	2·690	5·20	*	*
1929-30	6,923	18,098	2·614	4·93	9,328	742·10
1930-31	4,449	10,714	2·408	3·17	6,596	674·57
1931-32	4,014	8,202	2·050	2·86	5,909	679·23
1932-33	3,115	5,699	1·829	2·22	4,807	648·11
1933-34	3,998	7,283	1·821	2·85	5,367	744·83
1935-36	5,178	9,603	1·893	3·69	6,669	776·28
1936-37	5,524	10,342	1·872	3·93	7,201	767·11
1937-38	7,914	16,131†	2·125†	4·83†	8,754	904·04†
1938-39	8,053	15,883	2·038†	5·63	9,557†	842·80†
Cape of Good Hope	5,082	7,208	1·973	5·73	9,350	861·27
Natal	286	1,163	1·419	6·15	3,223	1,576·72
Transvaal	1,929	4,731	4·061	2·85	817	320·18
Orange Free State	756	2,786	2·453	5·84	3,954	487·41
			3·686	5·11	1,356	557·47

* Not available.
† Amended figure.

CHAPTER XVIII.
IRRIGATION AND WATER CONSERVATION.

§ 1. Irrigation.

1. **Legislation.**—A reference to legislation concerning water conservation and irrigation in the four provinces prior to the constitution of the Union will be found in *Year Book* No. 18 and previous issues. The Union *Irrigation and Conservation of Waters Act* was passed in 1912. This Act provides first for a national law regulating the use of water in public streams. Further, it provides special judicial machinery for dealing with the definition of water-rights along public streams, the settlement of disputes, the granting of servitudes and permits, and other matters. It also contains a variety of provisions designed to promote the development of irrigation. In principle the Act is an effort to realize the following main objects:—

(*a*) Preservation, to the fullest extent possible, of all vested rights so far as they are of practical value to riparian owners.

(*b*) Provision for a rational and practical method of effecting an equitable distribution of water flowing in defined channels of a permanent character.

(*c*) Provision of equitable and practical means for the conservation and use of that portion of the flow in South African streams which cannot be immediately and beneficially used and may run to waste.

(*d*) Provision of machinery for bringing these objects into effect.

The subject-matter of the Act is as follows and gives an indication of the scope of the law:—

Chapter I. General control, including provision for hydrographic surveys, preparation of schemes, engineering services, water-boring.
II. Use of public and private water.
III. Use of subterranean water.
IV. Constitution of *Water Courts* and their jurisdiction, powers, and authorities.
V. Constitution of *River Districts* and *Boards*.
VI. Constitution of *Irrigation Districts* and *Boards*.
VII. Expropriation of land and acquisition of servitudes.
VIII. Irrigation loans to private persons and to *Irrigation Boards*.
IX. General and miscellaneous matters relating to right of entry upon land for irrigation purposes, service of notices and documents, exemption of irrigated lands from rates, offences and penalties, etc.

Seven sections of regulations have been framed under the law dealing with various matters in detail.

Under Act No. 33 of 1926, as amended by Act No. 57 of 1934, provision was made for an Irrigation Commission, which was established under Government Notice No. 1363, dated 4th August, 1926. This Commission is solely advisory. In 1934 Parliament passed the *Irrigation Amendment Act*, No. 46 of 1934, which in many respects materially amended the principal Act.

A detailed history of the growth of Water Law up to 1933 is contained in a work on *Water Law: Its Development in the Union of South Africa*, by A. D. Lewis, Director of Irrigation.

2. **Administration.**—(i) *Irrigation Department.*—The administration of the *Irrigation Act* is vested in an Irrigation Department under a Director of Irrigation with a staff of engineers and administrative officers. The principal activities of the Department may be summarized as follows:—

(*a*) A special branch of the Department is engaged in the systematic collection and compilation of data relating to the water resources of the Union. The chief features of this research are the collection of data in connexion with the flow of surface water and a study of the conditions affecting this flow.

Information is also collected concerning the duration and magnitude of floods, the minimum flows in the perennial rivers, the silt carried in suspension in rivers, the water disposal at the larger storage reservoirs, the gauging of dolomitic springs, the evaporation from free water surfaces, the transition losses in rivers and canals, etc.

For some results see Hydrographic Survey Papers Nos. 1 to 5, obtainable from the Government Printer, Pretoria.

(*b*) Closely allied to the Hydrographic Survey as regards the character of its investigations is the meteorological service, particulars of which will be found in Chapter I of this *Year Book*.

(*c*) Systematic reconnaissance surveys, together with hydrographic statistics, indicate where and how irrigation development can take place, and the carrying out of these surveys is a function of the Department hardly less in importance than the collection of hydrographic data. Arising out of these reconnaissance surveys irrigation projects are elaborated; these are either laid before the riparian owners interested, with the object of inducing them to form an irrigation district under the Act for the purpose of undertaking the scheme as a co-operative work financed under an irrigation loan, or the project is taken up, if circumstances are favourable, as a government work and may be constructed by departmental agency.

The Irrigation Department between 1934 and 1937 also prepared a Topographic Map of the Union to a scale of 1:500,000. This was published in ten sheets and is obtainable from the Government Printer, Pretoria, at 3s. per sheet. At the same time a magnetic survey was made. The results have been published in a pamphlet entitled "Magnetic Declination in South Africa (1936)": a map entitled "Magnetic Declination Map for the approximate epoch 1936" is included and the cost is 2s. 6d. The Topographic Map is now available to a scale of 1:1,500,000 or 23·6 miles per inch, and comprises two sheets which together form a map 5′ by 3′ 9″ overall. It is obtainable from the Government Printer at 6s. post free. An edition for aviation purposes may also be obtained from the Government Printer, Pretoria, at the same price.

(*d*) Government irrigation works are maintained and to a large extent administered by the Irrigation Department.

(*e*) An elaborate system exists under which *bona fide* farmers, irrigation boards, and river boards may obtain professional assistance from the Department. Such services are charged for at prescribed fees.

(*f*) An important section of the Department is the water-boring branch, the work of which falls into the following main sections:—

(1) Boring on behalf of farmers on a scale of charges under the most recent government policy of subsidy approximating to 50 per cent. of the actual cost to the Department; in December, 1936, a supplementary scheme was introduced enabling subsidies to be granted for boreholes drilled by private boring contractors (Government Notice No. 1817 of 1936);

(2) boring for water on vacant and waterless Crown lands to make such lands fit for settlement; and

(3) boring for water at school sites, hospitals, gaols, and other similar public institutions.

(*g*) The Department acts as the adviser of Provincial Administrations on all matters relating to water supply, drainage, sewerage, or irrigation within the areas controlled by municipalities and public bodies; and it advises and more or less controls irrigation and river boards.

(*h*) Irrigation loans are issued to farmers who are owners of land and also to irrigation boards under the provisions of the *Irrigation Act*, No. 8 of 1912, as amended by Act No. 26 of 1916. Section 4 of the *Finance Act*, No. 49 of 1935, makes provision for subsidies under irrigation loans not exceeding 25 per cent. of the cost of the works with a maximum of £125 in the case of persons other than irrigation boards. These subsidies may be granted by the Minister on certain conditions in respect of irrigation works constructed by means of irrigation loans and with the approval of the Department. Section 8 of the *Finance Act*, No. 35 of 1936, enables loans, including advances for boreholes, not exceeding £250 to be noted against title in lieu of the provision of sureties.

(*i*) The Meteorological Office also falls under the control of the Director of Irrigation.

(ii) *Water Courts.*—The water court is an institution which was in existence in the Cape Province for many years, and a similar court was created under the Transvaal *Irrigation Act*, No. 27 of 1908. In the Union Act the water court occupies a stronger and more important position than under the Cape of Good Hope or the Transvaal law. A water court is constituted by an itinerant water court judge as president and two assessors, one of them a competent hydraulic engineer attached to the Irrigation Department, and the other a person selected from a number nominated by the Governor-General for each proclaimed water court district. The *Water Court Judge Act*, No. 2 of 1924, makes provision for an additional judge of the Cape of Good Hope Provincial Division of the Supreme Court, and lays down the performance by such judge, or by certain other persons, of the functions of a water court judge. The Union has been divided into twenty-two water court districts for that purpose.

3. **Government Expenditure on Irrigation.**—Particulars are given hereunder as to expenditure on the Department of Irrigation for a series of years:—

(i) IRRIGATION—GOVERNMENT EXPENDITURE, 1933-34 TO 1937-38.

Heading.	1933–34.	1934–35.	1935–36.	1936–37.	1937–38.
	£	£	£	£	£
Expenditure from Loan Funds—					
Government Schemes	362,324	713,180	1,183,139	1,397,523	1,646,744
Irrigation Loans	21,043	11,054	9,305	10,100	29,429
Board Subsidy and Relief Schemes	64,283	91,703	37,849	54,967	—
Boring on Crown Lands	6,999	8,036	6,807	7,763	8,953
Other Boring	50,664	40,083	44,673	37,982	45,905
Equipment	—	182,600	—	—	—
Repairs of Damage by Floods	31,982	39,984	7,658	4,056	34,714
TOTAL £	537,295	1,086,040	1,289,431	1,512,391	1,765,745
Expenditure from Revenue—					
Irrigation	127,831	121,688	132,122	138,652	144,976
Boring	74,917	86,674	87,328	93,470	120,165
TOTAL £	202,748	208,362	219,450	232,122	265,141
GRAND TOTAL £	740,043	1,294,402	1,508,881	1,744,513	2,030,886

4. **Irrigation Districts.**—At 31st March, 1938, 131 irrigation districts controlled by irrigation boards had been constituted. This figure excludes irrigation districts established at one time or another and subsequently disestablished.

Irrigation districts and boards are formed in terms of Chapter VI of the *Irrigation and Conservation of Waters Act*, No. 8 of 1912, for the purpose of carrying out and controlling co-operative irrigation schemes. Any three riparian owners may petition the Minister to form an irrigation district, and if, on inquiry, it is found that the owners of not less than two-thirds of the total irrigable area under the projected scheme are in favour, the district may be constituted by the Governor-General-in-Council by Proclamation. All the irrigable area in the district then becomes liable to rating by the board, and the rates are a preferent charge on the land, ranking prior to all other mortgages. An irrigation board may obtain irrigation loans from the Government or from other sources on the security of its rates.

Much of the irrigation development has been done through the medium of irrigation boards, especially in the Cape Province, but latterly activity has been greater in government schemes. Of the 131 irrigation boards extant

as at 31st March, 1938, 80 were in the Cape Province, 43 in the Transvaal, 4 in Natal, and 4 in the Orange Free State, and all works except that at Egmont, Wepener, had been completed. Eighty-nine irrigation boards have received loans from the Government totalling approximately £5,000,000. This figure does not include the amount of such subsidies as may have been contributed by the Government towards the construction of later schemes, nor the amount of £31,700 spent on irrigation works for districts that have subsequently been deproclaimed. The total area scheduled by these 89 boards is approximately 120,000 morgen. There are 21 irrigation districts with schemes constructed without loans, the total rateable area being some 11,000 morgen. The remaining 21 irrigation districts have not yet embarked upon construction.

In addition to the expenditure on these co-operative irrigation schemes, the sum of £9,501,891 was spent from capital funds up to the 31st March, 1938, on government works. The more important of these works, which irrigate some 120,000 morgen are:—Hartebeestpoort, Olifants River, Buchuberg, Pongola, Marico Bosveld, Rust-der-Winter, Loskop, Vaal River Development, Upington Islands, and Riet River.

5. **Important Irrigation Schemes.**—(i) *General.*—Generally it can be said that, compared with other large irrigating countries, the conditions are not very favourable in South Africa. Even more favoured countries, such as America, Italy, and Spain, have found it necessary to subsidize irrigation works, and in the Union not only will a subsidy be necessary for future works, but some of the capital expenditure of the completed works will have to be written down. In regard to the expansion of irrigation schemes in the future, the Director of Irrigation dealt with the subject in a fairly comprehensive manner in the appendix to his annual report for the financial year 1928-29. Since 1916 great progress has been made with irrigation based upon conservation schemes, and the following table embodies some of the more important of these. Some further particulars of certain of these works will be found in the succeeding paragraphs.

STORAGE WORKS CONSTRUCTED, UNDER CONSTRUCTION, OR AUTHORIZED.

Name of Scheme and District.	Original Storage Capacity, million cubic feet (liable to reduction by silt).	Actual or Estimated Cost of Scheme.
CAPE OF GOOD HOPE.		£
Bellair: Ladismith and Swellendam	425	45,300
Blyde River: Pearston	81	34,235
Bregde River Conservation	1,600	83,713
Buchuberg Dam: Prieska	1,306	663,293
Calitzdorp: Oudtshoorn	205	168,054
Grass Ridge (Great Fish River): Cradock	2,757	171,000
Kamanassie: Calitzdorp and Oudtshoorn	1,355	726,000
Lake Mentz (Sundays River): Uitenhage and Jansenville	4,122	564,200
Leeuw Gamka: Prince Albert	355	83,660
Oliphants River: Van Rhynsdorp	231	766,433
Olifants River: Clanwilliam	2,611	249,798
Oukloof: Prince Albert	83	93,206
Prins River: Ladismith	135	22,110
Stoltz River: Beaufort West	56	31,700
Tarka (Great Fish River) (Lake Arthur); Cradock	2,500	613,801
Van Rhyneveld's Pass: Graaff-Reinet	2,800	410,000
NATAL.		
Pongola: Piet Retief	Diversion Weir	192,044
TRANSVAAL.		
Bon-Accord: Pretoria	415	115,000
Bospoort: Rustenburg	125	34,265
Buffelspoort: Rustenburg	174	78,789
Hartebeestpoort: Pretoria and Rustenburg	5,369	1,300,959
Klein Marico: Zeerust	139	45,716
Klerksdorp: Klerksdorp	188	28,700
Klipdrift: Potchefstroom	443	97,434
*Loskop: Middelburg	6,400	1,500,000
Olifants Nek (Hex River): Rustenburg	574	110,000
Marico Bosveld: Zeerust	2,587	274,590
Rust-der-Winter: Pretoria	980	142,611
Schweizer Reneke: Schweizer Reneke	152	51,931
†Lindleyspoort: Rustenburg	428	200,000

* Under construction. † Authorized.

STORAGE WORKS CONSTRUCTED, UNDER CONSTRUCTION, OR AUTHORIZED—(*continued*).

Name of Scheme and District.	Original Storage Capacity, million cubic feet (liable to reduction by silt).	Actual or Estimated Cost of Scheme.
ORANGE FREE STATE.		£
*Egmont: Wepener	453	65,000
Kaffir River: Bloemfontein	1,350	90,000
*Kalkfontein Dam (Riet River): Fauresmith	12,980	700,000
Kopjes: Vredefort	313	109,637
CAPE OF GOOD HOPE, TRANSVAAL, AND ORANGE FREE STATE.		
*Vaal River Development Scheme, under two separate organizations:—		
(*a*) Vaalbank Dam: Heilbron and Vereeniging	38,000	1,400,000
(*b*) Vaal Hartz Irrigation Scheme: Christiana and Barkly West	Diversion Weir	2,600,000

* Under construction.

(ii) *Hartebeestpoort* (*Crocodile River*).—The dam is situated in a poort in the Magaliesberg Mountains, about 25 miles west of Pretoria on the Rustenburg road. The works were commenced in August, 1916, and consist of a concrete dam of constant-angle arch type, 460 feet long, 161 feet high above the river bed, and 193 feet above lowest foundation level. The area of the reservoir at full supply is 6½ square miles. The capacity of the dam is 123,255 acre feet, and the land irrigable totals 38,098 acres.

(iii) *Lake Mentz* (*Sundays River*).†—The dam is situated 42 miles below Jansenville. The works were commenced in July, 1918, and consist of a concrete gravity section dam, 1,260 feet long, 94 feet high above the river bed, and 114 feet above lowest foundation level. The area of the reservoir at full supply is 7½ square miles. The initial capacity of the dam, which is now reduced by silting, was 94,000 acre feet. The area of the land rated by the Sundays River Irrigation Board is 23,445 acres.

(iv) *Kamanassie* (*Kamanassie River*).—The site of the dam is about 12 miles from Oudtshoorn. The works were commenced in June, 1919, and consist of a concrete gravity section dam, 1,265 feet long, 115 feet high above the river bed, and 145 feet above lowest foundation level. The area of the reservoir at full supply is 1¼ square miles. The capacity of the dam is 31,110 acre feet, though this can be raised. The area of the land rated by the Kamanassie Irrigation Board is 26,814 acres.

(v) *Tarka* (*Tarka River, Tributary of the Great Fish River*).†—The dam, also known as Lake Arthur, is situated on the farm Tekenfontein, 18 miles south of Cradock. The works were commenced during 1921, and consist of a concrete gravity section dam, 1,640 feet long, 107 feet high above the river bed, and 124 feet above assumed lowest foundation level. The area of the reservoir at full supply is 3¼ square miles. The initial capacity of the dam was 58,000 acre feet, but this has been reduced by silting, and work was completed in 1937 on raising the crest level 6 feet by means of balanced gates. These alterations have temporarily augmented the storage capacity by 13,800 acre feet. The area of the land rated by the Great Fish River Board is 25,500 acres.

(vi) *Grass Ridge* (*Great Brak River*).†—The dam is situated on the Great Brak River, 9 miles above Fish River Station. The works were commenced during 1921, and consist of an earthen dam with a concrete core wall. It is 1,530 feet long, 80 feet high above the river bed, and 96 feet above assumed lowest foundation level. The area of the reservoir at full supply is 5 square miles. The initial capacity of the dam was 63,272 acre feet, but it has been reduced by silting. The land served by the Tarka and Grassridge dams is rated by the Great Fish River Conservation Board and is 44,763 acres.

(vii) *Van Rhyneveld's Pass* (*Sundays River*).†—The dam is situated immediately above Graaff-Reinet. The works were commenced in July, 1920, and consist of a concrete dam, 1,160 feet long, 106 feet high above the river bed, and 141 feet above lowest foundation level. The area of the reservoir

† The silting of these four reservoirs is described in Communication No. 5 to the Second Congress on Large Dams held at Washington, U.S.A., in 1936.

at full supply is 4 square miles. The initial capacity of the dam was 64,000 acre feet; this has been reduced by silting. The area of the land rated by the irrigation board totals 20,000 acres.

(viii) *Tygerpoort (Kaffir River).*—The dam is situated about 22 miles south of Bloemfontein. The works were commenced during the first quarter of 1922, and consist of an earthern dam with reinforced concrete core-wall. It is 395 feet long, 65 feet high above the river bed, and 95 feet above lowest foundation level. The area of the reservoir at full supply level is 1 square miles. The capacity of the dam is 30,000 acre feet. The area of the land rated by the irrigation board totals 2,700 acres.

(ix) *Olifants Nek (Hex River).*—The dam is situated in a poort in the Magaliesberg Mountains, about 9 miles south of Rustenburg, Transvaal. The works were commenced in October, 1926, and consist of a concrete dam of the constant-radius arch type, 440 feet long and 80 feet high above the river bed. The area of the reservoir at full supply is about one square mile. The capacity of the dam is 13,119 acre feet; this can be increased. The irrigable area is 4,290 acres.

(x) *Brandvlei Conservation Dam (Breede River).*—This dam, also known as "Lake Marais," is situated about 6 miles south of Worcester; and consists of an earthern embankment 3,252 feet long, with a maximum height of 28·5 feet. It has no core-wall, but is provided with a puddled-clay apron, of a maximum width of 110 feet, on the upstream side. The area of water surface is 6 square miles and the capacity is 38,062 acre feet. The irrigable area rated by the Breede River Conservation Board is 19,033 acres. The works were commenced in March, 1920, and completed in July, 1922. The dam is filled by a supply channel, 2 miles long, from the Holsloot River; and additional replenishment is occasionally obtained, by means of regulating gates, from high floods in the Breede River, which flows along the downstream side of the embankment. The supply being thus controlled, no spillway is provided. The storage capacity of this dam is being increased. The Worcester-Villiersdorp main road passes over the crest of the dam.

(xi) *Vaal-Hartz Irrigation Scheme.*—During the parliamentary session of 1934, an Act known as the *Vaal River Development Scheme Act*, No. 23 of 1934, was passed by the Legislature. The major purpose of this Act is to provide for the construction by the Government of irrigation works on the Vaal River. A schedule appended to the Act describes the works to be constructed under its authority in the following terms:—

(*a*) An upper storage dam on the Vaal River situated approximately fourteen miles below the confluence of the Vaal and Wilge Rivers. The wall of this dam will be constructed of concrete, and will be situated on or near the farms Witpoort on the south bank and Vaal-bank on the north bank of the Vaal River. The dam will have an initial impounding capacity of not less than 700,000 acre feet, and will, when full, submerge an area of land not less than 50 square miles in extent. This will be the largest dam in the Union. It has been built so as to allow for enlargement at small cost.

(*b*) A diversion weir on the Vaal River, situated approximately three miles above the railway bridge at Warrenton. The weir will be situated on or near the farms Schoolplaats on the south bank and H. 20 on the north bank of the Vaal River. The weir will have a height of about 30 feet. It will serve to control and divert water into the canals described below.

(*c*) A main canal, with branch canals, will convey water diverted by the weir described in paragraph (*b*) to such land as is to be irrigated.

(*d*) Weirs and diversion canals at suitable places in or near the Vaal River for the purpose of generating power.

(*e*) All other appurtenances necessary for the proper development of the scheme, for the control and disposal of surface drainage, for the measurement and control of water released from the works or from any portion thereof, and generally for carrying out the scheme.

The scheme, when completed, is estimated to cost somewhere in the vicinity of £4,000,000; and the upper storage dam on the Vaal River when filled will throw back the impounded water a distance of over 70 miles and form a lake with a surface area of 60 square miles.

The Rand Water Board has acquired certain rights to a portion of the stored water on payment of £520,000.

(xii) *Loskop Irrigation Scheme.*—This scheme, consisting of a large storage dam and canal system, is situated in the Middelburg and Pretoria districts on the Olifants River. The dam is about 36 miles north of the town of Middelburg and is of the concrete gravity overspill type, the leading particulars being: Crest length, 1,420 feet; 120 feet high above river-bed level. The quantity of concrete will be about 222,000 cubic yards, and the quantity of water stored will be 150,000 acre feet. Canals will be taken along both banks of the river, and the irrigable area to be served is approximately 38,000 acres. Construction work on the dam started in July, 1934.

(xiii) *Riet River Scheme.*—This scheme, comprising the Kalkfontein Dam and a main canal 80 miles long, is situated on the Riet River in the Fauresmith district, Orange Free State. The construction of the dam, which is of the rockfill type, was started in July, 1935. The main particulars are: Crest length, 1,040 feet; height above river bed, 113 feet; quantity of rockfill, 270,000 cubic yards; quantity of concrete in slab and toe wall, 11,000 cubic yards. Two hundred and ninety-eight thousand acre feet of water will be stored in this reservoir, which as regards capacity will be the second largest in the Union. The irrigable area to be served is approximately 23,000 acres.

6. **Underground Water.***—Water is a mineral; and the investigation of a country's underground water resources is an integral part of the duties of a State geological survey, a duty that is as important as the investigation of any other mineral occurrences. *Pari passu* with the correlation of the known supplies with the geological structure and the rock formations of an area is the location of sites at which further supplies may be obtained by boring or by well-sinking.

For some years the Geological Survey of the Union endeavoured to perform this part of its duties as a sort of "side line"; but it became more and more evident that the calls made upon it for advice on water problems could only be met by the appointment of a special and adequate staff, and during the last two years or so this staff has been gradually built up and formed into a special section.

The most insistent demand made upon this section is one for advice on the location of borehole sites. The selection of proper sites is dependent on a knowledge of the nature of the rocks which will be encountered by drilling, of their water-bearing capabilities, and of the detailed structure of the area in which they are situated. It is also dependent on a knowledge of the results obtained in previous borings. Consequently, systematic surveys of fairly extended areas are almost essential preliminaries to the actual location of boring sites within those areas; and such surveys are now in active progress, particularly in those parts of the Union that are less favoured in the matter of surface water.

Although such investigations are essentially geological, it has been found that, under certain circumstances (and particularly those where the rocky face of the land is masked by a covering of sand or eluvial material), observations made by certain geophysical means prove to be of considerable assistance in enabling one to "see" beneath such a mask. Measurements of magnetic anomalies and of the variations in electric resistivity within an area are capable of geological interpretation; and measurements of these types are now a general adjunct to the field geologist engaged in water investigations. Experience has shown that the percentage of successful sites has, in some areas, risen to almost one hundred when the geologist has taken into consideration the geophysical phenomena before selecting his sites.

* See also Geological Survey Memoir No. 34: "The Water-bearing properties of the more important Geological Formations in the Union of South Africa" by H. F. Frommurze, D.Sc.

The Geological Survey undertakes selection of boring sites for government departments, municipalities, and farmers, preference being given in that order. In every case an endeavour is made to preface the selection of sites by a regional survey; when the exigencies of the case do not permit of such a survey, the chances of success are obviously diminished. In view of the costs involved in drilling, it is highly desirable that every precaution should be taken in the choice of sites.

7. **Water-boring.**—The Irrigation Department undertakes water-boring operations, and the following table gives particulars of these operations since the year 1933-34.

IRRIGATION DEPARTMENT—WATER-BORING, 1933-34 TO 1937-38.

Financial Year.	Number of Drills in Commission.	Number of Applications Received.	Number of Boreholes Completed.	Total Footage Drilled.	Estimated Yield of Water in 1,000 gallons per diem.
1933-34	83	973	1,102	188,133	17,250
1934-35	95	976	1,072	199,875	15,911
1935-36	101	984	1,204	228,552	18,884
1936-37	102	1,194	1,158	214,360	16,675
1937-38	102	1,908	1,234	234,824	19,758

§ 2. Conservation of Water.

1. **Waterworks and Water Storage in Municipal Areas.**—The following table gives particulars of the cost of installation, storage capacity, and consumption of the municipal waterworks of the principal municipalities for the year 1937-38. Information concerning the development of the waterworks, the sources of supply, etc., of the larger municipalities was given in *Year Book* No. 18 and previous issues.

URBAN WATERWORKS, 1937-38.

Town.	Cost of Installation.	Maximum Storage Capacity (in Thousands of Gallons).	Maximum Working Capacity per diem (in Thousands of Gallons).	Consumption for Domestic Purposes.	
				Annual (in Thousands of Gallons).	Average Daily (in Thousands of Gallons).
Capetown	5,125,629	6,634,000	20,000	3,813,508	10,448
East London	403,101	369,000	1,500	491,596	1,347
Grahamstown	225,895	425,000	980	125,618	344
Kimberley	397,773	1,338,000	2,000	243,499	667
Kingwilliamstown	168,983	92,000	900	146,000	400
Port Elizabeth	1,439,095	862,000	5,000	1,250,597	3,426
Queenstown	163,256	1,555,000	‡	273,750	750
Durban	2,519,688	2,876,000	13,000	2,508,551	6,873
Pietermaritzburg	513,468	103,000	5,000	1,230,859	3,372
Benoni	63,477	*	*	98,650	270
Boksburg	32,259	*	*	103,235	283
Brakpan	45,036	*	*	111,029	304
Germiston	88,406	*	*	138,925	380
Johannesburg	1,283,524	*	*	4,979,526†	13,643
Krugersdorp	82,827	675	550	96,315	264
Pretoria	1,354,771	2,875,000	10,750	2,965,885	8,126
Roodepoort–Maraisburg	28,281	*	*	112,571	308
Rand Water Board*	7,911,368	33,283,785	48,100	13,841,457	37,922
Springs	77,844	*	*	215,498	590
Bloemfontein	724,799	1,087,000	3,333	145,857	400

* Rand Water Board supplies Benoni, Boksburg, Brakpan, Germiston, Johannesburg, Krugersdorp, Roodepoort–Maraisburg, Springs, and Witwatersrand Mines (see paragraph 2 below).
† Consumption for all purposes except mines. ‡ Particulars not available.

2. **Rand Water Board.**—(i) *Constitution and Organization.*—The Rand Water Board was constituted, under Ordinance No. 32 of 1903 (Transvaal), to supply water in bulk to the municipalities, and in bulk and in retail to the gold-producing mines, situated within the Board's "limits of supply", which include the magisterial districts of Johannesburg, Boksburg, Germiston, Krugersdorp, Roodepoort, Benoni, Springs, and Brakpan, and portion of the Heidelberg district. The Board was subsequently empowered by Act No. 22 of 1909 to supply water in bulk and in retail to the South African Railway Administration within the "limits of supply".

Further statutory powers were conferred upon the Board by Ordinances Nos. 48 of 1904, 30 of 1905, 21 of 1906, and Act No. 22 of 1909 (Transvaal); also by Union Acts Nos. 18 of 1914, 10 of 1920, 10 of 1921, 18 of 1923, 5 of 1931, 8 of 1932, 21 of 1933, 38 of 1934, 9 of 1935, 4 of 1937, and 12 of 1938.

The Board consists of 30 members, including the chairman, who is appointed by the Government. Fourteen members represent the Transvaal Chamber of Mines, five the Johannesburg Municipality, the remaining ten being the the representatives, respectively, of the Railway Administration, the municipalities of Benoni, Brakpan, Boksburg, Germiston, Krugersdorp, Randfontein, Roodepoort-Maraisburg, Springs, and Nigel.

(ii) *Water Supply.*—Under the Ordinance of 1904 the whole of the undertakings of the Johannesburg Waterworks Company and the Vierfontein Syndicate and the waterworks of the Braamfontein Company were transferred to and vested in the Board on the 31st March, 1905. On that date the Board undertook the supply of water to the mines and municipalities situated within "the limits of supply".

The water supply available to the Board at the date of the acquisition of the above-mentioned undertakings was about 2½ million gallons a day, a quantity which was barely sufficient to supply the then domestic and health requirements of Johannesburg and a few of the mines on the Central Rand. The Board was obliged, therefore, to undertake the development of additional sources of supply and the extension of its distribution system, which now serves the area extending from Venterspost and Randfontein on the west to Springs and the Nigel district on the east of Johannesburg.

The sources of supply comprise wells and boreholes in the Klip River Valley capable of yielding 10 million gallons a day, and impounding reservoirs on the Vaal River.

In the case of the Vaal River Scheme, the right has been conferred on the Board, under Acts Nos. 18 of 1914, 38 of 1934, and 4 of 1937, to take a supply of up to 150 million gallons a day from that source. Of this quantity the Board has so far disposed of the rights in respect of supplies totalling 22 million gallons a day for power and industrial purposes at and in the vicinity of Vereeniging. In June, 1935, and December, 1936, the Board authorized the carrying out of extension schemes designed to increase the supply to be drawn from the Vaal River for the use of the Board's consumers on the Rand from 20 to 48 million gallons a day. A further scheme to increase the supply from 48 million gallons per day to 68 million gallons per day was adopted by the Board in January, 1938. The extension schemes above mentioned were undertaken by the Board in view of the increasing demand for water, owing to the municipal, mining, and industrial expansion taking place on the Rand.

(iii) *Statistics.*—Summarized particulars of the Board's water supply undertaking were given in *Official Year Book* No. 6. The following tables contain statistics of water supplied by the Rand Water Board and of its financial position:—

(*a*) WATER SUPPLIED TO CONSUMERS DURING THE YEAR ENDED 31st MARCH, 1938.

(IN MILLION GALLONS.)

Consumer.	Total Consumption.	Average Daily Supply.
Municipalities	6,232	17,073
Gold Mining Industry	6,253	17,132
South African Railways	907	2,485
Other Consumers	449	1,232
TOTAL	13,841	37,922

(b) FINANCIAL POSITION.

(a) LOAN ACCOUNT AS AT 31ST MARCH, 1938.

	£
Total	8,221,950
Redeemed	4,353,635
Balance Outstanding	£3,868,315

(b) REVENUE, ETC.

For the year ending 31st March, 1938, the revenue of the Board amounted to £649,428 and the expenditure to £649,428. At the date mentioned the Reserve Fund stood at £121,927, the Betterment Fund at £65,315, and the Stock Redemption Fund at £758,629.

CHAPTER XIX.

AGRICULTURAL AND PASTORAL PRODUCTION.

§ 1. General.

1. **Statistics of Production.**—(*a*) *Introduction.*—A brief history of the development of agriculture in South Africa will be found in the sixth and earlier issues of this *Year Book*. More detailed statistics about this industry will be found in the annual Report on the Agricultural and Pastoral Production of the Union of South Africa. Seventeen of these annual reports have already been published, the last containing data for the year 1936-37.* For the three years 1930-31 to 1932-33 the Government, as a measure of economy, suspended the annual enumeration of agricultural production, consequently no annual reports for these years are available.

The work of enumeration is performed by the police organization, and information is furnished under the *Statistics Act*, which provides penalties for non-compliance, for failing to answer questions put by authorized officers, for refusing to permit authorized officers to enter upon any land, etc., for hindering or obstructing authorized officers, for giving wrong information, and, on the part of officers employed in collecting and handling the information, for divulging any facts relating to the affairs of an individual farmer.

(*b*) *Period covered by the Census.*—The first agricultural census was taken for the period July, 1917, to June, 1918. The second covered the ten months from July, 1918, to April, 1919. The next three dealt with the twelve months ending on 30th April of each year. The sixth census covered the period of sixteen months from May, 1922, to August, 1923, and later censuses were taken for the year ending the 31st August. Coincident with the World Agricultural Census of 1930, a complete census of agricultural production in the Union was also taken. Another complete census of agricultural and pastoral production was taken in 1937.

(*c*) *Scope of Returns.*—From 1917-18 to 1921-22 particulars were collected for European-occupied farms only, and for the years 1917-18 and 1920-21 for native locations, reserves, mission stations, etc., as well.

From 1922-23 onwards the information collected has been subdivided into the following groups:—

(*a*) Europeans on European-occupied farms.
(*b*) Natives on farms occupied by Europeans.
(*c*) Natives in reserves and locations, on mission stations, on Crown lands solely occupied by natives, and on private farms owned or rented by natives.

It should be specially noted that the term "European" as used above, and elsewhere in this section, includes Asiatics and other coloured persons (but not natives) unless otherwise stated.

The area covered by the various censuses include:—

(*a*) All occupied farms and agricultural holdings in rural areas, irrespective of size.
(*b*) All occupied urban farms and urban agricultural holdings of one morgen (1 morgen=2·1165 acres) or more in extent, the products of which are intended for sale.
(*c*) Rural native reserves and locations, Crown lands solely occupied by natives, and private farms owned or rented by natives.

In regard to the live stock, crops, etc., of natives, attention is directed to the following points:—

(*a*) In the case of agricultural crops the production only has been obtained. Consequently, in any tables reflecting the area sown or reaped, the information given refers only to Europeans, Asiatics, and other coloured persons (excluding natives).

* The Eighteenth Report, covering data in respect of the year 1937-38 is in course of preparation.

(*b*) Particulars, other than those shewn in tables (ii) and (v) below, have not been collected, as experience over a number of years has shewn that the cost involved in an annual collection of data on a more extended scale is out of proportion to the value of the results obtained, more especially as the items omitted are of minor importance when compared with the figures for Europeans.

(*c*) For natives residing on farms occupied by Europeans, i.e. native squatters, the information was furnished by the agriculturists on whose farms such squatters resided.

(*d*) For natives in native reserves and locations, on Crown lands solely occupied by them, and on private farms owned or rented by them, the figures have been arrived at mainly by means of carefully prepared estimates.

Information as to the total number of live stock in all urban areas, as well as that enumerated at the Agricultural Census, was obtained for Europeans at each quinquennial population census and in regard to non-Europeans at the Population Censuses of 1911, 1921, and 1936. The urban figures, however, excluding those included in the agricultural censuses, are relatively unimportant, and the following tables showing the results of the agricultural censuses only give a sufficiently accurate picture of the state of the agricultural industry of South Africa. The term "occupied farm", whenever it appears, includes urban agricultural holdings of one morgen or more in extent, the products of which are intended for sale.

(i) NUMBER OF PRINCIPAL CLASSES OF LIVE STOCK OWNED BY EUROPEANS ON OCCUPIED FARMS AT 31st AUGUST—1923 TO 1938.

Year.	Cattle.	Woolled Sheep.	Non-Woolled Sheep.	Angora Goats.	Other Goats.	Pigs.	Horses.	Mules.	Donkeys.	Ostriches.
1923..	5,365,736	22,734,277	4,727,370	2,022,176	2,300,395	434,351	520,769	115,214	476,841	241,102
1926..	5,545,637	31,684,436	2,885,263	1,624,573	2,356,636	468,274	480,160	121,002	490,921	103,668
1930..	5,172,310	39,419,842	3,730,626	1,574,334	2,076,480	494,790	418,321	125,354	398,407	31,618
1934..	5,209,797	27,362,113	4,126,546	836,438	1,896,906	408,489	*	*	*	*
1935..	5,495,941	27,357,750	4,981,915	642,665	2,057,840	523,462	*	*	*	*
1936..	5,911,780	30,017,357	5,779,830	597,748	2,111,031	619,181	*	*	*	*
1937..	6,196,760	32,495,799	4,569,149	609,677	2,056,841	538,249	404,539	122,658	497,534	40,265
1938..	6,305,387	29,621,095	5,533,630	549,686	2,044,832	449,415	*	*	*	*

* Not enumerated.

(ii) NUMBER OF PRINCIPAL CLASSES OF LIVE STOCK OWNED BY NATIVES AT 31st AUGUST (*a*) ON EUROPEAN OCCUPIED FARMS AND (*b*) IN RURAL RESERVES AND LOCATIONS, ON CROWN LANDS SOLELY OCCUPIED BY NATIVES, AND ON FARMS OWNED OR RENTED BY NATIVES—1923 TO 1938.

Year.	(*a*) Natives on European Occupied Farms.					(*b*) Natives in Rural Reserves and Locations, etc.				
	Cattle.	Woolled Sheep.	Non-woolled Sheep.	Angora Goats.	Other Goats.	Cattle.	Woolled Sheep.	Non-woolled Sheep.	Angora Goats.	Other Goats.
1923..	1,246,132	338,271	273,456	124,865	1,032,182	2,703,314	2,603,797	546,575	124,126	2,550,410
1926..	1,475,390	323,060	257,397	87,813	1,091,935	3,316,147	3,261,132	446,889	112,803	2,673,526
1930..	1,495,782	328,324	204,621	86,966	997,724	3,005,777	4,163,995	510,941	139,471	3,079,428
1934..	1,311,100	165,878	143,591	47,084	835,963	3,465,783	2,728,906	478,479	60,616	2,494,002
1935..	1,298,730	135,318	146,571	40,773	769,120	3,603,206	2,713,924	499,206	58,314	2,428,488
1936..	1,341,100	145,056	162,294	36,719	855,654	3,851,253	3,153,617	440,733	50,256	2,578,585
1937..	1,361,329	139,449	167,193	32,107	826,887	3,629,944	3,199,675	462,290	54,411	2,530,494
1938..	1,379,507	134,072	177,975	32,559	842,863	3,686,839	3,040,413	494,296	49,351	2,605,901

(iii) PRODUCTION OF PRINCIPAL CROPS BY EUROPEANS ON OCCUPIED FARMS, 1st SEPTEMBER TO 31st AUGUST—1922-23 TO 1937-38.

Year.	Wheat.	Barley (Grain only).	Oats (Grain only).	Kaffircorn.	Mealies.	Potatoes.	Raw Cotton.	Tobacco.	Tea (Green Leaf). *	Sugarcane. †
	1,000 lb.	1,000 lb.	1,000 lb.	1,000 lb.	1,000 lb.	1,000 lb.	lb.	1,000 lb.	1,000 lb.	Ton (2,000 lb.)
922-23...	361,476	58,235	183,286	81,254	2,835,328	209,274	7,346,710	8,440	2,862	1,676,036
925-26...	537,911	53,332	173,164	26,266	1,537,501	198,100	24,936,775	15,275	4,146	2,341,293
929-30...	637,592	105,637	301,439	78,180	3,452,138	346,311	16,306,876	12,269	2,722	2,797,888
933-34...	689,498	52,857	179,355	134,258	3,709,443	288,258	‡	13,998	3,051	3,270,603
934-35...	982,475	55,613	211,164	96,461	2,999,079	338,566	‡	16,264	3,450	3,594,298
935-36...	1,380,153	87,918	271,955	62,949	2,480,717	347,878	‡	17,099	3,325	3,535,484
936-37...	935,291	59,476	229,989	110,442	4,582,150	354,561	3,608,157	17,910	3,169	3,807,911
937-38...	625,996	56,899	189,946	50,322	2,972,668	382,932	‡	20,361	3,095	4,080,963

* The figures refer to the season September to June.
† Excluding coloured and Asiatic production amounting to approximately 6 per cent. of the total production of the Union. The figures refer to the year May to April.
‡ Not enumerated.

(iv) PRODUCTION OF PRINCIPAL PASTORAL PRODUCTS BY EUROPEANS ON OCCUPIED FARMS, 1st SEPTEMBER TO 31st AUGUST—1922-23 TO 1937-38.

Year.	Wool.	Mohair.	Farm Butter.	Farm Cheese.	Bacon and Ham.
	1,000 lb.	1,000 lb.	1,000 lb.	lb.	lb.
1922-23	126,123	8,828	10,551	547,591	2,143,800
1925-26	154,272	7,444	10,938	284,412	1,878,926
1929-30	232,637	6,470	11,266	446,284	1,217,959
1933-34	202,092	4,181	11,959	399,148	*
1934-35	177,347	3,911	14,276	492,725	*
1935-36	196,701	3,258	14,430	354,9-5	*
1936-37	207,533	2,967	12,995	404,682	1,220,853
1937-38	197,346	2,993	13,260	277,616	*

* Not enumerated.

(v) PRODUCTION OF PRINCIPAL CROPS AND PRINCIPAL PASTORAL PRODUCTS BY NATIVES, 1st SEPTEMBER TO 31st AUGUST (*a*) ON EUROPEAN OCCUPIED FARMS AND (*b*) IN RURAL RESERVES AND LOCATIONS, ON CROWN LANDS SOLELY OCCUPIED BY NATIVES, AND ON FARMS OWNED OR RENTED BY NATIVES—1922-23 TO 1937-38.

Year.	(*a*) Natives on European-occupied Farms.				(*b*) Natives in Rural Reserves and Locations, etc.			
	Mealies.	Kaffircorn.	Wool.	Mohair.	Mealies.	Kaffircorn.	Wool.	Mohair.
	1,000 lb.	1,000 lb.	1,000 lb.	1,000 lb.	1,000 lb.	1,000 lb.	1,000 lb.	1,000 lb.
1922-23	318,128	117,400	1,498	315	799,302	217,331	9,596	311
1925-26	160,866	37,573	1,345	206	485,617	86,709	12,305	230
1929-30	306,735	86,560	1,373	173	718,251	169,142	15,432	376
1933-34	370,577	105,311	768	109	737,778	237,253	10,202	146
1934-35	280,374	58,683	591	101	432,759	120,982	8,987	173
1935-36	268,815	46,977	614	104	247,217	97,040	10,102	122
1936-37	459,895	81,253	595	87	593,643	119,757	10,972	171
1937-38	355,268	53,299	588	93	514,674	125,535	9,970	148

(vi) NUMBER OF PRINCIPAL CLASSES OF LIVE STOCK AT 31st AUGUST AND PRODUCTION OF PRINCIPAL CROPS AND PRINCIPAL PASTORAL PRODUCTS, 1st SEPTEMBER TO 31st AUGUST—ALL RACES ON OCCUPIED FARMS, NATIVE RESERVES, LOCATIONS, ETC.—1922-23 TO 1937-38.

Year.	Cattle.	Woolled Sheep.	Non-woolled Sheep.	Angora Goats.	Other Goats.	Mealies.	Kaffir-corn.	Wool.	Mohair.
	No.	No.	No.	No.	No.	1,000 lb.	1,000 lb.	1,000 lb.	1,000 lb.
1922-23	9,315,182	25,676,345	5,547,401	2,271,167	5,972,937	3,952,758	415,985	137,217	9,454
1925-26	10,337,174	35,269,223	3,589,549	1,825,189	6,122,097	2,183,984	150,548	167,922	7,[illegible]
1929-30	10,573,869	43,912,161	4,446,168	1,500,771	6,153,632	4,477,124	353,882	249,442	7,019
1933-34	9,936,630	30,256,897	4,753,916	914,138	5,226,871	4,823,798	470,822	213,062	4,156
1934-35	10,397,877	30,206,992	5,627,752	741,752	5,255,448	3,712,212	276,126	186,925	4,187
1935-36	10,904,133	33,316,030	6,388,857	684,723	5,516,170	2,990,749	206,966	207,447	3,484
1936-37	11,188,033	35,834,923	5,198,641	696,195	5,414,222	5,635,688	311,452	219,100	3,[illegible]
1937-38	11,371,733	32,795,580	6,205,901	631,596	5,493,596	3,842,550	229,156	207,904	3,[illegible]

2. **Department of Agriculture and Forestry.**—(*a*) *Organization.*—At the head of the Department is the Minister, who is responsible to Parliament for the policy and acts of the Department, and the next in authority is the Secretary, who is the permanent head of the Department and the accounting officer and is responsible to the Minister for the work of the Department. The Secretary is assisted by two Under-Secretaries.

The activities of the Department are maintained by a number of divisions and offices, presided over by scientific and technical officers. The Secretary, the Under-Secretaries, and the chiefs of the various divisions and offices are stationed at Pretoria, with the exception of the Viticulturist and the Superintendent of the Guano Islands, who are stationed at Elsenburg and Capetown respectively.

The divisions are as follows:—

(1) Veterinary Services.
(2) Plant Industry.
(3) Chemical Services.
(4) Economics and Markets (including Co-operation Sub-Division).
(5) Agricultural Education and Extension (including the Losperfontein Training Farm).
(6) Forestry.
(7) Dairying.

Information concerning the functions and activities of the various divisions was published in *Official Year Book* No. 17 and previous issues. This information has had to be omitted from this issue owing to considerations of space. For further information on this subject reference should also be made to the publication *Farming in South Africa*, in which the Annual Report of the Department of Agriculture and Forestry is published.

The Stellenbosch-Elsenburg College of Agriculture of the University of Stellenbosch is under the control of the Minister of Agriculture and Forestry.

(*b*) *Revenue and Expenditure.*—The following is a statement of the revenue and expenditure of the Department (Agriculture only) for the financial years April to March, 1936-37 and 1937-38:—

DEPARTMENT OF AGRICULTURE—REVENUE AND EXPENDITURE, 1936-37 AND 1937-38.

Classification.	1936-37.		1937-38.	
	Revenue.	Expenditure.	Revenue.	Expenditure.
(i) Agriculture—	£	£	£	£
Administrative and General	275	52,742	256	52,007
Locust Destruction, including Compensation for Stock Losses caused by Locust Poison	2,507	214,317	—	102,597
Veterinary Services and Animal Industry	55,807	438,810	54,107	477,893
Dairying	9,878	28,590	8,560	28,598
Guano Islands	40,902	37,637	36,173	44,261
Botany	384	68,305	609	75,397
Eradication of Citrus Canker, Jointed Cactus, Noxious Weeds, and Giftblaar	—	41,835	—	51,616
Entomology	1,325	20,778	1,427	24,206
Horticulture	1,148	17,782	990	14,277
Fruit Inspection	17,586	17,148	23,866	20,132
Field Husbandry	3,243	22,776	4,840	26,091
Chemical Services	746	33,483	1,197	47,459*
Soil Survey	—	7,626	—	—
Education and Extension	3,319	80,472	4,113	90,905
Subsidies to Farmers for Purchase of Bulls	—	74,802	—	102,744
Economics and Markets	—	33,920	—	35,943
Wool Inspection	1,471	—	1,574	—
Soil Erosion and Pasture Improvement	—	84,750	—	104,406
Telegraph and Telephone Services	—	12,893	—	15,181
Grants-in-Aid	—	11,752	—	13,303
Administration Expenses of Drought Relief Act, Tenant Farmers' and other Advances	—	—	—	—
Minor Works at Experiment Stations	—	118	—	955
Losperfontein Training Farm, Hartebeestpoort	17,312	20,813	1,352	16,046
Aged and Invalid Settlement, Hartebeestpoort	—	2,201	—	2,563
State-aided Scheme for Issue of Milk, Butter, and Cheese	4,823	130,323	4,314	202,606
Subsidy to Dairy Industry Control Board in respect of Dairy Products from South West Africa	—	—	—	30,000
Protection of Catchment Areas	—	2,345	—	4,427
Payment to South African Railways and Harbours in respect of Outstanding Promissory Notes	—	1,257	—	460
Miscellaneous	1,161	—	1,031	— •
Rebate on Railway Rates on Fruit, Wool, Mohair, and Wattle Bark	—	97,820	—	108,988
Rebate of Export Charges on Fruit	—	91,428	—	104,585
Assistance to Farmers for construction of Silos, Sheds, etc.	—	250	—	3,664
Inland Marketing Improvement	—	6,559	—	18,108
Expenses of Marketing Council and Committees	—	—	—	3,248
TOTAL (i)....£	161,887	1,662,532	144,409	1,822,666
(ii) Agricultural Education— TOTAL (ii)....£	32,803	170,602	33,385	189,168
GRAND TOTAL (i) AND (ii)....£	194,690	1,833,134	177,794	2,011,834

* Including Soil Survey.

(*c*) *Publications.*—The following is a list of publications issued by the Department of Agriculture and Forestry:—

(1) *Farming in South Africa*, issued monthly in English and Afrikaans separately. Obtainable from the Government Printer, Pretoria, at 5s. within the South African Postal Union, otherwise 7s. 6d. per annum, prepaid.
(2) Popular bulletins on all manner of agricultural subjects. A list of available bulletins is obtainable gratis from the Editor, Department of Agriculture and Forestry, Pretoria.
(3) Science bulletins, the *Onderstepoort Journal* (quarterly), *Bothalia* (a publication describing the systematic side of botany and work done in the National Herbarium), Botanical and Entomological Memoirs.

and annual reports on Low Temperature Research obtainable from the divisions concerned, viz. Veterinary Services, Plant Industry, Chemical Services, and also from the Stellenbosch-Elsenburg College of Agriculture of the University of Stellenbosch.

(4) Weekly press service, issued only to the newspapers of the Union for further distribution.

(5) Urgent press matter either to news agencies for telegraphic dispatch to newspapers, or directly to newspapers for immediate publication.

(6) *Handbook for Farmers in South Africa*, a revised and enlarged edition (1937) of the book first published in 1929. Obtainable from the Government Printer, Pretoria, at 5s. per copy in the Union, otherwise 7s. 6d., prepaid.

(7) *Radio Service.*—With a view to preserving closer contact with the farming community, the departmental radio service has been further extended in that the weekly agricultural talks have been converted into a daily service, broadcast from the Johannesburg B transmitter at 8 p.m. Market reports supplied by the Division of Economics and Markets are broadcast daily in the morning, afternoon, and evening.

3. **Prevention of Soil Erosion.**—The Government has determined upon measures on national lines to combat soil erosion, which in the Union has become a national evil, and has decided to place at the disposal of landowners special facilities for the construction or undertaking of works for its prevention.

Three methods of dealing with the problem are proposed:—(i) By payment of a bonus to private landowners who undertake anti-erosion works at their own expense, (ii) by payment of a subsidy to private landowners who construct anti-erosion works with the assistance of a loan, and (iii) by the employment of unemployed Europeans on anti-erosion works. Combined with (iii), a loan not exceeding £50 for a period of 5 years without interest may be granted for the purpose of enabling the landowner to purchase the required implements and material and to provide the necessary housing accommodation, if required.

In the case of (i) a bonus of 33⅓ per cent. of the finally assessed valuation of the works is paid, with a maximum of £166. 13s. 4d., and in the case of (ii) a subsidy of 25 per cent. of the finally assessed valuation of the works, with a maximum of £87. 10s. 0d. In (iii) seven-eighths of the wages is paid by the State, the remaining one-eighth being charged to the landowner, but payment is spread over a period of 50 years and bears no interest. No instalment is collected within the first 5 years.

The following amounts were expended from the inception of the schemes up to the 31st December, 1938:—

	£
1. Bonuses paid under (i) above up to 31st March, 1938	124,946
Bonuses paid under (i) above from 1st April, 1938, to 31st December, 1938	53,279
2. Loans paid out under (ii) above up to 31st March, 1938	109,040
Loans paid out under (ii) above from 1st April, 1938, to 31st December, 1938	12,525
Subsidy paid on loans for completed works up to 31st March, 1938	27,260
Subsidy paid on loans for completed works from 1st April, 1938, to 31st December, 1938	3,523
3. Loans paid out for purchase of implements under (iii) above up to 31st March, 1938	15,433
Loans paid out for purchase of implements under (iii) above from 1st April, 1938, to 31st December, 1938	1,112

Up to the 31st December, 1938, the Department had approved of 24,783 small dams under the above schemes, of which 10,362 were completed and passed by the Department at that date.

4. **Eradication of Weeds.**—Although the responsibility for the control of noxious weeds was transferred from the Provincial Administrations to the Government in 1935, it was not until 1937 that enabling legislation in the form of Act No. 42 of 1937 was passed by Parliament. Since then steps have been taken by the Department of Agriculture to call into being the necessary

organization for the enforcement of the Act and to acquaint the public, the farming community in particular, with their responsibilities and duties under the Act.

In terms of Proclamation No. 161 of 1938 the following plants have been proclaimed as weeds and their eradication is compulsory throughout the Union, viz.:—

Botanical Name.	*Common Name.*
1. All plants of species of *Xanthium*	Burweed, Cocklebur, etc.
2. *Solanum auriculatum* Ait	Bugtree.
3. *Cuscuta campestris* Yuncker	Lucerne Dodder.
4. *Hakea sericea* Schrad	Silky Hakea or Needlebush.
Hakea gibbosa S.M. (Cav.)	Hairy Needle Bush.
Hakea suaveolens R. Br	Sweet Hakea.
5. *Cannabis sativa* L	Dagga.
6. *Circium lanceolatum* Hill	Spear or Bull Thistle.
7. *Opuntia imbricata* (Haw.) D.C	Imbricate Cactus.

In addition to the plants enumerated above all species of the Opuntia (prickly pear), excluding the species known as Burbank's Spineless Cactus, have been proclaimed as weeds throughout the Union, with the exception of some 26 districts in the Eastern Cape Province, where infestations have assumed such immense proportions that eradication by ordinary mechanical or chemical means has become impossible. In these districts eradication is being effected under the supervision of the Department by biological means, i.e. by using *Cactoblastis* and associated insects. Eradication in these districts is therefore not compulsory, as it is in the case of the remainder of the Union.

In the European areas the Department of Agriculture administers the *Weeds Act*. In the native areas, however, the control of weeds continues to be a function of the Native Affairs Department.

(i) *Biological control of Prickly Pear.*—The breeding and liberation of *Cactoblastis cactorum* for the control of prickly pear commenced in 1933 at Graaff-Reinet. Since then two additional stations have been established, one at Uitenhage and one at Fort Beaufort. Although the experiments are still in their early stages the results have been sufficient to justify bringing all three stations into full production, and arrangements are under way to double the production facilities at these centres. At the few centres where the colonies have been in action for three years or more the insect population is making its presence visibly felt in the destruction of the prickly pear. Thus far some 470 colonies varying from 100,000 to 250,000 eggs each have been distributed over 17 magisterial districts affected, and in the older colonies the collapse of the prickly pear appears to be imminent.

In addition another insect, *Dactylopius coccus* (the Cochineal of commerce), has shown very useful tendencies in the reduction of prickly pear vigour in fruiting and this insect is being actually distributed as an auxiliary to *Cactoblastis*.

(ii) *Jointed Cactus.*—Although this plant is also a noxious weed, it was dealt with under a separate Act, namely Act No. 52 of 1934, and the Government undertook to clear the infested land in the first place, after which the owners would be compelled under the Act to keep their farms free from the pest.

In accordance with this policy, large numbers of Europeans were employed to carry out eradication by mechanical methods. The work was commenced towards the end of 1934 and was continued until 31st July, 1938. During the period 1934 to 31st March, 1938, a sum of approximately £172,000 was spent in carrying out the campaign against the pest. This sum does not, however, include the salaries and subsistence and transport allowances of the permanent staff; similarly the amounts paid by the Government to Divisional Councils in connexion with the loans which they had previously made for jointed cactus control are not included.

Meanwhile, the discovery was made that the cochineal insect (*Dactylopius confusus*) attacks and destroys jointed cactus. In view of the success achieved in the field with this insect and the fact that control by this means is less costly and more effective than the mechanical method of eradication, the latter method was discontinued as from 1st August, 1938. Steps are being taken to distribute the cochineal insect as rapidly as possible over all infested areas.

In certain native areas where the infestation of jointed cactus was particularly severe the cochineal insect has become well established, and the progress made can be regarded as highly satisfactory. The same applies to densely-infested farms in European areas. It appears, however, that on farms where the infestation is slight and scattered, the cochineal insect takes a longer time to establish itself and to yield outstanding results.

(iii) *Gifblaar.*—For some years a scheme for assisting farmers in the control of gifblaar has been in operation, but very little advantage is being taken of it. Under the first part of the scheme poisons (calcium chloride and copper sulphate) are issued gratis and the services of a foreman-instructor supplied free of charge in all cases where the infestation can be treated with poisons in a practical and economical manner. The second part of the scheme provides for the payment of a bonus of 33⅓ per cent. of the cost of the fencing material for the fencing-in of heavily-infested gifblaar patches, subject to a maximum of £20 per farm and £40 per applicant. This applies in cases where the Department is satisfied that eradication is neither practicable nor economical.

(iv) *General.*—The weeds dealt with in the foregoing paragraphs by no means constitute a complete list of plants which are harmful or noxious to the farming industry. The problem is one of much larger compass and is closely related to the question of veld management and land utilization.

Apart from these proclaimed weeds, all of which are exogenous plants, mention must also be made of a number of indigenous plant species which are practically useless in so far as the stock industry is concerned, and which, in many cases, hamper farming to a considerable extent, or even make it impossible. These useless species may be divided broadly into two classes, viz., poisonous plants and inedible plants. The first class includes hundreds of species, but the following are of the greatest importance: Senecio, which causes dun-siekte in horses and Molteno disease in cattle and is also responsible for material losses among small stock; vermeerbossie, which is the cause of considerable stock mortality in Griqualand West, and also to a smaller extent in other parts of the country; slangkop; and the gousiektebossie. The second class includes plants such as Rhenosterbush, Harpuisbos, blue bush, pakaan, acacia, etc.

The incidence of these poisonous and inedible plants is mainly due to the absence of proper veld management. As soon as the veld is over-grazed, these plants make their appearance, and once they have become established it is extremely difficult to eradicate them unless the veld is allowed to rest. It has been proved that the application of a system of proper grazing and resting of the veld will greatly reduce the spread and, consequently, the harmful effects of these plant species. It would therefore be useless to attempt to eradicate the plants without introducing a system of grazing calculated to avoid overstocking and to encourage the growth of nutritious species of vegetation. The Department is therefore not disposed in the circumstances to proclaim as weeds, in terms of the Act, indigenous plants which are poisonous or useless. It prefers to approach the question by means of propaganda among farmers in order to make them conscious of the fact that it is a problem which can be solved by individual farmers themselves through the application of judicious grazing systems and proper veld management. In the meantime the Department is carrying out investigations with a view to ascertaining the most economical method of grazing.

5. **Eradication of Citrus Diseases.**—(i) *Scaly bark or psorosis* of citrus trees is a serious infectious disease, possibly caused by a virus, which develops slowly in mature trees over five years old, eventually rendering them unprofitable and causing premature death. The disease was first recognized in South Africa in 1919; experiments proved that trees once affected could not be cured by any method of treatment and in the interests of the citrus industry a policy of eradication was decided upon. In terms of the *Psorosis Act*, No. 42 of 1927, scaly bark is a notifiable disease, and every tree found infected must be destroyed in the manner prescribed by regulation made under the Act.

As a result of these measures the percentage of trees contracting this disease is very small compared with the number of trees affected in countries where no eradication of trees showing psorosis is practised.

During 1938, an inspection was made of citrus trees in the Brits, Pretoria, Rustenburg, and Marico districts of the Transvaal, and in certain districts in the north-west Cape. Of the 312,100 trees inspected in the Transvaal, 248 were found to be infected, and of 210,723 examined in the north-western Cape 216

showed symptoms of scaly bark. A total of 522,823 trees was thus inspected and 461, i.e., nearly 0·09 per cent., were found to be infected with scaly bark and destroyed. In 1937, 517,607 trees were inspected and 1,087 or approximately 0·22 per cent. found to be infected.

(ii) *Citrus Canker.*—The bacterial disease known as *citrus canker* is regarded as one of the most destructive diseases affecting citrus trees. It spreads rapidly, affecting fruit and all other parts of the tree, and causes failure of buds in nurseries. The disease caused considerable havoc in the United States in 1915, and in 1916 assumed epiphytotic form in certain districts of the Transvaal. It was ascertained that the disease was limited in its distribution, and in 1917 it was decided that it was in the best interests of the citrus industry to place quarantine restrictions on the areas in which citrus canker was known to occur and to institute a campaign for the eradication of all infected trees (Act No. 10 of 1919).

During the years 1918 to 1927, a total of 3,199,666 trees was inspected: the trees in all nurseries in the quarantined area were eradicated, and a total of 44,735 trees, representing both infected trees and blocks of trees in which canker had occurred, was destroyed. The compensation paid to owners for the destruction of these trees amounted to £77,935, and the cost of administration for ten years to £56,193. No infected trees have been found since 1927, and it may now be considered that the disease has been completely eradicated. The planting restrictions imposed in the Rustenburg, Brits, Waterberg, and Pretoria districts of the Transvaal have therefore been abolished (Proclamation No. 93 of 1938).

6. **Construction of Silos and Sheds.**—With the object of encouraging livestock farmers who are able to produce on their farms sufficient hay or other fodder for the purpose of making ensilage for feeding to their stock, a bonus of 25 per cent. is paid on the final valuation of silos and sheds which have been erected with the approval and to the satisfaction of the Department. The bonus does not exceed £50 per farm and, in cases where approved works are erected on more than one farm belonging to the same applicant, the bonus does not exceed £100. From the inception of the scheme in 1936 to 31st December, 1938, an amount of £11,395 was paid in bonuses on silos, sheds, and ensilage cutters.

7. **Locust Administration.**—The law providing for the destruction of locusts is administered by the Secretariat. The *Agricultural Pests Act* (Act No. 11 of 1911 as amended by Act No. 12 of 1922 and Act No. 15 of 1934) makes it compulsory for occupiers of land to report the appearance of flying locusts or hoppers and the laying of eggs, and to destroy hoppers which are found on their land. In the event of any person failing to destroy hoppers, the Government carries out the work at his expense. Government assistance is granted in cases in which occupiers, in spite of doing their utmost with the resources at their disposal, are unable to overcome the hoppers before they reach the winged stage. The Government provides free of charge a prepared poison bait, which consists of maize meal or maize bran and arsenite of soda powder. The maize meal bait contains 2 per cent. arsenite of soda and the maize bran bait 3 per cent. It is not possible to legislate effectively for the destruction of flying locusts, but every assistance is given and every effort made to encourage farmers to undertake the destruction of flying swarms, especially when crops are threatened. In the past, the Government has under special circumstances, when for instance grain producing areas are invaded, undertaken the destruction of ovi-positing swarms of flyers of the brown locust by means of poison bait. With a view to ensuring the adoption of a uniform policy throughout South Africa and consequent better control of the pest, arrangements have been made with South West Africa for the Union Locust Law to be applied in that territory, and for the operations against the locusts therein to be controlled by the Union Administration. An arrangement is also in existence with the Bechuanaland Protectorate whereby the Union Administration assists with the destruction of hoppers in the territory, especially in those areas bordering on the Union.

During 1938 both the brown and the red locust were present in the Union. Hopper outbreaks of the red locust occurred in several localities in Zululand, Natal, Pondoland, and the Transvaal. Outbreaks also occurred in the eastern section of the Bechuanaland Protectorate. The results obtained with poison bait were excellent, and no hoppers reached the flying stage.

With regard to the brown locust, only minor hopper outbreaks of the swarm phase occurred early in the year. The solitary phase population had increased to such an extent that an extensive campaign had to be waged

against incipient hopper outbreaks, and later also against flying swarms which threatened the wheat-producing areas of the Eastern Cape Province. Towards the end of the year an extensive campaign against hoppers in the swarm phase had to be conducted. Poison bait was used throughout with good results.

During 1939 extensive hopper outbreaks of the red locust are expected in the Transvaal and the eastern section of the Bechuanaland Protectorate; in Natal and Zululand only minor hopper outbreaks are expected. With regard to the brown locust, outbreaks of the swarming phase and incipient hopper outbreaks are also expected.

8. **Agricultural Boards.**—(i) *Agricultural Advisory Board.*—An Agricultural Advisory Board was appointed by the Minister of Agriculture in February, 1920, to advise him on matters relating to agriculture. The members of the Board are called together from time to time by the Minister of Agriculture and Forestry for the purpose of consultation, and to afford them an opportunity of submitting their views on matters relating to agriculture and any proposed legislation in connexion therewith. The secretary of the Board is G. T. Welsford, P.O. Box 377, Bloemfontein.

(ii) *The Perishable Products Export Control Board.**—The Perishable Products Export Control Board was constituted in terms of the provisions of the *Perishable Products Export Control Act*, No. 53 of 1926, for the purpose of controlling the export of perishable products from the Union, more particularly by regulating shipments and the necessary shipping space. The Board also exercises important functions in connexion with pre-cooling and cold stores in which perishables falling under its control are pre-cooled and stored prior to shipment. The perishable commodities, the export of which is at present controlled by the Board, are citrus and deciduous fruits, pineapples, eggs, butter, cheese, and meat. The Act under which the Board is constituted is administered by the Minister of Railways and Harbours.

The Board consists of eight members, appointed by the Governor-General. Three members, one of whom the Governor-General designates as chairman, called ordinary members, are appointed on the advice of the Minister of Railways and Harbours and are in receipt of special remuneration. The other five members, called representative members, are appointed on the advice of organized producers and the Minister of Agriculture and Forestry to represent definite perishable products exported from the Union. The Board has its headquarters at Capetown, but is represented at Durban, East London, and Port Elizabeth by special officers known as Supervisors of Perishable Exports.

Apart from the salaries of the chairman and the ordinary members of the Board, which are paid out of Railway and Harbour Funds, the expenditure of the Board is met from funds obtained from levies made in terms of the provisions of the *Agricultural Products Grading Act*, No. 16 of 1922, the *Agricultural Industries Advancement Act*, No. 16 of 1925, and, in cases where no levies are being paid in terms of the provisions of either of these Acts, the Act constituting the Board.

(iii) (*a*) *The National Marketing Council.**—In the *Marketing Act*, No. 26 of 1937, as amended, which provides for the orderly regulation of the production and the marketing of agricultural products by regulatory boards, on which the various interests are represented, and for the grading and standardization of agricultural products, provision is also made for the establishment of the National Marketing Council, which may be regarded as the principal body to advise the Minister on marketing schemes and on marketing policy in general. The Council is also required to advise in connexion with such decisions made by the several regulatory boards as are subject to the approval of the Minister, and in general it exercises supervision over the operation of marketing schemes promulgated under the Act.

The National Marketing Council consists of a chairman, a deputy chairman, and three other members, all of whom must be appointed by the Governor-General. An additional member may be appointed if necessary. The chairman and the deputy chairman must be officers of the Department of Agriculture and Forestry and hold office during the pleasure of the Governor-General. The other members are appointed for a period of four years, but may be reappointed.

The chairman and the deputy chairman may be paid such allowances, in addition to their salaries as officers in the public service, as the Governor-General may determine. The other members receive such salaries or other

* For personnel, see Chapter XXVIII.

remuneration (out of moneys appropriated by Parliament for the purpose) as the Governor-General may determine. All members except the chairman must be full-time members.

At council meetings attended by both the chairman and the deputy chairman, the latter has no vote, but at meetings unattended by the chairman the deputy chairman has all the powers of the chairman. At least two of the other members must be present to form a quorum. In the event of an equality of votes the chairman has a casting vote in addition to his deliberative vote.

The functions of the National Marketing Council are:—

(i) To examine and to report to the Minister upon any marketing scheme for the establishment of regulatory boards, referred to it by the Minister;
(ii) upon the direction of the Minister to prepare a marketing scheme;
(iii) to examine schemes in operation and to report to the Minister thereon;
(iv) to assist in the organization of regulatory boards;
(v) to supervise the auditing of the books of account of the regulatory boards;
(vi) to transmit to the Minister, with its report and recommendations thereon, the decisions of regulatory boards dealing with restrictions of production and sale and with price fixing;
(vii) upon the direction of the Minister to inquire into the marketing of any product in general or on any market;
(viii) to advise the Minister on the prohibition or regulation of the importation or the exportation of any product into or out of the Union;
(ix) to advise the Minister in regard to any matter within his purview under the *Marketing Act* on which he may ask for advice, and to perform such other duties as the Minister may from time to time assign to it.

The National Marketing Council has the following powers:—

(i) It may take evidence under oath for the purposes of any inquiry falling within its functions and duties, may subpoena witnesses, and may examine books, records, or documents which any witness has been required to produce. Penalties are provided for in the case of any member or officer of the Council who discloses information acquired by the Council in the exercise of its powers of hearing evidence on oath.

(ii) It may require any regulatory board to furnish such information as may be deemed necessary.

Since its inception, the Council has submitted the following reports:—

No.	*Date.*	*Subject.*
1	27/5/1938	The Proposed Mealies and Mealie Products Marketing Scheme.
2	30/5/1938	The Proposed South African Dried Fruit Scheme.
3	5/9/1938	Proposed Amendment to Mealies and Mealie Products Marketing Scheme.
4	28/ 9/1938	The Proposed Wheat Control Scheme.
5	12/10/1938	Review of Mealie Position with Special Reference to Exports, the Creation of a State Reserve of Mealies and the Purchase and Sale of Mealies and Mealie Products by the Mealie Industry Control Board.
6	8/11/1938	Prohibition of Sale of Wheat and Wheaten Products by Producers and Fixation of Prices of Wheat and Wheaten Products for the 1938-9 Season.
7	15/11/1938	Further Export of Mealies during the 1938-9 Season and the Grant of Government Assistance to the Mealie Industry Control Board for the Payment of Export Compensation.
8	9/ 2/1939	Control of the Importation of Currants.
9	27/ 2/1939	The Proposed Tobacco Control Scheme.
10	15/ 3/1939	The Proposed Dairy Products Marketing Scheme.

(*b*) *Producers' and Consumers' Advisory Committees.*—The *Marketing Act* also provides for the establishment of a Producers' Advisory Committee and a Consumers' Advisory Committee, each consisting of eight members appointed by the Minister to represent, respectively, the interests of producers and the consumers of products. Six of the eight members of the Producers' Advisory Committee must be nominated by the South African Agricultural Union, and two of the eight members of the Consumers' Advisory Committee have to be nominated by the United Municipal Executive of South Africa. These two

committees are advisory and consultative bodies, electing their own chairman, which the Minister may consult on any matter affecting the interests of producers or consumers, as the case may be, or which the Marketing Council may so consult in connexion with any scheme, while they may themselves make representations to the Minister or the Council on any matter or any marketing scheme in so far as it affects the interests of producers or consumers.

(iv) *Regulatory Boards under Jurisdiction of National Marketing Council.*—(a) *Dairy Industry Control Board.**—The Dairy Industry Control Board is a statutory body established under Act No. 35 of 1930, as amended by Acts Nos. 7 of 1932, 51 of 1934, and 60 of 1935. The main powers conferred on and the functions performed by the Board are as follows:—

(1) The imposition of a levy not exceeding 1d. per lb. on all creamery butter, farm dairy butter, butter substitutes, and cheese (other than cheese made by any person for consumption by his household) manufactured in the Union and on all butter, butter substitutes, and cheese imported into the Union;
(2) the payment of a bounty not exceeding 6d. per lb. according to grade on all butter and cheese exported under direction of the Board;
(3) the adjustment of supply of dairy products (butter and cheese) to market demand by determining from time to time the quantities of butter or cheese which must be exported from the Union during any period and the allotment of a *pro rata* share thereof to each individual creamery or cheese factory owner respectively for export during that period;
(4) the utilization of levy funds—
  (a) to stabilize prices of dairy produce in the Union;
  (b) to reduce the cost of producing, manufacturing, or marketing dairy produce;
  (c) to encourage the greater consumption of dairy produce;
  (d) generally to assist the development of the dairy industry;
(5) the payment of a subsidy, under certain conditions approved of by the Minister, according to grades of butter or cheese sold in the Union for any purposes or to any class of consumer approved of by the Minister;
(6) to receive, administer, and expend any moneys placed at its disposal in accordance with the conditions on which such moneys were made available;
(7) to advise the Minister in regard to the renewal of the registration of any creamery, cheese factory, creamery depot, condensed milk factory, or butter substitutes factory, and the registration of any new creamery, cheese factory, creamery depot, condensed milk factory, or butter substitutes factory.

The amount of levy imposed by the Board is 1d. per lb. on all creamery butter manufactured and on all farm dairy butter sold and butter imported into the Union. The levy on cheese is 1d. per lb. on all cheese manufactured in cheese factories, on all cheese imported, and on all cheese not manufactured in registered cheese factories which is sold.

For the year ended 30th September, 1938, the bounty on butter was 4¼d., 3¼d., and 2¼d. per lb., on first, second, and third grade butter, respectively, exported. The bounty on cheese was 4¼d., 4d., and 3¼d. per lb. on first, second, and third grade cheese respectively, exported.

(b) *Tobacco Industry Control Board.**—This Board, established on the 21st June, 1935, under the *Tobacco Control Amendment Act*, No. 17 of 1935, was reconstituted as from the 1st April, 1939, in accordance with the provisions of the Tobacco Control Scheme (Proclamation No. 51 of 1939 issued in terms of the *Marketing Act*, No. 26 of 1937), for the regulation of the production and marketing of tobacco. The powers of the Board include the following:—

(i) With the approval of the Minister to impose a levy, not exceeding one penny per pound, on tobacco;
(ii) with the approval of the Minister, to prohibit any producer of tobacco from selling any tobacco produced by him in the Union, elsewhere than in the Transkeian Territories, through any channel other than such agency as the Board may determine, and for that purpose to appoint, in respect of such areas and on such conditions as it may deem fit, agents who shall be authorized to conduct such agencies for the sale of tobacco on behalf of producers;

* For personnel, see Chapter XXVIII.

(iii) with the approval of the Minister from time to time to prohibit—
  (a) any producer from selling tobacco which he has produced, or
  (b) any person from selling tobacco produced by any person, or any grade, class, or quantity thereof (whether in its original form or wholly or partly processed),
  at a price other than a price fixed by the Board or at a price below a price fixed by the Board for any particular class, grade, or quantity of tobacco;
(iv) with the approval of the Minister to borrow money and to utilize its funds for the purpose of attaining the objects of the scheme;
(v) to prohibit any person from selling any tobacco which he has exported, except through such agency or agencies, whether within or outside the Union, as the Board may designate for the purpose; and
(vi) to pay out of its funds to any person who exports tobacco from the Union a bounty or premium which may vary according to the class, grade, standard, or quality of the tobacco exported, and from which may be excluded tobacco below a specified quality.

The levy imposed on tobacco as from 3rd April, 1939, is as follows:—
Class (a) Turkish tobacco, one-tenth penny per pound weight.
Class (b) Flue-cured tobacco, one-fifth penny per pound weight.
Class (c) All other tobacco not included under (a) or (b), one-fifth penny per pound weight.

(c) *Mealie Industry Control Board.**—The Mealie Control Scheme, to be administered by the Mealie Industry Control Board, established under the *Mealie Control Amendment Act*, No. 59 of 1935, was published under Proclamation No. 131 on the 17th June, 1938.

Among others, the powers granted to the Board under the above-mentioned scheme, include the following:—

(i) To impose a levy on all mealies and mealie products purchased or otherwise acquired by a mealie trader from a producer of mealies;
(ii) to prohibit any person from exporting mealies or mealie products except under the authority of a permit issued by the Board;
(iii) to pay such compensation as the Board may determine to any person in respect of any mealies or mealie products exported by such person on the authority of a permit issued by the Board;
(iv) to utilize its funds to improve the marketing of mealies and generally for any object which in its opinion is likely to encourage the internal consumption of mealies and mealie products, and to assist the development and betterment of the mealie industry;
(v) to publish information in regard to the production and marketing of mealies and mealie products and generally to disseminate information concerning the mealie industry;
(vi) to enter into contracts for carrying out any work in connexion with the handling, storage, grading and disposal of mealies and mealie products;
(vii) to purchase and sell mealies and mealie products;
(viii) to act as agent for the receipt and sale of mealies and mealie products;
(ix) to require every person concerned in the production, thrashing, shelling, marketing, or processing of mealies and mealie products to furnish the Board with such information relating to such mealies or mealie products as may be available to such person and as the Board may specify.

A levy of ¾d. per bag is imposed on all mealies ground, crushed, gristed, or otherwise processed in terms of section 21 of the *Mealie Control Amendment Act*, No. 59 of 1935, exemption being granted in terms of section 22 of this Act, in respect of mealies ground for own consumption by a producer.

In terms of section 6 of the Mealie Control Scheme, a levy of 1s. per bag was imposed on all mealies or mealie products purchased or otherwise acquired from a producer. On the 7th September, 1938, it was found necessary to amend the scheme by providing for a levy of 1s. 6d. per bag.

The funds derived from this levy are utilized for the purpose of elevating the price of mealies to the producer above world values. This is done by means of a refund to persons exporting mealies or mealie products, under the authority of a permit issued by the Board, of the amount of the levy paid by them on the mealies purchased from a producer and the amount which

* For personnel, see Chapter XXVIII.

they were required to pay the producer over and above export parity. On the 22nd June, 1938, this refund was fixed at 2s. 3d. per bag, on the 7th September, 1938, it was increased to 3s. 3d. per bag, and on the 27th January, 1939, it was reduced to 2s. 6d. per bag.

The export of mealies and mealie products was prohibited except under a permit issued by the Board, so that no mealies or mealie products were exported during the 1938-39 season without the authority of the Board. Under the powers granted to it, the Board during this season purchased mealies direct from producers at a price of 8s. 6d. per bag. A portion of the mealies purchased was resold for manufacturing purposes and the feeding of stock intended for export, and the balance was sold for export.

(*d*) *Wheat Industry Control Board.**—The Wheat Industry Control Board established in terms of the *Wheat Industry Control Act*, 1935, was reconstituted in terms of the *Marketing Act*, 1937, and given wide powers in terms of the aforementioned Act. Full details of the Wheat Control Scheme may be obtained from Proclamation No. 212 of 1938, published in a *Gazette Extraordinary*, No. 2574 of the 5th October, 1938. The most important powers given to the Board are:—

(i) To buy and sell wheat and wheaten products and, with the approval of the Minister, to prohibit any producer of wheat from selling wheat to any person other than the Board. By virtue of these powers the Board has by Government Notice No. 1874 of the 11th November, 1938, prohibited any producer from selling wheat or wheaten products to any person other than the Board. The Board has appointed agents throughout the Union to purchase wheat on its behalf;

(ii) to fix, with the approval of the Minister, the prices at which wheat and wheaten products such as flour, meal, bran, and bread may be sold. The Board has by Government Notice No. 1873 of the 11th November, 1938, fixed the prices at which producers of wheat shall sell wheat to it. These prices remain in force until the 31st October, 1939. The Board has also fixed the prices at which it is prepared to sell the wheat it has so purchased. The Board has also fixed by Government Notices Nos. 1871 and 1872 of the 11th November, 1938, the selling prices for flour, meal, bran, pollard, and bread;

(iii) to advise the Minister in connexion with the grading, packing, and labelling of wheat and wheaten products such as flour, meal, bran, pollard, and bread. On advice of the Board, regulations in connexion with the grading of wheat were made and were published in Government Notice No. 1746 of the 21st October, 1938. Grades for wheaten products are under consideration;

(iv) to place a levy not exceeding one shilling per 200 lb. on all wheat ground, crushed, gristed, or otherwise processed. Since the 5th October, 1938, the levy is one shilling per bag on all wheat ground, crushed, gristed, or otherwise processed. The Board obtains its funds from the proceeds of this levy and from trading profits and commissions.

(*e*) *Dried Fruit Board.**—This Board was established on the 1st December, 1938, under the *Marketing Act*, No. 26 of 1937, for the purpose of administering the scheme for the regulation of the production and sale of dried fruit. Full details of the South African Dried Fruit Scheme may be obtained from Proclamation No. 229, dated the 21st October, 1938. The powers of the Board include the following:—

(i) With the approval of the Minister to impose a levy, not exceeding sixpence per 100 lb., on any kind of dried fruit;

(ii) with the approval of the Minister to borrow money to be used for the purpose of attaining the objects of the scheme and to use any money derived from any levy imposed for any object which in its opinion will be to the advantage of persons interested in dried fruit;

(iii) to establish an information service in order to advise producers of dried fruit from time to time about marketing conditions;

(iv) to act as agent for the receipt and sale of dried fruit;

(v) to conduct a pool for the sale of any kind of dried fruit;

* For personnel, see Chapter XXVIII.

(vi) to require any person, if he exports dried fruit, to forward to a specified market so much of the quantity thereof which he exports as the Board may determine;

(vii) with the approval of the Minister to impose a special levy in connexion with the sale of dried vine fruits or other kinds of dried fruits;

(viii) to establish an equalization fund and to pay into any such fund a portion of any moneys at the Board's disposal or the proceeds of any special levy imposed and to compensate from any such fund any person for loss sustained by him as a result of forwarding dried fruit to a specified overseas market pursuant to an order of the Board;

(ix) to require every person concerned in the production, marketing, or processing of dried fruit to furnish the Board with such information relating to dried fruit as may be available to such person and as the Board may specify;

(x) to assist, by grant or loan or otherwise, any undertaking for preserving, processing, storing, or conditioning dried fruit and any research work relating to the improvement, production, processing, and marketing of dried fruit;

(xi) to advise the Minister as to—

(*a*) the conditions regarding grades, standards of quality, method of packing, and the marking of dried fruit or any receptacle or cover containing it, subject to which dried fruit may be sold or imported for sale;

(*b*) the prohibition, control, or regulation of the importation or export of dried fruit; and

(*c*) all matters relating to the marketing or processing of dried fruit.

(v) *Live Stock and Meat Industries Control Board.**—During the 1934 session of Parliament, the *Live Stock and Meat Industries Act*, No. 48 of 1934, was passed, designed, *inter alia*, to establish a Live Stock and Meat Industries Control Board and to provide for the imposition of a levy on slaughtered stock.

Briefly summarized the Act provides for:—

(*a*) The creation of a representative control board with powers of controlling the internal markets, with a view to ensuring a more orderly marketing of live stock locally, and generally advising the Minister on all matters relating to the industry;

(*b*) the imposition of a levy on all cattle, sheep, and goats slaughtered at abattoirs or slaughter-poles, the meat of which is intended for sale, the levy moneys to be used for the encouragement of meat exports through the payment of bounties, and for the general improvement of the industry;

(*c*) the improvement of cattle through the establishment of cattle improvement areas, in which only approved bulls may be kept;

(*d*) the erection, inspection, and registration of cold storages;

(*e*) the regulation of the meat trade and the prescription of the qualifications to be possessed and the securities to be provided by butchers.

The Act came into force in August, 1934, and several important provisions have already been brought into operation, namely, the institution of the Board, the imposition of the levy, the promulgation of regulations for the registration of cold storages, the proclamation of a large number of districts as cattle improvement areas, and the control of the supplies of live stock to the markets of the Witwatersrand, Pretoria, and the Cape Peninsula.

The following levy on slaughtered stock has been in operation since August, 1934 (Government Notice No. 1129 of 1934):—

(*a*) Cattle, six months and over, 2s. per head;

(*b*) cattle, under six months, 6d. per head;

(*c*) sheep and goats, 3d. per head;

* For personnel see Chapter XXVIII.

As from 31st January, 1937, the following Government subsidy is being paid on chilled beef:—

1½d. per lb. for Grade A.
1 d. per lb. for Grade B.
½d. per lb. for Grade C.

As from 1st December, 1937, the following subsidies are being paid:—

(a) On frozen beef—Second Quality Grade X—½d. per lb. dressed weight.

(b) On frozen mutton and lamb:—

Mutton: Grade A—½d. per lb.
,, B—½d. per lb.
Lamb: Grade A—1½d. per lb.
,, B—1d. per lb.

In addition, the following export bounty is payable by the Board:—

Chilled Beef: 1½d. per lb. on First Quality, Grade A.
1½d. per lb. on First Quality, Grade B.
1 d. per lb. on First Quality, Grade C.
Frozen Beef: ½d. per lb. on X-quality Frozen Beef.
1½d. per lb. on Boneless Frozen Beef.
¾d. per lb. F.A.Q. Frozen Beef Exported in Quarters.
Frozen Mutton: Grade A—1½d. per lb.
Grade B—1½d. per lb.
Frozen Lamb: Grade A—1½d. per lb.
Grade B—1½d. per lb.
Grade C—1d. per lb.

(vi) *Wool Council.**—The Wool Council was established early in 1930 as a result of the resolutions passed by a special congress of wool farmers convened by the South African Agricultural Union on the 18th September, 1929, and the first meeting was held on the 2nd April, 1930.

A levy of one shilling per bale on all wool exported was imposed as from the 1st January, 1930, in accordance with a resolution passed by this congress. This fund is administered by the Minister of Agriculture and Forestry, who is advised in the expenditure thereof by the Wool Council. The other functions of the Council are as follows:—

(a) The extension of investigational work as far as wool is concerned;
(b) the better organization of wool farmers;
(c) the making of propaganda for the increased consumption of wool both in South Africa and overseas;
(d) the carrying out of such further duties as may appear necessary for the advancement of the wool industry.

The Wool Council is constituted as follows:—An officer of the Department as chairman; two members representing the non-organized wool farmers, appointed by the Minister of Agriculture and Forestry in consultation with the Agricultural Advisory Board; the chairman of the National Woolgrowers' Association of South Africa, *ex officio*; two members representing the Cape Province and one member representing each of the provinces, Orange Free State, Transvaal, and Natal. The representatives of the provinces are nominated by the various provincial Agricultural Unions in consultation with the provincial Woolgrowers' Associations, and such nominees are appointed by the Minister.

The Wool Marketing Committee was established in September, 1934, in accordance with a resolution passed by the last congress of the National Woolgrowers' Association in 1934. This committee, as reconstituted in 1938, now consists of the chairman and the eight members of the Wool Council, and two members of the executive committee of the National Woolgrowers' Association, representing the producers; and six members of the South African Wool and Mohair Brokers' Association and four members of the Council of South African Wool and Mohair Buyers, representing the wool trade. The function of this committee is to advise the Minister of Agriculture and Forestry in regard to all questions affecting the marketing of wool.

The Wool Council in consultation with Australia and New Zealand at a conference held in Melbourne in January, 1937, decided to establish an International Wool Research and Publicity Secretariat in London, consisting of three members appointed to represent the three contributing countries.

* For personnel, see Chapter XXVIII.

The functions of the International Secretariat are:—

(1) To undertake investigations into circumstances and conditions relative to phases of the wool industry throughout the world, in order to formulate a programme of campaign for the promotion of wool utilization.
(2) To investigate advertising and general publicity media, and to be responsible for the effective completion of any approved scheme.
(3) To conduct economic researches and to provide facilities for industrial and commercial liaison for the promotion of the trade in wool and pure wool and wool mixture goods.
(4) To secure assistance necessary to carry out its work effectively.

(vii) *Hides and Skins Advisory Board.**—This Board came into existence in April, 1930, for the purpose of advising the Minister in all matters pertaining to hides and skins, especially in regard to the following:—

(a) The promulgation and administration of export regulations;
(b) the application of the hide and skin levy fund;
(c) marketing;
(d) methods for improvement and scientific research.

A levy of 2½d. per bale of dry hides or skins and ¾d. per wet hide exported is payable. In each case an additional fee of ½d. is made for inspection.

(viii) *Egg Levy Advisory Board.**—An Egg Levy Advisory Board was established as from April, 1933, to supersede the Egg Levy Advisory Committee, which had functioned for a number of years under the auspices of the South African Poultry Association. The main functions of the Board are to advise the Minister on matters pertaining to the application of the egg levy fund and the marketing side of the poultry industry.

Portion of the levy of 9d. per case imposed on export eggs under Government Notice No. 1390 of 1922, promulgated under Act No. 35 of 1917, is utilized in connexion with the carrying out of the functions of the Board.

(ix) *Veterinary Board.**—A Veterinary Board has been established in terms of the *Veterinary Act*, No. 16 of 1933, mainly for the purpose of:—

(a) Dealing with the registration of veterinarians;
(b) ensuring that registered veterinarians conform to the best traditions of the veterinary profession in respect of the question of professional conduct;
(c) eliminating the practising of veterinary science by persons who are technically or otherwise not qualified to do such work, and hence ensuring that the veterinary services rendered to the stock owner are of the required standard.

So far certificates of registration have been issued to about 175 veterinarians in the Union.

9. **Levies and Export Bounties—Agricultural Products.**—The imposition of levies on certain agricultural products, for the purpose of promoting by a variety of methods the interests of the producers concerned, has been practised for several years. Corresponding with the extension of the control board system, levies have also been imposed on other products and, by virtue of legislation enacted since 1934, the levy system has been extended to embrace slaughter stock (Act No. 48 of 1934), tobacco (Act No. 17 of 1935), wheat (Act No. 58 of 1935), and maize (Act No. 59 of 1935).

Levies are at present in existence in respect of the following products:—

(a) *Statutory Levies.*—Butter and cheese, slaughter stock (cattle, sheep, and goats), maize, wheat, and tobacco.
(b) *Non-Statutory Levies.*—Wool, hides and skins, eggs, citrus fruit, deciduous fruit, and cotton.

Of the above-mentioned levies, those in the case of butter and cheese, slaughter stock, and tobacco are partially intended for the payment of an export bounty on these products by their respective control boards. Levies payable in respect of the other products mentioned are utilized for purposes other than the payment of an export bounty.

The following figures indicate the amounts collected by way of levy and the amounts disbursed as export bounties in regard to the products on which an export bounty is paid.

* For personnel, see Chapter XXVIII.

AMOUNT OF LEVY COLLECTED AND AMOUNT DISBURSED AS BOUNTY ON BUTTER, CHEESE, MEAT, AND TOBACCO, 1932-33 TO 1937-38.

Year.	Butter.		Cheese.		Meat.		Tobacco.	
	Levy.	Bounty.	Levy.	Bounty.	Levy.	Bounty.	Levy.	Bounty.
	£	£	£	£	£	£	£	£
1932-33	95,806	53,884	34,099	29,559	—	—	—	—
1933-34	95,246	47,235	30,540	6,036	—	—	—	—
1934-35	163,588	213,884	44,576	42,781	60,171	10,893	—	—
1935-36	153,945	77,664	47,073	40,626	93,684	26,102	18,550*	6,432*
1936-37	159,036	150,622†	40,745	42,212	106,124‡	18,595‡	19,324	9,650
1937-38	159,211	190,319	58,178	58,933	108,839	17,247	20,858	7,992

* Period 1st September, 1935, to 31st March, 1936.
† Includes subsidy paid to cream suppliers.
‡ Period 1st July, 1936, to 30th June, 1937.

The following figures reflect the levies collected in connexion with the products on which no export bounty is paid:—

LEVIES COLLECTED IN CONNEXION WITH PRODUCTS ON WHICH NO EXPORT BOUNTY IS PAID, 1928-29 TO 1937-38.

Year.	Cotton.	Citrus.	Deciduous Fruit.	Eggs.	Wool.	Hides and Skins.	Maize (ground.)‖	Wheat.‖
	£	£	£	£	£	£	£	£
1928-29	1,414	13,061	11,959	4,340	*	‡	—	—
1929-30	2,059	17,927	19,293	5,180	18,331	‡	—	—
1930-31	2,380	26,585	16,534	7,232	41,603	397	—	—
1931-32	788	23,923	18,297	7,048	19,955	1,360	—	—
1932-33	703	23,915	24,262	6,775	†	1,590	—	—
1933-34	531	47,190	26,577	5,554	†	2,284	—	—
1934-35	564	36,958	26,689	3,767	†	1,534	—	—
1935-36	552	34,082	30,634	4,422	†	1,668	13,563§	186,187¶
1936-37	361	33,790	28,918	4,703	22,830**	1,823	19,264	189,577
1937-38	522	59,326	30,911	3,168	36,606	1,588	24,560	191,552

* Wool levy not yet in existence.
† Wool levy temporarily suspended as from 1st February, 1932, and re-introduced with effect from 1st August, 1936.
‡ Hides and skins levy in existence only since 1930-31.
§ Period 16th July, 1935, to 31st March, 1936.
‖ With regard to maize and wheat (*a*) levy funds in respect of wheat are utilized for the compensation of storage losses in terms of Act No. 58 of 1935, (*b*) the levy on maize is collected in terms of Act No. 59 of 1935.
¶ Calendar year 1936.
**Period 1st August, 1936, to 31st March, 1937.

10. **Regulations Controlling the Import and Export of Stock, Plants, Fruits, Bees, etc.**—Information in regard to the more important regulations governing the import and export of various agricultural and pastoral products is given hereunder.

(i) *Stock.*—(*a*) The eradication and control of infectious stock diseases are effected under the provisions of the *Diseases of Stock Act*, No. 14 of 1911, and the regulations framed thereunder. In order to ensure against the introduction of infectious stock diseases from countries or territories outside the Union, precautionary restrictive measures are enforced in connexion with the importation into the Union of—

(i) various classes of stock; and
(ii) animal and vegetable products.

The introduction of stock and animal and vegetable products from certain countries is prohibited, and in other cases importation is permitted only subject to such precautionary measures as may be necessary to eliminate the risk of introducing infection into the Union.

It should be noted that, for the purpose of the *Diseases of Stock Act* and regulations, "stock" includes not only domestic animals, but also poultry and all other birds, and most species of wild animals.

Intending importers may obtain particulars of the veterinary requirements in respect of the commodity to be imported from the Director of Veterinary Services, Union Buildings, Pretoria.

(*b*) Sera, vaccines, and similar substances intended for the treatment of stock diseases may not be imported into the Union without written permission. Applications for permission to introduce any such substances must be addressed to the Secretary for Agriculture and Forestry, Union Buildings, Pretoria.

(*c*) Export of stock and products to countries outside the Union is subject to the import restrictions of the country of destination, and the Division of Veterinary Services conducts the necessary tests on such stock and provides the certificates required by the various importing countries.

(*d*) Inspection of meat intended for export overseas is controlled by the Division of Veterinary Services. The slaughter stock is subjected to both ante-mortem and post-mortem inspection to ensure that the animals are free from disease and that the meat is fit for human consumption.

(ii) *Plant Import Regulations.*—The introduction of plants from overseas, and also from African territories other than Southern Rhodesia, Basutoland, Bechuanaland, and Swaziland, is allowed only under special permission, given at the discretion of the Agricultural Department. Any person who desires to import plants should, before placing his order, apply to the Division of Plant Industry, Pretoria, for a permit for their introduction, as many plants are not admissible and overseas nurserymen often refuse to consign plants to South Africa, unless they know that a permit has been or will be issued. The importation of peach stones, lucerne, tea, elm, and tomato seed, acorns and chestnuts from overseas and African territories, other than Southern and Northern Rhodesia, Nyasaland, the Belgian Congo, Basutoland, Bechuanaland Protectorate, and Swaziland, is either prohibited or more or less drastically restricted. A permit is required to import maize and barley from overseas and other countries, except Southern and Northern Rhodesia, Nyasaland, Basutoland, Bechuanaland, and Swaziland. Cotton seed from overseas and all African territories, except Basutoland, Bechuanaland Protectorate, and Swaziland, is not admitted except under permit. No permit is required for the importation of other seeds, bulbs, and tubers. The importation of dried citrus peel, unmanufactured cork, raw cotton, second-hand bags, broom corn, and brooms, brushes, and other articles made wholly or partly from *sorghum* is subject to restrictions. The restrictions on unmanufactured cotton also apply to importations from Southern Rhodesia.

Plants on which any insect or disease is found are liable to be excluded. Woody plants are fumigated as a matter of routine. For more effective treatment, vacuum fumigation establishments are now provided at Capetown and Durban. Certain plants have to be grown in quarantine for a year or more before being passed, and others are specially disinfected in copper sulphate solution. Some of the restricted seeds and plant products are also fumigated or disinfected before release. These various precautions are designed to minimize the risk of introducing new pests and diseases. Fees are charged for fumigations and disinfections.

(iii) *Fruit and Potato Import Regulations.*—Certain varieties of fruit are admitted without the formality of a special permit, but are subject to inspection and to treatment, or even to exclusion, should they be found to be diseased or infested with insects considered pestiferous. The introduction of peaches, plums, cherries, and other stone fruits and of fresh citrus fruits of all varieties is prohibited. The importation is also prohibited of apples, pears, quinces, and loquats from Japan, Korea, Manchuria, and East Siberia.

Prospective importers of potatoes are advised to obtain from the Division of Plant Industry particulars of documents required from the country of origin, as consignments are not admitted until prescribed certificates are produced.

The regulations concerning overseas fruit and potatoes apply also to the produce of African territories other than Southern Rhodesia, Northern Rhodesia, Nyasaland, Belgian Congo, Basutoland, Bechuanaland Protectorate, and Swaziland, except that citrus fruit is admitted without restriction from the Mandated Territory of South West Africa, and under certain conditions from the greater portion of the territory administered by the Companhia de Moçambique.

(iv) *Bee Import Regulations.*—The right to introduce bees and used apiary appliances is strictly reserved to the Government. The introduction of honey, jam, syrup, or malt mixed with honey, and of fly-string, fly-tape, flypapers, and other preparations containing honey for attracting flies, is prohibited.

Medicines containing more than 25 per cent. of honey by weight are also excluded.

The introduction of foundation comb and of beeswax is allowed only under special permit. The Government has wide powers, not at present exercised, in respect of the keeping of bees and of measures for the eradication or suppression of bee diseases.

(v) *Nursery Regulations.*—On the assumption that plants from nurseries are the most serious potential disseminators of certain classes of insect pests and plant diseases, the registration of plant nurseries is required, and such places are quarantined, should the conditions appear to warrant this drastic action. The name and address of the seller must be legibly and durably affixed to any plant sold or to its container. Every nurseryman who sells fruit trees is required to have a cyanide fumigation chamber fulfilling specified requirements, and the fumigation of every fruit tree therein, before it is allowed to leave the nursery, is obligatory. The provisions as regards registration and other nursery requirements do not apply to premises whereon bulbs, tubers, seedling transplants of vegetables, garden flowers, and field crops, sweet potato cuttings, pineapple crowns and suckers, carnation plants, chrysanthemum plants, ferns, and spineless cactus and strawberry plants are grown for sale, nor to fruit, vegetables, cut flowers, and other parts of plants evidently not intended for planting, nor to sugar-cane in the sugar-producing area of Natal and Zululand, nor to vine nurseries within, and confining their business to, the main viticultural area of the Cape Province, but any person who grows other kinds of perennial plants for sale is required to effect registration.

(vi) *Plant Removal Regulations.*—The requirements in connexion with nursery stock are supplemented by requirements in respect of plants that are sent by rail or post by persons who are not nurserymen. The inclusion of any plant in a parcel must be divulged on the label or consignment note, and railway and postal officials are under instructions to see that consignments of plants, with the exception of those mentioned in (v) as exempt from the nursery restrictions, go to a plant inspector at the sender's expense for examination. The inspector may return diseased plants to the sender. Fruit trees are fumigated, whether apparently free of pests or not; a fumigation fee of 2s. 6d. or more is charged. The removal or dispatch of plants infested with certain prescribed insect pests and plant diseases is an offence.

The removal of vines into the Graaff-Reinet district, and also into a large area comprising the main viticultural districts in the south-west of the Cape Province, is strictly prohibited. The removal of mango trees into Swaziland without the express permission of the Swaziland Government is also prohibited. Owing to the danger of spreading *Pernicious* (San José) *Scale*, the special permission of the Department is required for the removal of most kinds of plants from the Transvaal, Orange Free State, or Natal to the Cape Province, from the municipal areas of Cradock, Kokstad, and Maclear, from the area comprised within a radius of twelve miles from the post office, Villiersdorp, and from the area comprised within a radius of five miles from the railway station Naauwpoort, Cape Province.

(vii) *Regulations Governing the Export of Fruit.*—Regulations pertaining to the export of fresh and dried fruits are published as often as is considered necessary, which in practice, in the case of fresh fruit, has proved to be every year before the export season commences.

Shipping arrangements in respect of fresh fruit exports are made by the Perishable Products Export Control Board, Parliament Street (P.O. Box 1891), Capetown, and all would-be exporters must be registered with this Board as exporters, before they can export fruit. Registration entails also the rendering to this Board from time to time of estimated quantities to be exported by the person concerned. This is to enable the Board to provide adequate shipping space for the fruit offering for export. Details of regulations pertaining to export of fruit can be obtained from the Board.

No fruit showing visible spray stains may be exported, nor is the export allowed of either fresh or dried fruit which is found to contain more than one-hundredth of a grain per pound of arsenious oxide. This regulation affects mainly the export of pears and apples and is a requirement which all fruit exporting countries have to comply with in regard to fruit exported to the United Kingdom.

Except under exceptional circumstances, all fresh fruit for export must be pre-cooled before shipment.

The regulations lay down what information must appear on the outside of the boxes and how the boxes shall be marked (*e.g.*, the number of fruits or the weight of fruit in the box, grade, variety, shipping mark, etc.), and specify the sizes of the containers.

Grades in respect of deciduous, citrus, and dried fruits are defined in the regulations, these grades being determined primarily on quality, freedom from external blemish, and to some extent on size.

For grapes, oranges, and grapefruit, there are maturity standards, or virtually palatability standards, expressed in terms of the proportion of sugar (total soluble solids) to acid. For example, the minimum maturity standard for certain grapes is 16: 1, which means that for every one part of tartaric acid in the juice, there must be at least 16 parts of sugar. The test entails the determination of the sugar content of the juice by means of a hydrometer and of the acid by titration. Apart from having to comply with the requirements of the regulations in respect of appearance, citrus fruits must contain a certain minimum percentage of juice.

11. **Grading of Agricultural Products.**—The successful marketing of South African agricultural produce overseas is dependent upon a proper system of government supervision and grading. To ensure a satisfactory standard of quality, the principle of government inspection and grading has been embodied in various legislative measures, more especially in the *Agricultural Produce Export Act*, No. 35 of 1917, and has gradually been extended to cover all the principal Exports, such as fruit, grain, tobacco, cotton, wine, dairy produce, meat, eggs, wool hides, and skins, and is being applied to all new articles as soon as their commercial importance justifies the step.

12. **Agricultural Organization.**—The South African Agricultural Union is the main body of organized farmers representing all the interests of the agricultural industry in South Africa. The Secretary of this Union is Mr. G. T. Welsford, P.O. Box 377, Bloemfontein. The organization is constituted by four provincial organizations and also has affiliated to it the South African Women's Agricultural Union, which represents all the provincial Women's Agricultural Unions in South Africa.

The addresses of the respective secretaries of these provincial organizations and the South African Women's Agricultural Union are as follows:—

South African Women's Agricultural Union	Mrs. M. Stofberg, Stettyn, Worcester, C.P.
Cape Province Agricultural Association..	P.O. Box 37, Middelburg, C.P.
Natal Agricultural Union.....	P.O. Box 225, Pietermaritzburg.
Orange Free State Agricultural Union....	P.O. Box 377, Bloemfontein.
Transvaal Agricultural Union.....	P.O. Box 937, Pretoria.

Most of the farmers' associations and agricultural societies in each of the four provinces are in turn affiliated to one or other of the four provincial organizations. These organizations have as members a great many farmers representing the most influential and progressive sections of the agricultural community. An important function of the agricultural societies is the promotion of the various agricultural shows, of which those organized by the following societies at the places mentioned are the most popular: Western Province Agricultural Society (held at Rosebank about the end of February); Port Elizabeth Agricultural Society (held at Port Elizabeth in March); Central Agricultural Society (held at Bloemfontein in March); Witwatersrand Agricultural Society (held at Johannesburg at Easter); Royal Agricultural Society (held at Pietermaritzburg at the end of June); and Durban and Coast Agricultural Society (held at Durban about the beginning of July).

Each provincial organization has a standing committee, which meets at least four times a year. Each of these organizations holds an annual general conference attended by delegates from the various affiliated bodies. From each of the provincial organizations ten delegates are elected at the annual general conference to represent it in the South African Agricultural Union, which meets annually for the purpose of deliberating on matters affecting agriculture generally throughout the Union. A president and an executive committee are elected for the ensuing year at the annual congress. The organization described has resulted in the creation of a system properly co-ordinated in such a manner that every interest of the agricultural industry is served thereby.

Matters of local or parochial concern are dealt with by a network of organized bodies of farmers throughout the country. For purposes of wider but still provincial interest representatives are sent by these bodies to an annual congress, from which again a delegation is chosen for the final deliberative council, at which general principles are considered. At all these congresses government officers, for the most part experts on the subjects coming under discussion, are in attendance for the purpose of furnishing information on the work of the Government and advice generally on technical and other matters. The funds for carrying on the activities of these organizations are provided by subscriptions, supplemented by grants from the Government and the Provincial Councils of the Cape Province and the Transvaal.

The following is a representative list of bodies serving particular phases of the agricultural industry:—

(i) South-African Stud-book Association, with which is affiliated:—
(a) The Friesland Cattle Breeders' Association.
(b) The Shorthorn Society of South Africa.
(c) The Afrikander Cattle Breeders' Society.
(d) The Devon Cattle Breeders' Society of South Africa.
(e) The South Devon Breeders' Society of South Africa.
(f) The Ayrshire Cattle Breeders' Society of South Africa.
(g) The Aberdeen-Angus Cattle Breeders' Society of South Africa.
(h) The Hereford Breeders' Society of South Africa.
(i) The Sussex Cattle Breeders' Society of South Africa.
(j) Brown Swiss Cattle Association.
(k) Red Poll Cattle Breeders' Society.
(l) Jersey Cattle Breeders' Society of South Africa.
(m) The South African Guernsey Cattle Breeders' Society.
(n) Persian (Blackhead) Sheep Breeders' Society of South Africa.
(o) Angora Goat Breeders' Society of South Africa.
(p) The Pig Breeders' Society of South Africa.
(q) The Pig Development Association of South Africa.
(ii) Stud-book of Thoroughbred Horses of South Africa.
(iii) The Nurserymen's and Seedmen's Association of South Africa.
(iv) The Western Province Beekeepers' Association.
The South African Association of Beekeepers.
(v) The Co-operative Wine Farmers' Association of South Africa, Ltd.
(vi) The South African Sugar Association.
(vii) The South African Maize Breeders', Growers', and Judges' Association.
The South African Grain Traders' Association.
(viii) The South African Poultry Association.
(ix) Sacca, Ltd.
East Griqualand Co-operative Cheese Federation.
(x) The Fruit Growers' Co-operative Exchange of South Africa, Ltd.
(xi) The South African Co-operative Cotton Growers, Ltd.
(xii) The Central Co-operative Cotton Exchange Ltd.
(xiii) Federated Farmers' Co-operative Association of South Africa, Ltd.
(xiv) National Woolgrowers' Association.
(xv) S.A. Co-operative Deciduous Fruit Exchange, Ltd.
(xvi) S.A. Co-operative Citrus Exchange, Ltd.
(xvii) S.A. Dried Fruit Co., Ltd.
(xviii) Die Sentrale Ko-operatiewe Tabak Maatskappy van S.A., Beperk.
(xix) S.A. Sentrale Ko-operatiewe Graan Maatskappy, Beperk.
(xx) S.A. Groundnut Growers' Association.

In connexion with the above list, it is to be noted that in recent years the distinctive tendency in the sphere of agricultural organization has been the growth of co-operative effort, in the shape of farmers' associations and exchanges for the marketing of agricultural and pastoral products.

13. **International Institute of Agriculture, Rome.**—The International Institute of Agriculture at Rome was created under an International Convention on the 7th June, 1905, and is supported by practically all civilized states. The Institute co-ordinates statistics of production and consumption of the various states, and summarizes their literature and reports on their activities in so far as they affect farming.

It therefore disseminates important information regarding international trade, indicates the progress made, and the means by which it is attained. The information afforded to the Union Government, more especially in regard to the world's crops, is of value as affecting markets for and prices of the Union's produce.

The Union Government is a member of the Institute under Group 4 of the adhering states, which entitles it to two votes on the General Assembly and entails an annual subscription of 8,000 gold francs. In addition, the Union Government pays an annual subscription of 2,163 lira for special publications issued by the Institute, which are required in addition to those to which the Union Government is entitled as a member of the Institute.

14. **Legislation.**—A summary of agricultural legislation up to 1931 will be found on Page 246 of *Official Year Book* No. 13. Later legislation passed will be found in Chapter II of the subsequent volumes.

§ 2. Live Stock and Pastoral Production.

1. **Horses, Mules, and Asses.**—(i) *History of Horse-breeding.*—At the time of the discovery of the Cape (1486) the natural group of Equidae were represented by two types of Zebra and the Quagga only. These types were not used in the development of the horse stock of the country. The first importations of horses of Arabian and Persian breeding were made from Java (1652). From time to time importations were made from Persia (1689), South America (1778), North America (1782), and England (1782), but the greatest progress in the early history was made during the governorship of Lord Charles Somerset, and many good and high-priced stallions were imported by private owners during the period 1820-1830. Horse-breeding was retarded by horse-sickness in 1719, and during the second visitation of the dreaded disease in 1763 losses exceeded 2,500 horses during the course of a few months. The prosperous trade of supplying remounts to the Indian army commenced in 1769, and by 1810 as many as 5,482 horses and 198 mules had been supplied. About the middle of the 19th century, horse-breeding declined, owing largely to deterioration of the stock as a result of the use of inferior stallions. The trade with India passed to Australia, and other factors, such as the development of more lucrative farm enterprises (merino sheep, Angora goats, ostriches) and the adoption of mechanized power, contributed towards a lack of interest in horse-breeding. Apart from the breeding of race horses, few changes in horse-breeding have taken place during the past three decades. However, the market for good horses has always been remunerative. The thoroughbred is used for the breeding of horses for riding, remount, and limited carriage purposes, while the Percheron is the most popular breed for heavy draught and for the improvement of common draught-horse stock.

(ii) *Natural Suitability of the Country for Horse-breeding.*—The two main factors which influence the degree of success that may be expected are: the occurrence of horse-sickness and the nutritive value of the natural pasture. Horse-sickness occurs in varying degrees of severity in most of the summer-rainfall areas. The immunization of equines against horse-sickness has, however, reduced losses from this disease considerably. With very few exceptions, the natural pastures of all the provinces are low in mineral and protein value; these deficiencies retard growth, development, and maturity, and in many instances result in reduced stature and lack of quality of bone. The coastal regions of Natal and immediately south of Natal, the low and middle veld areas of Transvaal, and the extreme barren parts of Bechuanaland are unsuitable for horse-breeding. In general, it may be said that horses do well wherever conditions are best suited for sheep. The following are considered the best districts for horse-breeding: Colesberg, Middelburg (Cape), Wodehouse (vicinity Dordrecht), Robertson, and Malmesbury (vicinity Darling).

(iii) *Mules.*—Early importations of donkeys into South Africa were made from the Cape Verde Islands; in all probability these animals were of Spanish origin and Andalusian stock. Early in the 18th century certain districts of the Western Province, especially the district of Malmesbury, attracted attention as grain-farming areas and progress was rapid. The use of mules in these districts spread and mule-breeding became an important enterprise. Subsequently, mule-breeding spread to other areas, even beyond the borders of the Cape, and large numbers of mules were bred where suitable mares were available. More recently the interest in mule-breeding has waned, although good mules are always in demand and realize good prices. The South African mule, although frequently somewhat light, is a most useful draught animal, very hardy, willing, and capable of much work to an advanced age. Mules can be reared successfully where horses do well. In 1937 the Department of Agriculture and Forestry imported forty-one donkey mares and three jacks from the United States of America to augment the existing stud. The object of the importation is the breeding of a good class of jack for sale to farmers. Particular attention must be paid to the selection of good-framed large mares for mule breeding, while the mares and their foals should receive adequate feed during periods when the natural veld does not supply sufficient feed for normal growth and soundness of bone.

(iv) *Statistics.*—The following table gives particulars of horses, mules, and asses in the Union. In 1930 and 1937 the Agricultural Censuses did not cover the towns. The numbers in the towns in 1926 and 1936 have been added to the 1930 and 1937 figures respectively for convenience of comparison.

NUMBER OF HORSES, MULES, AND ASSES, 1904 TO 1937.

Year.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Union.
HORSES.					
1904 (General Census)	255,000	66,574	51,654	76,231	449,559
1911 "	333,902	75,567	89,160	220,725	719,414
1918 (Census of Agriculture)	367,605	65,839	106,698	240,880	781,022
1921* " "	417,315	85,655	147,313	270,185	920,468
1926 " "	381,278	100,529	154,096	265,748	881,651
1930 " "	353,108	110,662	165,721	238,123	867,614
1937 " "	333,136	87,839	143,752	212,843	777,570
MULES.					
1904 (General Census)	64,433	4,450	43,917	21,934	134,734
1911 " "	47,059	15,602	25,275	6,995	94,931
1918 (Census of Agriculture)	52,036	6,933	13,818	11,672	84,559
1921 " "	71,858	6,312	19,332	12,287	116,789
1926 " "	66,963	10,472	26,199	14,822	138,456
1930 " "	88,834	13,524	27,435	11,608	141,401
1937 " "	91,750	12,388	23,667	8,833	136,638
ASSES.					
1904 (General Census)	100,470	2,418	32,496	6,546	141,930
1911 " "	191,036	28,018	106,048	11,558	336,710
1918 (Census of Agriculture)	315,333	48,905	149,411	40,867	554,916
1921 " "	391,602	54,613	229,667	46,456	722,338
1926 " "	394,687	76,314	266,766	56,416	796,183
1930 " "	306,998	87,546	287,190	58,730	740,464
1937 " "	353,288	110,177	318,990	80,664	863,119

* A detailed classification of the number of horses in the Union in 1921, according to age, will be found in the sixth and previous issues of this *Year Book*.

2. **Cattle.**—(i) *History of Cattle-Breeding.*—The first colonists who landed at Table Bay found large herds of cattle in the possession of the nomadic native tribes. The resources of the country in respect of the supply of fresh meat induced the Dutch East India Company to provision its ships trading with India and the East with supplies of this kind from the Cape of Good Hope. At a later stage, during the days of the pioneer colonists, cattle had to be relied upon, in the absence of railway communication, for the transport services required for the development of the country. As a consequence cattle were bred which possessed great hardiness, rustling qualities and constitution, and the capacity to stand long treks, and which could be relied upon for draught purposes. In the course of time there was created a distinct breed, which came to be known as the *Afrikander*. Remarkable progress has been made within the last decade in improving the early maturing beef and fattening qualities of this breed.

The introduction of European breeds took place during comparatively recent times. Towards the end of the eighteenth century small importations of *Friesland* cattle—or at least cattle from Holland—found their way into different parts of the country, more especially into areas in the vicinity of the Cape Peninsula. The first importations of British breeds of cattle took place towards the middle of the nineteenth century, and consisted mainly of *Shorthorns* and *Devons*. These were followed by other well known breeds, so that towards the end of the century cattle farming enjoyed a fairly well established position in the pastoral industries of the country.

Rinderpest in 1896, however, took heavy toll of the herds throughout the whole of southern Africa, a disastrous set-back, which was further accentuated by the Anglo-Boer War of 1899-1902. Thus the permanent progress of the cattle industry of to-day had its beginning after the close of that war, when the Union's pastoral industries had to be built up from their very foundations. The progress of the work was greatly accelerated by the formation of the South African Stud-Book Association in 1905 and of the different breed societies affiliated thereto. These movements have served to promote the breeding of pure-bred stock and have protected and fostered the interest of breeders.

Of late years, the prevention and the control of diseases in cattle have been seriously taken in hand, and other progressive schemes, such as the establishment of agricultural divisions and schools, legislative measures, trade relations, and improved farming methods, have combined to bring the pastoral industries to a more stable and financially sound condition.

In 1936, the Union possessed no fewer than eleven million head of cattle, and pastoral products have now increased beyond the power of absorption of the limited local market. Considerable difficulty has been found in placing these surplus products on overseas markets, but consistent headway is now being made in regard to the improvement of the quality of pastoral products. Legislation has recently been introduced with a view to stabilizing and consolidating the cattle industry and other branches of farming associated with it.

Under the ocean mail contract of 1912 pedigree cattle are conveyed to South Africa free of freight. The number of cattle introduced up to the 31st December, 1923, as the result of this provision was 3,367.

The number of pedigree cattle imported since the beginning of 1924 has been as follows:—

Year.	Under Provisions of Mail Contract.	Total Importations.	Year.	Under Provisions of Mail Contract.	Total Importations.
1924	—	18	1932	70	80
1925	91	166	1933	38	53
1926	—	21	1934	55	119
1927	—	69	1935	115	126
1928	2	166	1936	165	236
1929	65	295	1937	57	175
1930	77	131	1938	47	54
1931	88	110			

(ii) *Number of Cattle.*—The figures given in the table hereunder represent the number of cattle as returned at the general Censuses of 1904 and 1911, and at certain censuses of pastoral production beginning with 1918. For those years when the censuses did not include the towns, the numbers enumerated in the towns at the previous census have been added for convenience of comparison.

NUMBER OF CATTLE, 1904 TO 1938.

Year.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Union.
1904 (General Census)	1,954,390	666,903	515,956	363,204	3,500,453
1911 "	2,715,330	456,087	1,339,298	1,286,234	5,796,949
1918 (Census of Agriculture)	2,410,934	977,252	1,888,443	1,575,295	6,851,924
*1921 " "	2,810,903	1,455,017	2,561,618	1,732,551	8,557,089
†1922 " "	2,976,168	1,566,232	2,762,044	1,896,225	9,200,669
1926 " "	3,351,269	2,152,100	3,055,140	1,955,772	10,514,281
1930 " "	3,416,840	2,495,466	3,158,573	1,680,097	10,750,976
1934 " "	3,275,635	2,331,965	3,055,608	1,500,529	10,163,737
1935 " "	3,375,435	2,417,257	3,142,398	1,639,894	10,574,984
‡1936 " "	3,653,814	2,477,295	3,152,901	1,826,917	11,110,927
1937 " "	3,697,805	2,482,205	3,244,037	1,969,880	11,394,827
1938 " "	3,711,266	2,510,440	3,339,184	2,017,637	11,578,527

* A detailed classification of the cattle enumerated at the 1921 Census, according to age, will be found in the sixth and previous issues of this *Year Book*.

† Information with regard to breeds of cattle in 1922 will be found in *Year Books* Nos. 6 and 7.

‡ Figures amended to include numbers enumerated in the towns in 1936, instead of those enumerated in 1926.

(iii) *Age and Sex of Cattle.*—The following table shows for the years 1921, 1926, 1930, and 1937 the European-owned cattle classified according to age and sex.

CATTLE (EUROPEAN-OWNED ONLY)—NUMBER AND CLASSIFICATION AS TO AGE AND SEX.

Year.	Cattle under 1 year.	Bulls and Oxen 1 year and under 2 years.	Heifers 1 year and under 2 years.	Cattle 2 years and over.			Total Cattle.
				Bulls.	Cows and Heifers.	Oxen.	
	No.	No.	No.	No.	No.	No.	No.
*1921	1,001,268	904,206		113,099	2,263,778	1,916,332	6,198,683
1926	908,588	746,614		85,538	1,959,377	1,845,520	5,545,637
1930	798,834	718,204		76,448	1,824,856	1,753,968	5,172,310
1937	1,034,205	473,366	627,205	75,211	2,169,927	1,816,846	6,196,760

* Includes cattle owned by natives residing on European-occupied farms, but excludes 2,728 cattle on rail.

3. **The Beef Industry.**—The rapid increase in the cattle herds, largely a result of better methods of control and prevention of live stock diseases since the beginning of the present century, has resulted during the past decade in a surplus of beef production.

In order to maintain the price level of slaughter stock on the local market, the Government in 1932 instituted a Meat Trade Control Board with power to regulate the internal marketing of live stock. The Board, by the regulation of the Johannesburg market, was undoubtedly instrumental in maintaining the price level of slaughter stock in the country. It was dissolved under the provisions of the *Live Stock and Meat Industries Act*, 1934, and its functions were transferred to the Live Stock and Meat Industries Control Board established under that Act.

In view of the unimproved condition of Union cattle, and especially beef cattle, the export trade in beef has, up to the present, been confined almost entirely to frozen beef, and fairly large quantities have in the past been exported yearly, chiefly under contract, to the Italian and Belgian Governments for military requirements.

The export trade in chilled beef, which is confined almost exclusively to the United Kingdom, and which promises a remunerative outlet for an improved beef animal, was commenced in 1932. Since the latter part of 1934 fairly regular weekly shipments have been exported. With the exception of the Cape Eastern Meat Export Association, which serves the Cape eastern area and which operates through East London, the organization of this trade in the northern Provinces was until 1938 entirely in the hands of the Department of Agricultural and Forestry, which is also responsible for the grading of all meat exported to the United Kingdom. During 1938 two more producers' exporting organizations were formed; the one, serving Natal and East Griqualand, operates through Durban, and the other, serving the north-western Cape and the western Transvaal, operates through Kimberley. Exports through Johannesburg are still organized by the Department of Agriculture and Forestry.

The *Live Stock and Meat Industries Act*, No. 48 of 1934, marks a very important stage in the development of the live stock industry, and more particularly of the beef industry. Cattle-breeders have already availed themselves of the machinery for the improvement of cattle provided by the Act, and up to the end of 1938 upwards of 128 districts had been proclaimed under the Act. Further details of the Act are given in para. 9 (v) of § 1 of this chapter.

The following tables show (*a*) the exports of beef since 1933; (*b*) the number of animals slaughtered in abattoirs during the years 1933 to 1937; and (*c*) index numbers of animals slaughtered at the principal abattoirs. There have been no imports of beef since 1931.

(a) BEEF—EXPORTS (OVERSEAS TRADE), 1933 TO 1938.

Year.	Exports (South African Produce).		
	Weight.	Declared Value.	
		Total.	Per 100 lb.
	lb.	£	£ s. d.
1933	21,883,756	261,307	1 3 11
1934	6,162,942*	55,454*	0 18 0
1935	14,369,470	170,743	1 3 0
1936	22,549,603	290,574	1 5 9
1937	16,907,274	233,564	1 7 8
1938	3,474,242	55,480	1 11 11

* Including beef of Rhodesian cattle slaughtered in the Union—4,630,446 lb., value £33,158.

(b) NUMBER OF ANIMALS SLAUGHTERED IN ALL ABATTOIRS, 1933 TO 1937.

Year.	Sheep, Lambs, and Goats.	Cattle.	Calves.	Pigs.	Total.
1933	3,208,695	489,839	41,700	218,087	3,958,321
1934	2,502,156	543,991	43,622	194,409	3,284,178
1935	2,464533	573,780	45,890	220,775	3,304,978
1936	2,892,641	611,727	50,981	272,315	3,827,664
1937	3,309,472	635,177	56,113	275,300	4,276,062

Quarterly returns from 39 of the principal abattoirs have been collected from the third quarter of 1932, and index numbers based on the returns in 1929-30 have been constructed for them. For the quarterly index numbers from the third quarter of 1932 to the last quarter of 1937, see *Official Year Books* Nos. 17 to 19.

(c) INDEX NUMBERS OF ANIMALS SLAUGHTERED IN ABATTOIRS, ANNUALLY 1929-30 TO 1937, QUARTERLY FROM 1938.

Year.	Sheep, Goats, and Lambs.	Cattle.	Calves.	Pigs.
1929-30	1000	1000	1000	1000
1933	1214	842	985	1113
1934	947	935	1030	992
1935	932	986	1084	1126
1936	1094	1051	1204	1389
1937	1252	1091	1325	1405
1938—1st Quarter	1206	1024	1253	1389
2nd Quarter	1298	1116	1398	1470
3rd Quarter	1280	1135	1531	1421
4th Quarter	1390	1092	1527	1532
1939—1st Quarter	1351	1056	1344	1366
2nd Quarter	1356	1130	1550	1525

4. **The Meat Research Laboratory, Onderstepoort.**—Within recent years it has come to be generally accepted that the Union is primarily a pastoral country and that agricultural practices should follow the lines of producing crops, first and foremost for the proper feeding of live stock.

In order to develop the meat side of the animal industry the Government has for many years conducted breeding and feeding tests on cattle, sheep, and pigs, and much progress has been made. Up to the present, however, the criteria by which farm animals have been judged as potential meat-producing animals, and by which the quality of their meat has been judged in terms of the consumers' requirements, have all been empirical. If further progress is to be made in the production of beef, mutton, lamb, bacon, and pork, the present criteria will have to be reviewed in terms of scientific facts. The research necessary to obtain the basal knowledge required to find out what constitutes good meat, how it can be produced in an hygienic manner, and how it can best be preserved for export and prepared for consumption, is to be undertaken in the Meat Research Laboratory at Onderstepoort. Although situated at Onderstepoort, the Laboratory is to serve the whole of the Department of Agriculture and not only the Division of Veterinary Services.

The Meat Research building, which was completed early in 1939, is divided into three sections.

(*a*) *The Abattoir Section.*—This section will deal with the relation between the live animal, its carcass, and the cuts of that carcass, both with regard to quantity and quality of the meat. Abattoir methods, i.e. pre-slaughter management (methods of stunning, bleeding, dressing, flaying, handling), general abattoir hygiene, pre-mortem and post-mortem inspection, system of grading, etc., will be systematically investigated, with the object of improving present day technique.

(*b*) *The Cold Storage Section.*—This section has been equipped with a most up-to-date refrigeration plant and a large number of cold storage chambers for experimental purposes. All the known methods of refrigeration can be employed with wide ranges of temperature, humidity, air circulation, etc. Facilities for gas storage are also available. In this section, the problems of meat preservation, not only for purposes of export, but also for local market requirements, will be investigated.

(*c*) *The Laboratory Section.*—This section provides facilities for the chemical, physical, and biological analysis of meat and also for the preparation of meat for consumption. It is in this section that the real detailed basic research will be conducted, on the results of which it is hoped to formulate scientifically accurate and commercially appliable methods of judging the quality of meat, thus making it possible to bring into function a dependable system of grading all kinds of meat and meat products.

Although the principal function of the laboratory staff will be basal research, its members will endeavour to remain in as close touch as possible with commercial abattoirs, cold storage plants, and the meat trade in general, and will, when time allows, investigate problems with which the trade is confronted.

5. **Dairying.**—(i) *General.*—Experience has shown that a considerable portion of the Union is well adapted to dairy farming. The climate is mild, and, in those districts in which the rainfall is good, cattle thrive well on the natural veld for from six to eight months of the year.

The principal crops grown for the feeding of dairy cattle are maize, lucerne, oats, teff grass, millet, mangolds, rye, and cow-peas, all of which do well in most of the areas devoted to dairy farming. Considerable quantities of maize are grown for silage and maize hay, and the use and value of all the above-mentioned fodders are being increasingly realized.

Most dairy breeds do well in South Africa. *Frieslands, Ayrshires, Jerseys, Dairy Shorthorns, South Devons, Brown Swiss, Red Polls,* and *Guernseys* are to be found in considerable numbers and there are many pure-bred herds of these breeds.

The office of the Division of Dairying in Pretoria is a constant source of free information on all questions pertaining to dairying. Officers of the Dairy Division are stationed in each of the four provinces, and it is their duty to travel among the farmers and give advice and instruction in approved methods of production, and in all matters pertaining to dairying and dairy farming, as well as to administer the provisions of the *Dairy Industry Act* and to grade all butter and cheese for export overseas. In regard to milk-recording, provision is made for granting official certificates of performance in respect of registered cows and statements of records of production in respect of non-registered animals.

At the present time there are three main legal measures under which the dairy industry is directed. The first is the *Dairy Industry Act* (No. 16, 1918), as amended by the *Dairy Industry Act*, 1918, *Amendment Act*, 1926 (No. 14, 1926), which controls the internal economy of the industry. It provides "for the registration of dairy premises and the owners and occupiers thereof, for the marking of dairy produce and registration of marks thereon, and generally for the regulation of the dairy industry."

The second is the *Agricultural Produce Export Act* (No. 35, 1917), in which provision is made for regulations governing the export of dairy produce. These regulations provide for the compulsory grading of butter and cheese for export. The maximum content of water allowed in export butter is 16 per cent. No preservative is permitted except common salt, and that must not be in excess of 4 per cent. No other extraneous matter is allowed.

The third is the *Dairy Industry Control Act* (No. 35, 1930), which makes further provision for the regulation and control of the dairy industry, and under the provisions of which a Dairy Industry Control Board functions. This Act also provides for the imposition of a levy on certain dairy produce and for the grading and branding, according to grade, of Cheddar cheese.

In addition to its prescribed functions the Dairy Industry Control Board administers the State-Aided Milk and Butter Scheme, under which milk or cheese is made available to all children in primary schools and to necessitous children in secondary schools. Under this scheme butter is also made available at reduced prices to certain classes of low-wage earners.

The *Co-operative Societies Act* (No. 28, 1922) also claims mention in connexion with South African dairying, for the industry is one which has proved itself peculiarly adaptable to co-operative organization in South Africa as in all parts of the world. (See "Agricultural Co-operation," § 12 below.)

(ii) *Butter and Cheese.*—In 1938, there were in the Union 58 creameries and 14 cream depots, 115 cheese factories including 6 process cheese factories, 5 condensed milk factories, 1 dried milk factory, 1 margarine factory, and 1 butter substitutes factory (specially registered for the renovating or reworking of butter). Both the Cheddar and Gouda types of cheese are successfully made. Other varieties such as blue-veined and process or loaf types of cheese are also now being made in fair quantity and with considerable success.

Regulations governing the export of butter and cheese have been brought into operation, and neither of these products may leave the Union before being officially graded according to quality, or (in the case of farm butter) unless marked "Ungraded farm butter" or "Cooking butter" (butter below third grade).

Cattle.—In the year 1911 there were shown to be 1,900,230 Union. The following table shows the number of European- ıd heifers of two years old and over for the censuses at which ın was called for.

	Number.
1918	1,924,925
1921	2,263,778
1926	2,046,094
1930	1,911,573
1936	2,150,471
1937	2,169,927

ics of milk production are available, but it may be said that years great improvement has been brought about both as re- and quality. Many more herds of first-rate milking capacity en built up, while large numbers of pure-bred cattle have been being imported; their progeny is spreading and is having a nce for good upon the ordinary cattle of the country. The pure-bred cattle, the creation of cattle improvement areas, the inferior bulls, and the purchase of improved sires under the attle Improvement Scheme are factors which have undoubtedly sponsible for the increased output of dairy products.

Records.—A revised Dairy Cattle Improvement and General ng Scheme, designed to encourage further the keeping of milk the culling of unprofitable cows, came into operation in Sep- Under this scheme it is possible for breeders and farmers to ilk production officially recorded and tested for butter-fat at a rate, provided they agree to have every cow in their herd ng every lactation and to have their herd averages published mental journal, *Farming in South Africa.*

mum fee for testing pure-bred cows is 10s. per month for a nd including five cows. A herd of twenty cows may be tested er month, and 3d. is charged for each additional animal above Grade or non-registered herds are tested at a charge of 5s. to twenty cows and 1d. per animal above that number. The is, however, 30s., which entitles the farmer to have twenty or er of cows tested for a period of six months. At the 31st December, ere 249 registered and 427 grade herds, representing a total of different breeds, under official test.

f pure-bred herds are required to weigh and record the quantity ch milking, but, in the case of grade herds, farmers are allowed milk on one day each week. The keeping of milk records is ıe increase. Full particulars of the scheme are obtainable from endent of Dairying, Department of Agriculture and Forestry,

stics.—The following tables will serve to illustrate the position ry and the advance which has taken place since 1910-11:—

R—PRODUCTION, IMPORTATION, AND CONSUMPTION, 1910-11 TO 1937-38.

	Production.			Imports (less Re-exports).	Exports (South African Produce).	Production (less Exports).	Available for Consumption.
	Creamery Butter.	Farm Butter.	Total.				
	1,000 lb.	1,000 lb.	1,000 lb.	1,000 lb.	1,000 lb.	1,000 lb.	1,000 lb.
	5,191	6,159	11,350	3,510	248	11,102	14,612
	7,877	5,105	12,982	947	959	12,023	12,970
	11,517	7,446	18,963	353	1,663	17,300	17,653
	13,470	10,938	24,408	1,783	693	23,715	25,498
	18,180†	11,266	29,446	1,624	4,791	24,655	26,279
	18,658†	11,959	30,617	2,722	2,558	28,059	30,781
	26,526†	14,276	40,802	2,853	5,689	35,113	37,966
	32,224†	14,430	46,654	1,642	11,186	35,468	37,110
	30,058†	12,995	43,053	2,982	8,709	34,344	37,326
	30,024*	13,260	43,284	6,257	2,816	40,468	46,725

* Extracted from *Farming in South Africa.*
† Industrial census figure.

(b) CHEESE—PRODUCTION, IMPORTATION, AND CONSUMPTION, 1910-11 TO 1937-38.

Year.	Production.			Imports (less Re-exports).	Exports (South African Produce).	Production (less Exports).	Available for Consumption.
	Factory Cheese.	Farm Cheese.	Total.				
	1,000 lb.	1,000 lb.	1,000 lb.	1,000 lb.	1,000 lb.	1,000 lb.	1,000 lb.
1910–11	225	320	545	4,600	21	524	5,124
1915–16	978	997	1,975	3,050	55	1,920	4,970
1920–21	4,347	272	4,619	170	555	4,064	4,234
1925–26	6,182	284	6,466	409	208	6,258	6,667
1929–30	7,217	446	7,663	536	1,825	5,838	6,374
1933–34	6,946†	399	7,345	400	472	6,873	7,273
1934–35	9,775†	493	10,268	460	1,589	8,679	9,139
1935–36	10,997†	355	11,352	409	2,459	8,893	9,302
1936–37	10,498†	405	10,903	492	1,661	9,242	9,734
1937–38	12,184*	278	12,462	721	1,146	11,316	12,037

* Extracted from *Farming in South Africa*. † Industrial census figure.

(vi) *State-Aided Milk and Butter Scheme.*—(a) *General.*—The State-Aided Milk and Butter Scheme was inaugurated in August, 1935. The scheme is financed by the Government, the South African Railways and Harbours Administration, and the Dairy Industry Control Board. Its main object is to divert to inland consumption as much as possible of the surplus dairy produce which is normally exported overseas. An endeavour is in the first instance made to utilize for distribution to children all available supplies of surplus milk which would otherwise be converted into cheese and butter.

The scheme embraces (a) the free supply of milk or cheese to children only and (b) the supply of butter at considerably reduced prices to necessitous families and charitable institutions, provided funds are available for that purpose. The cost of cheese and butter supplied under the scheme is normally based on "Export Parity", i.e., the prices which would have been realized on the London market, if the cheese and butter had been exported. During certain periods, however, local wholesale prices may be allowed.

The following statement of expenditure reflects the development of the State-Aided Milk and Butter Scheme since its inception:—

EXPENDITURE—STATE-AIDED MILK AND BUTTER SCHEME.

Heading.	1935–36.*	1936–37†.	1937–38.†	1938–39.†
	£	£	£	£
Milk	21,745	71,349	75,432	93,557
Cheese	11,027	62,157	61,667	58,501
Butter	4,589	17,596	117,966	188,821
Sundries	225	726	207	200
TOTAL £	37,586	151,828	255,272	341,079

* 1st August to 31st March.
† 1st April to 31st March.

(b) *Distribution of Milk or Cheese.*—A ration not exceeding one half pint of milk per day in respect of each child (or one ounce of cheese at centres where milk is not normally available) may be distributed to necessitous school and pre-school children.

School children may be supplied with milk or cheese on schooldays only. The distribution must take place at schools under the supervision of teachers. Pre-school children may receive milk on every day of the week throughout the year, provided they are assembled at approved depots or centres to consume the milk, which must be distributed under the supervision of child welfare societies, local health authorities, or other approved organizations. Milk may also be distributed to indigent school and pre-school children during school holidays, provided they are assembled at approved centres or camps.

It is expected that parents will make every endeavour to contribute any amount not exceeding 2s. per quarter in respect of each child receiving milk or cheese. No child is, however, deprived of its right to participate in the scheme merely because its parents are unable or unwilling to contribute. All moneys collected are deposited by school principals at the nearest office of the Receiver of Revenue.

In the case of town schools or centres for pre-school children, the milk must be supplied in accordance with the conditions laid down by the local health authorities, who are consulted and have to approve of the sources from which the milk is obtained and the manner in which it is distributed to the children. It is also desired that the milk be pasteurized, unless the local health authorities approve of the distribution of unpasteurized milk. Principals of rural or farm schools must satisfy themselves that the milk is obtained from satisfactory sources, but may arrange for the sources of supply to be examined by district surgeons.

Tenders are periodically invited for the distribution of milk to children, and thereafter contracts are concluded for any period not exceeding twelve months. In order not to stimulate the production of more milk, a price schedule for surplus milk ranging from 8d. to 1s. 2d. per gallon delivered at schools has been adopted. The price paid for milk varies from place to place according to the quantity supplied, the distance over which the milk has to be transported, the climatic conditions affecting production, and the cost of pasteurization and bottling. Accounts for milk distributed to children are paid in full after the close of each month, out of the funds provided for the scheme.

The number of children and the quantity of milk supplied vary from month to month in accordance with the number of schooldays and holidays, and with seasonal variations in the production of milk. Details of the quantities and cost of milk distributed monthly appear below:—

DISTRIBUTION OF MILK, 1937-1938 AND 1938-1939.

Month.	1937–1938.				1938–1939.			
	Schools. No.	Pupils. No.	Quantity. Gals.	Cost. £	Schools. No.	Pupils. No.	Quantity. Gals.	Cost. £
April	1,073	124,787	137,432	6,736	1,129	129,019	115,307	5,925
May	1,008	113,303	117,626	5,218	1,012	101,387	113,421	5,836
June	1,154	128,083	112,589	5,533	1,019	112,792	151,868	7,932
July	770	98,839	81,132	4,128	1,002	149,445	102,711	5,661
August	900	102,037	116,795	5,985	1,183	157,772	195,860	10,349
September	937	143,448	158,763	8,270	1,148	150,532	183,003	9,573
October	1,091	133,185	146,488	7,197	1,260	175,448	165,176	8,453
November	1,210	158,073	179,886	9,507	1,302	184,148	226,240	12,137
December	1,176	151,846	70,293	3,941	1,060	148,087	70,475	3,784
January	901	119,903	53,896	2,649	1,231	140,763	95,823	4,950
February	1,173	164,873	161,723	8,258	1,300	173,330	168,254	8,995
March	1,186	147,547	149,503	7,613	1,427	197,122	204,961	10,962
TOTAL	—	—	1,486,126	£75,432*	—	—	1,703,099	£93,357

* Includes sundry expenditure: 1937–38, £397.

Schools authorized to obtain cheese in lieu of milk (i.e. at centres where milk is not normally available) are allowed to order their requirements over certain fixed periods, usually one to two weeks, direct from registered cheese factories. Government graded first grade Cheddar cheese only must be supplied to schools. Experiments are, however, being carried out with the supply of process Cheddar produced in five pound loaves, which, it is anticipated, may overcome difficulties encountered in regard to packing, transport, cutting up, storage, and deterioration.

Seasonal variations in the production of cheese are offset by storage and do not seriously affect the supply to schools, which is largely determined by the number of schooldays in each month or by holidays. A number of schools periodically cease to distribute cheese, particularly during warmer weather or when supplies of milk or other foods such as summer fruits are more plentiful. Details of the quantities and cost of cheese distributed monthly appear below:—

DISTRIBUTION OF CHEESE, 1936-37, 1937-38, AND 1938-39.

Month.	1936-1937.		1937-1938.		1938-1939.			
	Quantity. lb.	Cost. £	Quantity. lb.	Cost. £	Schools. No.	Pupils. No.	Quantity. lb.	Cost. £
April	—	—	137,878	7,437	1,543	125,023	116,033	6,187
May	319,263	16,021	123,535	6,987	1,504	126,279	127,193	6,764
June	—	—	94,695	4,870	1,451	114,064	87,761	4,662
July	—	—	80,906	4,283	1,143	72,162	56,753	3,098
August	171,746	8,865	161,851	8,512	1,761	125,926	152,428	8,119
September	121,922	6,295	114,528	6,060	1,664	125,840	116,315	6,248
October	158,443	8,208	106,004	6,001	1,772	128,002	136,297	8,115
November	137,571	7,530	60,435	3,399	1,635	112,812	117,916	6,588
December	23,257	1,165	8,677	497	143	17,212	6,521	356
January	64,028	2,931	50,584	2,601	1,141	82,798	58,020	2,927
February	130,544	5,986	97,579	5,006	1,459	105,991	106,390	4,732
March	102,050	5,247	130,821	6,710	1,428	113,376	104,117	4,757
TOTAL	1,228,824	£82,157*	1,189,013	£61,667*	—	—	1,186,570	£70,201

* Includes sundry expenditure: 1936-37, £39; 1937-38, £355.

(c) *Distribution of Butter.*—Butter under the scheme at 6d., 5d., and 4d. per lb. respectively for first, second and third grade may be supplied to:—

1. Charitable institutions which purchase no butter at all or less than one half pound per week in respect of each inmate.
2. Families consisting of at least two members, whose joint income does not exceed 6s. per day.
3. Families consisting of three or more members whose joint income does not exceed 8s. per day.
4. All fixed and casual European staff of the South African and Harbour Administration, provided they are graded as railworkers and have dependents.

The maximum weekly ration of butter allowed to beneficiaries under the scheme is restricted to:—

1. One half pound per week in respect of each inmate of a charitable institution.
2. One pound per week in respect of families consisting of two to three persons.
3. Two pounds per week in respect of families consisting of four and more persons.
4. Three pounds per week in exceptional instances only in respect of very large European families.

The responsibility in regard to the supply of butter to charitable institutions is vested in the committee or body responsible for their management. The distribution of butter to necessitous families is undertaken by (*a*) municipalities or local health departments, (*b*) specially formed butter distribution committees or (*c*) existing organizations or bodies.

The butter is ordered once every week from the nearest registered creamery and must be distributed on a fixed day and time each week from centrally situated depots. Second or third grade butter must, if available, be accepted by beneficiaries, but, when the lower grades are not available, first grade butter may be purchased at the higher price.

The circumstances of all families applying for butter under the scheme are investigated, and approved applicants are furnished with official butter permits which must be presented at the nearest distribution depot on the appointed day and at the appointed time each week before any butter is obtained.

After the close of each month creameries are paid, out of the funds provided, a subsidy on all butter supplied under the scheme. The subsidy is equivalent to the difference between the full cost of the butter and the price of 6d., 5d., and 4d. per lb. respectively at which the various grades of butter have been distributed.

The quantity of butter distributed varies with the number of weeks in each month and tends to drop in January when many institutions are closed for the summer holidays. Details of the quantities and cost of butter distributed under the scheme monthly appear below:—

DISTRIBUTION OF BUTTER, 1936-37, 1937-38, AND 1938-39.

Month.	1936-1937.		1937-1938.		1938-1939.				
	Quantity. lb.	Cost. £	Quantity. lb.	Cost. £	Centres. No.	Institutions. No.	Families. No.	Persons. No.	Quantity. lb.	Cost. £
April	79,252	2,388	74,017	2,513	207	226	41,555	211,655	317,793	16,038
May			89,312	3,063	210	225	43,110	221,475	296,675	15,364
June	43,841	1,321	152,587	5,522	215	226	45,678	229,278	300,569	14,603
July	39,776	1,198	240,225	9,224	222	226	46,538	237,114	382,168	18,514
August	47,818	1,441	240,753	9,493	226	225	47,332	239,824	315,017	15,035
September	49,652	1,495	295,037	13,111	230	225	47,516	240,241	318,773	15,251
October	59,324	1,787	307,825	14,292	234	228	47,008	242,763	399,252	18,911
November	50,677	1,527	215,089	11,844	240	230	48,008	243,817	326,606	15,139
December	54,628	1,642	236,732	13,088	243	232	48,284	244,029	394,618	15,739
January	47,041	1,417	205,299	9,648	248	233	48,492	245,010	310,270	13,828
February	52,212	1,573	236,964	10,886	253	233	48,584	247,711	324,540	14,533
March	59,089	1,807	288,107	13,241	253	238	49,065		408,052	17,866
TOTAL	584,210	£17,596	2,582,852	£117,966*	—	—	—	—	4,094,333	£188,821

* Includes sundry expenditure: 1937-38, £2,031.

6. **Sheep and Wool.**—(i) *Sheep-Breeding.*—The original Cape sheep were of a leggy hair-bearing type with fat tails and fat rumps. To improve the breed, importations of sheep from good flocks of various overseas countries commenced as early as 1654 and continued at intervals up to fairly recent years. The importations in 1812, however, marked the real beginning of the permanent establishment of the merino in South Africa. In 1804 there were but half a million sheep in the Cape Colony; by 1811 the number had increased to 1·3 million. In 1810 the Colony exported 29·7 thousand pounds of wool to Great Britain, whereas in 1833 the quantity had increased to 93·3 thousand pounds.

As further settlement of the hinterland extended so was the area of sheep and wool production increased. Owing to the difficulty of eradicating tick-borne diseases, certain areas of the Union are not considered to be entirely suitable for the rearing of wool-bearing sheep. The 1937-38 agricultural census reflects the following number of sheep:—

Woolled sheep	32,795,580
Non-woolled sheep	6,205,991

For the calendar year 1938, the export of grease wool amounted to 237,258,989 lb. and of scoured wool to 7,155,825 lb., the total value being £8,983,740.

The breeding of purely mutton types of sheep as distinct from the fat-tailed non-woolled types is at present very limited; efforts to improve the latter types by the importation of and crossing with rams of improved mutton breeds are being encouraged by the Department working in conjunction with the Livestock and Meat Industries Control Board. In 1936 and 1937 some improved mutton type rams, purchased from funds made available by the Meat Control Board, were imported, and in 1938 a further 480 rams were imported under similar circumstances.

(ii) *Breeds of Sheep.*—The table which follows gives particulars of the number of European-owned sheep and lambs, classified according to breeds, as returned at the censuses of 1926, 1930, and 1937.

SHEEP AND LAMBS—EUROPEAN-OWNED ONLY—NUMBER AND CLASSIFICATION AS TO BREED, AT 31st AUGUST, 1926, 1930, AND 1937.

Breed.	1926.		1930.		1937.	
	Sheep.	Lambs.	Sheep.	Lambs.	Sheep.	Lambs.
	No.	No.	No.	No.	No.	No.
Woolled—						
Merino	23,913,990	5,558,540	30,871,922	6,897,055	25,369,838	5,089,541
English	12,455	4,364	9,040	3,824	15,733	5,947
Cross-bred	1,429,232	513,266	1,129,106	391,612	1,392,740	537,170
Persian	185,063	67,526	89,618	28,165	61,935	22,375
TOTAL WOOLLED	25,540,740	6,143,696	32,099,686	7,320,156	26,840,246	5,655,533
Non-Woolled—						
Karakul	†	†	12,335	2,265	18,347	17,294
Persian	849,413	305,495	1,616,709	650,399	1,955,505	720,857
Afrikander	1,301,177	429,178	1,054,512	394,356	1,320,892	536,309
TOTAL NON-WOOLLED	2,150,590	734,673	2,683,606	1,047,020	3,294,744	1,274,405
GRAND TOTAL	27,691,330	6,878,369	34,783,292	8,367,176	30,134,990	6,929,938

† Not enumerated.

(iii) *Number of Sheep in the Union.*—The following tables show the number of sheep (woolled and others) in the country for certain years from 1904. For those years when the censuses did not include the towns, the numbers enumerated in the towns at the previous census have been added for convenience of comparison.

NUMBER OF SHEEP, 1904 TO 1938.

Year.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Union.
			(a) WOOLLED SHEEP.*		
1904	8,465,308	504,798	413,638	2,436,891	11,820,635
1911	11,051,836	1,105,023	2,330,304	7,355,052	21,842,215
1921	14,191,253	1,383,607	3,360,105	8,813,248	27,757,213
1926	18,927,421	1,890,761	4,219,097	10,340,465	35,377,744
1930	23,472,895	2,608,896	5,296,497	12,642,389	44,020,677
1932†	23,019,000	1,905,000	4,799,000	13,293,000	43,016,000
1934	17,360,665	1,908,177	3,772,425	7,324,146	30,365,413
1935	17,694,078	1,838,473	3,538,778	7,244,179	30,315,508
1936‡	19,486,583	1,965,726	3,686,669	8,242,549	33,381,527
1937	20,807,756	1,936,964	4,034,727	9,120,973	35,900,420
1938	19,414,780	1,822,250	3,545,020	8,079,027	32,861,077
			(b) OTHER SHEEP.		
1904	3,353,521	163,580	422,111	562,656	4,501,868
1911	6,082,677	414,235	1,084,946	1,232,586	8,814,444
1921	3,109,489	221,449	408,010	233,351	3,972,299
1926	2,927,569	248,049	327,108	129,685	3,642,501
1930	3,626,807	293,533	351,989	226,721	4,499,140
1932†	4,788,000	331,000	678,000	467,000	6,264,000
1934	3,592,748	260,289	615,647	338,184	4,806,868
1935	4,236,752	321,510	639,808	482,634	5,680,704
1936‡	4,774,457	270,336	733,413	661,470	6,439,676
1937	4,249,895	239,324	430,523	329,718	5,249,460
1938	4,556,876	260,869	798,065	640,910	6,256,720

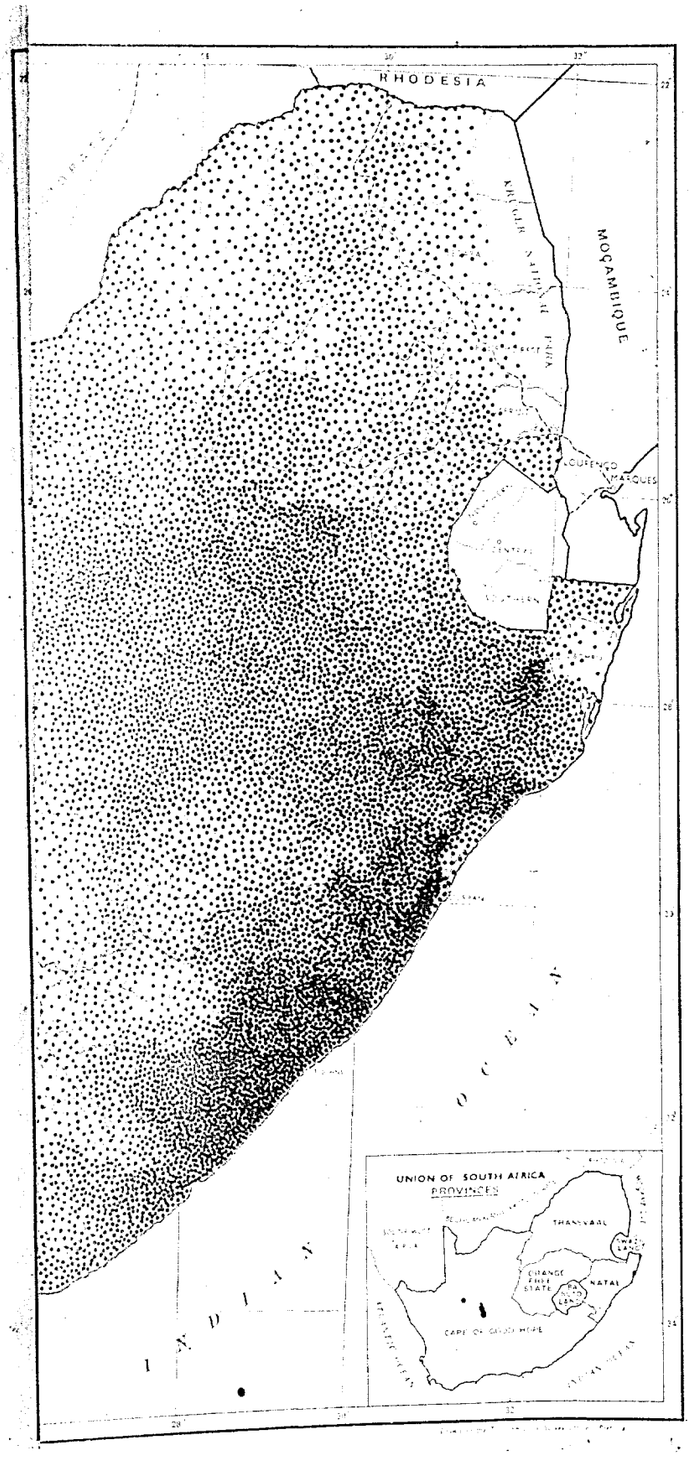
* In the classification of sheep there are marked differences at each census. This is owing to the farmer's confusing his woolled with his non-woolled sheep.

† Estimate by the Department of Agriculture and Forestry as at 30th June.

‡ Amended figures. Numbers enumerated for the towns in 1936 added instead of those enumerated in 1926.

(iv) *World Sheep Population.*—The following table is based on data published by the Imperial Economic Committee.

Of the total number of about 736 million sheep in the world over 39 per cent. are in the Southern Hemisphere; 65 per cent. of these are in Australia, New Zealand, and the Union of South Africa. About 47 per cent. of the sheep population of these three countries are merino sheep.



NUMBER OF SHEEP IN VARIOUS COUNTRIES, 1937.*

Continent and Country.	Number of Sheep.	Continent and Country.	Number of Sheep.
	Millions.		*Millions.*
Australia	114	United Kingdom	26
New Zealand	31	Spain	19
		Roumania	12
Total Australasia	145	Italy	9
		France	10
Argentina	44	Jugoslavia	9
Uruguay	18	Bulgaria	8
Peru	15	Greece	8
Brazil	13	Portugal	3
Chile	6	Germany	5
Bolivia	5	Eire	3
Other	2	Other	15
Total South America	103	Total Europe	127
		Soviet Union	69
United States	53		
Canada	3	Total Europe (including Soviet Russia)	196
Other	7		
		Union of South Africa	43
Total North and Central America	63	French West Africa	8
		Morocco (French)	11
India	50	Algeria	6
China	34	Abyssinia	4
Iran	15	Kenya	3
Turkey	16	Tunis	4
Iraq	5	Basutoland	1
Arabia	4	Somaliland (British)	3
Syria and Lebanon	2	Sudan (British)	2
Other	7	Tanganyika	2
		Nigeria	2
Total Asia (excluding Soviet Union)	133	Other	7
		Total Africa	96
		World Total	736

* Where 1937 figures are not procurable, the latest available figures have been interpolated.

(v) *Wool.*—(a) *Union Production.*—Almost the whole of the wool clip is shipped overseas, and the export returns therefore reflect practically the total production of the country. Details will be found in Chapter XXIV.

The following table gives the production of wool as returned at the agricultural censuses for certain census years up to 1937-38.

PRODUCTION OF WOOL—CERTAIN AGRICULTURAL CENSUSES, 1920-21 TO 1937-38.

Year.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Union.
	lb.	lb.	lb.	lb.	lb.
1920–21	66,833,137	5,909,932	15,812,392	47,373,558	135,929,019
1925–26	91,256,894	7,191,117	17,759,762	51,713,737	167,921,510
1929–30	133,163,303	11,919,837	27,823,893	76,535,029	249,442,062
1933–34	113,139,744	10,574,538	24,919,932	64,427,585	213,061,799
1934–35	113,025,929	8,619,002	19,898,569	45,381,032	186,925,123
1935–36	129,442,512	8,574,556	20,005,346	49,423,800	207,447,214
1936–37	133,779,495	9,037,849	20,374,330	55,909,309	219,099,983
1937–38	129,822,803	8,188,107	19,315,110	50,577,416	207,903,436

NOTE.—The discrepancy between the production and the export figures (Chapter XXIV), plus the local consumption, is a phenomenon common also to Australia and America. The difference is apparently accounted for by wool pulled from slaughtered sheep and sheep which have died from disease, and also by wool shorn by speculators, figures in respect of which are not reflected in the production returns.

(b) *World Production.*—The table hereunder gives the estimated world production in each year for the years 1932-33 to 1937-38 classified under the headings Merino, Cross-bred, and Carpet Wool. The table is based for the most part on data compiled by the Imperial Economic Committee (World Production and Trade, 1937-38).

From the point of view of South Africa, which produces little but merino wool, the production figures for carpet wools, and also those for crossbreds below about 48's quality, are unimportant. The main merino wool-producing countries are Australia, South Africa, and the United States of America. These three countries contribute approximately 90 per cent. of the total world merino wool production. Australia alone produces about 57 per cent. of the total world merino wool production.

ESTIMATED WORLD WOOL PRODUCTION, 1932-33 TO 1937-38.

(Greasy Basis in 1,000,000 lb.)

Countries.	1932–33.	1933–34.	1934–35.	1935–36.	1936–37.	1937–38.
MERINO WOOL.	1,000,000 lb.	1,000,000 lb.	1,000,000 lb.	1,000,000 lb.	1,000,000 lb.	1,000,000 lb.
Australia	849	797	817	819	832	833
South Africa	344	297	226	257	274	241
United States	218	225	229	226	224	227
Argentina	54	54	54	56	58	53
Uruguay	15	12	15	15	16	15
Brazil	15	15	15	15	15	15
Spain	12	12	12	10	10	12
Hungary	10	8	10	12	13	15
Germany	10	9	10	11	12	13
France	8	8	8	8	8	8
New Zealand	9	9	9	9	12	12
TOTAL MERINO.	1,544	1,446	1,396	1,438	1,474	1,444
CROSS-BRED WOOL						
Argentina	334	331	322	304	327	317
New Zealand	279	292	267	263	292	285
United States	222	235	231	227	225	212
Australia	214	199	204	144	178	142
Uruguay	97	83	102	102	104	101
United Kingdom	119	120	115	109	103	105
France	46	46	46	45	46	47
Spain	35	30	30	35	30	28
Italy	42	41	36	36	30	36
Chile	34	28	28	28	34	36
Germany	22	22	22	25	28	19
Canada	21	19	20	19	19	23
Brazil	19	20	21	21	22	16
Eire	20	20	17	17	18	21
Other European	58	59	59	58	64	65
TOTAL CROSS-BRED	1,562	1,545	1,520	1,433	1,525	1,512
TOTAL MERINO AND CROSS-BRED	3,106	2,991	2,916	2,871	2,999	2,956
CARPET WOOL.						
Soviet Russia	143	136	141	167	192	224
China	110	110	110	110	110	110
India	100	100	100	100	100	100
Balkan States	110	111	112	112	115	118
French Africa	76	77	82	88	100	78
Iran	50	50	50	50	45	38
Turkey	41	39	38	44	53	54
Spain	30	30	30	30	24	24
Syria	8	9	9	9	9	10
South American	30	30	30	30	30	32
TOTAL CARPET WOOL	698	692	702	740	778	788
GRAND TOTAL	3,804	3,683	3,618	3,611	3,777	3,744

(vi) *The South African Wool Market.*—The majority of sheep-farmers forward their wool direct to wool-brokers at the coast, who sell on a commission basis. At all ports, the all-auction system of selling wool is now in vogue.

In 1938, the Government concluded the fifth payment Agreement with the German Reich for the 1938-39 season, according to which Germany undertook to buy wool in the Union to a maximum value of £3,700,000 during the period September, 1938, to August, 1939, the value of purchases made in Germany by Union importers during the same period to be off-set against such purchases of wool.

The quantity of wool exported in millions of pounds (grease equivalent) and the average export value per pound of grease wool in successive seasons since 1920-21 is shown below:—

WOOL EXPORTED AND THE AVERAGE EXPORT VALUE PER LB., 1920-21 TO 1937-38.

Season.	Quantity Exported.	Value per Pound.	Season.	Quantity Exported.	Value per Pound.
	1,000,000 lb.	d.		1,000,000 lb.	d.
1920–21	130·4	9·2	1929–30	306·4	8·9
1921–22	301·2	8·8	1930–31	282·7	6·4
1922–23	178·3	15·9	1931–32	298·3	4·4*
1923–24	182·1	19·0	1932–33	336·3	4·9†
1924–25	173·5	20·5	1933–34	245·2	10·9
1925–26	232·7	14·2	1934–35	232·3	7·6
1926–27	247·2	14·2	1935–36	225·6	9·9
1927–28	271·2	16·6	1936–37	266·6	12·7
1928–29	282·2	14·1	1937–38	226·8	9·4

* Gold Standard Value. † 51 Per cent. at Gold Standard Value.

(vii) *Export of Sheep Skins.*—The recorded exports, number and weight, of merino, Cape, and coarse-woolled sheep skins from 1934 to 1938 are shown in the following table:—

EXPORT OF SHEEP SKINS, 1934 TO 1938.

Year.	Merino Sheep Skins.		Cape Sheep Skins.		Coarse-woolled Sheep Skins.	
	No. 1,000.	lb. 1,000.	No. 1,000.	lb. 1,000.	No. 1,000.	lb 1,000.
1934	3,536	17,986	*	*	3,044†	11,807†
1935	4,432	26,290	1,448	5,487	640	2,931
1936	3,780	23,583	1,904	6,634§	511	2,356
1937	3,772	21,400	2,284	7,896	519	2,195
1938‡	3,827	22,281	2,328	7,726	606	2,623

* Not available. † Includes Cape sheep skins.
‡ Preliminary figures. § Includes imported skins re-exported.

7. **Goats and Mohair.**—(i) *Number and Classification of Goats.*—The tables hereunder give information as to the number of goats, distinguishing Angora goats from others. For those years when the censuses did not include the towns, the numbers enumerated in the towns at the previous census have been added for convenience of comparison.

NUMBER OF GOATS, 1904 TO 1938.

Year.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Union.
	(*a*) ANGORA GOATS.				
1904	2,775,927	128,752	85,868	402,192	3,392,739
1911	3,340,132	127,452	262,174	545,577	4,275,335
1921	2,042,689	43,749	60,628	137,505	2,284,571
1926	1,700,070	31,578	27,609	72,071	1,831,328
1930	1,694,624	35,378	23,458	53,450	1,806,910
1934	889,127	18,275	6,706	36,169	950,277
1935	696,097	11,840	5,990	33,964	747,891
1936*	642,975	8,860	3,722	33,629	689,186
1937	656,172	8,879	4,150	31,457	700,658
1938	594,137	7,015	2,170	32,737	636,059
	(*b*) GOATS OTHER THAN ANGORA.				
1904	4,386,536	871,180	788,113	331,977	6,377,806
1911	4,613,282	861,822	1,509,546	502,994	7,487,644
1921	3,711,233	894,898	845,600	100,394	5,552,125
1926	4,163,823	1,101,254	800,395	90,711	6,156,183
1930	3,947,516	1,307,663	883,394	49,145	6,187,718
1934	3,200,969	1,103,880	925,439	30,669	5,260,957
1935	3,309,745	1,124,049	821,089	34,651	5,289,534
1936*	3,519,864	1,143,641	903,051	43,043	5,609,599
1937	3,497,326	1,083,154	855,370	41,801	5,477,651
1938	3,433,965	1,100,951	981,547	40,562	5,557,025

* Figures amended to include the numbers enumerated in the towns in 1936 instead of those enumerated in 1926.

(ii) *The Angora Goat.*—In 1838 twelve rams and one ewe were imported, but the rams were said to have been rendered impotent before they left Angora, and only one male born en route proved perfect. A second importation was made in 1856, followed by others in 1857, 1860, 1868, 1870, 1871, 1880, and 1897. So much intelligent care was bestowed on the breeding of Angoras that in 1891 there were approximately 3,000,000 in the country, and some of the specimens were regarded as superior to any goats produced in Turkey.

During the post-war decade the high prices realized for wool, as compared with mohair, served to hasten the displacement of Angoras by woolled sheep, while in 1929-30 a slump in the demand for mohair set in and the commodity actually became unsaleable at times. The continued depression and drought resulted in a decrease in the number of Angora goats in the country to a record low level in 1936. During the 1935-36 season there was a recovery in demand for mohair, prices appreciated sharply, and all old stocks were cleared. Since then prices have remained steady, and the industry is in a comparatively flourishing state again.

(iii) *Production of Mohair.*—As in the case of wool, practically all mohair is shipped overseas, and the export returns may be taken as substantially indicating the production of this article. Details will be found in Chapter XXIV.

The following table shows the production of mohair as returned at the agricultural census of 1917-18 and at certain annual censuses from 1920-21 to 1929-30, when the agricultural census was suspended. Annual censuses of agricultural production were resumed as from the year 1934.

PRODUCTION OF MOHAIR—CERTAIN AGRICULTURAL CENSUSES, 1917-18 TO 1937-38.

Year.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Union.
	lb.	lb.	lb.	lb.	lb.
1917-18	9,614,100	136,900	211,500	422,600	10,385,100
1920-21	7,905,206	93,004	117,556	332,784	8,448,550
1925-26	7,602,001	52,015	43,620	181,907	7,879,633
1929-30	6,803,193	49,907	29,431	136,551	7,019,082
1933-34	4,301,032	27,085	7,628	100,230	4,435,975
1934-35	4,075,684	18,497	7,194	83,677	4,185,052
1935-36	3,368,662	20,730	6,567	87,561	3,483,520
1936-37	3,117,161	16,957	4,947	86,011	3,225,076
1937-38	3,140,177	18,024	2,815	72,702	3,233,718

(iv) *Trade in and Marketing of Mohair.*—The Cape Province produces nearly all the mohair marketed in the Union. Unlike wool, however, mohair is not offered and sold by public auction, but is disposed of entirely by private treaty. Over 90 per cent. of the mohair produced is marketed through Port Elizabeth.

The quantity of mohair exported and the average export value per pound of mohair in successive years since 1925 is shown below:—

EXPORT OF MOHAIR AND VALUE PER POUND,* 1925 TO 1938.

Year.	Quantity Exported.	Value per Pound.*	Year.	Quantity Exported.	Value per Pound.*
	1,000 lb.	d.		1,000 lb.	d
1925	11,560	17·4	1932	6,435	3·6
1926	11,141	16·0	1933	15,743	5·0
1927	10,681	18·2	1934	6,478	6·6
1928	7,704	22·6	1935	10,637	8·2
1929	10,038	15·4	1936	6,342	16·5
1930	6,874	10·3	1937	4,561	25·1
1931	5,500	7·5	1938	5,111	16·6

* This represents the value at the ports and is therefore expressed in South African currency at the date of sale.

(v) *The South African Goat.*—South African goats are bred principally in the dry Karroo districts to the north and north-west of the Cape Province, in the various native areas, and in the bush country where sheep do not thrive. These goats are hardy animals, grow to a considerable size, and multiply rapidly: hence they are the most profitable stock which can be raised in districts where there is a demand for goats for slaughter purposes.

(vi) *Export of Goat Skins.*—Practically all the goat skins available for sale are exported overseas. The number and weight of Angora goat and other goat skins exported from 1934 to 1938 are shown in the following table:—

EXPORT OF GOAT SKINS, 1934 TO 1938.

Year.	Angora Goat Skins.	Other Goat Skins.	Total.	
	Weight.	Weight.	Number.	Weight.
	1,000 lb.	1,000 lb.	1,000.	1,000 lb.
1934	1,546	4,085	1,801	5,631
1935	1,179	4,581	1,984	5,760
1936	645	4,625	1,801	5,270
1937	365	5,017	1,970	5,382
1938	*	*	1,775	5,521

* Not available.

Pig and Bacon Industry.—(i) *Number of Pigs.*—Particulars are given hereunder as to the number of pigs. The agricultural censuses taken in 1930 and in subsequent years did not include the towns. Pigs in native locations in 1934 to 1936, and those owned by natives on European farms in 1935 and 1936, were not enumerated. Estimates based on the previous census for these areas and classes have been added where necessary for convenience of comparison.

NUMBER OF PIGS, 1904 TO 1938.

Year.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Union.
1904	385,945	75,887	155,843	61,409	679,084
1911	505,730	110,332	302,882	162,656	1,081,600
1921	448,166	120,989	249,063	96,551	914,769
1926	405,538	124,401	268,251	132,639	930,829
1930	442,189	110,600	296,297	113,683	962,769
1934	405,884	94,534	259,312	90,313	850,043
1935	422,372	108,655	298,468	135,511	965,006
1936*	460,395	116,525	328,838	171,048	1,076,806
1937	453,209	120,189	316,642	146,720	1,036,760
1938	434,452	110,455	289,297	113,722	947,926

* Amended figures. Numbers enumerated in towns in 1936 added instead of those enumerated in 1926.

(ii) *Present Position of the Industry.*—Owing to systematic breeding and feeding and improvement in management generally, the standard of bacon pig produced has been appreciably raised during recent years. The facilities provided under the present ocean mail contract for the free conveyance of pedigree stock have been the means of increasing the importation of pigs. With a view to putting the pig industry on a sound basis, the Government is now contemplating placing the industry under the provisions of the *Live Stock and Meat Industries Act* of 1934 and the *Marketing Act*, No. 26 of 1937.

The following tables give particulars as to the production, imports, and exports of bacon, ham, and lard:—

(a) BACON, HAM, AND LARD—PRODUCTION, 1917-18 TO 1937-38.

Year.	Factory Production.					Bacon and Ham produced on Farms.	Total Production of Bacon and Ham.
	Value of Pigs Used.	Quantity Produced.		Value.			
		Bacon and Ham.	Lard.	Bacon and Ham.	Lard.		
	£	lb.	lb.	£	£	lb.	lb.
1917-18	234,757	4,772,461	446,616	291,614	24,412	2,313,000	7,085,461
1920-21	449,564	5,555,317	495,574	490,470	31,248	2,244,600	7,799,917
1925-26	360,439	6,449,424	948,751	393,746	40,164	1,878,926	8,328,350
1929-30	424,363	7,677,858	910,467	462,913	43,560	1,217,959	8,895,817
1933-34	379,127	6,822,548	1,019,800	394,707	40,446	*	*
1934-35	373,756	6,984,400	1,213,994	403,097	40,707	*	*
1935-36	*	7,601,241	1,234,195	413,005	41,438	*	*
1936-37	*	8,042,919	1,152,304	411,131	30,977	1,220,853	9,263,772
1937-38	*	9,557,229†	*	*	*	*	*

* Not available.
† Obtained from Monthly Statistics of Foodstocks collected by the Census Office—twelve months ending 30th June.

(b) BACON, HAM, AND LARD—IMPORTS AND EXPORTS, 1910 TO 1938.

YEAR.	IMPORTS LESS RE-EXPORTS.				EXPORTS (S.A. PRODUCE).			
	Bacon and Ham.		Lard.		Bacon and Ham.		Lard.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	lb.	£	lb.	£	lb.	£	lb.	£
1910...	5,205,874	220,042	1,072,776	30,105	* 9,962	416	363	12
1915...	4,085,631	190,805	1,636,841	42,642	29,595	1,628	—	—
1920...	58,557	6,102	413,339	33,392	919,509	85,465	19,673	1,906
1925...	990,196	67,246	456,468	18,580	131,102	9,191	5,485	293
1930...	601,307	39,853	504,182	13,521	464,843	29,752	4,045	195
1934...	744,859	29,816	1,195,527	17,680	74,845	4,582	64,355	2,135
1935...	527,104	22,653	179,883	5,036	29,809	1,770	31,235	896
1936...	409,646	21,116	97,782	2,661	34,222	1,952	10,025	368
1937...	380,646	20,504	155,407	4,508*	81,273	4,152	4,375	167
1938...	350,527	19,280	80,649	1,898	160,242	9,409	33,546	1,349

* Amended figure.

Of the imported breeds, *Large Blacks* are still produced in the largest numbers, followed by *Large Whites*, *Berkshires*, *Middle Whites*, and *Tamworths*. With a view to improving the quality of bacon produced, experiments in breeding and feeding have been carried out by the Department of Agriculture and Forestry, and up to the present the following breeds and crosses have proved the most satisfactory for the production of lean sizeable bacon, provided careful attention is paid to proper feeding, viz.:—

(*a*) Large White Boar crossed with Large Black Sows.
(*b*) Tamworth Boar crossed with Large Black Sows.
(*c*) Large White.
(*d*) Tamworth.

The registration of all pedigree pigs is performed by the Pig Breeders' Society of South Africa. Advice and literature are given gratis on application to the Secretary, P.O. Box 703, Capetown.

9. **Ostrich Farming.**—Ostrich farming is no longer an important industry in the Union. With a change in women's fashions the demand for good feathers has almost disappeared.

The following table shows the number of ostriches at the dates specified. The ostriches in urban areas as enumerated at the 1921 and 1926 censuses have been included in the figures for 1924 and 1930, respectively, owing to the fact that the censuses for these years did not include the towns. Ostriches were not enumerated for towns and villages proper at the 1936 urban live stock census, and owing to the rapid decline of the ostrich feather industry no allowance was made for the number of ostriches in these areas in 1937, as the number would be negligible.

NUMBER OF OSTRICHES, 1904 TO 1937.*

Year.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Union.
1904 (General Census).....	357,970	1,523	14	1,323	360,830
1911 (General Census).....	728,087	4,111	5,441	9,097	746,736
1913 (31st December).....	756,923	5,081	4,591	9,718	776,313
1916 (30th June).....	379,427	4,259	8,927	6,415	399,028
1918 (Census of Agriculture).....	300,906	6,022	3,110	4,227	314,265
1921 (30th April)†.....	255,661	1,468	2,840	1,859	261,828
1924 (31st August).....	207,352	781	1,729	1,010	210,872
1926 (31st August)†.....	102,201	303	1,009	1,065	104,578
1930 (31st August)†.....	31,204	247	467	610	32,528
1937 (31st August)‡.....	39,082	66	665	452	40,265

* Ostriches were not enumerated at the Censuses of 1927 to 1929, 1934 to 1936, and 1938.
† A table classifying the various types of ostriches in the Union at the 30th April, 1921, is given in the sixth issue of this *Year Book*.
‡ Europeans only.

A table showing the quantity and value of ostrich feathers exported from the Union will be found in Chapter XXIV.

10. **Poultry.**—During the past three decades poultry keeping has developed enormously in South Africa, and, with the establishment and existence of co-operative egg circles in three provinces of the Union, the marketing of poultry produce has been facilitated. Now that eggs and dressed table poultry are included under the National Mark Scheme, it is anticipated that local marketing will also improve for producers.

The plentiful season in South Africa coincides with the period of scarcity in Europe. Eggs exported during that season therefore find a fair market overseas. The first export took place in 1914, when 1,927 cases, each containing 30 dozen eggs, were exported to London. In 1938, 89,981 cases were exported. In 1922 a levy of 9d. per case was placed upon all eggs exported from the Union, the proceeds being devoted to the development of the industry.

A breeders' register of birds of proved standard requirements and egg production has been in existence since 1928, and this has gone far to imbue farmers with confidence in so far as the purchasing of stock birds is concerned.

The table poultry section of the industry is also growing in importance and the supply of quality birds does not yet meet the demand. Export regulations providing for the inspection of liquid eggs and table poultry are now also being enforced.

Two well-organized egg-laying tests are run by the Department of Agriculture and Forestry, accommodation for 1,100 birds being available. Another egg-laying test is run by the Eastern Province Agricultural Society at Port Elizabeth. Short and special courses are arranged for prospective poultry farmers at the five colleges of agriculture.

In addition to research work on poultry diseases done by the Division of Veterinary Services at Onderstepoort, the Division of Agricultural Education and Extension has started a poultry research station at the Agricultural College, Potchefstroom.

A voluntary scheme for testing breeding stock for bacillary white diarrhoea has been inaugurated by the Division of Veterinary Services and is meeting with ready response from breeders.

The following table gives particulars of the poultry owned by Europeans, as ascertained at the censuses of 1930 and 1937. The 1926 and 1936 figures for towns and villages were used for 1930 and 1937 respectively for purposes of comparison. The total number of native-owned poultry in 1937 was 4,757,749.

NUMBER OF POULTRY, 31st AUGUST, 1930 AND 1937 (EUROPEANS ONLY).

Province.	Fowls.		Ducks.		Geese.		Turkeys.	
	1930.	1937.	1930.	1937.	1930.	1937.	1930.	1937.
Cape of Good Hope..	2,828,575	3,192,395	99,411	121,245	58,945	69,554	75,795	79,340
Natal.....	1,150,438	1,248,782	37,544	46,678	8,545	8,131	21,553	18,750
Transvaal.....	2,663,350	3,018,708	94,937	92,493	41,439	37,516	72,920	73,399
Orange Free State...	1,447,605	1,886,943	59,300	54,301	46,017	46,624	72,204	69,052
TOTAL.....	8,089,968	9,346,828	291,192	314,717	154,946	161,825	242,472	240,541

11. **Bees.**—The Government has two officials on its professional staff, whose special duty it is to give advice on matters concerning bee-keeping, and instruction in apiculture is also given at the government agricultural colleges. With the object of minimizing the risk of introducing disease, the Union, in common with Rhodesia and Portuguese East Africa, prohibits the importation of honey, and reserves to the Government exclusively the right to import bees. The importation of beeswax and foundation comb is allowed only under special permit, and is conditional on the subjection of the wax to prolonged heating. Until the latter part of 1917 South Africa was supposed to be free of infectious bee brood diseases. European foul brood and sac brood have, however, since become recognized in all four provinces, but under systematic management they do not cause serious losses. In general these diseases escape the observation of the owners of the infected colonies. American foul brood and Acarine disease (the so-called Isle of Wight Disease), two very serious diseases in other countries, have never been found in South Africa.

In 1930 and 1936 the Department of Agriculture and Forestry imported from the United States of America a docile Italian strain of bees for local queen-rearing. Queens from this strain are sold to beekeepers in South Africa. In 1939 another shipment of Italian queen bees arrived from the United States of America.

The following table gives particulars as to the number of beehives and the production of honey for certain years. Except for 1911, however, the figures do not represent the total number and production. In 1918 and 1921 particulars were not enumerated for natives in locations, reserves, etc. The figures for 1926, 1930, and 1937 exclude particulars as to natives on European-occupied farms, as well as natives in reserves, locations, etc., while in 1930 and 1937 particulars as to towns and villages were also not enumerated. For 1930, however, the figures for towns and villages as enumerated in 1926 were used again.

NUMBER OF BEEHIVES AND PRODUCTION OF HONEY, 1911 TO 1937.

Description.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Union.
Honey (1911)....lb.	100,693	2,149	3,383	2,262	108,487
Honey (1918)....lb.	416,936	46,542	57,424	29,691	550,593
Honey (1921)....lb.	279,746	22,810	58,593	26,522	387,671
Honey (1926)....lb.	282,940	58,772	178,339	137,221	657,272
Honey (1930)....lb.	589,313	63,630	214,296	113,672	980,911
Honey (1937)....lb.	720,211	49,090	185,087	189,309	1,143,697
Beehives (1918)....No.	44,812	4,690	8,607	6,812	64,921
Beehives (1926)....No.	26,600	5,450	14,649	14,708	61,407
Beehives (1930)....No.	43,371	4,943	15,175	10,576	74,067
Beehives (1937)....No.	41,810	4,135	12,564	12,757	71,266

12. **Losses of Stock.**—The following table indicates the losses from all causes of cattle, sheep, goats, and pigs, suffered by farmers. The figures for towns and villages were calculated from the information collected at the urban live stock census coincident with the 1936 Population Census and the nearest agricultural census at which this information was collected.

LOSSES OF LIVE STOCK, 1935-36 TO 1937-38.

Description.	Farms and Agricultural Holdings.				Towns and Villages.	
	Native-owned.	European-owned.			Native-owned.	European-owned.
	1936-37.	1935-36.	1936-37.	1937-38.	1935-36.	1935-36.
	No.	No.	No.	No.	No.	No.
Cattle....	362,569	297,074	293,774	353,396	3,100	14,643
Sheep and Goats....	824,658	2,231,960	2,993,543	3,926,540	3,071	14,105
Pigs....	35,986	35,938	36,362	27,363	161	1,618

§ 3. Cereals.

1. **Winter Cereals.**—The growing of one or more of the winter cereal crops —wheat, oats, barley and rye—constitutes a part of the farming practice in most districts. In some districts oats, barley, and rye are grown simply as winter feed for stock; in others the production of grain forms the main line of farming. In the south-west Cape, the winter-rainfall area, practically all these small grains are grown during the rainy season; in the summer-rainfall area they are grown either under irrigation or under dry-land farming systems during the winter and spring, when little or no rain falls. The winter-rainfall area is more suited to the production of winter cereals, but nevertheless large quantities of these crops are produced in the summer-rainfall area, particularly in the Orange Free State.

Rust occasionally does considerable damage to both wheat and oat crops, but much improvement is being effected through the breeding of resistant strains.

The following table shows the average area of land reaped by Europeans for the different winter cereals each year:—

WINTER CEREALS—AVERAGE AREA REAPED—1933-34 TO 1937-38.

Crop.	Morgen.*	Per Cent. of Total Winter Cereal Area.
Wheat....	821,778	71·6
Oats....	237,419	20·7
Rye....	54,460	4·7
Barley....	34,925	3·0
TOTAL....	1,148,582	100·0

* 1 morgen = 2·1165 acres.

2. **Wheat.**—The most important wheat-growing districts are situated in the south-west Cape. In Malmesbury, Piquetberg, and Caledon districts practically all the available land is devoted to the cultivation of cereals. In the north-eastern Cape and in the eastern Orange Free State wheat fits into the farming system as a winter dry-land crop; in these areas the cost of production is generally lower than in the south-west Cape, but the crop is less certain. A considerable quantity of wheat is produced under irrigation in the Transvaal and in certain part of the Cape Province outside the south-west Cape; a limited quantity of wheat is also grown under irrigation in the Orange Free State. Over the greater part of the Union sowing commences in April and continues until June and harvesting takes place from October to December.

The main varieties grown are as follows:—

South-west Cape.—Pilgrim, Sterling, Vondeling, Spring Early, Farratoon, Beltista, Kenya Governor.

Rest of Cape.—Red Egyptian, Wolkoring, Oubaard, Mains Patent, and a miscellaneous assortment of others.

Orange Free State.— Red Egyptian, Rooi Llama, Bontaar, Scheepers, and a miscellaneous assortment of others.

Transvaal.—Lalkasarwali, Rooi Kleinkoring, Baard Indië, Kruger, Red Egyptian.

During the last few years, wheat-growing has developed considerably, owing to favourable weather conditions and abnormal economic conditions, including the policy of wheat protection. The increase in production has been due partly to the cultivation of new land, and partly to the replacement of other grains by wheat.

A special analysis, based on the 1934-35 Agricultural Census, was made of all the returns showing wheat produced by Europeans and revealed that out of 31,212 returns there were 15,057 with under 40 bags each, 6,902 with from 50 to 99 bags each, 6,589 with from 100 to 499 bags each, 1,660 with from 500 to 999 bags each, and 1,004 each with 1,000 bags and over. For further details of this analysis see *Year Book* No. 18, page 756. A similar analysis based on the 1937-38 Agricultural Census is given below.

The confused f.a.q. (fair average quality) marketing system of past years has now been replaced by a sound, clearly-defined grading system. The grades are simple and in large measure reflect the millers' requirements. The introduction of this grading system has been the direct result of large scale co-operative marketing.

The price of wheat in South Africa is determined chiefly by the size of the crop and the stabilizing measures of the Wheat Control Board. The price is thus to a certain extent artificial, and is little influenced by the price at which wheat can be imported. The importation is carefully regulated by means of special permits, and the entry of only limited quantities of high quality wheat for blending purposes is allowed.

The following tables show (i) the area reaped for wheat by Europeans in the different provinces in 1936-37 and 1937-38; and (ii) the number of returns showing wheat produced during 1937-38, classified according to the number of bags obtained. The reason for combining some of the classification headings in table (ii) below is that for certain individual categories there are fewer than four returns, and four returns is the minimum for which the Census Office may publish information.

(i) WHEAT, AREA REAPED IN THE DIFFERENT PROVINCES, 1936-37 AND 1937-38.

Province.	1936-37.		1937-38.	
	Morgen.	Per cent. of Total Area.	Morgen.	Per cent. of Total Area.
		%		
Cape of Good Hope....	547,274	56·7	419,070	68·4
Natal....	914	·1	337	—
Transvaal....	69,463	7·2	59,934	9·8
Orange Free State....	347,577	36·0	133,526	21·8
TOTAL....	965,228	100·0	612,867	100·0

(ii) WHEAT PRODUCED BY EUROPEANS DURING 1937-38, CLASSIFIED ACCORDING TO THE NUMBER OF BAGS OBTAINED.

Bags obtained.	Number of Returns.				
	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Union.
No.	No.	No.	No.	No.	No.
1– 9	1,567	40	1,032	451	3,090
10–19	1,629	33	1,373	439	3,474
20–29	1,098	8	1,046	312	2,464
30–39	882	9*	756	241	1,888†
40–49	607	—	613	178	1,398
50–59	501	—	421	166	1,088
60–69	442	—	405	133	980
70–79	340	—	292	95	727
80–89	306	—	259	117	682
90–99	181	—	184	80	445
100–199	1,018	—	791	469	2,278
200–299	428	—	167	200	795
300–399	322	—	69	83	474
400–499	270	—	40	41	351
500–599	190	—	26	16	232
600–699	193	—	11	10	214
700–799	161	—	5	6	172
800–899	146	—	} 4	5	297
900–999	142	—			
1,000–1,999	525	—	11	4	540
2,000 and over	140	—	5	—	145
TOTAL.....No	11,088	90	7,510	3,046	21,734

* Includes categories 40– 49 bags, 50– 59 ,, 100–199 ,, and 900–999 ,,

† See note against Natal.

The following tables give particulars regarding the production, importation, and consumption of (i) wheat, and (ii) wheaten flour and meal, from 1910-11 to 1936-37. All available information has been utilized in the preparation of the tables, and proportionate figures have been interpolated in cases where information is incomplete or not available.

(i) WHEAT—PRODUCTION, IMPORTATION, AND CONSUMPTION, 1910-11 TO 1937-38.

Year.	Total Production.	Total Production (less Exports).	Imports (less Re-exports).	Retained or Available for Consumption.	Wheat Ground as Flour and Meal.
	1,000 lb.	1,000 lb.	1,000 lb.	1,000 lb.	1,000 lb.
1910–11	362,063	362,019	193,046	555,065	387,748
1915–16	438,588	438,544	213,682	652,226	470,520
1920–21	456,802	455,718	152,348	608,066	501,664
1925–26	552,573	550,906	275,995	826,901	699,014
1930–31	573,124†	572,745	179,510	752,255	*
1932–33	652,520†	652,334	19,334	671,668	760,764
1933–34	705,716	705,549	3,292	708,841	836,322
1934–35	1,016,185	1,016,055	53,003	1,069,058	947,944
1935–36	1,422,549	1,422,358	2,444	1,424,802	891,552
1936–37	959,424	929,936	1,324	931,260	929,390
1937–38	643,385	613,867	19,253	633,120	*

* Not available. † Estimate.

(ii) WHEATEN FLOUR AND MEAL—PRODUCTION, IMPORTATION, AND CONSUMPTION, 1910-11 TO 1936-37.*

Year.	Total Milled Production.	Total Production (less Exports).	Imports (less Re-exports).	Retained or Available for Consumption.
	1,000 lb.	1,000 lb.	1,000 lb.	1,000 lb.
1910–11	298,268	282,846	138,843	421,689
1915–16	379,668	372,928	73,250	446,178
1920–21	397,986	389,431	135,125	524,556
1925–26	537,870	527,546	61,312	588,858
1929–30	602,650	589,431	52,129	640,560
1932–33	590,876	583,799	909	584,708
1933–34	648,672	640,918	1,914	642,832
1934–35	657,690	650,693	1,112	651,805
1935–36	684,942†	677,310†	1,328	678,638†
1936–37	713,394	704,063	529	704,592

* Data for 1930–31 and 1931–32 are not available.
† Amended figure.

3. **Oats.**—The bulk of the oat crop is grown for grain, but in certain districts of the Cape large quantities of oat hay are grown for feeding to mules and horses. The value of oats as a winter grazing crop is becoming more generally recognized, and increasing areas are being sown to oats for this purpose. A small proportion of the oat grain crop is used annually for the manufacture of breakfast foods, but the bulk is used in various forms as stock feed.

The main varieties sown are Algerian, Jongensklip, and Langgewens for grain and hay, and Sunrise and Bassonhawer for grazing. A special analysis, based on the 1935-36 Agricultural Census, was made of all returns showing oats produced by Europeans, and revealed that out of the 19,600 returns there were 7,522 with areas sown of under 5 morgen each, 3,661 with from 5 to under 10 morgen each, 3,397 with from 10 to under 20 morgen each, 1,620 with from 20 to under 30 morgen each, and 3,400 with 30 morgen and over per return. For further details of this analysis see *Year Book* No. 19, page 749.

The following tables show (i) the area reaped for oats by Europeans in the four provinces in 1936-1937 and 1937-38, and (ii) the production of oats from 1903-04 to 1937-38. From 1929-30 the figures relate to the European production only, that is, the production by natives on European-occupied farms and in locations, reserves, etc., was not enumerated. Natives on European-occupied farms produced 1,261,950 lb. during 1925-26, while natives in locations, reserves, etc., produced 2,152,650 lb. and 1,095,000 lb. during 1920-21 and 1925-26, respectively.

(i) OATS, AREA REAPED, 1936-37 TO 1937-38.

Province.	1936-37.		1937-38.	
	Morgen.	Per Cent. of Total Area.	Morgen.	Per Cent. of Total Area.
		%		%
Cape of Good Hope	190,353	67·9	169,164	79·4
Natal	3,087	1·1	1,706	0·8
Transvaal	20,403	7·3	14,178	6·6
Orange Free State	66,422	23·7	28,087	13·2
TOTAL	280,265	100·0	213,135	100·0

(ii) PRODUCTION OF OATS, 1903-04 TO 1937-38.

Year.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Union.
	1,000 lb.	1,000 lb.	1,000 lb.	1,000 lb.	1,000 lb.
General Census—					
1903–04	121,350	327	3,839	5,197	130,713
1910–11	184,339	6,546	23,260	94,993	309,138
Census of Agriculture—					
1920–21	175,850	303	8,097	6,984	191,234
1925–26	153,642	824	7,364	13,691	175,521
1929–30	223,045	1,833	15,165	61,396	301,439
1933–34	165,538	441	5,050	8,326	179,355
1934–35	164,915	1,005	7,952	37,292	211,164
1935–36	255,279	481	3,375	12,820	271,955
1936–37	182,732	1,177	8,823	37,257	229,989
1937–38	178,371	391	3,615	7,569	189,946

Details of the exports of oats will be found in Chapter XXIV.

4. **Rye.**—Rye is the least important crop of the winter cereals. A fair percentage of the area sown is grazed off by stock, and it is used as a grazing crop more commonly in the north-west Cape Province and eastern Orange Free State than in the south-west Cape Province.

Rye for grain is grown chiefly on the poorer soils of the south-west Cape Province and on the more sandy regions in the north-western corner of the winter-rainfall area. The yield obtained from rye is lower than that from the other cereals.

Early Cape Rye is almost the only variety grown for grain, but in the north-eastern Cape it has been supplanted for grazing purposes by Stooling Rye.

The following tables show (i) the area reaped for rye by Europeans in 1936-37 and 1937-38, and (ii) the production of rye from 1903-04 to 1937-38.

(i) RYE, AREA REAPED, 1936-37 AND 1937-38.

Province.	1936-37.		1937-38.	
	Morgen.	Per Cent. of Total Area.	Morgen.	Per Cent. of Total Area.
		%		%
Cape of Good Hope	45,447	79·8	42,141	90·5
Natal	949	1·7	368	0·8
Transvaal	1,638	2·9	683	1·5
Orange Free State	8,895	15·6	3,367	7·2
TOTAL	56,929	100·0	46,559	100·0

(ii) PRODUCTION OF RYE, 1903-04 TO 1937-38.

Year.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Union.
	1,000 lb.	1,000 lb.	1,000 lb.	1,000 lb.	1,000 lb.
General Census—					
1903-04	18,762	—	81	97	18,940
1910-11	33,857	166	254	6,264	40,541
Census of Agriculture—					
1920-21	35,169	123	1,316	7,521	44,129
1925-26*	42,028	73	749	10,513	53,363
1929-30*	59,973	424	2,019	18,064	80,480
1933-34*	41,316	161	419	496	42,392
1934-35*	45,314	158	636	5,388	51,496
1935-36*	47,637	207	444	5,350	53,638
1936-37*	35,940	491	835	4,126	41,392
1937-38*	34,234	178	564	1,228	36,144

* Production by Europeans only.

5. Barley.—Although barley cannot be classed as one of the major crops of the Union such as maize and wheat, it is nevertheless a very important crop in many parts of the country. In some districts barley is grown purely as a grain crop, in others considerable quantities of green barley are produced for soiling purposes. In certain areas barley is grown for grazing purposes and it may also be used as a green manure. In a few dry districts in the Cape, namely Worcester, Robertson, Ladismith, and Van Rhynsdorp (Klawer), and in the Transvaal districts of Lydenburg and Zoutpansberg, high quality barley is produced under irrigation for malting purposes.

The main varieties grown are Cape Six Row for grain (both malting and feed grain) and for grazing, and Cape Early barley and barley wheat (bearded and beardless) for green feed purposes.

The following tables show (i) the area of land reaped for barley by Europeans in 1936-37 and 1937-38, and (ii) the production for certain years:—

(i) BARLEY, AREA REAPED, 1936-37 AND 1937-38.

Province.	1936-37.		1937-38.	
	Morgen.	Per Cent. of Total Area.	Morgen.	Per Cent. of Total Area.
		%		%
Cape of Good Hope	33,935	88·0	30,305	93·5
Natal	225	·6	37	—
Transvaal	3,468	9·0	1,956	6·1
Orange Free State	936	2·4	143	0·4
TOTAL	38,564	100·0	32,441	100·00

(ii) PRODUCTION OF BARLEY, 1903-04 TO 1937-38.

Year.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Union.
	1,000 lb.	1,000 lb.	1,000 lb.	1,000 lb.	1,000 lb.
General Census—					
1903-04	46,023	243	879	1,370	48,515
1910-11	56,026	421	1,857	2,841	61,145
Census of Agriculture—					
1920-21	47,879	64	3,143	985	52,071
1925-26*	50,491	98	2,074	669	53,332
1929-30*	98,537	80	4,943	2,077	105,637
1933-34*	50,489	27	2,170	171	52,857
1934-35*	51,804	50	3,186	573	55,613
1935-36*	82,636	15	4,845	452	87,948
1936-37*	52,481	38	6,453	504	59,476
1937-38*	53,659	39	3,055	146	56,899

* European production only.

6. The Sorghums.—*Kaffir-corn* is the term most generally applied in the Union to these crops, but *sorghums* is the more correct, including as it does the *grain sorghums* (kaffir-corns), the *forage* or *sweet sorghums*, and *broom-corn*.

(i) *Kaffir-Corns.*—The term *kaffir-corn* as applied in the Union includes the true *kaffir-corns*, the *milos*, *durras*, *kaoliang*, *feterita*, *hegari*, and several others. The kaffir-corns are indigenous to Africa, and comprise a large range of red, white, and pink varieties, as well as the varieties obtained by selection from these in other countries.

The red and white kaffir-corns have long been used by the natives in South Africa as a food and also in the preparation of an alcoholic drink. In a prepared form, and as a cattle and poultry feed, their use is being extended both in South Africa and in Europe. As forage and grain crops for areas where maize cannot be profitably grown, they should be more widely cultivated than they are at present. Yields of kaffir-corn are equal to or somewhat inferior to those of maize, but in adapted areas kaffir-corn will outyield maize.

(ii) *Forage or Sweet Sorghums.*—The sweet sorghums, like the grain sorghums, are extremely well adapted to semi-arid conditions, being drought-resistant and able to resume growth and yield well after long, hot, dry spells. The natives, especially in Natal and Zululand, grow many types, mainly for human consumption.

(iii) *Broomcorn.*—This is a type of sorghum with a pithy stalk and a long, loose-branched head. Broomcorn, of which there are two main types, the standard or tall and the dwarf, is also drought-resistant. It is grown for the heads, which are harvested while green and sold after curing for broom and brush-making purposes.

The following tables show (*a*) the area under kaffir-corn reaped by Europeans in 1936-37 and 1937-38, and (*b*) the production of kaffir-corn from 1903-04 to 1937-38:—

(*a*) KAFFIR-CORN—AREA REAPED, 1936-37 AND 1937-38.

Province.	1936-37.		1937-38.	
	Morgen.	Per Cent. of Total Area.	Morgen.	Per Cent. of Total Area.
		%		%
Cape of Good Hope	18,052	15·0	11,409	16·7
Natal	7,743	6·4	4,917	7·2
Transvaal	77,026	63·7	44,838	65·7
Orange Free State	18,034	14·9	7,126	10·4
TOTAL	120,854	100·0	68,290	100·0

(b) PRODUCTION OF KAFFIR-CORN, 1903-04 TO 1937-38.

Year.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Union.
General Census—	1,000 lb.	1,000 lb.	1,000 lb.	1,000 lb.	1,000 lb.
1903-04	65,039	4,717	101,361	17,054	188,171
1910-11	59,884	118,826	92,552	38,283	309,545
Census of Agriculture—					
1920-21	56,837	61,004	162,345	29,723	310,809
1925-26	39,668	38,955	58,548	13,377	150,548
1929-30	57,133	70,303	181,291	45,155	353,882
1933-34	70,211	60,964	275,399	50,248	476,822
1934-35	35,806	41,083	172,237	27,000	276,125
1935-36	22,083	30,408	132,998	20,477	206,966
1936-37	48,173	43,426	182,803	37,050	311,452
1937-38	38,862	48,453	125,752	16,089	229,156

7.—**Maize.**—Maize is one of the agricultural mainstays of the country. Considerable quantities of maize are exported overseas annually, and the high quality of maize produced in the Union is well known to maize-importing countries. The development of maize growing is shown by the fact that the total production, which in 1904 amounted to 361,169 tons, was over 2,400,000 tons in 1934. In 1937 it was 2,812,800 tons.

A special analysis, based on the 1934-35 Agricultural Census, was made of all the returns showing maize produced by Europeans, and revealed that out of 55,963 returns there were 30,039 with under 100 bags each, 17,442 with from 100 to 499 bags each, 4,949 with from 500 to 999 bags each, and 3,533 each with 1,000 bags and over. For further details of this analysis see *Year Book* No. 18, page 762. A similar analysis was made for the period 1937-38 and a table giving details will be found below.

The principal maize-growing area in the Transvaal extends from Ermelo in the east to Lichtenburg in the west, southwards to the Vaal River, and north of a line drawn between Middelburg and Rustenburg. Outside this region small maize areas have been developed in the Waterberg and the Zoutpansberg. The Orange Free State, where the heaviest crop per square mile is grown, is, with the exception of the south-western portion, particularly suitable to maize production. The most fruitful maize fields of Natal are situated in the midlands, at an elevation of from 2,000 to 3,000 feet. Yields of fifteen bags per acre are often obtained in this area. Much of the Cape Province is unsuited to the growing of maize. In the Transkei and adjoining districts, however, the conditions are favourable, and considerable development has taken place. The central portion of the High Veld, comprising the districts of Heidelberg, Bethal, Standerton, Frankfort, and Heilbron, is at present the most productive area in the Union. The acreage under maize here is very extensive, and good crops are grown, which produce from ten to fifteen bags per acre. The maize zone in South Africa may be said to possess two distinct and valuable advantages over the famous "corn" belt of the United States. The growing season is longer by from four to seven weeks, and this adds considerably to the length of the planting season. Again, the drier atmospheric conditions in the Union produce a grain with a lower moisture-content; and this grain, thereby less liable to injury during transit, is more suitable for export, as well as for manufacturing purposes. The rainfall is generally sufficient if the soil is well cultivated, and the soil itself is of good quality throughout and excellent in parts. Labour is fairly plentiful and cheap. A well-appointed system of grain inspection and testing at shipping points has been established, and every endeavour is made to maintain a regular and cheap overseas service for the export trade of the country.

South African maize is marketed overseas on a "Government Certificate Final" basis, and these certificates are accepted by the overseas corn trade associations. All South African maize and maize products are graded at the ports or at inland centres by government graders. For maize there are eight grades, but the bulk of the grain exported falls into the grades No. 2 white flat and No. 6 round yellow.

The *Mealie Control Act*, 1931, which provided for the compulsory export of the export quota percentage, has been superseded by the Mealie Control Scheme established in terms of the *Marketing Act*, 1937. Export of the surplus is left to voluntary and private initiative. The export is, however, financed by the Mealie Industry Control Board from a levy imposed on the purchase of mealies from the producers. These moneys are used by the Board to increase the producers' prices above export parity, the export machinery being

used for this purpose. The Board rebates the levy to exporters and also refunds to them the additional expenditure which they were required to incur as a result of the Board's price policy.

The following tables give particulars regarding the production, importation, consumption, and export of maize and maize products:—

(i) MAIZE—AREA REAPED, 1936-37 AND 1937-38.

Province.	1936-37.		1937-38.	
	Morgen.	Per Cent. of Total Area.	Morgen.	Per Cent. o Total Area.
		%		%
Cape of Good Hope	179,059	6·1	169,607	6·5
Natal	178,587	6·0	174,646	6·6
Transvaal	1,195,194	40·5	1,102,937	42·1
Orange Free State	1,400,854	47·4	1,174,461	44·8
TOTAL	2,953,694	100·0	2,621,651	100·0

(ii) MAIZE PRODUCED BY EUROPEANS DURING 1937-38, CLASSIFIED ACCORDING TO THE NUMBER OF BAGS OBTAINED.

Bags obtained.	Number of Returns.				
	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Union.
	No.	No.	No.	No.	No.
1- 9	1,999	423	1,932	573	4,927
10-19	2,080	406	2,277	730	5,493
20-29	1,442	307	1,714	581	4,044
30-39	1,054	220	1,456	516	3,246
40-49	765	217	1,114	451	2,547
50-59	607	247	976	484	2,314
60-69	477	198	931	396	2,002
70-79	356	145	640	349	1,490
80-89	327	179	667	352	1,525
90-99	172	89	360	246	867
100-199	1,407	1,046	3,689	2,715	8,857
200-299	548	695	2,222	1,872	5,337
300-399	282	460	1,439	1,399	3,580
400-499	138	348	1,076	1,013	2,575
500-599	84	228	750	753	1,815
600-699	48	192	566	595	1,401
700-799	27	106	407	444	984
800-899	28	103	329	367	827
900-999	13	66	236	264	579
1,000-1,999	51	182	915	1,127	2,275
2,000 and over	4	44	336	412	796
TOTAL.....No.	11,909	5,901	24,032	15,639	57,481

(iii) MAIZE—PRODUCTION, IMPORTATION, AND CONSUMPTION, 1910-11 TO 1937-38.

Year.	Total Production.	Total Production (less Exports).	Imports (less Re-exports).	Retained or Available for Consumption.	Maize Ground in Mills.
	Ton.†	Ton.†	Ton.†	Ton.†	Ton.†
1910-11	863,252	720,563	729	721,292	287,721
1915-16	1,083,525	920,476	981	921,457	287,474
1920-21	1,334,724	1,114,002	12,915	1,126,917	560,757
1925-26	1,091,992	942,560	27,429	969,989	582,011
1929-30	2,238,562	1,615,650	41	1,615,691	693,133
1932-33	834,100*	711,616	33,335	744,951	643,416
1933-34	2,411,899	2,161,101	18,863	2,179,964	678,388
1934-35	1,856,106	1,355,757	176	1,355,933	767,718
1935-36	1,498,375	1,479,953	927	1,480,880	709,267
1936-37	2,817,844	1,961,627	3,596	1,965,223	796,920
1937-38	1,921,275	1,700,081	626	1,700,707	‡

* Estimate of total production by Department of Agriculture and Forestry. † 2,000 lb.
‡ Not available.

(iv) MAIZE MEAL—PRODUCTION, IMPORTATION, AND CONSUMPTION, 1910-11 TO 1936-37.

Year.	Total Milled Production.	Total Production (less Exports).	Imports (less Re-exports).	Retained or Available for Consumption.
	Ton.†	Ton.†	Ton.†	Ton.†
1910-11	263,964	262,655	200	262,855
1915-16	263,738	258,985	587	259,572
1920-21	510,877	462,296	4,611	466,907
1925-26	520,039	478,039	315	478,354
1929-30	553,510	476,970	411	477,381
1933-34	561,102*	460,064	992	461,056
1934-35	629,321	481,003	1,951	482,954
1935-36	578,850	560,826	2,535	563,361
1936-37	654,999	436,564	2,540	439,104

† 2,000 lb.

(v) EXPORT OF MAIZE AND MAIZE MEAL THROUGH VARIOUS PORTS,* 1932 TO 1938.

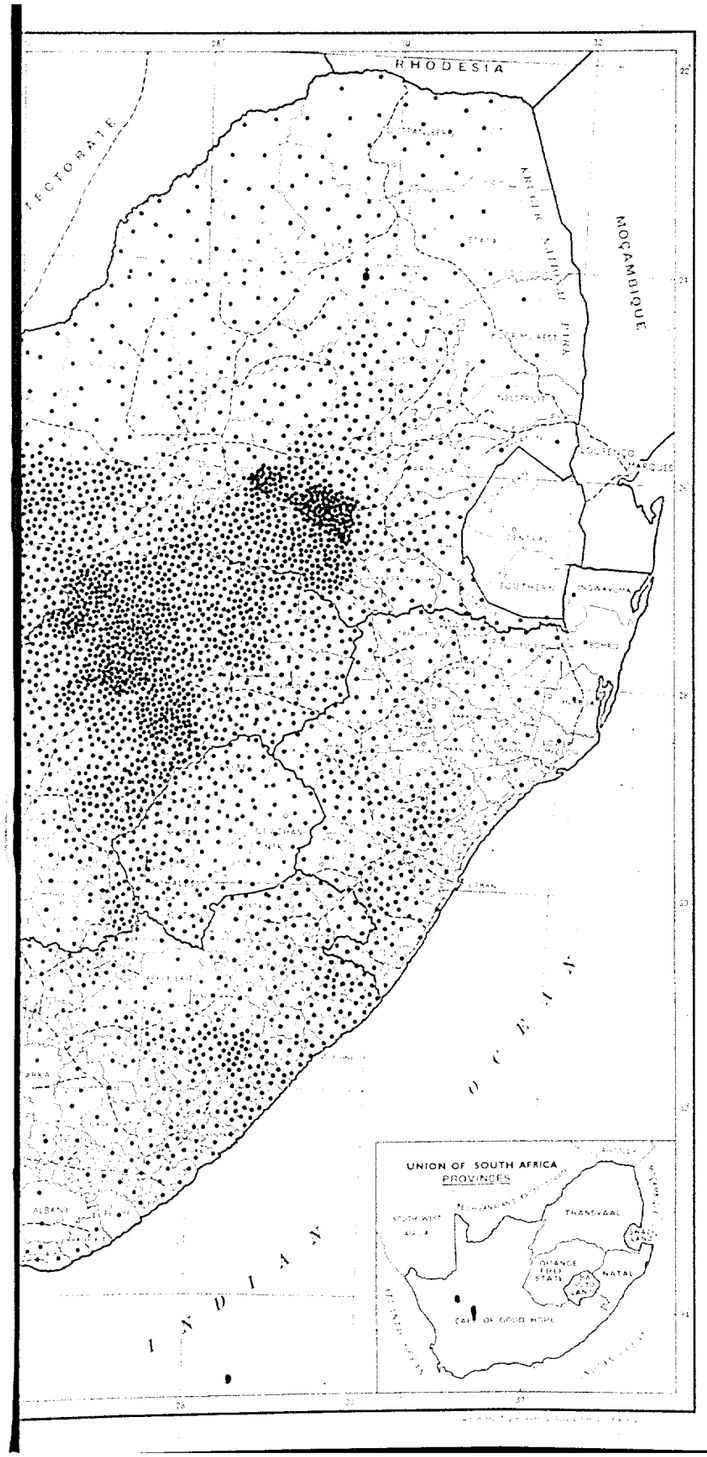
Year.	Cape-town.	Port Elizabeth.	East London.	Durban.	Other Union Ports.	Delagoa Bay.	Total.
				(a) MAIZE.			
	200 lb.	200 lb.	200 lb.	200 lb.	200 lb.	200 lb.	200 lb.
1932	1,483,825	—	—	1,197,567	—	927	2,682,319
1933	783,935	—	—	424,369	—	1,295	1,209,599
1934	997,609	—	1,953	1,502,751	6	191	2,502,510
1935	2,157,873	—	—	2,838,636	7	112	4,996,628
1936	123,202	—	—	47,564	401	6,772	177,939
1937	4,966,987	15	—	3,586,217	12	1,373	8,554,604
1938	1,413,480	—	—	692,877	529	97,300	2,204,186
				(b) MAIZE MEAL.			
	200 lb.	200 lb.	200 lb.	200 lb.	200 lb.	200 lb.	200 lb.
1932	229,015	—	5,552	704,560	27	2	939,156
1933	91,660	—	—	329,696	—	316	421,672
1934	208,088	6,847	—	740,445	11	5	955,396
1935	382,113	—	—	1,045,412	16	—	1,427,541
1936	24,357	—	—	104,851	17	1	129,226
1937	765,848	—	—	1,364,950	19	—	2,130,817
1938	285,470	—	—	486,330	17	22	771,839

* Excluding exports to Rhodesia and South West Africa. See tables (vi) and (vii) below.

(vi) EXPORT OF MAIZE ACCORDING TO COUNTRIES OF DESTINATION, 1932 TO 1938.

Destination.	1932.	1933.	1934.	1935.	1936.	1937.	1938.
	200 lb.	200 lb.	200 lb.	200 lb.	200 lb.	200 lb.	200 lb.
United Kingdom	1,119,950	727,983	802,861	2,154,398	26,572	2,298,563*	819,615
Kenya (B.E.A.)	2	2	4	17	1	—	1
Mauritius	984	481	—	2	1	—	—
Rhodesias	1,680	282	236	790	26	121*	694
St. Helena	594	665	472	483	547	565	49
Australia	1,682	—	—	7,476	7,743	16,324	—
Canada	1,132,692	148,358	1,098,355	1,099,010	44,675	3,124,629	358,857
New Zealand	11,272	—	—	3,414	17,951	39,250	—
South West Africa	10,400	14,951	5,232	6,077	6,244	7,449	7,740
Belgium	174,530	8,416	152,938	461,382	—	461,028	—
Belgian Congo	—	—	6	7	1	11	21
Denmark	43,800	118,227	—	22,383	—	192,937	—
Egypt	—	—	5,426	2,800	—	—	—
France	—	—	—	71,768	—	306,145	—
Germany	13,438	19,503	11,433	32,978	—	276,263*	465,502
Holland	148,626	129,781	289,639	737,706	64,600	1,398,076*	171,244
Italy	33,582	43,704	139,734	130,200	—	45,430*	—
Japan	—	—	—	226,741	—	—	—
Manchukuo	—	—	—	20,160	—	37,019	—
Poland (including Danzig)	—	—	—	12,481	7,279	10,543	9,296
Portugal	—	—	—	—	—	210,270	94,391
Madeira	—	10,598	1,403	6,686	—	—	—
Portuguese East Africa	925	1,294	192	103	7,182	252	97,126
Other Countries	242	587	48	6,428	1,387	137,300*	187,404
TOTAL	2,694,408	1,224,832	2,507,979	5,003,490	184,209	8,562,175*	2,211,940

* Amended figure.



(vii) EXPORT OF MAIZE PRODUCTS, ACCORDING TO COUNTRIES OF DESTINATION, 1932 TO 1938.

Destination.	1932.	1933.	1934.	1935.	1936.	1937.	1938.
(a) MAIZE MEAL.							
	200 lb.	200 lb.	200 lb.	200 lb.	200 lb.	200 lb.	200 lb.
United Kingdom....	917,349	407,354	936,288	1,383,444	126,153	2,103,533*	754,771
Rhodesias.....	872	79	81	3,591	228	81*	100
Tanganyika.....	1,251	1,307	1,336	2,402	904	1,093	296
South West Africa..	61,821	80,142	54,906	52,047	50,785	53,454	61,293
Germany.....	—	—	—	—	—	3,362	—
Italy.....	—	—	6,659	—	—	—	—
Norway.....	16,590	12,129	11,074	36,988	1,110	18,858	16,533
Portuguese East Africa.....	2	318	6	—	9	5	32
Other Countries....	3,964	564	33	4,707	1,051	3,965*	203
TOTAL.....	1,001,849	501,893	1,010,383	1,483,179	180,240	2,184,351*	833,228
(b) MAIZE GRITS.							
	200 lb.	200 lb.	200 lb.	200 lb.	200 lb.	200 lb.	200 lb.
United Kingdom....	109,094	53,888	37,249	130,256	12,715	197,155	112,915
New Zealand.....	29,630	5,957	—	861	5,463	8,886	—
Denmark.....	12,248	4,413	—	4,418	2,213	6,454	3,313
Germany.....	—	—	—	—	—	—	—
Norway.....	—	109	333	582	111	122	220
Other Countries....	404	414	73	346	60	653*	560
TOTAL.....	151,376	64,781	37,655	136,463	20,562	213,270*	117,008
(c) HOMINY CHOP.							
	200 lb.	200 lb.	200 lb.	200 lb.	200 lb.	200 lb.	200 lb.
United Kingdom...	259,783	171,183	231,317	411,305	456,132	160,709	320,984
Mauritius.....	—	110	110	332	221	111	221
Belgium.....	6,402	2,771	1,127	1,693	7,755	2,785	—
Germany.....	—	—	—	—	—	—	—
Italy.....	1,712	887	—	2,549	3,258	—	—
Other Countries....	—	11	—	—	231*	240*	187
TOTAL.....	267,897	174,962	232,554	415,879	467,597*	163,845*	321,392
(d) SAMP, CORNFLOUR, MAIZENA, AND GERM MEAL.							
	200 lb.	200 lb.	200 lb.	200 lb.	200 lb.	200 lb.	200 lb.
United Kingdom...	52,571	25,112	42,488	56,375	42,761	222,661	55,585
Mauritius.....	—	—	—	—	—	—	—
St. Helena.....	—	—	—	—	7	—	—
New Zealand.....	—	—	—	—	—	—	—
South West Africa..	7,307	11,840	6,180	6,945	1,354	1,387	1,216
Germany.....	—	—	—	—	—	—	—
Holland.....	—	—	—	—	—	843	—
Portuguese East Africa.....	4	48	—	—	—	1,052	—
Other Countries....	—	—	1	123	141	131*	182
TOTAL.....	59,882	37,000	48,669	63,443	44,263	226,074*	56,983

* Amended figure.

(viii) WHOLESALE PRICES OF MAIZE AND MAIZE MEAL, 1910 TO APRIL, 1939.

Year.	Maize (200-lb. Bags).		Maize Meal (180 lb.).
	Flat White.*	Flat and Round Yellow.†	
	s. d.	s. d.	s. d.
1910	10 *	12 6	12 7·2
1915	12 6·8	13 3·6	13 5·01
1920	28 0·02	27 1·34	28 1·32
1925	15 1·16	14 8·26	16 3·62
1930	10 2·81	10 2·84	11 2·16
1933	10 5·91	10 5·53	10 10·41
1934	13 11·28	13 5·19	14 1·22
1935	10 5·69	10 6·47	11 2·63
1936	15 3·09	13 9·75	16 1·78
1937	13 11·63	13 2·06	14 6·56
1938—January	13 4·13	13 7·88	13 4·88
April	13 0·38	13 7·13	13 4·12
July	12 6·94	12 11·25	12 10·88
October	12 5·63	12 9·00	12 7·88
Average	12 10·27	13 2·81	13 0·94
1939—January	12 7·50	12 9·00	12 10·88
April	12 3·00	12 2·63	12 4·13

* From April, 1925, No. 2 flat white.
† From April, 1925, No. 6 round yellow.

8. **Grain Elevators.**—Reports on the investigations leading to the establishment of the grain elevator system are contained in Blue Books U.G. No. 38, 1918 (Elevator Committee's Report) and U.G. No. 3, 1920 (Consulting Engineer's Report).

The system was inaugurated in August, 1924, and was placed under the control of the Railways and Harbours Administration. Country elevators are established at the principal dispatching stations in the grain belts and large terminal elevators at the ports. The following is a list showing the location and capacity in tons of 2,000 lb. of the elevators:—

GRAIN ELEVATOR SYSTEM.

Station.	Storage Capacity.	Station.	Storage Capacity.	Station.	Storage Capacity.
Port Terminal Elevators.	Tons.		Tons.		Tons.
Durban	42,000	Kinross	4,000	Potchefstroom	2,600
Capetown	30,000	Senekal	4,000	Leslie	2,600
		Rendezvous	4,000	Plenaars River	2,200
Country Elevators.		Lindley Road	4,000	Hennenman	1,800
		Balfour	3,000	Kaallaagte	1,800
Frankfort	5,800	Clocolan	3,000	Koster	1,800
Heilbron	5,800	Ventersdorp	3,000	Leeuwdoornstad	1,800
Klerksdorp	5,800	Vermaas	3,000	Maquassi	1,800
Heltz	5,800	Vrede	3,000	Val	1,800
Bethal	4,800	Coligny	2,600	Westminster	1,800
Bethlehem	4,800	Ficksburg	2,600	Davel	1,800
Kroonstad	4,800	Middelburg (T.)	2,600	Standerton	1,800
Bothaville	4,000	Makokskraal	2,600	Settlers	1,750
		Moorreesburg	2,600		

This system affords an aggregate storage accommodation of 72,000 tons at the port elevators and 110,950 tons at the country elevators, or a grand total storage capacity of 182,950 tons.

The functions of the elevator system are confined to grading, weighing, cleaning, storing, and handling the grain. The elevator authorities do not buy or sell grain. When the farmer deposits his grain in the elevator, he receives in exchange a negotiable elevator receipt, which is issued in terms of the *Agricultural Warehouse Act*, 1930 (Act No. 42 of 1930), and on which are inscribed the weight, description, and grade of the grain. The elevator authorities insure the grain against all losses of whatsoever description whilst in the elevator system, and undertake to deliver, on presentation of the elevator

receipt, the exact weight and grade inscribed thereon. A deduction of 1 per cent. to cover wastage and loss of weight is made at the time the grain is placed in the elevator system. The elevator receipts are recognized by the banks as first-class security, on which they advance loans. Buying and selling of grain under the elevator system is done entirely through the medium of the elevator receipts.

The total capital expenditure on the grain elevator system to 31st March, 1938, amounted to £2,559,267, of which £1,069,330 had been spent on the construction of the country elevators and the balance, £1,489,937 on the port elevators at Durban and Capetown.

9. **Grain Grading Regulations.**—The regulations governing the grading of grain and grain products for export and for elevator purposes are contained in Government Proclamation No. 103 of 1932. A tabular statement showing the classification of the grading in respect of both maize and kaffir-corn was published in *Official Year Book* No. 14.

10. **Elevator Operations and Maize Yield.**—The tonnage of maize dealt with through the elevators and details of export and local consumption deliveries since the inception of the system are as follows:—

ELEVATOR OPERATIONS, 1924-25 TO 1937-38.

Elevator Season (Year ending 30th June).	Exported.	Local Consumption.	Total Deliveries.
	Tons.	Tons.	Tons.
1924-25 (Crop Year 1923-24)	45,040	30,439	75,479
1925-26 (,, 1924-25)	445,940	70,711	516,651
1926-27 (,, 1925-26)	14,741	103,563	118,304
1927-28 (,, 1926-27)	248,285	31,317	279,602
1928-29 (,, 1927-28)	341,933	83,067	425,000
1929-30 (,, 1928-29)	255,149	82,851	338,000
1930-31 (,, 1929-30)	438,566	132,612	571,178
1931-32 (,, 1930-31)	220,996	155,976	376,972
1932-33 (,, 1931-32)	311,826	170,574	482,400
1933-34 (,, 1932-33)	—	128,000	128,000
1934-35 (,, 1933-34)	501,090	25,376	526,466
1935-36 (,, 1934-35)	249,835	126,841	376,676
1936-37 (,, 1935-36)	34,932	108,446	143,378
1937-38 (,, 1936-37)	753,867	94,443	848,310
AVERAGE, 1924-38	275,871	96,015	371,886

The production of maize for 1936-37 (1937-38 elevator season) amounted to 28,178,439 bags, the highest on record, and represents an increase of nearly four million bags compared with the previous record attained in 1924-25 (elevator season 1925-26). The increased production in 1936-37 resulted in a record tonnage turnover of 848,310 tons in the elevator for the 1937-38 elevator season, as compared with the previous record of 571,178 tons for the 1930-31 season. The 753,867 tons exported is also a record for elevator working, as it exceeds the previous highest export tonnage in the 1934-35 season by over 252,700 tons.

Special facilities were provided during the 1930-31 season for the handling and storage of wheat in the elevators under a grading system, and for the year ended 31st October, 1931, the quantity of wheat deposited in the elevators amounted to approximately 175,000 bags. During the 1931-32 season the elevators were more extensively used for wheat, the total quantity deposited up to the 31st October, 1932, amounting to nearly 871,500 bags. The increased tonnage handled is attributed to the increased production of wheat, together with the concessions made in the elevator storage tariffs and the improved facilities provided. During the 1932-33, 1933-34, 1934-35, 1935-36, 1936-37, and 1937-38 seasons the total quantities deposited amounted to 254,480 bags, 173,020 bags, 261,560 bags, 777,260 bags, 162,240 bags, and 47,470 bags, respectively.

The working of the grain elevators since their inception in 1924-25 up to and including the financial year ended the 31st March, 1938, resulted in a net loss to the Administration of £426,856.

The financial results of each year's operations are as follows:—

	Loss.	*Profit.*
	£	£
1924–25	75,755	—
1925–26	11,914	—
1926–27	79,419	—
1927–28	41,361	—
1928–29	25,385	—
1929–30	47,601	—
1930–31	—	18,339
1931–32	59,027	—
1932–33	9,391	—
1933–34	74,439	—
1934–35	39,475	—
1935–36	—	7,460
1936–37	115,440	—
1937–38	—	126,552
NET LOSS	£426,856	

§ 4. Fodder Crops and Ensilage.

1. **General Statistics.**—The following tables show the area and production for 1929-30 and 1936-37 of (i) lucerne, teff, and other cultivated grasses, and (ii) manna and ensilage.

(i) LUCERNE, TEFF, AND OTHER CULTIVATED GRASSES, 1929-30* AND 1936-37†.

Province.	Lucerne.			Teff.			Other Cultivated Grasses.
	Area.	Yield.		Area.	Yield.		Area.
		Hay.	Seed.		Hay.	Seed.	
	Morgen.	1,000 lb.	lb.	Morgen.	1,000 lb.	lb.	Morgen.
Cape of Good Hope	87,005	383,846	911,427	7,688	41,032	47,302	12,187
Natal	1,383	16,224	571	7,086	30,976	7,210	14,320
Transvaal	5,029	37,422	1,075	77,560	244,170	1,267,777	11,651
Orange Free State	8,975	43,242	1,963	45,841	146,358	1,106,761	3,358
TOTAL 1936–37.	102,392	480,734	915,036	138,175	462,536	2,429,149	41,516
TOTAL 1929–30.	93,455	622,846	†	135,287	362,816	†	13,725

(ii) MANNA AND ENSILAGE, 1929-30 AND 1936-37.

Province.	MANNA.						Ensilage.*
	Area.*	Yield.					
		European.		Natives on European-occupied Farms.	Natives in Reserves, Locations, etc.	Total.	
		Grain.	Hay.	Grain.	Grain.	Grain.	Quantity.
	Morgen	1,000 lb.	1,000 lb.	1,000 lb.	1,000 lb.	1,000 lb.	1,000 lb.
Cape of Good Hope	811	316	4,338	34	51	401	76,922
Natal	682	76	3,220	23	77	176	120,194
Transvaal	2,595	684	7,902	3,390	10,765	14,839	137,526
Orange Free State	5,155	1,589	12,386	28	—	1,617	61,786
TOTAL 1936–37.	9,243	2,665	27,846	3,475	10,893	17,033	396,428
TOTAL 1929–30.	13,244	1,853	41,716	†	†	†	242,378

* Not enumerated for natives on European farms, in reserves, locations, etc.
† Not enumerated.

2. **Lucerne** (*Medicago Sativa*).—Lucerne is a perennial legume and has the advantage over annual leguminous hay crops of producing satisfactory yields for a number of years. Under satisfactory soil and climatic conditions the yield of lucerne is superior to that obtained from most other hay crops, and a good stand of lucerne may last fully 20 years or more. The principal varieties in the Union are Cape Provence, Chinese, and Hunters River.

Lucerne is grown practically throughout the Union, but as a crop of any importance it is found mostly in the arid and semi-arid areas where irrigation is practised. On practically every farm in the Karroo is to be found a field of lucerne, the size of which depends upon the irrigable land available.

On a commercial scale lucerne is grown principally on the several large irrigation schemes, viz. at Oudtshoorn, and along the Orange River, Fish River, and Sundays River.

A fair demand for lucerne in the form of meal for poultry feeding has arisen in European countries, and mills for the production of this meal have been erected in various parts of the country. Lucerne seed, lucerne hay, and lucerne meal must conform to standard government grades before export is permitted.

The following table gives particulars of the area under lucerne in 1936-37 and 1937-38:—

AREA UNDER LUCERNE, 1936-37 AND 1937-38.

Province.	1936–37.		1937–38.	
	Area in Morgen.	Percentage of Total Area.	Area in Morgen.	Percentage of Total Area.
		%		%
Cape of Good Hope	87,005	85·0	98,270	84·8
Natal	1,383	1·3	1,541	1·3
Transvaal	5,029	4·9	6,009	5·2
Orange Free State	8,975	8·8	10,043	8·7
TOTAL	102,392	100·0	115,863	100·0

1 Morgen = 2·1165 Acres.

3. **Teff** [*Eragrostis tef* (Zucc.) Trotter].—Teff is one of the staple cereal food crops of Abyssinia (of which it probably is a native) and was first introduced into Natal fifty years ago. As a hay crop the grass is most extensively grown, particularly in the Transvaal.

It is a quick-growing summer annual which under favourable conditions grows up to 4 feet. It is not grown to any extent in areas of low rainfall, being more drought-evading than drought-resistant. Neither is it grown under high rainfall conditions, where it is subject to lodging. The areas to which it is well adapted are the Transvaal Highveld, the north-eastern Orange Free State, the north-eastern Cape Province, and the Natal uplands.

Owing to fineness of stem and leaf it is easily cured: it is very palatable, and is readily eaten by stock, but its feeding value is not very high. If sown early it may be cut two or three times, but if sown late only one cutting and an aftermath are obtained. Returns of 4-8 tons per morgen are not uncommon, but the average yield is well below this figure.

The Pretoria University has been responsible for the introduction of seed samples from Abyssinia in recent years, and superior strains are being bred from these.

4. **Agricultural Grasses.**—Experiments are being carried out by the Department of Agriculture and Forestry to determine the most suitable grasses for hay, pasture, ensilage, etc., under the various soil and climatic conditions of the Union. Marked improvements in productivity and range of adaptability have been achieved by breeding, and many grasses can be definitely recommended for certain purposes under certain conditions.

The grasses tested may be divided into two classes:—

(i) *Winter Grasses.*—These grasses make their best growth during the winter months and are calculated to supply under irrigation, or in moist or winter-rainfall areas, succulent green feed for stock during the dry months of the year. The most useful are Canary grass (*Phalaris tuberosa*), Brome grasses (*Bromus* spp.), Cocksfoot (*Dactylis glomerata*), Rye grasses (*Lolium* spp.), New Zealand Tall Fescue (*Festuca elatior*), and Wheat grasses

(*Agropyron* spp.), which have been introduced from Europe, America, Australia, or New Zealand. They are for the most part grasses that have been under cultivation in other countries for many years and that can be reproduced from seed, which is easily obtainable. There are also a few promising indigenous grasses such as *Ehrharta calycina* and *Agrostis lachnantha*.

(ii) *Summer Grasses.*—These are grasses which remain dormant during the dry winter months and in this group South African indigenous grasses are unexcelled. In the drier areas, the best results have been obtained with the following: Finger grasses (*Digitaria* spp.), mostly stoloniferous perennials, which retain a high feeding value even in their dry winter condition; Droëland grass (*Cenchrus ciliaris*), a good dry land hay and pasture grass; various species of Panicum including Buffels grass, or Guinea grass (*P. maximum*), and Makarikari grass, both of which are useful for hay or grazing, the latter being particularly drought resistant. For moister areas or areas with fairly good rainfall the following are recommended: Kikuyu (*Pennisetum clandestinum*), a deep-rooted creeping grass that under favourable conditions forms a dense mat of succulent nutritious foliage; Napier fodder and Umfufu (*Pennisetum purpureum*), tall reed-like grasses with broad leaves, useful as wind-breaks or for ensilage, which give a very high yield per acre; Limpopo grass and Antelope grass (*Echinochloa pyramidalis*), reed-like grasses, less tall and coarse than Napier fodder, and good for hay and ensilage. Rhodes grass (*Chloris gayana*) and *Paspalum dilatatum* (a naturalized grass in moist localities throughout the Union) are useful for hay and pasture. There are also some promising species of *Setaria*, *Brachiaria*, *Urochloa*, etc., which are at present under investigation.

5. **Drought-hardy Plants.**—*Spineless Cactus, American Aloe, and Salt Bush.*—The best means of reducing stock losses during periods of drought is to conserve fodder during the times of plenty for use during the lean years. In some areas so little water is available for growing cultivated crops that the drought problem is a most difficult one. Fortunately there are certain drought-hardy plants that will thrive even during the most protracted droughts. Such drought-hardy plants are the cactus group, the American aloe, and the varieties of salt bush. Not only do these plants withstand drought, but they will thrive on most soils, while the salt bush flourishes on land too "brak" for ordinary crops. These plants remain green and succulent in the winter and in long protracted droughts, with the result that they can be made to furnish a very essential part of the animal's diet. They are also palatable and easily established.

The leaves of the spineless cactus and suckers from the aloe are planted out in rows in the early spring. In three or four years the spineless cactus will yield annually a crop of leaves of some 30 to 60 tons per acre, and in six or seven years the aloe will provide about the same returns. The salt bush (Old Man variety) should be planted in seed-beds in August and later, and about March transplanted into the permanent plantation. A plantation of this kind will furnish excellent grazing for all classes of stock for three or four seasons.

6. **The Millets.**—The millets or manna are relatively quick-maturing summer annuals that thrive in hot areas. They are very drought-hardy and can be grown successfully on rather unproductive soils. There are several types of millets, the chief being the *Foxtail*; others are the *Japanese Barnyard* and the *Pearl* millets. These crops are used largely for the production of hay, where a quick-maturing summer catch-crop is required. The hay is inferior in quality to teff and is not to be recommended for horses as a sole diet, as millet hay causes disorders known as millet fever. The *Pearl* millet is rather a coarse late-maturing variety that is used for the production of grain (chiefly for poultry feed and for beer making by the natives) as well as for hay.

7. **Silage.**—In many parts of South Africa conditions are such that stock for a great part of the year cannot obtain the desired amount of natural green feed, so that the farmer has to provide for it by some other means. This may be done by the growing of fodder crops and feeding them off to stock green from the land, or the preservation of suitable crops in a succulent form by protecting them from the air. The product obtained by this latter process is known as ensilage, or more commonly silage.

Although the majority of commonly cultivated plants have given satisfactory results in experimental trials, practice has shown that maize is the silage-crop *par excellence*; and the value of the silage is increased if the maize is mixed with a leguminous crop in the proportion of two of the former to one of the latter. In the latter case it is to be recommended that the maize be drilled and the other crop sown among the young maize plants. Velvet beans or cow peas serve this purpose well. The two crops should, however, not be sown together if general conditions, e.g. rainfall and soil fertility, are not such that big yields may be expected.

Great strides have been made in recent years in the utilization of lucerne and grass, as well as other legumes, for silage purposes. It has further become the practice to add molasses to leguminous crops at the time they are put into the silo with the object of augmenting the lactic and acetic acid content of the silage.

Lucerne silage produced under the new molasses method may be regarded as almost equal to green lucerne and has the advantage that it does not cause hoven. Molasses has been used successfully in making silage with all legumes and other green feeds, such as green winter cereals, young grass, and all other protein-rich crops.

§ 5. General Agricultural Crops (Non-Cereals).

1. **Miscellaneous.**—The following tables give particulars as to the cultivation and production of general agricultural crops. A special analysis based on the 1935-36 Agricultural Census was made of all returns showing potatoes produced by Europeans, and revealed that out of the 17,384 returns there were 11,250 with under 40 bags each, 2,716 with from 40 to under 100 bags each, 2,621 with from 100 to under 500 bags each, and 797 each with 500 bags and over. For further details of this analysis see *Year Book* No. 19, page 761.

GENERAL AGRICULTURAL CROPS (OTHER THAN CEREALS) REAPED.

(i) ONIONS, SWEET POTATOES, PEAS, AND BEANS, 1917-18 TO 1936-37.

(*a*) *European Farms.*

(*b*) *Native Reserves, Locations, Etc.*

Year.		Onions.		Sweet Potatoes.		Peas.		Beans.	
		Area.	Yield.	Area.	Yield.	Area.	Yield.	Area.	Yield.
		Morgen.	1,000 lb.	Morgen.	1,000 lb.	Morgen.	1,000 lb.	Morgen.	1,000 lb.
1917-18	(*a*)	2,245	22,290	9,634	69,141	7,273	9,647	30,474	22,615
	(*b*)	†	†	†	†	†	1,523	†	28,680
1920-21	(*a*)	2,346	23,295	10,614	64,039	4,020	4,315	27,853	22,970
	(*b*)	†	†	†	†	†	2,763	†	42,301
1925-26	(*a*)	2,211*	32,274*	9,771*	70,276*	7,655*	5,991	35,017*	24,829
	(*b*)	†	†	†	†	†	785	†	11,774
1929-30*	(*a*)	2,312	32,559	10,098	84,788	6,230	6,297	51,143	38,705
	(*b*)	†	†	†	†	†	†	†	†
1936-37	(*a*)	1,844*	32,683*	9,116*	73,616*	4,174*	3,856	35,653*	27,030
	(*b*)	†	†	†	†	†	2,111	†	11,275

* Natives on European farms not enumerated.
† Native reserves, locations, etc., not enumerated.

(ii) POTATOES AND GROUNDNUTS, 1917-18 TO 1937-38.

Year.	Potatoes.			Groundnuts.		
	European Farms.		Native Locations, Reserves, etc.	European Farms.		Native Locations, Reserves, etc.
	Area.	Yield.	Yield.	Area.	Yield.	Yield.
	Morgen.	1,000 lb.	1,000 lb.	Morgen.	1,000 lb.	1,000 lb.
1917-18	62,059	220,181	14,355	3,098	2,347	3,608
1920-21	44,819	215,930	8,095	9,002	8,932	5,309
1925-26	35,609*	199,821	3,069	13,551*	10,760	2,589
1929-30*	40,963	216,211	†	13,831	19,975	†
1933-34	38,288*	288,258*	†	23,511*	26,523	†
1934-35*	39,192	338,566	†	24,180	17,697	†
1935-36*	39,369	347,878	†	21,936	20,640	†
1936-37	41,043*	356,656	3,528	28,455*	30,272	1,395
1937-38	43,027*	382,932*	†	27,254*	21,253*	†

* Natives on European farms were not enumerated.
† Not available.

GENERAL AGRICULTURAL CROPS (OTHER THAN CEREALS) REAPED—(*continued*).

(iii) POTATOES AND GROUNDNUTS, 1936-37 AND 1937-38.

Province.	Potatoes.*				Groundnuts.*			
	1936-37.		1937-38.		1936-37.		1937-38.	
	Area.	Yield.	Area.	Yield.	Area.	Yield.	Area.	Yield.
	Morgen.	1,000 lb.	Morgen.	1,000 lb.	Morgen.	1,000 lb.	Morgen.	1,000 lb.
Cape of Good Hope.....	10,340	76,832	10,826	87,295	40	55	18	8
Natal.....	4,437	44,695	3,816	41,870	864	654	824	765
Transvaal.....	15,298	153,393	15,637	169,815	27,506	28,615	26,306	20,467
Orange Free State.....	10,968	79,636	12,748	83,952	45	38	106	13
UNION.....	41,043	354,561	43,027	382,932	28,455	29,362	27,254	21,253

* Excludes area and production by natives on European farms and by natives in reservest locations, etc. whose production in 1936-37 amounted to:—

	Potatoes.	*Groundnuts.*
	1,000 lb.	1,000 lb.
Natives on European-occupied farms....	2,095	910
Natives in reserves, etc	3,528	1,395

(iv) MISCELLANEOUS CROPS*—AREA UNDER CULTIVATION AT VARIOUS CENSUSES, 1920-21 TO 1936-37.

Year.	Sunflower Seed.	Chicory.	Fibre (cultivated).	Mangels.	Swedes.	Turnips.	Cowpeas.	Vegetables and Strawberries.	Other crops not shown elsewhere.
Census:—	Morgen.	Morgen.	Morgen.	Morgen.	Morgen.	Morgen.	Morgen.	Morgen.	Morgen.
1920-21.....	5,066	256	524	1,165	1,370	3,071	†	†	25,152
1925-26.....	2,959	636	433	1,402	3,586	6,341	†	†	20,123
1929-30.....	5,526	878	405	†	†	†	†	†	30,347
1936-37.....	5,116	1,104	743	†	†	†	44,093	22,742	10,312

* Native locations, reserves, etc., not enumerated.
† Not enumerated.

2. **Potatoes.**—The potato ranks as one of the leading crops of the Union. It is grown in most parts of the country, though production on a large scale is confined to more or less definite areas where the necessary climatic, soil, and marketing conditions obtain. In the Transvaal, the area of greatest production is found on the High Veld, which is situated in the region around Bethal, Middelburg, and Heidelberg. In the Low Veld to the north and east, the crop also finds favour under irrigation. In the Orange Free State, it is chiefly grown in the area extending from Thaba 'Nchu and Ladybrand to Harrismith, while potatoes are largely grown under irrigation in the neighbourhood of Petrusburg. The popularity of the crop in Natal increases from the coast northward, the best potato area extending into the eastern Transvaal. The Cape Province area of maximum production extends from the districts surrounding Capetown to beyond Cathcart, and is confined to the coastal belt. The areas where the crop is grown without irrigation are characterized by comparatively cool climate, rather light soil, and average annual rainfall ranging from about 25 in. to about 30 in., the major portion of which falls during the summer.

In 1924 the first Seed Potato Growers' Association was formed at Westminster in the Thaba 'Nchu district of the Orange Free State. Since then other associations have been formed at Underberg and Elandskop in Natal and at Knysna in the Cape Province. The Department of Agriculture and Forestry supplies government experts to inspect the growing crops and later the harvested tubers. The potatoes which attain the desired standard of excellence are sold as "certified seed" under the trade mark of the association, a certificate of guarantee being also furnished. *Up to date* is the variety grown by these associations.

3. **Beans.**—Beans grow well in most parts of the Union, but have not so far been grown in sufficient quantity for export. Experiments are being carried out to ascertain the varieties suitable for growth in the various parts. At present, beans of the dwarf varieties are largely raised for local consumption; these consist of the *Sugar*, *Haricot*, and *Butter* types. *Speckled* beans are largely grown for native trade, the *Haricot* type being more in demand for European consumption. The gold mines also furnish a large market for dried beans.

Soya beans are largely grown for their value as cattle-food in the form of ensilage or hay; they are also valuable for soil renovation and are used for this purpose. Suitably balanced with other ingredients, such as maize products, ground soya beans are exceelent feeding for dairy cows. The cake, which is a by-product in the production of soya bean oil, is also a very valuable concentrate. Good varieties for hay and ensilage are *Mammoth*, *American White*, and *Southern*. The principal commercial value of the bean is for oil extraction, and for this purpose the yellow seeded varieties such as *Mammoth* and *Chinese White* are among the most suitable.

In so far as human consumption of soya beans is concerned, some two years ago a satisfactory method was devised of treating the beans so as to render them palatable, and a meal is being produced which should prove to be of the greatest value in supplying a food rich in fats and proteins.

The lack of well adapted varieties, and the fact that on ripening most of the soya beans grown shattered their seeds badly, did much to limit production in South Africa in the past. Breeding work by the Division of Plant Industry has, however, resulted in the production of a variety which does not shatter and appears to be well suited to local conditions.

Other beans useful as soil renovators are *Mung*, *Velvet*, and *Dolichos*. The *Cowpea*, known in some parts of the Union as the *Kaffir Bean*, is very useful for stock-feeding and soil improvement; it is much used as a legume in the rotation of crops. The cowpea is unquestionably the most widely grown annual legume in the Union. It is fairly drought resistant and wherever grown is found to be well inoculated. This makes it a desirable crop to be grown in rotation with maize. Disadvantages of the crop are (i) the fact that it is of procumbent growth habit and is, therefore, difficult to harvest for hay, and (ii) its susceptibility to leaf spot diseases, which makes it an uncertain crop under very wet conditions. Investigation is at present being undertaken by the Division of Plant Industry with the object of breeding upright growing strains which will be resistant to the prevalent leaf diseases.

4. **Peanuts.**—The peanut, also known as the groundnut or monkey nut, is a sub-tropical to tropical legume. Production of peanuts is largely confined to the Springbok Flats area in the Potgietersrust and Waterberg districts. Other fairly important districts in the production of this crop are Pietersburg, Letaba, Zoutpansberg, and Pretoria. The natives have grown peanuts for many years, but it is only since 1914 or thereabout that its value as a nutritious hay crop and concentrate has been recognized by farmers. It is proving to be a valuable crop for the drier, warmer areas of the Transvaal, fitting very well into farming systems in these areas. The nuts are used in the preparation of products for human consumption and also as a source of high quality oil. The cake left over after the expressing of the oil forms a palatable high protein concentrate for cattle.

At the present time edible oils of high quality are manufactured in the Union. Peanuts, produced locally and imported, form the bulk of the raw materials for the factories. In general, the peanuts grown in the Union are of high quality and a great proportion of the local crop is utilized in the confectionery and edible nut trade. Government grades exist for peanuts for export.

5. **Chicory.**—Chicory is best adapted to deep well-drained soils that are not too sandy. It is cultivated as a summer crop in the Transvaal and as a winter or a summer crop in Alexandria in the Cape Province (where sowings are made in March or September and where excellent chicory is produced). The variety usually planted is the *Long Magdenburg*. This crop is at present marketed under a control scheme similar to that which has been brought into force through the control boards for wheat, maize, and other products.

§ 6. Vineyards and Fruit Cultivation.

1. **Viticulture.**—(i) *Introduction of Viticulture into South Africa.*—The vine was introduced into South Africa as early as 1655, three years after the landing of Van Riebeeck, and later the Governor, Van der Stel, encouraged

and helped viticulture as much as possible, importing vines from France, Germany, and Portugal. The French Huguenots, who came mostly from wine districts, adapted themselves naturally to the cultivation of the vine, and viticulture became one of the most important branches of agriculture in South Africa, especially in the Paarl and Stellenbosch districts, where the Huguenots mostly settled, and where viticulture still predominates over other agricultural pursuits. To-day vines are largely cultivated in the following districts named in order of production: Worcester, Paarl, Robertson, Stellenbosch, Montagu, Malmesbury, Tulbagh, Ceres, Cape, and Caledon. In many other districts vines are grown, but on a smaller scale. Sultanas are grown extensively along the lower Orange River under irrigation.

Early in the year 1886, Phylloxera was discovered in the Cape and Stellenbosch districts. The Government of the Cape of Good Hope made every effort to eradicate the disease, but without success. In 1892 resistant American stocks were imported, and about 90 per cent. of the vines of the Union are now grafted on such stocks.

The table hereunder gives particulars as to the extent of vineyards and the number of vines:—

VINEYARDS,* 1918 TO 1937.

Description.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Total.
Area of Vineyards—	Morgen.	Morgen.	Morgen.	Morgen.	Morgen.
1918	21,947	9	233	96	22,285
1921	25,705	12	164	123	26,009
1926	27,833	6	153	112	28,104
1930	34,304	582	308	242	35,436
1936—Table Grapes	6,027	—	118	31	6,176
Other Grapes	38,728	5	98	9	38,840
TOTAL	44,755	5	216	40	45,016
1937—Table Grapes	6,401	—	138	31	6,570
Other Grapes	43,535	—	72	12	43,619
TOTAL	49,936	—	210	43	50,189
Number of Vines—	No.	No.	No.	No.	No.
1918	86,921,772	20,699	587,718	309,777	87,839,966
1921	101,239,507	29,500	505,972	333,005	102,107,984
1936—Table Grapes	15,549,620	2,019	315,846	90,477	15,957,962
Other Grapes	134,266,710	13,025	362,686	31,526	134,674,847
TOTAL	149,816,330	15,044	678,532	122,003	150,632,809
1937—					
Table Grapes—					
Bearing	13,479,432	2,462	274,552	74,225	13,830,671
Not yet Bearing	2,704,213	924	89,871	17,017	2,812,025
TOTAL	16,183,645	3,386	364,423	91,242	16,642,696
Other Grapes—					
Bearing	119,033,994	1,328	255,370	41,014	119,331,706
Not yet Bearing	28,765,267	140	22,012	4,035	28,791,454
TOTAL	147,799,261	1,468	277,382	45,049	148,123,160
GRAND TOTAL, 1937.	163,982,906	4,854	641,805	136,291	164,765,856

* The natives have not as yet adopted this branch of farming.

(ii) *Government Aid for the Industry.*—About 1885 the Cape Government bought the farm *Groot Constantia* in the Cape Peninsula, for the purpose of carrying out experiments in viticulture and of educating farmers in improved methods of wine-making. One of the many resultant benefits was the raising of the standard of the country's light and sweet wines.

In 1910 the Government bought the small farm *Belle Vue* in the Paarl district as an experiment station for conducting tests in regard to the best grapes for both market and wine-making purposes. This station is of considerable assistance to viticulturists, as from it vines of many varieties are distributed over the Union, after their suitability as table or wine grapes has been studied.

The Stellenbosch-Elsenburg Agricultural College of the University of Stellenbosch to-day gives all the facilities required by viticulturists: it gives full courses as well as short courses in all viticultural and wine-making matters. The need for the Constantia Wine Farm has, therefore, disappeared.

In 1905 the Cape Government inaugurated a scheme of co-operative wineries by furnishing financial assistance in the shape of loans. Under this scheme nine co-operative wineries were established, where large quantities of wine of uniform quality could be made. At first these wineries failed to realize anticipations and several were closed down. The four existing co-operative wineries, viz., Helderberg (Stellenbosch), Drakenstein (Paarl), Bovlei (Wellington), and Drostdy (Tulbagh), are doing very well, and it is acknowledged that it would be beneficial to the industry if more co-operative wineries were established.

(iii) *Co-operative Association.*—Towards the end of 1917, owing to the depression in the wine market, the Ko-operatieve Wijnbouwers Vereniging van Zuid-Afrika, Beperkt, was formed. Over 95 per cent. of the wine farmers joined this association, and a board of directors, appointed by the members, now fixes yearly the prices for wine. Certain undertakings were entered into between the farmers and the merchants as to the disposal of the wines produced, but difficulties arose with regard to certain ambiguous clauses in the constitution, and this led to a subsequent reorganization of the association on a sound basis, so as to fall in line with Act No. 28 of 1922. The wine merchants thereupon resigned as members of the association.

In 1924 the *Wine and Spirits Control Act* (No. 5 of 1924) was passed, which gave the association absolute control over all wines declared by the producer as distilling wine, whether belonging to a member or a non-member. Every wine grower in the Cape Province renders to the association, on a certain date each year, a return of all wines, spirits, and brandy produced by him, and states what quantity he has for disposal for consumption as wine, and what quantity he has for sale as distilling wine. The price the farmer gets for distilling wine is fixed each year by the board of directors.

For every leaguer of wine sold by a member for distilling purposes, the association deducts ten shillings, and for every amount so deducted the member receives a share in the association. Furthermore, the merchant-distillers are required to pay to the association about twice as much for distilling wine as members receive.

The intention is to create a fund to be used by the association when necessary to deal with any surplus wine which may be on the market. The association buys these wines at the minimum price, and, after turning them into spirits, disposes of them outside the Union.

(iv) *Naming of Wines, Brandies, and Champagne.*—As a result of representations made by the French Government in 1935, the Union Government decided to prohibit, as from dates specified in Proclamation No. 895 of 1935, the use of certain French names in respect of wines, brandies, and champagne produced and sold within the Union. The full list of names appearing on the prohibited list is given in a schedule to the Proclamation.

(v) *Wine Commission.*—On the 23rd of July, 1935, the Governor-General appointed a commission under the chairmanship of Mr. H. W. Drew, with Messrs. A. Appleyard, P. P. du Toit, M.P., G. F. Malherbe, and S. F. Waterson, M.P., as members, to inquire into, and report on and make recommendations concerning, the viticultural industry. The terms of reference were:—

(1) The development of viticulture in the Union and the factors which influenced its expansion;

(2) the conditions at present prevailing in the viticultural industry with special reference to the disposal of the various products of the vine;

(3) the working and effects of the *Wine and Spirits Control Act*, 1924 (Act No. 5 of 1924), as amended by Act No. 17 of 1928;

(4) the advisability and practicability of the extension of the principle of statutory control to any or all of the products of the vine, more particularly quality wines, raisins, and sultanas, and, if considered advisable and practicable, what form such control shall take;

(5) any other matter pertaining to the products of the vine which the Commission may deem desirable to investigate.

The Commission's report was published in June, 1937 (U.G. No. 25, 1937), and certain of the recommendations are now under consideration.

(vi) *Branches of the Industry.*—Vines are grown in the Union to produce fresh fruit, wine, brandy, unfermented grape juice, raisins, and currants. For these purposes the undermentioned varieties of grapes are principally grown:—

Export and Table Grapes.—White and Red Hanepoot, Rosaki, Henab Turki, Prune de Cazouls, Barlinka, Barbarossa, Gros Colman, Alphonse Lavalle, Molinera Gorda, Ohanez, and some other less important varieties.

Wine-making.—Steen, Riesling Green Grape, White French, Hanepoot, Hermitage, Cabernet Sauvignon, Muscadel Red and White; these are grown on a large scale. Shiraz, Mataro, Merlot, Malbec, Kanaändruif, Clairette Blanche, and others are grown to a lesser extent.

Brandy.—All wine varieties, Folle Blanche, Colombard, St. Emilion.

Raisins and Currants.—Hanepoot, Sultana, Cape, and Zante Currants.

(vii) *Table Grapes.*—Large quantities of table grapes have of late years been exported, and this branch of the industry has developed into a flourishing trade.

(viii) *Wine, Brandy, and Vinegar.*—The Dutch introduced vines chiefly for the purpose of brandy-making, and wine-making was taken up on the arrival of the Huguenots in 1688. The natural conditions in South Africa led to the production of a heavy type of wine, as well as of sweet wines. German and Austrian experts engaged by the Cape Government advocated the making of light wines, but it is only during the last twenty years that this branch of the industry has progressed, and some excellent light wines are now produced.

In 1926 the Ko-operatieve Wijnbouwers Vereniging started exporting wines and it is to-day the biggest exporter. In order to safeguard the industry and ensure that the quality exported would be of a high standard, the Government brought a regulation into force in 1924, which stipulated that no wine should be exported unless a certificate is issued by the Government Viticulturist certifying that the wine is true to type, is sound, and in every other way conforms to the export regulations.

Table (*a*) below shows the quantity of wine, apart from distilling wine, made on farms during a series of years according to the returns of the Ko-operatieve Wijnbouwers Vereniging van Zuid-Afrika, Beperkt. Table (*b*) shows the quantity and value of wine exported and imported from the year 1910.

(*a*) WINE PRODUCTION ON FARMS, 1934 TO 1938.

Vintage.	Pure Natural Wines.		Fortified Wines.		Wine for Farm Use.	Total.	Wine for Vinegar.
	Red.	White.	Red.	White.			
	1,000 Gal.	1,000 Gal.	1,000 Gal.	1,000 Gal.	1,000 Gal.	1,000 Gal.	1,000 Gal.
1934	1,716	2,756	1,637	1,174	668	7,051	107
1935	1,653	2,851	1,274	996	708	7,482	44
1936	1,483	3,009	1,179	791	717	7,179	68
1937	1,245	2,892	1,059	577*	730	6,503*	†
1938	1,840	3,067	1,114	845	770	7,636	7

* Amended figure. † Not available.

(*b*) WINE IMPORTED AND EXPORTED, 1910 TO 1938.

Year.	Imports less Re-Exports.			Exports (S.A. Produce).		
	Quantity.	Value.		Quantity.	Value.	
		Total.	Per gallon.		Total.	Per gallon.
	Gal.	£	£ s. d.	Gal.	£	s. d.
1910	82,246	65,257	0 15 10	76,982	18,241	4 9
1915	53,179	40,405	0 15 2	99,842	26,506	5 4
1920	60,903	142,411	1 15 2	518,223	204,649	7 11
1925	46,139	43,666	0 18 11	222,238	42,903	3 10
1930	46,513	42,357	0 18 3	695,231	99,540	2 10
1934	46,300	49,389	1 1 4	1,379,273	192,731	2 10
1935	52,193	49,422	0 18 11	1,401,775	190,483	2 9
1936	53,715	61,266	1 2 10	1,477,277	205,951	2 9
1937	46,159	46,702	1 0 4	1,751,113	244,178	2 9
1938	53,102	51,180	0 19 3	1,935,728	276,091	2 10

The brandy industry of South Africa is as old as the wine industry. Formerly only two kinds of brandy were recognized, viz., dop and wine brandy. Dop brandy was so known from the Dutch word *dop* (husk), which signified that the brandy was obtained from the distillation together of *doppe* and wine, or piquette. The distillation of husks and piquette mixed is now practically prohibited; a discriminating excise duty of 22s. 6d. per proof gallon is imposed. The brandy produced from the distillation of husks and wine mixed has taken the name of grape brandy, which is somewhat of a misnomer. On this brandy an excise duty of 17s. 6d. per proof gallon is levied, which means that it is practically out of the market, as the excise duty on pure wine brandy is considerably lower, i.e. 12s. 6d. per proof gallon.

It is laid down by Act No. 5 of 1924 that all brandies put on to the market for consumption from 1st June, 1928, must be a blend containing at least 25 per cent. three year old matured pot still brandy, which has been distilled and matured according to government regulations. The wine distilled must also be approved of. Perhaps in no other country is the distillation of husks so suppressed as in South Africa, and the Union adulteration laws with regard to both brandy and wine are stringent.

Table (*c*) hereunder gives particulars of the production, importation, exportation, and consumption of brandy in the Union from the year 1910:—

(*c*) BRANDY—PRODUCTION, IMPORTATION, EXPORTS, AND CONSUMPTION, 1910 TO 1938.

Year.	Production.*		Total Production.	Imports (less Re-exports).	Exports.	Various Uses.*	Consumption.
	Professed Distillers.	Agricultural Distillers.					
	Proof Gal.	Proof Gal.	Proof Gal.	Proof Gal.	Proof Gal.	Proof Gal.	Proof Gal.
1910	838,028	479,093	1,318,021	75,430	35,910	492,208	865,333
1915	1,466,173	196,795	1,662,968	71,217	37,558	520,844	1,175,783
1920	2,109,895	130,240	2,240,135	30,037	75,172	671,788	1,532,212
1925	1,738,889	106,272	1,845,161	18,729	41,869	797,855	1,024,166
1930	2,635,540	110,209	2,745,749	14,076	53,355	2,086,669	558,048
1934	2,454,563	231,144	2,685,707	12,305	58,736	1,901,302	730,303
1935	2,503,255	174,706	2,677,961	12,380	75,132	1,822,808	1,361,351
1936	3,102,368	143,925	3,246,293	12,998	89,587	1,637,218	1,846,362
1937	3,394,482	164,858	3,559,340	13,827	101,396	1,960,908	1,733,309
1938	3,641,467	133,315	3,774,782	20,831			

* As given in Excise Reports.

(ix) *Raisins and Currants.*—Both loose and stalk raisins are produced in the Union. The sultana produced is an excellent article, and has completely supplanted the imported commodity. The quantity and value of raisins, currants, and sultanas, the product of South Africa, exported overseas since 1934 are as follows:—

	lb.	£
1934	7,041,837	93,750
1935	9,308,141	123,247
1936	9,733,285	134,642
1937	13,552,805	205,865
1938	17,312,904	255,342

Exports to the Rhodesias and South West Africa are excluded from the foregoing figures. In 1938 exports to Southern Rhodesia amounted to 149,711 lb. with a declared value of £3,427.

In order to discourage the use of raisin grapes for wine-making purposes and thus diminish the wine surplus, the Co-operative Winegrowers' Association grants a subsidy of 1½d. per lb. on raisins or sultanas exported.

The real *Zante Currant* grape was not imported until 1916, but it is now being grown fairly extensively, especially in the south-western districts of the Cape Province. The Cape currant is a kind of dwarf Muscadel and possesses a pleasing flavour, but it is not cultivated on a large scale.

The subjoined table gives particulars of the quantities of raisins and currants produced on farms during a series of years:—

RAISINS AND CURRANTS PRODUCED ON FARMS, 1910-11 TO 1936-37.

YEAR.	RAISINS.				CURRANTS.	DRIED WINE GRAPES.
	Stalk.	Loose.	Sultana.	Total.		
Cenans—	lb.	lb.	lb.	lb.	lb.	lb.
1910-11.....	125,310	2,230,737	157,572	2,513,669	11,159	—
1917-18.....	496,287	4,716,526	1,148,588	6,361,401	113,853	—
1920-21.....	1,106,500	5,452,100	1,835,400	8,394,000	77,500	—
1925-26.....	2,060,100	3,949,500	3,119,600	9,129,200	181,600	1,420,960
1927-28*.....	3,560,740	3,222,820	4,043,920	10,827,480	191,760	4,200
1928-29*.....	3,178,310	3,341,150	3,368,580	9,928,070	430,760	11,660
1929-30*.....	552,000	5,451,900	2,999,700	9,003,600	616,400	5[illegible],000
1935-36*.....	490,600	10,045,100	6,937,900	17,473,600	900,600	10[illegible],300
1936-37*.....	586,166	10,545,171	9,243,833	20,375,170	1,304,857	65,[illegible]00

* Denotes fruit sold (farms only).

2. **Fruit Cultivation.**—(i) *Fruit Growing.*—The fruit-growing industry dates back to the early days of the occupation of the Cape. Nevertheless, there was no great advance in the industry until the closing years of the nineteenth century, by which time, as the result of the gradual development of fruit growing, particularly in the western districts of the Cape Province, production of large quantities of deciduous fruits, such as grapes, peaches, apricots, plums, and pears, in excess of domestic requirements, had been reached. There thus came into existence an export trade, at first on a small scale—in 1900, some years after its initiation, shipments to the extent of no more than 309 tons were made—but increasing as the industry developed and the trade became better organized, until by the year 1910 the shipments had reached a total of 2,705 tons. Since that time the export of fruit has consistently increased until the total quantity exported is now over 200,000 tons per annum. The consumption of fruit in the Union is also very great. The principal fruits exported are peaches, pears, plums, apricots, nectarines, apples, oranges, naartjes (tangerines), grapefruit, pineapples, melons, grapes, mangoes, litchis, lemons, granadillas, avocadoes, pomegranates, persimmons, quinces, and tomatoes.

VARIETIES OF FRUIT GROWN ON A COMMERCIAL SCALE.

Apples.	Grapefruit.	Melons.	Pineapples.
Apricots.	Granadillas.	Nectarines.	Pomegranates.
Avocadoes.	Guavas.	Naartjes (Tangerines).	Plums.
Bananas.	Lemons.	Olives.	Prunes.
Cape Gooseberries.	Limes.	Oranges.	Quinces.
Cherries.	Litchis.	Papaws.	Raspberries.
Custard Apples.	Loganberries.	Peaches.	Strawberries.
Figs.	Loquats.	Pears.	Tomatoes.
Grapes.	Mangoes.	Persimmons.	

A special census was taken in 1925 of deciduous and citrus fruit trees and vines, the fruit of which was grown particularly for purposes of export. In *Official Year Books* Nos. 8, 9, and 10 data are given as to ages of the trees, and in Nos. 11 and 12 a résumé is given of the total numbers of such trees in each province.

The following table gives the area in the various provinces of orchards, vineyards, etc., the produce of which is intended for sale.

AREA OF ORCHARDS, VINEYARDS, ETC.—CENSUS, 1936-37.

Province.	ORCHARDS.		Vineyards.	PLANTATIONS.	
	Citrus.	Other.		Pineapple.	Banana.
	Morgen.	Morgen.	Morgen.	Morgen.	Morgen.
Cape of Good Hope.....	11,933	36,833	49,936	3,392	389
Natal.....	2,649	1,011	—	960	3,659
Transvaal.....	13,406	17,472	210	57	127
Orange Free State.....	36	6,944	43	—	—
UNION, 1936-37.....	28,024	63,160	50,189	4,409	4,175
Total 1929-30.....	125,481		35,436	5,175	6,193
1935-36.....	26,892	60,067	45,016	3,993	4,133
1936-37.....	28,024	63,160	50,189	4,409	4,175
1937-38.....	27,861	62,700	53,493	†	†

1 Morgen = 2·1165 Acres.
† Not enumerated.

The following tables give the number of citrus and other fruit trees on farms in various census years. Trees in urban areas were not enumerated until 1921. As from 1926 the census was confined to trees, the fruit of which was produced for sale.

FRUIT TREES: 1911 TO 1937 (EXCLUDING TREES IN NATIVE RESERVES AND LOCATIONS).

(*a*) CITRUS FRUIT TREES.

YEAR.	LEMON.	ORANGE.		NAARTJE.		GRAPE-FRUIT.	TOTAL.
		Grafted.	Seedling.	Grafted.	Seedling.		
1911.....	172,856	985,601		404,189		[illegible]	1,562,646
1918.....	248,336	1,277,405	548,237	174,971	266,933	[illegible]	2,515,882
1921*.....	160,710	1,371,615	439,375	149,470	226,610	[illegible]	2,347,780
1924.....	225,950	2,471,520	488,270	145,680	175,500	[illegible]	3,506,920
1925.....	270,540	3,559,280		341,900		[illegible]	4,171,720
1926.....	192,920	3,633,130		307,340		194,700	4,328,090
1930.....	196,890	3,883,350		272,260		244,110	4,596,610
1936.....	158,361	4,148,859 **		271,085		292,038	4,870,343
1937.....	180,987	4,409,413 **		295,791		321,290	5,207,481

(*b*) NON-CITRUS FRUIT TREES.

Year.	Apple.	Apricot.	Mango.	Nectarine.	Peach.	Pear.	Plum and Prune.	Other Fruit Trees.
1911...	1,429,858	1,025,193	—	98,687	5,902,480	650,937	635,646	—
1918...	2,171,336	1,161,173	96,685	206,349	5,770,164	788,352	1,143,649	1,315,837§
1921*..	2,471,090	1,454,250	134,010	78,280	5,446,440	837,899	1,421,780	2,024,410§
1924...	2,706,570	2,169,340	156,190	77,860	6,146,700	1,073,110	1,739,780	1,594,580§
1925...	2,976,450	2,386,860	170,360	105,580	6,864,920	1,156,330	1,812,080	1,853,020§
1926...	2,438,240	2,038,890	188,540	†	†	998,140	1,552,010	4,966,800‡
1930...	2,464,370	2,190,820	230,840	76,420	3,590,670	1,009,740	1,379,250	1,481,460
1936...	2,571,808	1,787,274	232,535	101,483	3,893,835	1,075,958	1,148,301	1,475,273¶
1937...	2,677,467	1,940,262	266,597	92,450	4,055,540	1,110,635	1,197,797	2,220,481

* Including urban areas.
† Included in "Other Fruit Trees."
‡ Including nectarine and peach.
§ Including grapefruit.
‖ Grapefruit trees tabulated under the item "Other Fruit Trees". *Vide* table (*b*).
¶ Principal "Other Fruit Trees."
** Navel orange trees numbering 2,018,647 in 1936, and 2,132,331 in 1937, included.

(ii) *Fruit Export.*—The fruit export industry is governed by regulations under the *Fruit Export Act* of 1914, the *Fruit Export Control Act* of 1925, and the *Fruit Export Further Control Act* of 1929, the object of which is to maintain a high standard of quality in all fruit exported. Revised regulations governing the export of fruit are published yearly as Government Notices. In order to organize fruit growers and to stabilize the fruit markets, particularly those overseas, the Fruit Growers' Co-operative Exchange of S.A., Ltd., was formed in 1926. This is the parent body of the S.A. Co-op. Deciduous Exchange, Ltd., with headquarters in Capetown, and the S.A. Co-op. Citrus Exchange, Ltd., with headquarters in Pretoria.

(a) *All Fruits.*—(i) *Exports.*—The following table gives the declared value of fresh fruit of various kinds exported during a series of years:—

VALUE OF VARIOUS CLASSES OF FRESH FRUIT EXPORTED, 1932 TO 1938.

Class of Fruit.	1932.*	1933.*	1934.*	1935.	1936.	1937.	1938.
	£	£	£	£	£	£	£
Citrus—							
Lemons	9,592	9,771	12,072	17,019	20,670	21,154	15,678
Naartjes (Tangerines)	4,944	4,635	3,707	3,281	3,147	3,000	3,871
Oranges	852,236	971,446	1,096,621	1,030,770	1,182,336	1,857,634	1,154,055
Other citrus	78,263	128,580	149,059	142,617	163,513	181,501	210,271
Deciduous—							
Apples	30,471	48,432	70,140	77,513	191,567	86,238	162,671
Apricots	4,721	8,297	10,775	17,380	7,471	21,452	6,792
Nectarines	10,371	12,701	17,310	7,791	17,662	11,589	9,328
Peaches	104,510	116,839	106,458	89,374	127,828	99,054	96,765
Pears	155,389	202,947	237,932	302,673	297,302	259,143	231,056
Plums	113,760	143,001	133,578	150,590	154,601	179,579	136,804
Other deciduous	3,430	2,748	2,064	502	1,028	571	536
Grapes	230,086	338,112	420,108	469,052	548,026	590,884	661,691
Other kinds—							
Bananas	1,816	1,717	1,509	5,582	2,779	2,581	2,945
Guavas	6	—	—	—	—	—	—
Mangoes	123	846	227	191	85	139	43
Melons	2,170	4,701	1,980	2,879	4,384	3,268	4,552
Papaws	34	—	13	115	65	19	105
Pineapples	6,250	10,640	14,616	13,365	14,691	9,173	12,420
Other non-deciduous	1,221	1,189	1,188	2,537	2,717	3,162	8,318
TOTAL.....£	1,609,393	2,006,602	2,279,456	2,334,137	2,739,902	3,321,251	2,717,030

* Excludes exports to Northern and Southern Rhodesia and ships' stores.

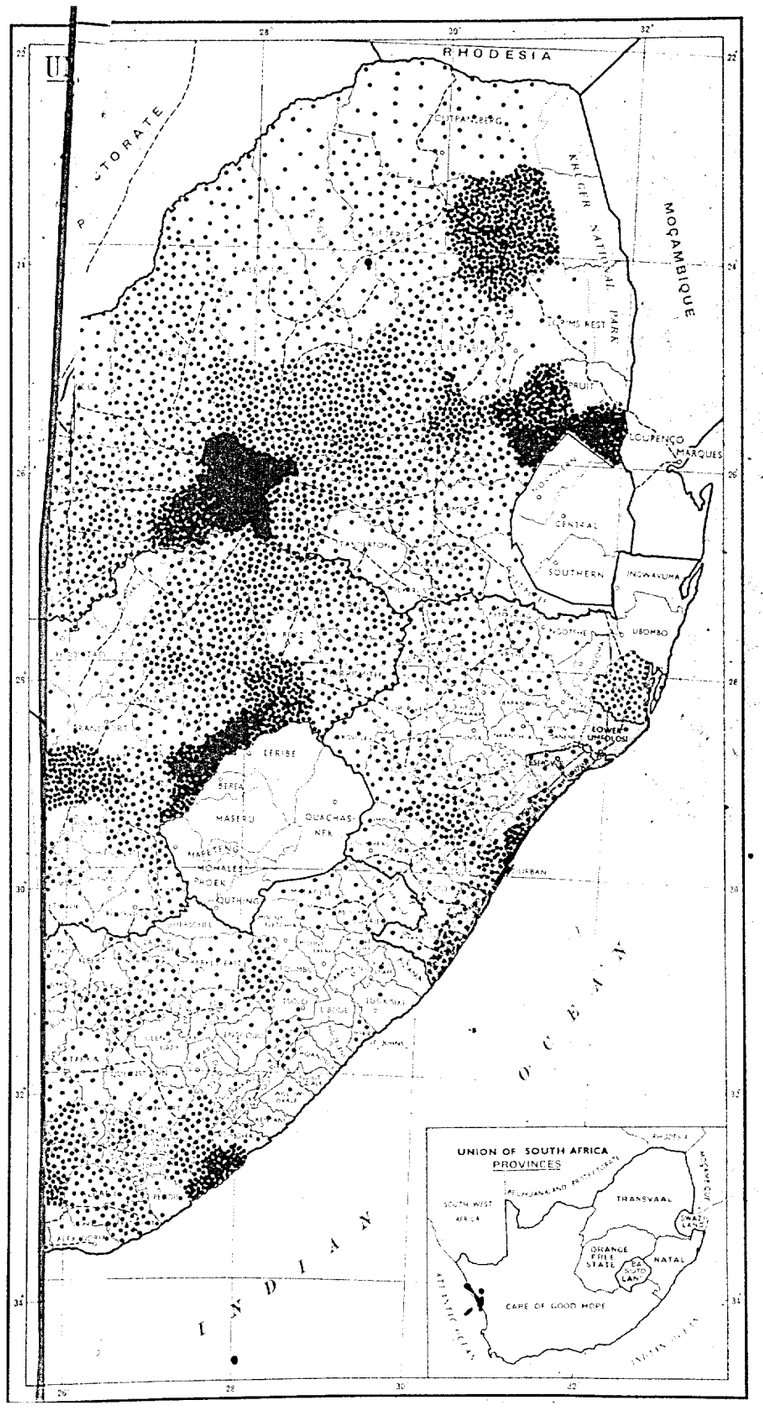
(ii) *Imports and Exports.*—The following table gives the declared value of fresh fruit imported and exported during certain years:—

VALUE OF FRESH FRUIT IMPORTED AND EXPORTED, 1910 TO 1938.

Year.	Total Imports less Re-exports.	Exports* (S.A. Produce).	Year.	Total Imports less Re-exports.	Exports* (S.A. Produce).
	£	£		£	£
1910.....	14,739	46,595	1934.....	85,490	2,315,717
1915.....	6,453	74,952	1935.....	76,375	2,334,137
1920.....	4,957	192,846	1936.....	80,633	2,739,902
1925.....	27,247	762,364	1937.....	40,628	3,321,251
1930.....	103,889	1,603,585	1938.....	22,448	2,717,030

* Including exports to Northern and Southern Rhodesia and ships' stores.

(b) *Deciduous and Sub-tropical Fruits.*—Exports in the 1935-36 season constituted a record. Quantities of the different kinds of fruits exported since 1933-34 are given below. As the size of the boxes used depends upon the kind of fruit and the method of packing, the quantities are given in shipping tons of 40 cubic feet measurement.



QUANTITY OF FRUIT EXPORTED EACH SEASON,* 1933-34 TO 1937-38.

Fruit.	1933–34.	1934–35.	1935–36.	1936–37.	1937–38.
	Tons.	Tons.	Tons.	Tons.	Tons.
Grapes	25,973	29,641	34,894	37,679	41,993
Pears	17,480	21,528	20,854	18,048	15,941
Peaches	8,183	3,878	7,890	4,064	6,775
Plums	10,141	8,044	11,845	8,199	13,179
Apples	5,265	4,262	13,261	5,239	9,848
Nectarines	1,050	434	1,014	648	511
Melons	207	201	357	218	300
Apricots	437	784	983	464	1,325
Granadillas	2	3	8	32	7
Mangoes	13	14	3	6	3
Persimmons	9	11	11	13	2
Quinces	8	2	1	2	—
Litchis	40	101	21	155	182
Avocadoes	5	5	—	12	14
Other	22	59	16	18	25
TOTAL.....Tons	68,835	68,967	91,158	74,797	90,105

* Furnished by the Department of Agriculture and Forestry.

(c) *Citrus Fruit and Pineapples.*—The export of citrus fruit and pineapples during the five seasons, 1934 to 1938, is given below.

EXPORT OF CITRUS FRUIT AND PINEAPPLES THROUGH UNION PORTS,* 1934 TO 1938.

Fruit.	1934.	1935.	1936.	1937.†	1938.
	Tons.	Tons.	Tons.	Tons.	Tons.
Oranges	128,995	118,014	134,278	214,532	174,984
Grapefruit	16,828	16,015	18,444	20,570	25,238
Naartjes (Tangerines)	406	376	528	313	352
Lemons	1,531	2,072	1,940	2,021	1,872
TOTAL.....Tons	147,760	136,477	155,190	237,436	202,446
Pineapples.....Tons	2,382	2,170	2,521	1,305	1,821

* Furnished by the Department of Agriculture and Forestry.
† Amended figures.

The provincial percentages of quantities of grapefruit and of the three most important varieties of oranges exported during the years 1936, 1937, and 1938 are as follows:—

EXPORT OF ORANGES AND GRAPEFRUIT—PROVINCIAL PERCENTAGES, 1936, 1937, AND 1938.

Province.	Oranges.									Grapefruit.		
	Navels.			Seedlings.			Valencias.					
	1936.	1937.	1938.	1936.	1937.	1938.	1936.	1937.*	1938.*	1936.	1937.	1938.
	%	%	%	%	%	%	%	%	%	%	%	%
Cape of Good Hope	65·0	39·7	46·1	30·6	27·1	25·7	26·2	15·5	22·1	69·0	70·6	76·7
Natal	7·4	7·5	6·0	0·8	0·6	0·9	9·6	8·5	8·1	1·3	2·0	3·0
Transvaal	27·6	52·8	47·9	68·6	72·3	73·4	58·9	72·2	64·1	29·7	26·6	19·9
Rhodesia and Portuguese East Africa	—	—	—	—	—	—	5·3	3·8	5·7	—	0·8	0·4

* Including du Roi.

(*d*) *Pre-cooling Chambers, Capetown, Port Elizabeth, East London, and Durban Harbours.*—Pre-cooling chambers with a storage capacity of 6,000 shipping tons are available at the A and B Berths, New Basin, and Nos. 3 and 4 Berths, South Arm, Table Bay Harbour, Capetown. These chambers with their equipment are regarded as the most up-to-date of their kind, and the facilities provided enable fruit cargoes to be handled with extraordinary rapidity. Similar chambers at Port Elizabeth, East London, and Durban Harbours are capable of accommodating 4,500, 1,500, and 2,000 shipping tons respectively.

(iii) *Dried Fruits.*—Dried fruits, especially raisins, sultanas, currants, prunes, pears, apricots, and peaches, are produced for home consumption throughout a large portion of the Union, and as an article of commerce are produced mainly in the south-western and in the eastern districts of the Cape Province. Dried apples are produced in the eastern portion of the Orange Free State. The north-west of the Cape Province is now also developing, especially in the districts of Gordonia and Kenhardt, where sultanas are produced on land irrigated from the Orange River. Enormous strides have been made in recent years in the production of high quality dried fruits for export, and the South African product now compares favourably with that of any part of the world.

The following table shows (*a*) the quantities of the more important kinds of dried fruit produced on farms during certain years 1910-11 to 1936-37; (*b*) the quantities of the different kinds of dried fruit exported during the years 1934 to 1938; and (*c*) the quantity and value of dried fruit (excluding currants, raisins, almonds, walnuts, and dates) produced, imported, and exported during the years 1920-21 to 1936-37:—

(*a*) QUANTITY OF DRIED FRUIT PRODUCED ON FARMS, 1910-11 TO 1936-37.

Year.	Apples.	Apricots.	Figs.	Peaches.	Pears.	Prunes and Plums.
	lb.	lb.	lb.	lb.	lb.	lb.
1910–11	115,964	635,370	54,064	2,575,049	178,306	641,350†
1920–21	164,900	160,100	132,200	1,824,200	192,200	741,900
1925–26	244,000	1,073,060	262,200	2,091,500	205,000	1,354,800
1927–28*	209,670	2,217,490	217,680	1,336,580	211,670	581,190
1928–29*	237,090	2,633,550	273,270	1,724,190	124,200	1,363,840
1929–30*	240,000‡	2,749,500	338,100	2,858,400‡	461,800‡	3,750,900
1935–36*	277,900	4,379,800	251,800	2,340,900	264,900	3,157,000
1936–37*	146,847	1,425,076	210,181	1,038,112	224,186	1,151,477

* Denotes dried fruit sold.
† Plums only.
‡ Amended figure.

(*b*) DRIED FRUIT EXPORTED,* 1934 TO 1938.

Fruit.	1934.	1935.	1936.	1937.	1938.
	lb.	lb.	lb.	lb.	lb.
Apricots	4,727,043	3,152,625	6,320,567	1,484,175	3,705,970
Raisins (including Sultanas)	6,959,105	9,289,719	9,685,222	13,525,771	17,301,794
Prunes	1,297,085	83,995	549,113	71,040	447,214
Apples	150	370	100	74	29,230
Peaches	738,275	36,450	542,372	74,950	457,585
Pears	5,250	6,250	235	54,950	221,635
Assorted	28,038	33,536	15,370	24,061	13,563
Nectarines	13,050	—	15,675	4,050	15,150
Currants	600	—	308	—	250
Mebos	360	—	—	—	12
Figs	385	100	159	50	50
Walnuts	410	481	352	456	270
Almonds	663	362	470	490	540
Fruit Salads	368,072	29,500	318,727	71,124	120
Plums	6,250	250	—	—	—
Other	—	7,088	2,486	4,430	3,500

* Furnished by the Department of Agriculture and Forestry.

(*c*) PRODUCTION, IMPORTS, AND EXPORTS OF DRIED FRUIT (EXCLUDING CURRANTS, RAISINS, ALMONDS, WALNUTS, AND DATES) AND CANDIED PEEL, 1920-21 TO 1936-37.

Year.	Production.				Imports less Re-exports.		Exports (S.A. Produce).	
	Factory.	Farm.	Total.	Value.	Quantity.	Value.	Quantity.	Value.
	1,000 lb.	1,000 lb.	1,000 lb.	£	1,000 lb.	£	1,000 lb.	£
1920–21	—	3,216	3,216	—	439	20,204	530	31,216
1925–26	2,028	5,231	7,259	165,000‡	167	5,960	3,573	77,487
1927–28	1,540	4,774†	6,314	174,000‡	455	10,532	3,726	96,478
1928–29	1,934	6,356†	8,290	224,000‡	643	14,239	4,307	103,731
1929–30	2,412	10,399†§	12,811§	330,000‡	528	12,175	7,356	164,771
1932–33	1,708	*	*	*	247	4,218	7,027	167,392
1933–34	3,070	*	*	*	237	4,709	7,285	158,682
1934–35	4,239	*	*	*	337	6,102	5,878	132,034
1935–36	4,939§	10,696†	15,635§	324,040‡§	403	6,632	6,174	167,035
1936–37	3,077	4,219†	7,296	148,155 ‡	535	8,370	5,366	146,411

* Not available.
† Denotes dried fruit sold.
‡ Farm production assessed at same value per lb. as factory production.
§ Amended figure.

(iv) *Nuts.*—The walnut and the almond are the only nuts planted on a commercial scale in the Union; the quantity sold on farms during 1935-36 and 1936-37 of both varieties amounted to 456,600 lb. and 249,801 lb., respectively. The supply of both is, however, quite unequal to the demand, and there is need and scope for heavy planting of walnut and almond trees, to the cultivation of which various districts are eminently suited. Considerable attention is being given to the cultivation of tung nuts; pecan nuts are also being grown extensively. Imports of almonds, walnuts, and other edible nuts in 1938 were as follows:—Almonds, 660,157 lb., valued at £47,044; walnuts, 304,855 lb., valued at £11,901; and other edible nuts, 2,212,706 lb., valued at £40,951; representing a total value of £99,896.

(v) *Canned Fruits.*—Canneries have been established principally at towns on or near the coast, partly on account of the better supply of suitable labour, and partly on account of the more economical working possible in those localities. The article produced is uniformly good and has much improved within the past few years. The chief centres of the industry are Durban, Port Elizabeth, Capetown, Paarl, Worcester, and Wellington.

The following table gives particulars of the quantity and value of canned and bottled fruit produced, imported, and consumed during the years 1916-17 to 1936-37.

CANNED AND BOTTLED FRUIT.—PRODUCTION, IMPORTATION, AND CONSUMPTION, 1916-17 TO 1936-37.

Year.	Total Production.		Imports less Re-exports.		Total Production less Exports.	Consumption.
	Quantity.	Value.	Quantity.	Value.		
	lb.	£	lb.	£	lb.	lb.
1916–17	1,448,000	29,319	127,188	3,347	1,106,187	1,233,375
1920–21	2,693,541	100,809	230,153	10,800	1,586,170	1,816,323
1925–26	8,306,951	156,352	436,937	17,621	4,723,366	5,160,353
1926–27	4,380,546	100,877	635,086	22,227	555,578	1,190,664
1927–28	6,515,076	127,851	863,907	27,822	2,847,255	3,711,162
1929–30	7,070,954	156,340	933,324	32,384	3,152,287	4,135,611
1932–33	11,555,447	177,146	610,510	17,724	6,580,588	7,191,098
1933–34	12,829,030	199,747	798,845	25,027	7,076,028	7,874,873
1934–35	12,671,354	179,234	903,535	27,780	6,591,488	7,495,023
1935–36	20,590,521	356,180	1,005,676	32,899	13,147,832	14,153,508
1936–37	14,049,081	225,455	1,246,597	41,568	9,759,430	11,006,027

(vi) *Jams.*—The production of jams, jellies, fruit juices, and pulp in the Union is of some importance, and the possibilities of the development of this industry are considerable. The following table gives particulars regarding the production, importation, and consumption of jams and jellies during the years 1920-21 to 1936-37.

JAMS AND JELLIES.—PRODUCTION, IMPORTATION, AND CONSUMPTION, 1920-21 TO 1936-37.

Year.	Total Production.		Imports less Re-exports.		Total Production less Exports.	Consumption.
	Quantity.	Value.	Quantity.	Value.		
	lb.	£	lb.	£	lb.	lb.
1920-21	13,774,349	370,862	1,045,605	38,005	10,634,248	11,679,753
1925-26	14,244,069	282,150	287,555	10,045	12,873,861	13,161,419
1927-28	19,932,831	391,395	359,256	12,347	17,650,364	18,009,620
1928-29	18,730,691	360,186	559,795	18,010	16,052,614	16,612,409
1929-30	18,903,494	367,960	562,161	16,930	16,558,700	17,120,861
1932-33	20,055,590	316,979	277,638	6,790	18,858,950	19,136,588
1933-34	22,460,917	376,420	297,595	8,854	21,154,113	21,451,708
1934-35	25,059,700	428,613	434,589	12,168	23,352,184	23,786,773
1935-36	25,503,361	440,816	494,945	13,839	24,159,254	24,654,199
1936-37	27,841,739	461,262	623,527	17,267	26,305,703	26,929,230

§ 7. Sugar-cane.

1. **Sugar Industry.**—(i) *Historical.*—The first sugar mill was erected at Compensation, Victoria County, Natal, in 1849. By 1860 sugar-cane cultivation had made considerable progress in Alexandra, Durban, and Victoria Counties, and a number of small mills were in operation. A fair proportion of these mills were steam driven, but in a number of cases ox gear and water power were still used. The largest mill had not more than 40 horse-power.

For a number of years the progress of the industry was retarded by various factors, such as fluctuating prices, competition from Mauritius, disease among the "soft" varieties of cane, lack of suitable transport facilities, and a restricted market.

The development of the gold mining industry in the Transvaal caused some expansion of the market for Natal sugar between 1880 and 1889, and the joining up of the Natal and Transvaal railways further improved the position. The outbreak of the Anglo-Boer War led to a greater local demand, with resultant higher prices and increased cultivation.

For some years after 1904 the industry suffered severely from the dumping of German beet sugar, and the acreage of cane reaped showed a steady decline. During this period, however, owing to favourable climatic conditions, there was an increase in the average output of sugar per acre, and the effects of German competition were thus to some extent mitigated.

In 1905 the first sugar lands were taken up in Zululand. The first harvest of cane was reaped there in 1908, when about 2,000 acres were cut. During 1924 areas in Zululand north of Somkele were, as an experiment, allotted partly for cotton and partly for sugar; the results have so far been negligible.

With the completion of a customs convention between all the South African States in 1903, Natal obtained a position of preference against Mauritius and overseas sugar, and importations from these sources fell off as the Natal output increasingly met the South African demand.

From 1910 to the outbreak of the Great War, Natal encountered increasing competition from Mozambique in the Transvaal market. Under the terms of the Convention of 1909, sugar imported from that territory was not liable to customs duty. When the commercial clauses of the convention were denounced in 1923, sugar imported from Mozambique became liable for customs duty on entering the Union. Under the Convention of 1928 liability for customs duty remained.

The expansion of output since 1910 has been due in some measure to the steady development of Zululand; but Natal proper contributed largely, by bringing under cane land which was under other crops (such as tea) and land

hitherto undeveloped. In 1917-18 Natal had 128,460 acres under cane, while Zululand had 55,184 acres. In 1923 Natal's acreage had risen to 141,400 and Zululand's to 70,000. The year 1927, however, marked an epoch in Natal's sugar history, because increased fiscal protection, added to fiscal preference in the British market, granted in 1919, stimulated progress in a remarkable way. In 1923 the acreage reaped in Zululand was 26,400 and in Natal 60,000. In 1932 the figures were 52,000 for Zululand and 88,000 for Natal, a 97 per cent. increase in the former case and a 46 per cent. increase in the latter. The quantity of cane crushed during the 1938-39 season totalled 4,658,962 tons compared with 4,489,022 tons in 1937-38.

(ii) *Geographical Distribution of Cane.*—The geographical distribution of cane growing in the three areas of the sugar belt, ordinarily known as "South Coast" (S.W. of Durban), "North Coast" (N.E. of Durban to Tugela River), and "Zululand" (N.E. of Tugela River), in recent years is given below, the season 1926-27 (the season immediately preceding the application of the Fahey Agreement) being given for comparison with post-Fahey-Agreement seasons.

Area.	1926-27.	1935-36.	1936-37.	1937-38.	1938-39.
Total cane crushed (tons of 2,000 lb.)	2,147,323	3,865,687	4,181,973	4,489,022	4,658,962
South Coast.....per cent.	33·04	20·7	19·74	21·9	19·4
North Coast..... "	41·06	54·3	52·73	48·2	51·2
Zululand..... "	25·90	25·0	27·53	29·9	29·4

(iii) *Varieties of Cane Cultivated.*—Prior to the introduction of the Uba variety, a number of different varieties of cane were cultivated. Owing to the ravages of disease and drought and the poor ratooning qualities of the older varieties, that is, the lack of ability to make vigorous growth from old root stocks after a crop has been cut, endeavours were made to obtain more suitable varieties from other countries. Among the varieties thus introduced was Uba, which soon displaced all others almost entirely, because of its general hardiness, resistance to drought and many plant diseases, and excellent ratooning powers. With Uba the usual practice is to grow four crops from the one planting, comprising one so-called "plant cane" crop and three ratoon crops after successive cuttings. Objections to Uba from the manufacturing view-point arise (1) from its high fibre content, which makes the cane relatively difficult to mill and promotes undue loss of sugar in the only partially exhausted fibre, and (2) from the special nature of certain colloid or waxy impurities apt to occur in the expressed juice, which leads to difficulties in filtering and boiling the juice.

In the field, it is found that the leaves (trash) adhere firmly to the stem of Uba cane, making it difficult to harvest cleanly and rapidly, and promoting the practice of burning the standing cane before harvesting, to which there are weighty agronomic objections. Uba also is somewhat low in sucrose (sugar) content compared with modern improved varieties.

Measures initiated in 1926 for the eradication of all canes other than Uba resulted in the sugar-cane growing area being cleaned of all varieties susceptible to Mosaic disease, except for small quantities retained for scientific purposes in selected and defined quarantine areas. The object was to eliminate Mosaic disease by the eradication of all cane susceptible to the disease, Uba being for all practical purposes immune. The way would then be clear for the introduction of new Mosaic-free stocks of varieties of cane superior to Uba in sucrose content and in field and milling qualities.

From January, 1927, until December, 1930, the growing of any cane other than Uba was prohibited except in quarantine, with special written permit. Owing to the existence, previously unsuspected, of a perennial weed, *Setaria sulcata*, which is capable of transmitting Mosaic disease infection to sugar-cane, this policy failed in its main object, viz., the elimination of Mosaic disease by the eradication of suitable host plants, and the disease, fortunately in a relatively mild form, is still endemic. Nevertheless the ultimate results of the temporary prohibition of the growing of all varieties except Uba were for several reasons very beneficial. The destruction of many diseased canes which were foci of infection was enforced, several undesirable varieties were eliminated, and the way was cleared for a new beginning with varieties of proved value for South African conditions, introduced and tested under scientific control.

From December, 1930, onwards, the varieties P.O.J. 2725, P.O.J. 2878, C.H. 64/21, P.O.J. 2714, P.O.J. 2727, Co. 290, Co. 281, and Co. 301 have been successively released for general commercial planting. These varieties were amongst a large number that had been accumulated from all parts of the world at the experiment station of the South African Sugar Association, Mount Edgecombe, Natal, for study and trial, and represent a selection of canes considered most promising for South African conditions. The P.O.J. canes originated at the experiment station of the Javan Sugar Industry (Proefstation Oost Java); of these canes No. 2878 had proved singularly successful in that country (the " Wonder " cane of Java). C.H. 64/21 is claimed to be a cross between Uba and D. 74 produced at the Government Experiment Station near Havana, Cuba; while the three Co. varieties were bred at the Imperial Government Cane Breeding Station at Coimbatore in Southern India. Although Uba is not affected by Mosaic disease, it has become increasingly infected within recent years by a somewhat similar plant virus disease known as Streak Disease, which causes a stunting of growth of the cane. Most of the newly released varieties are more or less highly resistant to Streak Disease as well as to Mosaic. The work of selection of new imported varieties for local adaptation and use is being actively continued. As in most extra-tropical countries, the crossing of cane varieties has not been successful for climatic reasons, but of late years cross-fertilized flowers (tassels) of certain varieties have been introduced from Florida, U.S.A., India, and Mauritius and have been successfully germinated. Upwards of 5,000 new seedlings have been originated locally in this way. These new seedlings will have to undergo years of trial, and the chances are very great against combining in any given one the qualities necessary for the exacting requirements of a modern sugar-cane variety, even where the most promising parents have been successfully crossed. Nevertheless, the ultimate prospects of getting in this way new canes particularly well suited to local conditions are better than those of getting them from the alternative method of introducing established varieties of promise for South African conditions, which have however been evolved to suit other conditions.

Of the introduced varieties mentioned above, P.O.J. 2725, Co. 281, Co. 290, and Co. 301 appear to have become permanently established on a considerable scale, and are rapidly replacing Uba.

The experiment station of the South African Sugar Association was established at Mount Edgecombe, Natal, in 1927, for investigation into problems of the growing of cane and the manufacturing of sugar. It is one of the very few examples in this country of a research station supported by the industry it serves and not by the Government. There are chemical and botanical laboratories, a green-house, administrative offices, and 90 acres of land for field experiments at Mount Edgecombe, and a quarantine greenhouse for the reception and preliminary growth and observation of imported sugar-canes at the Natal Herbarium Botanic Gardens, Durban. The staff of the experiment station includes thirteen scientific and technical officers. Many field experiments are carried out on private estates also, in co-operation with the owners or occupiers.

(iv) *Yield of Cane.*—The average yield of sugar-cane per acre over the years 1926 to 1937 inclusive was 20·70 tons of 2,000 lb., most of the fields being cut every second season. In the 1937-38 season the average yield was 23·75 tons per acre for all varieties, the Uba cane yielding 20·38 tons and all other varieties 28·91 tons. The ratio of cane to sugar for that season was 8·80, which indicates a yield of 2·32 tons of sugar per acre.

A few years ago the yield of cane per acre was 3 or 4 tons greater from the Zululand settlements than from the rest of Natal where the land had in the main been longer under cultivation. This difference disappeared for various reasons, but is again becoming evident, this time apparently owing to the greater adaptability of the new varieties of cane to Zululand conditions and their consequent more rapid adoption there.

(v) *By-products.*—During the past year, considerable investigations have been made into the possibilities of developing the principal by-products of cane, viz., bagasse and molasses. For some time, motor spirit, in which alcohol from molasses and petrol are combined in equal parts, has been produced, and also rectified and methylated spirits, commercial and anaesthetic ether, and other products (glycerine, etc.). Recent research has been undertaken with the object of ascertaining the commercial possibilities of these by-products on a much larger scale and of stimulating greater interest in their potentialities.

(vi) *Sugar Mills.*—The industry is well provided with mills, and in Natal proper the owners of these (with one or two exceptions) for the most part crush a proportion of cane grown by themselves. In Zululand the mills are situated in the centre of a large area of farms owned by cane farmers; from these they obtain nearly all the cane they crush.

During 1936 in anticipation of the expiry of the Fahey Conference Agreement referred to in No. 17 and previous *Year Books*, planters, millers, and others concerned in the sugar industry negotiated an Agreement among themselves which is to run for five years from 1st May, 1936, and has been given force of law by the *Sugar Act*, No. 28 of 1936. This Agreement contained three outstanding features. First of all it recognized the necessity for restriction of output, to escape the lowering of average returns arising from increasing export to a market which had been falling for several years; secondly it gave effect to the demand of cane growers that the basis on which cane prices were calculated under the expiring 1926 Agreement should be raised; and thirdly it opened the way for railage economies by making provision for, as far as practicable, crushing cane at the mill nearest to its place of growth.

Restriction of sugar output necessitates parallel action in regard to cane. Provision is therefore made for determining the cane quota of every planter, with the important reservation that no restriction applies to growers producing less than 3,500 tons of cane. This principle of encouraging the smaller growers has been extended to prices for cane. All cane sent to a mill is paid for according to a standard formula, which shows an advance on the 1926 Agreement formula. In addition a fund has been established out of which growers receive an increase on the formula price, the amount of the increase varying with the producer's output, running from 1s. 7d. a ton to a planter reaping 1,000 tons to nil to a planter reaping 15,000 tons. This fund comprises about £51,000 contributed by miller-cum-planter factory units and about £85,500 from a levy on all millers of 1½d. per ton on European planters' cane crushed and of 3d. per ton on millers' cane crushed.

The mills usually work between the months of May and December, when the sugar-content of the cane is at its optimum. In 1938-39, there were 22 mills in operation, 17 in Natal proper and 5 in Zululand.

(vii) *Sugar Refineries.*—Two refineries attached to two of the mills deal with the " cargo " sugars produced by the mills. During 1926-27 important additions were completed to the one bone-char process refinery, which now takes raw sugar from ten mills and is equipped to produce 120,000 tons of refined sugar. A refinery using the suchar process started in 1927 at Illovo, and produces about 20,000 tons. One mill produces 55,000 tons of refined sugar by the double carbonatation process. Several mills continue to produce mill white sugar. Two factories in favourable seasons produce over 55,000 tons of sugar each.

(viii) *Labour.*—At one time the labour employed in the sugar industry was mostly Indian, but during recent years the proportion of Indians has rapidly decreased. At present the great majority of the labourers employed both on the estates and in the mills are natives. It has been found impossible to obtain an adequate regular supply locally, and arrangements have therefore been made for recruiting in native areas outside Natal. Europeans are employed on the large estates as managers, chemists, engineers, and overseers. In recent years there has been a growing tendency to employ Europeans for work hitherto done by Indians and natives, the limiting factor to greater extension being the necessity for selecting for Europeans classes of work in which there is no very close association with coloured labourers. According to the 1936-37 Industrial Census, there were 1,085 Europeans, 4,391 natives, 3,239 Asiatics, and 61 other coloured persons employed in sugar mills and refineries.

Including owners managing their own farms, the number of Europeans directly employed in the industry is estimated at 2,500. The native labour employed varies considerably, being reckoned at between 50,000 and 60,000 labourers at the height of the harvesting season.

(ix) *Price of Sugar.*—The following statement gives the average price (excluding £1 excise duty and allowing for manufacturers' and other rebates) of first grade refined Natal sugar per ton (2,000 lb.) at Durban from the 1910-11 to the 1938-39 season:—

Year.	Price.	Year.	Price.	Year.	Price.
	£ s. d.		£ s. d.		£ s. d.
1910-11.....	17 4 3	1920-21....	46 11 6	1930-31....	19 10 5
1911-12.....	18 1 6	1921-22....	29 3 5	1931-32....	18 0 11
1912-13.....	16 5 4	1922-23....	22 16 9	1932-33....	19 10 7
1913-14.....	16 1 9	1923-24....	20 12 7·6	1933-34....	19 16 2
1914-15.....	18 4 10	1924-25....	24 6 5	1934-35....	19 17 0
1915-16.....	19 8 0	1925-26....	21 13 6·8	1935-36....	19 12 10*
1916-17.....	20 7 5	1926-27....	22 1 1·8	1936-37....	19 15 1
1917-18.....	25 9 0·9	1927-28....	22e11 4	1937-38....	19 17 7
1918-19.....	23 5 9·6	1928-29....	22 2 3	1938-39....	19 16 8
1919-20.....	26 6 4·8	1929-30....	20 2 7		

* Amended figure.

By the *Sugar Prices Act*, 1926, the maximum retail price of refined sugar at South African ports for consumption in the Union was fixed at 3¾d. per lb., and of mill white sugars at 3½d. per lb. These prices were reduced to 3½d. and 3¼d. respectively under the provisions of section 11 of Act No. 25 of 1932.

The 1926 Act was repealed by the *Sugar Act*, No. 28 of 1936, which *inter alia* kept the maximum prices for first refined and mill white sugars unchanged, and which in addition places an obligation on all millers to make and sell a new type of sugar called 2 Grade. For this grade the producer's price is limited to £14. 10s. per ton free on rail at Durban, while the maximum retail price is 2½d. per lb. anywhere in the Union within five miles of a railway.

The customs duty imposed on sugar imported into the Union amounts to 12s. 6d. per 100 lb., plus a suspended duty applied by Proclamation in 1926 and proclaimed as operative in May, 1930.

(x) *Return to Producers.*—Under the Fahey Agreement, all producers at the date of signature of that document agreed to export a quota of sugar surplus to South African consumption according to the proportion their output bore to the total output. By the same agreement provision was made for supplying manufacturers of jams, jellies, canned fruit, sweets, condensed milk, etc., with sugar at prices based on the fiscal duty in force. These obligations have been continued under the *Sugar Act*, No. 28 of 1936. The following table gives the return to the producer after allowance has been made for export, manufacturers' prices, and similar industrial obligations. The price given is for sugar of 96 degrees polarisation (i.e., sugar for refining) and is that on which millers are paid for their sugar and planters for their cane:—

Season.	*Average return per short ton of whole crop of 96 degrees Pol. Sugar.*	Season.	*Average return per short ton of whole crop of 96 degrees Pol. Sugar.*
	£ s. d.		£ s. d.
1927-28.....	16 2 0	1933-34.....	11 8 2
1928-29.....	15 8 5	1934-35.....	12 10 1
1929-30.....	12 16 3	1935-36.....	10 15 3
1930-31.....	11 3 9	1936-37.....	11 11 7
1931-32.....	10 7 1	1937-38.....	11 7 10
1932-33.....	10 5 8		

(xi) *Statistics.*—The area of Uba cane under cultivation belonging to Europeans at 30th June, 1918, was 184,213 acres. Figures for later years, but taken at the 30th April, are as follows:—

Year.	*Uba Cane. Acres.*	Year.	*Uba Cane. Acres.*	*Other Varieties. Acres.*	*Total Acres.*
1924.....	201,170	1933.....	332,851	3,649	336,500
1926.....	232,134	1934.....	333,431	14,560	347,991
1929.....	299,895	1935.....	302,835	52,879	355,714
1930.....	309,918	1936.....	251,281	107,985	359,266
1931.....	289,053	1937.....	192,582	167,349	359,931
1932.....	300,860	1938.....	146,317	208,684	355,001

The following table shows the quantity of sugar produced, imported, and consumed from the year 1910-11:—

SUGAR.—PRODUCTION, IMPORTS, EXPORTS, AND CONSUMPTION, 1910-11 TO 1938-39.

Year.	Production.*	Net Imports.	Exports South African Produce.	Retained or Available for Consumption.	Sugar used in Manufacturing.
	Ton—2,000 lb.	Ton—2,000 lb.	Ton—2,000 lb.	Ton—2,000 lb.	Ton—2,000 lb.
1910-11..	82,000	32,321	2,790	111,531	†
1915-16..	113,358	5,920	3,803	115,385	†
1920-21..	143,680	2,050	42,725	103,005	16,898
1925-26..	239,851	6,075	70,602	175,324	20,710
1930-31..	393,205	6,004	210,632	188,577	22,664‡
1934-35..	358,738	1,704	131,733	228,709	28,192‡
1935-36..	417,318	1,206	208,615	209,909	31,115‡
1936-37..	446,409	1,361	180,269	267,501	31,385‡
1937-38..	507,219	1,449	266,521	242,147	34,041‡
1938-39..	522,732	†	†	†	†

* Figures up to 1921-22 represent sugar that went into direct consumption and from 1922-23 gross output at mills.
† Not available.
‡ Extracted from Customs and Excise Quarterly Stock Accounts.

The following quantities of sugar were converted into syrup, treacle, and molasses in the process of refining in each of the years from 1934 to 1938:—

	1934. *Ton.*	1935. *Ton.*	1936. *Ton.*	1937. *Ton.*	1938. *Ton.*
Quantity.....	2,256	3,849	3,109	3,300	4,016

The following quantities of spirits were manufactured:—

	1934. *Proof Gallon.*	1935. *Proof Gallon.*	1936. *Proof Gallon.*	1937. *Proof Gallon.*	1938. *Proof Gallon.*
	2,816,836	3,199,937	3,962,010	4,685,537	5,584,874

Of the spirits mentioned above the following quantities were used in manufacture:—

	1934. *Proof Gallon.*	1935. *Proof Gallon.*	1936. *Proof Gallon.*	1937. *Proof Gallon.*	1938. *Proof Gallon.*
Rum.....	63,298	74,698	79,965	84,760	94,732
Motor fuel.....	820,046	1,057,444	2,159,834	3,048,288	3,235,883
Methylated spirit.....	663,897	749,133	830,878	917,179	929,892
Scientific and industrial purposes (including ether).....	197,186	219,191	257,293	314,396	356,697

2. **Special Census of Sugar-cane Plantations.**—The following tables summarize the results of the Special Census of Sugar-cane taken in 1938:—

(i) AREA UNDER CANE AT 30th APRIL, 1938 (EUROPEANS ONLY).

District.	Plant Cane. Acre.	First Ratoons. Acre.	Second Ratoons. Acre.	Third Ratoons. Acre.	Fourth Ratoons. Acre.	Other Ratoons. Acre.	Total. Acre.
			(*a*) UBA VARIETY.				
NATAL.							
Durban, Camperdown, and Pinetown	199	540	964	751	604	1,841	4,899
Inanda.....	1,889	3,369	9,265	6,981	1,432	1,205	24,141
Lower Tugela.....	1,790	6,614	16,851	12,164	4,740	2,789	44,948
Port Shepstone.....	—	969	1,417	819	645	605	4,455
Umzinto.....	440	1,912	6,350	8,522	8,026	7,135	32,38
ZULULAND.							
Eshowe.....	263	831	1,914	1,127	409	113	4,65
Hlabisa.....	185	644	446	759	180	482	2,696
Lower Umfolozi.....	313	1,704	4,253	5,051	1,774	1,143	14,238
Mtunzini.....	648	2,206	5,813	4,704	1,025	502	13,898
TOTAL.....	5,727	18,789	47,273	39,878	18,835	15,815	146,317

(i) AREA UNDER CANE AT 30TH APRIL, 1938 (EUROPEANS ONLY)—(*continued*).

District.	Plant Cane.	First Ratoons.	Second Ratoons.	Third Ratoons.	Fourth Ratoons.	Other Ratoons.	Total.
	Acre.	Acre.	Acre.	Acre.	Acre.	Acre.	Acre.
(*b*) OTHER VARIETIES.							
NATAL.							
Durban, Camperdown and Pinetown	7,159	1,954	871	132	7	—	10,123
Inanda	11,854	8,173	3,234	328	17	5	23,611
Lower Tugela	23,626	22,685	7,279	1,426	264	222	55,502
Port Shepstone	2,502	1,573	143	22	2	—	4,242
Umzinto	18,382	11,755	2,109	453	12	—	32,711
ZULULAND.							
Eshowe	5,814	2,957	668	170	74	—	9,683
Hlabisa	3,209	1,749	1,035	361	9	—	6,363
Lower Umfolozi	19,062	15,214	3,558	642	133	75	38,684
Mtunzini	13,604	10,354	3,231	447	129	—	27,765
TOTAL	105,212	76,414	22,123	3,981	647	302	208,684

(ii) AREA OF LAND PREPARED FOR CANE PLANTATIONS AFTER 30th APRIL, 1938, AREA SUITABLE FOR CANE PLANTING, BUT NOT YET PLANTED OR PREPARED FOR PLANTING, AND AREA REAPED AND CANE REAPED, 1937-38 (EUROPEANS ONLY).

District.	Land suitable for Cane and not yet Planted.	Land Unsuitable for Cane (Grazing Land, Homesteads, Firebreaks, etc.).	Virgin Cane Lands Planted during 1937-38.	Old Cane Lands Ploughed out during 1937-38 and Replanted in the same Season (Short Fallows).	Old Cane Lands Ploughed out during 1937-38 and under Preparation for Replanting in a later Season (Long Fallows).	Total Area Reaped during Season 1937-38.	Total Cane Reaped during Season 1937-38.
	Acre.	Acre.	Acre.	Acre.	Acre.	Acre.	Ton. 2,000 lb.
NATAL.							
Durban, Camperdown and Pinetown	8,458	16,381	568	1,763	708	6,078	124,109
Inanda	1,474	22,921	158	2,970	4,741	23,494	615,227
Lower Tugela	21,389	53,224	454	5,700	9,181	49,700	1,138,342
Port Shepstone	4,182	11,521	133	359	666	3,484	75,028
Umzinto	9,973	45,214	270	6,233	4,159	30,885	692,159
ZULULAND.							
Eshowe	11,843	20,783	642	1,040	2,873	7,300	151,020
Hlabisa	11,254	24,812	267	1,265	960	5,373	136,249
Lower Umfolozi	19,286	80,940	692	4,267	6,649	24,770	713,675
Mtunzini	8,032	21,714	553	2,932	6,751	20,751	435,154
TOTAL	95,891	297,510	3,737	26,529	36,688	171,835	4,080,963*

* This is exclusive of the Indian and native production.

§ 8. Tea, Coffee, Cotton, and Tobacco.

1. **Tea.**—Tea was first grown at the Durban Botanical Gardens in the year 1851, and for a long period the industry was conducted on experimental lines, but without success. In 1878 some two thousand plants were procured from Assam by Mr. J. L. Hulett (the late Sir Liege Hulett) and planted out on his estate at Kearsney in Natal. The first crop (of 30 lb.) was raised in 1880, and in 1883 tea produced on the estate was valued at 2s. 9d. per lb. in London.

Owing to the low price of tea in recent years the progress of this industry has been seriously hampered.

The following table gives particulars of the area of tea plantations, the produce in green leaf and in manufactured tea, the importation, and the consumption of tea:—

TEA.—PRODUCTION, IMPORTATION, AND CONSUMPTION, 1910-11 TO 1937-38.

Year (Season).	Area Cultivated.	Yield (Green Leaf).	Manufactured Tea.	Production (less Exports).	Imports (less Re-exports).	Retained or Available for Consumption.
	Acres.	lb.	lb.	lb.	lb.	lb.
1910-11	4,457	6,722,673	1,740,824	1,645,965	4,997,203	6,643,168
1915-16	4,512	7,166,364	1,822,026	1,696,233	6,166,793	7,863,026
1920-21	3,497	3,702,634	913,751	861,238	6,958,327	7,819,565
1925-26	3,177	4,146,371	1,034,830	852,799	10,816,181	11,668,980
1930-31	1,975	2,662,398	665,607	603,465	12,808,477	13,411,942
1933-34	2,059	3,050,872	735,995	653,200	11,504,960	12,158,160
1934-35	2,139	3,449,784	867,438	777,896	12,637,165	13,415,061
1935-36	2,139	3,324,590	768,940	587,792	13,349,836	13,937,628
1936-37	2,100	3,168,895	762,986	338,970	15,021,205	15,360,175
1937-38	2,331	3,094,794	734,939	476,273	14,908,949	15,385,222

2. **Coffee.**—The attempt made in recent years to introduce coffee growing into certain selected areas believed to be suitable for producing this crop has not proved a success.

3. **Cotton.**—South Africa produces only a very small quantity of cotton. Early attempts to produce fibre were unsuccessful owing to imperfect knowledge and faulty organization. Periodic droughts, to which large areas of the country are subject, and low prices have further increased the difficulty of establishing the industry on a permanent basis.

The lands available for development, where soil and climate are favourable, comprise, generally speaking, the whole of the Middle and Low Veld. These areas include large stretches of country in the western Transvaal, north of the Magaliesberg Range, in the northern and eastern Transvaal, Swaziland, Zululand, northern and eastern Natal, and numerous river valleys in Natal. Cotton is also successfully grown under irrigation along the Orange River. The Bollworm is at present the greatest pest the South African cotton-grower has to contend with. Until this pest is overcome it is unlikely that cotton will ever become an important crop in the Union.

The following figures of the annual production of cotton lint are interesting:—

COTTON LINT PRODUCED, 1910-11 TO 1937-38.

Year.	Annual Production in Pounds.
1910-11	13,623
1915-16	227,562
1920-21	1,169,298
1925-26	8,152,559
1929-30	6,485,205
1933-34	975,987
1934-35	1,186,658
1935-36	792,806
1936-37	1,359,060
1937-38	452,790

The following table gives figures showing the production of cotton:—

SEED COTTON (UNGINNED) GROWN,* 1918-19 TO 1937-38.

Year.	Cape of Good Hope.		Natal.		Transvaal.		Orange Free State.		Union.	
	Area.	Yield.	Area.	Yield.	Area.	Yield.	Area.	Yield.	Area.	Yield.
	Morgen.	lb.	Morgen.	lb.	Morgen.	lb.	Morgen.	lb.	Morgen.	lb.
1918-19†	—	1,906	—	533,184	—	883,321	—	200	—	1,418,611
1920-21‡	56	11,200	1,310	862,600	7,651	2,702,600	—	—	9,017	3,576,400
1925-26†	1,248	869,602	20,438	11,580,620	27,949	12,473,553	11	13,000	49,646	24,936,775
1929-30†	1,243	4,703,194	6,869	3,801,937	8,864	7,797,745	2	4,000	16,978	16,306,876
1933-34†	—	113,616	—	743,170	—	1,755,612	—	—	—	2,612,398
1934-35†	—	534,952	—	810,134	—	2,146,818	—	—	—	3,491,904
1935-36†	—	912,382	—	431,135	—	1,014,129	—	—	—	2,357,646
1936-37‡	341	910,677	665	702,334	2,876	1,995,146	—	—	3,882	3,608,157
1937-38†	—	398,277	—	171,262	—	843,727	—	—	—	1,413,266

* Native locations, reserves, etc., not enumerated.
† Grader's figures, which do not distinguish native production—supplied by the Department of Agriculture and Forestry. Statistics of area under cultivation not available from 1932-33 to 1935-36, and for 1937-38.
‡ Agricultural Census.

4. **Tobacco.**—Tobacco-growing in the Union of South Africa is an old-established industry. Until about three decades ago, the majority of tobacco growers in South Africa utilized all their own leaf for the manufacture of roll tobacco on the farms by simply subjecting it to a process of fermentation. This so-called "Boer" tobacco was used for smoking, chewing, and for making

snuff. The class of tobacco produced, however, has undergone very great changes in the last twenty years, and an endeavour has been made to meet the new requirements. As the aroma, character, and quality of tobacco leaf are almost entirely dependent on the soil and climatic conditions under which it is produced, striking variations occur in the types of leaf from the different localities. The principal tobacco-growing localities are the Magaliesberg areas (Rustenburg, Marico, Pretoria, Waterberg, and Krugersdorp), the Potgietersrust area, the Vaal River area (Vredefort and Potchefstroom), the Piet Retief and Barberton areas, the Kat River, Gamtoos River, and Oudtshoorn areas, and the Turkish tobacco area, the Western Province of the Cape. In the Turkish tobacco area the crop is grown under natural precipitation, which falls in winter, with scarcely any rainfall in summer. In the other areas the tobacco crops are raised under conditions depending on summer rains, supplemented by irrigation when necessary. Some are grown almost entirely under irrigation.

The crop is one which South African farmers have long cultivated. Most of the growers are small farmers with a limited amount of suitable land. The tobacco-growing areas are situated in the healthiest parts of the country and, as a tobacco grower can, under normal circumstances, make a living on a comparatively small plot of ground, the main tobacco-growing areas are relatively thickly populated. Because of a number of irrigation schemes, the industry has great potentialities.

Tobacco-growing is an intensive form of agriculture requiring much experience and skill. It is a specialist crop, and, as with all crops the produce of which is in the nature of a luxury, quality is everything, the demand and the price paid for it depending to a large extent on fashion and taste.

The production and the consumption of cigarettes have increased tremendously in the past decade, creating a growing demand for light-coloured leaf. At the moment, the Union is not producing the quantity of flue-cured leaf required by local manufacturers, the deficiency being met from Rhodesian sources; but during the past eight years much attention has been paid to flue-curing and remarkable progress has been made. In the 1930-31 season there were about 50 flue barns in the country, with a production of 80,000 lb. of flue-cured tobacco, while during the 1936-37 season there were more than 800 flue barns with a production of over 2,500,000 lb. If the production of this type of tobacco continues to expand at the same rate as it has during recent years, the requirements of Union manufacturers will be met in the near future. When this stage has been reached, flue-cured leaf will be exported with better prospects of profitable disposal than is the case with dark tobacco. As a result of the lack of research facilities and the persistence of many farmers in crude and unscientific methods and in growing unsuitable types, the market is flooded with inferior tobacco. To overcome these drawbacks, the Government has established an up-to-date research station at Kroondal in the Rustenburg District.

Excellent pipe tobaccos and cigarettes are manufactured in the Union, and it is considered that a greatly increased demand for South African tobaccos could be created in Great Britain, if they were manufactured there and carefully blended to suit the local taste. A preference of approximately 25 per cent. on Empire-grown tobacco imported into the United Kingdom is having a marked effect, as it stimulates interest in the growing of tobacco in the Dominions and in the huge market provided by Great Britain.

The following table gives particulars as to tobacco grown in the Union:—

TOBACCO GROWN, 1910-11 TO 1937-38.

Year.	Cape of Good Hope.		Natal.		Transvaal.		Orange Free State.		Native Locations, Reserves, etc	Union.
	Area.	Yield.	Area.	Yield.	Area.	Yield.	Area.	Yield.	Yield.	Yield.
	Morgen.	lb.	Morgen.	lb.	Morgen.	lb.	Morgen.	lb.	lb.	lb.
1910–11	2,084	3,767,179	502	2,685,037	5,431	7,701,774	1,132	807,209	‡	14,961,199
1918–19*	—	4,776,065	—	613,715	—	8,121,930	—	671,219	§	14,182,929
1920–21	3,837	5,007,900	822	910,000	7,423	8,462,340	468	625,100	1,614,400	16,620,640
1925–26	4,243	6,364,211	808	890,777	7,104	7,926,493	245	223,340	1,110,947	16,515,768‖
1929–30†	3,912	5,178,176	677	645,780	5,666	6,173,248	186	271,856	§	12,269,060‖
1933–34	2,615	3,811,691	472	529,384	8,085	9,569,379	274	293,276	§	14,203,730‖
1934–35†	3,262	4,622,806	374	312,822	10,641	10,974,468	283	354,104	§	16,264,200‖
1935–36†	3,986	5,168,879	392	432,590	9,350	10,202,256	323	294,804	§	17,098,589‖
1936–37	3,641	5,265,686	544	669,852	11,923	11,986,090	92	117,853	496,650	18,536,131‖
1937–38†	4,083	5,659,661	385	448,112†	14,888	13,999,085	253	254,241	§	20,361,099‖

* Area not enumerated.
‡ Included in provinces.
‖ Including Turkish tobacco as follows:—

	lb.		lb.
1925–26	1,014,700	1935–36	968,526
1929–30	1,373,227	1936–37	767,169
1933–34	206,913	1937–38	774,477
1934–35	461,683		

† Area and production—Europeans only.
§ Not enumerated.

§ 9. Farms, Farm Labour, and Agricultural Implements.

1. **Number, Area, and Nature of Tenure of Farms.**—The following tables give particulars of European-occupied farms enumerated at the censuses of agricultural and pastoral production in 1930, and 1934 to 1938. Details regarding tenure were only enumerated at the censuses of 1925, 1930, and 1937.

NUMBER, AREA, AND NATURE OF TENURE OF EUROPEAN-OCCUPIED FARMS AND AGRICULTURAL HOLDINGS.

Nature of Tenure.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Total.	Percentage.
(*a*) NUMBER OF FARMS AND HOLDINGS, 1937.						
	No.	No.	No.	No.	No.	%
Owned by Occupiers	25,612	6,666	21,300	15,934	69,512	66·49
Leased by Occupiers	8,607	2,618	6,182	3,488	20,895	19·98
Occupied on Shares System	1,540	313	2,991	2,461	7,305	6·99
Managed for other Persons	2,567	756	1,901	1,618	6,842	6·54
TOTAL.....1937	38,326	10,353	32,374	23,501	104,554	100·00
TOTAL.....1930	36,650	10,414	29,270	20,606	96,940	—
TOTAL.....1934	37,215	10,109	30,574	21,032	98,930	—
TOTAL.....1935	37,731	10,215	31,437	21,894	101,277	—
TOTAL.....1936	38,239	10,279	32,460	23,271	104,249	—
TOTAL.....1937	38,326	10,353	32,374	23,501	104,554	—
TOTAL.....1938	38,794	10,346	32,680	23,880	105,700	—
(*b*) AREA OF FARMS AND HOLDINGS, 1937.						
	Morgen.	Morgen.	Morgen.	Morgen.	Morgen.	%
Owned by Occupiers	42,331,582	3,565,703	11,672,060	10,051,967	67,621,312	67·68
Leased by Occupiers	11,428,380	749,173	3,246,798	1,624,748	17,049,099	17·07
Occupied on Shares System	1,584,826	226,062	1,587,102	1,309,952	4,707,942	4·71
Managed for other Persons	5,830,645	681,105	2,652,512	1,369,129	10,533,391	10·54
TOTAL.....1937	61,175,433	5,222,043	19,158,472	14,355,796	99,911,744	100·00
TOTAL.....1930	59,001,331	5,218,694	18,240,613	14,213,438	96,674,076	—
TOTAL.....1934	59,265,450	5,283,949	18,734,005	14,069,305	97,352,709	—
TOTAL.....1935	60,366,950	5,196,571	19,300,624	14,264,963	99,129,108	—
TOTAL.....1936	59,500,891	5,275,466	19,352,918	14,261,786	98,391,061	—
TOTAL.....1937	61,175,433	5,222,043	19,158,472	14,355,796	99,911,744	—
TOTAL.....1938	61,461,431	5,276,700	19,340,693	14,403,692	100,482,516	—

(*c*) NUMBER OF FARMS AND HOLDINGS, UNION, 1925, 1930, AND 1937.

Nature of Tenure.	Number.			Per Cent.		
	1925.	1930.	1937.	1925.	1930.	1937.
Owned by Occupiers	60,264	65,309	69,512	66·48	67·37	66·49
Leased by Occupiers	18,353	19,465	20,895	20·24	20·08	19·98
Occupied on Shares System	5,449	5,884	7,305	7·11	6·07	6·99
Managed for other Persons	5,592	6,285	6,842	6·17	6·48	6·54
TOTAL	90,658	96,940	104,554	100·00	100·00	100·00

2. **Classification of Farms and Holdings Occupied by Europeans, according to Size.**—The following table gives the total number of farms and holdings occupied by Europeans in each province in 1937 and 1938, classified according to size.

Urban holdings of one morgen or more in extent, the products of which are intended for sale, are included. Under the title "Undivided Farms" are included cases where returns were received from more than one occupier of the same farm, the total area of which is known, but not the proportion occupied by each individual occupier.

CLASSIFICATION OF EUROPEAN-OCCUPIED FARMS AND HOLDINGS, ACCORDING TO SIZE, INCLUDING URBAN HOLDINGS OF 1 MORGEN AND OVER, THE PRODUCTS OF WHICH ARE INTENDED FOR SALE, 1937 AND 1938.

Size of Farm. Morgen.	Cape of Good Hope.		Natal.		Transvaal.		Orange Free State.		Union.	
	No.	Total Area. 1,000 morgen.	No.	Total Area. 1,000 morgen.	No.	Total Area. 1,000 morgen.	No.	Total Area. 1,000 morgen.	No.	Total Area. 1,000 morgen.
1937.										
Under 5.....	1,187	31†	1,238	27†	1,239	28†	161	4†	3,825	90†
5- 20....	4,426	427†	1,427	136†	2,290	261†	1,664	137†	9,807	961†
21- 100....	3,700	200	965	51	4,188	252	1,461	95	10,314	598
101- 500....	7,714	2,319	3,113	946	13,148	3,780	10,319	3,168	34,294	10,213
501- 1,000....	6,480	4,866	2,196	1,601	5,817	4,220	5,946	4,347	20,439	15,034
1,001- 2,000....	5,774	8,546	1,087	1,534	3,306	4,745	2,956	4,165	13,123	18,990
2,001- 3,000....	2,739	6,948	203	497	994	2,496	540	1,300	4,476	11,250
3,001- 5,000....	2,661	10,408	86	328	556	2,081	212	794	3,515	13,611
5,001-10,000....	1,956	13,780	26	174	133	876	58	367	2,173	15,197
10,001 and over..	819	14,062	4	75	29	679	8	97	860	14,913
Undivided farms*	870	—	8	—	674	—	176	—	1,728	—
TOTAL	38,326	61,175	10,353	5,222	32,374	19,158	23,501	14,356	104,554	99,911
1938.										
Under 5.....	1,197	29†	1,152	25†	1,305	30†	129	4†	3,783	88†
5- 20.....	4,492	435†	1,460	141†	2,241	259†	1,734	136†	9,927	971†
21- 100....	3,831	202	966	50	4,237	256	1,498	99	10,532	607
101- 500....	7,666	2,299	3,164	963	13,371	3,812	10,660	3,288	34,861	10,362
501- 1,000....	6,435	4,828	2,182	1,598	6,021	4,381	5,983	4,338	20,621	15,145
1,001- 2,000....	5,830	8,544	1,077	1,530	3,288	4,699	2,934	4,086	13,129	18,859
2,001- 3,000....	2,721	6,917	213	517	1,016	2,529	517	1,328	4,497	11,291
3,001- 5,000....	2,771	10,847	90	339	556	2,087	208	786	3,625	14,059
5,001-10,000....	1,970	13,851	26	178	110	714	61	390	2,167	15,133
10,001 and over...	829	13,927	5	85	33	834	6	75	873	14,921
Undivided farms*	1,052	—	11	—	502	—	120	—	1,685	—
TOTAL.....	38,794	61,461	10,346	5,277	32,680	19,341	23,880	14,404	105,700	100,483

* Area included in above classification.
† In 100 morgen.

3. **Area under Cultivation and Number of Farm Workers.**—The following tables give (*a*) the area of land (exclusive of areas cultivated by natives on European-occupied farms and by natives in locations, reserves, etc.) under cultivation in the four provinces in each year from 1923 to 1926 and for 1930 and 1937, (*b*) the area cultivated, irrigated, or irrigable for 1918, 1921, 1926, 1930, and 1937, and (*c*) the number of regular workers on European farms as at the 31st August, 1930 and 1937.

(*a*) AREA IN MORGEN UNDER CULTIVATION BY EUROPEANS ONLY, 1923 TO 1926, 1930, AND 1937.

Year.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Total.
1923.....	1,376,945	471,757	1,352,409	1,458,363	4,659,474
1924.....	1,471,319	499,811	1,442,874	1,356,130	4,770,134
1925.....	1,522,009	518,971	1,664,612	1,747,572	5,453,164
1926.....	1,443,984	570,431	1,453,176	1,441,802	4,909,393
1930.....	1,515,627	708,397	1,979,015	1,996,223	6,199,262
1937.....	2,021,869	734,684	2,059,779	2,265,116	7,081,448

(*b*) AREA CULTIVATED AND AREA IRRIGATED, 1918, 1921, 1926, 1930, AND 1937.

Province.	Area Cultivated.						Area Irrigated.
	Agricultural Crops.	Fruit.	Timber Plantations.*	Fallow.	Spineless Cactus and/or Salt Bush.	Total.	
1937.	Morgen.	Morgen.	Morgen.	Morgen.	Morgen.	Morgen.	Morgen.
Cape of Good Hope	1,320,510	102,483	33,384	555,799	9,693	2,021,869	248,920
Natal.....	449,905	9,179	202,543	72,737	320	734,684	22,405
Transvaal.....	1,691,008	31,272	149,647	186,584	1,268	2,059,779	135,475
Orange Free State.	2,100,903	7,023	32,515	122,088	2,587	2,265,116	51,282
TOTAL§.....	5,562,326	149,957	418,089	937,208	13,868	7,081,448	458,082
1930§.....	4,953,030	172,285	361,228	712,719	†	6,199,262	409,927
1926§.....	3,673,730	121,509	269,038	845,116	†	4,909,393	588,875
1921‡.....	3,323,941	114,677	263,988	889,180	†	4,591,786	386,422
1918‡.....	3,544,660	85,957	218,326	916,727	†	4,765,670	†

* Excluding government plantations in 1918 and 1926, and government and municipal plantations in 1930 and 1937, concerning which details will be found in Chapter XX.
† Not enumerated.
‡ European farms, i.e., including areas cultivated by natives on such farms.
§ European only, i.e., excluding areas cultivated by natives on European-occupied farms, natives in reserves, locations, etc.

(*c*) NUMBER OF REGULAR WORKERS, INCLUDING OCCUPIERS, ON FARMS AT 31st AUGUST, 1930 AND 1937.

Province.	European.		Indian.		Coloured.		Native.	
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
Cape of Good Hope.....	65,022	16,901	258	99	61,667	17,059	76,681	25,561
Natal.....	8,684	3,075	12,480	3,713	688	174	88,321	31,877
Transvaal.....	49,989	13,362	457	181	795	404	149,661	76,129
Orange Free State.....	32,030	10,575	1	—	888	384	88,828	50,709
TOTAL, 1937.....	155,725	43,913	13,196	3,993	64,038	18,021	403,491	184,276
1930.....	149,363	35,448	12,544	2,320	59,154	14,459	361,269	114,640

4. **Agricultural Implements, Machinery, etc.**—The subjoined tables give for the years 1921, 1926, 1930, and 1937 particulars as to (*a*) engines and (*b*) agricultural implements, motor cars, etc., in use on farms.

(*a*) ENGINES.—NUMBER ON FARMS AND HORSE-POWER, 1921, 1926, 1930, AND 1937.

Province.	Steam Engines.	Turbines (All types).	Gas and Oil engines.	Electric Engines.		
				Power Generated on Farm.	Power derived from other Sources.	Total.
1937.	No.	No.	No.	No.	No.	No.
Cape of Good Hope.....	695	219	4,346	533	423	956
Natal.....	298	85	1,772	230	95	325
Transvaal.....	469	102	2,986	260	168	428
Orange Free State.....	326	52	1,469	163	18	181
TOTAL, 1937.....	1,788	458	10,573	1,186	704	1,890
TOTAL, 1930.....	1,647	*	8,085	1,181	254	1,435
TOTAL, 1926.....	1,761	*	4,492	949	136	1,085
TOTAL, 1921.....	1,444	*	3,611	258	25	283
1937.	Horse-power.	Horse-power.	Horse-power.	Horse-power.	Horse-power.	Horse-power.
Cape of Good Hope.....	5,758	1,793	28,670	1,926	2,125	4,051
Natal.....	4,129	963	11,196	1,026	746	1,772
Transvaal.....	3,864	1,732	16,330	804	854	1,658
Orange Free State.....	3,248	695	10,035	485	362	847
TOTAL, 1937.....	16,999	5,183	66,231	4,241	4,087	8,328
TOTAL, 1930.....	14,629	*	51,911	*	*	*
TOTAL, 1926.....	16,747	*	37,836	*	*	*
TOTAL, 1921.....	11,325	*	30,051	*	*	*

* Not enumerated.

(b) AGRICULTURAL IMPLEMENTS, VEHICLES, ETC.—NUMBER ON FARMS, 1930 AND 1937, EXCLUDING NATIVE RESERVES AND LOCATIONS EXCEPT WHERE SPECIFIED.

Description.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State	Union, 1937.	Union, 1930.
	No.	No.	No.	No.	No.	No.
Tractors and Traction Engines No.	2,630	973	1,181	1,235	6,019	3,684
Tractors and Traction Engines H.P.	62,586	21,519	24,611	27,840	136,556	†
Cultivators	21,549	21,233	56,586	41,754	141,122	117,517
Seed Drills and Planters	8,636	6,219	23,293	19,653	57,801	53,751*
Fertilizer Attachments to Seed Drills and Planters	4,480	4,815	7,426	4,271	20,992	18,506
Mowing Machines	8,574	3,553	9,828	10,730	32,685	25,842
Combined Mowers and Threshers (Combines)	339	25	74	143	581	†
Reapers and Binders	9,669	89	976	3,056	13,790	10,232
Threshing Machines—						
Driven by Power	1,167	687	888	947	3,689	2,797
Worked by Hand	2,150	1,531	1,839	903	6,423	5,805
Forage Cutters	6,405	1,566	1,899	2,528	12,398	11,877
Wool Presses	5,596	366	247	1,886	8,095	7,738
Hay Presses	2,021	892	1,065	1,271	5,559	6,280
Hay Rakes	6,268	2,992	7,972	8,034	25,266	†
Grinding Mills	4,383	4,412	3,076	2,412	14,283	12,549
Churns	20,870	3,168	9,941	7,784	41,763	36,265
Fruit and Potato Graders (Mechanically Driven)	275	42	87	38	442	†
Spray Pumps (Mechanically Driven)	1,345	179	713	436	2,673	†
Harrows—						
Disc	4,947	3,940	8,750	8,657	26,300	24,445
Other	34,325	8,444	37,294	27,409	107,472	87,784
Cream Separators	24,212	5,795	19,669	17,581	67,257	54,056
Silage Cutters	703	621	538	355	2,217	1,785
Windmills	37,168	1,092	12,753	26,162	77,175	59,518
Poultry Incubators	4,855	2,145	5,095	4,391	16,486	14,357
Silos—						
Pit or Trench	1,572	1,284	1,853	919	5,628	4,590
Tower or Built	638	327	431	358	1,754	1,158
Ploughs, Disc—						
One-Furrow	2,313	994	1,406	781	5,494	3,487
Two-Furrow	4,699	1,912	5,183	3,857	15,651	12,265
Three or more Furrow	3,687	1,538	3,220	1,874	10,319	9,013
Ploughs, Other—	—	—	—	—	—	—
One-Furrow	42,071	11,960	22,029	10,884	86,944	80,074
Two-Furrow	30,087	7,751	41,420	36,897	116,155	114,606
Three or more Furrow	8,693	491	1,877	5,642	16,703	13,693
Ploughs Owned by Europeans	91,550	24,646	75,135	59,935	251,266	233,138
Ploughs Owned by Natives on European-occupied Farms	2,958	18,845	39,034	3,542	64,379	53,171
Ploughs Owned by Natives in Reserves, etc.	128,207	52,713	45,428	1,435	227,783	184,848
GRAND TOTAL—ALL PLOUGHS	222,715	96,204	159,597	64,912	543,428	471,157
Motor Cars	23,280	4,360	12,145	12,215	52,000	†
Motor Lorries and Trucks..No.	4,347	1,136	2,447	638	8,568	†
Motor Lorries and Trucks Capacity (Tons 2,000 lb.)	8,153	2,542	5,186	1,527	17,408	†
Wagons and trolleys owned by—						
Europeans	39,693	9,539	31,356	18,714	99,302	87,820
Natives on European-occupied Farms	1,586	500	8,000	1,481	11,567	10,546
Natives in Reserves, etc.	7,705	2,284	7,382	277	17,648	18,096
Cattle Dipping Tanks—						
On European-occupied Farms	3,027	5,213	3,162	528	11,930	12,900
In Native Reserves, etc.	806	971	320	3	2,100	2,137
Sheep Dipping Tanks—						
On European-occupied Farms	11,597	1,378	2,496	4,809	20,280	23,213
In Native Reserves, etc.	1,271	500	216	16	2,003	2,416

* Comprising: Maize planters, 52,845; Cotton planters, 909.

† Not enumerated

§ 10. Fertilizers and other Products.

1. **General.**—The sale of fertilizers is governed by the *Fertilizers, Farm Foods, Seeds, and Pest Remedies Act* (No. 21 of 1917). The Act serves to protect purchasers of the articles referred to from having worthless kinds imposed upon them, and thus also safeguards the interests of the honest vendor. "Fertilizer" is defined as "any substance containing, or purporting to contain as chemical constituents thereof, nitrogen, phosphoric oxide, potash, or lime, in a form or combination available as plant food and sold or intended for sale for the purpose of fertilizing the soil or supplying nutriment to plants; but does not include farm yard or stable manure, kraal manure and kraal manure ash, town refuse or night soil. All such fertilizers shall be considered to derive their entire value from the nitrogen, phosphoric oxide, potash or lime, as the case may be, which they contain in such a form or combination as aforesaid."

The Act provides that no person shall supply any fertilizer which is not of the nature, composition, or quality as described when sold to the purchaser, and that every person who sells any fertilizer shall give or send to the purchaser at the time of delivery an invoice stating the quantity sold, the name, brand, and number under which the fertilizer is registered, and also the chemical constituents thereof, which have been registered as prescribed by regulation in respect of such fertilizer. That statement in the invoice shall be deemed to be a guarantee that the article is as described therein.

Fertilizers and Farm Foods Regulations were published under Government Notice No. 1116 of the 1st July, 1927.

The phosphatic fertilizers used in the Union are chiefly superphosphates, basic slag, rock phosphates, and bone preparations. In recent years the manufacture of superphosphate and bone preparations has been undertaken to a considerable extent. Phosphatic deposits occur in various parts of the country, at Weenen, Saldanha Bay, Mamre, Matjesfontein, Kuruman, Murchison Range, Bandolierskop, Palabora, and Bethlehem. Lime deposits are found extensively in the Union; some of them, when ground, are suitable for fertilizer purposes (e.g. agricultural lime). The principal varieties of nitrogenous fertilizer in use are sulphate of ammonia, nitrate of soda, nitro-chalk, blood-meal, meat-meal, and different forms of guano. For the most part the organic nitrogenous fertilizers are produced locally, the municipal abattoirs at Capetown, Pretoria, Johannesburg, East London, Port Elizabeth, Bloemfontein, Germiston, Brakpan, Durban, Benoni, Krugersdorp, and Randfontein being responsible for the preparation of considerable quantities of blood-meal and meat-meal, while guano (bird, whale, fish, and bat) is extensively worked up and used. Potassic fertilizers are imported mainly in the form of sulphate and muriate. Burnt kraal manure ("karroo ash") is also used on account of the potash it contains.

2. **Guano.**—This fertilizer, which is obtained from the group of Government Guano Islands situated along the west and south coasts of South Africa, is sold in a pulverized form, and is used principally in the cultivation of cereals and vegetables, but is also now being extensively employed in the treatment of young orchards and vineyards, as well as in the growing of maize and sugar-cane. Its principal chemical constituents are nitrogen, potash, phosphoric oxide, and lime, and, as the composition of the deposits obtained from the different islands varies materially in certain essentials, all collections are systematically mixed so as to obtain an approximately uniform grade of article.

The average analysis of guano sold during the year 1938 was:—

Nitrogen	10·4 per cent.
Phosphoric Oxide, total	11·6 ,,
Phosphoric Oxide, soluble in Citric Acid	11·0 ,,
Potash	2·0 ,,

Guano is usually sold by the Government at £7 per ton, but during the period of depression in 1933 the price was reduced to £6 per ton, and it is still being supplied to farmers at the reduced price. There is a very large and increasing local demand for guano, and, as the supply is limited, no exportation to places beyond the limits of the Union is permitted.

Further particulars of the government guano deposits will be found in the sixth and previous issues of this *Year Book*.

The following tables give (i) the imports from overseas of various types of fertilizer during a series of years, (ii) the factory production of fertilizers, as shown in recent industrial censuses, and (iii) the quantity of guano produced:—

(i) MANURES AND FERTILIZERS—IMPORTS FROM OVERSEAS, 1936 TO 1938.

Description.	1936.		1937.		1938.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	Ton (2,000 lb.).	£	Ton (2,000 lb.).	£	Ton (2,000 lb.).	£
Basic Slag	3,790	7,877	6,815	15,256	4,357	8,700
Bone Manures	6,451	26,838	6,662	29,624	10,821	47,768
Guano	2,378	17,380	1,233	7,970	1,277	8,185
Nitrate of Soda	378	2,232	166	980	236	1,451
Rock Phosphates	87,510	92,464	130,679	137,165	109,427	115,671
Potash Manures	7,816	53,263	8,705	59,383	7,923	55,433
Sulphate of Ammonia	13,072	70,846	15,170	82,970	17,649	104,922
Superphosphates	112,595	217,027	96,515	200,810	95,724	223,017
Other	14,589	67,093	19,211	86,909	15,390	71,276
TOTAL	248,579	555,020	285,156	621,067	262,804	636,423

(ii) FACTORY PRODUCTION OF FERTILIZER MATERIALS—INDUSTRIAL CENSUSES, 1934-35 TO 1936-37.

Description.	1934-35.		1935-36.		1936-37.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	Ton (2,000 lb.).	£	Ton (2,000 lb.).	£	Ton (2,000 lb.).	£
(*a*) Fertilizer Factories—						
Ammonium Sulphate	938	6,878	695	5,563	1,290	10,092
Nitrogenous Organic Fertilizers	*	*	*	*	*	*
Superphosphates	157,641	374,193	154,712	389,030	185,252	463,616
Bone Meal	7,300	43,182	9,797	61,307	10,086	66,425
Blood Meal and Meat Meal	1,786	13,935	2,080	18,609	2,203	20,378
Mixed Fertilizers Containing—						
Nitrogen and Phosphorus	2,593	11,451	3,084	14,038	2,976	14,028
Potassium and Phosphorus	1,839	8,166	975	4,027	561	2,373
Nitrogen, Potassium, and Phosphorus	42,665	212,614	59,379	305,149	73,201	368,432
Government Guano	6,900	41,400	7,180	43,079	6,435	38,609
Other	—	10,647	—	30,550‡	—	23,136
TOTAL	—	722,466	—	871,352‡	—	1,007,089
(*b*) Bone Milling—Bone Meal	4,858	31,346	4,898	30,967	5,415	37,225
(*c*) Whaling Industry—						
Whale Fertilizer	†	†	†	†	†	†

* Fewer than four establishments operating. (Included in "Other".)

† Fewer than four establishments operating. Whale fertilizers used as material in the production of (*a*) above:—

Year.	Quantity.	Value.
	Ton.	£
1934-35	1,568	10,329
1935-36	2,602	18,638
1936-37	4,769	33,246

‡ Amended figure.

(iii) QUANTITY OF GUANO PRODUCED, 1911 TO 1937.

Year.	Colonial Group of Islands.	Northern or Ichaboe Group of Islands.	Total.
	Ton (2,000 lb.).	Ton (2,000 lb.).	Ton (2,000 lb.).
Average—			
1911-15	2,618	4,145	6,763
1916-20	3,223	5,044	8,267
1921-25	2,899	5,975	8,874
1926-30	3,353	5,678	9,031
1931	2,970	5,150	8,120
1932	1,149	5,341	6,490
1933	2,151	3,473	5,624
1934	1,590	3,674	5,264
1935	2,334	4,846	7,180
1936	2,816	3,619	6,435
1937	2,400	3,816	6,216

The value of the guano produced in the years 1936 and 1937 was £38,608 and £37,294 respectively.

The products mentioned in the succeeding paragraphs are by-products of the Government Guano Islands.

3. **Penguin Eggs.**—The collection of penguin eggs is at present restricted to certain portions of Dassen Island from which an average of 500,000 eggs annually has hitherto been obtained. After a lapse of three years, during which no eggs were collected because of the reduced number of penguins, collecting was resumed on a restricted scale in 1936, when 178,000 eggs were collected and disposed of. No collection of penguin eggs was undertaken in 1937 owing to the prevalence of unfavourable conditions when the birds should have been laying.

4. **Seal Skins.**—The number of seal skins and the quantity of seal oil secured annually vary considerably according to circumstances. The sealing industry is mainly in the hands of the Government, and private enterprise is permitted only on certain specified islands and rocks on the South African coast reserved for that purpose. Owing to the depressed state of the fur market, no sealing was undertaken during 1934 and 1935. Sealing was, however, re-commenced in 1936, when 2,689 pelts were taken and disposed of at favourable prices. During 1937, 14,453 pelts were taken. The improved market conditions in 1936 were not, however, maintained in 1937, with the result that only half the season's catch was disposed of and the prices obtained were very poor.

§ 11. Export Subsidies.

The payment of export subsidies under the *Export Subsidies Act*, 1931, was discontinued during 1937 (Government Notice No. 378, dated 12th March, 1937).

The Act was in force for six years and at the end of December, 1938, the total expenditure in respect of export subsidies was £11,018,134. The following are the amounts expended in respect of some of the principal commodities:—

	£
Wool	5,347,741
Citrus	1,074,048
Maize and Maize Products	824,713
Deciduous Fruit	901,205
Hides and Skins	534,258
Minerals and Ores	627,433
Wattle Bark and Extract	455,558

While the payment of subsidy on meat in terms of Act No. 49 of 1931 has been cancelled, a subsidy in accordance with Government Notice No. 855 of 1937 is being paid on chilled and frozen beef and frozen lamb and mutton. [See paragraph 9 (*v*), § 1 of this chapter.]

§ 12. Agricultural Co-operation.

Co-operative organization and enterprise are regulated by the *Co-operative Societies Act*, No. 28 of 1922, as amended by Acts Nos. 38 of 1925, 2 of 1930, 23 of 1933, and 33 of 1934.

The principal Act repeals all previous laws in regard to co-operation and provides for the formation, registration, and management of associations of farmers and others wishing to dispose jointly of agricultural produce,

and/or to acquire collectively farming requisites and other necessities. Associations may be formed on the basis of the limited or the unlimited liability of the members. The system of organization is briefly as follows:—

Individual persons, numbering not fewer than seven in the case of agricultural co-operative societies and not fewer than twenty-five in the case of co-operative trading associations, may form a "local" organization to perform local service for the members. Two or more locals may form a "central" company, which specializes in the sale of a particular kind of product and which acquires and supplies requirements in bulk. Two or more centrals may again form a "federal" body, whose function it is to co-ordinate the activities of the centrals, particularly in regard to export of products and import of requirements.

The Act further stipulates that no person may carry on operations as a co-operative association, use the word "Co-operative" in conjunction with the term "Agricultural" or "Trading Society" while carrying on operations, and hold out in any manner whatsoever that an association is a co-operative society or company, unless it is registered under the Act. Provision is further made for the management of co-operative associations by boards of directors, elected by the members, and for the winding up, voluntary or compulsory, of societies and companies.

The Act is administered by a Registrar, who is required to keep a register of all associations registered under its provisions, who deals with all matters pertaining to formation, registration, and liquidation, and to whom co-operative societies and companies must transmit annually lists of directors, financial statements, and other returns connected with the business of each organization. On payment of such fees as are prescribed by the Minister, any person may inspect these returns and statements at the office of the Registrar, or may obtain extracts or copies of such returns and statements and any other documents relating to co-operative associations kept by the Registrar.

In addition to this medium of control, the activities of co-operative associations registered under the Act are periodically inspected and supervised. This work is carried out by a staff of inspectors appointed for that purpose, under the control and supervision of the Registrar, who also advises co-operative societies and companies regarding business methods and policy, system of accounting, etc.

REGISTERED CO-OPERATIVE SOCIETIES AND COMPANIES IN ACTIVE OPERATION AT 30th JUNE, 1937 AND 1938.

Description.	1937.		1938.	
	Number.	Membership.	Number.	Membership.
Agricultural Societies (Unlimited Liability)....	54	17,752	49	17,552
Agricultural Companies (Limited Liability)....	157	57,564	158	63,571
Trading Societies (Limited Liability).....	25	16,376	28	23,756
TOTAL.....	236	91,692	235	104,879

Additional data on the subject of co-operative societies and companies will be found in Chapter XVI.

§ 13. Agricultural Colleges, Experiment Farms, etc.

1. **Description of Establishments.**—Agricultural colleges and experiment farms are established at several points in the Union. All the institutions are in close proximity to stations on main lines of railway and are fairly central as regards the areas they serve. The farms on which the colleges are situated are large, well stocked, well equipped, and representative of the agricultural conditions of their respective areas, and they enable the breeding of pedigree live stock and the cultivation of land to be undertaken on a suitable scale for the instruction of students and the improvement of the stock of the country. The laboratory and classroom accommodation and equipment provide suitable facilities for a sound training in the science of agriculture.

The institutions have on their staffs separate lecturers in agronomy, animal husbandry, sheep and wool, agricultural engineering, chemistry, botany, entomology, dairying, poultry husbandry, and horticulture, and (at Elsenburg) viticulture and winemaking; and there are also experimentalists and itinerant instructors. Lectures in veterinary science are given by officers of the Division of Veterinary Services. In addition to their educational duties, the staff perform extension, experiment, and research work, and it is contemplated that in due course three more or less self-contained branches will be developed at each institution for college work, experiment and research work, and extension work.

A brief description of these colleges and farms and the purposes which they serve is given hereunder.

(i) *Stellenbosch-Elsenburg College of Agriculture of the University of Stellenbosch, Stellenbosch, C.P.*—This institution was established in 1898 as the Elsenburg School of Agriculture and is the oldest of its kind in the Union. The area of the farm and experiment station is approximately 1,300 morgen, of which 450 morgen are under cultivation. About 62 morgen are devoted to vineyards and orchards. The special features of this institution are horticulture, viticulture and wine-making, cereal and tobacco (Turkish) growing, and dairying. The area of operation includes the coastal region from Namaqualand to Knysna, and extends inland as far as Calvinia, Sutherland, Laingsburg, and Ladismith.

On 1st October, 1926, the agricultural faculty of the University of Stellenbosch and the Elsenburg School of Agriculture were amalgamated, the new institution being called the Stellenbosch-Elsenburg College of Agriculture of the University of Stellenbosch, with the head office at Stellenbosch.

The functions of the college are:—

(*a*) To carry out scientific instruction and research in agriculture of a university character;
(*b*) to conduct courses of instruction in agriculture for students other than university students;
(*c*) to carry out extension, experimental, and investigational work in agriculture in the winter-rainfall area of the Cape Province.

The college comprises the agricultural building and the university farm (Welgevallen) at Stellenbosch, the experimental stations at Elsenburg and Mariendal, the cereal experiment station, Langgewens, in the Malmesbury district, the Fruit Research Station at Groot Drakenstein, district Paarl, the experimental plot for cereals on the farm Jongensklip, district Caledon, and the experimental plot on the Olifants River Settlement.

(ii) *Grootfontein (Middelburg, Cape).*—This station was established on a farm, about 12,000 morgen in extent, acquired from the Imperial military authorities. The station was started, and the school was opened for the reception of students in 1911. The special feature of this institution is merino sheep. Agriculture under Karroo conditions, notably the growing of lucerne, is an important phase of activity.

Research is being carried on into the question of the utilization of certain crops for grazing purposes, and experiments are being conducted in certain aspects of irrigation. Other projects include the management of Karroo veld, anti-soil-erosion work, and research in locusts and blowfly, grazing, and pasture management. Experiments with sheep and wool are a very important activity of the college. Fat lamb production on irrigated crops is receiving attention, and studies in sex physiology of several breeds and crosses of sheep have been in progress for many years. Important investigations into the influence of environmental factors upon wool production are undertaken.

(iii) *Cedara (Natal).*—The Cedara station was established in 1902, and the college was opened in 1906. The farm is approximately 1,000 morgen in extent. Artificial pastures, cattle and farm dairying, maize, and forestry (including wattle-growing) form the special features at this experiment station, and the area of its operation covers the whole of the Natal Province and East Griqualand. An egg-laying competition is held at this college.

The institution has achieved a considerable reputation throughout the country through research work connected with pasturage and investigations made into the best methods of ensilage of the plentiful growth of grasses which can be cut in summer and utilized in winter, when there is a shortage of succulent pasturage.

Valuable research work on the control of the fruit fly and citrus pests and methods of combating the wattle bagworm is being carried out.

(iv) *Potchefstroom (Transvaal).*—This station was established in 1902, and the college was opened in 1909.

The homestead farm comprises 853 morgen. In addition there are two grazing farms, Noyjons (927 morgen), situated 5 miles from the main institution, and Brakspruit (616 morgen), 7 miles distant. Hence the total area available is 2,396 morgen, of which 400 morgen are under cultivation, including 100 morgen under irrigation.

Matters relating to agriculture under high veld conditions, the cultivation of crops under irrigation and otherwise, stock breeding, and the growing of maize and other cereals are special features of this establishment, and its area of operation covers the whole of the Transvaal Province.

Research work is being undertaken in connexion with maize, sorghums, grasses, and summer legumes. A measure of success has been achieved in the development of important new varieties of maize, cow peas, and soya beans. Inquiries into the effect of veld burning and into pasture management, conducted over a period of years, have been completed. Important data gathered from experiments with fertilizers are being collected.

A considerable amount of experimental work with cattle and sheep is being undertaken and an extensive programme of work with pigs is contemplated. The cattle experiments involve:—

Studies in connexion with the feeding of supplements in the form of compressed meals or cake to young steers on veld during the winter months; the fattening of steers (on rations compiled largely from farm-grown feeds); the influence of stabling as opposed to non-stabling upon milk production; sheep cross-breeding for mutton production; the inheritance of body folds and wrinkles in merino sheep.

A special programme of poultry experimental work is being initiated; the main phase of the work will deal with nutritional problems.

(v) *Glen (Orange Free State).*—The station was established in 1912 as a farm to serve the Orange Free State, and the college was opened for students in 1919. The farm, situated on the Modder River, measures 1,900 morgen and adjoins the Glen railway station. In 1927 an adjoining farm, Middelpunt, 638 morgen in extent, was purchased to serve as additional grazing for the herds and flocks of the college. The institution serves the whole of the Orange Free State and the districts of Herbert, Barkly West, Taung, Hay, Kuruman, Vryburg, and Mafeking in the Cape Province as a centre for agricultural education and extension work amongst farmers. Agricultural matters relating to sheep-farming, dairy-farming, crop production on dry lands, as well as under irrigation, are special features of this establishment. The central egg-laying competition is also held at this institution.

Experiments in pasture management are in progress, and attention is being given to the cultivation of field crops, particularly maize and potatoes, and to systems of crop rotation. Recently irrigation experiments have been commenced.

2. **The Faculty of Agriculture, University of Pretoria.**—The faculty gives scientific instruction and carries out research in the principal problems of South African agriculture, especially of the summer rainfall area. It embraces the following departments:—

Agricultural Chemistry.	Poultry.
,, Botany.	Agronomy.
,, Economics.	Horticulture.
,, Engineering.	Veterinary Science.
Entomology.	Domestic Science.
Animal Husbandry (including sheep and wool).	Dairying.

The faculty does not stand under the direct control of the Department of Agriculture and Forestry, as is the case with the institutions mentioned in the preceding paragraph, but receives financial support from the Department.

3. **Courses at Agricultural Colleges.**—The courses of instruction consist of:—

(i) A two-year diploma course at all the agricultural colleges. The first year's instruction of the two-year course is based on practical farming operations, supplemented by lectures to teach the underlying principles, while the second-year course is an advanced course, which continues that of the previous year and consists of lectures and practical work. The fees have recently been reduced from £60 to £36 per annum inclusive of board and lodging. Several bursaries are available for students who are unable to meet the full cost of the course.

(ii) Special courses in various agricultural subjects are held annually during prescribed periods, the most important being the following:—

Grootfontein..... (*a*) Eight-months sheep and wool course—£28 inclusive.
(*b*) Three-months course in sheep and wool for students holding a university degree in agriculture—£12 inclusive.

Cedara..... (*a*) Six-months small-holder's course with special attention to dairy cattle, dairying, pigs, and poultry—£22. 10s. 0d. inclusive.
(*b*) Teachers' course especially arranged to meet the requirements of teachers of the Natal Education Department—£28 inclusive.

Glen..... (*a*) One-year certificate course for future rural teachers (forming part of the three-year professional training for the Higher Primary Teacher's Certificate of the Orange Free State)—£36 inclusive. Bursaries are available for this course.
(*b*) Eight-months course in commercial dairying, for buttermakers and cheesemakers—£28 inclusive.
(*c*) Three-months course in sheep and wool classing—£12 inclusive.

(iii) Short courses of five days' duration are, especially during the vacation periods, conducted at all the above-mentioned colleges. They comprise special subject courses and general courses in most branches of agriculture, and are designed to meet the needs in particular of farmers, their wives, sons, and daughters, and of rural school teachers, who are unable to devote more than a few days or weeks to acquiring some knowledge of the subjects taught. The lectures and demonstrations are specially prepared, so that those attending them may secure the greatest benefit in the short time at their disposal. Women are afforded the opportunity of attending the courses in poultry, dairying, horticulture, and apiculture, in addition to the courses in domestic science specially provided for them.

The ordinary courses give a sound practical as well as a technical training to young farmers, but do not offer a full training for the agricultural expert or the agricultural scientist. This work is conducted by the Faculty of Agriculture of the University of Pretoria and by the Stellenbosch-Elsenburg College of Agriculture of the University of Stellenbosch. The special courses provide for those who have already had some experience in the branches of farming concerned. For full particulars application should be made to the principals of the colleges.

4. **Laboratory Work.**—In addition to field trials, many investigations are being undertaken in the laboratories of the colleges. These include a wide range of chemical work, in connexion with soils, fertilizers, feeding stuffs, dips, and tanning materials, and entomological and botanical work on insect pests, plant diseases, etc. The chemists also perform a certain amount of routine analytical work in connexion with the administration of certain Acts of Parliament. For *bona fide* farmers, analyses of waters, soils, fertilizers, dips, feeding stuffs, etc., are undertaken at the college laboratories at special rates; while plant identifications, seed testing, and various other services are performed gratis.

5. **Scholarships.**—Since the constitution of the Union, scholarships have been awarded to students for special study overseas in agriculture, veterinary science, and the various agricultural sciences, for the purpose of training promising South Africans to fill posts in the Department of Agriculture and Forestry. These scholarships are granted only for work which cannot be taken up with advantage in the Union. Upon the completion of their courses the

recipients of the scholarships undertake, if required, to enter the service of the Union of South Africa for a period of at least three years (depending upon the duration of the scholarship) at the scale of salary in force for the particular post to which the appointment is made.

Bursaries.—Bursaries of £50 per annum each for periods not exceeding two years are awarded to candidates who have completed at least their second year in a university course for an agricultural degree for the study of the various agricultural sciences at South African universities. Similar bursaries are also available for the study of veterinary science and are tenable for periods not exceeding four years. The first-year course for the B.V.Sc. degree may be taken at any university in South Africa, but the remaining four years of the course must be taken at Onderstepoort. Assistance bursaries are also awarded to deserving students, as well as to those students in need of financial assistance who are attending the various agricultural colleges.

Scholarships and bursaries from O.F.S. funds (Act No. 34 of 1909) are available to children of inhabitants of the Orange Free State who are in need of financial assistance for:—

(*a*) Study overseas in Agriculture or Home Economics.
(*b*) A one-year course at the College of Agriculture, Glen, O.F.S., for matriculated students who wish to take the Normal College course in Bloemfontein.
(*c*) The diploma course at any of the four Colleges of Agriculture (at Glen, O.F.S., Potchefstroom, Transvaal, Middelburg, C.P., and Cedara, Natal).
(*d*) A degree course in Agriculture at the Pretoria and Stellenbosch Universities.

6. **Sales of Stock.**—Sales of surplus stock bred on the farms are held annually at each of the colleges. Sales of surplus stock from the Potchefstroom College of Agriculture are held at the Johannesburg Agricultural Show at Easter and at the Maize and Fat Stock Show in September. The surplus stock of the Glen College of Agriculture is sold by auction in Bloemfontein in the months of May, September, and November of each year. Poultry and pigs are sold out of hand at all times.

7. **Expenditure and Revenue.**—The following table gives particulars of the expenditure and revenue in connexion with agricultural education for the financial years 1933-34 to 1937-38:—

AGRICULTURAL EDUCATION, EXPENDITURE AND REVENUE, 1933-34 TO 1937-38.

Heading.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
EXPENDITURE.	£	£	£	£	£
Agricultural Colleges—					
Stellenbosch-Elsenburg	42,885	45,336	50,252	51,360	62,393
Grootfontein	20,366	22,234	23,693	23,770	23,669
Cedara	16,021	17,812	18,977	19,213	18,840
Potchefstroom	19,635	19,400	20,889	20,789	21,161
Glen	20,576	21,745	22,095	22,831	23,784
Experiment Stations—					
Malmesbury	1,617	1,490	1,740	1,990	2,424
Bathurst	1,075	1,096	1,212	1,416	1,719
Hluhluwe	—	—	—	107	174
Agricultural Scholarships and Bursaries	2,263	2,156	2,181	2,088	2,108
Purchase of Pedigree Stock	941	1,697	2,380	1,946	6,845
Telegraphs and Telephones	669	826	1,003	896	942
Faculty of Agriculture, University of Pretoria	19,056	19,702	20,238	22,739	23,529
Minor Works	280	854	1,016	933	864
Leave Gratuities	518	641	337	464	716
TOTAL £	145,902	154,989	166,013	170,602	189,168
REVENUE.					
Agricultural Colleges—					
Stellenbosch-Elsenburg	7,036	7,563	6,985	8,172	7,708
Grootfontein	6,832	6,550	7,760	8,075	8,035
Cedara	3,362	2,927	2,970	3,176	3,260
Potchefstroom	3,795	3,446	4,204	4,713	4,235
Glen	5,641	4,852	5,920	5,866	4,808
Experiment Stations—					
Malmesbury	951	1,538	806	1,809	1,833
Bathurst	193	100	218	218	195
Hluhluwe	—	—	—	159	176
Western Province Fruit Research*	—	—	—	—	2,461
Miscellaneous	1,172	888	675	525	674
TOTAL £	28,982	27,864	29,538	32,803	33,385

* New station acquired during 1936-37.

CHAPTER XX.

FORESTS.

§ 1. Character and Extent of Forests.

1. **General.**—The Union is a comparatively poorly timbered country, and, although fairly considerable areas of forest or scrub are known to have disappeared before axe and fire within the last century or two, there appears to be no reason to believe that it has ever been, as a whole, a heavily timbered country during the present geological period. There seems to be no ground for supposing that even scrub forests were found to any great extent on the High Veld or Karoid veld of the interior, while the same remark applies to a large part of the mountain slopes and the country between the mountains and the sea.

Roughly speaking the forests of this country may be classed as *dense timber forests* and *scrub and savannah forests.*

2. **Timber Forests.**—These are found, mainly on the seaward and southern slopes of the mountain ranges within usually less than 100 miles of the coast, at widely scattered intervals from the Cape Peninsnsula to the Zoutpansberg Range. Even on the mountain ranges they seldom occupy any extensive area continuously, but are almost always found in isolated patches of from a few acres to a few thousand acres each, in the kloofs or ravines.

(i) *Cape Province, Midlands.*—The largest of the more or less continuous areas of forest are found within a strip of country some 110 miles long and ten miles broad, between the Outeniqua Mountains and the sea, extending from George through Knysna to the Humansdorp division. It has been estimated that roughly 90,000 acres of this country are occupied by forests. These have been heavily exploited during the last century or more, and the virgin timber in them is approaching exhaustion. The principal species composing these forests and the main uses of their woods are as follows:—

Podocarpus latifolius....	Real Yellowwood.....	Flooring boards and other building timbers; railway sleepers; joinery and furniture; naves for wagons, etc.
Podocarpus falcatus.....	Common Yellowwood..	
Curtisia faginea.....	Assegai.....	Wagon-wood.
Ocotea bullata.....	Black Stinkwood or Laurel.	Furniture.
Olea laurifolia.....	Ironwood.....	Wagon-wood.
Apodytes dimidiata.....	White Pear.....	Wagon-wood.
Gonioma kamassi.....	Kamassi.....	Exported to Europe for the manufacture of shuttles for weaving, etc.

(ii) *Cape Province, Western.*—From George westwards to the Cape Peninsula scarcely anything remains of the forests which were once found on the mountains, and which were exploited from the earliest days of European settlement in South Africa. Their destruction by fire followed, and small patches remain only in the more inaccessible kloofs. In the Cedarberg, a distinct type of forest occurs, namely, that of the Clanwilliam Cedar (*Widdringtonia Juniperoides*). This species does not form dense forest; the trees grow singly or in small groups scattered on rocky slopes and crags. The wood is a durable light softwood, and the larger trees in the more accessible parts have been exploited. The area has been made a forest reserve and all possible means are adopted to protect it from fire and to assist regeneration of the cedars.

(iii) *Cape Province, Eastern.*—The timber forests occur chiefly on the coastal mountain ranges, but nowhere except on the Pirie Mountain do they cover continuous areas of any great extent. These forests have been exploited and but few of them still contain virgin timber. In composition they are generally similar to those of Knysna, the most notable difference being the almost complete absence of Stinkwood (*Ocotea bullata*), while they contain much Sneezewood (*Ptaeroxylon utile*), a durable timber of great value.

Kamassi is absent east of Port Elizabeth, but Cape Box (*Buxus Macowani*), which yields a valuable wood not much inferior to the European box, is found in fair abundance in the Alexandria and East London districts, forming, with Sneezewood and some other species, a type of low but dense forest in the neighbourhood of the coast.

(iv) *Transkeian Territories.*—The timber forests here are, in general, similar in distribution and composition to those of the eastern Cape Province, but somewhat more extensive areas are found at intervals along the coast. The species constituting the latter are very varied, and include, in addition to the species of the eastern Cape Province, many others of more northern range, such as Natal Mahogany (*Trichilia emetica*), Umzimbeet (*Millettia caffra*), Umgesisa (*Cussonia umbellifera*), and Flatcrown (*Albizzia fastigiata*). Considerable quantities of Cape Box (*Buxus Macowani*) of comparatively large size also exist in these forests.

The more accessible of the Transkeian forests have been heavily worked in the past, but some of them, including most of the coast forests and a few forests consisting almost exclusively of Yellowwood (*Podocarpus Henkelii*) in the northern part of the Territories, have been too inaccessible to allow of profitable utilization.

(v) *Natal.*—The forests of Natal are now of small extent, the greater proportion of those which once existed having passed out of government ownership or been included in native locations, and much of the area once occupied by them has been deforested. Generally speaking, they may be grouped as mountain and coast forests like the Transkeian, and are of more or less similar composition. A special feature of some of the coast forests is the large proportion of Waterberry (*Syzygium cordatum*). Some of the Crown forests have been heavily worked but a few containing virgin timber, largely Yellowwood, still exist in the southern districts of Natal.

(vi) *Transvaal.*—The timber forests occur at widely scattered intervals on the mountain ranges along the eastern edge of the Highveld plateau and are individually of small extent, with the exception of some on the easterly slopes of the Woodbush Mountains and the Zoutpansberg Range. With few exceptions these forests have been heavily worked in the past and little merchantable timber now remains in them.

In general the composition of these forests approximates to that of the timber forests of Natal, except that the Yellowwood is not so abundant, while other species not found elsewhere (of which *Syzygium Gerrardi* is the most important) are encountered.

3. **Scrub and Savannah Forests.**—These cover extensive areas known variously as *Thornveld, Bushveld* or *Middleveld*, in addition to the *Lowveld* of Natal and the Transvaal. Numerous species enter into their composition, but various kinds of Acacias predominate, and of these the common Mimosa, *Acacia karo*, is the most widespread. Many of the species yield timbers of good quality, e.g. the Wild Olive (*Olea verrucosa*), the Karree-boom (*Rhus lancea* and *viminalis*), the Camelthorn (*Acacia giraffae*), Knoppiesdoring (*Acacia pallens*), Apiesdoring (*Acacia Galpinii*), Matumi (*Adina Galpinii*), and Kiaat (*Pterocarpus angolensis*). These trees sometimes reach a moderately large size, sufficient for sawing into timber, but over much of the more accessible areas where they occur the mature timber has already disappeared. Generally speaking, the trees are of small size and slow growth, and their often scattered distribution and the open nature of the forests do not render these forests suitable for economic forest management. The trees form, however, an asset of much value for fuel, fencing posts, and other local uses, as well as for shelter and protection for the soil. The land on which they are situated has mostly passed into private ownership or is situated within native reserves. Unfortunately, the value of scrub forests is often not realized by the owners and the destruction of the forests has proceeded apace and is still continuing. In the category of scrub forests should be included the bushy growth found along much of the coast. A good deal of this has been set apart as government forest reserves for the prevention of the formation of sand-dunes.

4. **Extent of Plantations and Indigenous Forests.**—The area of all plantations and indigenous forests in the Union (including government and municipal plantations and forests), as returned at the Agricultural Census of 1937, with comparable totals for plantations (1930) and indigenous forests (1926), is shown in the following table, which gives the area under different species in the plantations in each province.

AREA OF PLANTATIONS AND INDIGENOUS FORESTS.

Province.	Plantations, 1937.						Indigenous Forests, 1937.	
	Conifers.	Eucalypts.	Poplars.	Wattles, Black and Other.	Other Species.	Total.	Dense or True Forest.	Scrub or Dwarf Forest.
	Morgen.	Morgen.	Morgen.	Morgen.	Morgen.	Morgen.	Morgen.	Morgen.
Cape of Good Hope—								
Private	6,199	8,895	4,024	10,027	4,239	33,384	157,234	1,092,309
Government	59,612	10,940	393	11,357	7,551	89,853	161,347	49,447
Municipal	1,735	1,245	22	1,788	92	4,902	4,393	21,622
Native Areas	87	470	24	1,742	69	2,392	*	*
TOTAL 1937	67,653	21,550	4,463	24,914	11,951	130,531	322,974	1,163,378
TOTAL 1930	52,445	17,397	3,538	17,073	11,951	102,404	228,962†	1,292,334†
Natal—								
Private	1,762	18,099	847	180,438	1,397	202,543	31,748	77,788
Government	10,516	3,211	123	251	372	14,473	25,230	11,425
Municipal	45	667	62	1,906	9	2,689	175	191
Native Areas	359	837	5	52	45	1,298	*	*
TOTAL 1937	12,682	22,814	1,037	182,647	1,823	221,003	57,153	89,404
TOTAL 1930	7,577	12,569	688	179,698	1,969	202,501	83,434†	229,746†
Transvaal—								
Private	12,627	64,095	2,726	67,884	2,315	149,647	425,789	1,643,555
Government	36,380	9,295	180	829	640	47,324	15,635	18,768
Municipal	400	2,379	28	745	52	3,604	4,009	11,197
Native Areas	—	34	—	—	—	34	*	*
TOTAL 1937	49,407	75,803	2,934	69,458	3,007	200,609	445,433	1,673,520
TOTAL 1930	20,195	52,165	2,319	52,989	4,734	132,402	55,120†	2,658,260†
Orange Free State—								
Private	3,711	21,153	3,151	959	3,541	32,515	13,366	29,212
Government	1,080	542	4	6	82	1,714	—	—
Municipal	43	569	35	2	82	731	—	151
Native Areas	—	—	—	—	—	—	*	*
TOTAL 1937	4,834	22,264	3,190	967	3,705	34,960	13,366	29,363
TOTAL 1930	4,241	19,000	2,754	1,132	3,348	30,475	338†	12,483†
GRAND TOTAL 1937	134,576	142,431	11,624	277,986	20,486	587,103	838,926	2,955,665
GRAND TOTAL 1930	84,458	101,131	9,299	250,892	22,002	467,782	367,854†	4,192,832†

1 Morgen = 2·11654 acres. * Not available. † As at 31st August, 1926.

5. **Regeneration and Growth of the Timber Forests.**—In many of the forests natural regeneration is deficient, but in others, particularly those in the Knysna region, young trees are found in abundance.

In the past, before the Forest Department took control, the forests generally were exploited with no regard to sylvicultural considerations. Woodcutters, having a free choice, naturally selected the best trees for sawing up into the products in demand by the European population; natives again required enormous quantities of poles and laths for building their huts and kraals. The consequence is that the forests in general are to-day in an abnormal condition, i.e., the older age classes, instead of consisting of sound individuals, are represented by inferior or useless trees only, while, in native areas especially, younger trees of different age classes on which the perpetuation of the forests depends are wanting.

It is the aim of the Forest Department, by restricting further cutting and by paying attention to the regeneration naturally or artificially established, to remedy the condition of the forests as quickly as possible. The component species are slow growing, and it will therefore take a very long time before the economic value of the forests can be fully restored.

6. **Reserved Indigenous Trees.**—A list of indigenous trees reserved under the terms of section 12 of the *Forest Act*, No. 16 of 1913, is contained in *Government Gazette* No. 2194 of the 11th May, 1934 (Government Notice No. 594).

§ 2. Forestry Development.

1. **Relation of the State to Forestry.**—Until 1876 no central or technical control was exercised over the Crown forests of the Cape Colony, but in that year a Department of Forests and Plantations was constituted, and in 1881 a Superintendent of Woods and Forests was appointed. In 1891 this post was abolished, and the four conservancies into which the Colony had been divided were thereafter administered independently by four conservators, who were responsible to the Secretary for Agriculture. In 1905 a Chief Conservator of Forests was appointed, who was responsible to the Minister. In the Transvaal and the Orange Free State the Crown Colony Governments, about the year 1903, established forest departments as divisions of the respective agricultural departments. In Natal no settled policy was followed, but the post of Conservator of Forests was twice made and abolished, the administration of the forests being in the hands of the Director of Agriculture from 1908 onwards. When the Union was established in 1910 the four forest departments were immediately combined under one Chief Conservator of Forests, later named the Director of Forestry. In October, 1934, the Forest Department was abolished and combined with the Department of Agriculture under the title of the Department of Agriculture and Forestry, and a Division of Forestry was established under the Director of Forestry.

In 1913 the *Forest Act*, No. 16 of 1913, was passed. This Act, supplemented by a short Act, No. 14 of 1917, consolidates and amends the forest laws previously in force in the various provinces of the Union, and relates to forest tenure, forest reservation, demarcation, and the regulation and protection of forests. With certain modifications it follows the principles laid down by the Cape of Good Hope *Forest Acts*, No. 28 of 1888 and No. 20 of 1902. In terms of the Act forest reserves consist of both demarcated and undemarcated reserves. The penalties imposed in respect of offences within the demarcated forests are, as a rule, more severe than those levied in the case of offences in undemarcated forests. The Act confers upon the Government the power of expropriation of land for certain forestal purposes and provides that no servitudes can now be acquired by prescription over the forest estate. Certain portions of the Act deal specifically with the protection of private forests, but other provisions of the Act may be applied to private forests for their better protection at the request of the owners. A number of Proclamations and Government Notices have been issued dealing with a variety of matters affecting the protection, management, and exploitation of forests.

Proclamation No. 266 of 1936, amended by Proclamation No. 278 of 1936, has made the grading of all wattle bark for export compulsory as from the 1st of January, 1937. Condition No. 1 states that "No person shall export wattle bark unless it has been examined, graded and branded as herein prescribed". For this purpose a technical Forest Officer was appointed as wattle grader and stationed at Durban. It should be noted that dealings in the bark of "Silver Wattle" trees, because it is a product inferior to that of the "Black" or "Green" Wattle, are allowed only under stringent conditions, the infringement of which is subject to severe penalties.

2. **The Forest Estate.**—The area of Crown lands reserved for forestal purposes and controlled by the Division as at 31st March, 1938, was:—

	Acres.
Demarcated Forest Reserves	2,901,498
Undemarcated Forest Reserves	421,597
TOTAL ... ...Acres	3,323,095

This area consists of*:—

	Acres.
Indigenous High Forest	425,000
Afforested	339,000
Land suitable and available for afforestation	350,000
Scrub forest and land held for protective purposes	2,209,000

* Approximately.

3. **Functions and Work of the Division of Forestry.**—These are set out shortly as follows:—

(a) *The protection and conservation of indigenous timber forests and their utilization in such a manner as not to impair, but rather to increase their future productivity.* Funds voted for this purpose are mainly spent on protection from fire and on regeneration. The destruction by natives of young growth for hut-wattles has been almost entirely stopped, as a result of the establishment of plantations of exotic species to supply this product. The cash revenue derived from the indigenous forests during the financial year 1937-38 was £16,964. The indigenous forests are not capable of yielding more than a very small fraction of the Union's requirements of timber, and moreover they produce mostly hardwoods, whereas 80 or 90 per cent. of the requirements is for softwoods.

(b) *The creation of new resources by afforestation, to provide as far as possible for the country's timber requirements.* The extent of the plantations so far established by the State for the above purpose is about 339,000 acres, and afforestation is proceeding at the rate of about 15,000 acres per year. The species principally planted are conifers producing the class of softwood required, e.g. *Pinus insignis, P. patula, P. pinaster, P. caribala,* and *P. taeda.*

Though afforestation on a large scale started less than 15 years ago, large quantities of timber are already becoming available for the manufacture of paper pulp, fruit and industrial boxes, and for building timber, etc.

Cash revenue derived from the plantations during the financial year 1937-38 amounted to £142,339, which includes revenue derived from the sale of transplants, tree seeds, and sawn and planed timber from departmental mills to the public. The revenue should increase rapidly as the timber becoming available in ever increasing quantities finds its way on to the market.

(c) *The protection of important catchment areas for the sake of water supplies.* Of the three million acres of ground controlled by the Division of Forestry about two million acres are held mainly for the protection of water supplies. Extensive areas on mountain ranges holding the sources of important rivers are protected as far as possible against fire and grazing, especially in the Cape Province, but also in Natal and the Transvaal. Control is gradually being extended to other areas of importance in this connexion, Crown land being reserved for the purpose where necessary, and in some cases privately-owned mountain ground constituting catchment areas of importance being acquired by purchase.

(d) *The prevention and reclamation of drift sands.* Along the coast from the Cape to Zululand are forest reserves, which are held for the prevention and reclamation of drift sands. The scrub forests and other vegetation on the littoral dunes, the denudation of which would result in extensive movement of sand, are strictly protected. In the past very large areas of moving sand on the Cape Flats and near Port Elizabeth were reclaimed by the spreading of town refuse and have since been afforested. Elsewhere the method adopted successfully was the planting of marram grass and other vegetation assisted, where necessary, by mechanical barriers. Reclamation of open sands on government land under the latter system is still proceeding steadily.

Along the Western and South Western coastal belt large areas of moving sand are to be found on privately-owned farms. The owners may obtain State aid in the work of reclamation under schemes corresponding in principle to those devised for anti-erosion works on private property.

(e) *The establishment and maintenance of nature reserves.* Within the forest areas special nature reserves have been established, the object

of which is to maintain in their natural state for all time special features of the flora or of the landscape in the interests of scientists and nature lovers of the present and the future. At present the aggregate area covered by these nature reserves amounts to 12,320 acres, and new ones are gradually being established.

(f) *The encouragement of tree planting by private enterprise.* The Division of Forestry puts expert advice on tree planting and on the management of plantations at the disposal of farmers and others free of charge. Lectures are given at universities, agricultural colleges, farmers' meetings, etc. Transplants are obtainable from government nurseries at low rates; during 1937-38 almost four million plants were issued to the public.

Apart from trees planted on farms for purposes of shelter and to provide rough material for local requirements, there are, especially in the Transvaal and Natal, large areas of plantations owned by individuals, companies, and corporate bodies. These plantations consist mainly of Eucalypts grown for mine poles and Black Wattle grown primarily for tan bark but also for mine timber. The area under Black Wattle alone is estimated to be well over 250,000 morgen, of which about 70 per cent. is in Natal, where the wattle bark industry is centred.

4. **Organization of the Division of Forestry.**—(i) *Administration.*—The Division is controlled by the Director of Forestry assisted by the Deputy Director. The Union is divided into six Forest Conservancies each in charge of a Conservator of Forests. Each conservancy consists of a number of Forestal Districts controlled by District Forest Officers, each of whom has under him a number of foresters in charge of forest patrols.

The conservancies and forestal districts are as follows:—

Cape Province.

1. *Western Conservancy* (headquarters Capetown): *Forestal districts*: Capetown; Kluitjes Kraal (P.O. Wolseley); Elgin; Bredasdorp; Jonkershoek.
2. *Midland Conservancy* (headquarters Knysna): *Forestal Districts*: George; Saasveld (P.O. George); Knysna; Concordia (P.O. Knysna); Storms River.
3. *Eastern Conservancy* (headquarters Kingwilliamstown): *Forestal Districts*: Port Elizabeth; Kingwilliamstown; Stutterheim; Keiskamahoek.
4. *Transkeian Conservancy* (headquarters Umtata): *Forestal Districts*: Butterworth; Umtata; Kokstad.

Transvaal.

5. *Transvaal Conservancy* (headquarters Pretoria): *Forestal Districts*: Louis Trichardt; Tzaneen; Pretoria; Graskop; Sabie; Nelspruit; Barberton.

Natal and Orange Free State.

6. *Natal and Orange Free State Conservancy* (headquarters Pietermaritzburg): *Forestal Districts*: Eshowe; Pietermaritzburg; Bloemfontein.

(ii) *Research.*—The Division has its research sections, e.g., the Sylvicultural Research section dealing with all problems connected with the growing and management of timber crops and with forests influences and the Forest Products Research section (centred in the Forest Products Institute at Pretoria West) dealing with properties and uses of locally grown exotic and indigenous timbers, their resistance to decay and insects, sawing and seasoning methods, preservative treatments, etc.

(iii) *Technical Control.*—At headquarters officers are allotted to the management of the forest estate, utilization of the forest crops (sawmilling, etc.), statistics, forest education, and extension services.

(iv) *Recruitment of Officers.*—Officers of the higher professional division are recruited from men who hold a degree of forestry of a recognized university. This degree is obtainable in South Africa at the Stellenbosch University after a four years' course in forestry.

Men desirous of entering the government service as foresters are trained at the Saasveld Forest School near George. The course extends over a period of two years.

5. **Revenue and Expenditure of Forest Department.**—The subjoined tables give particulars of expenditure and revenue of the Forestry Division in the financial years 1936-37 and 1937-38, distinguishing operations of Railway plantations from ordinary forestry operations:—

FORESTRY EXPENDITURE AND REVENUE—1936-37 AND 1937-38.

Forestry Plantations (exclusive of Railway Plantations).			Railway Plantations.		
Heading.	1936-37.	1937-38.	Heading.	1936-37.	1937-38.
(*a*) EXPENDITURE.					
From Revenue Funds.	£	£	*From Railway Funds.*	£	£
Salaries, Wages, and Allowances	103,568	116,598	Salaries and Allowances	8,406	1,299
Subsistence and Transport	14,799	16,610	Subsistence and Transport	583	91
Maintenance and Development of Forests and Plantations	65,540	70,821	Nurseries and Plantations	22,982	5,029
Fencing and Surveys	1,938	2,392			
Forest Research	384	785			
Forest Products Institute	17,205	14,880			
Forestry School	1,520	2,208			
Contribution to Imperial Forestry Institute	500	250			
Uniforms	2,098	1,169			
Incidental Expenses	387	501			
Telegraphs and Telephones	2,578	2,776			
Libraries, Museums, etc.	319	592			
Grant to Stellenbosch University	1,322	1,133			
Protection of Catchment Areas	1,759	3,337			
Grant to Sabie War Memorial Hospital	300	—			
Inspection and Grading of Wattle Bark for Export	279	1,149			
Drift Sand Reclamation Assistance to Private Owners	—	2			
TOTAL £	214,496	235,203	TOTAL £	31,971	6,419
From Loan Funds.					
Afforestation	271,142	536,955			
Purchase of Land	2,978	31,379			
Forest Products Institute	840	397			
General	1,325	2,301			
TOTAL £	276,285	571,032			
GRAND TOTAL £	490,781	806,235	GRAND TOTAL £	31,971	6,419
(*b*) REVENUE.					
Sales of—	£	£	Sales of—	£	£
Saw Timber:—			Saw Timber:—		
(*a*) Softwoods	13,044	19,830	(*a*) Softwoods	5,841	3,309
(*b*) Hardwoods	17,676	23,582	(*b*) Hardwoods	6,534	431
Firewood	15,981	19,832	Firewood	3,921	1,920
Hut-wattles, Fencing Poles, Droppers, etc.	35,378	44,692	Hut-wattles, Fencing Poles, Droppers, etc.	14,534	2,612
Transplants and Cuttings	10,333	11,034	Transplants and Cuttings	1,104	506
Miscellaneous Receipts	29,533	31,073	Miscellaneous Receipts	1,710	482
TOTAL £	121,945	150,043	TOTAL £	33,644	9,260

§ 3. Forest Products.

1. Imports of Unmanufactured Timber.—The subjoined table gives particulars of the quantity and value of unmanufactured timber imported during a series of years:—

QUANTITY AND VALUE OF UNMANUFACTURED TIMBER IMPORTED (INCLUDING GOVERNMENT STORES), 1910 TO 1938.

Year.	Teak.	Jarrah and Karri.	Oak.	Pine.	Other Timber (not otherwise described).	Flooring and Ceiling and other Planed and Grooved
	(*a*) QUANTITY.					
	Cub. Ft.	Cub. Ft.	Cub. Ft.	Cub. Ft.	Cub. Ft.	Cub. Ft.
1910	228,111	256,773	95,949	11,296,621	100,654	3,155,409
1915	116,527	119,610	194,633	4,056,136	587,035	1,022,426
1920	300,448	242,406	427,719	8,778,049	1,002,945	2,381,532
1925	499,720	321,559	429,804	9,043,979	1,846,594	2,638,120
1930	686,067	213,134	650,774	10,993,738	1,979,561	3,294,625
1934	861,589	298,396	452,969	15,164,920	1,190,957	3,288,500
1935	854,208	308,358	373,475	16,573,453	1,495,245	3,327,663
1936	1,310,886	418,361	355,546	20,183,183	1,640,400	4,580,707
1937	1,410,329	373,098	407,171	22,331,871	2,185,128	4,982,414
1938	943,190	350,942	277,932	16,169,497	1,877,251	3,161,433
	(*b*) VALUE.					
	£	£	£	£	£	£
1910	82,805	17,372	12,552	636,927	85,077	213,070
1915	52,815	9,061	26,439	248,809	52,021	889,964
1920	237,647	32,060	209,758	1,594,999	226,558	595,328
1925	176,401	45,184	85,888	856,222	194,962	318,741
1930	257,859	23,215	105,960	896,125	217,379	301,597
1934	195,764	36,822	61,691	1,078,165	130,754	294,117
1935	192,196	44,212	48,258	1,147,097	155,155	272,185
1936	326,523	57,887	48,023	1,429,277	179,398	397,224
1937	419,056	45,941	60,073	1,831,358	237,652	531,475
1938	295,882	51,941	40,680	1,313,620	208,557	327,203

In addition, manufactured wood to the value of £1,673,605 and other unmanufactured wood to the value of £10,615 was imported in 1937, making a total value of £3,922,103.

The export of South African unmanufactured and partly manufactured woods during 1938 was valued at £13,286.

2. Yield from South African Forests, etc.—The yield from the government forest reserves and plantations during the financial years 1933-1934 to 1937-38 was as follows:—

GOVERNMENT FOREST RESERVES AND PLANTATIONS—YIELD OF TIMBER, 1933-34 TO 1937-38.

Description.	1933–34.	1934–35.	1935–36.	1936–37.	1937–38.
From Indigenous Forests—					
Timber, Poles, etc.	Cub. Ft. 585,005	Cub. Ft. 508,415	Cub. Ft. 496,227	Cub. Ft. 496,227	Cub. Ft. 424,030
Firewood	577,102	515,238	373,091	373,091	403,779
From Plantations—					
Timber, Poles, etc.	1,891,406	3,077,892	3,134,147	3,177,945	4,806,126
Firewood	2,358,991	2,386,525	2,498,518	2,510,032	2,947,431
From Railway Plantations—					
Timber, Poles, etc.	1,004,163	1,136,121	1,385,010	1,385,010	418,514
Firewood	556,334	624,933	580,751	580,751	302,705
TOTAL (Cub. ft.)	6,973,001	8,249,124	8,467,744	8,523,056	9,302,585

Of wood produced from private plantations a large quantity is cut from wattle plantations in the process of harvesting the bark. Though a good deal is wasted owing to inaccessibility, much of it finds its way on to the market as fuel and mining poles: about 90 per cent., if not more, of the props used in the gold and other mines comes from privately-owned wattle and eucalypt plantations.

Indigenous forests on private property yield fuel, fence poles, etc., for local needs, and to a small extent logs for saw timber.

A large proportion of the indigenous timber yielded by the native forests is used for wagon-woods, furniture, panelling, etc., for which purposes the South African woods are particularly suitable. Smaller quantities are used for parquet flooring, tool handles, etc. Certain of the plantation-grown eucalypts have also proved satisfactory for these purposes.

Export of timber is confined to small quantities of the two South African Boxwoods, viz., Cape Box (*Buxus Macowani*) and Kamassi (*Goniama Kamassi*). These timbers find their way on to the European markets for use as rollers, shuttles, etc., in the textile industry.

The following tables give the production from (*a*) plantations, and (*b*) indigenous forests in the Union as returned at the Agricultural Census in respect of the year ending 31st August, 1937. The production from plantations and indigenous forests in native reserves, locations, etc., are not available.

Product.	Cape of Good Hope.		Natal.		Transvaal.		Orange Free State.		Union.
	Private.‡	Government and Municipal.	Private.‡	Government and Municipal.	Private.‡	Government and Municipal.	Private.‡	Government and Municipal.	
(*a*) PRODUCTS FROM PLANTATIONS, YEAR ENDING 31st AUGUST, 1937.									
Railway Sleepers No.	—	—	4,350	—	10,249	—	—	—	14,599
Mine Props Tons	9,433	12,495	208,680	21,102	238,946	41,362	3,747	—	535,765
Wagon-wood Cub. ft.	601	26,294	780	—	25	9	127	—	27,836
Timber.									
For Industrial Purposes* Cub. ft.	131,524	744,428	66,823	143,268	45,300	572,580	8,456	70,162	1,782,541
For Non-industrial Purposes† Tons	2,414	16,153	9,481	1,763	3,433	5,285	633	1,374	40,536
Fuel and Charcoal Wood Tons	19,780	64,227	101,676	12,374	27,727	11,524	5,414	9,459	252,181
Charcoal (Manufactured) Tons	172	4	4,082	—	297	94	35	—	4,684
Wattle Bark Sold (Green) Tons	68	193	99,010	1,805	3,125	—	—	—	104,201
Wattle Bark Sold (Dry) Tons	1,001	582	41,282	172	17,051	689	—	—	60,777
(*b*) PRODUCTS FROM INDIGENOUS FORESTS, YEAR ENDING 31st AUGUST, 1937.									
Railway Sleepers No.	8,703	2,930	2,201	—	69	—	50	—	13,953
Mine Props Tons	16	389	57	—	438	7	3	—	910
Wagon-wood Cub. ft.	81,575	86,391	1,963	—	992	—	—	—	170,921
Timber.									
For Industrial purposes* Cub. ft.	18,696	234,894	10,055	10,966	2,721	75	—	—	277,407
For Non-industrial purposes† Tons	5,313	1,448	284	61	3,919	—	162	1	11,188
Fuel and Charcoal Wood Tons	30,709	6,214	1,559	284	10,589	320	452	10	50,137
Charcoal (manufactured) Tons	533	—	30	—	690	—	17	—	1,270

* E.g. Sawn timber, Railway and Harbour works, buildings, match factories, etc.
† E.g. Fencing posts, fencing droppers, building spars, etc.
‡ European-owned plantations and indigenous forests only.

3. **Forest Industries.**—(i) *Wattle Bark.*—This important industry was developed mainly in Natal, where the greater portion of the total area of 250,000 morgen of wattle plantations is situated. Up to 1936 there was no organized system of marketing or effective control of the quality of the bark exported. In that year low prices, together with complaints as to the poor quality of the bark finding its way on to overseas markets, caused grave concern as to the future of the wattle industry. A departmental committee under the chairmanship of the Director of Forestry was appointed to consider measures for remedying the conditions which threatened the stability of the industry. The report of the committee stressed the necessity for standardizing the product and recommended the registration of exporters, the registration of a distinctive brand under which each exporter would be allowed to ship bark, and the grading of bark for export to official standards. The measures recommended were put into force at the beginning of 1937 and have already had a steadying effect on the marketing conditions affecting the South African product.

The Division of Forestry controls the grading of bark, and forest officers are detailed for research and demonstration to promote proper cultural methods in wattle plantations.

The exports of (*a*) wattle bark and (*b*) bark extract during a series of years were as follows:—

(*a*) WATTLE BARK—EXPORTS, 1915 TO 1938.

Year.	United Kingdom.	Australia.	United States.	Germany.	Japan.	Belgium.	Holland.	Other Countries.	Total.
QUANTITY (IN TONS OF 2,000 LB.).									
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1915.	33,966	8,496	1,540	—	3	—	—	826	44,831
1920.	36,460	3,213	20,470	3,466	5,582	2,229	2,133	5,358	78,911
1925.	20,426	5,801	9,832	30,319	7,864	12,003	18,548	6,981	111,774
1930.	23,610	33	3,913	10,833	10,010	14,399	898	18,065†	81,811†
1934.	16,361	62	—	13,396	10,061	1,772	7,011	25,087†	73,750†
1935.	16,105	107	7,376	16,306	10,274	1,241	18,164	23,774†	93,347†
1936.	20,001	1,122	7,180	6,658	10,445	1,363	7,196	29,103	83,068
1937.	14,565	628†	1,898	10,053†	12,119†	1,157†	9,747†	26,503†	76,670
1938.	7,455	118	3,490	9,704	15,521	1,208	9,641	25,280*	72,417
VALUE.									
	£	£	£	£	£	£	£	£	£
1915.	150,415	35,102	6,156	—	13	—	—	3,558	195,244
1920.	325,697	23,653	168,647	23,160	44,467	18,127	16,455	42,309	662,515
1925.	146,604	41,368	68,023	204,598	56,789	84,417	130,574	48,720	781,093
1930.	160,385	210	24,897	74,728	68,547	95,046	6,110	124,202†	554,125†
1934.	65,916	210	—	53,363	39,294	7,192	28,187	100,415†	294,577†
1935.	65,802	408	30,003	68,588	39,788	5,031	75,595	94,962†	380,177†
1936.	86,383	4,726	29,760	27,724	40,434	5,747	30,510	123,635	348,919
1937.	83,470	2,967	10,828	56,173†	63,054	6,555†	57,163†	144,830†	425,040
1938.	50,466	645	20,586	59,149	92,238	6,988	61,101	161,869*	453,042

* Includes "Optional." † Amended figure.

(*b*) BARK EXTRACT—EXPORTS, 1916 TO 1938.

Year.	United Kingdom.	Australia.	United States.	Germany.	Japan.	Belgium.	Holland.	Other Countries.	Total.
QUANTITY (IN TONS OF 2,000 LB.).									
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1916.	491	—	—	—	—	—	—	—	491
1920.	7,541	310	713	—	217	59	17	641	9,498
1925.	9,798	72	398	5,484	524	1,066	804	2,017	20,163
1930.	6,680	27	140	4,889	1,118	1,001	1,094	2,651	17,600
1934.	12,505	57	1,024	3,551	1,581	1,247	2,403	3,340	25,708
1935.	16,375	107	2,323	5,189	2,147	1,601	3,681	7,086	38,509
1936.	16,279	117	1,674	3,294	3,343	1,623	3,116	8,898	38,344
1937.	20,381	637	2,524	3,192†	4,323	1,440†	2,281†	10,991†	45,769
1938.	16,693	453	684	910	2,721	1,128	1,250	8,649*	32,488
VALUE.									
	£	£	£	£	£	£	£	£	£
1916.	14,930	—	—	—	—	—	—	—	14,930
1920.	263,449	11,043	16,292	—	8,124	2,261	581	22,219	323,969
1925.	158,528	1,217	6,472	90,761	8,547	17,272	13,013	32,258	328,068
1930.	115,197	515	2,350	87,936	18,976	17,148	19,404	46,273	307,799
1934.	126,755	541	9,807	36,876	16,969	12,905	24,065	33,104	261,022
1935.	163,380	1,006	21,786	52,682	21,337	15,994	39,403	71,942	387,530
1936.	182,307	1,188	17,781	37,526	36,884	17,961	34,029	99,831	428,107
1937.	255,166	8,276	32,205	39,498†	55,893	17,854†	28,682†	138,352†	575,926
1938.	231,378	6,487	9,153	12,742	39,183	15,645	18,203	122,189*	454,980

* Includes "Optional." † Amended figure.

(ii) *Sawmilling.*—Up to a few years ago the sawmill industry was confined to a few small plants dealing with comparatively insignificant quantities of timber from the indigenous forests. Now that millions of cubic feet of softwoods are annually becoming available from plantations, private enterprise is beginning to realize the possibilities in this direction. In the several provinces there are already a number of private mills which are turning out fruit and industrial boxes and, to a less extent, building material. In a few years the plantations will yield logs from which building timbers can be manufactured in ever increasing quantities. State sawmills have been established at Elandshoek near Nelspruit and at George to serve as models for layout and to demonstrate methods of seasoning and manufacture for the guidance of private enterprise. It is estimated that during the next five years about eight and a half million cubic feet of softwoods will become available each year from the plantations. Part of this amount will be absorbed by existing sawmills, but arrangements have still to be made for the disposal of the remaining and larger portion of the yield. Failing satisfactory contracts with private enterprise, the State will be forced to expand its activities in the sawmilling business in order to utilize the available supplies.

(iii) *Paper and Paper Pulp.*—The manufacture of pulp and Kraft paper in South Africa started on a small scale with the establishment of a concern in the Transvaal about sixteen years ago. This plant obtains its supplies of pulp partly from overseas and partly from local supplies of old newspapers, etc. From time to time the use of local materials such as papyrus, Tamboekie grass, sugar-cane waste, and Baobab trees, was considered for the manufacture of paper, but for one reason or another no developments took place. The erection of the pulp and paper plant near Johannesburg, of which mention was made in the previous *Year Book*, is now complete and production will commence in the near future. This concern will use wheat straw for conversion into pulp, but may also use considerable quantities of wood.

Pinus patula, grown extensively in the Transvaal in government and other plantations, has proved suitable for pulping for the manufacture of Kraft paper and similar products. The Government has undertaken to supply 750,000 cubic feet per year of this timber for a projected pulp plant in the eastern Transvaal. A similar undertaking near George, Cape Province, is also under consideration, but here the raw material for pulping will consist mainly of *Pinus pinaster*, of which the Government has undertaken to supply at least a million cubic feet a year.

Developments are pending in regard to both projects, which will use wood from government plantations. There are available in the plantations large quantities of wood (distinct from saw timber) which can be used for pulping in small sizes not economically utilizable as saw timber.

CHAPTER XXI.

FISHERIES.

§ 1. Sea Fisheries.

1. **History and Development of the Industry.**—The fishing industry is one which has to a large extent been neglected, and the earliest settlers in this country found little encouragement in promoting its development. Van Riebeeck, the first Governor, issued instructions that they were not to "waste their time in fishing," but nevertheless, some of the freed slaves, principally Malays, who to this day constitute the chief fishing population in the Cape, engaged in a certain amount of fishing. Long after the time of van Riebeeck, obstacles were placed in the way of the development of the fishing industry, and only 150 years ago colonists were forbidden to establish fishing stations at any distance from Capetown, as this necessitated protection from headquarters. The non-European fishermen plied their trade with the aid of small open boats in much the same manner as is at present practised at the Cape.

Within the last thirty or forty years, owing to the increased European population and the consequent demand for fish, attention has been directed to the possibilities of developing the fisheries. Modern methods of fishing, such as long line fishing and trawling, were attempted by private enterprise, but did not prove successful. The use of the long line was rendered difficult owing to the quantities of dog-fish which infest the South African seas. Trawling was tried in Table Bay and elsewhere. At Port Elizabeth it was taken up by the steam tugs in their spare time, and an area in Algoa Bay, of somewhat limited extent, was regularly visited and afforded a small supply of soles. In the year 1895 the attention of the Government of the Cape Colony was drawn to the undeveloped state of the fisheries and the need for action in the matter. An officer (the late Dr. J. D. F. Gilchrist) was appointed for the purpose of obtaining definite and reliable information as to the resources of the South African seas, and to advise as to what steps should be taken to place the industry on a more satisfactory basis, with regard to both its development and its conservation. A steam trawler, the *Pieter Faure*, specially designed for experimental work, was built, and systematic investigation commenced. Details of the work are embodied in reports of the Government Biological and Marine Investigations in South Africa, published by the Government of the Cape of Good Hope. As a result of these investigations, the fisheries of the Agulhas Bank were discovered, and it was established that trawling was practicable.

In Natal, as early as the year 1867, the fisheries were made the subject of legislation, a law being promulgated in that year to regulate the capture of fish within the bay or the harbour of Port Natal. In 1881, the Government of Natal appointed a commission to inquire into the subject of the pollution of streams in the coast districts of that Colony. This commission put forward valuable recommendations affecting the interests of the Natal fisheries. At a later date the *Fisheries Law* (No. 21 of 1884) was passed, with jurisdiction extending to all waters of the Colony of Natal in which fish were found.

In 1901 certain investigations on Natal Fisheries were conducted under the direction of the late Dr. Gilchrist during a limited period of the year and over a limited area. After much good work had been carried out in both Natal and Cape seas, the survey was discontinued for a number of years.

From 1907, when the *Coastal Fisheries Act* (No. 31 of 1906) became operative, the Natal Fisheries Department became fully organized, and in 1938 it consisted of: (*a*) the Natal Fisheries Board of seven board members, appointed for a period of 3 years, together with the Principal Fisheries Officer as secretary; (*b*) the officials of the Department; and (*c*) an Inland Fisheries Board of nine members, an Inland Fisheries Officer, River Conservancies, and Honorary Fisheries Inspectors (inland waters). The province has been divided

up into river conservancies, whose members control their particular areas and make recommendations to the Inland Fisheries Board on any matters of concern to their conservancy. The fisheries inspectors number 180, and are appointed for a period of 12 months. Their duties consist of the inspection of licences and the prevention of illegal methods of fishing, and they look to the general welfare of the waters in their areas. In addition there are 79 honorary fisheries inspectors dealing with coastal areas, who are also appointed for a period of 12 months.

By the Act of Union (1910) all matters relating to the "protection of fish" were delegated to the Provinces, and all regulations relating to fisheries matters are framed under either the *Natal Fisheries Ordinance*, No. 11 of 1916, or the *Cape Fisheries Ordinance*, No. 30 of 1920. Recently, however, it was decided to hand over all matters relating to marine fisheries to the Union Government, and as soon as the necessary legislation has been introduced, the control of sea fisheries will be vested in the Division of Fisheries of the Department of Commerce and Industries.

From 1920, extensive survey operations round the South African coast were carried out in the whaler *Pickle*, and valuable fishing grounds were found. The survey now embraces the whole Union coast line and also that of South West Africa. The discovery of fishing grounds near Dassen Island has proved of great value to the Cape trawlers, while other areas near the Orange River mouth, although at present unexploited, are a valuable asset. Detailed results of the investigations from 1920 to 1936 are embodied in Fisheries and Marine Biological Survey Reports, 1 to 13. The Fisheries Survey is now a division of the Department of Commerce and Industries.

During 1929, it was decided to replace the *Pickle* by a larger, more up-to-date, and specially constructed survey vessel, as it was obvious that she had outlived her usefulness as a research ship. The new vessel was launched in October, 1930, and named *Africana*. She arrived in Capetown on the 26th December, 1930, and was immediately taken over by the Department and placed in commission. The *Africana* is a vessel of 313 tons gross register, 136 feet in length overall, 25 feet beam and 13 ft. 6 in. depth, and is thus considerably larger than either of her predecessors, the *Pieter Faure* or the *Pickle*. In all essentials this vessel is a steel steam trawler, with various modifications to suit the type of work she is intended to do. She embodies all the most modern equipment necessary for marine survey work, and for her size she is one of the finest survey vessels afloat. A feature of her construction is the laboratory accommodation, which makes it possible to carry out most of the research work on board with as little delay as possible.

Research in connexion with savings-gear for commercial trawlers, whereby the capture of small and immature fish is reduced to a minimum, has been completed in so far as the sole grounds on the Agulhas Bank are concerned. This has resulted in the introduction of a new type of trawl net with a savings-panel through which immature fish may escape. A detailed report has been issued dealing with this investigation (see J. M. Marchand, "Savings-trawl Investigations in Relation to the Conservation and Regulation of the Agulhas Bank Sole-Fisheries". Investigational Report No. 1. 1934. Fisheries and Marine Biological Survey Division). The investigation has been extended to the stockfish grounds off the west coast, and a report on this work entitled, "Savings-trawl Investigations in South African Waters during 1935" (Investigational Report No. 8) has been published.

Experiments are now being conducted with a view to tracing the movements of various migratory fish. Numbers of the principal species of commercial fishes are tagged and records kept of their liberation, so that on the return of the tags after recapture of tagged specimens the migration may be recorded. In this manner it is hoped to obtain important details of the movements of the fishes, which would be of great value to the fishing industry and of considerable commercial importance.

2. **Cape Fishing Pursuits.**—The development of Cape fisheries has not been along the lines customary in such enterprises. Owing to the lack of harbours in which large boats can find shelter, and to some extent to the apathy and conservatism of the non-European fishermen, there has been no transition stage from the utilization of small open rowing boats to that of large modern steam vessels, and there are no large-decked sailing boats which find shelter in small fishing harbours. The construction of small fishing harbours is the next desideratum in the progress of the fishing industry, to allow of the use of the decked sailing boats so characteristic of the fishing industry of Europe. Initial

steps have already been taken in this direction, and the accomplishment of the desired object would probably mean the rise of a new and enterprising race of fishermen, and probably the improvement of certain branches of fishing at present neglected. The fishing industry and its possible development cannot, however, be on exactly the same lines as in Europe, the fish themselves being in some degree different in kind and habit; but there is enough similarity to justify the conclusions, already partly proved, that there is a great opening for improved methods in the catching, curing, and distribution of fish on modern lines.

3. **Fish Varieties.**—The following brief review of the varieties, principally of Cape fish, gives a conception of the industry and its possibilities. The scientific names of the fishes are given in view of the fact that there is no standardization of local names, the same species being frequently designated by names which have only a local significance. A list giving the names of the principal food fishes occurring in Cape and Natal waters appeared in *Official Year Book* No. 17 and previous issues.

(*a*) Snoek (*Thyrsites atun*).—The Snoek (the Barracouda of Australia) was about twenty years ago one of the most abundant of Cape fish. At that time it was caught in enormous numbers during the fishing season and exported to Mauritius. It is a fish peculiar to the southern hemisphere, occurring in the waters round Chile, Tristan da Cunha, the south-west of the Cape, and the south-west of Australia. "Snoeking" is still one of the most important branches of the Cape fishing industry and is conducted principally along the west coast as far as Walvis Bay during the months from December to June, when this species of fish is abundant.

(*b*) Silver Fish or Kaapenaar (*Dentex argyrozona*); Hottentot or Hangberger (*Spondyliosoma blochii*); Pangas or Dik-bekkie (*Sparus laniarius*); Red Stumpnose (*Sparus gibbiceps*), etc.— These fish are more or less stationary in their habits, and are the staple fish of the fishing industry. They are caught by hand lines, and are usually fairly abundant, though of late years the fishermen complain of scarcity. This they attribute to the destruction of the fry and eggs by the trawl. This question and the kindred one of the destruction of immature fish was investigated by the Cape Government by means of the survey steamer and a small marine laboratory, and as a result it was proved that the allegations were without foundation. It has been demonstrated on a small scale that some of these fish are well adapted to the process of smoking, and that they could undoubtedly compete satisfactorily with the great quantities of imported smoked fish with which the South African market is supplied.

(*c*) Geelbek or Cape Salmon (*Atractoscion aequidens*); Kabeljou, Cob, or Salmon Bass (*Johnius hololepidotus*); and Stockfish (*Merlucius capensis*).—These are among the most important of the large migratory fish. The Geelbek (often known as the Cape Salmon) is a large handsome fish with a superficial resemblance to the salmon, but with no real affinity to the Salmonidae. It is often caught in the trawl, and is also frequently taken in large quantities by hook and line. The Kabeljou is said to be identical with the Maigre, while the stockfish is the same as the Hake of European seas. They are caught both by line fishing and by trawl, by the first-named sometimes in great quantities. With these larger migratory fish is included the brilliantly coloured Seventy-four (*Dentex undulosus*), more abundant in the warmer waters of the east coast, where it is known as the Silverfish, the Silverfish of the west coast being known as the Carpenter (a corruption of Kaapenaar). With modern methods of fishing and with larger boats, which would enable the line fishermen to proceed further out to sea, these large and valuable fish could doubtless be procured in greater quantities. A fair amount of smoked stockfish is appearing on the market and has proved as good an article as the imported smoked haddock.

(*d*) Smaller Migratory Fish.—Among the smaller migratory fish are the Mackerel or Makreel (*Scomber colias*), the Harder or Springer (*Mugil cephalus*), the Herring (various genera), and the Anchovy (*Engraulis capensis*). The Mackerel is very little different from the European species and occurs abundantly at certain seasons. It is not, however, looked upon with favour by the fishing community,

and is even regarded as poisonous, as indeed it may have proved when preserved by some of the rough-and-ready methods once in vogue. An enterprising American some years ago visited the Cape with a schooner and brought nets for the express purpose of procuring a fish which is appreciated at its true value in America. Great quantities were procured, but the native fishermen made such strong representations as to the damage caused, especially to the spawn of fish, that in the absence of better information the Legislature was induced to pass a law forbidding the use of these nets. None of the smaller migratory fish, such as the Herring, the Sardine, and the Anchovy, are put on the South African market, which is flooded with tinned sardines, smoked herring and haddock, and other European fish.

(*e*) Flat Fish.—The investigations of the Government have shown that a sole (*Austroglossus pectoralis*) equal to the European sole occurs in great abundance on the Agulhas Bank. This type of fish is now more abundant in South African waters than in those round Britain, and its export in ice to Europe has become a feasible enterprise. The West Coast Sole (*A. microlepis*) is also a species of considerable commercial value.

(*f*) Oysters.—The Rock Oyster was formerly very abundant; a fair supply is yet obtained from some places, and good prices are secured. The supply has, however, become very limited; but there is every prospect that with artificial propagation and adequate care a valuable industry may be established. The English Oyster might be cultivated in some of the more sheltered bays, such as Saldanha Bay, Knysna, and Zwartkops. Experiments have actually been made in this direction, but, although the oyster thrives well, no sustained and systematic oyster culture has been attempted.

4. **Crawfish Industry.**—This industry had its beginning over a score of years ago and, after passing through many vicissitudes and technical difficulties in canning, has now become a factor of considerable importance to the west coast of the Cape Province and also in South West Africa. In recent years an extension of the industry in the form of the exportation of frozen crawfish tails has been started in Capetown. In the short time that has elapsed since its inception, this section of the industry has grown relatively quickly.

The imposition of a quota by the French Government, which resulted in the decline of the French market, proved a serious blow both to the canned crawfish industry and also to the exportation of frozen crawfish tails, France having been the principal market for export. Extensive markets are, however, opening up in other parts of the world: Australia, for instance, is becoming a valuable customer for both crawfish and other fish. In regard to the export of crawfish for consumption in France, it is necessary, owing to the quantitative restrictions imposed by that country, to obtain a permit, under the provisions of section 2 of the *Crawfish Export Control Act*, No. 50 of 1934, from the Director of Fisheries, Capetown.

Research work dealing with the canning processes of the Cape crawfish or Kreef was completed during 1935, and Investigational Report No. 5 entitled "Studies in the Canning of Cape Crawfish" was published.

At present, the position of the industry is by no means bright owing to a cycle of bad seasons. There is no reason to assume, however, that the grounds are being "fished out," expert opinion being to the effect that the prevailing scarcity is due to periods of bad weather and to the migration of the fish to grounds more distant from the fishing bases. Certain measures to prevent extermination or complete migration from the areas which can be profitably exploited are essential, and it is hoped that the research work at present being carried on will eventually yield data, as a result of which such measures can be taken.

Not a great deal is known at present of the habits, life history, etc., of the crawfish, though much valuable research work was done in the past by the late Dr. Gilchrist and the late Mr. Cripps (Provincial Fisheries Officer). In 1924, the Department of Mines and Industries became interested through its Fisheries Survey Committee, and Lieut. F. H. Sibson, R.N.V.R., was appointed to continue the researches. During 1936 an Investigational Report (No. 6) was published on "The Reproduction, Embryology and Metamorphosis of the Cape Crawfish" by C. von Bonde. This report fills in many of the gaps in the previously existing knowledge of the breeding habits of the crawfish.

Hitherto the industry has been carried on almost exclusively in the waters of the Cape Province and South West Africa, but discoveries made by the Fisheries Survey vessel *Pickle*, in deep waters (250 fathoms) off the Natal coast, go to show that valuable fishing grounds may be found here also, though at present the great depth of the water prevents successful exploitation, except by means of trawling.

An intensive survey of the various crawfish grounds in the vicinity of the Cape Peninsula and Saldanha Bay has been carried out since June, 1930, by means of the specially constructed motor-cutter *Jasus*. Primarily the survey was concentrated on the various sanctuaries, with a view to ascertaining the condition of the fish at various seasons. Concurrently the survey was extended so as to permit of investigations being carried out in new areas. Thus far the results have been very gratifying. A new crawfish patrol and survey cutter, the *Impala*, was launched on the 15th March, 1938, and placed in commission early in April. The *Impala* has conducted an extensive survey of the crawfish grounds from Cape Point to Lamberts Bay, and her sphere of operations, which combines patrol and survey work, is being gradually extended so as to embrace the whole of the west coast crawfish grounds.

Transplantation of live crawfish into depleted areas is now being carried out by the research ship *Africana*, and areas on the west coast are being restocked.

A comprehensive review of the crawfish industry has been published in Fishery Bulletin No. 1 entitled "The Natural History and Utilization of the Cape Crawfish, Kreef or Spring Lobster, *Jasus* (*Palinurus*) *Lalandii*," by C. von Bonde and J. M. Marchand. This bulletin deals fully with the canning factories, methods of fishing, fishing grounds, and the life history of the crawfish.

5. **Statistics.**—Certain statistical information regarding crawfish canning and other fish preserving is given in the following tables:—

(i) FACTORIES, EMPLOYEES, SALARIES AND WAGES, AND VALUE OF ARTICLES MANUFACTURED, 1932-33 TO 1936-37.

Year.	Number of Factories.	Number of Employees.		Salaries and Wages Paid.		Articles Manufactured.		
		European.	Total.	European.	Total.	Canned Crawfish.	Frozen Crawfish.	Smoked or dried Fish, and other Canned Fish.
	No.	No.	No.	£	£	£	£	£
1932–33.	23	133	1,416	22,623	55,316	208,956	51,539	75,182
1933–34.	21	137	1,109	21,614	48,130	209,416	32,207	81,579
1934–35.	19	120	927	19,415	40,738	125,950	23,521	112,159
1935–36.	23	113	1,253	26,357	61,076	203,124	30,724	122,518
1936–37.	22	118	1,369	25,246	63,510	203,691	33,023	140,925

(ii) FISH EXPORTS AND IMPORTS.

Description.	1934.	1935.	1936.	1937.	1938.
(*a*) EXPORTS, 1934 TO 1938.*					
Dried and Cured.....lb.	1,966,106	2,469,593	3,400,522	3,899,121	3,571,583
£	33,619	39,947	54,234	62,262	58,765
Crawfish Tails (Fresh or Frozen)lb.	961,551	1,053,710	1,801,691	2,789,972	2,783,863
£	25,583	35,356	53,203	101,351	80,000
Other Fish (Fresh or Frozen)..lb.	853,972	1,229,374	1,130,884	1,086,783	2,062,006
£	22,323	26,903	28,109	27,877	47,357
Crawfish (Preserved).....lb.	2,696,128	2,591,898	3,439,566	3,165,627	2,516,093
£	159,388	171,687	228,526	186,197	129,035
Other Fish (Preserved).....lb.	16,219	28,863	13,418	16,083	25,166
£	962	1,352	1,022	1,037	1,365
TOTAL.....lb.	6,493,976	7,373,438	9,789,081	10,957,586	10,958,711
£	241,875	275,245	365,094	378,724	316,522

* South African produce only.

(ii) FISH EXPORTS AND IMPORTS—*(continued)*.

Description.	1934.	1935.	1936.	1937.*	1938.
(b) IMPORTS (LESS RE-EXPORTS), 1934 TO 1938.					
Dried and Cured.....lb.	5,969,304	5,550,415	6,149,892	4,216,446	4,754,558
£	82,065	79,297	88,833	73,024	73,731
Fresh or Frozen.....lb.	91,266	58,151	142,226	73,946	171,170
£	2,412	2,114	3,699	2,894	5,014
Caviare, Lax, Lobster, Anchovies lb.	144,493	163,200	176,532	192,851	126,526
£	9,637	12,989	15,179	17,052	11,421
Other Fish (Preserved).....lb.	11,291,177	10,233,497	10,628,490	13,382,219	11,667,166
£	320,277	306,815	325,099	392,042	359,009
TOTAL.....lb.	17,496,240	16,005,263	17,097,140	17,865,462	16,719,450
£	414,391	401,215	432,810	485,012	449,815

* Amended figures.

6. **Fishing Harbours.**—As the result of an extensive survey of the coast from Durban to Port Nolloth by a committee appointed for the purpose in 1925, considerable improvements have been effected in recent years in fishing harbours.

The present position in the provision of better harbour facilities for fishermen is reflected in the following schedule:—

Place.	Construction.	Remarks.
Strand	Jetty	Completed November, 1933.
Velddrift	Automatic Light	Completed during 1936.
Gansbaai	Landing Stage and Mole	Completed November, 1935.
Arniston	Landing Stage	Completed May, 1936.
Hout Bay	Breakwater	Completed October, 1937.
Vermaaklikheid	Cutting of Channel	Completed July, 1937.
Still Bay (Riversdale)	Ramp and Winch	Completed September, 1935.
Hermanus (Still Bay)	Breakwater, Quay, and Approach Road	Work commenced and will be completed March, 1941.
Kleinmond	Slipway	To be completed, July, 1939.
*Hout Bay	(1) Approach Road	—
	(2) Jetty	—
Port Alfred	Breakwater and Jetty	To be completed, 1939.
Gordon's Bay	Breakwaters, Jetty, and Slipway	One breakwater and jetty already completed. Second breakwater commenced.
†Kalk Bay	Alterations and Improvements	New mole nearly completed.
Lambert's Bay	Harbour	To be completed March, 1939.
Hawston	Slipway	Completed August, 1938.
‡Mossel Bay	Alterations and Improvements	—

* Work being undertaken by Divisional Council. Government bears two-thirds of cost.
† Work being undertaken by Railways Administration.
‡ In the case of Kalk Bay, Government bears one-third of cost, and in the case of Mossel Bay, one half of cost.

All fishing harbour construction work was taken over from the Public Works Department by the South African Railways and Harbours Administration as from the 1st April, 1939. The Department of Commerce and Industries will remain responsible for all administrative matters as heretofore.

7. **Whaling.**—Of recent years great improvements in the method of capturing whales and in their subsequent treatment have been effected, and various species, formerly of little value, now comprise a basis of important industries in various parts of the world. The chief species of whales found off the South African coast include the following:—

Humpback Whale	*Megaptera nodosa.*
Fin Whale	*Balaenoptera physalus.*
Blue Whale	*Balaenoptera musculus.*
Sei Whale	*Balaenoptera borealis.*
Sperm Whale	*Physeter macrocephalus.*
Southern Smooth Whale	*Balaena australis.*

Up to 1930 the whaling industry in South Africa was a large one, but, owing to world over-production of whale-oil in 1931, operations were greatly curtailed and the annual amount exported since then shows violent fluctuations. Exports of whale oil of South African origin averaged £106,989 per annum for the period 1910-1914 and £394,566 per annum for the years 1926 to 1930, but decreased to £47,712 per annum for the period 1931-1935. Statistics for the years 1934 to 1938 are given hereunder.

In view of the need for some form of control or restriction having for its object the protection of the industry, an effort is being made to give effect to certain recommendations embodied in a report on the whaling industry in South Africa. The Division of Fisheries is in touch with the British Government, with a view to co-operation in carrying out parallel observations on whales on the South African coasts, in order to obtain further information regarding whale migration.

As a result of the International Convention for the Regulation of Whaling, it was agreed internationally that during the 1937-38 season whales could be caught only in waters south of 40° south during the period 8th December, 1937, to the 7th March, 1938. Inspectors were carried on all factory ships operating in the Antarctic.

WHALE PRODUCTS—EXPORTS, 1934 TO 1938.*

Description.	1934.	1935.	1936.	1937.	1938.
Whale Oil.....galls.	120	1,190,287	4,418,556	7,741,399	1,337,281
£	10	53,253	291,073	499,571	48,545
Other Whale Products.....lb.	4,520,566	599,950	8,886,397	442,142	4,256,032
£	14,694	1,504	26,471	1,648	14,927

* South African produce only.

8. **Shark-Fishing Industry.**—The various attempts at establishing a shark-fishing industry have not met with success for various reasons, and the Fisheries Division has issued an investigational report, entitled "Shark Fishing as an Industry", to act as a guide in any future development in this very important branch of the fishing industry.

§ 2. Inland Fisheries.

1. **River and Enclosed Water Fisheries.**—The rivers of the Cape Province are remarkable for the poverty of their indigenous fish fauna. The *Kurper*, or native carp, is a small fish; the *Witvis*, a kind of barbel, is of little value from a sporting or an economic point of view; and the same can be said of the *Moggel* or mud-fish. Troup, carp, and other fish have been successfully introduced from overseas, and trout are now established in many rivers in the Cape, Natal, and Transvaal Provinces, and in Rhodesia. When introduced into a dam or river carp increase with remarkable rapidity, and unfortunately proved a success to the detriment of trout. Not only do they feed on trout ova and fry, but also on grass and other vegetation, whose roots they are said to devour, thus denuding the rivers and dams of their vegetation and at the same time contaminating the water. For these reasons no carp have been distributed from the government hatcheries at Jonkershoek since 1924, and the Administration is now considering the advisability of framing regulations prohibiting the future introduction of carp into inland waters. During the last ten years other species of fish, notably largemouth and smallmouth black bass, have been imported in an effort to obtain a fish suitable for South African dams and enclosed waters to take the place of carp. The steps taken in this direction are described in paragraph 3 below.

Nearly all the rivers in Natal abound in indigenous scale fish (barbus), which may be taken on the fly or with ground bait. Eels, barbel, and bream are also to be caught, while tiger fish in some of the rivers and pans of Northern Zululand afford the angler excellent sport.

Two species of trout are established in the Cape, Natal, and Transvaal Provinces, "rainbow" and "brown", but the former is considered more suitable for South African rivers. From a hatching and a sporting point of view it is also regarded as a superior fish; better results are obtained from its ova when stocking a stream, and it puts up a good fight when hooked.

2. **Trout Acclimatization in South Africa.**—(i) *Cape of Good Hope.*—Early attempts at trout acclimatization, which had been undertaken between 1875 and 1884 by purely private venture, did not prove a success, but in 1890 the Cape Government interested itself in the matter and provided funds for a further attempt. In 1892 and again in 1893 consignments of ova were received and placed in the Eerste River and tributaries, and later some 20,000 fry were liberated in the Breede, Berg, Eerste, and Lourens Rivers, but owing to lack

of proper rearing ponds the distribution of these fry had to be made earlier than was advisable. Profiting by these experiences the Government secured a site for a fully equipped hatchery on the farm "Jonkershoek", on the upper reaches of the Eerste River, and a number of trout, including 500 two-year olds, were placed in the Eerste and other rivers. The first "stripping" of South African trout took place in 1895, and in 1897 rainbow trout were successfully introduced, the first "stripping" of which took place in 1899. The Jonkershoek hatchery has been considerably extended and improved, and ova and fry are being widely distributed, not only throughout the Cape of Good Hope, but also to other provinces and to Rhodesia.

In 1894 an annual subsidy was obtained from the Government to establish a hatchery in the Pirie Forest, which distributes both rainbow and brown trout. Difficulties similar to those encountered in the western Cape Province were met with, but success was finally achieved, and a number of streams in the Transkei and eastern Cape Province have been stocked from that source. The Frontier Acclimatization Society, Kingwilliamstown, which administers the hatchery, receives an annual grant of £350 from the Cape Provincial Administration.

The western area of the province usually gets its rain from April to September, and the best fishing months are October, November, and December. In the eastern area the best fishing months are March, April, October, and November. The first two months are particularly good. Heavy thunderstorms and torrential rains usually occur during December, January, and February, making fishing difficult owing to high floods and the discoloration of the water.

The following licences are required to fish for trout or other non-indigenous fish in the Cape Province:—

(*a*) Trout and other non-indigenous fish:—
Male adults: 10s. per month. £1 per fishing season.
Women and juveniles: 5s. per fishing season.

(*b*) Black bass and perch only: 2s. 6d. per fishing season.

The Ordinances dealing with fisheries in the Cape Province are Ordinance No. 30 of 1920 (main Ordinance), as amended by Ordinances Nos. 6 of 1925, 3 of 1930, 11 of 1932, 4 of 1936, and 7 of 1937.

Various regulations have also been promulgated and these provide *inter alia* that the close season for trout-fishing throughout the Cape Province, including the Transkeian Territories, shall be from the 16th May to the 31st August in each year, both days inclusive.

(ii) *Natal.*—The first attempt to introduce trout into the Natal rivers was made in 1875, and in 1882 and 1883 further consignments of brown trout ova were received, but in none of these cases was success attained. In 1889 the Natal Government was induced to sanction a grant of £500 for the purpose of establishing a hatchery and importing ova. In 1890 a consignment of ova was imported and between that year and 1893 several thousands of fry reared at the Boschfontein hatchery, near Balgowan, were placed in various Natal streams. In 1899 it was found that trout were thriving in certain of the streams which had been stocked, and a hatchery on a considerably extended scale was established at Tetworth.

The Natal Administration has continued to take an active interest in trout acclimatization and has assisted riparian owners and angling associations to stock streams with fry. The work is still actively carried on and attempts are continually being made to stock new rivers, both by placing fry hatched *in situ* in them, and by transporting one and two-year old trout from other rivers where they are well established. To illustrate this aspect of the work it may be stated that 120 trout of this age were caught in the Bushman's River and transported a distance of 180 miles to the Pivaan River near Utrecht, between 7 a.m. and 4.30 p.m., with the loss of only one-third of their number. Transportation of adult fish is also resorted to where there is a danger of the stock being depleted.

Thirty-three rivers of the province are stocked with trout, fifteen being stocked with brown trout, nine with rainbow, and nine with both species. There are in all 800 miles of water stocked with brown or rainbow trout, besides several rivers in course of being stocked. During the course of the 1938-39 open season the Tugela, which flows through the Natal National Park, and the Little Tugela River were opened for public fishing for the first time. These rivers have been stocked with trout for a number of years.

The Administration imported thirty thousand brown trout ova from Australia. This consignment arrived during July, 1938, and the hatching was an unqualified success. The fry were liberated throughout suitable rivers in the northern districts of the province.

Licences are required for trout-fishing in Natal. These may be obtained from the Provincial Secretary, Pietermaritzburg, the Principal Fisheries Officer, Durban, various Receivers of Revenue, and specially appointed officers at certain fishing resorts. The cost of a licence for the whole season is £1, and of a seven-day licence, 7s. 6d. A special licence available for the whole season is issued to women and juveniles at a cost of 5s. In addition daily or weekly charges are made by certain angling associations. The fishing season extends from September to April in respect of brown trout, but opens and closes fifteen days later in respect of rainbow. It has been discovered that brown trout (*salmo fario*) can hold their own with the indigenous scale fish in a river, whereas the rainbow trout (*salmo iridens*) do not succeed in doing so.

(iii) *Transvaal.*— Attempts have been made to introduce trout into various districts of this province, but success has so far been attained in Machadodorp, Haenertsburg, Lydenburg, White River, and Pilgrims Rest areas only.

The stocking of the Elands River at Machadodorp was first effected about 1910, and between 1918 and the present time some 60,000 fry have been placed in the stream and its tributaries. In the Haenertsburg area there are two trout streams, the Broederstroom and Helpmakaar Rivers. The former is stocked with rainbow trout and the latter with brown trout. In the Lydenburg district trout were first introduced between the years 1915 and 1917, and in 1922 a supply of ova was secured from Jonkershoek. These were introduced into three streams in the neighbourhood of Lydenburg and proved highly successful. Since that date several suitable streams have been stocked. There are about 200 miles of water stocked with trout in the neighbourhood of Lydenburg.

Licences, which cost 10s. for a season, must be obtained to fish for trout in Transvaal streams. The fishing season in the Transvaal extends from October to April, inclusive, with the exception of all waters in Ward Woodbush, where the season is from October to March. Regulations framed under the *Fish Preservation Ordinance*, 1921 (Transvaal), as amended, were promulgated in the Transvaal *Provincial Gazette* of the 30th May, 1933.

(iv) *Orange Free State.*—Up to the present little success has attended the efforts to introduce trout into the streams of this province. Attempts have been made to stock the Wilge River in the Harrismith district, but so far without result. Rainbow trout have been placed in the reservoir of the Bethlehem Municipality.

(v) *Basutoland.*—Between 1909 and 1915 attempts were made to introduce trout, both brown and rainbow, into Basutoland streams, but without success. The first consignment was placed in the Little Caledon River in 1909 at Boqate, near Maseru, and on subsequent occasions ova were hatched and fry liberated in this river, and also in the Silver Spruit and the Quthing, Sejabatho, Tsoelike, and Mokhotlong Rivers. None of these experiments proved successful, but in March, 1935, 7 live brown trout of from 6″ to 8″ were introduced into the Lekhalabaletse River, a tributary of the Mokhotlong River. In October and November, 1935, 3 of these fish were seen in the Lekhalabaletse River, which incidentally runs westward. If the fish become established the theory that trout thrive only in rivers running in an easterly direction will be disproved.

(vi) *Swaziland.*—Swaziland rivers are well stocked with the usual indigenous fish found in the Transvaal rivers, including silver fish, barbel, bream, and, in the bush veld, tiger fish. For many years experiments were carried out with a view to establishing brown and rainbow trout in the mountain streams of Swaziland. A hatchery was established, but, though over forty thousand fry were liberated in the Swaziland rivers and in some of those in the Eastern Transvaal, they did not thrive. Trout up to three pounds in weight were taken at various times, but none are now to be found in Swaziland waters. It is believed that the water was not cold enough at the spawning time.

3. **Black Bass in South Africa.**—The largemouth black bass (*Micropterus salmoides*) has been distributed over a much wider range in South Africa than the trout, as it is a "pondfish" suited to life in the larger farm dams, reservoirs, and sluggish waters in general. The black bass is one of the "game" or sporting fishes of North America and it is also an excellent table

fish. The success of the largemouth black bass has aroused keen interest in South Africa, and attention is now being turned to the possibilities of introducing other members of the same family of perch-like fishes (the Centrarchidae), particularly the smallmouth black bass (*Micropterus dolomieu*), the spotted bass (*Micropterus pseudaplites*), and the bluegill sunfish (*Helioperca macrochira*).

The presence of largemouth bass in South Africa dates from February, 1928, when 45 fingerlings (bred in Holland in 1927) were imported by the Rand Piscatorial Association and taken to the Jonkershoek Hatchery, near Stellenbosch, C.P. These bass matured and bred at Jonkershoek in October, 1929, and the distribution of their fry to other waters was commenced in June, 1930. A second consignment of largemouth bass was imported by the Rand Piscatorial Association during December, 1928, and these were taken to the Pirie Hatchery, near Kingwilliamstown, C.P., but did not breed until 1932. In some of the waters stocked with the first South African bred fry from Jonkershoek (notably Paarde Vlei lake, Somerset West; and Brandvlei irrigation lake, Worcester) very large numbers of young bass resulted from the first "wild breeding" during October-November, 1931; some of them attained a length of twelve inches at nine months old, and some weighed 3 lb. before their second winter in 1933. Bass fry from the Cape hatcheries were sent to all the provinces of the Union, and to Rhodesia, South West Africa, and Swaziland. The secondary distribution of wild-bred bass was commenced in the Cape in 1932. In 1933, the Natal Inland Fisheries Department commenced a very extensive programme of distribution of bass bred in dams in that province, and similar work was done in the Transvaal. From 1935, largemouth bass bred in Swaziland have been distributed, and have been sent from there into Zululand, Eastern Transvaal, Basutoland, and even to Nyasaland. The progeny of the small nucleus stocks at the Cape have been scattered far and wide over Southern Africa.*

The introduction of the other species is being undertaken by the Cape Piscatorial Society, Capetown, and the Natal Inland Fisheries Department, Pietermaritzburg, acting in co-operation through the Union Division of Fisheries and the Union Legation at Washington, D.C., U.S.A.

Mr. A. M. Powell, Superintendent of Hatcheries of the State of Maryland Conservation Department, Baltimore, U.S.A., made all the technical arrangements for the shipments. The American-South African Line, Inc., New York, gave free assistance in this work as an act of courtesy to the Union.

As a preliminary attempt to send 50 young smallmouth bass in ordinary metal shipping cans had failed in February, 1937, Mr. Powell designed large shipping tanks made of cypress wood and a special equipment of electrical aerating pumps. Fifty-five smallmouth bass (about 3 inches long), which had been bred in Maryland during May, 1937, were sent from New York on 20th September, 1937. These bass were not fed at all on the voyage and the temperature of the water in their tanks rose as high as 83 degrees Fahrenheit in the tropics; but 29 of them survived to reach Capetown on 22nd October. They were taken to the Jonkershoek Hatchery of the Cape Provincial Administration near Stellenbosch. Four weaklings died during the first few weeks and there was some subsequent reduction of the stock, but by the end of May, 1938, the remainder had attained a length between 7½ and 10 inches. Smallmouth bass in Maryland, U.S.A., are not expected to breed until they are three years old, but the effects of transportation from the northern to the southern hemisphere was to promote exceptional precocity in the imported fish and they commenced to spawn at the end of September, 1938, before they were 17 months old.

This early success has permitted the distribution of South African bred smallmouth bass to begin long before it was expected. The first lot of smallmouth bass fry to leave the hatchery were planted in the Muizenberg Reservoir on 3rd December, 1938; and 300 fingerlings were released in the Berg River at Groot Drakenstein a few weeks later. Further distributions in the Cape Province were planned to take place after the hot weather. Over 200 smallmouth bass fingerlings were sent from Capetown to Durban in four consignments by means of the South African Airways service during December, 1938, and January, 1939; and the fish all arrived in excellent condition and were taken inland by road to various breeding dams. In January, 1939, a can of 25 smallmouth bass was sent by air from Capetown

* Fuller details will be found in Investigational Report No. 7, 1936, Division of Fisheries, Department of Commerce and Industries: "Black Bass in the Cape Province", by A. Cecil Harrison. Government Printer, Pretoria. (Price 2s. 6d.)

to Johannesburg and from there it was taken by road for 250 miles to Mbabane in Swaziland. All the bass arrived there in good condition after what is probably a record day of travel for live fish in South Africa.

The next step in the programme of fish acclimatization by the co-operating bodies was the introduction of the bluegill sunfish. It is thought that the bluegill will fill the present need in South Africa for a minor sporting and table fish for placing in farm dams and other waters which are not extensive enough to support a stock of largemouth bass.

The first attempt with the transportation of bluegills was made in June, 1938, but an unfortunate hitch in the stevedoring arrangements at New York docks caused heavy mortality amongst the fish before the voyage was actually begun, and only 4 bluegills arrived at Capetown. One of these died shortly afterwards at Jonkershoek, and it was found to be an egg-bound female, a circumstance which showed the hazards of bringing out these prolific fish from American summer to the Cape winter climate. The three survivors appear to be males.

In October, 1938, a second attempt to import bluegills was more successful: 120 small fish were sent and 72 arrived alive at Capetown. Thirty-six were taken to the Jonkershoek Hatchery, and, after some of the shipping tanks had been cleaned out, the remaining 36 were placed therein in fresh water and given a supply of live food for the voyage to Durban: 27 reached Durban alive and were taken inland to Howick. Thirty-two of the bluegills taken to Jonkershoek survived the quarantine period. They were about 2¼ inches long when turned out into a breeding pond on December 30th, 1938, and in three weeks time they had grown to about 4 inches long. Bluegills grow to be about 12 inches long and a pound in weight, but will commence to breed when quite small. Proof of this was soon obtained at the Jonkershoek Hatchery: on January 24th, 1939, one of the four-inch males was found to be guarding a nest of eggs, which hatched within a few days. Bluegill fingerlings should, therefore, be available for distribution during 1939.

Another species of fish, the introduction of which from America is under consideration, is the spotted bass (also known as the Kentucky or southern smallmouth bass). This fish is required for stocking the brown-stained coastal streams of the southern Cape and turbid streams in other regions, and generally for running water which is too warm for the northern smallmouth bass and too rapid for the largemouth bass. It is hoped to import a shipment of these fish, most probably in October, 1939, as that period of the year has proved to be the most suitable for such transportations.

In the *Cape Province* largemouth black bass are very plentiful in the lower reaches of the Berg, Breede (Worcester, Robertson, and Swellendam), and Olifants Rivers (Clanwilliam), and are also to be caught in various lakes, vleis, and irrigation reservoirs. Bass fishing has become a public amenity under provincial regulations at a licence fee of 2s. 6d. per season, which extends from 1st January to 31st August. Largemouth bass breed freely in enclosed waters, and the dry summers which usually prevail in the western part of the Cape Province produce conditions in the sluggish parts of the rivers very favourable for breeding. There is still some doubt as to whether extensive natural reproduction of largemouth bass is possible in the rivers of the eastern area of the province, which are subject to heavy floods in summer, but largemouth bass are so prolific in farm dams that certain angling associations are planning to transfer large numbers of fingerlings from such dams to the rivers, to compensate for this climatic difficulty.

Freshwater fisheries circulars, published by the Cape Piscatorial Society, 73, St. George's Street, Capetown, include the following gratis publications of general interest: No. 28, October, 1937, "The Importation of American Smallmouth Black Bass"; No. 30, March, 1938, "Fish of the Rivers of the Langeberge"; No. 31, June, 1938, "Fish of the Olifants River, Clanwilliam"; No. 32, November, 1938, "Progress Report on the Acclimatization of Smallmouth Bass and Bluegills".

In *Natal* the Provincial Administration was responsible for the introduction of largemouth black bass, and has given every encouragement financially and otherwise in the distributions that have taken place. In April 1931, fifty stock fish were obtained from the Cape provincial hatchery at Jonkershoek and placed in dams at Nottingham Road and Karkloof; during subsequent years they spawned prolifically. Since 1932, 297 distributions,

numbering 11,875 young bass, have been made in Natal and Zululand. These have done remarkably well in the dams in which they have been placed, mostly with a view to removing the young fish each year and stocking the rivers in the vicinity.

A start has been made with stocking the numerous large fresh water lakes in Zululand with black bass; during the year 1937, forty adult bass were released in Lake Umsingazi, a stretch of water covering some 6,000 acres, near Richards Bay, and easily accessible. Bass have also been planted in the Nyamiti Pan and Lake Sibayi, the largest fresh water lake in Zululand. Since then further distributions of largemouth bass have been made in these lakes and pans and also in other fresh water areas in Zululand, including Lake Bangazi, which is within 20 miles of St. Lucia. Evidence exists to show that these waters are ideally suited to this species: a catch in one lake indicated that the fish had increased 1 lb. 8 oz. in weight during the short period of twelve months.

These fish are game fighters, and permits to fish for them are issued by the Provincial Secretary and certain magistrates in the province. The fee for a seasonal licence is 2s. 6d. The largest caught to date weighed 5 lb. 9 oz., but greater weights can be expected in favourable environments with a plentiful food supply.

The Administration was also jointly responsible for the successful importation of the smallmouth black bass (*Micropterus dolomieu*) from America. The smallmouths will be used to stock cool, swift-flowing rivers in the province which are unsuitable for trout and largemouth bass. The original consignment of smallmouth bass was placed in the hatchery at Jonkershoek, Cape Province. These first spawned during 1938. Further consignments of fry numbering nearly 200 have since been obtained from the Jonkershoek hatcheries.

Although largemouth black bass were originally imported into South Africa by a Transvaal angling club (the Rand Piscatorial Association, Johannesburg), the distribution in the *Transvaal* has been slow. There is no provincial hatchery in the Transvaal, and the absence of this and of organized control of fishing in this province has retarded progress. Black bass have been liberated in Florida Lake on the West Rand, the Hartebeestpoort Dam, the Elands River, the Hennops River, and the Klip River, and have also been distributed in various privately-owned and municipal waters, but the results have not been altogether satisfactory. It has been ascertained that of the fry hatched out in open waters only about one-third reach maturity, as the parent fish feed on them, and experience has shown that, if black bass is to become well established, waters should be stocked at least two or three times a year.

It is intended to introduce bass into the Vaal and Loskop dams, and 300 to 400 fish, hatched out in two dams in Johannesburg, are being retained for this purpose.

In the *Orange Free State* several farmers have introduced black bass into dams on their farms, but it is still too early to state what the result has been. The Provincial Administration has also recently acquired a number of black bass fingerlings with the ultimate aim of stocking dams and rivers with this breed of fish.

Largemouth black bass were introduced into *Swaziland* in 1933 and have done very well. From 1935 distributions of black bass have been made in Swaziland waters and various neighbouring territories. During 1938, 2,137 largemouth bass, of which 1,000 were yearling fish, were distributed as follows: Various waters in Swaziland, 144; Transvaal, 1,073; Southern Rhodesia, 810; Bechuanaland Protectorate, 110. In January, 1939, smallmouth bass which had been imported from the United States of America were brought in and liberated in two hatcheries at Mbabane, viz., 12 from Natal and 25 from the Cape.

The *Basutoland Administration* imported a number of largemouth black bass from Swaziland early in 1937. These were liberated in artificial dams at Maseru, Mafeteng, Leribe, and Butha Buthe. The fish have spawned well and 150 have been moved from the original dam at Maseru to stock new dams.

CHAPTER XXII.

MINES.

§ 1. Department of Mines.

1. **Organization.**—The organization of the Mines Department has been built up from that of the Department of Mines of the Transvaal Republic, which was taken over by the Colonial Government at the conclusion of the South African War. When the Union was constituted the various Mines Administrations of the other Colonies were absorbed so as to form one Mines Administration for the Union under the Minister of Mines. In the republican days and during the régime of the Crown Colony Government, the head office of the Mines Administration was in Johannesburg under the Commissioner of Mines, but on the advent of responsible government in the Transvaal it was found convenient to move the head office to Pretoria so as to be in close touch with the Minister. The Department issues annually a report by the Government Mining Engineer containing a wide range of statistical data concerning mining. A monthly publication of interim statistics is also circulated.

The organization of the Department may be summarized as follows:—

Head Office, Pretoria—

General administration of mining laws of the Union.

District Offices—

(Mining commissioners, Johannesburg, Heidelberg, Barberton, Pilgrims Rest, Pietersburg, Lichtenburg, Klerksdorp, Pretoria, Bloemfontein, Barkly West, Pietermaritzburg.)

Issue of all prospecting licences and mining titles under the *Mining Acts* of the four provinces of the Union, including those dealing with diamonds, and carrying out local administration of those laws under the head office.

(Registrar of Mining Titles, Johannesburg.)

The central registration of all Transvaal and Orange Free State Mining Titles and Witwatersrand Township stands.

Engineering Branch, Johannesburg—

(Government Mining Engineer, Government Mine Surveyor, Inspectors of Mines and Machinery.)

Advisory to the Government on technical mining matters; the safety of life and limb and the safeguarding of health in the working of all mines; licensing of all boilers and inspection of prime moving machinery in mines and works (*Mines and Works Act*, 1911); issue of certificates of competency to persons employed in mining; valuation of mines and the surveillance of mines in which the Government receives a direct share of the profit.

Geological Survey, Pretoria—

(Director of Geological Survey, Geologists, Geophysicists, Mineralogists, and Drawing Staff.)

Geological survey of the Union; investigation of mineral resources including detailed coal survey; investigation of underground water resources; study of the value of geophysical methods of prospecting; identification of minerals and rocks for the public; research on minerals; maintenance of geological museum; preparation and publication of geological maps with explanations, memoirs, and bulletins.

2. **Mineral Laws.**—The following Mining Laws are administered by the Department of Mines:—

UNION LEGISLATION.

Mines, Works and Machinery Act, 1911 (No. 12 of 1911), as amended.
Precious Stones Act, 1927 (No. 44 of 1927), as amended.
Reserved Minerals Development Act, 1926 (No. 55 of 1926), as amended.

CAPE OF GOOD HOPE.

Precious Minerals Act (No. 31 of 1898), as amended by the Mineral Law Amendment Act (No. 16 of 1907).

NATAL.

Natal Mines Act, 1899 (No. 43 of 1899).

TRANSVAAL.

Precious and Base Metals Act, 1908 (No. 35 of 1908 of the Transvaal), as amended.
Transvaal Mining Leases and Mineral Law Amendment Act, 1918 (No. 30 of 1918).

ORANGE FREE STATE.

Orange Free State Mining Metals Act, 1936 (No. 13 of 1936), applying with certain exceptions the Transvaal Gold Law (Act No. 35 of 1908), as amended, and the Transvaal Mining Leases and Mineral Law Amendment Act, 1918 (No. 30 of 1918).

3. Mines Department: Examinations.—The issue of certificates of competency is governed by Part IV, Chapter XXVII, of the regulations issued under the *Mines and Works Act*, No. 12 of 1911, as amended. Examinations are conducted for the following certificates of competency:—

Examination.	Governed by—	Examination fee.
		£ s. d.
Mine Managers	Regulations Nos. 296 to 299	5 0 0
Mine Overseers	Regulations Nos. 300 to 302	3 0 0
Mine Surveyors	Regulation No. 303	3 0 0
Assayers	Regulation No. 304	3 0 0
Mechanical and Electrical Engineers	Regulation No. 305	3 0 0
Winding Engine Drivers	Regulations Nos. 306 to 308	2 0 0
Locomotive Engine Drivers	Regulations Nos. 309 to 312	2 0 0
Stationary Engine Drivers	Regulations Nos. 313 to 316	2 0 0
Boiler Attendants	Regulations Nos. 317 to 319	2 0 0
Blasting Certificates	Regulations Nos. 320 to 325	10 0 (Permanent)
		1 0 (Provisional)

For examination purposes, commissions of examiners or other issuing authorities are appointed from time to time, and certificates are granted or withheld in accordance with the decision of such commissions or other issuing authorities. Appeal may be made to the Government Mining Engineer against any decision of any commission of examiners.

For mines of the Witwatersrand area and scheduled mines, the blasting certificate of the Commission of Examiners, Johannesburg, is required. For fiery mines the certificate of the Commission at Dundee or Witbank is necessary, but provisional certificates may be issued by an Inspector of Mines authorized by the Government Mining Engineer to issue such certificates.

For all mines other than scheduled mines and fiery mines, a blasting certificate issued by an Inspector of Mines, or such Commission of Examiners as the Government Mining Engineer may appoint, is valid. Provisional blasting certificates for these mines may also be issued by an Inspector of Mines or by the certificated mine manager of the mine on which the person is working.

A lampman's certificate may be obtained from the Inspector of Mines of the district concerned; the fee is 5s. (see Regulation No. 326).

The following statement shows the number of candidates examined and the number passed for the years 1931 to 1938 inclusive.

MINES DEPARTMENT: RESULTS OF EXAMINATIONS, 1931 TO 1938.

Examination.		1931.	1932.	1933.	1934.	1935.	1936.	1937.	1938.
Mine Managers	Examined...	61	50	72	138	172	157	177	233
	Passed.....	20	24	29	36	44	25	29	37
Mine Overseers	Examined...	175	175	196	324	352	534	646	758
	Passed.....	31	44	42	47	73	84	127	194
Mine Surveyors	Examined...	110	101	110	151	164	200	239	279
	Passed.....	10	14	25	31	33	29	33	36
Assayers	Examined...	18	19	17	13	14	18	13	23
	Passed.....	6	7	6	4	5	9	8	8
Mechanical Engineers	Examined...	199	244	221	245	265	269	283	317
	Passed.....	104	101	85	80	36	37	61	94
Electrical Engineers	Examined...	78	91	93	112	114	86	114	135
	Passed.....	55	53	50	59	35	10	26	54
Winding Engine Drivers	Examined...	58	74	67	198	287	336	205	183
	Passed.....	43	56	55	160	241	235	121	94
Locomotive Engine Drivers	Examined...	40	32	48	112	83	79	61	62
	Passed.....	30	27	33	89	70	68	47	41
Stationary Engine Drivers	Examined...	11	6	11	18	8	7	15	19
	Passed.....	8	3	3	12	8	4	10	17
Boiler Attendants	Examined...	11	21	45	44	25	41	54	35
	Passed.....	8	10	26	26	19	34	41	25
Permanent Blasting Certificates	Examined...	501	293	272	289	424	336	363	356
	Passed.....	467	275	261	267	297	277	295	311
Provisional Blasting Certificates	Examined...	721	673	848	955	1,513	2,394	2,259	2,289
	Passed.....	670	619	791	879	1,337	2,000	1,922	1,973

4. History and Development of the Geological Survey.—The first official geologist appointed within the area now forming the Union of South Africa was Andrew Wyley who, in 1854, was appointed by the Government of the Cape from the Geological Survey of Ireland. Some years previous to this, Sir Roderick Murchison had suggested to the British Government the formation of a Geological Survey of the Cape Colony and had urged the ability of Andrew Geddes Bain, the "father of South African geology", then a road engineer in the Government Service, to occupy the post of Government Geologist.

Mr. Wyley seems to have been employed for about four years in all; particulars of his work appeared only in reports, laid before Parliament, which dealt with the Maitland mines near Port Elizabeth, a gold discovery at Smithfield, the Stormberg coalfield, the copper fields of Namaqualand, and a more general account of the geology of the Colony, entitled *Notes of a Journey in Two Directions Across the Colony.*

In 1874 the Government of Griqualand West appointed Mr. G. W. Stow to undertake geological investigations for a period of six months, as a result of which some valuable maps and sections were produced. The Volksraad of the Orange Free State employed the same geologist in 1877 and 1878, and during this period he reported favourably on certain coal seams which to-day fall within the Verceniging coalfield.

In 1871 and 1872 Mr. E. J. Dunn made a journey through Namaqualand for the Cape Government with the object of prospecting for gold, and in 1872 he went on another gold prospecting expedition, this time towards Port Elizabeth and to the Stormberg coalfields. His reports were published by the Government. A further report on work done on the Stormberg fields in 1876-77 was published in 1878. Reports on work accomplished by Mr. Dunn were also published by the Government in 1883 and 1886. In 1886 Mr. Dunn drew the attention of the Cape Government to the necessity for a systematic geological survey of the country: but ten years passed before his suggestion was acted upon. During this time several reports on mineral occurrences were written for the Cape Government by various geologists, but no permanent survey was in being.

The first step towards systematic geological survey in Africa south of the Equator was taken at the Cape, where a Geological Commission was constituted, which was instructed "to organize, control and direct the work of Geological Exploration and Survey", and which appointed in 1896 a part-time Director and two field geologists. The Commission concentrated its efforts on the scientific elucidation of the geology of the Cape Colony, without allowing itself to be drawn away into economic questions, and its scientific staff, never more than three in

number, maintained a steady output of maps and geological descriptions of a very high standard. In 1912 the geological staff of two was amalgamated with the staff of the Transvaal Geological Survey to form the Geological Survey of the Union.

In the Transvaal, Dr. G. A. F. Molengraaff was appointed State Geologist of the Republic in 1897 and continued as such until the outbreak of war in 1899. He issued two valuable annual reports. After peace had been declared, systematic geological work was recommenced by the newly formed Geological Survey of the Transvaal, which consisted, at first of a Director and two geologists, but was subsequently augmented by the appointment of additional geologists. Annual reports and maps (with explanations) and some memoirs were issued up to the time of the formation of the Union Geological Survey.

The Natal Government appointed Mr. W. Anderson as Government Geologist from the beginning of 1899, and single-handed he carried on a geological survey of Natal and Zululand until the end of 1905. The results of his work were published in three reports, which are illustrated by maps and contain descriptions of a considerable number of fossils collected by him.

At the amalgamation of the Transvaal and Cape geological surveys in 1912, the professional and technical staff consisted of a Director, an Assistant Director, four geologists, a curator, two draughtsmen, and a laboratory assistant, and the approximate annual cost of the survey was £10,000. For some 20 years the numbers employed in the survey remained more or less constant. During recent years, however, the policy of the Government with regard to mineral development has resulted in a very noticeable expansion both in the sphere of activities of the Geological Survey and in the numbers of its personnel. At present, there is allotted to the Survey a professional and technical staff of 51, and the estimated expenditure for the financial year 1939-40 will be approximately £42,600.

The results of the work of the Survey are made known to the public in the form of memoirs, special publications, bulletins, and geological sheet maps accompanied by explanations. For mapping purposes, the Union has been divided into 255 sheets, most of them covering one degree in longitude by half a degree in latitude, while South West Africa (which for geological survey purposes is under the control of the Union survey) is divided into 160 such sheets. Of the Union sheets, 89 have been surveyed in varying degrees of detail, and the maps of about 50 have been published in one form or another. In South West Africa 16 sheets only have been so far surveyed. Attention has been largely devoted to those areas which are the more likely to prove of mineral economic value.

During the last few years, aerial photography and various methods of geophysical investigation have been used as accessories to ordinary geological methods of survey, and there has been a great expansion in the use of such methods in the search for underground water reserves.

§ 2. The Transvaal Chamber of Mines and its Subsidiary Organizations and Associated Institutions.

1. **General.**—In September of the year 1886, the Witwatersrand Gold Fields were proclaimed as public diggings. Shortly after, a Diggers' Committee was formed under the old *Gold Law*. In 1887 the Chamber of Mines was formed with the following objects:—

"To collect, arrange and from time to time publish information connected with the mining industries of the Transvaal, and particularly of the Witwatersrand Gold Fields, and to watch over and promote those industries generally; to arrange for scientific and technical papers to be read before members; and to confer with the Diggers' Committee on matters of interest."

The survival of anything more definitely corresponding to a Memorandum or Articles of Association cannot be traced, but even as early as April, 1888, the Secretary had to deal with the most persistent of the many popular delusions in connexion with the Chamber. The public then, as in many cases now, were convinced that the personnel of the Chamber, from the President of the day down to the junior clerk, knew all about share prices, if, indeed, they were not responsible for them. A letter from the Secretary of that day to a foreign correspondent runs as follows:—

"They (i.e., the Chamber) do not act as brokers, nor do they advise investors, but are a public body, composed of the leading men on the gold fields and formed for the purpose of watching over and protecting the mining interests of the Witwatersrand. It would be beyond the bounds for which our Chamber was formed to express an opinion upon the value of any property or to recommend any special investments. There are engineers here of repute, also share brokers and general agencies to whom you can refer in such matters and who make these inquiries a matter of business."

To-day, the public in South Africa and in Europe are better informed as to the administration of the industry, and as to the functions of its various organizations, but even so there are still people who think that share market movements take place in accordance with decisions of the Chamber's committee.

Even as at the present day, public opinion was not always correctly informed as to the relation between the Mining Houses and the Chamber, or as to the responsibility of the industry through the Chamber or otherwise for events in Johannesburg. A consideration of all records now available would lead the reader to doubt whether in the past the critics of the industry made sufficient allowance for the numerical strength of the "camp followers", or appreciated their error in identifying the latter with established bodies in the industry. One of the earliest presidents of the Chamber pointed out that producers who were members of the Chamber contributed 96 per cent. of the total output. At that time there were hundreds of so-called gold mining companies in existence, most of which were on the official list of the Johannesburg Stock Exchange. Very few of these companies were members of the Chamber or had any official connexion with genuine enterprise. In most cases no work had been done on their properties, and it is doubtful whether the output suffered much by that fact.

To-day the Chamber is, in effect, a body which, through the medium of a staff headed by specialists, handles the centralized activities of the mines and deals with the problems which are common to the industry as a whole. These problems include labour matters (European and coloured); technical questions (such as those connected with Mining Regulations); parliamentary and legal matters (including legislation); health conditions on the mines (including dust-allaying and ventilation); the scrutiny of patent applications; taxation, accounting questions, and the collection of statistics.

As a convenient method of carrying out its objects, and as a further side to its activities, the Chamber acts as Secretary to certain subsidiaries, viz.:—

The Witwatersrand Native Labour Association, Limited.
The Native Recruiting Corporation, Limited.
The Rand Refinery, Limited.
By-Products, Limited.
The Chamber of Mines Steel Products, Limited.
The Chamber of Mines Building Company, Limited.

The secretarial work of the above-mentioned subsidiary companies is performed by the Chamber's Staff. The Chamber is also in close association with the Rand Mutual Assurance Co., Ltd., the Government Miners' Training Schools, the Transvaal Miners' Phthisis Sanatorium, and the South African Institute for Medical Research. Boards of directors and executive committees of all these organizations are composed of or include representatives of the same bodies of Group officials as those which supply the membership of the Chamber's principal committees. Thus the officials of mining houses and companies composing the industry are able to maintain close personal touch with matters which it would be inconvenient or impossible to handle in any other way.

The principal committee of the Chamber is the Gold Producers' Committee, consisting of the local heads of the more important mining houses associated with the Chamber. Colliery affairs are dealt with by the Collieries Committee, whilst the Executive Committee deals with certain questions of common interest and with matters of membership. Questions of importance in connexion with the work of all the subsidiary organizations referred to above are governed wholly in most cases, and partly in the others, by decisions of the Gold Producers' Committee. The Chamber thus voices the decisions of the Groups; in some cases the Chamber implements these decisions; but it must be understood that the constituent Groups govern the Chamber, and not *vice versa*.

In addition to the committees mentioned in the last paragraph, there are numerous committees and sub-committees appointed by the Gold Producers' Committee to investigate and report on particular subjects. A president and two vice-presidents of the Chamber are chosen each year at the annual meeting of members. The normal period of office is one year, although at times presidents have been re-elected. In the course of its history, the Chamber has had twenty-six separate presidents, including Sir Lionel Phillips, Sir Evelyn Wallers, Sir Percy Fitzpatrick, Sir George Farrar, and Messrs. Georges Rouliot, Hermann Eckstein, and John Martin. A study of the list of former presidents shows that the majority of men who have played leading parts in building up the industry have held the post of president of the Chamber for at least one year. The chief officials of the Chamber are the Legal Adviser, Technical Adviser, Native Labour Adviser, and two Joint Secretaries. The chief official of the Witwatersrand Native Labour Association, Ltd., and the Native Recruiting Corporation, Ltd., is the General Manager of those companies.

2. **Native Labour.**—The native labour complement required by the gold mines varies from time to time; at the end of 1938 the total requirements were estimated at 358,000, of which 309,000 were supplied at that date. The Witwatersrand Native Labour Association and the Native Recruiting Corporation, with head offices in Johannesburg, are the two organizations concerned with the supply of native labour to the industry. The demand for native labour has continued to expand and the native labour supply is now derived from four main areas: (*a*) the native territories of the Union, (*b*) the three British Protectorates, (*c*) the southern districts of the Province of Mozambique, and (*d*) certain territories north of latitude 22° S. The employment of natives from the areas north of latitude 22° S. has made encouraging progress and the statistics in regard to health and mortality are satisfactory. The cost of obtaining native labour is 1·403d. per native per shift worked.

From the central depot in Johannesburg the natives are sent to the various mines. There they live in open compounds, where strict cleanliness and decency are insisted on. They are amply fed, and well cared for when sick. Religious instruction is supported and in some cases night schools are maintained. The playing of games in the open air is encouraged, and cinema entertainments are regularly given.

The daily ration laid down by Government regulation is as follows:—24 oz. of maize meal, 6 oz. of bread, 3 oz. of beans or peas, 2 oz. of peanuts or ½ oz. of fat, 5 oz. of vegetables, ½ oz. of coffee or cocoa with sugar, and in addition 3¾ lb. of meat per week and sufficient salt.

Each mine has a well-equipped native hospital, and about 50 medical officers are employed on the Rand who devote all their time to native labourers on the mines. In addition, nine doctors are maintained at the Witwatersrand Native Labour Association central depot in Johannesburg. Sick and injured natives are sent back to their homes under special supervision. Deaths amongst mine natives from disease have dropped from 31.96 per 1,000 in 1909 to 5·02 per 1,000 in 1938.

Whilst the average earnings of native labourers employed in Witwatersrand gold mines is 2s. 2d. per shift, it is possible for a native to earn several times as much in the more specialized branches of mining on which natives are employed. In addition to their wages, native labourers are supplied with free quarters and food, medical attention, etc., estimated to cost the mining companies 1s. per shift and to be worth 1s. 6d. to 2s. 0d. to the individual if he were paid entirely in cash and maintained himself. There are facilities for transmitting money home to relatives and friends, and, under a deferred payment scheme, many natives get the bulk of their wages on arrival back at their homes.

3. **Subsidiary Organizations.**—(i) *The Witwatersrand Native Labour Association, Ltd.* (the *W.N.L.A.*), recruits labour in Portuguese East Africa, south of latitude 22 degrees South, and in certain areas north of that latitude. It employs 139 Europeans and over 970 natives for this task. It has stations, systematically placed throughout the territory, to which natives come seeking work. From these they are sent by easy stages to main camps, and eventually, by way of a central depot in Johannesburg, to the various mines. The natives undergo no fewer than three medical examinations en route. Recruitment is entirely voluntary. The Portuguese natives have worked in the mines since the inception of the industry, so that mining has become a tradition. The native goes to the mines in order to get the wherewithal to pay his lobolo or marriage portion, to pay taxes, and to buy the many things that contact with the white man has taught him to use. These natives contract to remain for twelve months, after which they may renew their contract for an additional six months. 70,000 Portuguese natives were obtained during 1938.

(ii) *The Native Recruiting Corporation, Ltd.* (*the N.R.C.*).—This Corporation obtains its natives from the Union and the British native territories of Bechuanaland south of latitude 22 degrees South, Swaziland, and Basutoland. It employs 140 officials, 599 natives, and 350 white recruiting agents for the work. The last mentioned are usually traders, who are licensed and supervised by the Government and the Corporation. During 1938 the mines obtained 216,000 natives from these areas, about one-half offering themselves for work without the assistance of recruiting agents. The average period of service is about twelve months.

(iii) *The Rand Refinery, Limited.*—One of the most important subsidiaries of the Chamber, especially in its bearing on broad financial questions rather than in its intrinsic magnitude, is the Rand Refinery. Prior to 1922, the unrefined bullion produced on the mines was shipped to Europe for treatment. Since the foundation of the refinery, the whole output of the Witwatersrand (with insignificant exceptions) has been refined at the refinery at Driehoek, Germiston. The refinery also handles an important amount of gold and silver from producers outside the Transvaal. It deals at present with approximately 12,000,000 ounces of gold per annum, which represents about one-third of the gold production of the world. Further information regarding the operations of the Rand Refinery is given in paragraph 19, § 4, of this chapter.

(iv) *By-Products, Limited.*—This company was registered on the 8th November, 1909, under the title of "Witwatersrand Co-operative Smelting Works, Ltd." One of the principal reasons for its creation was that it was regarded as a means for helping to suppress illicit gold trading. Its principal object is to engage in the smelting and other treatment of by-products obtained in South African mining.

The by-products, whilst mainly supplied by the gold mines of the Witwatersrand, are to some extent obtained from the outside districts and from Rhodesia. The plant includes various items which are not ordinarily maintained by individual mines; and the centralization of facilities for treating material which, for the most part, is obtained on individual mines in small quantities, naturally leads to considerable economy. Bullion produced at the works is forwarded to the Rand Refinery, Ltd., for refining and realization. The Company has also undertaken research work on the platinoid metals, as some of the material handled at the works contains not inconsiderable quantities of these.

(v) *The Chamber of Mines Steel Products, Ltd.*—This company was registered on the 20th November, 1936, for the purpose of taking over the whole of the plant, buildings, and undertakings of the Shoes and Dies Branch of the Witwatersrand Smelting Works, Ltd. The manufacture of battery shoes and dies was originally commenced in 1916, owing to the difficulty of importing them at that time. This war-time departure has since proved highly successful under normal conditions, and the manufacture of steel balls for tube milling has also been undertaken. During the year ended 31st December, 1938, the output amounted to 10,516 tons of shoes and dies, valued at £110,418, and 23,005 tons of steel balls, valued at £340,385.

(vi) *The Chamber of Mines Building Company, Ltd.*—This Company owns and manages the buildings in which the Chamber and its subsidiaries have their offices.

4. **Associated Institutions.**—(i) *The Government Miners' Training Schools (the G.M.T.S.).*—The idea of establishing a training school for miners originated in about 1905, when it became apparent that many young men of South African birth were showing a desire to follow the occupation of mining. The Transvaal Government of that day appointed a representative committee to inquire into and report on the advisability of establishing a State mining school. This committee reported in favour of such a course, and, after various preliminaries had been settled, the Union Government established in 1911 something in the nature of an experimental school at the Wolhuter Mine. This school fulfilled a useful purpose, and it was decided to widen the scope of the scheme, under a somewhat different organization.

In 1916, the Chamber of Mines agreed to co-operate with the Government in the matter and the G.M.T.S. was reorganized, the managerial control of the school being placed in the hands of an executive committee appointed by a board of directors, consisting of Government and Chamber representatives, with a Government nominee as chairman.

Just prior to its reorganization, the school employed two European instructors and 26 apprentices, and was quartered entirely at the Wolhuter Mine. In December, 1938, the Government Miners' Training Schools employed an instructing staff of 137 Europeans, who supervise the training of 1,383 apprentices in every branch of underground mining work on twelve mines. There are nine hostels, where 718 apprentices are housed and fed. There are three day schools which cater only for young men who live with their parents or friends, and in addition all sections of the schools provide employment for a certain number of these "living-out" apprentices.

The cost of conducting the schools is largely borne by payments by the mines for work done under the supervision of the instructors belonging to the schools in the course of training the apprentices. The deficit is met in the proportion of three-quarters by the industry itself and one-quarter by the Government. The capital cost of the school buildings is borne by the industry and the Government in the proportions of one-third and two-thirds respectively.

Before admission to the schools, lads are required to pass the examination for physical fitness conducted by the Miners' Phthisis Medical Bureau. The apprentices are paid rates based on a sliding scale sufficiently liberal to enable them to supply their ordinary needs, and to live in moderate comfort throughout the whole period of their indenture. From the beginning of 1917 to 31st December, 1938, the number of apprentices who had completed their full course and had become qualified miners was 4,478. Although the primary object of the schools is to train lads to become practical miners, many ex-apprentices have reached official positions on the mines.

In 1936 the Government and the Chamber of Mines agreed to establish a scholarship which would enable a selected apprentice each year to take the four-year course at the University of the Witwatersrand for the Degree of Bachelor of Science in Engineering in the branch of Mining and Metallurgy, Group II. In addition to this scholarship, the Chamber of Mines has agreed to assist two other selected ex-apprentices each year to take the same course.

(ii) *The Transvaal Miners' Phthisis Sanatorium.*—The Transvaal Miners' Phthisis Sanatorium was founded in 1916, and was originally intended for the reception and treatment of miners suffering from the disease known as Miners' Phthisis. The institution—to the costs of which the Government and the Gold Mines are joint contributors—is known as "Springkell Sanatorium" and is situated a few miles from Johannesburg.

Originally the majority of miners, especially the older men, who suffered from the disease were immigrants, and many of them were homeless when unable to care for themselves. As the proportion of this type became smaller, and the proportion of South African born miners larger, the demand for accommodation from miners tended to diminish. Moreover, the incidence of the disease itself has also diminished. For some seventeen years past, therefore, a number of non-miner patients suffering from tuberculosis have been admitted at the discretion of the administration of the sanatorium. As from 1st April, 1934, the institution became part of the National Tuberculosis Scheme, and provision was made for women patients. The fees for non-miner patients are, in most cases, paid or partly paid by various public authorities, the rate charged comparing favourably with the maintenance cost of patients in the larger public institutions.

At 31st December, 1938, there were 101 patients resident at Springkell, made up as follows:—

Miners	41
Non-miners—Men	42
Women...	18
	101

(iii) *South African Institute for Medical Research.**—Prior to the year 1912 the provision for carrying out laboratory investigation in connexion with the health problems and health services of the mining industry was very limited. Johannesburg was then but twenty-five years old, and, while the mining industry was well established, neither it nor the population of Johannesburg had reached that position of stability and permanence that they have since attained. Nevertheless, the special circumstances which then presented themselves to the gold mining industry, in relation to the health of the large native and, to a less extent, the European labour organization of the industry, brought the whole question of medical services prominently before the minds of the leaders of the industry. The severe mortality, more particularly from lobar pneumonia and meningitis, amongst tropical native labourers, many of whom were then employed on the mines, was causing grave concern and led to investigations being set afoot under the control and advice of such eminent investigators as General Gorgas, of Panama Canal fame, and Sir Almroth Wright, of London.

Thus it was that attention became focused on the need for laboratory research, with the result that the Witwatersrand Native Labour Association, a branch of the mining industry, approached the Government with an offer to build and equip an institute for Medical Research at a cost of approximately £46,000, subject to the Government's contributing equally with the Association towards the cost of maintenance. This offer was accepted by the Government and the original buildings were completed in August, 1914, on a site of approximately six acres adjacent to the Johannesburg Hospital and the Medical School of the Witwatersrand University. The Institute was built from the design of Mr. (now Sir) Herbert Baker, F.R.I.B.A.

During the 25 years of its existence the work of the Institute has grown remarkably both in volume and variety. Additional buildings have been erected from time to time, until their total cost now amounts to over £130,000. The staff shows a commensurate increase, and equipment is liberally provided for the many activities involved. To-day the mining industry, through the Witwatersrand Native Labour Association, contributes £7,500 annually towards the maintenance of the Institute.

The work of the Institute comprises a number of different aspects of medical science and is carried out in the following departments: Bacteriological, Pathological, Serological, Parasitological, Biochemical, Entomological, Industrial Hygiene, and Medico Legal.

For a more detailed account of the activities of the Institute reference should be made to the paragraph in regard to the Institute contained in Chapter VIII of this volume.

(iv) *The Rand Mutual Assurance Company, Limited (Accident Prevention and Safety First).*—The liability of the gold mines in respect of workmen's compensation is provided for by means of a mutual insurance company.

All the Witwatersrand gold mining companies, members of the Transvaal Chambers of Mines, are members of the Rand Mutual Assurance Company, Limited, and its membership also includes a number of other mining companies in the Transvaal.

The Company is run on mutual lines and not for the making of profits. Members are charged premiums for Europeans at a flat rate based on the wages paid to employees, while premiums for natives are at a fixed rate per head. The amount of the premium is fixed to produce a margin of revenue over expenditure, and the surplus, after placing an amount to reserve, is periodically returned to members as a bonus based on premiums paid by members during the Company's financial year. Administration expenses are low and amount to less than 7 per cent. of the premiums charged to members.

The mining industry does not confine itself to compensating injured workmen, but also takes an active interest in the prevention of accidents and the minimizing of the results of injuries. With these objects in view, the industry undertakes the following activities through the Rand Mutual Assurance Company, Limited:—

* See also § 5 (ii) of Chapter VIII.

(*a*) A "*Safety First*" campaign against accidents under the aegis of The Prevention of Accidents Committee, which is financed by the industry to the extent of about £8,000 per annum. This Committee is composed of Government officials, including the Government Mining Engineer, directors of the industry, mining engineers, mine managers, medical men, and other technical experts.

The gradual improvement in the accident death rate per thousand per annum of all Europeans and natives employed on the Witwatersrand Gold Mines, since the Committee commenced its activities in 1913, will be noted from the following comparative figures of the first five years from 1913 and the five years to 1938:—

Year.	Accident Death Rate per 1,000 per annum.	Year.	Accident Death Rate per 1,000 per annum.
1913	3·81	1934	2·11
1914	3·22	1935	2·02
1915	3·17	1936	2·05
1916	3·16	1937	2·12
1917	2·64	1938	1·86

The death rate of 1·86 per thousand for the year 1938 is the lowest in the history of the Rand.

(*b*) *The encouragement of instruction in first aid and rescue work on the mines.*—The organization in co-operation with the South African Red Cross Society of classes and ambulance competitions for both European and native mine employees; assistance is given by the Prevention of Accidents Committee and for some years new records have been made in the numbers of those attending classes and taking part in competitions. In 1936 a new elementary practical first aid course was started, and up to 31st December, 1938, nearly 8,000 white mine employees had successfully passed their examinations, this being in addition to those who passed the Society's ordinary examinations for the full mining first aid course. No fewer than 26,158 natives passed a first aid examination in 1938, the total number of certificates issued to mine natives being well over 117,000 since this training was officially initiated by the South African Red Cross Society in 1922.

(*c*) *The provision of medical specialists, consultants, and special hospital and expert treatment for injured workmen.*—Claims are handled centrally by the Company's officials on behalf of its members. They are carefully and sympathetically considered and reported upon by the company's Medical Department which deals with claimants from the point of view of giving them fair and reasonable compensation. *Ex gratia* payments are often made where the workman or his dependants are not legally entitled to recover compensation.

5. **Chamber of Mines Hospital.**—It was decided in 1935 to build and equip a Chamber of Mines Hospital, particularly for the specialized treatment of serious accident cases. A site of eight acres has been acquired at Cottesloe on the town side of Auckland Park, Johannesburg, and the contract for the erection of the building was signed at the beginning of 1937. The estimated cost for building and equipment is in the neighbourhood of £250,000.

The hospital was opened on the 10th July, 1939.

6. **Witwatersrand Gold Mines Employees Provident Fund.**—The Witwatersrand Gold Mines Employees Provident Fund came into operation on the 1st January, 1934. Since its inception and up to the end of 1938 the benefits awarded have amounted to over £1,299,705. At the present time these benefits are in the form of gratuities payable on reaching the age of 60 in the case of underground men, or 63 in the case of surface men, or otherwise on certified incapacity or on death. As from 1st January, 1944, benefits will be payable in the form of pensions.

The fund was established with an initial contribution from the Gold Mining Industry of £605,925, and in addition receives a contribution from the mines of £14. 8s. 0d. per European employee per annum. During the year 1936 this amount was specially increased to £19. 4s. 0d. The total amount contributed to the fund from its inception up to the 31st December, 1938, was £3,192,419 (this includes the initial amount of £605,925). Mine employees are not required to contribute to the fund.

At 31st December, 1938, investments to the amount of £2,387,115 were held by the fund in loans to the Electricity Supply Commission, the Rand Water Board, and South African municipalities, in Union Loan Certificates, and on Fixed Deposit.

During the year 1936 the consulting actuaries completed their valuation of the fund as at 31st December, 1935. The position disclosed was so satisfactory that it was found possible to improve the benefits (*a*) by increasing the proportion of past service to be taken into account as pensionable service from 55 to 60 per cent., and (*b*) by providing for varying proportions of the past service prior to breaks in past service being taken into account in determining pensionable service.

7. **Witwatersrand Gold Mines Employees Savings Fund.**—In April, 1938, the mines decided to establish this Fund under the aegis of the Witwatersrand Gold Mines Employees Provident Fund. Payments are made by the mines at the rate of 5s. per European employee per week, and the amount to the credit of each employee may be withdrawn from time to time under stipulated conditions.

8. **Holiday Allowance to Mine Employees.**—In 1934 it was decided to introduce a system of cash grants to mine employees on the occasion of their annual leave, in order to enable them to make the best use of such leave. The arrangement formed part of an agreement with the trade unions, resulting from a request from the latter to share in the increased prosperity of the gold mining industry, and was partly in consideration of the fact that the South African Railways Administration found it impossible to extend the excursion fare system to the whole year, whilst on the other hand leave to mine employees cannot always be granted in particular months. The allowance has been increased since its original introduction, and now stands at £4. 3s. 4d. per holiday week, with a maximum of £15. Junior employees receive a reduced rate allowance.

9. **Medical Benefit Allowance.**—The mining companies arranged from 1st October, 1936, to relieve their employees of the cost of medical benefits by paying to each employee an amount at the rate of £7. 10s. per annum, which is equal to 12s. 6d. per month of service per European employee. A reduced allowance was granted to juniors. The medical benefits continue to be arranged by the Mine Medical Benefit Societies.

§ 3. Mineral Production.

1. **Value of Mineral Production.**—The table hereunder gives the total value of certain minerals produced from the earliest dates of existing records. The value of gold is calculated at the standard rate of £4·24773 per fine ounce, except where the gold premium is stated to be included.

The gold premium during the period 24th July, 1919, to the end of 1924 was valued at £32,740,264; at £668,798 in December, 1932; at £21,903,301 in 1933; at £27,795,410 in 1934; at £30,767,825 in 1935; at £31,342,025 in 1936; at £32,711,300 in 1937; and at £35,011,312 in 1938. Copper and tin are valued on the estimated pure metal contained in shipments according to the average current prices in London.

VALUE OF PRODUCTION OF MINERALS UP TO 31st DECEMBER, 1937 AND 1938.

Classification.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Union.
1937.	£	£	£	£	£
Gold*	22,004	93,833	1,570,851,142	23,952	1,570,990,931
Diamonds	229,500,990	—	62,004,641	32,770,015	324,275,646
Coal	2,048,227	42,090,744	58,308,127	8,044,264	111,091,362
Copper	21,015,122	389	8,842,938	—	29,858,449
Tin	68,982	—	7,371,145	—	7,440,127
Silver	2	190	4,478,836	29	4,479,057
Asbestos	1,895,315	5,049	2,873,781	—	4,774,145
Other Minerals	1,436,448	167,321	6,976,268	—	8,580,037
TOTAL £	255,987,090	42,957,526	1,721,706,878	40,838,260	2,061,489,754
1938.	£	£	£	£	£
Gold*	22,004	93,884	1,657,520,640	24,026	1,657,660,554
Diamonds	232,553,417	—	62,249,034	32,969,438	327,771,889
Coal	2,049,993	44,197,781	61,154,541	8,418,470	115,820,785
Copper	21,015,122	389	9,307,404	—	30,322,915
Tin	70,335	—	7,467,900	—	7,538,235
Silver	2	190	4,578,510	29	4,578,731
Asbestos	2,035,101	7,339	3,155,783	—	5,198,223
Other Minerals	2,032,484	187,312	7,722,553	—	9,942,349
TOTAL £	259,778,458	44,486,895	1,813,156,365	41,411,963	2,158,833,681

* Includes gold premium.

Sundry other minerals quarried, such as shale, stone, lime, flint, verdite, ılt, etc., are not included in the above table, as full information concerning ıem is not available.

2. **Details of Mineral Production.**—The total quantity and value of the ıineral production are given hereunder (i) for a period of years and (ii) for ıe latest year, classified according to the various minerals produced in each rovince.

(i) MINERAL PRODUCTION, UNION, 1932 TO 1938.

Classification.	1932.	1933.	1934.	1935.	1936.	1937.	1938.
(a) Quantity.							
rsenic.....ton	5	—	—	—	—	—	—
sbestos..... „	12,070	15,886	17,594	22,708	25,237	23,069	22,282
eryl (Emerald) Crystals.....carat	8,085	14,764	*	*	*	*	*
smuth.....lb.	—	—	—	612	—	526	7,498
ırome Ore.....ton	23,322	28,637	50,091	107,550	107,198	186,379	128,899
al..... „	10,649,651	11,528,161	13,116,546	14,607,604	15,996,376	16,718,234	17,536,230
ke..... „	59,301	98,864	67,522	64,938	86,893	129,490	179,630
ppper..... „	11,068	9,471	9,968	12,084	12,196	13,920	14,683
ırundum..... „	362	1,304	3,202	4,775	4,851	2,466	1,540
iamonds, met. car.	793,283	506,553	440,313	676,722	623,923	1,030,434	1,238,608
luorspar.....ton	1,452	491	1,535	2,155	2,074	3,348	5,207
old.....fine oz.	11,558,532	11,013,712	10,479,857	10,773,991	11,336,214	11,734,575	12,161,392
raphite.....ton	54	65	70	73	65	69	59
ypsum..... „	7,841	13,017	25,680	23,709	35,232	36,582	42,824
on Ore..... „	31,939	66,205	252,325	335,157	401,565	509,016	557,015
on Pyrites..... „	3,788	4,030	17,380	27,633	27,013	31,873	34,191
aolin..... „	—	—	413	254	385	462	628
ieselguhr..... „	—	—	—	—	107	166	171
ead..... „	100	123	97	7	9	96	78
ime and Lime-stone†..... „	—	—	—	—	1,655,104	2,059,393	2,157,573
agnesite..... „	1,369	1,707	1,838	1,620	1,910	1,829	2,660
anganese Ore.. „	3,435	31,051	72,812	99,001	236,861	557,210	422,757
ica..... „	276	605	306	213	378	1,529	907
ineral Fertilizers„	7,140	10,429	9,429	6,964	10,605†	8,980†	15,635†
ineral Paints.. „	2,113	4,202	5,997	4,979	6,848	5,834	6,002
smiridium..fine oz.	4,998	7,618	5,845	5,278	5,371	5,667	5,884
latinum.....oz.	7,086	27,759	22,889	31,338	29,045	30,125	38,862
lver.....fine oz.	1,120,668	1,065,011	1,002,203	1,042,203	1,075,625	1,100,641	1,135,374
oda.....ton	2,674	2,817	2,661	2,078	2,264	2,319	2,275
ulph.ofAmmonia „	250	42	—	—	—	—	—
alc..... „	277	299	240	312	412	296	377
antalite..... „	—	—	—	6	7	1	—
ar.....gall.	185,918	115,232	268,575	386,990	179,000	134,862	267,121
in.....ton	963	1,241	975	997	1,065	955	1,156
ungsten Ores.. „	—	—	—	9	21	36	111

* Not available. † Agricultural lime. ‡ See note † in table (b).

(b) Value.

	£	£	£	£	£	£	£
rsenic.....	71	—	—	—	—	—	—
sbestos.....	116,401	197,120	203,033	226,167	337,229	430,761	424,078
Beryl (Emerald) Crystals.....	2,932	4,220	10,608	11,177§	6,120§	10,838	8,601
Bismuth.....	—	—	—	53	—	40	707
Chrome Ore.....	34,776	51,839	102,456	174,859	182,909	344,037	239,888
Coal.....	2,733,382	2,918,373	3,154,195	3,539,796	3,949,736	4,205,836	4,729,423
Coke.....	58,156	92,620	63,216	64,541	84,069	135,342	201,582
Copper.....	254,324	293,240	275,305	324,910	385,571	610,102	464,466
Corundum.....	2,621	9,531	23,844	36,552	38,240	18,817	12,454
Diamonds.....	1,679,600	1,560,404	1,437,591	2,171,207	2,125,216	3,444,678	3,496,243
Fluorspar.....	3,262	1,003	2,386	3,167	4,108	6,230	12,705
Gold‡.....	49,097,523	46,783,276	44,515,603	45,765,005	48,153,177	49,845,304	51,658,311
Graphite.....	1,566	1,960	2,150	2,077	1,858	1,932	1,697
Gypsum.....	6,272	10,108	19,786	18,665	28,161	30,780	37,024
Iron Ore.....	11,811	20,781	97,729	144,988	94,129	118,559	134,551
Iron Pyrites.....	5,244	6,579	19,226	29,056	28,456	32,707	39,194
Kaolin.....	—	—	703	313	448	533	858
Kieselguhr.....	—	—	—	—	171	266	279
Lead.....	908	1,006	786	58	54	831	865
Lime and Limestone†	—	—	—	—	733,280	790,922	802,663
Magnesite.....	2,707	3,389	3,767	3,336	3,885	3,692	5,449

† Particulars from 1934–35 regarding the following are included in tables given in Chapter XXIII (Manufacturing Industries) :—Lime, salt, and miscellaneous articles (bricks, cement, etc.). Since 1936 particulars of lime have been collected by the Mines Department as well, and are shown above.
‡ At standard value of £4·24773 per fine oz.
§ Includes beryl (non-precious) to the value of £421 and £38 in 1935 and 1936 respectively.

(i) MINERAL PRODUCTION, UNION, 1932 TO 1938—(*continued*).

Classification.	1932.	1933.	1934.	1935.	1936.	1937.	1938.
(b) Value—(*continued*).							
Manganese Ore.....	£ 6,544	£ 20,970	£ 83,851	£ 127,969	£ 259,461	£ 603,623	£ 560,602
Mica.....	521	723	481	286	1,098	4,180	2,697
Mineral Fertilizers...	6,094	6,988	4,194	3,071	9,474‡	7,263‡	12,462‡
Mineral Paints.....	6,563	15,445	16,396	16,950	24,806	22,115	21,809
Natural Gas (CO_2)..	1,260	1,283	1,526	1,703	1,851	2,533	2,610
Osmiridium.....	39,936	40,500	27,072	24,460	28,445	37,254	36,523
Platinum.....	42,352	168,105	139,516	179,697	176,292	237,663	223,776
Silver.....	65,830	86,854	95,687	135,903	97,051	99,463	99,674
Soda.....	31,809	34,590	34,353	26,406	23,260	29,500	29,305
Sulph. of Ammonia.	1,563	234	—	—	—	—	—
Talc.....	1,911	2,141	1,655	2,278	2,679	2,238	2,558
Tantalite.....	—	—	—	1,830	1,744	221	45
Tar.....	8,748	5,143	9,316	12,522	6,127	4,408	5,242
Tin.....	63,228	135,557	135,773	130,892	114,516	118,226	98,103
Tungsten Ores.....	—	—	—	750	1,836	9,673	16,786
Other Coal By-products.....	9,179	10,165	10,806	9,554	10,288	8,470	9,567
Other Products (mostly Quarry)..	64,525	50,396	81,630	112,527	253,120§	361,075§	385,417§
Total†.....£	54,361,628	52,534,543	50,574,640	53,302,785	57,174,765	61,580,202	63,778,219

† Particulars from 1934–35 regarding the following are included in tables given in Chapter XXIII (Manufacturing Industries) :—Lime, salt, and miscellaneous articles (bricks, cement, etc.). Since 1936 particulars of lime have been collected by the Mines Department as well, and are shown above.
‡ Agricultural lime.
§ Increase due to inclusion of shale used in cement, whinstone, dwyka conglomerate, etc., not available prior to 1936.

(ii) MINERAL PRODUCTION, PROVINCES, 1938.

Classification.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Union.
(a) Quantity.					
Agricultural Lime.....ton	9,929	—	5,442	264	15,635
Asbestos..... „	5,333	175	16,774	—	22,282
Beryl (Emerald) Crystals..carat	—	—	*	—	*
Bismuth.....lb.	7,108	—	390	—	7,498
Chrome Ore.....ton	—	—	128,899	—	128,899
Coal..... „	3,108	4,447,980	11,518,304	1,566,838	17,536,230
Coke..... „	—	179,630	—	—	179,630
Copper—Sales and Shipments „	—	—	14,683	—	14,683
Corundum..... „	—	—	1,540	—	1,540
Diamonds.....metric carat	1,009,478	—	114,162	114,968	1,238,608
Fluorspar.....ton	—	—	5,207	—	5,207
Gold.....fine oz.	—	7	12,161,375	10	12,161,392
Graphite.....ton	—	—	59	—	59
Gypsum..... „	8,110	—	—	34,714	42,824
Iron Ore..... „	—	37,225	519,790	—	557,015
Iron Pyrites..... „	—	—	34,191	—	34,191
Kaolin..... „	—	217	411	—	628
Kieselguhr..... „	—	—	171	—	* 171
Lead..... „	—	—	78	—	78
Lime and Limestone..... „	566,437	626	1,155,951	434,559	2,157,573
Magnesite..... „	—	—	2,660	—	2,660
Manganese Ore..... „	421,693	—	1,064	—	422,757
Mica..... „	—	—	907	—	907
Mineral Paints..... „	5,301	643	58	—	6,002
Osmiridium.....fine oz.	—	—	5,884	—	5,884
Platinum (Shipped).....oz.	—	—	38,862	—	38,862
Silver.....fine oz.	—	1	1,135,373	—	1,135,374
Soda.....ton	—	—	2,275	—	2,275
Sulphate of Ammonia..... „	—	—	—	—	—
Talc..... „	—	—	377	—	377
Tantalite.....lb.	566	—	104	—	670
Tar.....gall.	—	267,121	—	—	267,121
Tin (Shipped).....ton	14	—	1,142	—	1,156
Tungsten Ores..... „	111	—	—	—	111

* Caratage not available.

(ii) MINERAL PRODUCTION, PROVINCES, 1938—(*continued*).

Classification.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Union.
			(*b*) VALUE.		
	£	£	£	£	£
Agricultural Lime	6,117	—	6,114	231	12,462
Asbestos	139,786	2,290	282,002	—	424,078
Beryl (Emerald) Crystals	—	—	8,601	—	8,601
Bismuth	700	—	7	—	707
Chrome Ore	—	—	239,888	—	239,888
Coal	1,766	1,507,037	2,846,414	374,206	4,729,423
Coke	—	201,582	—	—	201,582
Copper—Sales and Shipments	—	—	464,466	—	464,466
Corundum	—	—	12,454	—	12,454
Diamonds	3,052,427	—	244,393	199,423	3,496,243
Fluorspar	—	—	12,705	—	12,705
Gold*	—	30	51,658,237	44	51,658,311
Graphite	—	—	1,697	—	1,697
Gypsum	6,556	—	—	30,468	37,024
Iron Ore	—	13,776	120,775	—	134,551
Iron Pyrites	—	—	39,194	—	39,194
Kaolin	—	380	478	—	858
Kieselguhr	—	—	279	—	279
Lead	—	—	865	—	865
Lime and Limestone	461,924	1,344	267,090	71,405	802,663
Magnesite	—	—	5,449	—	5,449
Manganese Ore	559,474	—	1,128	—	560,602
Mica	—	—	2,697	—	2,697
Mineral Paints	18,346	3,225	238	—	21,809
Natural Gas (CO_2)	—	2,610	—	—	2,610
Osmiridium	—	—	36,523	—	36,523
Platinum (Shipped)	—	—	223,776	—	223,776
Silver	—	—	99,674	—	99,674
Soda	—	—	29,305	—	29,305
Sulphate of Ammonia	—	—	—	—	—
Talc	—	—	2,558	—	2,558
Tantalite	26	—	19	—	45
Tar	—	5,242	—	—	5,242
Tin (Shipped)	1,353	—	96,755	—	98,108
Tungsten Ores	16,786	—	—	—	16,786
Other Coal By-products	—	9,567	—	—	9,567
Other Products (mostly Quarry)	136,526	110,928	129,661	8,302	385,417
TOTAL.....£	4,401,787	1,858,011	56,834,342	684,079	63,778,219

* At standard value of £4·24773 per fine oz.

3. Wages Earned in Mining.—The salaries and wages earned by European and other employees of mining and allied concerns during 1938 amounted to £33,635,110, distributed as shown in table (i) hereunder. Wages earned in salt works and miscellaneous factories are not included in table (i). Earnings on alluvial diamond diggings cannot be ascertained with any degree of accuracy and are therefore excluded. Table (ii) shows in comparative form the earnings from 1911, and in table (iii) the amounts paid out in salaries and wages for a period of years are analysed according to provinces and the race of the employees. In table (iv) are given particulars for a series of years of the aggregate and average earnings and payments to European employees on the Witwatersrand gold mines. These figures are calculated from the average number of persons actually in service, and thus represent the average earnings of a person assumed to have been employed the whole year, which is not generally the case; consequently the actual average annual earnings of each individual who finds employment on the mines must necessarily be less.

(i) SALARIES AND WAGES OF EMPLOYEES ON MINES AND IN ALLIED CONCERNS, 1938.

Province.	Gold Concerns.			Diamond Mines.	Coal Mines and By-products.	Other Mines.	Miscellaneous Works.†	Total.
	Large Mines.	Small Mines and Alluvial Diggings.	Metallurgical Works and Tailings Works.					
	£	£	£	£	£	£	£	£
CAPE OF GOOD HOPE.								
European	—	—	—	408,453	683	130,706	56,014	595,856
Asiatic	—	—	—	—	—	—	—	—
Native and Other Coloured	—	—	—	204,894	869	214,372	105,215	525,350
TOTAL.....£	—	—	—	613,347	1,552	345,078	161,229	1,121,206
NATAL.								
European	—	920	—	—	237,943	3,818	12,532	255,213
Asiatic	—	—	—	—	25,431	18	2,640	28,089
Native and Other Coloured	—	305	—	—	323,610	6,024	39,853	369,792
TOTAL.....£	—	1,225	—	—	586,984	9,860	55,025	653,094
TRANSVAAL.								
European	16,856,041	403,109	58,269	12,079	483,390	314,368	605,159	18,732,415
Asiatic	13,889	—	—	—	115	8	—	14,012
Native and Other Coloured	11,395,024*	362,553	25,964	1,160	492,801	278,257	225,715	12,781,474
TOTAL.....£	28,264,954	765,662	84,233	13,239	976,306	592,633	830,874	31,527,901
ORANGE FREE STATE.								
European	—	830	—	46,632	57,497	—	63,185	168,144
Asiatic	—	—	—	—	—	—	—	—
Native and Other Coloured	—	424	—	22,612	68,135	—	73,594	164,765
TOTAL.....£	—	1,254	—	69,244	125,632	—	136,779	332,909
UNION.....£	28,264,954	768,141	84,233	695,830	1,690,474	947,571	1,183,907	33,635,110
Percentage of Total	86·6			2·1	5·0	2·8	3·5	100·0

* Includes £24,377 paid for convict labour on the Witwatersrand.
† Includes power supply companies and quarries.

(ii) SALARIES AND WAGES OF EMPLOYEES ON MINES AND IN ALLIED CONCERNS, 1911 TO 1938.

Year.	Gold Mines and Allied Concerns.	Diamond Mines.	Coal Mines.	Other Mines.	Miscellaneous Works.*	Total.
	£	£	£	£	£	£
1911	14,333,448	2,789,589	842,190	302,271	499,849	18,817,347
1915	13,655,373	352,336	1,001,315	359,031	511,620	15,879,675
1920	17,463,281	2,852,701	1,800,510	402,282	415,201	22,933,975
1925	13,918,548	1,528,691	1,671,304	473,492	415,953	18,007,988
1930	15,726,173	1,681,807	1,522,184	821,789	470,657	20,222,610
1934	20,238,423	274,663	1,224,211	443,412	504,440	22,685,149
1935	23,091,381	335,122	1,387,211	504,284	559,916	25,877,914
1936	25,704,865	449,349	1,504,548	613,516	905,801	29,178,079
1937	27,327,302	668,552	1,606,643	781,857	1,125,500	31,509,854
1938	29,117,328	695,830	1,690,474	947,571	1,183,907	33,635,110

* Brick, cement, and pottery works are included up to 1917, and lime and salt works up to 1918. Thereafter figures relative to these are to be found in Chapter XXIII. From 1936 figures given above again include particulars relative to lime works.

(iii) SALARIES AND WAGES OF EMPLOYEES ON MINES AND IN ALLIED CONCERNS, SHOWING PROVINCE AND RACE, 1934 TO 1938.

Province and Race.	1934.	1935.	1936.	1937.	1938.
	£	£	£	£	£
CAPE OF GOOD HOPE—					
All Races	326,598	418,110	679,952	1,002,780	1,121,206
NATAL—					
All Races	445,887	513,538	584,527	593,551	653,094
TRANSVAAL—					
All Races	21,768,383	24,798,006	27,684,606	29,902,864	31,527,701
ORANGE FREE STATE—					
All Races	144,281	148,260	228,994	310,659	282,809
UNION—					
European	12,911,537	14,866,727	16,694,821	18,511,486	19,751,425
Asiatic	38,876	41,053	41,036	42,095	42,101
Native and Other Coloured	9,734,736	10,970,134	12,441,322	12,956,273	13,841,251
ALL RACES.....£	22,685,149	25,877,914	29,178,079	31,509,854	33,635,110

(iv) AGGREGATE AND AVERAGE EARNINGS AND PAYMENTS TO EUROPEAN EMPLOYEES (INCLUDING STAFF), WITWATERSRAND GOLD MINES, 1911 TO 1938.

Year.	Average Number in Service.	Amount Earned.	Average Earnings per Head.	Salaries to Medical Officers.	Special Payments.‡	Total Payments.
		£	£	£	£	£
1911	24,708	8,195,304	332	31,195	—	8,226,499
1915	21,847*	7,116,481*	326*	31,692	90,531	7,238,704
1920	22,014*	11,004,927*	485*	35,422†	6,907	11,047,256
1925	19,308§	7,233,049§	375§	30,227	—	7,263,276
1930	21,735§	8,153,033§	375§	37,793	—	8,190,826
1934	27,554§	10,503,631§	381§	41,342	—	10,549,973
1935	30,759§	11,860,220§	386§	43,515	—	11,903,741
1936	33,585§	13,090,432§	390§	47,675	—	13,138,107
1937	35,846§	14,258,675§	398§	48,137	—	14,306,812
1938	37,974§	15,194,089§	400§	51,211	—	15,245,300

* Exclusive of medical officers and men on active service.
† Including special payments on behalf of men on active service.
‡ To or on behalf of men on active service.
§ Exclusive of medical officers.

4. **Average Pay per Shift.**—The average pay per shift, including allowances but excluding overtime, of European underground employees on the Witwatersrand gold mines in June, 1932 to 1938, is shown in the table hereunder:—

AVERAGE PAY PER SHIFT OF EUROPEAN UNDERGROUND MINE EMPLOYEES ON WITWATERSRAND GOLD MINES, JUNE, 1932 TO 1938.

Classification.	1932.	1933.	1934.	1935.	1936.	1937.	1938.
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Shift Bosses	30 8	30 10	30 7	30 2	30 5	30 4	30 7
Timbermen	22 11	22 6	22 9	22 9	22 5	22 6	22 9
Pipemen	21 6	21 3	21 4	21 5	21 3	21 5	21 8
Fitters	24 11	25 0	24 11	24 11	25 1	24 11	24 11
Platelayers	21 6	21 3	21 4	21 5	21 3	21 5	21 8
Skipmen and Onsetters	18 2	18 3	18 1	17 10	17 10	18 0	17 11
Trammers (excluding Contractors)	19 10	19 11	20 0	20 2	20 7	20 5	20 3
Pumpmen	21 3	20 11	21 2	20 9	20 0	19 11	19 9
Miners—Machine Stoping.....Contract..	29 3	28 11	29 8	29 11	29 11	29 9	29 11
Day's pay	21 10	21 7	21 8	21 8	22 1	21 9	21 11
Hand Stoping.....Contract..	27 3	26 3	24 3	29 7	31 0	31 1	—
Day's pay	21 2	21 3	20 9	20 8	20 2	21 1	22 10
Machine Developing.....Contract..	38 9	38 3	38 8	40 3	39 0	38 8	39 3
Day's pay	22 4	21 11	21 10	22 1	22 1	22 2	22 4
Shaft Sinkers.....Contract..	76 0	57 4	50 9	57 8	58 4	59 2	63 0
Day's pay	20 10	21 2	23 11	27 11	21 11	22 6	22 6
Engine-drivers (Winding)	25 11	25 11	26 6	26 8	26 7	26 8	26 8
Winchdrivers	20 1	20 7	15 1	15 11	17 0	18 0	18 1

5. **Labour on Mines, etc.**—The subjoined tables show, in respect of persons employed on mines and in allied concerns, the average number of employees (i) for certain years, and (ii) for 1938;—

(i) AVERAGE NUMBER OF EMPLOYEES, MINES AND ALLIED CONCERNS, 1912 TO 1938.

Year.	Gold.	Diamonds.	Coal.	Other Minerals.	Other.	Total.	Europeans.	Non-Europeans.
1912...	231,355	63,041	24,169	6,795	9,747	335,107	37,475	297,632
1915...	220,255	9,325	25,824	7,349	7,446	279,199	28,836	250,363
1920...	207,808	56,922	34,495	7,329	2,564	309,118	38,710	270,408
1925...	208,236	45,665	36,653	10,000	3,883	304,437	32,548	271,889
1930...	236,305	63,297	32,594	16,835	3,907	352,938	36,659	316,279
1934...	299,954	26,387	25,339	11,030	4,328	367,038	39,972	327,066
1935...	333,650	25,346	28,900	12,381	4,838	405,115	43,588	361,527
1936...	361,459	22,120	30,925	14,896	12,013	441,413	47,090	394,323
1937...	369,489	20,370	31,761	17,314	14,165	453,099	50,211	402,888
1938...	386,607	18,722	33,678	20,720	14,861	474,588	53,131	421,457

(ii) EMPLOYEES, MINES AND ALLIED CONCERNS, AVERAGE NUMBER AND PROPORTION, 1938.

Classification.	Number of Persons.				Proportion of Total Persons Employed.			
	European.	Asiatic.	Native and other Coloured.	Total.	European.	Asiatic.	Native and other Coloured.	Total.
					%	%	%	%
Gold	43,087	140	343,380	386,607	9·08	0·03	72·35	81·46
Diamonds	4,612	11	14,099	18,722	0·97	0·00	2·97	3·94
Coal	1,931	634	31,113	33,678	0·41	0·13	6·56	7·10
Other Minerals	1,371	—	19,349	20,720	0·29	—	4·08	4·37
Other	2,130	57	12,674	14,861	0·45	0·01	2·67	3·13
TOTAL	53,131	842	420,615	474,588	11·20	0·17	88·63	100·00

A territorial analysis of the native labourers employed on mines and works in the labour districts will be found in Chapter XI.

6. **Birthplaces of Mine Employees.**—The following tables give the number of European mine employees classified according to their country of birth. In each case the percentage of such number to the total number is also shown.

(i) BIRTHPLACES OF EUROPEAN MINE EMPLOYEES, UNION, ON 31st DECEMBER, 1912 TO 1938.*

Year.	South Africa.		Great Britain and Ireland.		Other British Possessions.		Other Countries.		Total.
	No.	%	No.	%	No.	%	No.	%	No.
1912	10,828	34·6	17,825	57·0	1,038	3·3	1,591	5·1	31,282
1915	10,797	41·0	13,491	51·3	747	2·8	1,294	4·9	26,329
1920	14,255	50·8	12,116	43·2	661	2·4	1,023	3·6	28,055
1925	14,162	55·9	9,868	39·0	549	2·2	733	2·9	25,312
1930	18,014	64·6	8,655	31·0	468	1·7	743	2·7	27,880
1934	24,502	70·5	8,682	25·0	564	1·6	996	2·9	34,744
1935	28,379	73·2	8,679	22·4	616	1·6	1,100	2·8	38,774
1936	31,708	75·1	8,562	20·3	633	1·5	1,328	3·1	42,231
1937	34,658	76·6	8,552	18·9	696	1·5	1,363	3·0	45,269
1938	37,516	78·3	8,324	17·4	730	1·5	1,343	2·8	47,913

* These figures do not include alluvial gold and diamond diggers, or persons employed in quarries, regarding whose birthplace reliable information is not available; it is, however, well known that the large majority of these are South African born.

(ii) BIRTHPLACES OF EUROPEAN MINE EMPLOYEES, PROVINCES, ON 31st DECEMBER, 1938.*

Classification.	Cape of Good Hope.		Natal.		Transvaal.		Orange Free State.		Union.	
	No.	%	No.	%	No.	%	No.	%	No.	%
South Africa.....	1,219	80·0	403	61·5	35,698	78·5	196	69·5	37,516	78·3
Great Britain and Ireland.....	258	16·9	236	36·0	7,757	17·1	73	25·9	8,324	17·4
Other British Possessions.....	10	0·7	5	0·8	710	1·6	5	1·8	730	1·5
Other Countries..	36	2·4	11	1·7	1,288	2·8	8	2·8	1,343	2·8
TOTAL.....	1,523	3·2	655	1·4	45,453	94·8	282	0·6	47,913	100·0

* Excluding alluvial gold and diamond diggers, and persons employed in quarries.

7. **Accidents and Death Rates on Mines.**—The subjoined table gives details of accidents on mines and death rates from the year 1912. Details for alluvial diamond diggings are omitted, because the relative labour figures cannot be accurately obtained.

ACCIDENTS AND DEATH RATES ON MINES, 1912 TO 1938.

Year.	Total Number of Accidents.	Fatal Accidents.	Total Deaths from Accidents during the Year.	Death-Rate per 1,000 Employees.			
				Metalliferous Mines.	Coal Mines.	Diamond Mines.	All Mines.
1912	3,027	785	987	3·65	2·11	1·48	3·22
1915	2,552	608	776	3·05	2·05	0·40	2·95
1920	3,314	550	613	2·34	2·41	0·92	2·21
1925	4,826	506	600	2·27	2·35	1·15	2·21
1930	9,070	576	749	2·38	3·62	1·53	2·46
1934	13,327	604	659	2·00	2·64	—	2·04
1935	14,415	639	861	2·08	4·88	0·38	2·28
1936	15,926	767	850	2·04	2·55	0·79	2·07
1937	15,965	682	869	2·02	2·55	1·24	2·04
1938	16,695	728	820	1·85	2·05	0·61	1·83

8. **Stores Consumed by Mines.**—Particulars are given hereunder as to the value of stores consumed by mines from 1912:—

VALUE OF STORES CONSUMED BY MINES, 1912 TO 1938.

Year.	Gold Mines.*		Diamond Mines.		Coal Mines.			Other Mineral Mines, Union.	All Mines, Union.
	Transvaal.	Union.	Cape of Good Hope.	Union.	Natal.	Transvaal.	Union.		
	£1,000.	£1,000.	£1,000.	£1,000.	£1,000.	£1,000.	£1,000.	£1,000.	£1,000.
1912.....	10,274	10,277	672	1,466	205	267	523	307	12,573
1915.....	10,902	10,906	122	139	225	333	618	343	12,006
1920.....	14,363	14,364	848	1,483	658	842	1,597	399	17,843
1925.....	13,765	13,766	387	853	598	489	1,153	464	16,236
1930.....	15,046	15,046	402	843	380	507	1,037	609	17,735
1934.....	22,096	22,121	79	88	259	496	853	435	23,497
1935.....	25,600	25,631	123	130	382	669	1,153	486	27,400
1936.....	27,091	27,097	178	192	385	730	1,206	518	29,013
1937.....	29,245	29,246	299	321	385	896	1,385	664	31,616
1938.....	31,157	31,159	338	362	481	852	1,438	782	33,741

* And allied concerns.

9. **Capital Issued by Mines.**—The capital issued by registered mining companies (i) in the Union during a period of years and (ii) in each province on the 31st December, 1937 and 1938, is shown in the following tables:—

(i) CAPITAL ISSUED BY MINES EXISTING AT 31st DECEMBER, 1912 TO 1938, UNION.

Year.	Gold Mines.		Diamond Mines.	Coal Mines.			Other Mineral Mines.	Total.
	Witwatersrand.	Other.		Natal.	Transvaal.	Other Provinces.		
	£1,000.	£1,000.	£1,000.	£1,000.	£1,000.	£1,000.	£1,000.	£1,000
1912...	60,788	10,260	9,032	2,487	3,896	1,350	3,022	90,835
1915...	57,841	6,724	7,603	2,664	3,488	1,355	3,027	82,702
1920...	58,518	7,269	8,826	3,338	4,247	1,346	4,556	88,100
1925...	46,496	4,986	8,111	3,363	4,717	1,600	6,857	76,130
1930...	38,599	4,582	8,313	3,010	4,763	1,594	9,406	70,267
1934...	47,917	13,147	7,912	2,868	4,987	1,593	7,112	85,536
1935...	49,820	20,032	7,506	2,807	5,411	1,593	6,656	93,885
1936...	52,964	21,763	7,435	2,926	5,695	1,900	6,739	99,422
1937...	54,443	28,179	7,557	2,914	5,675	1,900	7,126	107,794
1938...	57,533	28,591	7,901	2,921	5,440	2,000	7,631	112,017

(ii) CAPITAL ISSUED BY MINES EXISTING AT 31st DECEMBER, 1937 AND 1938, PROVINCES.

Classification.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Union.
1937.	£	£	£	£	£
Gold Mines.....	6,825	66,571	82,069,616	478,764	82,621,776
Diamond Mines.....	5,824,942	—	206,645	1,525,939	7,557,526
Coal Mines.....	—	2,913,751	5,674,780	1,900,000	10,488,531
Other Mines.....	1,565,008	2,400	5,559,240	—	7,126,648
TOTAL.....£	7,396,775	2,982,722	93,510,281	3,904,703	107,794,481
1938.					
Gold Mines.....	6,825	66,571	85,035,144	1,015,914	86,124,454
Diamond Mines.....	6,197,367	—	177,620	1,525,939	7,900,926
Coal Mines.....	—	2,920,751	5,439,567	2,000,000	10,360,318
Other Mines.....	1,406,027	250,771	5,974,354	—	7,631,152
TOTAL.....£	7,610,219	3,238,093	96,626,685	4,541,853	112,016,850

NOTE.—Issued capital of coal mines in the Orange Free State includes a considerable amount representing estate property, and in the Transvaal and Natal Provinces includes funds subscribed for the production of by-products.

10. **Mine Dividends Declared.**—The dividends declared by mining companies in the Union during a series of years and in each province during 1937 and 1938 are shown in the following tables:—

(i) MINE DIVIDENDS DECLARED, UNION, 1912 TO 1938.

Year.	Gold Mines.		Diamond Mines.	Coal Mines.			Other Mineral Mines.	Total.
	Witwatersrand.	Other.		Natal.	Transvaal.	Other Provinces.*		
	£1,000.	£1,000.	£1,000.	£1,000.	£1,000.	£1,000.	£1,000.	£1,000.
1912...	7,971	331	3,019	72	303	7	224	11,927
1915...	7,524	210	—	45	350	3	66	8,198
1920...	8,276	199	3,918	194	305	37	82	13,011
1925...	8,164	137	2,621	169	386	87	94	11,658
1930...	8,257	459	982	116	407	199	162	10,582
1934...	14,567	1,471	42	117	440	159	118	16 914
1935...	15,080	1,698	449	123	527	139	29	18,045
1936...	15,584	1,849	3,338	137	624	229	201	21,962
1937...	15,310	1,690	2,972	154	703	190	231	21,250
1938...	15,574	1,757	400	215	762	196	399	19,303

* From 1912 dividends shown were declared in Orange Free State; none in Cape Province.

(ii) MINE DIVIDENDS DECLARED, PROVINCES, 1937 AND 1938.

Classification.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Union.
1937.	£	£	£	£	£
Gold Mines	—	—	16,999,552	—	16,999,552
Diamond Mines	2,972,669	—	—	—	2,972,669
Coal Mines	—	154,152	702,588	190,000	1,046,740
Other Mines	72,469	360	157,975	—	230,804
TOTAL £	3,045,138	154,512	17,860,115	190,000	21,249,765
1938.					
Gold Mines	—	—	17,331,145	—	17,331,145
Diamond Mines	400,000	—	—	—	400,000
Coal Mines	—	214,817	762,195	196,000	1,173,012
Other Mines	83,170	360	315,150	—	398,680
TOTAL £	483,170	215,177	18,408,490	196,000	19,302,837

11. **Index of Stock Exchange Prices of Gold Mining Shares.**—In *Official Year Book* No. 17 and previous issues a description will be found of the origin of the index numbers of the values of the shares of 30 gold mining companies quoted on the Johannesburg Stock Exchange, as well as weekly index numbers for the period December, 1932, to June, 1933.

The prices of the shares of the following gold mining companies are included in the index:—Brakpan, City Deep, Consolidated Main Reef, Crown Mines, Daggafontein, Durban Deep, East Geduld, East Rand Proprietary Mines, Geduld, Geldenhuis Deep, Government Gold Mining Areas, Langlaagte Estates, Luipaards Vlei, Modder B, Modder Deep, Modder East, New Kleinfontein, New Modderfontein, New State Areas, Nourse Mines, Randfontein, Robinson Deep (B), Rose Deep, Simmer and Jack, Springs, Van Ryn Deep, West Rand Consolidated, West Springs, Witwatersrand, and Witwatersrand Deep. Owing to the liquidation of the Modder Deep, this company had to be excluded from the index of gold mining shares as from December, 1936.

The following table gives (*a*) the index numbers calculated on specific dates from January, 1923, to July, 1932, and (*b*) the monthly index numbers from January, 1933.

JOHANNESBURG STOCK EXCHANGE.—INDEX OF THE QUOTED VALUES OF THE SHARES OF 30 GOLD MINING COMPANIES.*

January, 1931=1000.

(*a*) Based on quotations taken on 1st January and 1st July, respectively, for years 1923 to 1932.

Year.	1923.	1924.	1925.	1926.	1927.	1928.	1929.	1930.	1931.	1932.
1st January	1145†	1191	1257	1292	1363	1387	1209	1031	1000†	998
1st July	1032	1214	1242	1321	1557	1344	1133	1003	1067	899

(*b*) Based on the averages of quotations for each month from July, 1933, to July, 1939.

Month.	1933.	1934.	1935.	1936.	1937.	1938.	1939.
January	1503‡	2256	2956	3031	3112	2644	2673
February	1847‡	2355	3029	2919	3171	2649	2651
March	1854‡	2415	3142	2954	3024	2566	2648
April	2043‡	2529	3175	3016	2871	2555	2533
May	2151‡	2607	3182	3067	2677	2601	2640
June	1922‡	2777	3116	3063	2541	2699	2697
July	2057	2700	2973	2980	2395	2714	2539
August	2267	2881	2888	3032	2571	2800	—
September	2331	2927	2829	3012	2503	2768	—
October	2234	2876	2809	3066	2549	2891	—
November	2250	2826	3105	3184	2612	2900	—
December	2217	2911	3119	3203	2673	2841	—

* Twenty-nine companies as from December, 1936.
† Monthly average.
‡ Average of four weeks.

§ 4. Gold.

1. **Historical.**—Though there is unmistakable evidence that gold was mined by the ancients to a considerable extent in the northern portion of South Africa, there is little to show that there were early workings in any portion of the Union of South Africa. On going back to ancient history, we find that southern Africa in former days was intimately connected with mining, and all through the old records mention is made of gold exports that did so much to enrich the eastern and north-eastern coast trade. The golden stories told by the old chroniclers were no doubt exaggerated, but they stimulated pioneering enterprise and caused numerous expeditions to be formed for penetrating the coast lands and getting into the rich gold-bearing interior of Monomatapa, Sofala, and other old African provinces. In former days the Portuguese were responsible for most of the exploration of the gold-bearing areas. Only the northern and eastern territories were exploited, and no gold had ever been obtained from the Witwatersrand goldfield. Vague reports were, however, current regarding the existence of gold in the Transvaal for very many years before output was reported. The following are some of the cardinal dates in connexion with gold mining in South Africa:—

1868. Carl Mauch mentioned the existence of gold near the Olifants River.
1870. Gold found in the Murchison Range.
1873. Gold found in the Lydenburg district at Pilgrims Rest and extensive alluvial gold washing continued for many years thereafter.
1882. De Kaap goldfields started.
1884. The brothers Struben commenced quartz mining on the farm *Weltevreden* on the Witwatersrand and started a five-stamp battery.
1885. The Sheba Mine discovered and Barberton founded.
1885. The first gold from the banket or conglomerate beds of the Witwatersrand panned.
1886. Johannesburg founded.
1887. The first stamp mill started working banket.
1887. Coal discovered at Boksburg.
1887. Formation of Chamber of Mines.
1890. First cyanide test works and start of the Robinson cyanide works.
1891. Chlorination works at the Robinson Mine.
1892. Extensive deep level companies formed.
1892. Opening of railway to Johannesburg via Orange Free State.
1893. Rand Victoria borehole—Reef found, depth 2,343 feet.
1895. Bezuidenhoutville borehole—Reef, 3,127 feet.
1905. Introduction of tube mills.
1911. Six-hundred-stamp mill erected at Randfontein.
1912. Successful operations on the Far East Rand attracted general attention.
1922. All-sliming process introduced.
1923. Amalgamating tables largely replaced by blanketing on the Witwatersrand.
1923. Osmiridium first won in considerable quantity on the Witwatersrand.
1932. South Africa leaves gold standard (December).
1932. Magnetometric surveying in prospecting introduced.
1935. Robinson Deep air cooling plant completed and in operation.
1936. Successful boring operations indicate large extension of milling operations on West Rand.
1936. World's deepest workings, shaft 15B, Crown Mines, 8,611 feet in December, 1936.
1937. The deepest single lift hoisting shaft in South Africa, 6,321 feet, the South Deep Shaft of the Simmer and Jack Mines, Ltd., came into operation in November, 1937.
1938. The world's deepest cored borehole put down by New Central Witwatersrand Areas, Ltd., on Gerhardminnebron was stopped at a final depth of 10,718 feet in January, 1938.

2. **Methods of Aerial Survey and Geophysical Prospecting as Applied by the Geological Survey.**—One of the chief objects of a geological survey in any country is the preparation of a series of geological maps showing areal distribution of the various rock formations and rock groups that build the surface of the country. From a geological map emerge deductions concerning

the sub-surface structure, deductions which can be strengthened or altered by an examination of the results of drilling, shaft-sinking, and other mining operations when such results are available.

The scale of such maps varies. When an area is likely to contain little or nothing of mineral economic value, the scale is small and no really detailed geological work is attempted, unless conditions are such that detailed work for pure scientific knowledge is permissible. When, however, an area is known, or is thought, to contain minerals of economic importance, mapping is done on a larger scale and greater attention is paid to details of geological structure and rock differences.

Whatever the scale on which geological mapping is done, it is essential for purposes of accuracy that reliable geographic maps of an area be available for the use of the geologist in the field, maps on which as many surface features as possible should be set down with accuracy, including relief. Without such, the field geologist has first to be his own topographer, and much of his time is wasted in doing work that is not rightly his.

The Union of South Africa is badly supplied with such maps. Over many parts of it there is a network of secondary triangulation beacons which enable the position of a point to be fixed with regard to them; and each province has its own set of divisional maps or degree sheets showing the boundaries of farms, whose corner beacons are sometimes tied on to the secondary triangulation. But these maps take no account of relief or it is only roughly indicated with no pretence to accuracy; and the almost complete absence of reliable contour maps has, until quite recently, been a serious handicap to the geologist.

Air Survey.—Photographs of the earth's surface taken from the air enable larger portions of that surface to be viewed as a whole than is possible to an observer on the ground. Moreover, taken under certain conditions, it is possible to obtain from them a perspective view of the surface relief and to compile reasonably accurate topographic maps. On these maps linear features such as stream courses, roads, and often hills and valleys produced in rock formations, are revealed in every detail, being drawn direct from the photographs.

In order to test the possibilities of utilizing air survey methods, the Geological Survey of the Union employed the Aircraft Operating Company of Africa in 1934 to photograph a small area of hilly country around Barberton. Previous to flying, a number of control points were marked on the ground by white crosses, the co-ordinates of these points on the conform system being known. A list of all known heights in the area was supplied to the contractors. The company was asked to supply the Survey with (1) a set of vertical photographic prints on a scale of approximately 1:10,000 completely covering the area, the prints to have at least 60 per cent. fore-and-aft overlap and a lateral overlap, in order that they may be examined under the stereoscope; (2) a topographic map of the area photographed, on an agreed scale, with all the features shown that were visible on the photographs—such as roads, rivers, railroads, fences, houses, etc.—in their true positions and form lines at approximately 100 ft. intervals.

Examination of the photographic prints by stereoscopic methods showed that physiographic relief was markedly visible and that it was possible to delineate certain geological features, such as outcrops, faults, direction of dip, joints, etc., with ease on a mere inspection of the photograph. It was obvious that, with a set of such photographs in the field, the geologist would be spared much of the trouble of plane-table survey, that his geological observations could be made directly on the photographs, that by a reasonable study of the prints the field-worker could very materially accelerate his rate of progress, that the transference of the geology from the photographs to a map was possible in an office, and that frequently he is enabled to delineate horizons or structures of economic importance with an accuracy not possible or only attained at the cost of much time, labour, and expense by other methods of survey; moreover, the aerial photographs afford him a true perspective of rock distribution and extent so often obscured or not apparent at first to the investigator dependent upon ground work only.

The result of this trial was so satisfactory that, during the next two years, much larger areas were photographed for the Survey by the same company, and topographic maps of the areas have been compiled. A total area of 5,503 square miles (in northern Natal, the eastern Transvaal, and the Murchison Range) has now been covered in this way and further areas will be photographed.

Hitherto, for assistance in the compilation of topographic maps, a close system of control points has been marked on the ground preparatory to flying, the marks then being visible on the photographs. Since, however, in nearly every case these points have been marked on high points in dissected country they lie above the mean level of the area under examination. Recent discussion has shown that this tends to lead to errors in mapping, and that the system of pre-flying marking is wasteful and unnecessary. In future, control points will be chosen after the photographs are prepared and ground parties from the Trigonometrical and Topographic Survey will fix such points for mapping purposes.

The areas hitherto chosen are confined to those of economic value and are all highly dissected or are so bush-covered that long-range visibility on the ground is difficult. In such types of country, the geologist working with plane-table frequently finds it impossible to locate his position relative to triangulation beacons. With air photographs, however, the position of a rock outcrop can be located readily and, in many cases, the continuation of the rock in both directions from the outcrop can be traced on the photograph without its being necessary to follow it foot by foot on the ground. After some practice, the air photographs can be used as indicators helping the geologist in his search for details of structure, and with reasonable care have proved themselves to be time-savers of great value. A notable example of this is the comparative rapidity with which the highly-dissected area carrying the important gold-bearing "reefs" of Lydenburg-Sabie has been mapped in great detail.

The Vryheid-Utrecht coalfield in northern Natal has also been treated in this manner, as well as the gold-bearing region of the Murchison Range. In both cases the value of air photographs to the geologist have been very apparent, and their use has resulted in a great saving of time and labour.

Inter-departmental arrangements are now in force under which the provision of air photographs for Geological Survey work becomes the duty of the Trigonometric and Topographic Survey office.

Geophysical Surveying.—The extensive use of magnetometric survey in the search for the extension of the beds of the Witwatersrand system in the area between Randfontein and Klerksdorp focused public attention on geophysical surveying in general as an aid to geological prospecting. The Department of Mines, through the Geological Survey, instituted in consequence a series of investigations into the application of various methods to geological problems under South African conditions. Four such methods are being tested, and certain results have been achieved.

A. *Magnetic Method.*—This method entails the measurement of local changes in the earth's magnetic field. The instrument generally used is a vertical force variometer, which measures the vertical component of the magnetic intensity. When the value of the vertical component at a station differs from the average value for the region surrounding the station, the difference is termed the magnetic anomaly at that station. Such anomalies may be due to rock masses which possess either permanent magnetism or induced magnetism due to the earth's field. The method is thus mainly used for locating masses of so-called magnetic material.

The Geological Survey has employed Vertical and Horizontal Force Variometers, which are magnetic field balances of the Lloyd-Schmidt type. With these traverses have been made across outcrops of the Lower Witwatersrand beds, in order to plot magnetic anomalies against the geological section and so institute a relationship between the nature and the value of the anomalies with the exact position of the horizons which cause them.

Where a mineral ore gives rise to variation of the magnetic intensity, the method can be used to locate bodies of such ore; and it has been so used by the Survey in investigating the nickel ores and chromite seams in the Rustenburg district and elsewhere.

The location of dykes of igneous rock under cover is also greatly assisted by magnetometric investigations; this method has been utilized as an aid in the selection of borehole sites in connexion with water supply problems, and has proved of very considerable assistance to the geologist.

B. *Gravimetric Method.*—The Eötvös torsion balance measures the rate of change in the value of the acceleration due to gravity at different points on the earth's surface. The lack of homogeneity of the earth's crust gives rise to gravity anomalies, and the local departure of equipotential surfaces from their normal or theoretical position and direction can be detected by the torsion balance.

The gravimetric method is used more particularly in elucidating concealed structural features such as faults, anticlines, and synclines. Investigations carried out by the Geological Survey have shown that the density differences in the Witwatersrand area are sufficient to enable the concealed structure of the Witwatersrand system to be mapped and, under favourable conditions, the thickness of the overlying cover of younger rocks to be calculated.

Where density differences are large enough, as in the case of sulphide-bearing pipes cutting the pyroxenites and other basic rocks of the Bushveld Complex, the presence of smaller geological structures may be located and their boundaries delineated by means of the torsion balance.

In practice, the actual field readings have to be compensated for various effects due to the shape and rotation of the earth, to the nature of the terrain and topography of the area in which observations are being made, and to special local causes. These necessitate an accurate topographic survey of the area; and since the complete observations at any one station may take several hours, a gravimetric survey is both lengthy and expensive. It is worthy of note, however, that the gravimetric is the only geophysical method for which there is a complete and exact theory.

As a substitute for the Eötvös balance when more rapid and less detailed surveys are to be made, instruments known as gravimeters have been devised and are in use.

C. *Seismic Method.*—More recently the Geological Survey has begun investigations in the Johannesburg-Pretoria area into the applicability of the seismic methods to estimating the thickness of various strata. The instrument in use is a Jones' Microid Seismograph with Zeiss Tuning-fork time marker and recorder.

The method consists in essence in measuring the time which elapses between an artificial explosion and the arrival of various types of waves at a recording station at a known distance. At an interface between two layers of rock with different velocities (i.e. velocities at which a longitudinal wave travels through the rocks) waves may be either reflected or refracted. Experiments so far have been directed towards the estimation of these velocities in different types of rock; and the determination of the velocities has shown that both the refraction and the reflection method may be used in the Witwatersrand and contiguous areas for the detection of large-scale covered geological features, and may be of great importance in calculating the thickness of the younger covering overlying the Witwatersrand beds.

D. *Electric Resistivity Method.*—The ordinary rocks and minerals that form the earth's crust offer very varying specific resistivities to the passage of an electric current. The ratio between the conductivity of a consolidated rock and that of an overlying alluvial deposit may be of the order of several thousands, while that between the conductivities of a metallic ore and of the country rock enclosing it may run into millions. A wet rock is a much better conductor than its dry equivalent and therefore, theoretically, it should be possible by measuring comparative resistance to obtain a knowledge of changes in the crust, to locate water-bearing layers, and to determine structures favourable for the accumulation of water.

Investigations into the value of the method for the location of underground water in various South African geological formations are now being made by the Geological Survey. The type of instrument in use is one based on the principles of the four-electrode method, and hitherto the main task of the Survey has been to compare the results obtained by field work on various formations with the known positions of water supplies within these formations. The results seem to justify the hope that it will be possible to indicate, with more accuracy than has been obtained by other means, sites for water-boring and to investigate the depths of sub-soil and of decomposed rock on the sites of suggested dam walls.

Detailed mathematical analysis of the principles involved still awaits completion; but, even now, the method is a scientific one, far removed from the stage of "trial and error".

3. **Witwatersrand Gold Mining.**—The Witwatersrand goldfield is located on an elevated plateau, nearly 6,000 feet above the sea. The Witwatersrand (or Ridge of White Waters) projects somewhat above the plateau, and the outcrop of the conglomerate reefs can thus in a measure be said to be the dividing watershed between the Atlantic and the Indian Ocean, the tributaries of the Vaal River draining into the Atlantic, and those of the Limpopo or the Crocodile River into the Indian Ocean.

The conglomerate beds of the Witwatersrand are composed of quartz pebbles bound together by a siliceous cement containing iron pyrites. The name "banket," which has been given to the conglomerate from its general resemblance to an almond sweetmeat with this Dutch name, refers specially to the ore taken from the oxidized zone, which in the early history of the fields was called "free milling" and was found to extend to only a limited depth. The bankets occur in a series of quartzites and shales, which are known as the Witwatersrand beds, and which constitute a formation succeeding in age the archaic schists of Barberton.

The gold contained in the conglomerate is not often visible to the naked eye, occurring almost invariably in the matrix, its existence in the pebbles having been recognized only in rare instances. There are several series of these conglomerate beds in planes more or less parallel to each other. The most common designation of them, starting from the lowest geological horizon, is as follows:—Main Reef series, Bird Reef, Kimberley series, Elsburg and Black Reefs. Gold is found as a constituent in all the banket beds included in the foregoing list, but thus far only the Main Reef series has justified extensive exploitation and even here only within certain limits.

Owing to departure from the gold standard in December, 1932, and the consequent rise in the price of gold, some of the banket beds other than the Main Reef series came within the range of profitable exploitation, and, in addition, large blocks of low grade ore, previously abandoned on the Main Reef series as unpayable, were brought into ore reserves and mined at a profit.

Improved mechanical methods and labour organization have gradually brought all the chief gold mines to a similar basis as regards both mining and metallurgy, and a very satisfactory extraction is obtained throughout the whole banket series of reefs. The success in working these large bodies of comparatively low grade ore may be assigned to the following causes:—(*a*) The adaptability of the cyanide process to the Witwatersrand ores; (*b*) the uniformity and character of the gold-bearing deposit; (*c*) cheap unskilled labour; (*d*) the proximity of coal deposits; (*e*) absence of heavy pumping charges; and (*f*) good water supply.

Actual mining on the main gold-bearing area is greatly assisted by a very strong roof, which supports all excavations made within reason, and which requires a minimum of timbering and other supports in the shallower workings. This excellent roof or hanging-wall has its limits, however, and the enormous amount of ore extracted is now having effect, causing falls, earth tremors, and subsidences, and necessitating extensive sandfilling and other precautions to save existing workings and communication ways.

4. **Recent Mining Developments.**—(i) *The Central Rand.*—One of the chief features of deep level mining is the increase in the rock temperature at depth, and a few mines have installed air-cooling plant with the object of compensating for this increase by supplying cool air to the deepest workings. The maximum depth attained up to the end of 1938 was over 8,600 feet below the surface.

Several shafts are being sunk which will be equipped to wind in a single stage from greater depths than was previously considered practicable. One has been completed and is winding from a depth of 6,321 feet in one lift.

(ii) *The East Rand Basin.*—To the east and south of the producing mines in this area fourteen companies are engaged in shaft sinking and development operations. Several new boreholes have been put down and it appears that part at least of the area lies at a shallower depth than was anticipated.

(iii) *Areas to the east of the East Rand Basin.*—A number of boreholes have been put down in an attempt to prove the existence of the Main Reef Series in the Bethal-Ermelo district.

(iv) *Extension of the West Rand.*—During the years 1898-1905 various companies had put down a series of boreholes to the south of Randfontein with the object of locating the extension of the Main Reef Series. After passing through a thickness of approximately 2,000 feet of dolomite, the drills encountered conformable beds and intersected what appeared to be a payable reef horizon. A company started shaft sinking, but the difficulties of coping with an abnormal influx of water from the dolomite were then insurmountable and operations were abandoned.

The area lay dormant for nearly 20 years until at the end of 1932 the New Consolidated Goldfields Company, as a result of geophysical and geological investigations over a large area, formed a company to take over the prospecting of this new field. Numerous boreholes were put down, and the results obtained up to the present have been considered favourable enough to warrant the flotation of the Venterspost, Libanon, Blyvooruitzicht and

Driefontein West Mines, on which two vertical shafts have been completed and four are being sunk. The large quantity of water contained in the dolomite, which the pioneers in this field were unable to cope with, has added very greatly to both the cost and the difficulties of shaft sinking, but the application of the cementation process has shown that these difficulties are no longer insurmountable.

(v) *The Klerksdorp Area.*—For many years prospectors had been puzzled by the complex nature of geological features in the Klerksdorp area, the greater portion of which is covered by dolomite and Ventersdorp lavas.

After the successful application of the magnetometric method in the determination of the magnetic horizons of the Lower Witwatersrand System in the area to the west of Randfontein, it was felt that similar methods, in conjunction with the discriminate use of boreholes, could profitably be employed in the Klerksdorp district, and a company was accordingly formed with this object in view.

During the first three years of working many disappointments were experienced by this company, but in 1936 it was rewarded by the discovery of a payable ore body which was proved to exist over a very large area. This company is now sinking two vertical shafts to exploit the discovery.

(vi) *The Ventersdorp District and the Free State.*—Owing to the successful prospecting operations in the West Rand-Klerksdorp district, great interest has been displayed in the possibilities of finding extensions of the payable reefs discovered, in the Ventersdorp district to the north, and in the Orange Free State to the south, and a number of boreholes are being sunk in these areas.

5. **Gold Production.**—(i) *Union.*—The following table shows the progressive gold production of the Union, which in 1938 contributed approximately 38·09 per cent. of the world's gold output excluding that of U.S.S.R. for which no estimate is available:—

QUANTITY OF GOLD PRODUCED IN THE UNION, 1884 TO 1938.

Year.	Witwaters-rand.	Other Transvaal Districts.	Total Transvaal.	Cape of Good Hope.	Orange Free State.	Natal.	Union of South Africa.
	Fine oz.	Fine oz.	Fine oz.	Fine oz.	Fine oz.	Fine oz.	Fine oz.
1884–1902	20,797,107	1,698,822	22,495,929	3,265*	—	3,711	22,502,905
1903.....	2,862,141	109,275	2,971,416	11	—	—	2,971,427
1904.....	3,645,700	125,263	3,770,963	33	—	—	3,770,996
1905.....	4,729,657	178,430	4,908,087	86	—	108	4,908,281
1906.....	5,568,645	224,178	5,792,823	263	—	73	5,793,159
1907.....	6,221,096	229,644	6,450,740	562	—	878	6,452,180
1908.....	6,780,757	275,509	7,056,266	392	—	442	7,057,100
1909.....	7,043,359	251,740	7,295,108	131	—	1,593	7,296,832
1910.....	7,223,448	298,660	7,527,108	94	—	4,184	7,531,386
1911.....	7,910,034	339,427	8,249,461	73	—	1,706	8,251,240
1912.....	8,731,970	375,542	9,107,512	38	—	1,242	9,108,792
1913.....	8,424,951	373,385	8,798,336	30	—	347	8,798,713
1914.....	8,034,389	359,933	8,394,322	40	—	1,706	8,396,068
1915.....	8,771,920	321,982	9,093,902	48	—	2,461	9,096,411
1916.....	8,968,270	328,348	9,296,618	31	—	315	9,296,964
1917.....	8,705,413	312,671	9,018,084	15	—	290	9,018,389
1918.....	8,194,944	223,348	8,418,292	2	—	85	8,418,379
1919.....	8,109,059	222,235	8,331,294	8	—	349	8,331,651
1920.....	7,949,084	209,142	8,158,226	19	—	210	8,158,455
1921.....	7,930,700	197,981	8,128,681	12	—	27	8,128,710
1922.....	6,797,772	211,995	7,009,767	6	—	85	7,009,858
1923.....	8,915,815	232,956	9,148,771	10	—	292	9,149,073
1924.....	9,320,276	245,642	9,574,918	3	—	119	9,575,040
1925.....	9,341,049	256,524	9,597,573	—	—	19	9,597,592
1926.....	9,656,778	297,984	9,954,762	—	—	—	9,954,762
1927†....	9,715,015	407,444	10,122,459	—	—	32	10,122,491
1928.....	9,899,895	454,262	10,354,157	—	59	48	10,354,264
1929.....	9,979,107	433,219	10,412,326	—	—	—	10,412,326
1930.....	10,241,021	475,328	10,716,349	—	—	2	10,716,351
1931.....	10,351,828	525,880	10,877,708	—	—	69	10,877,777
1932.....	10,934,618	573,240	11,557,858	—	328	346	11,558,532
1933.....	10,405,184	607,156	11,012,340	7	835	530	11,013,712
1934.....	9,845,333	633,861	10,479,194	—	582	81	10,479,857
1935.....	10,010,649	762,392	10,773,041	2	809	139	10,773,991
1936.....	10,516,236	818,856	11,335,092	—	1,026	96	11,336,214
1937.....	10,829,341	905,212	11,734,553	—	20	2	11,734,575
1938.....	11,193,426	967,940	12,161,375	—	10	7	12,161,392
TOTAL— 1884–1938	324,619,087	15,465,424	340,085,411	5,171	3,669	21,594	340,115,845

* And prior to 1884.

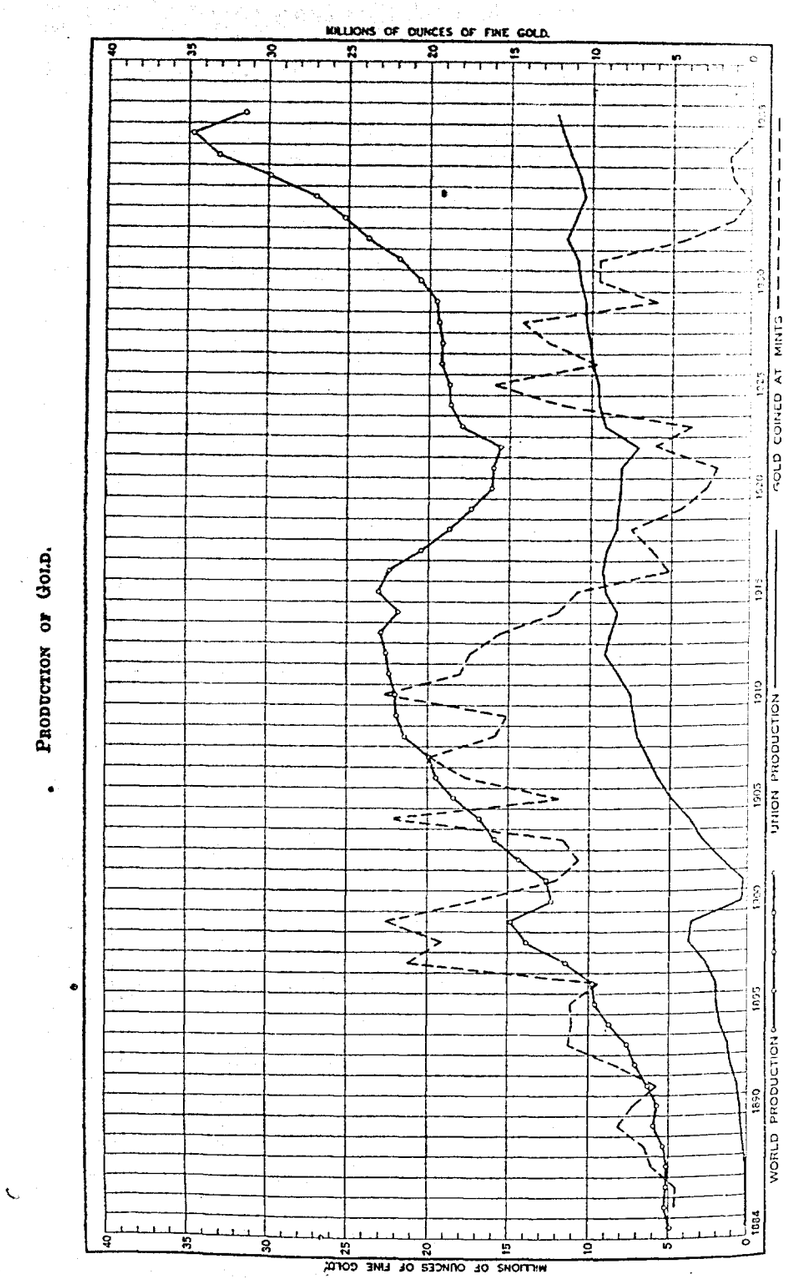
In the early days of modern mining, accurate statistics were seldom available, but the total value of gold produced in the Union of South Africa from 1868, when gold was first discovered, to the end of 1938, amounted approximately to £1,657,660,554, including the premium accruing in the years 1919 to 1924, and from December, 1932 to 1938. Over 95 per cent. of the gold was won on the Witwatersrand.

(ii) *World Production.*—Particulars of the world production of gold from 1493 are given in the following table:—

WORLD PRODUCTION OF GOLD, 1493 TO 1938.§

Year.	Union of South Africa.		United States.	Canada.	Australasia.	Mexico.	Southern Rhodesia.	Mysore and British India.	U.S.S.R.	Other Countries.	Total.
	Production.	Percentage of World's Total.									
	Fine oz.	%	Fine oz.	Fine oz.	Fine oz.	Fine oz.	Fine oz.	Fine oz.	Fine oz.	Fine oz.	Fine oz.
1493–1883	22,502,905	13·6	*	*	*	*	*	*	**	*	348,504,866
1884–1902	22,502,905	13·6	*	4,331,421	27,346,786	5,941,410	*	*	**	20,918,254	106,100,880
1903–1909	38,240,975	28·6	30,054,423	56,024,861	68,370,192	27,169,633	22,665,698	16,091,976	39,302,062	105,672,106	775,920,021‖
1910.....	7,531,386	34·2	4,657,017	493,707	3,107,140	1,205,051	609,955	518,502		3,839,422	22,022,180
1911.....	8,251,240	36·8	4,087,053	472,241	2,911,410	1,203,573	628,522	534,744		3,708,353	22,397,136
1912.....	9,108,792	40·3	4,520,719	611,885	2,636,894	1,185,187	642,807	534,822		3,363,962	22,605,068
1913.....	8,798,713	39·5	4,299,784	802,973	2,569,311	934,065	689,954	589,100	1,583,077	2,660,993	22,928,579
1914.....	9,090,411	39·4	4,572,976	773,178	2,301,162	231,628	854,480	550,432	1,733,914	2,461,700	21,875,618
1915.....	9,096,411	40·0	4,887,604	918,056	2,369,800	317,305	915,029	557,399	1,382,450	2,566,294	23,010,348
1916.....	9,296,964	41·2	4,479,051	930,495	1,998,017	372,040	930,356	542,115	1,069,885	2,801,447	22,400,370
1917.....	9,018,389	44·3	4,091,440	738,831	1,664,011	435,375	834,230	523,069	871,265	2,320,805	20,457,475
1918.....	8,418,379	45·2	3,820,784	699,681	1,490,554	813,895	931,358	485,236	554,588	2,286,819	18,701,294
1919.....	8,331,651	45·1	2,476,168	760,764	1,301,844	758,354	903,222	507,200	173,610	2,024,808	17,376,201
1920.....	8,158,455	50·6	1,499,000	706,029	1,144,021	738,472	552,498	436,719	73,945	1,783,081	16,130,273
1921.....	8,128,710	50·9	2,289,235	993,391	903,720	584,623	585,525	432,723	65,907	1,857,570	16,006,695
1922.....	7,009,858†	45·4	2,426,195	1,223,601	876,034	745,333	652,791	438,015	101,614	2,071,338	16,576,270
1923.....	9,149,073	51·4	2,446,338	1,525,380	799,066	707,223	647,791	383,098	305,425	2,183,427	17,977,807
1924.....	9,575,040	50·3	2,319,920	1,735,735	673,119	788,093	587,794	390,349	546,550	1,952,488	18,607,063
1925.....	9,597,592	50·4	2,228,616	1,754,228	652,171	772,601	581,494	393,807	702,300	2,011,042	18,734,102
1926.....	9,954,762	51·4	2,117,253	1,852,785	689,394	725,175	583,428	383,969	760,605	2,141,352	19,251,704
1927.....	10,122,491	52·1	2,144,720	1,800,592	687,528	690,102	570,112	394,068	688,492	2,018,935	19,180,231
1928.....	10,354,264	52·4	2,056,629	1,928,308	686,165	651,873	560,812	403,869	895,800	2,284,948	19,399,124
1929.....	10,412,326	53·4	2,100,395	2,107,073	621,858	670,488	547,630	329,231	1,501,388	2,345,657	19,611,940
1930.....	10,716,351	51·4	2,213,741	2,605,219	783,934	623,003	532,111	330,484	1,655,795	1,952,353	20,576,462
1931.....	10,877,777	48·7	2,919,304	3,050,581	998,267	584,487	574,135	329,632	1,938,060	2,159,490	21,882,490
1932.....	11,013,713	47·9	2,276,711	2,949,300	1,157,712	637,727	612,499	336,106	2,700,000	1,898,597	23,781,535
1933.....	10,479,857	47·4	2,741,700	2,972,143	1,257,011	601,405	691,152	322,193	3,858,089	3,624,540	25,238,317
1934.....	10,773,991	43·4	3,236,967	3,284,904	1,353,545	694,634	726,285	327,048	5,166,976	4,052,051	27,000,607
1935.....	11,336,214	37·5	3,768,065	3,748,035	1,601,106	784,323	797,019	333,371	5,600,656	5,176,781	29,009,172
1936.....	11,734,575	34·2	4,122,912	4,096,227	1,381,131	846,400	804,218	330,734	5,144,116	6,262,467	33,115,244
1937.....	12,161,391	33·8	4,243,895	4,714,903	1,575,335	923,819	813,413	321,507	*	6,753,395	34,722,780
1938†.....		38·6									31,507,708‖
TOTAL 1903–1938‡	317,612,940	40·9	123,010,553	56,024,861	68,370,192	27,169,633	22,665,698	16,091,976	39,302,062	105,672,106	775,920,021‖

* Information not available.
§ The total figures for 1929 and subsequent years have been taken from the Monthly Bulletin of the League of Nations. The figures for U.S.S.R. for 1913 to 1935 have, however, been taken from the reports of the Director of the Mint Washington U.S.A., and the column "Other Countries" has been amended in order to balance the table.
† Decrease due to labour troubles.
‡ Subject to revision.
‖ Excluding U.S.S.R. for 1938.



6. **Methods of Mining.**—The gold-bearing beds of the Witwatersrand are locally known as reefs, which strike east and west and dip south. They are beds of conglomerate occurring in a pre-Silurian sedimentary formation. At the outcrop the dip is usually steep, but the ore bodies flatten out at depth. In the early days the outcrop was developed by sinking shafts on the lowest reef. At distances apart of about 100 feet, stations were cut and development drives driven in the reef east and west, while crosscuts to the south exposed the other reefs which were similarly developed. The areas between levels were cut up into suitable blocks by winzes and raises, which when holed became faces from which to start stoping.

When it was realized that the dip at depth became flatter and that values were more or less maintained, "deep level" shafts were sunk. These were usually compound shafts, that is to say shafts sunk vertically from the surface through the reef and turned into incline shafts under the reef. Such shafts were designed to intersect the reef at about 1,000 feet below surface. The necessity for a reduction in the speed of winding at the bend and the excessive wear of the winding ropes led to the adoption of a new procedure. The next stage of development comprised the sinking of vertical shafts from the surface with sub-incline or sub-vertical shafts sunk from convenient points near the bottom of the main vertical.

The earlier main vertical shafts were sunk to a depth of about 3,000 feet. In later shafts the depth was increased until it reached about 4,500 feet which for a time was the maximum. Recently, by reason of advances in the design and control of winding engines and other factors, still deeper shafts have been sunk, and there are now several vertical shafts in course of being sunk to a projected depth of between 6,000 and 6,500 feet. One has recently been completed with a depth of 6,321 feet.

The mode of development and stoping from the deep shafts remains in principle very similar to that obtaining in the old outcrop mines, except that the distance between levels has been considerably increased. All development and stoping on the Rand is done with the aid of compressed air driven rock drills. Some of the mines obtain their air power from central compressor stations run by a power company; others obtain such power from their own plant.

Several methods or combinations of methods are used for the support of the underground workings; these methods comprise pillars, timber, pigsties or cogs, mat packs, chocks, steel, stone walls, concrete masonry, reef packs, waste packs, and sand filling. Vertical shafts are protected by pillars of reef from damage which might arise from the subsidence of surrounding ground, but sub-incline shafts are now invariably sunk a considerable distance below the reef and the reef is stoped out over them at the earliest opportunity.

Almost all of the manual work is performed by natives under the supervision of white men. The proportion of natives to whites employed by the mines is about 8 to 1.

Transport of the broken ore from the stopes to the ore-bins at shaft stations is in most cases carried out by means of haulages of various descriptions which are fed by systems of hand-tramming. On the haulages, trucks varying in size from 1 ton capacity on endless rope to 20 tons on electric locomotive haulages are used. The ore is raised to the surface in skips drawn by engines in large part propelled by electric power, which is gradually replacing steam power for this purpose. Three mines have their own power stations, and for the rest electric power is developed by 6 main stations of a power company; 3 on the Rand, 1 each at Vereeniging and Klip, some 40 miles distant from Johannesburg, and 1 at Witbank, some 80 miles east of Johannesburg. Considerable quantities of water are encountered in the mines, more particularly in the Far East and in the new Far West. The cementation process has been generally adopted for the sealing of water-bearing fissures, the quantity of water entering the mines being thereby reduced. Even after this, however, the quantity of water pumped by each mine is enormous and has necessitated the installation of high capacity pumps. These are usually of the centrifugal type and in all cases are driven by electric power.

For the outcrop mines in the early days natural ventilation was ample, but the increased depths at which mining is now carried on has necessitated the installation of large capacity ventilating fans and even the sinking of special ventilation shafts. Water is used in abundance for drilling and for wetting broken rock prior to moving it, and after blasting for mixing with air in the form of water blasts, all with a view to mitigating the dust evil. Special drinking water is always supplied underground and great care

is taken regarding sanitation. Shaft stations, haulages, and travelling ways are electrically lit. White employees and many natives use acetylene gas lamps; candles are used by other natives. The use of electric hand lamps has recently been introduced experimentally.

European and native underground employees are lowered and raised in cages or skips, the carrying capacity of which varies from 10 to 120 per trip. In the large mines workmen are transported between shaft stations and their working places in trains drawn by electric locomotives. The underground working hours are limited to 48½ hours from bank to bank per week.

Mining operations are controlled by a number of stringent regulations devised to protect the health and maintain the safety of workers. Frequent amendments to the code are made as a result of the experimental and research work of a committee appointed to investigate the possible prevention of the contamination of mine air by mine dust, the inhalation of which results in miners' phthisis, and, as a result of the investigation of accidents, to ensure safer mining practice.

European and native miners are well catered for in the way of change houses, shower baths, etc.; large recreation halls, comfortable quarters, amenities for recreation, such as bowling greens, tennis courts, football fields, and golf courses, are provided on nearly all the mines, and all at moderate monthly subscriptions or rents.

Accidents of a serious nature involving death or incapacitation for fourteen days have to be reported to the Government Mines Department, when inspectors hold searching inquiries into the occurrence. These inspectors also hold inquiries into complaints lodged with them on any matter pertaining to the safe running of the mines, and are entrusted with limited punitive powers in the case of infringement of mining regulations, provided that no death has resulted from such infringement.

Although in the early days improvements in mining methods appear to have been slow, great advances have been made since that time, and to-day the Witwatersrand gold mining industry admittedly leads all mining fields in its organization and methods. Special attention is paid to the safety of its workmen, and a generous scheme of compensation in respect of accidents is in operation.

7. Metallurgy of Gold Production.—The rock broken during mining operations in the Witwatersrand mines is not all gold-bearing, since some of the rock encasing the banket is almost always broken too. It is, therefore, necessary to "sort" or pick out some of the "waste" or non-gold-bearing rock. Although sorting is done to a certain extent underground at some mines, the major portion is done when the rock has been hoisted to the surface. To-day 11 per cent. of rock hoisted is sorted, as against 14·7 per cent. some years ago. On reaching the surface the broken rock is either transported to a central crushing and sorting station or crushed and sorted at the shaft head; the former is the more common method. Various methods of transport for the ore from the shafts to the reduction works have been adopted. At the older mines the endless rope haulage or trains of small trucks drawn by steam or electric locomotives was adopted, and is still in use; but on the larger or more modern mines 35-40 ton side discharge "hoppers" drawn by steam locomotives on a wide gauge railway are in general use.

At the crushing and sorting plant the rock is broken in crushers, washed, and sorted. The sorting is done by natives, the clean-washed broken rock passing before them on a moving surface, either a conveyor belt or a revolving table. The waste rock picked out goes to the dump and the gold-bearing rock, usually after further crushing, is then ready for treatment.

In plant incorporating stamps, the ore hoisted from the mine is tipped on to a "grizzley" and thereby separated into plus and minus 1¾-inch material. The oversize is washed and deposited on to slow-moving conveyor belts, the washings passing into the tube-milling circuit. The coarse clean rock passes along the belts, and waste rock is hand picked therefrom by natives and sent to the dump. Reef pebbles, about 6 inches in size, suitable for tube-milling are then removed and conveyed to the tube-mills, the remaining rock passing on to jaw or gyratory crushers set to about a 2-inch opening. The crushed rock therefrom joins the grizzley fines and is conveyed to the stamp mill.

In the stamp mill the ore is crushed wet to pass through screening, which varies from 3 to 155 holes to the square inch, the coarser screening being used in the more modern stamp mills. Stamps vary in weight from 1,200 to 2,000 lb. and the tonnage crushed per stamp, depending on the weight of the stamp and the screen aperture, varies from 7 to 40 tons per 24 hours. With only one or two exceptions, plate amalgamation or corduroy concentration has been entirely abandoned in stamp mills. The pulp leaving the stamp mill passes on to the tube-milling section.

Most reduction plants erected since 1918 have omitted stamps from their flow-sheets, depending solely on crushers and tube-mills for the reduction of the ore. This necessitated a finer reduction in the crusher station, which is achieved by adopting a closed circuit and making all the ore pass through a vibrating screen with square aperture not exceeding one inch in diameter before it leaves the station. This product passes direct to the tube-mills, wherein it is ground by the ore pebbles previously referred to, the tube-mills being about half full of pebbles. In recent years a mixture of 3-inch steel balls and ore pebbles has found favour as a grinding medium.

For many years the size of tube-mills on the Rand was standardized at 5 feet 6 inches in diameter by 22 feet long, but a more popular size is now 6 feet 6 inches by 20 feet. Several operating are 8 feet in diameter by 16 feet long. All tube mills are fitted with renewable liners.

In the case of stamp mill pulp, which consists of a ratio of water to solids of about six to one, it is necessary to reduce the water content of the pulp to about 30 per cent. to permit good grinding in the tube mills. This is achieved with cone classifiers or mechanical rake classifiers of the Dorr type.

Prior to 1918, the pulp leaving the tube mills passed over amalgamated copper plates whereon about 55 per cent. of the total gold in the ore was deposited. This gold amalgam was removed periodically from the plates, cleaned, and retorted. However, the possibilities of loss by theft, the increasing cases of mercurial poisoning of the workmen, and the lock-up of the gold on the plates led to the substitution of corduroy in place of plate amalgamation. The corduroy is placed on stationary tables about five feet wide and twelve feet long, and the pyritic concentrate obtained by washing the corduroy every four hours is dressed on a reciprocating table of the Wilfley type. Only the enriched product therefrom is amalgamated, the resulting amalgam being cleaned, pressed, and retorted. The retorted gold is melted and cast into bars, which are sent to the Rand Refinery. The dressing table tailing and the amalgamation residue are usually returned to the tube-milling circuit. About 50 per cent. of the total gold content of the ore plus about 5,000 ounces of osmiridium annually are recovered on the Rand from corduroy concentrates.

The out-flow from the tube-mills, having passed over the corduroy tables, is then elevated by pump to classifiers, which separate the insufficiently ground material (containing a relatively high percentage of gold and pyrites, which is returned to the tube mills) from the remainder, which flows on to the cyanide treatment section. Milling is sometimes conducted in a cyanide circuit but more usually in a water circuit.

The majority of the plants on the Rand still retain separate treatment for sand and slime, although all the latest plants grind the ore sufficiently fine to permit of treating the whole of it as slime.

Where sand treatment is incorporated, the final pulp is classified into sand and slime with cones or mechanical classifiers. The sand constitutes about 45 per cent. of the total ore and is collected in tanks of 40 to 55 feet in diameter, fitted with filter mats and capable of holding 400 to 850 tons of sand. The excess water is drained from the sand and, although in a few cases the cyanide treatment is carried out in these tanks, it is more usual to transfer the sand therefrom by conveyor belts to other similar sized tanks in which the treatment is given. Cyanide solution containing a maximum strength of ·08 per cent. NaCN is pumped on to the top of the sand charge and this solution, in percolating downwards through the sand, dissolves about 90 per cent. of the gold contained therein. The gold-bearing solution passes through the filter mat and is sent to the precipitation section. The sand is given a wash with barren solution of low cyanide strength prior to being discharged to the residue dump. About 1·7 tons of solution per ton of sand are used, and the total treatment occupies about five days.

The slime is settled in collectors of 40 to 70 feet in diameter, the clear water or solution overflowing these collectors being returned to the milling section. The settled slime, containing about 40 per cent. moisture, is sluiced out of the collectors with cyanide solution into agitators, wherein the slime is kept in suspension by means of air or centrifugal pumps for four to twelve hours, during which time about 95 per cent. of the gold in the slime is dissolved. The cyanide strength of the solution in these agitators is about ·015 per cent. NaCN and contains about ·01 per cent. CaO. The ratio of solution to solids is about 1·25 to 1.

Having dissolved the gold in the slime, the next step is to separate the gold-bearing solution from the treated slime, and this is done almost exclusively by vacuum filtration, although some of the older plants still retain the decantation method of subjecting the slime to a series of washes with barren solution and subsequent settlements. Vacuum filtration is achieved with the intermittent Butters filter or continuous rotary filters in which, by means of vacuum, the solution is drawn through a canvas cloth leaving a cake of slime thereon which, after washing with barren solution, is discharged to the slimes dam. The solution from the filters is clarified by passing through a bed of sand and is then sent to the precipitation section. In the most modern plants a continuous system of collection, treatment, and washing of the slime is carried out with Dorr thickeners, Dorr or Brown agitators, and rotary filters.

In the precipitation section, oxygen is removed from the solution by subjecting it to a vacuum before the solution is brought into contact with zinc, which precipitates the gold, leaving a barren cyanide solution for reuse. The zinc is in the form of extremely thin ribbons closely packed in extractor boxes, through which the solution percolates, or in the form of zinc dust which is added to the solution before it is sucked through canvas leaves on which the gold slime is deposited. Whichever method is used the gold slime is periodically removed, treated with sulphuric acid to remove the excess of zinc, filter pressed, and smelted. The residual zinc sulphate solution is used for underground timber preservation.

Two methods of smelting are in common use on the Rand, namely, lead smelting and crucible smelting. In the former, the gold slime is mixed with litharge, carbon, and other suitable fluxes and charged into a reverberatory furnace, from which, after about twelve hours, lead bullion containing approximately 8 per cent. gold and slag are withdrawn. The lead bullion is then treated in a cupel furnace, in which the lead and base metals are oxidized and removed, leaving the gold, which is remelted and cast into bars for dispatch to the Rand Refinery. In the crucible process, the gold slime is calcined, fluxed with borax, sand, and manganese dioxide, and smelted in clay-lined pots in a reverberatory furnace. The resulting gold buttons are collected, melted in plumbago pots, and cast into bars, which are sent to the refinery.

8. **The Barberton Goldfield.**—The Barberton goldfield lies in a strip of rugged country in the eastern Transvaal, drained by the De Kaap and Komati rivers. The characteristic ridges to be found in this field have a north-east and south-west trend and are made up of highly contorted and generally steeply inclined beds of ancient schists, shales, quartzites, and carbonate rocks of the Swaziland system. All these beds have been subjected to powerful pressure and earth movements by neighbouring granite massifs. In this disturbed area there is a vast number of fissures and magmatic intrusions in association with which gold has been located. In some of these fissures and crush-zones gold has been found in conjunction with such minerals as arsenopyrite, stibnite, etc., and there are also instances of fairly well-defined quartz reefs. Some of these occurrences have been followed to considerable depths and over comparatively large areas, but in many instances the gold has been patchy and, whilst rich at the surface, has rapidly decreased at depth, with the result that many of the discoveries have come to an early end.

Gold was first located in this area in 1882, and three years later the phenomenally rich occurrences in the Sheba valley were discovered. By 1886 these discoveries had attracted over 5,000 prospectors, as well as large sums of money from investors. During the years 1895 and 1896, the production of gold totalled 103,511 and 105,778 ounces respectively, and the Sheba mine during the years between 1886 and 1918 produced over £4,000,000 worth of gold. Although in the early stages mining was carried on successfully in this district, later, chiefly owing to the nature of the deposits and increased cost of production as depth became greater, there was a rapid decline. Subsequently, operations were carried on only in a small way by a few owners, but in 1929 one of the Rand mining groups began operations on a larger scale and has since extended its holdings.

A considerable increase in mining activity has taken place in this district as a result of the Union's departure from the gold standard and the later rise in the price of gold. Many dormant properties have been acquired and equipped by small companies and syndicates. New ore bodies have been discovered as a result of more systematic prospecting, and there is every indication that several of these properties will be in a position to continue production for a number of years. The gold production from this area amounted to 65,845 ounces in 1938.

An account of these fields will be found in Geological Survey Memoir No. 9—"The Geology of the Barberton Gold Mining District"—A. L. Hall.

9. **Pietersburg-Murchison Range and Letaba Goldfields.**—(*a*) *The Pietersburg Goldfield* consists of two small areas of country situated respectively 30 miles east and 10 miles south-east of the town of Pietersburg in the north-eastern Transvaal. The former occurrence is associated mainly with veins in the old granite, and these deposits have been worked from time to time on a small scale. The small villages of Woodbush and Haenertsburg form the centre of this area. Mining in the latter and more important area commenced in 1870 with the discovery and working of the Eersteling mine, from which large nuggets have been recovered at different times. The Eersteling mine works mainly on auriferous quartz veins, but rich, sometimes ill-defined, zones in the ancient schists of the Swaziland system have been located on many neighbouring properties. All the enterprises, however, where any considerable capital was employed were failures, and most of the production from this area has been contributed by small individual workers. The main difficulty has been the inconsistency of the pay chutes. Since 1933-34 several small mines have recommenced operations; new lodes have been discovered, and many alluvial diggers are to be found in this area. These fields are healthy at all times of the year. A revised geological description of them appears in Geological Survey Bulletin No. 12, published in 1939.

(*b*) *Murchison*-Letaba Goldfield.*—In low-lying country, 90 miles east of Pietersburg, are situated the Murchison and Letaba goldfields, which received attention shortly after the discovery of the Pietersburg area. In spite of the expenditure of large sums of money, the results obtained so far have been disappointing, chiefly owing to the erratic nature of the deposits, coupled with the metallurgical difficulties encountered in treating the ores. The Murchison Range forms a conspicuous row of hills, which follow a long narrow zone of schistose rocks enclosed on the north, south, and east by granite. In this zone are two parallel, well-defined mineralized belts about 3 miles apart. The reefs strike approximately east and west and have been traced for upwards of 30 miles. The gold in the northern belt is associated with stibnite, and both belts of reef, for the most part, dip steeply and vary in width and value in very short distances. The gold has been found either in lenticular veins, usually composed of coarsely crystalline quartz, in mineralized zones, in chlorite talc and quartz schists, or in black or burnt reefs. A detailed description of the Murchison belt, with geological map, has been published by the Geological Survey as Memoir No. 36.

The renewed interest accorded this field during 1933-34, not only by the small workers, but by larger mining houses, has been sustained, and, as a successful method for treating antimonial gold ore is stated to have been discovered, much is expected from the field. Mining activities have also extended northwards as far as the Limpopo river, where several finds have already been recorded. All these fields are now near railway lines, and the output from this area for 1938 amounted to 28,212 fine ounces of gold.

10. **Lydenburg and Pilgrims Rest.†**—This field lies in the eastern Transvaal, approximately 40 miles north of Barberton, and occupies an area of some

* "The Geology of the Murchison Range"—Geological Survey Memoir No. 6—A. L. Hall.
† "The Geology of Pilgrims Rest Gold Mining District"—Geological Survey Memoir No. 5—A. L. Hall.
"The Economic Geology of Sable and Pilgrims Rest"—Geological Survey Memoir No. 23—W. J. Wybergh.

400 square miles of country lying west of and on the Drakensberg escarpment. It is a mountainous region of great scenic beauty. In 1870, concurrently with the discovery of gold in the Pietersburg area, alluvial gold was located in this area. It is recorded that in 1875 there were no fewer than 1,500 white miners recovering alluvial gold. The sedimentary rocks of the Transvaal system outcrop here, and a number of interbedded and fairly consistent flat reefs have been located and worked with success. These reefs generally follow definite horizons and vary in width from a few inches to 3 feet and over. Many leaders separate from these reefs, and in addition fissures and blows of considerable extent have been exposed containing notable quantities of gold, together with copper and other ores. The mineralization of these reefs and fissures is most probably attributable to the igneous activity which produced the Bushveld igneous complex. For many years the greater part of this area was held by the larger mining companies, but latterly with the increase in the price of gold many additional small concerns have commenced operations, and a certain amount of alluvial gold digging is again taking place.

Two important electric power schemes operate in the district, one controlled by a private company and the other by a semi-state organization, the Electricity Supply Commission. There is an abundant supply of water, and railways have been constructed to the fields.

11. **Alluvial Gold.**—At the present date it cannot be said that there are any important alluvial gold diggings in South Africa, although a few diggers can still be found prospecting the alluvial deposits in the Pietersburg, Barberton, and Pilgrims Rest districts, for in 1938 the output of alluvial gold was only 866 fine ounces from all Transvaal districts. In 1873, and for some years following, a considerable quantity of so-called alluvial gold was won in Pilgrims Rest and Barberton districts, until the deposits were worked out and the diggers turned their attention to the gold-bearing reefs and beds. At the Duivelskantoor the sandstones of the Black Reef series contain alluvial deposits of small extent, and numerous nuggets of gold have been found in this locality. In 1898 a fifty-two ounce nugget was found on the main coach road near the Duivelskantoor, and this nugget was shown at the Paris Exhibition in 1900. The gold from these fields has apparently been derived from the dolomites and other formerly overlying rocks, which have now disappeared through erosion.

Alluvial gold recovered in the Transvaal from the date of the British occupation up to the 31st December, 1938, amounted to 52,966 ounces of fine gold. In the Cape Province from 1910 to 31st December, 1938, 296 ounces of fine gold were obtained, and in Natal, from 1910 to 31st December, 1938, 534 ounces. The total alluvial production of the Union to the end of 1938 was 53,796 ounces of fine gold.

12. **Estimates of Gold Production.**—Although estimates of future gold production were given in No. 17 and previous editions of the *Official Year Book*, the rise in the price of gold and the uncertainty as to the maintenance of this increased price, coupled with the results obtained in prospecting outside the limits of the producing Witwatersrand, all tend to stultify any previous estimates and make it impossible at the present time to hazard a guess at the limits of future production.

13. **Capital in Gold Mining Industry.**—*Witwatersrand Gold Mines.*—Taking the actual indebtedness of Witwatersrand gold mines, which includes issued capital, debentures, premiums, loans, and advances, amounting at 31st December, 1938, to £78,662,848 according to the statistics of the Government Mining Engineer, and comparing this with dividends paid, amounting to £15,573,904, a return of 19·8 per cent. is obtained for the year 1938. Similar figures for 1937 are— total indebtedness £71,380,305, and dividends £15,310,024, giving a return of 21·4 per cent. Any amounts appropriated from profits for working capital are not included in the "total indebtedness" figures quoted, as such amounts are not strictly funds received, for which the industry is responsible to make some return, but may be deemed to be included in "costs." If for the two years mentioned the amount of dividends is compared with the issued capital only, then the returns show 27·1 per cent. and 28·1 per cent. respectively. These figures are further analysed in the following table:—

WITWATERSRAND GOLD MINES—DIVIDEND-PAYING, NON-DIVIDEND PAYING, DEVELOPING, AND NOT WORKING, SHOWING CAPITAL ISSUES AND DIVIDENDS PAID, 1929 TO 1938.

Year.	Producing—Dividend Paying.				Producing—Non-Dividend Paying.		Developing.		Not Working.	
	No.	Issued Capital.	Dividends.	Rate per cent.	No.	Issued Capital.	No.	Issued Capital.	No.	Issued Capital.
		£	£			£		£		£
1929...	21	21,488,809	8,086,819	37·6	19	13,103,157	3	1,915,080	11	1,855,615
1930...	23	21,923,830	8,257,042	37·7	19	12,057,988	5	3,003,178	11	1,609,234
1931...	24	27,483,996	8,026,912	29·2	19	7,776,742	3	2,176,176	10	1,607,453
1932...	26	30,718,526	8,378,996	27·3	21	6,094,102	1	8,853	10	1,623,292
1933...	32	35,026,066	12,420,462	35·5	17	1,909,886	8	2,208,540	14	2,070,863
1934...	33	36,030,742	14,567,446	40·4	21	1,625,850	17	8,407,481	16	1,853,092
1935...	35	38,099,702	14,925,698	39·2	22	477,342	17	10,216,982	12	1,026,076
1936...	39	40,284,068	15,583,819	38·7	20	731,601	13	11,577,517	10	371,394
1937...	37	39,795,475	15,309,399	38·5	23	3,751,742	9	10,477,930	9	417,617
1938...	40	43,693,599	15,573,904*	35·6	22	6,026,123	6	6,977,240	9	836,428

* In addition to this amount, one concern declared liquidation dividends amounting to £100,000.

The following tables, showing the liabilities and assets of Transvaal gold mines since 1912, contain particulars which are relevant to the question of the capital invested in the gold-mining industry:—

(i) TRANSVAAL GOLD MINES—LIABILITIES, 1912 TO 1938.

Year.	Capital Issued.	Debentures.	Premiums.	Temporary Advances.	Sundry Creditors.	Outstanding Credit Balances.	Total.
	£1,000.	£1,000.	£1,000.	£1,000.	£1,000.	£1,000.	£1,000.
1912.....	70,562	8,690	8,171	2,642	2,522	21,474	114,061
1915.....	64,157	7,702	7,859	2,172	3,201	24,794	109,885
1920.....	65,510	5,706	7,910	2,404	5,543	30,051	117,124
1925.....	51,400	3,644	6,888	2,428	5,280	29,886	99,526
1930.....	43,012	613	7,157	1,316	6,548	34,410	93,056
1934.....	60,568	59	10,673	564	15,702	49,013	136,579
1935.....	69,326	612	13,206	752	17,276	51,776	152,948
1936.....	74,213	1,160	19,778	765	16,808	54,950	167,674
1937.....	82,070	1,106	22,711	1,850	17,072	55,697	180,506
1938.....	85,035	1,008	27,210	1,815	16,276	60,171	191,515

(ii) TRANSVAAL GOLD MINES—ASSETS, 1912 TO 1938.

Year.	Mining Property.	Shafts and Mine Development.	Equipment.	Stores, Furniture, Etc.	Investments.	Cash.	Other Assets.	Deficiency of Assets.	Total.
	£1,000.	£1,000.	£1,000.	£1,000.	£1,000.	£1,000.	£1,000.	£1,000.	£1,000.
1912..	44,431	18,429	31,110	1,120	2,410	8,760	5,242	2,559	114,061
1915..	38,363	23,718	29,227	2,021	1,627	8,244	5,048	1,637	109,885
1920..	36,364	22,521	32,929	2,954	2,935	8,821	7,346	3,254	117,124
1925..	26,726	21,387	31,907	1,565	1,270	10,553	4,607	1,511	99,526
1930..	19,395	20,950	31,503	1,541	1,600	13,443	4,070	554	93,056
1934..	21,653	25,209	38,450	2,017	4,496	32,864	11,097	793	136,579
1935..	22,781	29,247	43,652	2,446	5,966	33,162	14,944	750	152,948
1936..	23,160	34,712	48,494	2,681	4,337	37,438	15,846	1,006	167,674
1937..	24,363	40,555	53,771	3,700	5,415	36,260	15,390	1,052	180,506
1938..	23,571	46,620	59,333	3,543	6,679	34,535	16,644	590	191,515

14. **Costs and Yield of Gold Mining (Witwatersrand).**—The following table showing the number of tons milled, the yield per ton, the working costs, working profits, and dividends paid per ton milled and per fine ounce recovered from

the Witwatersrand gold mines, has been prepared from the annual reports of the Transvaal Chamber of Mines, and refers to the returns of member companies of the Chamber. Gold held in reserve, expenditure charged to capital account, interest on and redemption of debentures, and profits tax have not been taken into account in arriving at the working profits. For various reasons the working profit shown is not in all cases the exact difference between the yield as shown and the working costs as shown, but in the yearly averages given below the difference is very slight. The value of the gold premium has been included in the figures from 1919 to 1924, for a portion of the gold produced in December, 1932, and from 1933 onwards.

COSTS AND YIELD OF GOLD MINING—WITWATERSRAND, 1910 TO 1938.

Year.	Tonnage Milled.	Per Ton Milled.					Per Fine Ounce Recovered.			
		Gold Produced.		Working.		Dividends Paid.	Working.			Dividends Paid.
		Quantity.	Value.	Costs.	Profit.		Costs.	Percentage of Revenue.	Profit.	
	1,000 Tons.	dwt.	s. d.	s. d.	s. d.	s. d.	s. d.	%	s. d.	s. d.
1910.....	21,433	6·70	28 6	17 7	10 6	8 3	52 5	62·65	31 3	24 9
1915.....	28,315	6·18	26 3	17 5	8 5	5 5	56 5	67·43	27 3	17 5
1920.....	24,096	6·53	35 3	25 8	9 7	6 10	78 2	72·88	29 1	21 0
1925.....	28,303	6·54	27 11	19 2	8 9	5 9	58 7	68·59	26 10	17 8
1930.....	31,120	6·52	27 10	19 5	8 5	5 4	59 8	69·85	25 9	16 3
1934.....	39,140	5·00	34 8	19 3	15 5	7 5	76 11	55·50	61 8	19 8
1936.....	43,389	4·57	32 6	18 8	13 11	6 10	81 7	57·32	60 9	30 0
1936.....	47,267	4·41	31 0	18 6	12 5	6 7	84 0	59·80	56 6	29 10
1937.....	49,712	4·31	30 4	18 8	11 8	6 3	86 6	61·47	54 3	25 11
1938.....	52,711	4·20	30 0	18 11	11 1	5 11	90 3	63·14	52 8	23 3

15. **Disposal of Gold from Mines.**—In June, 1926, the Transvaal Chamber of Mines entered into an agreement with the South African Reserve Bank, under which the bank undertook to purchase at a fixed price for delivery from the Rand Refinery, Ltd., Germiston, all fine gold bullion that was offered to it by the producers. This agreement lapsed in December, 1932, when the Union of South Africa left the gold standard. Thereafter a provisional agreement was made by which the South African Reserve Bank marketed the gold on behalf of the producers until a final agreement was signed on 10th May, 1933. Under that agreement the South African Reserve Bank pays 100s. per fine ounce as a first instalment to the gold producers. The gold is then shipped to London and when it is sold, which must be within 28 days of the date of purchase, the net amount realized over and above 100s. per fine ounce is paid over to the gold producers.

At the fourteenth ordinary general meeting of stock holders of the South African Reserve Bank, held on the 4th July, 1934, the Governor intimated that the above procedure had been modified to the extent that the Reserve Bank had arranged to buy gold outright from the producers on delivery, instead of keeping them waiting for full payment pending the final result of the gold sales.

An account of the disposal of South African gold and the variation in price from the outbreak of the Great War to the return to the gold standard in 1925 will be found in previous issues of the *Official Year Book* (Nos. 5 to 8).

The exports of gold bullion and gold coin will be found in Chapter XXIV.

16. **Internal and External Payment of Mine Dividends, etc.**—One of the more important "invisible" items in the balance of payments of the Union of South Africa is the amount of mine dividends which is paid outside the Union. With the cordial co-operation of the secretaries of the group companies in Johannesburg and of the secretaries of other mining companies, the information is available from the second half of 1933. The results show where these amounts were actually paid. No doubt a portion of the dividends and interest paid in the Union is paid to the banking accounts of persons resident abroad, chiefly for the purpose of re-investment in the Union. A more considerable portion is paid to financial houses, which again pay a portion of their dividends abroad. As, however, those houses derive a portion of their profits from sources in the Union other than mine dividends and interest and also from sources outside the Union, their dividends cannot by any means be wholly ascribed to mine dividends. Moreover, it is possible that a portion of the amounts paid outside the Union was paid to their credit.

The following table gives the payments for gold, coal, and other mines for the years ended 31st December, 1937 and 1938:—

INTERNAL AND EXTERNAL PAYMENT OF DIVIDENDS DECLARED AND OF DEBENTURE AND LOAN INTEREST PAID BY MINING COMPANIES, 1937 AND 1938.

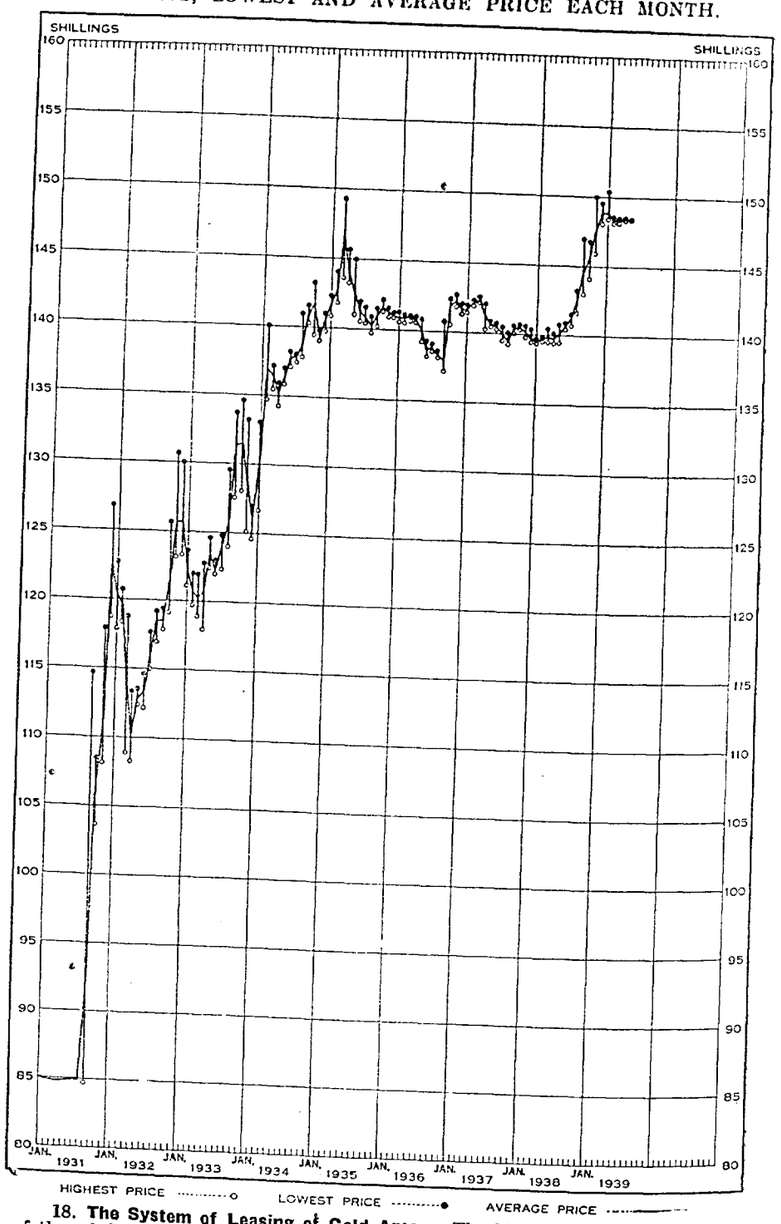
Heading.	1937.				1938.			
	Gold Mines.	Coal Mines.	Other Mines.	All Mines.	Gold Mines.	Coal Mines.	Other Mines.	All Mines.
Total Payments....£1,000	17,010	954	3,418	21,382	17,410	1,120	538	19,068
In the Union.....£1,000	6,889	679	658	8,226	7,034	804	142	7,980
Outside the Union £1,000	10,121	275	2,760	13,156	10,376	316	396	11,088
Percentage in the Union...	40·50	71·14	19·28	38·47	40·40	71·79	26·40	41·85
Percentage outside the Union.....	59·50	28·86	80·72	61·53	59·60	28·21	73·60	58·15

17. **Price of Gold in London.**—The table below gives the highest and lowest prices per fine ounce of gold in London, the dates on which these were reached, the average price during the period, the average price declared by the Transvaal Chamber of Mines, and the value of the £1 sterling in terms of gold for the last quarter of 1931, for 1932 to 1938, and monthly for 1938 to July, 1939.

VARIATIONS IN THE PRICE OF GOLD IN LONDON, THE AVERAGE PRICE OF GOLD AS DECLARED BY THE TRANSVAAL CHAMBER OF MINES, AND THE VALUE OF £1 STERLING IN TERMS OF GOLD, FROM OCTOBER, 1931.

Date.	Price of Gold in London per Fine Ounce.					Average Price per Fine Ounce Declared by the Transvaal Chamber of Mines.	Value of Sterling in terms of Gold
	Highest Point Reached.	Date when Reached.	Lowest Point Reached.	Date when Reached.	Average.		
	s. d.		s. d.		s. d.	s. d.	% of Par.
1931, Oct.-Dec.	126 10·00	8th Dec....	103 8·00	1st Oct.....	113 2·00	—	75·07
1932.....	130 8·00	30th Nov....	108 4·00	1st April....	118 0·82	—	71·95
1933.....	134 8·00	3rd Oct.....	118 0·00	22nd Apr....	124 10·40	122 9	68·04
1934.....	143 3·00	11th Oct.....	126 8·00	8th Jan.....	137 7·86	136 8	61·72
1935.....	149 4.00	6th Mar....	139 9.50	27th Aug....	142 1.24	141 7	59.78
1936.....	142 8.50	9th Nov....	137 2.50	23rd Sept....	140 3·45	139 11	60·56
1937.....	142 7·50	6th Mar....	139 3·50	19th Aug....	140 8·83	140 4	60·36
1938.....	150 0·00	26th Nov....	139 5·00	3rd Jan....	142 6·66	142 1	59·59
1938—							
Jan.....	139 9·50	8th Jan....	139 5·00	3rd Jan....	139 7·50	139 0	60·84
Feb.....	139 10·50	23rd Feb....	139 7·00	1st Feb.....	139 9·17	139 6	60·78
Mar.....	140 5·50	19th Mar....	139 6·50	10th Mar....	139 10·85	139 6	60·72
April.....	140 1·50	6th April...	139 5·50	26th April...	139 9·30	139 6	60·78
May.....	140 9·00	26th May...	139 6·00	3rd May....	140 0·87	139 6	60·65
June.....	140 10·50	17th June...	140 5·50	8th June...	140 8·56	140 6	60·37
July.....	141 6·50	29th July...	140 8·50	5th July...	141 2·50	141 0	60·16
Aug.....	142 3·50	31st Aug....	141 8·00	2nd Aug....	142 5·69	142 0	59·63
Sept.....	147 0·00	28th Sept....	143 0·50	1st Sept....	144 5·83	143 6	58·80
Oct.....	146 10·00	14th Oct....	144 1·50	1st Oct.....	145 0·19	145 0	58·28
Nov.....	150 0·00	26th Nov....	145 11·50	8th Nov....	147 7·50	147 0	57·55
Dec.....	149 7·50	31st Dec.....	148 1·00	6th Dec....	148 10·50	148 6	57·06
1939—							
Jan.....	150 5·00	4th Jan....	148 5·50	19th Jan....	148 11·00	148 6	57·05
Feb.....	148 7·50	1st Febr....	148 2·00	27th Feb....	148 4·50	148 0	57·26
Mar.....	148 6·50	18th Mar....	148 2·50	7th Mar....	148 4·61	148 0	57·25
April.....	148 6·50	12th April...	148 5·00	3rd April...	148 6·05	148 0	57·21
May.....	148 6·00	1st May....	148 5·00	11th May....	148 5·63	148 0	57·22
June.....	148 6·50	16th June...	148 4·00	6th June...	148 5·40	148 0	57·23
July.....	148 6·50	1st July ...	148 5·50	14th July ..	148 6·13	148 0	57·20

PRICE OF GOLD IN LONDON.
HIGHEST, LOWEST AND AVERAGE PRICE EACH MONTH.



18. The System of Leasing of Gold Areas.—The history of the development of the mining lease system established under the Transvaal Act, No. 35 of 1908, was recorded in the sixth issue of this *Year Book*.

By Act No. 30 of 1918 the Mining Leases Board was made a statutory body. Under section 46 of the 1908 Act, the powers of the Governor-General in regard to the leasing of mineral ground had been restricted to areas large enough, in the opinion of the Government Mining Engineer, to make one workable mining proposition; but, in sections 2 and 3 of Act No. 30 of 1918, these powers were widened to permit of the granting of leases of the undermining rights of land insufficient in extent to constitute workable propositions. These smaller areas are not advertised for tender, but are applied for by adjoining mining companies, which are in the best position to work them. All such applications are submitted to the Mining Leases Board for report and recommendation.

Important features of the Act are:—

(*a*) That every recommendation of the Board on any application for a lease, after action has been taken by the Governor-General, shall be laid on the tables of both Houses of Parliament;

(*b*) that no departure shall be made from the Board's recommendations as to the acceptance or refusal of a tender, or as to the terms to be embodied in a lease, without further reference to the Board, and that, if the Board reports against the proposal to amend its recommendation, the amended lease shall not be valid or binding, unless it has been approved by resolutions of both Houses of Parliament.

In order that the Government should have full knowledge of the operations of the companies working gold mines on the areas leased, an official called the Inspector of Mining Leases, with knowledge of mining technique and finance, was appointed to investigate the affairs of these companies. His duties comprise the inspection of underground and surface operations at the mines, and of the books, accounts, and documents of the lease companies. His quarterly and annual reports are available for public inspection at his office.

Up to 31st December, 1938, thirty-four large gold mines had operated on areas leased on a basis of participation in profits. One of these, namely, that leased to the Craigie Mines, Limited, was exhausted without making a profit in which the Government shared, and another, the Witpoort Gold Areas, Ltd., has been absorbed by Brakpan Mines, Ltd. These have therefore been omitted from the following table:—

GOLD AREAS LEASED ON THE BASIS OF PARTICIPATION IN PROFITS.

Company.	Area Held by Company (in Claims).	Capital (Registered).	Government Share of Profits up to 31st December, 1938.
		£	£
Blyvooruitzicht Gold Mining Company, Ltd.‡	3,075	2,450,000	—
Brakpan Mines, Ltd.	5,683	1,150,000	2,025,300
Cinderella Consolidated*	—	—	1,797
Daggafontein Mines, Ltd.	3,737	1,750,000	1,274,631
East Daggafontein Mines, Ltd.	3,250	1,800,000	—
East Geduld Mines, Ltd.	2,641	1,800,000	296,685
Government Gold Mining Areas, Ltd.	2,633	1,400,000	29,205,226
Grootvlei Proprietary Mines, Ltd.	4,210	2,725,000	—
Langlaagte Estate and Gold Mining Company, Ltd.	1,167	1,519,833	80,267
Libanon Gold Mining Company, Ltd.‡	3,484	1,700,000	—
Marievale Consolidated Mines, Ltd.	6,146	2,250,000	—
Meyer and Charlton Gold Mining Company, Ltd†	—	—	413 755
Modderfontein East, Ltd‡	4,542	930,805	417,169
New Kleinfontein Company, Ltd.	2,597	1,485,987	—
New State Areas, Ltd.	2,108	1,514,037	10,685,043
Nigel Gold Mining Company, Ltd.	3,333	714,434	—
Palmietkuil Gold Mining Company, Ltd.	3,914	1,700,000	—
Rand Leases Vogelstruisfontein Gold Mining Company, Ltd.	1,933	1,500,000	48,899
Rietfontein (11) Gold Mines, Ltd.	4,407	1,100,000	—
Simmer and Jack Mines, Ltd.	2,076	843,750	17,076
Spaarwater Gold Mining Company, Ltd.	5,012	1,993,742	—
Springs Mines, Ltd.	4,265	1,560,000	5,257,543
S.A. Land and Exploration Company, Ltd.	3,022	437,500	—
Sub Nigel, Ltd‡	5,853	885,937	181,447
Van Dyk Consolidated Mines, Ltd.	5,778	2,750,000	—
Vlakfontein Gold Mining Company, Ltd.	3,718	2,375,000	—
Vogelstruisbult Gold Mining Areas, Ltd.	4,407	2,514,285	—
Welgedacht Exploration Company, Ltd.‡	3,975	627,000	—
Western Reefs Exploration and Development Company, Ltd	8,623	862,500	—
West Spaarwater, Ltd.	6,325	1,400,333	—
West Springs, Ltd.	2,933	1,935,000	1,280,819
West Vlakfontein, Ltd.	5,697	2,350,000	—
TOTAL	—	—	51,185,657

* Company released from payment upon its absorption by the East Rand Proprietary Mines, Ltd.
† Commuted into a cash payment in lieu of profits won subsequent to 1st January, 1925. Company now defunct.
‡ Government's share of profits to 30th June, 1938.

The share of the profits payable to the Government of the companies working these leased areas was, in the cases of the Cinderella Consolidated Gold Mines and the Meyer and Charlton Gold Mining Company, 4·02 per cent. and 10·8668 per cent. respectively; in the case of the Langlaagte Estate and Gold Mining Company, New Kleinfontein Company, and Simmer and Jack Mines, it is 1·415 per cent., 4 per cent., and 5 per cent. respectively; but in all other cases it varies with the ratio that the profit bears to recovery, and is calculated upon a sliding scale, so devised that the company receives a fixed proportion of any reduction in costs it may make and another fixed proportion of any increase in recovery it may effect, subject, in some of the leases, to minimum percentages.

The general form of the sliding scale is: $y=a-\frac{b}{x}$, where y is the percentage of profits payable to the Government, x is the ratio of profit to recovery expressed as a percentage, and a and b are constants agreed to in the lease.

The following table shows the scale in each case and illustrates its results:—

LEASE COMPANIES—GOVERNMENT SHARE OF PROFITS.

Company	Scale.	Percentage of Profits payable to Government when the ratios of profit to recovery expressed as percentages are as follows.					
		10	20	30	40	50	60
Brakpan Mines, Ltd. (*a*)	$y = 25 - \frac{650}{x}$	7·5	7·5	7·5	8·8	12·0	14·2
Blyvooruitzicht Gold Mining Company, Ltd. (*g*)	$= 16 - \frac{250}{x}$	5·0	5·0	7·7	9·8	11·0	11·8
Daggafontein Mines, Ltd.	—	Nil.	5·3	10·5	15·3	18·4	20·4
East Daggafontein Mines, Ltd. (*a*)	$= 30 - \frac{600}{x}$	7·5	7·5	10·0	15·0	18·0	20·0
East Geduld Mines, Ltd. (*b*) (*c*)	$= 50 - \frac{1200}{x}$	10·0	10·0	10·0	20·0	26·0	30·0
Government Gold Mining Areas, Ltd. (*d*)	(*e*)	10·75	24·1	35·6	46·3	53·6	58·4
Grootvlei Proprietary Mines, Ltd. (*c*) (*h*)	$= 28·1 - \frac{701·6}{x}$	5·6	5·6	5·6	10·6	14·1	16·4
Libanon Gold Mining Company, Ltd. (*g*)	$= 15 - \frac{225}{x}$	5·0	5·0	7·5	9·4	10·5	11·3
Marievale Consolidated Mines, Ltd. (*c*) (*g*)	$= 21 - \frac{420}{x}$	5·0	5·0	7·0	10·5	12·6	14·0
Modderfontein East, Ltd.(*b*)	(*o*)	10.0	10.4	12.0	13.4	14.4	15.0
New State Areas, Ltd	$= 80 - \frac{750}{x}$	5·0	42·5	55·0	61·3	65·0	67·5
Nigel Gold Mining Company, Ltd. (*c*)	(*f*)	5·0	5·0	5·0	5·0	5·0	5·0
Palmietkuil Gold Mining Company, Ltd. (*c*) (*g*)	$= 21·5 - \frac{390}{x}$	5·0	5·0	8·5	11·8	13·7	15·0
Rand Leases Gold Mining Company, Ltd. (*c*) (*i*)	$= 45 - \frac{1080}{x}$	6·75	6·75	9·0	18·0	23·4	27·0
Rietfontein (11) Gold Mines, Ltd. (*c*) (*g*)	$= 22·5 - \frac{440}{x}$	5·0	5·0	7·8	11·5	13·7	15·2
Spaarwater Gold Mining Company, Ltd. (*c*) (*g*)	$= 15 - \frac{300}{x}$	5·0	5·0	5·0	7·5	9·0	10·0
Springs Mines, Ltd. (*j*)	$= 55 - \frac{1175}{x}$	12·5	12·5	15·8	25·6	31·5	35·4
South African Lands and Exploration Company, Ltd. (*n*)	(*m*)	3·82	3·82	4·8	6·0	7·5	9·2
Sub Nigel, Ltd. (*c*)	$= 15·2 - \frac{152}{x}$	Nil.	7·6	10·1	11·4	12·2	12·7
Van Dyk Consolidated Mines, Ltd. (*c*) (*g*)	$= 17·52 - \frac{350·52}{x}$	5·0	5·0	5·8	8·8	10·5	11·7
Vlakfontein Gold Mining Company, Ltd. (*c*) (*g*)	$= 32 - \frac{960}{x}$	5·0	5·0	5·0	8·0	12·8	16·0

LEASE COMPANIES—GOVERNMENT SHARE OF PROFITS—(*continued*).

Company.	Scale.	Percentage of Profits payable to Government when the ratios of profit to recovery expressed as percentages are as follows.					
		10	20	30	40	50	60
Vogelstruisbult Gold Mining Areas, Ltd. (*c*) (*k*)	$= 12 - \frac{240}{x}$	3·5	3·5	4·0	6·0	7·2	8·0
Welgedacht Exploration Company, Ltd. (*c*) (*g*)	$= 25 - \frac{400}{x}$	5·0	5·0	11·7	15·0	17·0	18·3
Western Reefs Exploration and Development Company, Ltd.(*g*)	$= 10 - \frac{100}{x}$	5·0	5·0	6·7	7·5	8·0	8·3
West Spaarwater, Ltd. (*c*) (*l*)	$= 48·5 - \frac{1080}{x}$	6·25	6·25	12·5	21·5	26·9	30·5
West Springs, Ltd.	$= 65 - \frac{650}{x}$	Nil.	32·5	43·3	48·8	52·0	54·2
West Vlakfontein, Ltd. (*g*)	$= 30 - \frac{840}{x}$	5·0	5·0	5·0	9·0	13·2	16·0

(*a*) Subject to a minimum of 7·5 per cent.

(*b*) Subject to a minimum of 10 per cent.

(*c*) Due to operation of offset clause, the share of profits is subject to a deduction when scale of taxation is in excess of that at a certain date.

(*d*) Taxation included.

(*e*) $y = 5·467 + 1·06487\,x - \frac{53·66}{x}$ where x is less than 36·1702; $y = 82·5 - \frac{1446·81}{x}$ where x is greater than 36·1702, subject to a minimum of 10·75 per cent., and a maximum of 61·25 per cent.

(*f*) After 5 years from date of execution of lease (14th February, 1935) according to formula $y = 40 - \frac{1000}{x}$ with a minimum of 10 per cent.

(*g*) Subject to a minimum of 5 per cent.

(*h*) Subject to a minimum of 5·61 per cent.

(*i*) Subject to a minimum of 6·75 per cent.

(*j*) Subject to a minimum of 12·5 per cent.

(*k*) Subject to a minimum of 3·50 per cent.

(*l*) Subject to a minimum of 6·25 per cent.

(*m*) $y = 9·73 - \frac{147·69}{x}$ where x is less than 45; $y = 17·37 - \frac{491·58}{x}$ where x is greater than 45.

(*n*) Subject to a minimum of 3·82 per cent.

(*o*) $y = 7·1415 + ·160875\,x$ when x does not exceed 33⅓%; $y = 18.125 - \frac{187·5}{x}$ when x exceeds 33⅓%.

Under the Acts of 1908 and 1918, two hundred and thirty-seven leases have been entered into, granting mining rights over a total extent of 113,919 claims. Fifty-seven of these are share-of-profit leases, of which 55 have been granted to the thirty-four companies previously enumerated. The revenue from this type of lease is included in the table showing Government share of profits—the total being £51,185,657. One hundred and fifty have been sold for cash, the most noteworthy sale being that of 519 claims to Crown Mines, Limited, for the sum of £200,000; the total amount received on account of cash sales up to the 31st March, 1939, was £447,630. Thirty have been sold for annuities over a term of years or for payments on a royalty basis and the amount received on this account up to the 31st March, 1939, was £1,955,297.

In the case of certain areas known as "bewaarplaatsen", the freeholder is entitled to a portion of the payments made to the State by the lessees, and the amount paid to freehold owners on this account up to 31st March, 1939, was £1,781,253. "Bewaarplaatsen" were defined under the Gold Law (Republican) of 1898 as areas reserved from prospecting and digging and were roughly classified as localities used for public purposes or urban habitations, sites on or near mines used for surface working, and water rights. The owners of these areas possessed only surface rights. Under section 52 of Act No. 35 of 1908 the right to mine was vested in the Crown and some of these sites were leased to mining companies for the extraction of the underlying gold.

The revenue up to the 31st March, 1939, can be summarized as follows:—

From leases, on a basis of participation in profits.....	£51,185,657
From leases, sold for cash.....	447,630
From leases, sold on an annuity or royalty basis...	1,955,297
	£53,588,584
Less amount paid to freeholders.....	1,781,253
	£51,807,331

19. **Rand Refinery, Limited.**—This is a private company, the shareholding being confined to gold mining companies, members of the Transvaal Chamber of Mines. The works are situated at Germiston, and the principal operations consist of refining the gold bullion produced by the gold mines on the Witwatersrand and elsewhere. The refinery was completed in December, 1921, and a note on its organization and activities will be found in the sixth and seventh issues of the *Year Book*.

The following is a summary of its operations since its inception on the 22nd December, 1921, to the 30th September, 1938.

RAND REFINERY, LIMITED.—SUMMARY OF OPERATIONS SINCE COMMENCEMENT OF REFINING.

Period ending 30th Sept.	Bullion Receipts.			Bullion Issues.	
	Gross Weight.	Containing.		Fine Gold, Weight.	Fine Silver, Weight.
		Gold.	Silver.		
	Oz.	Fine Oz.	Fine Oz.	Fine Oz.	Fine Oz.
1921—27.....	59,002,231·12	51,856,231·05	5,161,382·89	51,709,215·44	5,115,220·66
1928.....	11,895,480·85	10,467,608·88	1,067,693·66	10,478,395·66	1,059,101·57
1929.....	12,141,229·40	10,715,270·92	1,074,156·19	10,715,734·98	1,130,120·79
1930.....	12,272,966·60	10,850,037·58	1,063,892·64	10,842,193·04	1,028,398·32
1931.....	12,589,441·90	11,135,784·58	1,084,688·85	11,224,721·47	1,031,258·48
1932.....	12,802,836·20	11,373,893·31	1,098,217·52	11,345,555·50	1,179,568·60
1933.....	12,594,148·30	11,192,017·01	1,090,457·70	11,210,636·84	1,084,127·59
1934.....	11,788,244·65	10,484,247·22	995,994·63	10,461,327·62	968,578·17
1935.....	11,873,535·15	10,551,713·32	1,029,304·92	10,491,457·67	1,045,023·12
1936.....	12,442,253·45	11,058,877·78	1,059,768·07	11,181,030·18	1,061,214·79
1937.....	12,909,049·75	11,486,467·82	1,059,561·24	11,435,675·13	1,060,786·71
1938.....	13,374,375·25	11,892,566·79	1,100,810·48	11,871,625·23	1,068,859·50
TOTAL.....	195,685,792·62	173,064,721·26	16,885,928·79	172,967,568·76	16,833,158·11

§ 5. Base Metals.

From the statistical data given in § 3 of this chapter, it will be noted that a large variety of base minerals has been produced, and a perusal of subsequent sections will serve to demonstrate the widespread character of the deposits from which these have been obtained. With a view to fostering the further development of the base mineral industry, there have been established by the Government:—

(*a*) An inter-departmental committee for the development of the mineral industry.*
(*b*) A mineral development section of the Government Mining Engineer's branch of the Department of Mines.
(*c*) A Minerals Research Laboratory.*
(*d*) The Fuel Research Institute.†

A survey of the Union's resources of base minerals, investigation of overseas markets for them, and the possibility of their application to domestic use call for the closest co-operation between the two Departments of State concerned.

The inter-departmental committee, therefore, comprises both administrative and technical officers of the Departments of Mines and of Commerce and Industries and acts in an advisory capacity to the departments concerned.

The mineral development section with its technical staff under an officer-in-charge stationed in Johannesburg, acting directly under the Government Mining Engineer, works in close co-operation with the Geological Survey, the inspectors of mines, and mining commissioners of the various districts, in the collection of information as to resources and the possibilities of economic working, and also deals with all inquiries in respect of supply of, demand for, and marketing of base minerals received both locally and from overseas. In order to maintain closer contact with the requirements of overseas markets, a technical officer, known as the Overseas Representative, Mines Department, is now permanently stationed in London.

The Minerals Research Laboratory has been established in connexion with the University of the Witwatersrand under the direction of the head of the metallurgical department of that institution, and is controlled by an advisory committee comprising government technical and administrative officers and representatives of the university. It handles all problems submitted to it in connexion with treatment of ores and the preparation of products for marketing and their application to use in local and overseas industries.

The Fuel Research Institute was constituted a corporate body by Act of Parliament. The objects of the Institute are (*a*) to grade coals, (*b*) to investigate the fuel resources, (*c*) to undertake research on solid, liquid, and gaseous fuels, and (*d*) to investigate any matter referred to it by the Government.

The handbook, the *Mineral Resources of the Union of South Africa*, which was published in 1936 but is now out of print, is to be reprinted shortly. It will be published by the Government Printer, Pretoria.

* See § 13 of this chapter.
† See para. 15, § 11, of this chapter.

§ 6. Copper.

1. **General.**—Copper occurs in the Union in the Transvaal, Cape, and Natal Provinces, but the only deposits that have proved to be of much economic importance are those of Namaqualand and the Zoutpansberg district of the Transvaal. At Areachap, to the west of Upington, a cupriferous pyritic lode has been opened up in the Kheis quartz schists, and quartz veins carrying copper are also present in various parts of Hay, Gordonia, and Prieska, in the same and younger formations. In the Mount Ayliff district of East Griqualand, copper pyrites and pyrrhotite have also been found, in association with nickel and a certain amount of platinum, along the base of highly differentiated sheets of gabbroidal rock, instrusive into Karroo sediments, the most important of which is that forming the Insizwa mountain.

In the Transvaal the Rustenburg Platinum Mines, Limited, produces a copper-nickel matte, and small quantities of copper-bearing concentrates are recovered from the gold-copper deposits of the eastern Transvaal, but the Messina (Transvaal) Development Company, which operates in the Zoutpansberg district, is responsible for the bulk of the output.

2. **Discovery of Copper and Development of Mining.**—It is known that copper, tin, and iron deposits were worked long before European settlement took place; but very little knowledge of the history of any ancient industry in these metals is available.

Copper was known to exist in Namaqualand as far back as 1685, when the Dutch Governor, Simon van der Stel, headed an expedition to verify the reports that reached him to that effect, but it was not until 1852 that operations were commenced on the occurrences near Springbokfontein. In 1863 the Cape Copper Company commenced operations and in 1887 a second company, the Namaqualand Copper Co., was registered in South Africa. In the subsequent exploitation of this area at least a dozen mines contributed to the copper output of Namaqualand, but the more important were those at O'okiep and Nababeep, which belonged to the Cape Copper Company, and Tweefontein, owned by the Namaqualand Copper Co. Each company owned smaller workings as well.

The great decline in the price of copper which commenced in 1918 led to the virtual cessation of operations in 1919. Production recommenced in 1922 and continued on a reduced scale until 1931, when operations ceased. The S.A. Copper Company took over all the properties in 1931, but in 1937 was absorbed by the O'okiep Copper Company. The last-mentioned concern is at present reconditioning and equipping some of the mines with a view to large production.

From the first year for which records are available up to the end of 1938, copper to the value of £21,079,047 was produced in Namaqualand.

The Messina Company in the Zoutpansberg district, Transvaal, has continued as a consistent producer for a number of years. The copper deposits occur in a well-defined belt, known for over twenty miles, which traverses the older gneissoid granite in a north-east/south-west direction. This belt, which coincides with a well-defined crush zone in the gneiss, ranges in width from 500 to 1,000 feet.

The mine workings have now reached a depth of 2,300 feet in places. It would appear that the lodes become progressively poorer as they are followed downward.

3. **Production of Copper.**—The following table gives particulars of the value of copper sold in and/or shipped from the Union since 1857:—

COPPER ORE SOLD AND/OR SHIPPED, 1857 TO 1938.

Year.	Cape of Good Hope.			Transvaal.		
	Tons.	Per Cent. of Metal.	Value.	Tons.	Per Cent. of Metal.	Value.
			£			£
1857–1862	22,343	—	605,458	—	—	—
1863–1882	211,500	—	4,303,433	—	—	—
1883–1903	943,658	18·99	8,336,509	—	—	—
1904	—	—	—	14	—	668
1905–09 (av.)	*	*	484,833	931	*	30,994
1910–14 (av.)	13,853†	47·30†	430,901	5,423	44·95	126,442
1915	13,973	44·48	517,203	14,996	43·38	525,100
1920	7,892	38·33	255,157	2,988	64·61	163,112
1925	2,995	98·16	160,074	6,967	86·70	354,145
1930	1,315	98·44	69,211	8,439	93·11	450,837
1934	—	—	—	6,485	94·53	262,664
1935	—	—	—	12,084	90·42	324,910
1936	23	50·70	362	12,168	91·43	385,209
1937	1	98·86	54	13,910	85·58	610,138
1938	—	—	—	14,684	83·55	464,466

* No record. † Average for 1911–14.

4. **Ore Deposits and Methods of Mining and Treatment.**—Particulars of ore deposits and methods of mining and treatment were given in *Year Book* No. 4 and previous issues, but have not been repeated owing to exigencies of space.

§ 7. Tin.

1. **Discovery and Mining of Tin.**—There is evidence to show that tin was worked in the past, and that some of the tin mines of to-day are on areas that were mined fairly extensively by ancient people. The ancient tin workings of the Transvaal and surrounding country are, so far as has been ascertained, confined to deposits and tin-bearing lodes in the granites, quartzites, and felsites.

Cassiterite was discovered both in the Cape Province and in Swaziland in the final decade of the last century, but it was not till 1902 that serious attention was turned to its exploitation. Later, in 1904, cassiterite was also found in the Bushveld area of the Transvaal, and has since been developed in several mines.

(i) *Cape Province.*—Tin ore has been found to occur in the granite of the Bottelary-Stellenbosch mountain-mass and the rocks of the Malmesbury series near the contact with this granite, and on the slopes of Devil's Peak, Capetown, near the contact between the granite and Malmesbury beds. Four main types of deposit have been distinguished:—

(1) Veins and associated impregnations in the granite.
(2) Stringer lodes in the rocks of the Malmesbury series.
(3) Saddle veins in the rocks of the Malmesbury series.
(4) Alluvial deposits derived from the disintegration of the primary occurrences.

Most of the tin output has come from deposits of type (4) on the farm Langverwacht near Kuil's River, where one company is operating on a small scale. A detailed account of the occurrences has been given by A. V. Krige (Trans. Geol. Soc. S. Afr., XXIV, 1921, pp. 53-70).

The total tin shipped from the Cape Province up to 31st December, 1938, was valued at £70,335.

(ii) *Eastern Transvaal and Swaziland.*—Two tin-bearing areas are known in north-western Swaziland, viz., the alluvial deposits of Mbabane and the surrounding country, and pegmatites round Forbes Reef. The pegmatites have not been found workable, though cassiterite crystals are not uncommon in them.

The heavy rainfall and the strong denudation to which this area is subjected form ideal conditions for natural concentrations. The alluvial deposits extend on both sides of the Swaziland border, i.e. also in the eastern Transvaal, but the producing portion of the deposits is confined to Swaziland.

These detrital deposits occur as "flats" along the course of the Mbabane and other rivers, and to a less extent on the hill slopes. There is a soft overburden of about ten feet which generally carries very little tin. Underlying this is a tin-bearing gravel two to three feet thick, which rests on the granite floor of the valley. The cassiterite occurs chiefly as loose crystals, but quite frequently also in boulders of pegmatite. Associated accessory minerals besides those forming the granite, are ilmenite, monazite, euxenite, aeschynite, corundum, and tourmaline. The cassiterite is evidently derived from pegmatite and quartz veins in the older granite.

Forbes Reef is situated about twelve miles north of Mbabane, on the eastern side of the Ingwenya range, which is formed of quartzites and schists of the Swaziland system intruded by older granite. In this area tin occurs in veins in the schist. Usually the veins follow fissures which are parallel to the strike of the schists. Along these fissures the schist is tin-bearing over a width of about three inches. At Sanders Creek a vein of decomposed pegmatite yielded considerable amounts of cassiterite.

(iii) *Transvaal Bushveld.*—Cassiterite was first discovered in 1904 in the central or Bushveld area of the Transvaal. This area is geologically notable as consisting of an immense lopolith of red granite, intrusive between the Pretoria series and the Waterberg formation. With its subsidiary felsites and contact zones of metamorphic alteration it covers an area some 250 miles from east to west, by 100 miles from north to south. Cassiterite is found both in the granite and in the felsites and sedimentary rocks in direct contact with it. In the felsites the mineral occurs irregularly along joints and bedding planes, and so far the workings in this rock have never been attended with success.

In the sedimentary rocks, the Rooiberg and Leeuwpoort mines have been worked successfully in fissure veins, traversing a mass of quartzites and shales of undoubted sedimentary origin, which are enveloped in the granite. At Rooiberg these veins are vertical, and do not carry more than 1 per cent. to 1·5 per cent. tin, but their value consists of lateral enrichments, which pass off into the bedding planes of the country rock and give pockets and bonanzas of phenomenal richness. At Leeuwpoort the veins are not highly inclined, and are richer in themselves than at Rooiberg, but on the other hand notable enrichments in the country rock appear to be few. Besides pyrites, specularite, and a small amount of arsenopyrite, no other metallic minerals are of obvious occurrence in these deposits.

A more detailed description of the deposit is contained in the handbook *Mineral Resources of the Union of South Africa* referred to under § 5 of this chapter.

In 1917 the Zaaiplaats Tin Mining Company began smelting tin for consumption in the Union. This was a war measure and was successful during the war, but was discontinued in 1921, when normal conditions returned. Smelting was also started at Leeuwpoort and was continued during the period of the war, but, owing to the impure nature of the ore, work was discontinued soon after peace was declared. During 1938, six companies were producing tin concentrates in the Transvaal.

2. **Production of Tin.**—The following table gives particulars of the value of tin sold in and/or shipped from the Union from 1912:—

TIN SOLD AND/OR SHIPPED, 1912 TO 1938.

Year.	Quantity.	Value.	Year.	Quantity.	Value.
	Tons (2,000 lb.).	£		Tons (2,000 lb.).	£
1912	2,932·208	367,699	1933	1,240·939	135,557
1915	3,441·353	331,420	1934	975·282	135,773
1920	2,463·219	435,680	1935	996·817	130,892
1925	1,938·566	304,552	1936	1,064·576	114,516
1930	1,276·825	118,200	1937	954·622	118,226
1932	963·231	63,228	1938	1,156,270	98,108

iron per annum. The joint company commenced to produce pig-iron from South African ore in June, 1926, but ceased production on the establishment of the Pretoria works.

In 1933 the company's blast furnace was occupied for a short time on the production of ferro-manganese, when 3,000 tons of a highly satisfactory alloy were produced. In 1938 the plant was reconditioned for the regular production of this alloy.

(3) *The Dunswart Iron and Steel Works, Limited.*
(4) *The Witwatersrand Co-operative Smelting Works, Limited.*
(5) *Geo. Stott and Company, Limited.*

The three last-named concerns are established on the Witwatersrand and produce iron and steel from scrap.

5. **Manganese.***—In 1925, manganese was discovered at Postmasburg, 168 miles west of Kimberley. The deposits are on a large scale, as compared with well-established sources of supply being exploited in other parts of the world. There are two principal varieties of ore, the one massive or non-crystalline and the other crystalline, the former agreeing in composition and properties with psilomelane, and the latter principally with braunite.

The ore occurs in conjunction with large deposits of ferruginous manganese, manganiferous iron, and haematite ores, but can be readily sorted out in practice. It possesses superior physical qualities, which prevent any crumbling or production of fines during mining operations, thus ensuring very little loss during transit and reducing loss from flue dust to a minimum. The ore is also eminently suitable for storage, as it has no apparent tendency to disintegrate.

Judging from the extensive outcrops of manganese ore and the evidence afforded by the prospecting and development done by the various companies to date, the available tonnage of the ore is enormous and must run into many millions of tons. The economical exploitation of these fields has been rendered possible by the construction of a railway, which was extended from Koopmansfontein, near Kimberley, to Postmasburg in 1930, and for a further 20 miles during 1936 to the farm Lohathla.

Specifications of the grades available for export are as follows:—

1st Grade minimum	50 per cent. Mn.,	5— 9 per cent. Fe.
Medium " "	46 per cent. Mn.,	11—14 per cent. Fe.
3rd Grade "	43 per cent. Mn.,	13—17 per cent. Fe.
4th Grade "	38 per cent. Mn.,	13—24 per cent. Fe.
5th Grade "	29 per cent. Mn.,	20—32 per cent. Fe.

The silica content of these ores averages 2-4 per cent. and the phosphorus content from 0·025 to 0·045 per cent.

The dolomite of the Transvaal system contains small amounts of manganese. As a result of chemical weathering of the rock, the manganese has at many places been concentrated at the surface in residual deposits of pyrolusite and psilomelane. Such deposits have been worked at a number of localities in the Krugersdorp district, and some of them have yielded ore of great purity. All the known deposits are of limited extent.

The following table gives particulars of the production, sales, and shipments of manganese ore from 1911:—

MANGANESE ORE PRODUCED, SOLD, AND SHIPPED, 1911 TO 1938.

Year.	Actual Production.	Sales and Shipments.	
		Quantity.	Value.
	Tons (2,000 lb.).	Tons (2,000 lb.).	£
1911	†	130	179
1920	67	67	277
1925	519	501	817
1930	162,394	58,572	91,858
1934	72,199	72,812	83,851
1935	105,216	99,001	127,969
1936	284,667	236,861	259,461
1937	695,776	557,210	603,623
1938	608,191	422,757	560,602

* Nel, L. T., "The Geology of the Postmasburg Manganese Deposits and Surrounding Country," Geological Survey of the Union of South Africa.
* Hall, A. L., "The Manganese Deposits near Postmasburg," Trans. Geol. Soc. S. Afr., 1926, pp. 1–46.
† Not available.

6. **Nickel.***—The occurrence of nickel has been noted in many parts of the Transvaal Bushveld Complex, in the Barberton area, in the Cape Province, and also in Natal, but the only two deposits, which appear at the present time to have prospects of economic importance, are those at Insizwa in the Cape Province and at Vlakfontein No. 902 in the Rustenburg district of the Transvaal.

At Insizwa, where a considerable amount of prospecting has been done, the ore occurs as pyrrhotite mixed with chalcopyrite and pentlandite, and is apparently formed by a magmatic concentration in the base of large highly differentiated gabbroidal sheets.

On Vlakfontein No. 902 in the Rustenburg district a considerable amount of prospecting and development work has also been done, and it is claimed that over 150,000 tons of ore, averaging over 3 per cent. nickel and 1 per cent. copper, have been proved. The ore occurs in irregular pipe-like bodies, which cut vertically across the pseudo-stratification characteristic of the basic and ultra-basic rocks which form the lower zone of the Bushveld Igneous Complex. As in the case of Insizwa, the ore is composed chiefly of pyrrhotite, chalcopyrite, and pentlandite. In the centre of the pipes the ore generally consists of massive sulphides, but grades into disseminated sulphide ore on the periphery.

The company responsible for the initial opening up of the occurrences in the Rustenburg district restarted development of the deposits on an increased scale, and commenced erection of plant for the production of a copper-nickel matte. During 1936 development work was discontinued.

The Barberton occurrence is of interest, ore carrying up to 25 per cent. nickel being located in a sedimentary bed. Little development has, however, taken place, and nothing can as yet be said as to its permanence. The ore appears to occur in the form of an entirely new mineral—a magnetic iron-nickel oxide. Sulphur is absent, and the mineral reduces easily and runs down into a metallic button, carrying about 54 per cent. nickel.

7. **Platinum, etc.**†—The occurrence of platinum and the allied group of metals has been noted in some of the igneous rocks of the country, and in the black sands derived from the concentration of the Rand conglomerates in the process of extracting the gold. In the last few years a considerable quantity of osmiridium has come into the market from this latter source. The quantity is likely to increase as the processes by which osmiridium is recovered are adopted on a greater scale.

The quantity of osmiridum recovered and the value realized in the years 1934 to 1938 were as follows:—

Year.	Oz.	£
1934	5,845·344	27,072
1935	5,277·673	24,460
1936	5,370·649	28,445
1937	5,666·750	37,254
1938	5,883·650	36,523

In 1923, platinum was discovered in a brecciated quartz lode near Naboomspruit in the Transvaal; the values, however, were very erratic, and at present this reef is not being worked.

At the end of 1924, platinum-bearing rocks were located in the Bushveld Igneous Complex in the Lydenburg district of the Transvaal. The most important of these is a sheet of gabbroidal rock, known as the Merensky Reef, which contains from 2 to 5 pennyweights of platinum metals to the ton, and which occupies a definite horizon in the lower pseudo-stratified zone of the Bushveld Igneous Complex. In the Lydenburg district this reef strikes roughly north-south and has been traced over a distance of nearly 60 miles. It dips at about 12 degrees to the west and is fairly uniform in its values and widths.

In the same area, small kopjes or hillocks are found composed of an igneous rock known as hortonolite dunite; they represent the outcrops of pipe-like occurrences of that rock, and three of them have been found to carry platinum in payable quantity. One of these has, however, been worked out

* Wagner, P. A., Memoir No. 24, Geological Survey of the Union of S. Africa, "The Magmatic Nickel Deposits of the Bushveld Complex in the Rustenburg Dist., Transvaal."
* C. M. Schwellnus, Geol. Series Bulletin No. 5, "The Nickel-Copper Occurrence in the Bushveld Igneous Complex West of the Pilansberg."
† Wagner, P. A., Memoir No. 24, Geological Survey of the Mines of S. Africa, "Preliminary Report on the Platinum Deposits in S.E. part of the Rustenburg Dist., Transvaal."

at a depth in the neighbourhood of 700 feet; workings on the other two have not reached so great a depth. None of these dunites is being worked at present.

In the middle of 1925, platinum-bearing rocks were located near the town of Potgietersrust in the Transvaal; here several reefs have been proved. The reefs in this area, while of greater width and higher value than the Merensky Reef at Lydenburg, are not so consistent.

The rocks of the Bushveld Complex in the Rustenburg area of the Transvaal are an important source of platinum. Here the norite reef has been found to extend continuously from 30 miles east of Rustenburg, passing that town and continuing on north to the Crocodile river, a distance of roughly 100 miles. The reef is very consistent, and averages 5 pennyweights of platinum over a width of 4 feet.

Three mines on the Merensky Reef reached the producing stage, one in the Potgietersrust and two in the Rustenburg area, but owing to the serious drop in the price of platinum all operations for the recovery of this metal ceased early in 1932. The Rustenburg Platinum Mines, Ltd., recommenced active operations during 1933, and has been a consistent producer since that date.

Crude metallics and a matte containing approximately 35 per cent. of platinum metals and gold are produced and shipped to London for refining and sale.

The production and the sales during the years 1934 to 1938 were as follows:—

PLATINUM: PRODUCTION, 1934 TO 1938.

Particulars.	Quantity.	Assay.	Estimated Contents, Platinum Metals.
1938.			Oz.
Crude Platinum	69,054·000 oz.	26.44 per cent.	18,256·000
Concentrates	952·487 tons.	36·88 oz. per ton	35,124·000
Total: 1938	—	—	53,380·000
1937	—	—	39,624·942
1936	—	—	32,915·451
1935	—	—	31,271·569
1934	—	—	37,741·681

PLATINUM: SALES, 1934 TO 1938.

Particulars.	Fine Oz.	Value.
Platinum Metals—		£
1934	22,889·265	139,516
1935	31,337·783	179,697
1936	29,044·706	176,292
1937	30,125·000	237,663
1938	38,862·000	223,776

8. **Silver.**—The winning of silver has been chiefly confined to that contained in the gold bullion, of which it forms about 10 per cent. by weight.

9. **Radio-Active Minerals.**—So far, pitchblende has been found only in the Gordonia district of the Cape Province.

§ 9. Diamonds.

1. **History.**—Early in 1867 a shiny stone picked up by the children of Daniel Jacobs, a Dutch farmer, on the Orange River near Hopetown, excited the curiosity of a neighbour, from whose hands it passed into those of a trader named John O'Reilly. O'Reilly took it to Grahamstown, where it was identified as a diamond by Dr. W. G. Atherstone. Later on this stone, which weighed 21¼ carats, was sold to the Governor of the Cape for £500. At the instance of Dr. Atherstone and others, further searches were made along the Orange and Vaal Rivers, but with indifferent success, until the finding of an 82½ carat gem—the Star of South Africa—two years later. This diamond was purchased from a Griqua herd boy by Schalk van Niekerk (the same man who carried the first diamond found to O'Reilly) for 500 sheep, 10 oxen, and a horse. It was eventually sold for £25,000 and gave an impetus to the first mineral "rush" in South Africa, at least since the time of the ancients.

The camps established during the next few years along the Orange and Vaal Rivers were the scenes of bustle and excitement such as are always associated with new finds of precious minerals.

The search for diamonds was first made along river channels and dry water courses, but in 1870 and the following year diamonds were found on the surface of volcanic pipes, which later on became the sites of productive mines. The first pipes discovered were Du Toitspan, Bultfontein, and Jagersfontein. The De Beers and Kimberley diamond pipes were discovered in the following year, Koffiefontein in 1875, and Wesselton in 1890. The Premier, near Pretoria, was discovered some time before 1902. A group of small but rich mines in the Bosch of district, the Roberts Victor, Blaauwbosch, and New Eland, were proclaimed in 1906, 1910, and 1912 respectively.

The upper portions of the pipes were at first worked by individual diggers, each of whom was entitled to peg a claim 30 by 30 feet. The pipe areas were accordingly pegged off in chequer board fashion, and adjacent portions worked by a multitude of owners independently, and at varying rates. This continued until the difficulties of mining brought about the amalgamation of the different interests into De Beers Consolidated Mines in 1888. Thus started the systematic mining of the great volcanic pipes, from which developed an industry, which with its selling organizations, etc., has kept diamond production on an even keel for almost fifty years.

Searching for alluvial diamonds has nevertheless continued through all this time, and with it has remained the element of romance with which the industry was inaugurated. In 1908 a Cape coloured boy who had worked in the Kimberley mines picked up diamonds in the Namib desert, east of Luderitzbucht, South West Africa, and this led to the discovery of the unique wind-sorted deposits that occur in that country, in which the richest layers occur on the top rather than at the base of the deposits.

In the Union practically all the alluvial digging up to the year 1912 was done in the Vaal River basin and along that section of it which lies between the mouth of the Harts River and Bloemhof in the Transvaal. From 1906 to 1912 the production from this source ranged from £400,000 to £500,000 per annum. From 1911 onward stones were being found in increasing numbers farther north than Bloemhof on the plains of the western Transvaal, and in the 15 years 1911 to 1926 £20,000,000 worth of the gems came from there.

In 1926, after many years of comparatively small alluvial production, enormous deposits of diamonds were discovered in the northern parts of the Lichtenburg and Ventersdorp districts of the western Transvaal. These localities, which are close to the mining community of the Rand, were the scenes of tremendous excitement in the years 1926 and 1927. In the earlier part of 1927 the diggings supported a population of 50,000 Europeans and 90,000 natives, and they produced diamonds worth £4,958,737 during that year. In 1928 £2,574,328 worth was produced, but the output has fallen continuously since then. Many of the claims in these diggings were pegged under a system of organized rushes in which literally thousands of citizens engaged in gigantic foot races, under control of the police. The starting line was some miles distant and the finish was the area of the supposed diamondiferous ground, choice of claims going to those who got there first. Twenty-five thousand people are said to have engaged in one such rush.

The latest episode was staged in 1927 on the coast of Namaqualand, where, after the finding of stones scattered over a long strip of coastline by a number of people, a geologist, by scientific prospecting, in which a fossil oyster shell was used as a marker, discovered an ancient beach line which contained an exceedingly rich deposit of diamonds. These were, moreover, of an average quality that is perhaps finer than any hitherto found in South Africa.

2. **Production of Diamonds.**—(i) *Union.*—The table below gives the annual output and value of diamonds in each province from the earliest date for which records are available.

According to official records, the value of the diamond output during this period was £327,771,889. The production of diamonds since the date of discovery, 1870, may, however, be taken to have amounted to considerably more.

OUTPUT OF DIAMONDS, 1883 TO 1938.

YEAR.	CAPE OF GOOD HOPE.		TRANSVAAL.		ORANGE FREE STATE.		TOTAL.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	Carats.	£	Carats.	£	Carats.	£	Carats.	£
1883–1901	53,748,413	69,771,893	35,500*	69,861*	2,533,040	4,552,898	61,143,022	84,419,654
1902...	2,486,327	4,949,808	1,065	2,402				
1903...	2,463,692	4,833,040	174,076	230,752				
1905...	2,269,450	4,428,383	802,172	922,330	297,167	853,834	3,368,789	6,204,547
1910...	2,586,295	5,267,659	2,090,068	1,416,464	780,195	1,505,074	5,456,558	8,189,197
1915...	66,471	266,198	35,674	128,067	1,241	5,545	103,386	399,810
1920...	1,364,706	9,463,512	905,297	3,600,310	275,014	1,699,077	2,545,017	14,762,899
	Metric Carats.		Metric Carats.		Metric Carats.		Metric Carats.	
1925...	1,248,321	5,070,304	902,590	2,214,122	279,212	913,702	2,430,129	8,198,128
1930...	1,327,329	5,075,568	1,444,061	2,226,212	392,201	1,038,939	3,163,591	8,340,719
1934...	120,552	778,091	313,154	648,603	6,607	10,897	440,313	1,437,591
1935...	438,865	1,654,739	234,876	499,838	2,981	16,690	676,722	2,171,267
1936...	420,653	1,663,268	182,985	393,213	20,285	63,735	623,923	2,125,216
1937...	804,877	2,980,980	128,026	276,101	97,531	187,597	1,030,434	3,444,678
1938...	1,009,478	3,052,427	114,162	244,393	114,968	199,423	1,238,608	3,496,243

* 1894–1901.

The decrease in the production of diamonds from the year 1931 onwards is mainly attributable to the curtailment and subsequent stoppage of operations on the mines controlled by the De Beers Corporation. In July, 1931, the Dutoitspan mine at Kimberley was closed down, and short time employment was resorted to at the Bultfontein, Wesselton, and Premier Mines, while the operations at Jagersfontein were confined to a limited mining programme. In March, 1932, operations ceased at all the De Beers mines including Premier Mine.

Diamond working on a limited scale was resumed at Kimberley in February, 1935, and in 1936 the Dutoitspan mine at Kimberley and the mine at Jagersfontein, Orange Free State, were re-opened. In 1937, work was restarted at Koffiefontein, Orange Free State, and, as a result of the increase of activity, production figures for 1937 showed a substantial improvement on the figures for the preceding year. In 1938 there was a further increase in the caratage produced.

(ii) *World.*—The followings table shows the world production of diamonds for a series of years up to 1937 and indicates the proportion which is contributed by the Union. No later information is available.

WORLD PRODUCTION OF DIAMONDS IN METRIC CARATS, 1921 TO 1937.

Year.	Union of South Africa.		South West Africa.	Belgian Congo.	Angola.	British Guiana.	Gold Coast.†	Other Countries.	Total.
	Production.	Percentage of World Total.							
	Metric Carats.	%	Metric Carats.	Metric Carats.	Metric Carats.	Metric Carats.	Metric Carats.	Metric Carats.	Metric Carats.
1921...	828,036	53·51	171,321	280,655	106,719	105,325	1,789	53,600	1,547,445
1922...	669,559	47·82	144,156	250,000	97,000	163,041	5,306*	70,392	1,400,054
1923...	2,053,094	60·74	433,229	414,954	94,478	220,162	23,342	140,741	3,380,000
1924...	2,440,398	62·41	492,696	548,274	118,016	190,501	53,035	67,080	3,910,000
1925...	2,430,128	56·91	515,860	883,903	125,000	187,745	84,985	42,379	4,270,000
1926...	3,217,967	56·51	683,801	1,114,384	154,369	168,507	299,835*	56,933	5,695,796
1927...	4,708,038	63·77	723,877	1,041,544	200,809	178,402	460,959*	69,454	7,383,083
1928...	4,372,857	57·21	503,142	1,649,225	239,000	136,283	698,826*	43,857	7,643,190
1929...	3,661,212	49·26	597,189	1,907,765	311,903	125,799	660,536*	168,349	7,432,753
1930...	3,163,591	41·93	415,048	2,519,948	329,824	107,201	861,119*	148,561	7,545,292
1931...	2,119,156	29·89	71,532	3,500,000	351,494	61,840	880,479*	105,450	7,089,951
1932†..	798,382	13·30	17,044	3,872,171	367,334	61,780	842,297*	42,695	6,002,603
1933†..	506,553	12·46	2,374	2,256,771	373,624	49,855	803,985*	70,929	4,064,091
1934†..	440,313	8·98	4,126	1,450,203	452,993	46,008	2,391,609*‡	115,808	4,901,120
1935†..	676,722	10·92	128,464	3,169,090	481,615	47,785	1,349,847*	341,787	6,195,310
1936†..	623,923	7·57	184,917	4,634,266	577,531	41,067	1,414,677*	765,307	8,241,688
1937...	1,030,434	10·72	196,803	4,025,228	626,424	35,958	1,577,661*	1,216,739	9,609,247

* Exports.
† These figures, with the exception of those for South Africa and South West Africa were obtained from *The Mineral Industry of the British Empire and Foreign Countries.*
‡ Includes accumulated stocks exported during 1934.

3. **Diamondiferous Deposits.**—Diamonds are found in Southern Africa in volcanic pipes and fissures considered to be of upper Cretaceous age, and in coastal as well as inland gravel and boulder beds of different ages. Most of the latter are of post-Cretaceous age, and there is little doubt that the diamonds in them have been derived, by weathering and erosion, from kimberlite pipes and fissures. Diamonds have, however, been found in other sedimentary beds, e.g. the Witwatersrand conglomerates, which are of much greater age than that phase of volcanicity. This indicates that there must have been some other very much older and as yet undiscovered primary source of the diamond.

The diamondiferous deposits in the Union of South Africa can therefore be classified as follows:—

(i) Ancient conglomerates (e.g. Witwatersrand).
(ii) Volcanic "kimberlite" pipes and fissures.
(iii) "Alluvial"* or more recent gravels and boulder-beds.

In the succeeding pages each of these types of deposits and the manner of their exploitation is described separately. The various economic factors which govern the diamond industry are also briefly discussed.

(i) *Witwatersrand Conglomerates.*—Diamonds occur in the conglomerates from which gold is being produced on the Rand and are won along with osmiridium on the corduroy tables. They are present in very minute quantities compared to gold. From most mines no stones have been produced and in other places only one or two have been found. Most of the diamonds have come from Modder B Mine, where 194 carats were produced in one year. The diamonds are generally green, but one pink stone has been found. The largest stone recorded weighed six carats. The distribution of diamonds over the Reef area appears to be related to that of osmiridium, another minute constituent of the reef. Green diamonds up to eight carats in weight were also found in Witwatersrand conglomerate on the Klerksdorp commonage in the early nineties.

(ii) *Volcanic Pipes.*—The volcanic pipes, which have been drilled nearly vertically through the rocks of the earth's crust, are filled with foreign inclusions lying in a matrix of an ultrabasic rock called kimberlite. Out of about 150 pipes of kimberlite so far discovered, 25 have been mined and the bulk of the production comes from seven only. In the payable mines the proportion of diamonds existing in the pipes varies from about 1: 700,000 to 1: 4,000,000.

(*a*) *Distribution.*—Kimberlite pipes occur in groups over an area embracing 30 degrees of latitude from Sutherland in the Cape Province to Mwanza in Tanganyika Territory 2° 30′ south of the Equator and from longitude E. 16° 30′ to E. 33° 30′. The more important groups are those of Kimberley, Pretoria, Jagersfontein, Koffiefontein, and Postmasburg. The producing pipes lie in a fairly well defined belt from Jagersfontein in the Orange Free State to the Premier Mine in the Transvaal, a distance of 350 miles.

(*b*) *Size and Shape.*—Pipes vary in surface area from the Premier Mine near Pretoria, the greatest diameter of which is over half a mile, to those that are less than 100 feet across. They are commonly ovoid in plan, although many irregular pipes occur. In vertical section they are for the most part steep-sided funnels that are vertical or nearly so. The Kimberley pipe has been worked to a depth of 3,520 feet. The outcrop areas of pipes are not characterized by distinctive topographic features. Their surfaces are usually on a level with the surrounding country, but they may be marked by a slight depression or a protuberance.

The enormous variation in surface measurements is shown in the following table, which gives the area in claims of 30 by 30 Cape feet of some of the principal mines.

AREA IN CLAIMS OF PRINCIPAL DIAMOND MINES.

Mine.	Claims.	Mine.	Claims.
Premier	3,570	Jagersfontein	1,128
Dutoitspan	1,441	Bultfontein	1,067
Koffiefontein	1,428	Crown Diamonds	271
Wesselton	1,162	West End	147

* The use of the term "Alluvial" though not strictly correct is retained for convenience on account of its widespread usage in South Africa as a general descriptive term to distinguish this type of deposit from the diamond pipes or kimberlite deposits.
The diamondiferous gravels and boulder beds in many cases have little or no relation to the existing river systems in South Africa and they vary in age from Eocene to late Quaternary.

(*c*) *Geological Features.*—Many pipes are compounded of one or more plugs of kimberlite occurring within the same orifice. Each of these may vary slightly in petrological character and the type of diamonds it contains. Underground exploration and mining have proved that these minor pipes may commence at varying depths from the surface. Within the orifice that constitutes the Kimberley mine the westernmost of three pipes passes at about 2,000 feet into a 3 to 7-foot dyke, the easternmost loses its identity below 845 feet, and the central one persists to the bottom of the mine.

Most of the pipes are connected with narrow dykes of kimberlite which are of an earlier age. This indicates that they are situated on pre-existent lines of fissuring, and the supposition is strengthened by the manner in which neighbouring pipes are in many places aligned in plan.

Throughout the wide area over which they occur the kimberlite pipes present the same features and are practically identical petrographically. They are believed to have been extruded from a common magma during the same geological period.

The pipes pierce rocks of all ages up to and including the lower members of the Karroo system. They include fragments of Stormberg lavas of lower Jurassic age. A plug of melilite basalt which pierces sediments of Neocomian (Lower Cretaceous) age has by intermediate occurrences been correlated with the kimberlite pipes. They are moreover older than certain Pliocene gravels and are thought to be of Upper Cretaceous age.

(*d*) *Pipe Filling.*—The pipe filling consists in part of non-volcanic material, but the bulk of it is kimberlite.

The non-volcanic material is composed of material derived from the formations traversed by the pipe, and also of deep-seated ultra-basic rocks called cognate xenoliths, which are not anywhere exposed on the earth's surface. Some of the material is clearly derived from above its present position from strata that were pierced by the pipe, but have since been removed by denudation. In the Wesselton mine near Kimberley, for instance, there are boulders of fossiliferous Beaufort sandstone that must originally have lain 3,000 feet above the Dwyka shales that form the walls of the pipe close to the present surface. Inclusions of this type vary from small pebbles to masses weighing millions of tons. The harder of these boulders are beautifully rounded and polished, while the softer tend to be angular. The deep-seated ultrabasic inclusions—cognate xenoliths—are formed of all possible combinations of the minerals, olivine, enstatite, diopside, garnet, ilmenite, and phlogopite, and they form ultrabasic rock varieties known as eclogite, lherzolite, hartzburgite, and wehrlite. The eclogite nodules composed of garnet and diopside have in rare cases been found to carry diamonds.

Kimberlite and the material derived from it constitute the pipe rock proper. In opening up a pipe it is usual to meet in descending order with:—

1. "Yellow Ground", representing completely hydrated and oxidized kimberlite, kimberlite tuff, and kimberlite breccia. This extends from the surface to a depth of from 35 to 140 feet.

2. "Blue Ground", the same rocks in a less altered and unoxidized state, below the limits of the oxidized zone.

3. "Hardebank", which is the designation applied to relatively well preserved kimberlite that does not disintegrate on exposure to the weather.

"Yellow ground" is best likened to a dry mud or clay of yellow or yellowish-brown colour.

"Blue ground" varies considerably in appearance. As a rule it consists of a serpentinous matrix of slate blue, bluish green or bluish black colour, soft and rather greasy to the touch, through which are scattered, with all manner of foreign inclusions, innumerable serpentine pseudomorphs after olivine, glistening plates of phlogopite, and occasional grains of ilmenite, pyrope, enstatite, and chrome diopside. Thin sections prove that some blue ground is merely decomposed kimberlite, other varieties represent altered kimberlite tuff and breccia, and yet others altered injection breccia resulting from the injection of kimberlite into masses of fragmentary material formed by the explosions that drilled the pipes. The inclusions in such injection breccias and those in kimberlite are invariably found to have suffered thermal metamorphism resulting in the development of minerals such as augite, diopside, biotite, and garnet.

(*e*) *Diamonds.*—Diamonds when present in the pipe matter are found in well-formed crystals, broken crystals, and cleavage fragments, a considerable proportion of the latter being invariably present. The better class of diamond is accompanied by "bort" and impure stones classed as "rubbish". The larger diamonds are usually octahedral in form, the smaller dodecahedral. Cubes are very uncommon. Diamonds with rounded edges are most common, owing to growth in the octahedral, and solution in the direction of the dodecahedral and cube faces. Bort is impure or imperfectly crystallized diamond matter. If often occurs in globular or spherical masses with rough surfaces.

Diamonds vary in size from minute stones to the Cullinan diamond of 3,025 carats, which is equal to 1·37 lb. avoirdupois. The average size varies from mine to mine. In the more important mines the proportion of diamonds over 1 carat in weight varies from 29 per cent. to 65 per cent. of the total output (1 carat equals 200 milligrammes).

The colour of the stone varies greatly. White stones tinged with yellow, known as "Capes" and "Silver Capes", are perhaps the most common, the valuable blue whites much less so. All colours are occasionally found. The Premier Mine yields stones of many colours. Cutting proves that the colouring matter is for the most part on the outside.

In hardness South African diamonds are slightly inferior to alluvial stones from Brazil and India.

The diamond content of the blue ground of even the richest pipes is exceedingly small, and that of the payable mines ranges from about 5 to 30 carats to the hundred loads,* which is equivalent to from 1/4,000,000 to 1/700,000. There is in general a diminution of diamond content with depth.

Every pipe and every dyke of diamond-bearing kimberlite yields stones characterized by their own peculiarities of crystallization, colour, lustre, surface markings, etc. It has been established, moreover, that in those pipes where there is evidence of the presence of a number of distinct columns of blue ground formed by successive eruptions, each column yields diamonds that are more or less distinguishable from the others. Certain kimberlite dykes also carry diamonds, but in the majority of instances the pipes are richer than adjacent kimberlite dykes of antecedent age. Kimberlite dykes that are of later age than the pipes carry no diamonds.

(*f*) *Origin of the Kimberlite Pipes and the Diamonds.*—The pipes are the products of successive eruptions. It has been shown that the blue ground found in different portions of any particular pipe may show marked differences in appearance, properties, and diamond content, and the diamonds found in the different varieties of pipe rock may likewise vary considerably in character. It has been proved, moreover, that these differences persist in depth, and appear to be due to variations in the nature of the kimberlite from which the blue ground has been derived.

As regards the origin of the diamond it is clear that every eruption of kimberlite gave rise to stones of distinctive character, and this is the best proof that in any particular occurrence the bulk of the diamonds present are normal constituents of kimberlite, and must have crystallized from the magma of that rock probably under intratelluric conditions at great depths.

(*g*) *Methods of Mining.*—Mining is begun on all the pipes by open-cast work. The rock is broken in benches, the faces ranging from 40 to 100 feet in height. Blasting proceeds on a large scale, deep chambered holes being usually employed and from five to six tons of ground are broken per pound of dynamite employed. Manual labour is employed for drilling and loading, except that light drills are employed for breaking big lumps resulting from the blasting.

For the removal of the pay ground to the surface the two methods employed are (1) hauling the ground in tubs running on fixed wires over the edge of the crater, (2) mechanical truck haulage carried down an incline either wholly within the mine itself, or cut wholly or partly through the country rock outside.

The depths to which open-casting can proceed depend primarily on the nature of the pipe walls. The depths attained by open-casting in the Kimberley group of pipes were from 400 to 500 feet and at Jagersfontein 780 feet. Because of the size of the pipe exploited and the strength of the walls, the open-cast at the Premier Mine is expected to attain an even greater depth.

* Load is equal to 16 cubic feet of broken rock, which weighs approximately 1,600 lb.

As depths increase the rock is sent through chutes to drives below the open-cast, and then to vertical shafts sunk some distance away from the pipe. This is finally superseded by wholly underground methods.

The underground system of mining involves the sinking of two vertical shafts into the country rock at a distance of about 1,000 feet from the pipe. One of these is used for hoisting, the other for ventilation and as an emergency shaft. From one of the vertical shafts main rock haulages are driven to the pipe at vertical intervals of about 600 feet. On the level of these haulages the pipe is developed by means of a rectangular system of main cross drives connected to the haulage. The ground between the main levels is developed by "prospect shafts", one of which is usually in the pipe and the other in the country rock adjacent to it. From these shafts working levels are developed 40 to 60 feet apart in the blue ground by a rectangular system of drives which eventually cuts the ground on each working level into pillars about 20 by 20 feet. Ore passes connect with the main level below.

The method of mining is one of caving and retreating, the general direction of the latter being toward the section of the mine nearest to the main haulage shaft. Starting from the back and then, or at a later stage, from one or both of the sides of the pipe, the object is to leave behind gradually all of the ground on the level either broken or collapsed within a moderately short period, having in the meantime recovered and removed as much as possible of the broken rock. Mining at the same time proceeds in such a way that the ground remaining in situ takes the form of a series of great steps descending toward the back and the sides of the mine away from the direction of retreat. A tunnel about 10 to 12 feet wide is first driven along the rim of the pipe, more or less at right angles to the main haulage. From this a raise is put up, and by overhead stoping a series of oblique slices are taken from the hanging so that a longitudinal section of the "chamber" or stope assumes the shape of a right-angled triangle, the base of which is the floor of the tunnel and the hanging the hypotenuse. The stope is kept filled with broken ground up to a convenient working distance from the hanging wall which is also the working face. Stoping proceeds upward until the apex of the triangle cuts the level above, and then side-ways in the direction of the lower part of the stope. When this has proceeded to a sufficient distance, a similar stope is started on the level below and a parallel stope on the same level as the first, pillars being left between each pair. The average width of a chamber is about 12 feet, but this depends upon the ground. Where the latter is really good, a width of from 14 to 15 feet is not uncommon; but where it is bad the demands of safety may require it to be brought down to much less than 12, or even abandoned altogether. As the distance between the centres of pillars is fixed, the widening or narrowing of a chamber involves a corresponding change in the size of the pillar separating the chamber being mined from the worked out chamber behind. Much importance attaches to this so-called "back pillar", which, in view of the considerable pressure to which it is subjected, must be carried up with as much straightness and regularity as possible. In practice, it is not often brought below five feet in width, but this depends on the nature of the ground and the height to which the chambers are carried. In order to secure final subsidence in these pillars within the time required, the plan is sometimes adopted of having the chambers on one level taken up under the pillars of the level above. As the width of a chamber is altered to meet requirements, so also may the slope or incline be varied according to circumstances.

The offset tunnels cut in the preliminary blocking of the ground, at centres of from 20 to 22½ feet, serve for loading out the chambers, two out of every three being reserved for this purpose. These are lipped or angled off as far as possible within the chamber to permit of the easy passage of the ground into them. Every third tunnel is reserved for entrance to a so-called "poleway", which is simply a rounded recess carried up in the side of the chamber as stoping proceeds, and separated from it by a closed brattice, usually of medium sized round timber, to keep in position the broken ground within. These poleways serve for escape in case of necessity, and at the same time promote ventilation within the chamber.

For the rest, the breaking and the handling of ground proceed on the lines of progressive and up-to-date mining generally. It is of interest, however, to mention as an example of the scale on which work is conducted, that 86,572 loads, equivalent to 69,257 short tons, have been hoisted at Jagersfontein in a working week of five-and-a-half days.

(*h*) *Methods of Treatment and Recovery.*—From the crude expedients of earlier days, there was gradually evolved a process of extraction which was universally adopted and adhered to for many years. This method started by taking advantage of the natural pulverization that takes place in diamondiferous ground on exposure to the weather, and proceeded thereafter by successive stages of wet concentration to the final segregation of the precious stones. The stages of reduction were as follows:—

(i) Weathering of the ground by spreading out on prepared floors.
(ii) Concentration in rotary pans, by which reduction to about one per cent. of the original bulk was effected.
(iii) Treatment of the resulting concentrate, after sizing, by jigs, which effected a further reduction to about one-twelfth of the material received from the pans.
(iv) Hand sorting of the jig concentrate.

Something must be said of the final recovery of the diamond by taking advantage of the special affinity which it and certain other gems manifest for grease, in consequence of certain differences between their surface tension and that of the worthless material. This discovery was made by Mr. Fred Kirsten, of the De Beers Company, a good many years ago, but the process to which it led has only gradually come to be universally adopted. It consists essentially of a shaking table inclined at a suitable angle, and covered with a smooth layer of thick grease, over which sized concentrated material can be carried sufficiently freely by water. In practice the Frue Vanner has been found satisfactory when arrangement has been made for keeping the belt covered with a skin of grease, and for scraping off the material, including the diamonds, retained on it. Care has to be taken that the mixture of grease, mainly a crude petroleum, is suitable, and other adjustments must be attended to, but generally the results are absolutely satisfactory, at least as regards blue ground. This method does not give as efficient results in the treatment of yellow ground. The diamonds are easily freed from the adhering grease by melting and treatment with a hot solution of caustic soda.

After recovery on the sorting tables, the diamonds are finally cleaned by being given a bath in hydrofluoric acid, and are then handed over for final sorting, valuation, and shipment. In the course of final sorting a large parcel of stones may be separated, as in the case of the diamonds from the Premier mine, into as many as 1,000 different classes, according to size, colour, purity, shape, and so forth. Diamonds from the De Beers mines would on the other hand be divided into about 400 classes only. This work, it need scarcely be said, calls for highly expert training.

(*i*) *Costs.*—The cost of mining and treatment varies according to the methods employed and the depths from which the ground is hauled. At De Beers Consolidated Mines, Ltd., and New Jagersfontein Mining and Exploration Company, Ltd., where mining is carried on by underground methods at considerable depths, the costs per load washed in 1928 were 4s. 11d. and 3s. 6d. respectively. In the same year the cost at the Premier mine which is worked open-cast and at a shallow depth was 2s. 6d. per load.

(*j*) *Labour.*—The excellent management of labour on these mines has contributed greatly to the low cost of production. White employees are well paid and treated with much consideration, with the result that the mining population has become more settled and contented than is generally the case in large mining areas. For the periods of their contracts, which are of limited duration, natives and coloured persons who work on the mines are confined to compounds. This system has been attended by the most satisfactory results. From the point of view of the employer it ensures against theft and keeps the labour supply at the highest standard of physical efficiency. The native on the other hand is well fed and cared for and is able to return home at the end of his engagement with his earnings practically untouched.

(iii) *Alluvial Deposits.*—(*a*) *Distribution.*—The principal detrital deposits are those in the valleys of the Orange, Vaal, and Hartz Rivers between Prieska and Potchefstroom, the deposits on the high plains of the western Transvaal in the districts of Lichtenburg and Ventersdorp, and those on the coast of Namaqualand from the mouth of the Orange River southward. Deposits of lesser importance are, or have been, worked east of Kuruman, at Zwartruggens, near Pretoria, and in the Limpopo valley. In South Africa outside of the Union there are also very important deposits along the coast

of South West Africa, between the Orange River and Conception Bay and within 12 miles of the coast, and others in Southern Rhodesia, Angola, and Tanganyika.

(*b*) *Deposits of the Vaal River Basin.*—Wagner has divided these deposits into:—

(i) High-level gravels occurring on the plains in the basins of the Vaal and its tributary the Harts River. They lie up to 400 feet above the river channels and as far as 20 miles from them. Examples of these are the gravels between Bloemhof and Schweizer Reneke in the Transvaal.

(ii) Terraces bordering the present river channels of more recent origin than the high-level gravels.

(iii) Ancient gravel-filled channels, some close to, others at considerable distances from, the present river beds. The Droogeveld channel south of the junction of the Vaal and Harts Rivers is an example of this.

(iv) Gravels in the present bed of the Vaal River.

Gravel terraces bordering the Vaal River and 70 feet above it at Waldeck's Plant carry vertebrate fossils of lower Pleistocene age. The high-level gravels of Lichtenburg and Ventersdorp may belong to the Pliocene.

(*c*) *Lichtenburg and Ventersdorp Fields.*—Alluvial gravels carrying diamonds have a very wide distribution in the northern parts of these two districts within a belt fully 90 miles long by 12 miles wide. Many of the smaller deposits have already been worked out, but most of the larger ones are far from being exhausted. The diamonds are found in irregular patches of gravel or in well-defined "runs", which may exceed 150 yards in width and may extend, though not continuously, for miles. The patches are clearly remnants of such "runs". The gravels consist of boulders and pebbles of chert embedded in a brown clayey matrix. Angular chert fragments are mixed with well rounded boulders. Quartzite, quartz, agate, and chalcedony are much in evidence. Grains of ilmenite, garnet, and other minerals associated with diamonds in kimberlite are rarely found.

The gravels rest on an ancient dolomite surface occupying gentle depressions, channels, or irregular hollows, and in certain places huge sink-holes in the dolomite locally termed "potholes", which in a few instances exceed 100 feet in depth. The floor is very uneven and in places highly irregular. The gravels are rudely stratified, but the original bedding has been much disturbed, tilting due to subsidence having commonly taken place.

The diamonds of the more important Lichtenburg area average about one-half carat and are much inferior to those from the Vaal River diggings. Their average value has ranged between 34s. and 43s. per carat generally as against from 70s. to 120s. for the latter. The average value of the Ventersdorp stones is appreciably higher than the value of those from the Lichtenburg fields.

Harger, Beetz, and Du Toit conclude that the "runs" and patches mark the positions of ancient streams flowing in Ventersdorp from the north towards the Vaal River, and in Lichtenburg from the north-east into the Molopo River and then westwards into the Kalahari. The preservation of these ancient river deposits has been due essentially to solution of the underlying dolomite whereby they were protected from erosion.

(*d*) *South West Africa.*—Alluvial diamonds occur along the coast of South West Africa from the mouth of the Orange River northwards to Conception Bay, a distance of over 300 miles, and back from the coast to a distance of about twelve miles. There are four principal areas, Kolmanskuppe east of Luderitz, Pomona, Bogenfels, and Oranjemund to the south. The first three are situated in country characterized by north-south troughs bounded by bare rocky ridges with their floors filled with deposits of gravel and sand.

The diamonds occur for the most part in the upper layer of loose detritus, along the floors of such troughs and in other depressions. This layer is usually only a few inches thick, but may be up to 25 feet thick. It is composed of 20 to 80 per cent. of yellow sand and 20 to 40 per cent. of coarse material from 1 to 10 millimetres in diameter. The diamonds are concentrated with the coarse material which is composed of milky quartz, white feldspar, yellow chalcedony, banded agate, red jasper, red garnet, epidote, magnetite, and specular iron.

The immediate concentration of the diamonds is brought about by the action of a wind that blows strongly from the south for many months of the year and takes the fine material out of the upper layers. Previous to this recent concentration some of the diamonds had been deposited as gravels in old river beds of Tertiary age. Their ultimate source is thought to be pipes of kimberlite. Such pipes occur inland in this region, but up to the present no diamonds have been found in them.

At Oranjemund diamondiferous raised marine beaches are developed like those across the Orange River standing at from 12 to about 60 feet above sea-level, and from them has been recovered the largest diamond yet discovered along the coast, one of 246 carats.

(*e*) *Namaqualand.*—Alluvial diamonds occur along the coast of Namaqualand from the mouth of the Orange River south-west to Zout River, a distance of over 200 miles. The diamonds are found in marine gravels occupying wave-cut terraces lying at elevations of from 20 to 210 feet above sea-level. The greatest distance from the present shore line at which they have been found is three miles. The deposits are for the most part buried by sand, surface limestone, and later gravels.

The most important deposit so far found is situated three-quarters of a mile south of the Orange River and one and a half miles from the coast at a spot known as Alexander Bay. This to-day constitutes the State Alluvial Diggings. A strip of gravel from 8 to 40 feet wide occupies a storm beach from 110 to 135 feet above sea-level. This has been proved to be very rich in diamonds of exquisite quality. There is an almost complete absence of inferior stones and bort. The first parcel excavated from this locality fetched an average price of over £12 per carat.

Rich terraces have also been worked at Klein See at the mouth of the Buffels River, while productive alluvial gravels occur along that river through a distance of 25 miles.

The origin of these diamonds along the Atlantic coast has not been unquestionably established. Some of them must have been brought down from the interior by the Orange River and its tributaries and redistributed by waves and currents, though local sources can also be suggested and possibly submarine pipes off the coast.

(*f*) *Exploitation.*—The shallower deposits are worked by stripping the overburden and excavating the gravel. Open-cast methods are used also in working some of the larger potholes in the Lichtenburg fields. On certain of the deep gravel deposits in the Vaal River area, however, the ground is strong enough to admit of underground work. In such cases shafts up to 100 feet deep are sunk to the payable gravels. Where the diamonds lie along the bottom of an old watercourse they can be excavated by driving along the bottom of the depression. More extensive areas of payable ground are mined by the pillar and stall method.

Deposits in the bed of the Vaal River have been worked by constructing dams or breakwaters above or around the "pools", pumping them dry, and excavating the gravel in the ordinary way. Although such operations involve a great deal of risk, some of them have yielded handsome profits.

After excavation the gravel is generally sorted, very fine stuff and coarse material being discarded. The intermediate product is then washed in hand-operated rotary pans of the same type as those used on the mines. The concentrate is drawn off at intervals and further concentration is effected by hand jigging in small circular sieves with one-eighth inch openings, before being sorted on canvas covered tables. Certain syndicates, however, work their claims with large and elaborate plants.

At Lichtenburg and other fields far from flowing streams, water has to be hauled to the diggings, and its cost is a very serious item of expenditure. White diggers usually employ one or more native helpers.

The figures for 1938 show that 3,183 Europeans and 8,995 non-Europeans were engaged in alluvial operations. The diamonds found amounted to 259,146 metric carats valued at £973,335.

4. **Economic Factors.**—In 1933 negotiations were carried on between the producers of the Union and South West Africa, The Diamond Corporation, Limited, and the Union Government. The outcome of these negotiations was the formation of the Diamond Producers' Association, the members of which are:—

The Government of the Union of South Africa.
The Administrator of South West Africa, and
The Consolidated Diamond Mines of South West Africa, Limited.
De Beers Consolidated Mines, Limited.
Premier (Tvl.) Diamond Mining Company, Limited.
New Jagersfontein Mining and Exploration Co., Ltd.
Cape Coast Exploration, Limited.
The Koffiefontein Mines, Limited.

The volume of trade available is apportioned amongst the members on a basis of quotas. The Diamond Producers' Association has entered into an agreement for the sale of its diamonds with a new company styled The Diamond Trading Company, Limited. As the result of these arrangements the two basic principles on which the prosperity of the diamond trade depends, namely, the control of production and sales through one channel, are ensured.

South Africa is no longer in the happy position it occupied some years ago of having practically a world monopoly of the supply of diamonds. Production in other parts of the world, notably Angola, Belgian Congo, and Gold Coast, has increased, until it has well exceeded that of the Union. Flooding of the market from those sources has, however, been prevented by means of working agreements with the producers in Angola and the Congo.

The closing during the past few years of all mines has meant that the entire output has been furnished by the alluvial fields. The progressive reduction of the output, the sales of accumulated stocks, and the increased demand for diamonds have, however, rendered possible a resumption of mining.

5. **Government Control.**—Except in the case of those on a few farms, precious stones are the property of the State. In the case of a mine, save for various existing concerns, the Government retains the right to one-half if existing on private land and seven-tenths if existing on Crown reserves. The State owns a six-tenths interest in the Premier Mine.

For a monthly payment of 5s. a digger may peg and work a claim 45 feet long by 45 feet broad on a proclaimed diggings. Because of the ease with which diamonds can be stolen, stringent laws are in existence, which make the buying and selling of uncut stones unlawful except to properly licensed persons. All diamonds purchased on the diggings are liable to examination by Government experts, who are able to distinguish the stones from the various deposits, and such examinations form a check on the sale of stolen diamonds as products of alluvial claims. Formerly the discovery of a payable alluvial deposit invariably led to the proclamation of the ground as a public diggings after the owner's and the discoverer's rights had been secured. The over-production of the Lichtenburg fields gave rise in 1927 to legislation which enabled the Government to permit or prohibit the prospecting and working of diamonds on private as well as on Crown lands, and to control the disposal of the diamonds won. In Namaqualand the Government retains full possession of all diamonds on Crown reserves, except in the case of the several discovery rights that have been granted. Outside these discovery claims the fields are being operated as a State diggings. An export tax of ten per cent. on uncut diamonds has been in force since 1919. There is a further tax of 15 per cent. on profits.

6. **Prices.**—During the years 1911 to 1913 the average prices of mine stones produced in the Union were 32s. 1d., 36s. 5d., and 40s. 1d. respectively per metric carat of 200 milligrams. In 1920 the average price for mine stones had risen to 99s. 9d. At the end of that year, however, a complete collapse occurred in the diamond trade. This was due to over-production, as well as to a world-wide financial depression, which caused many of those adversely affected by it to sell their diamond jewellery, and severely curtailed the buying of new diamonds. There has been some improvement in the price since that time.

The prices of alluvial stones, although on the average much higher than those of the mine stones of equal weight, fluctuate on the market in sympathy with the rise and fall of the latter. Price, however, is also dependent upon the quality and size of the diamonds produced. Thus the drop in the average price of alluvial stones during the years 1926 and 1927 is directly due to the large quantity of stones of small size and relatively poor quality sold from the Lichtenburg fields during that period.

AVERAGE PRICE OF DIAMONDS, PER METRIC CARAT, 1934 TO 1938.

YEAR.	CAPE OF GOOD HOPE.	TRANSVAAL.	ORANGE FREE STATE.	UNION.
	s. d.	s. d.	s. d.	s. d.
1934	48 9	31 10	17 9	39 6
1935	28 10	16 0	112 8	24 6
1936	62 3	43 0	26 3	58 5
1937	87 8	43 2	45 3	78 10
1938	58 6	39 0	25 11	50 6

The following table shows the varying prices of stones over a period of years commencing with 1912.

AVERAGE PRICE OBTAINED FOR DIAMONDS, 1912 TO 1938.

Year.	Average Price per Metric Carat obtained for—		
	Mine Stones.	Alluvial Stones.	All Stones.
	s. d.	s. d.	s. d.
1912	36 5	104 11	39 1
1915	45 9	78 3	51 6
1920	99 9	213 3	113 11
1925	57 4	159 5	66 8
1930	61 5	65 1	62 8
1934	31 10	55 6	39 6
1935	18 3	62 9	24 6
1936	55 3	97 7	58 5
1937	80 10	71 10	78 10
1938	47 3	56 10	50 6

7. **Diamond Cutting.**—By far the greater part of the diamonds produced in South Africa is shipped to London and eventually cut and polished in Amsterdam and Antwerp.

Cutting operations have been carried on in South Africa for a considerable time, but originally began on a very small scale. Thus in 1909 there were two small factories in Johannesburg. The industry was slow to expand, notwithstanding the fact that in 1917 a 5 per cent. export duty was imposed, that in 1919 this duty was raised to 10 per cent., and that an Act was passed for the control of cutting factories and for the purpose of ensuring a reasonable supply of rough diamonds for the cutters.

The South African cutter has an advantage over the European cutter of about 11¼ per cent. in price.

In the year 1926 valuable discoveries of alluvial diamonds were made in the Lichtenburg district of the Transvaal; in 1927 the production from this source was at its peak and in consequence prices fell. Thus not only did existing cutters increase their output, but new cutters started business, and at the end of 1927 there were eight cutting establishments, which during the latter half of 1927 cut 1,515 carats in the rough, valued at £9,000, and employed among them an average of 36 skilled workmen and 23 apprentices.

Early in 1928 the Government entered into an agreement with some Belgians to establish a large factory in South Africa and train considerable numbers of South African apprentices. This fact, and the fact that the Government made available to cutters at the end of 1928 diamonds acquired from the State Alluvial Diggings, encouraged far more cutters to come out from Europe and set up in business, and also brought about an increase in the output of factories already established.

During the year 1929 there were 25 factories working; these factories produced £1,451,002 worth of polished diamonds. The following table contains particulars of the Union's diamond cutting industry from 1929.

DIAMOND CUTTING INDUSTRY AT 31st DECEMBER, 1929 TO 1938.

Year.	Establishments.	Licensed Cutters.	Registered Employees.	Apprentices.	Other European Employees.	Native Employees.	Diamonds Polished.	
							Weight.	Value.
	No.	No.	No.	No.	No.	No.	Carats.	£
1929...	25	33	357	350	34	34	45,740·42	1,451,002
1930...	26	31	281	362	35	35	54,506·86	1,414,631
1931...	32	43	215	347	16	23	50,320·75	956,937
1932...	28	37	211	237	16	24	47,616·72	752,573
1933...	22	43	183	164	22	32	65,496·11	1,200,681
1934...	22	38	197	118	14	22	42,126·52	928,874
1935...	27	38	223	51	19	20	44,270·70	982,013
1936...	16	36	204	9	14	17	41,853·07	904,751
1937...	15	36	105	3	13	16	48,375·91	1,163,095
1938...	18	38	158	1	4	17	42,482·10	914,995

§ 10. Gem Stones other than Diamonds.

1. **Garnets.**—Garnets of good quality and several varieties of spinel occur in the Zoutpansberg district of the Transvaal, but so far these have not been exploited on any large scale.

2. **Beryl.**—Beryls, including the emerald variety, occur in pegmatites and mica schists in the Leydsdorp area of the Letaba district in the Transvaal. A great deal of prospecting has taken place and some half-dozen small producing mines were actually brought into being during 1928 and 1929. The restricted demand for stones under depressed world conditions resulted in the closing down of all but one of these mines, and prospecting in the mica schists has ceased. The following table gives particulars of sales and shipments of beryl crystals for a series of years:—

BERYL (EMERALD) CRYSTALS, SALES AND SHIPMENTS, 1929 TO 1938.

Year.	Quantity.	Value.	Year.	Quantity.	Value.
	Carats.	£		Carats.	£
1929.....	49,887	16,206	1934.....	*	10,698
1930.....	36,431	11,100	1935.....	*	10,756
1931.....	46,178	8,360	1936.....	*	6,082
1932.....	8,085	2,932	1937.....	*	10,838
1933.....	14,764	4,220	1938.....	*	8,601

* Not available.

3. **Verdite.**—A variety of serpentine, which has obtained the local name of verdite, has been worked in the Barberton district of the Transvaal. This is an extremely beautiful stone of a green colour, suitable for all manner of small ornaments, clock-cases, etc., but too soft for architectural purposes.

4. **Crocidolite.**—In South Africa, this term has been commonly applied to the "chatoyant" hard variety of the mineral used in jewellery and for ornamental purposes and known as "tiger's eye" and "cat's eye". The distribution of the valuable species is comparatively limited, little being found away from the farm Naauwpoort in the Hay district of the Cape Province. Enough is available there, however, to supply the world's requirements for an indefinite time.

5. **Jade.***—The so-called South African "jade" is found in the Transvaal, between Pretoria and Rustenburg. It possesses all the qualities of a semi-precious stone, and has been found well suited for the manufacture of articles of stone jewellery. The commonest colour is green, not much different from that of true jade, but pink and other lighter shades are also found. In 1924, 1,347 lb. valued at £323 were sold and in 1929, 190 lb. valued at £38. The known deposits of this mineral are limited in extent, and there has been no production since 1929.

§ 11. Coal.

1. **General.**—The discovery of coal in South Africa had very far-reaching effects upon the trade and prosperity of the country. There are no old records as to the extraction of this mineral, but it is probable that both natives and colonists won a little from the outcrop seams some years before any of the coal beds were put to commercial use. In 1878 Dunn and North reported upon the existence of workable coal in the Stormberg beds of Cape Colony, and at Indwe, Molteno, and other localities seams of second-rate coal have been mined for many years.

In the Transvaal coal was first opened up near Boksburg in 1887, and the finding of this mineral in close proximity to the Witwatersrand gold fields was of the greatest importance, as the high plateau in which the gold-bearing beds were discovered was practically destitute of timber, and there was no railway communication to the coast or to other coal fields. Following upon the discovery at Boksburg, large seams of good coal were opened up in the Witbank district, and, with good railway communication to Johannesburg, the Witbank collieries now supply the bulk of the coal used by the mines and other industries.

Natal, speaking generally, produces the best coal in the Union, and does a large shipping trade. The seams, however, are smaller and deeper than those of the Transvaal; gas and dust exist in some pits, and working costs are higher than in the other provinces. It is probable that the large bodies of anthracitic coal which exist in Natal will also be worked in the future, and that some of the poorer seams now discarded will be utilized for the extraction of by-products.

South Africa has made its name through the production of gold and diamonds, but it is mainly due to the existence of cheap coal that the large output of gold and diamonds has been made possible.

2. **Production of Coal.**—The following statement shows the quantity and value of coal produced from 1934. Figures showing the annual output of coal from the earliest date for which records are available appeared in No. 17 and earlier issues of the *Year Book*.

OUTPUT OF COAL, VALUE, AND VALUE PER TON, 1934 TO 1938.

Year.	Quantity.					Value.	Average Value per ton.
	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Union.	Union.	Union.
	Tons (2,000 lb.).	Tons (2,000 lb.).	Tons (2,000 lb.).	Tons (2,000 lb.).	Tons (2,000 lb.).	£	s. d.
1934.....	4,023	3,499,588	7,969,671	1,642,364	13,116,546	3,154,195	4 10
1935.....	4,214	3,969,313	8,989,857	1,644,220	14,607,604	3,539,796	4 10
1936.....	4,071	4,183,933	10,129,421	1,678,951	15,996,376	3,949,736	4 11
1937.....	3,706	4,095,185	11,039,773	1,579,570	16,718,234	4,205,836	5 0
1938.....	3,108	4,447,980	11,518,304	1,566,838	17,536,230	4,729,423	5 5

3. **Geology and Occurrences.**—Most of the South African coalfields are now well-known geologically, and the more important have been well prospected by boreholes and other means. They have been described in detail in the three volumes of Memoir No. 19 of the Geological Survey, by W. Wybergh, which contain many maps, sections, and analyses, together with detailed estimates of the coal reserves available in each field, and a summarized extract of these estimates appears below. The coal of all the more important fields occurs in the series of grits, sandstones, and shales forming the "Middle

* From a paper by Dr. A. L. Hall ublished in the Transactions of the Geological Society of South Africa, Volume XXVII, 1924.

Ecca" beds of the Karroo Series in the south-eastern Transvaal; the only exceptions known are the Waterberg coalfields, where the coal seams probably belong to the Upper Ecca, the Somkele field in Zululand, probably of Beaufort age, and the Stormberg field of the Cape Province, where the coal occurs in the Stormberg Series.

The principal coalfields are as follows:—

(a) *Transvaal.*—(i) *Witbank.*—A well prospected and developed field. In general, a good steam coal, largely used for bunkering and export trade, as well as for general industrial and household purposes. Calorific value as mined 12·5 to 13, volatiles about 24·5 per cent. Not usually a coking coal.

(ii) *Springs-Heidelberg.*—Includes several isolated areas, the greater part of which is little known. A steam coal with 21 per cent. to 22 per cent. volatiles, and calorific value ranging from about 9 to 11·25. Of the "Undetermined" coal probably about one-third has a calorific value of over 11. None of the coal from this area is coking coal.

(iii) *Eastern Witbank.*—A well prospected but undeveloped field, continuous with the Witbank field proper. The coal is in general similar to that of Witbank, but of somewhat higher average calorific value. Much of the "Proved" and "Estimated" coal is, however, believed to be a coking coal.

(iv) *Bethal.*—Large quantities of coal are known to exist, of which some 480,000,000 tons, from one seam, are believed to have a calorific value of 11 to 12, the remainder being from 10·5 to 11. The field has been very little prospected, and the coal-bearing area may be considerably larger than here estimated.

(v) *Ermelo-Middelburg-Belfast.*—Well prospected in the neighbourhood of existing collieries, but includes a considerable area about which little is known. The Ermelo coal, as mined, has a general calorific value of a little over 12, with 28 per cent. to 29 per cent. volatiles. Not used for export, but largely used for household and railway purposes. The lower grades, not at present mined, are lower in volatiles. The Middelburg-Belfast area includes several detached areas, and except in one or two places has been little prospected. The coal appears to be of similar quality to that of Witbank, but of lower grade, the calorific value being from 11·5 to 12.

(vi) *Piet Retief-Wakkerstroom.*—The coal seams are undeveloped, but outcrop continuously for 100 miles. The classification of any portion of the coal as "proved" in the technical sense is thus open to question, though there can be no doubt whatever of the existence of the quantities thus classified. The further estimate of the total quantity is very speculative. The available analyses, very few in number, all indicate a high grade coal with calorific value from 12 upwards and volatiles ranging from 21 per cent. to 37 per cent.

(vii) *Springbok Flats.*—Practically nothing is known of the quality of this coal, and the estimate of the quantity is very speculative. Outcrops are not exposed, but seams have been penetrated by boreholes in several widely separated localities.

(viii) *Waterberg.*—Very little is known about this field, and the estimate is very speculative. Coal seams do not outcrop, but have been encountered in a number of boreholes in widely separated localities. In some cases the total thickness of coal is very great. The few analyses indicate calorific values of from 11 to 13, with volatiles ranging from 18 per cent. to 30 per cent. Some seams appear to contain good coking coal.

(ix) *Zoutpansberg.*—This field is almost entirely unknown, and the coal-bearing area and the thickness of coal are very uncertain.

(x) *Syferfontein No.* 32.—Coal of low grade. Calorific value below 10.

(xi) *Komatipoort.*—Hardly prospected and coal-bearing area unknown. Owing to the prevalence of dolerite intrusions, the prospects of development are unfavourable.

(xii) *Springfield.*—The coal seams vary from 17 to 70 feet in thickness and average 20 feet of workable coal of calorific value 10 to 11, ash 18 per cent., and volatiles 28 per cent. 60,000,000 tons of extractable coal have been proved in this area, and plant has been installed to produce up to 1½ million tons per annum.

The coal is being cleaned in a "Chance" sand flotation washer and is being used mainly for the generation of electricity.

It is a non-coking coal, burns with a long clear flame, and is suited for boiler and domestic requirements.

(b) *Natal.*—(xiii) *Klip River.*—Well prospected and fully developed. Large areas are affected by dolerite intrusions. Yields a good steam coal of consistent value, usually suitable for coking and largely used for export and bunker trade. Calorific values are usually from 13 to 14. Volatiles, where not affected by igneous intrusions, run from 20 per cent. to 30 per cent., but where so affected shew every graduation down to 30 per cent.

(xiv) *Vryheid.*—Well prospected and developed. The distinction between bituminous and anthracitic coal is more sharply marked than in the Klip River field. In other respects the coal is similar to that of the Klip River field and is used for the same purposes. There is a narrow but high grade seam with calorific value of over 14, which yields a first class coke.

(xv) *Utrecht.*—Well prospected in the neighbourhood of the collieries, where the coal is similar to that of the Vryheid field. Large areas, which almost certainly contain coal of similar quality, are as yet entirely unworked and little prospected.

(c) *Orange Free State.*—The data on which the estimates are based are meagre, except in proximity to working collieries, but the few boreholes scattered over a large area have uniformly revealed large seams of coal. Little is known of the grade, but it is probably low. In the working collieries the calorific value ranges from 9 to 11, and the volatiles from 24 per cent. to 27 per cent. The coal is a non-coking steam coal.

(d) *Cape Province.*—Although in the Stormberg area coal is found in considerable quantities and was formerly worked on a fairly large scale, it is so thin and of such poor quality, besides being much broken by igneous intrusions, that it is not worth including in the estimate.

The following table contains data relative to the coal resources of the Union and shows the quantities of coal, the existence of which is "proved", and the proportions at given calorific values.

COAL RESOURCES OF THE UNION OF SOUTH AFRICA.*

(a) PROVED QUANTITIES OF COAL AT CALORIFIC VALUES 12 AND 11.†

Coalfields.	Calorific Value.‡			
	Over 12.	Under 12.	Over 11.†	Under 11.†
Transvaal—	Tons = 2,000 lb.	Tons = 2,000 lb.	Tons = 2,000 lb.	Tons = 2,000 lb.
Witbank	759,568,000	2,235,807,000	1,978,183,000	1,017,192,000
Springs–Heidelberg	—	344,839,000	49,309,000	295,530,000
Eastern Witbank	561,665,000	596,249,000	963,199,000	194,715,000
Bethal	—	—	—	—
Ermelo – Middelburg – Belfast	141,310,000	250,900,000	212,135,000	180,075,000
Piet Retief–Wakkerstroom	1,500,000,000	—	1,500,000,000	—
Springbok Flats	—	—	—	—
Waterberg	—	—	—	—
Zoutpansberg	—	No Estimate	Possible.	
Syferfontein No. 32	—	10,000,000	—	10,000,000
Komatipoort	—	No Estimate	Possible.	
Natal—				
Klip River	433,290,000	19,912,000	453,202,000	—
Vryheid	260,341,000	16,761,000	261,403,000	15,699,000
Utrecht	41,456,000	52,642,000	41,456,000	52,642,000
Orange Free State	—	1,500,350,000	—	1,500,350,000
Cape Province	—	Negligible.		
UNION OF SOUTH AFRICA	3,697,630,000	5,027,460,000	5,458,887,000	3,266,203,000

* Geological Survey Memoir No. 19 (W. J. Wybergh), Vols. 1, II, and III.

† Alternative estimate.

‡ Calorific value in lb. water per lb. at 212°F. Of the "proved" coal in Natal, 40 per cent. contains less than 16 per cent. volatiles.

COAL RESOURCES OF THE UNION OF SOUTH AFRICA*—(*continued*).

(*b*) Quantities of Coal, Proved, Estimated, and Undetermined.

Coalfields.	Proved.	Estimated.	Undetermined.	Total.
	Tons = 2,000 lb.	Tons = 2,000 lb.	Tons = 2,000 lb.	Tons = 2,000 lb.
Transvaal—				
Witbank	2,995,375,000	2,738,173,000	1,500,000,000	7,233,548,000
Springs-Heidelberg	344,830,000	2,818,000,000	8,107,744,000	11,270,583,000
Eastern Witbank	1,157,914,000	3,799,890,000	1,500,000,000	6,457,804,000
Bethal	—	—	7,508,000,000	7,508,000,000
Ermelo – Middelburg – Belfast	392,210,000	1,913,000,000	3,536,000,000	5,841,210,000
Piet Retief-Wakkerstroom	1,500,000,000	1,060,000,000	5,690,000,000	8,250,000,000
Springbok Flats	—	—	12,000,000,000	12,000,000,000
Waterberg	—	—	7,400,000,000	7,400,000,000
Zoutpansberg		No Estimate	Possible.	
Syferfontein No. 32	10,000,000	—	—	10,000,000
Komatipoort		No Estimate	Possible.	
Natal—				
Klip River	453,202,000	777,345,000	918,500,000	2,149,047,000
Vryheid	277,102,000	294,398,000	—	571,500,000
Utrecht	94,098,000	1,132,794,000	4,880,000,000	6,106,892,000
Orange Free State	1,500,350,000	471,900,000	150,000,000,000	151,972,250,000
Cape Province		Negligible.		
Union of South Africa	8,725,090,000	15,006,100,000	203,040,244,000	226,771,431,000

* Geological Survey Memoir No. 19 (W. J. Wybergh), Vols. I, II, and III.

The basis of the estimate in the foregoing table is as follows:—

No seam is included which has a thickness of less than 3 feet of clean coal, except to a very limited extent in Natal. There are, however, many such seams in most of the coal fields, which in the aggregate contain large amounts of coal.

"Proved" coal, except in the case of the Piet Retief-Wakkerstroom field, is taken to mean coal which has been sufficiently prospected to warrant immediate opening up where the quality and economic conditions permit.

"Estimated" coal is taken to mean coal, the existence of which is fairly certain, but which requires further investigation to warrant the expenditure of capital.

"Undetermined" coal is that about which little is known in detail, but of the probable existence and extent of which there is good and sufficient geological evidence to warrant prospecting.

These estimates do not take volatile matter into consideration. The calorific value of the "estimated" and "undetermined" coal is uncertain or unknown. Large quantities of low grade coal, probably of calorific value less than 10, have been entirely omitted from the estimate.

The analyses contained in the following table may be taken as representative of Transvaal and Natal coals as supplied for export and bunkering.

ANALYSES OF TRANSVAAL AND NATAL COALS, 1937.

Name of Company and Class of Coal.	No. of Trucks Sampled.	Moisture. %	Ash. %	Volatile Matter.* %	Fixed Carbon. %	Cal. Val. lb./lb.	Ash Fusion Temperature °C.
(i) Average Analyses of Samples of Transvaal Export and Bunker Coals.							
Clydesdale (Transvaal) Collieries, Ltd.—							
Round	3	1·9	14·7	31·0	52·4	12·4	1400
Consolidated Marsfield Collieries, Ltd.—							
Round	14	2·5	15·1	31·6	50·8	12·2	1300
Nut	4	·4	15·8	32·6	49·2	12·1	1300
Coronation Collieries, Ltd.—							
Round	21	2·2	10·6	25·8	61·4	13·1	+1400
Douglas Colliery—							
Round	2	1·9	12·8	26·7	58·6	13·0	+1400
Middelburg Steam Coal & Coke Co., Ltd.—							
Round	18	1·7	13·9	27·4	57·0	12·8	+1400
Oogies Navigation Collieries, Ltd.—							
Round	14	2·7	12·4	32·2	52·3	12·4	1300
Phoenix Collieries, Ltd.—							
Round	7	2·2	12·0	31·5	54·3	12·9	1400

* Volatile matter determined in an electric muffle furnace at 920° C.

ANALYSES OF TRANSVAAL AND NATAL COALS, 1937—(*continued*).

Name of Company and Class of Coal.	Number of Trucks Sampled.	Moisture. %	Ash. %	Volatile Matter.* %	Fixed Carbon. %	Cal. Val. lb./lb.	Ash Fusion Temperature °C.
(i) Average Analyses of Samples of Transvaal Export and Bunker Coals—(*continued*).							
South African Coal Estates (Witbank), Ltd. (Landau)—							
Round	18	1·8	12·4	26·4	59·4	13·1	+1400
Transvaal & Delagoa Bay Collieries—							
Round	29	1·6	12·9	30·0	55·5	13·0	+1400
Witbank Colliery, Ltd. (Southern Section)—							
Round	20	1·6	13·0	29·1	56·3	12·9	1400
Nut	20	1·5	16·8	27·2	54·5	12·2	1400
Witbank Colliery, Ltd.—(Central Section)—							
Round	1	1·5	13·2	27·0	58·3	13·1	+1400
(ii) Average Analyses of Samples of Natal Export and Bunker Coals.							
Dundee Coal Co., Ltd. (Burnside)—							
Round	70	1·4	12·6	20·4	65·6	13·7	+1400
Nut	15	1·3	11·0	21·3	66·4	14·0	+1400
Durban Navigation Collieries, Ltd.—							
Round	48	1·7	12·9	29·6	55·8	13·3	1300
Nut	47	1·6	11·5	31·4	55·5	13·6	1350
Enyati Colliery, Ltd.—							
Round	48	1·8	13·2	17·6	67·4	13·5	1300
Nut	42	1·7	13·7	18·2	66·4	13·5	1400
Natal Cambrian Collieries, Ltd.—							
Round	45	1·3	12·4	20·1	66·2	13·6	1250
Nut	16	1·4	11·3	20·0	67·3	13·9	1300
Northern Natal Navigation Collieries, Ltd.—							
(Dumbe) Round	8	2·3	8·9	33·0	55·8	14·0	1350
(Makateeskop) Round	48	2·1	9·8	20·2	67·9	13·9	1400
(Makateeskop) Nut	48	1·9	9·8	21·9	66·4	14·0	1400
Northfield Collieries—							
Round	18	1·4	11·5	19·6	67·5	13·9	1400
Utrecht Collieries, Ltd.—							
Round	24	1·8	11·7	22·8	63·7	13·6	1100
Vryheid (Natal) Rlwy. Coal & Iron Co., Ltd.—							
Hlobane (Dundas Seam) Round	28	1·8	11·8	16·8	68·6	13·8	+1400
Hlobane (Gus & Alfred) Round	24	1·5	14·3	19·2	65·0	13·3	1350
Hlobane (All Seams) Round	37	2·0	12·9	16·5	68·6	13·6	1400
Hlobane (All Seams) Nut	42	1·6	12·2	20·7	65·5	13·7	+1400
Hlobane (Cobbles)	4	1·6	13·9	20·4	64·1	13·4	1400
Vryheid Coronation, Ltd.—							
Round	40	1·2	13·9	20·1	64·8	13·6	+1400
Nut	26	1·2	13·1	19·8	65·9	13·7	+1400

* Volatile matter determined in an electric muffle furnace at 920° C.

4. **Methods of Mining.**—The methods of mining followed in the Natal, Transvaal, and Orange Free State coal mines were briefly described in previous issues of this *Year Book* (Nos. 1 to 4).

5. **Coke, By-Products, Tar, etc., produced by Mines.**—(i) *Coke.*—Up to the beginning of 1914 the manufacture of coke was confined to the Province of Natal, which supplied all the coke used in South Africa and also exported a considerable quantity.

In 1938 the output of coke by mines was 179,630 tons, valued at £201,582.

Natal coke is of excellent quality especially for foundry work, being very dense and hard. Analyses of a typical Natal coke taken over a period of two years gave the following results: Fixed carbon, from 88·60 per cent. to 89·40 per cent.; ash, from 10·4 per cent. to 9·80 per cent.; sulphur, from 0·60 per cent. to 0·50 per cent.; calorific power, 13·12 per cent.

(ii) *By-Products.*—The Dundee Coal Company is producing the following by-products at its Waschbank Factory, Natal: tar, ammonia liquid, light creosote oil, naphtha salts, solvent naphtha, and benzol.

(iii) *Tar.*—During 1938, 267,121 gallons were sold for £5,242, Natal disposing of the whole amount.

The S.A. Iron and Steel Industrial Corporation at Pretoria also produces large quantities of coke, tar, and other by-products. (See also § 3, Chapter XXIII.)

6. **Employment and Accidents in Coal Mining.**—The number of persons employed in coal mining during the year 1938 is shown below. The table also shows the number of persons killed and injured, and the proportion killed per thousand employed.

COAL MINES—EMPLOYEES AND ACCIDENTS, 1938.

Province.	Persons Employed in Coal Mining.		Accidents.		Death-Rate from Accidents per 1,000 Employed.
	European.	Other.	Persons Killed.	Persons Injured.	
Cape of Good Hope.....	4	49	—	—	—
Natal.....	596	12,593	31	668	2·35
Transvaal.....	1,199	16,709	34	391	1·99
Orange Free State.....	132	2,396	4	35	1·58
UNION.....	1,931	31,747	69	1,094	2·05

7. **Conditions of Labour in Collieries.**—In the collieries, the European miner is in the position of a supervisor, having usually from 50 to 100 natives employed under him. He does little manual work beyond conducting blasting operations and examining the places before the natives enter and start work. Natives (the aboriginal Bantu inhabitants of South Africa) do all the manual work, such as hewing the coal, filling it into trucks, and tramming. In Natal, Indians are employed, as well as natives, and are efficient in supervising stationary engines, running coal cutters, setting timber, and pipe and track laying.

The hours worked are, as a rule, forty-eight hours a week, and where this is exceeded overtime is paid.

8. **Wages (Coal Mines).**—During 1938 European miners' wages (including allowances but excluding overtime) averaged 22s. 6d. per shift in the Transvaal and 23s. 0d. in Natal. The average wages per month for natives in the Transvaal and Natal were 52s. 8d. and 49s. 7d. respectively, with quarters, rations, and medical attendance supplied. Indians, as a rule, draw slightly higher wages than natives, as they remain longer on the mines, and their increased efficiency entitles them to superior remuneration. The following statement shows the wages earned in the collieries in 1938:—

COAL MINES—WAGES PAID, 1938.

Province.	Europeans. Males.	Asiatics. Males.	Natives and Others.	
			Males.	Females.
	£	£	£	£
Cape of Good Hope.....	663	—	833	36
Natal*.....	237,943	25,431	323,306	304
Transvaal.....	483,390	115	492,712	89
Orange Free State.....	57,497	—	68,135	—
UNION.....£	779,513	25,546	884,986	429

* Including wages in respect of coal by-products works.

9. **Capital (Coal Mines).**—The subjoined statement shows the capital invested in collieries in the Union and the dividends arising therefrom in 1937 and 1938:—

COAL MINES—CAPITAL, 1937 AND 1938.

Province.	Capital.			Debentures.		Dividends Declared.
	Nominal.	Reserve Uncalled and Unpaid.	Net Issued.	Total Issued.	Net Amount Outstanding.	
1938.	£	£	£	£	£	£
Natal*.....	3,196,700	275,949	2,920,751	569,955	142,925	214,817
Transvaal*‡.....	6,538,349	1,098,782	5,439,567	882,546	199,550	762,195
Orange Free State†.....	2,000,000	—	2,000,000	—	—	196,000
Union, 1938.....£	11,735,049	1,374,731	10,360,318	1,452,501	342,475	1,173,012
Union, 1937.....£	11,488,354	999,823	10,488,531	1,222,981	445,286	1,047,100

* Includes companies also producing coal by-products.
† Includes a considerable amount representing value of estate property and also of one colliery in the Transvaal.
‡ Includes one colliery in the Orange Free State.

10. **International Comparison of Production.**—Compared with the enormous coal production of such countries as the United States of America, the United Kingdom, and Germany, the coal output of the Union is small. The following table gives the production in tons of 2,000 lb. of some of the chief coal-producing countries of the world, during a series of years:—

OUTPUT OF COAL* IN VARIOUS COUNTRIES, 1913 TO 1938.

Year.	United Kingdom.	India.	Canada.	Australia.	U.S.A.	Germany.§	France.	Belgium.	Japan.	UNION.
	Tons, 1,000.	Tons, 1,000.	Tons, 1,000.	Tons, 1,000.	Tons, 1,000.	Tons, 1,000.	Tons, 1,000.	Tons, 1,000.	Tons, 1,000.	Tons, 1,000.
1913..	321,922	18,153	14,870	13,906	569,961	176,521	48,624	25,179	23,497	8,801
1920..	257,076	20,117	14,072	14,403	658,261	172,201	27,015	24,680	32,237	11,473
1925..	272,358	22,366	10,719	15,589	581,868	180,551	52,230	25,460	34,678	13,000
1930..	273,007	25,305	12,580	11,359	531,437	193,032	59,392	30,212	34,591	13,106
1934..	247,464	22,527	11,667	11,954	415,324	171,262	52,501	29,088	39,604	13,117
1935..	249,700	23,347	11,482	13,024	417,679	193,751	50,940	29,194	38,479	14,008
1936..	255,943	22,963	12,602	13,872	486,264	214,010	49,855	30,728	41,958	15,996
1937..	270,123	24,881‡	13,316‡	†	489,981‡	248,625‡	48,850	32,712	†	16,718
1938..	255,599	28,241	11,935	†	387,334	252,989	51,257	32,606	†	17,536

* These figures include lignite converted into terms of coal at the ratio of 9:2 for Germany and 3:1 for other countries. The data have been compiled from the League of Nations *Monthly Bulletin of Statistics*, except those relating to Australia, which were taken from the Australian *Official Year Book*.
† Not available. ‡ Amended figure. § Since March, 1935, includes Saar production.

11. **Union Coal Trade and Coal Consumption.**—As South Africa is far from any of the important coal fields of the world, its coal deposits are of the utmost value to it. Aided by an ample supply of cheap coal or electric power generated by means of coal, new industries are rapidly developing throughout the country. For many years to come South Africa should be able to supply coal at a cheap rate; for, while wages are likely to increase in older countries, the native of South Africa will probably remain content to work for far less than a European. This fact, taken together with the favourable geographical situation of the Union, will enable the country to compete on advantageous terms with the other coal-producing countries of the world.

The following table shows the quantity in tons of 2,000 lb. of coal imported into, exported from, and consumed in the Union during certain years:—

COAL—IMPORTS, EXPORTS, AND CONSUMPTION, 1911 TO 1938.

Year.	Consumption of Coal.			Coal Imported.	Coal Exported.	Coal Bunkered.†
	Total.	Railway.*	Mines.			
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1911.....	6,139,481	1,463,226	2,608,043	68,035	82,586	1,440,912
1915.....	6,497,716	1,875,377	2,241,131	28,495	506,551	1,305,552
1920.....	8,322,218	2,745,681	2,338,849	7,741	1,301,272	1,857,715
1925.....	9,287,557	3,107,081	1,739,878	18,275	1,759,626	1,476,758
1930.....	10,233,819	3,047,851	2,050,482	8,258	1,415,127	1,465,625
1934.....	11,085,837	2,990,846	1,996,216	45	1,035,763	994,991
1935.....	12,161,872	3,336,185	2,109,280	14,744	1,272,780	1,187,696
1936.....	13,478,120	3,580,551	2,249,837	25,061	1,178,041	1,305,276
1937.....	14,597,388	4,064,887	2,278,228	27,419	887,662	1,260,603
1938.....	15,310,984	‡	2,440,510	26,022	993,129	1,258,139

* Steam coal only. † Shipped in vessels cleared overseas only. ‡ Not available.

12. **Price of Coal.**—The price of coal varies considerably in the different provinces. The reason for this difference in prices is largely due to the situation of the collieries. Thus the Cape Province coal, though inferior in quality, fetches the highest price, because coal from other provinces has to be transported by rail to the Cape Province. The following table gives data from the year 1912, as to the average price of coal at the pit's mouth.

AVERAGE PRICES OF COAL (PIT'S MOUTH), 1912 TO 1938 (PER TON OF 2,000 LB.).

Period.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.
	s. d.	s. d.	s. d.	s. d.
1912	11 0·55	5 6·99	4 4·78	5 4·57
1915	11 4·22	6 9·50	4 4·82	5 2·14
1920	15 5·22	12 3·40	6 1·12	5 11·43
1925	14 4·98	7 5·13	5 0·67	5 6·33
1930	13 9·34	5 10·45	4 11·74	5 6·50
1934	12 1·86	5 3·01	4 8·27	4 5·20
1935	12 5·44	5 4·10	4 8·47	4 4·85
1936	12 4·98	5 8·79	4 8·32	4 5·03
1937	12 5·92	6 0·03	4 8·37	4 7·01
1938	11 4·37	6 9·32	4 11·31	4 9·32

13. **International Comparison of Prices.**—Apart from the price of Cape coal, the price of coal in the Union compares very favourably with the prices in other parts of the world.

The average pit's mouth prices of coal per short ton (2,000 lb.) in various countries are as follows:—

	Year.	s.	d.
United Kingdom	1937	15	2
South Africa	1938	5	4
Australia (New South Wales)	1937	10	10
Canada	1937	12	8
New Zealand	1937	17	10

The following table gives a comparison of the retail prices of coal in the Union and various other countries:—

INTERNATIONAL COMPARISON OF THE RETAIL PRICE OF COAL, 1929 TO 1938.

Year.	South Africa.	Canada.		Australia.	New Zealand.	United Kingdom.
		Anthracite.	Bituminous.			
	Per 100 lb.	Per 100 lb.	Per 100 lb.	Per 100 lb.	Per 100 lb.	Per 100 lb.
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
1929	1 7·43	3 3·93	2 0·83	3 1·55	3 1·03	1 10·99
1930	1 7·23	3 3·73	2 0·82	3 0·70	3 1·11	1 11·30
1931	1 7·11	3 3·59	2 0·27	2 9·65	3 1·10	1 11·60
1932	1 7·16	3 2·50	1 11·62	2 6·53	2 11·51	1 11·38
1933	1 6·44	3 1·12	1 10·89	2 6·23	2 8·15	1 11·03
1934	1 6·19	3 1·10	1 10·89	2 5·53	2 6·14	1 11·00
1935	1 6·14	3 0·25	1 11·03	2 5·30	2 7·50	1 10·90
1936	1 6·22	3 0·21	1 11·04	2 5·38	2 8·78	1 11·06
1937	1 6·39	2 11·47	1 11·04	2 7·55	2 10·61	1 11·88
1938	1 6·67	2 11·47	1 11·14	2 7·68	2 11·33	2 0·47

14. **Fuel Research Institute and Coal Act.**—The *Coal Act*, No. 27 of 1922, which came into effect on the 1st September, 1922, followed the lines of the Coal Commission's report. Its main provisions were summarized in *Official Year Book* No. 12 and were not repeated, as the Act was repealed on the 24th January, 1931, in terms of the provisions of section 21 of the *Fuel Research Institute and Coal Act*, No. 36 of 1930, which was brought into operation on the 6th September, 1930. Act No. 36 of 1930 was amended, and extended powers were granted to the Fuel Research Institute by Act No. 2 of 1933.

15. **Fuel Research Institute.**—The *Fuel Research Institute and Coal Act* constituted a Fuel Research Institute and a Fuel Research Board, the objects of the Institute, as defined by section 2 (1) of the Act, being—

(*a*) to study and investigate the fuel resources of the Union;
(*b*) to undertake scientific and technical research on all matters relating to fuels in general and to fuel by-products;
(*c*) to grade coals for export or bunkering;
(*d*) to investigate any other matter which the Minister, after consultation with the board appointed under section 3, may refer to it;
(*e*) subject to the approval of the Minister to establish such laboratories, testing stations, or sub-stations, as it may deem necessary; and
(*f*) to publish, from time to time, in such form as it may deem suitable, particulars of the grades of coal available in South Africa, and any other such information concerning the objects referred to in this section as it may deem suitable.

Under further provisions of the Act, the Institute has taken over the rights and assets and assumed the liabilities of the Coal Grading Committees created by Act No. 27 of 1922 and, as required by sub-paragraph (*c*) above, is carrying out the grading of coal, there having been no interregnum in the discharge of this function.

Grades and standards for coal have been adopted by the Institute as follows:—

TRANSVAAL.
First Grade..... Minimum calorific value, 12·8 lb./lb. units.
Second Grade..... Minimum calorific value, 12·3 lb./lb. units.
Third Grade..... Below the minimum calorific value of the second grade.

NATAL.
First Grade..... Minimum calorific value, 13·1 lb./lb. units.
Second Grade..... Below the minimum calorific value of the first grade.

The Institute is situated on the east side of Pretoria in the grounds of the Boys' High School (English medium) and in close proximity to the university.

§ 12. Non-Metallic Minerals other than Coal.

1. **General.**—Until recent years little interest has been shown in the occurrences of any other minerals but diamonds and gold; this applies more particularly to the non-metallic minerals. Prior to the Great War asbestos, common salt, and lime were practically the only non-metallic minerals which had received much attention.

The position had, however, improved considerably in the years immediately preceding the world depression, and, had not this set back then taken place, further attention would undoubtedly have been paid to the country's resources of non-metallic minerals, and production of these for both domestic and overseas consumption would have shown a material increase. With the recent improvement in world conditions and expansion of local industries, there are again indications of increased interest in this class of minerals.

The present position in regard to these has been summarized in the following paragraphs.

2. **Asbestos.***—Five classes of asbestos occur within the Union. They are:—Chrysotile, crocidolite, amosite, tremolite, and asbestic, but only the first three have been exploited to any considerable extent.

Asbestos mining began in 1893, when the Cape Asbestos Company produced nearly 100 tons of crocidolite. Chrysotile was first produced in 1906 and amosite in 1912.

It is of interest to note that the Union of South Africa is the only country in which the fibrous or asbestiform varieties of the two amphibole minerals, crocidolite and amosite, occur in a form and manner suitable for commercial exploitation.

* Geological Survey Memoir No. 12 (Revised), "Asbestos in the Union of South Africa." Hall, 1930.

(i) *Chrysotile.*—Chrysotile occurs in the rocks of the Jamestown basic igneous complex in the Barberton and Carolina districts of the eastern Transvaal and in Swaziland, and in various other places in the Transvaal and Natal where rocks of this character occur. Chrysotile also occurs in the serpentinized dolomites of the Dolomite series near Carolina.

The asbestos-carrying serpentine belt in the De Kaap valley, in the neighbourhood of Barberton, has a length of some 3 miles and a maximum width of 2 miles. On this belt are situated the New Amianthus and the Munnik-Myburgh mines. The fibre from this area is of excellent quality, and its character is well maintained to the lowest depths reached, some 600-700 feet vertically below surface. Work at the New Amianthus mine has been suspended, and the operations of the company owning it have been transferred to the Havelock mine in Swaziland.

The occurrences in the dolomite in the Carolina district extend over a distance of some 20 miles. The veins are lens-like and are not continuous over any distance, and payable bodies are limited.

(ii) *Crocidolite.*—Crocidolite occurs in Griqualand West over a distance of 250 miles from a point 30 miles from Prieska on the Orange river northward through Griquatown and Kuruman to the Bechuanaland border. The colour is blue varying in shade, and good commercial fibre works up easily, the fibres of the best grades being flexible and having a silky feel. Its tensile strength is greater than that of chrysotile, and it is acid and sea-water-resisting, but fuses at a lower temperature. In this district the crocidolite occurs in cross-fibre veins of lenticular shape in the thin bedded ironstones of the Griquatown series, comparable to the Pretoria series of the Transvaal. Veins vary in width up to 3 inches, but probably 70 to 90 per cent. of the asbestos in the rock is under ½ inch in length. Individual deposits in this area are small, and workings producing in excess of 20 tons of fibre per month are rare. Continuity of the asbestos zones is more evident in the southern part of this area, but the class and the length of fibre are on the whole better towards the north.

In the Pietersburg district lens-like veins of similar character to those in Griqualand West occur in the banded ironstone at the base of the Pretoria series. The quality of the mineral is not on the whole, however, as good as that of the Prieska-Kuruman area.

(iii) *Amosite.*—Amosite type of asbestos occurs at intervals over a distance of 60 miles between Chuniespoort, south of Pietersburg, northern Transvaal, and the Steelpoort river north of Lydenburg, eastern Transvaal. The fibre occurs as cross-fibre veins in banded ironstones of the Pretoria series, or within bands of ironstone included in the underlying dolomite. Its occurrence is confined to the lower 200 feet of the Pretoria series. The most important disclosures have been at the Penge mine, where there are three series of seams. The average length of the fibre is from 8 to 9 inches, but in some instances fibre up to 12 inches has been mined.

(iv) *Tremolite and Asbestic.*—Occurrences of tremolite are found in Zululand, and asbestic, a matted deposit of fibres, in the Zoutpansberg district of the Transvaal. The latter is being exploited for local consumption only.

(v) *Mining and Recovery.*—The rugged nature of the country in the Lydenburg-Pietersburg area lends itself to adit mining to a large extent, but in Griqualand West, where deposits are of limited extent, mining is done by the local natives, either on their own account or under white supervision. Open mining and underground mining on the filling system are practised.

When mechanical means are not available, veins of fibre are separated from the adhering rock by hand cobbing. The asbestos is fiberized with hammers and classified by being passed through screens of the trommel type. Where there is a mill, coarse crushing by jaw crushers or rollers is followed by sorting of the long fibre. The finer material is again crushed and passed to disintegrators or fiberizers. Shaking screens, cyclone collectors, and grading machines clean and classify the fiberized product, after which it is bagged and shipped to market.

In the eastern Transvaal, Swaziland, and Natal, there are extensive areas of serpentinized basic rocks similar to those of the New Amianthus zone. There is, therefore, the possibility of the location of further deposits of chrysotile asbestos of commercial value, and increased production is possible, should the demand warrant it. The Griqualand West crocidolite deposits are, however, capable of sustaining a fairly constant tonnage for many years to come. Recently increased interest has been taken by manufacturers of asbestos products in Transvaal crocidolite.

Owing to the limited development outside the Penge area, the extent of the amosite deposits is at present difficult to judge. The prevailing world economic conditions had the effect of decreasing very considerably the activity shown in connexion with the production of this mineral during the years 1927 to 1929. A steady production is, however, now being maintained.

The following statements give particulars regarding the sales and shipments of asbestos during the years 1933 to 1938:—

(*a*) ASBESTOS SALES AND SHIPMENTS, 1933 TO 1938.
(TON—2,000 LB.)

Province.	1933.	1934.	1935.	1936.	1937.	1938.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
Cape of Good Hope	3,224	2,811	2,466	4,048	4,786	5,334
Transvaal	12,662	14,783	20,242	21,189	23,283	16,774
Natal	—	—	—	—	—	175

(*b*) ASBESTOS SALES AND SHIPMENTS (UNDER CLASSES), 1937 AND 1938.

Province.	Amosite.		Chrysotile.		Blue.		Total.	
	Tons.	Value.	Tons.	Value.	Tons.	Value.	Tons.	Value.
1938.		£		£		£		£
Cape of Good Hope	—	—	—	—	5,333	139,786	5,333	139,786
Transvaal	7,246	134,810	7,565	107,876	1,963	39,316	16,774	282,002
Natal	—	—	175	2,290	—	—	175	2,290
UNION, 1938	7,246	134,810	7,740	110,166	7,296	179,102	22,282	424,078
UNION, 1937	7,488	133,401	15,141	162,044	5,440	135,316	28,069	430,761

3. **Corundum.***—The existence of corundum in the Pietersburg, Zoutpansberg, and Letaba districts had been known for some years, but the mineral was not regarded as being of commercial importance till the demand for abrasives created by the European war brought it into prominence. Since 1914 there has been a continuous but fluctuating production from this area.

The corundum occurs in original or primary deposits—so-called "reef" corundum—and in secondary or detrital deposits derived from the former by weathering and sub-aerial denudation—"eluvial" corundum.

The final product is clean crystal corundum of excellent abrasive quality, most of which is marketed in 3 grades. These are:—

A1 = + ¼ inch.
A2 = -½ + ¼ inch.
B3 = -¼ + ⅛ inch.

There is a similar occurrence of corundum in the gneiss near Steinkopf, in Namaqualand, but attempts to exploit this have not been attended by success.

The demand for this mineral slackened considerably during the period of the general world depression in the consuming industries, and also in consequence of the increased use of artificial abrasives, but of late years there has been a distinct revival in demand, more particularly from the United States of America. In 1926 the tonnage of corundum sold reached 5,996·40 tons, valued at £44,871, but in 1932 the tonnage was only 362, valued at £2,621. The amount and free-on-rail value of corundum exported within recent years was as follows:—

Year.	Tons (2,000 lb.)	Value.
		£
1934	3,202	23,844
1935	4,775	36,552
1936	4,851	38,240
1937	2,466	18,716
1938	1,540	12,454

* W. Kupferburger, Department of Mines, Geol. Series Bulletin No. 6, "Corundum in the Union of South Africa."

4. **Flint.**—Flint in the nodular form does not occur in South Africa, but as chert it makes very well-defined bands up to two feet and more in thickness in the dolomites. It has been worked for liners for tube-mills, but the introduction of steel and composite liners has checked the growth of this industry.

5. **Fluorspar.**—Fluorspar is of widespread occurrence in the Transvaal. It occurs as a common accessory or gangue mineral in many of the tin deposits of the central Transvaal associated with later acidic phases of the great period of igneous activity which led to the formation of the Bushveld complex. Further evidence that the granitic magma of the Bushveld, as well as that of the somewhat later alkaline intrusions north and north-east of Pretoria and at the Pilansberg, is rich in fluorite is afforded by the presence of fluorspar in veins and breccias associated in places with quartz, barytes, and specularite in these rocks in many localities.

In the western Transvaal south of Zeerust, fluorspar occurs alone or associated with lead and zinc ores in veins and larger bodies formed by the replacement of the dolomite, and it is more than probable that the mineralization of this area has a general relationship with some phase of the Bushveld igneous activity.

Minor occurrences are also known in Zululand and Namaqualand.

Exploitation of deposits in the western Transvaal commenced in 1918 but, in view of the fact that the bulk of the production had to be exported, it was not possible to mine and produce profitably anything except the high grade material.

The biggest output took place during the years 1923 and 1924 when 12,093 tons and 11,235 tons respectively were produced and exported. Since then there has been a gradual decline. At the present time the bulk of the production is absorbed by the local steel works. During 1938, 1,879 tons were sold locally and 3,328 tons were exported.

6. **Graphite.***—Impure graphite is of fairly common occurrence, both in the older sedimentary rocks and in the gneissic rocks of the Transvaal and Cape Provinces, and has been worked for some years. One small mine in the Zoutpansberg district turns out about six tons per month. It is worked up by the owners into material for furnace linings and forge facings. The mineral occurs in a lens in gneiss and, so far as it has been opened, is mostly a fairly pure carbon. Certain veins in it give a very pure flake graphite, but not in large quantities. The output is, however, limited to the requirements of home consumption.

7. **Gypsum.**—The cement factories use a considerable amount of gypsum, which occurs as irregular crystalline segregations in the subsoil and as pan deposits in arid localities. Most of the present output comes from the vicinity of Windsorton Road in Griqualand West and from Van Rhynsdorp, C.P.

8. **Kieselguhr.**—Kieselguhr occurs in the Amsterdam district of the eastern Transvaal, near Pietersburg in the northern Transvaal, near Krugersdorp, and in Griqualand West and Gordonia. It occurs as a deposit in the beds of certain small fresh-water marshes, and its occurrence may be very much wider, for it is not a material which attracts attention by either its appearance or its mode of occurrence. It has so far been worked to a small extent only, mainly for use in boiler-lining materials.

9. **Kaolin and Clays.**—Kaolin occurs as a decomposition product of the granite over very large areas, but has not yet been worked, except on a very small scale in the Transvaal, Natal and on the Cape Flats, where, however, its occurrence is not directly associated with granite.

10. **Fireclays.**—Fireclays are associated with all the coal measures of the country, and many are of excellent quality. These do not usually occur directly underlying coal, but are often separated from it by a hundred feet or more.

* See *Journal of Industries*, February, 1918.

Fire-bricks, crucibles, and other refractory products are manufactured at Boksburg, Vereeniging, and Olifantsfontein in the Transvaal.

11. **Pottery Clay.**—Most of the coal measure clays are suitable for pottery work. A deposit of these is worked at Olifantsfontein, between Pretoria and Johannesburg, and very excellent articles of decorative potteryware are produced; but difficulty is experienced in producing white chinaware.

12. **Common Clay.**—Good common clay for brickmaking is plentiful throughout the Union, and near the large urban centres beds of shale have been found giving a uniform and satisfactory clay for pipes, tiles, etc., which are now being produced in the Union on a large scale.

13. **Lignite.**—A form of lignite occurs in the Knysna district of the Cape Province, and impure peat is fairly common in the marshes on the edge of the Transvaal and Basutoland escarpment.

Inferior coal is common in all the Karroo formations. In the Karroo horizon in the Beaufort West and Laingsburg districts of the Cape Province, veins up to five feet in width, both vertical and inclined, occur, filled with a coal-like substance, which appears to be an inspissated and carbonized bitumen, much in the same way as veins filled with manjak occur in the petroleum districts of other countries. This substance is not at present used, but it is of great scientific interest.

14. **Lime.***—Three forms of limestone are at present known and worked:—

(a) *Magnesian Limestone.*—This is the common dolomite which covers vast areas in the Transvaal and Cape Provinces. It contains up to 40 per cent. carbonate of magnesia. It is largely burnt in ordinary kilns, and yields the common blue building lime of those provinces.

(b) *White Lime.*—This is a pure white lime used for chemical purposes and for the cyanide works of the Rand. It is usually obtained from stalagmitic deposits and cave fillings in the dolomite. At Potgietersrust a small area in the dolomite has been found, where the beds are free from magnesia, but the deposits are unsatisfactory in size and continuity.

At Taung, in Bechuanaland, an extensive deposit of pure white limestone, said to contain not less than 7,000,000 tons, has been opened up and connected with the railway. This has proved a most satisfactory development, for hitherto there has been no adequate and suitable supply of pure limestone for metallurgical purposes available in the Union.

(c) *Desert Limestone.*—Vast areas in all the provinces are covered by a desert limestone of considerable thickness. This, however, generally contains up to 20 per cent. silica and other impurities. It is largely worked near Pretoria and Mafeking, and in the Orange Free State, for cement making. For other purposes it does not generally yield a good lime.

Particulars of the output of lime in the Union will be found in Chapter XXIII (Manufacturing Industries).

15. **Magnesite.**†—Magnesite in workable quantities occurs in several places in the Transvaal, notably at Kaapmuiden, and the deposits are close to the railway. It occurs as a "stock-work" of veins in serpentine. An attempt to work it on a large scale in 1906 failed, but in 1926 the output reached an average of 170 tons per month, which, however, had declined in 1932 to 114 tons per month. In 1933, the average monthly production was 142 tons; in 1936, 156 tons; in 1937, 161 tons; and in 1938, 240 tons. Magnesite is used for carbonic acid making in Johannesburg, the residue being turned into cupels. The deposits, though not continuous, are extensive and very favourably situated.

16. **Marble.**—Up to a few years ago, the existence of pure marble in the Union was unknown.

* See Geological Survey Memoir No. 11, "Limestone Resources of the Union."
† See *Journal of Industries*, March, 1918.

Of recent years attention has been called to the existence of a very considerable deposit of marble at, and in the neighbourhood of, the farm Marble Hall, in the north-eastern corner of the Pretoria district. This marble is of great variety, and much of it is of excellent quality. It is fully reported on in the *Journal of Industries* for July, 1919. A branch railway was constructed to this deposit in 1935, and marble for building purposes and for use as limestone for metallurgical purposes is being quarried.

Marble deposits also occur north of Brits in the Transvaal, and about 5 miles east of Belfast in the Transvaal a pale-green serpentinized marble is being opened up, which is stated to be hard and of fine grain.

In the Cape Province marble occurs in the coast districts of Namaqualand and Van Rhynsdorp, and a black marble at Cango. None of these deposits has, however, been opened up. The railway has recently been extended to the vicinity of the Van Rhynsdorp deposits, and these will probably be exploited.

Good quality "travertine" and "onyx" marble has been located near Port St. Johns, Cape Province, and is now being worked. Cutting and polishing works have been established in Durban in connexion with this deposit.

17. **Mica.***—Excellent mica occurs in the Transvaal along the Olifants river, in the eastern portion of the Letaba district near Mica station on the Selati railway line. The mica here occurs in large books up to 100 lb. and more in weight, in pegmatite lenses in the gneiss. The lenses occur in a belt of country over two miles in width and fifty miles long.

Much of the mica is a soft green variety, which is popular with American consumers, who describe it as being particularly suitable for grinding into a silvery lustrous powder used in many industries. The production of sheet mica is comparatively small, and most of it is used locally in the electrical industry. Small quantities of waste mica are exported.

Mica has also been worked on a small scale at Steinkopf, in Namaqualand. Large reserves of vermiculite (hydrothermally altered phlogopite) occur in serpentine at Palaboroa, in the eastern Transvaal, and have been proved by shafts and pitting. The material can be easily worked; and the occurrence would appear to be the largest single source of vermiculite known.

18. **Mineral Oil.**†—Mineral oil occurs in vesicles associated with the intrusive rocks of the Karroo formation. This is probably a distillation product from the carbonaceous beds below. The indications of the existence of flowing mineral oil in commercial quantities in the Union are not considered favourable.

19. **Oil Shales.**—Beds of oil shale up to 4 feet in thickness, associated with the coal measures, occur in the Transvaal, Natal, and Cape Provinces. Experiments with these shales show that they yield a distillate up to 36 gallons to the ton from representative samples.

In 1922, a committee was appointed to investigate the question of liquid fuels in South Africa. This committee issued an interim report in March, 1925, which was published in the *Journal of Industries* in May of that year. The final portion of the report was published in the *Journal of Industries* in November, 1925. A résumé of these reports appears in *Official Year Book* No. 8.

During 1934 a company was formed, under the aegis of two well-known mining houses, to mine torbanite in the Ermelo district, with the object of treating these oil shales locally. The crude oil produced by the retorting of oil shale at Ermelo is subsequently refined to motor spirit at Boksburg.

20. **Nitrates.**—Nitrates have been reported from all the more arid districts of the Union, but on investigation the deposits have never proved more important than cave fillings, where the mineral has been formed from the excreta of animals. An attempt was made to exploit nitrate deposits of this description in the Prieska district, but it did not meet with success.

Geological Survey Memoir No. 14 gives a scientific description of the above deposits.

* See *Journal of Industries*, April, 1918; also Geological Survey Memoir No. 3.
† See *Report on Petroleum Prospects of the Union*, by E. H. Cunningham Craig. October, 1914.

21. **Phosphates.***—Attention was first directed to local sources of phosphate during the period of the World War, when the importation of phosphatic fertilizers was uncertain and irregular. The first deposits to be investigated were those in the neighbourhood of Saldanha Bay, Cape Province. These were found to be of considerable extent, and the quantities available may be estimated in hundreds of thousands of tons; but the major portion of the phosphate was found to be in combination with iron and alumina and not with lime. Many attempts have been made to devise a process by which the insoluble iron and aluminium phosphates could be converted into soluble forms suitable for use as fertilizers, but none of the processes has as yet been found to be of practical application. The deposits nevertheless remain an important potential source of phosphate in the Union. A full report on the occurrence by Dr. A. L. du Toit is published by the Geological Survey in Memoir No. 10, 1917.

At Lulukop in the Pietersburg district of the Transvaal, there is a deposit of pyroxenite containing about 8 per cent. of apatite. The deposit has been proved over an area of approximately 4 square miles. A milling and flotation plant has been erected, and a finely ground apatite was produced with a guaranteed phosphoric oxide content of 36 per cent. Owing to the inability of the producing company to compete profitably with other locally manufactured and imported phosphates, however, work was suspended in 1934. This deposit is at present the biggest and most favourable source of phosphate known within the Union.

At Bandolierkop there are apatite-bearing pegmatite veins, which were worked on a small scale by the same company, but which were abandoned in favour of those near Lulukop.

22. **Pigments (Mineral Paints).**—Iron oxides and ochres of all descriptions occur in the older rocks of the Union.

Red oxide is found and has been profitably worked at numerous places near Utrecht, Dundee, and Helpmakaar, Natal, in the Ecca series some two hundred feet below the coal seams along the oxidized outcrop of an ironstone seam. The product is found to be very suitable for roof paints.

The exploitation of what are apparently extensive deposits of ochre in the Riversdale district, Cape Province, was commenced a few years ago. The material, which is of good quality with a very high staining power, has found a ready and increasing market in the United Kingdom, Europe, America, and Australia. Mainly as the result of this, sales of these materials, which in 1930 amounted to only 532 tons, valued at £1,004, have shown a progressive increase during subsequent years.

In 1931, 1,267 tons, valued at £2,358, were disposed of; in 1932, 2,113 tons, valued at £6,563; in 1933, 4,203 tons, valued at £15,445; in 1934, 5,997 tons, valued at £16,396; in 1935, 4,979 tons, valued at £16,950; in 1936, 6,848 tons, valued at £24,806; in 1937, 6,462 tons, valued at £22,909; and in 1938, 6,542 tons, valued at £22,513.

23. **Salt.**—No deposits of rock salt are known to occur, but in the Cape, the Orange Free State, and the Transvaal Provinces a very large quantity of rough salt is made from the liquor of salt pans. These pans are shallow depressions, often several square miles in extent, in the surface of the more arid districts. They are without outlet and retain the inflow of water received in the rainy season, with the result that in many cases an excellent supply of brine remains available close to the surface. Such occurrences are worked now in practically every case where the brine is found to be of suitable quality and reasonable transport facilities are available. The great bulk of the salt is obtained entirely by solar evaporation in shallow dams, though in the case of one or two producers, artificial heat has been adopted for final precipitation of the concentrated liquor. The coarse salt obtained by solar evaporation is subject to contamination from dust, and has to be graded in course of recovery according to its apparent quality. A portion of the purest grade is subsequently ground fine for household and dairy purposes and put on the market in suitable form. The quality of this approximates to that of the European article. The Union is now almost self-supporting in this important commodity, but new calls are likely to arise, and there will doubtless be considerable further expansion in the salt industry.

* See *Journal of Industries*, January, 1918.

In order further to encourage prospecting and the development of mineral resources in outside districts, Parliament during the financial year 1936-37 voted a sum of £40,000 for the purpose of extending the assistance to small mines, and a scheme was evolved providing for direct financial assistance by way of loans for development, sampling, mineral transport, etc. As a result of the experience gained it was decided to extend the scope of the scheme to include direct financial assistance for the purchase of plant and machinery, and the provision for assistance to small mines was accordingly increased. From the inception of the small mines assistance scheme up to the 31st December, 1938, 270 applications for assistance were dealt with.

Other longstanding methods of assisting prospectors and small miners are (*a*) the identification of minerals by the Geological Survey free of charge, and (*b*) analyses of samples by the chemical laboratories of the Division of Chemistry at Capetown and Johannesburg at a nominal fee.

A Minerals Research Laboratory has been established by the Mines Department in co-operation with the University of the Witwatersrand at that university. It is hoped that this laboratory will be of great assistance to the mining industry in the Union as a whole. The policy adopted by the controlling committee has been to undertake the investigation of all mineral problems which normally do not fall within the scope of private metallurgists, and which are considered by the committee to be of national importance. Details of the work undertaken from time to time and the equipment purchased will be found in the annual report of the Director of the laboratory, which is published as an annexure to the Government Mining Engineer's Annual Report. Separate Mines Department Bulletins are also published on various investigations carried out by the laboratory, and papers which are printed in pamphlet form are presented by the staff to the various scientific societies and are available at the laboratory.

Overshadowed as the base mineral industry is in this country by the gold mining industry, it is the policy of the Government to assist and encourage the production of industrial minerals to the greatest possible extent and, apart from what has been said above, which applies to all mineral development, the Government has appointed an Inter-departmental Mineral Development Committee, consisting of representatives of the Department of Mines and the Department of Commerce and Industries. The Committee reports to the Government from time to time on any problems which may come to its notice, or which may be referred to it, regarding industrial minerals, and makes recommendations thereon.

A large increase in the staff of the Geological Survey Division of the Department of Mines has made it possible to undertake a systematic economic survey of the base minerals of the Union, and this work is now proceeding. A Mines Department representative is attached to the High Commissioner's office in London, whose special duty it is to study the technical requirements of overseas mineral markets, and generally to promote contact between consumers overseas and producers of industrial minerals in the Union. An information circular giving particulars of production, local sales, and exports, and the names of producers of industrial minerals in the Union and in the mandated territory of South West Africa, is published quarterly by the Mines Department.

§ 14. Bibliography of Mineral Resources.

The following classified list contains the titles of the principal publications issued during 1937 and 1938 dealing with the economic minerals of South Africa. For further publications reference should be made to earlier issues of this *Year Book*.

(i) Gold.

DANLOUX-DUMESNIL, M.—Les Mines d'Or du Transvaal depuis la Dévaluation Sud-Africaine. Rev. Industr. min., 15 May-1 June, 1937, pp. 1-23.

GUEST, HERMAN.—Klerksdorp's Fifty Years of Mining. Publ. Klerksdorp Mine Manager's Association, 1938.

MENDELSSOHN, E.—Gold Deposits of the Central Murchison Range, Transvaal Trans. geol. Soc. S. Afr., Vol. XLI, 1938, pp. 249-272.

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CHAPTER XXIII.

MANUFACTURING INDUSTRIES.

§ 1. Industrial Censuses.

1. **Industrial Censuses, 1891-1911.**—Although certain manufacturing industries have long been established in South Africa, the first statistical data in this connexion for the Colonies now comprised within the Union were obtained for the Cape Colony at the Population Census of 1891, and for all four Colonies at the Population Census of 1904. These returns were rendered by manufacturing establishments having an annual production amounting in value to £100 or more. Returns were similarly called for and tabulated at the first Union Census of 1911. The summarized results of these inquiries are given in paragraph 4 below.

2. **Annual Industrial Censuses under the Statistics Act.**—A census of manufacturing industries was undertaken under the *Statistics Act* in 1917, and formed the first special inquiry of the kind in the Union. The first census covered the calendar year 1915, or the business year ended not later than the 30th June, 1916. The large majority of returns were rendered for at least a part, many of them for a full half, of the year 1916, and the census may be taken therefore to have covered substantially the Union business year 1915-16. All manufacturing establishments within the Union employing four or more hands, or utilizing any form of mechanical motive power, were included within the scope of the inquiry. For the census covering the year 1916-17 and subsequent inquiries, the scope was extended to cover establishments employing three or more hands, or utilizing any form of mechanical power or boilers for steam-heating purposes.

The results of the various censuses are issued in the form of annual reports, nineteen of which have been published.

Owing, however, to the suspension of the industrial census between the years 1930 and 1933, there was a break of approximately three-and-a-half years between the fifteenth and sixteenth reports. It should be noted that the returns under the latter and under subsequent censuses relate to the business years ending on any date during the second year quoted in the tables.

3. **Classification of Manufacturing Industries.**—Manufacturing industries have been tabulated in accordance with the following classification, which has been based as nearly as possible upon that adopted by, and in force in, the various States in Australia. In the classification adopted in the first census (for 1915-16), Tanning was included in Class I, Boots and Shoes in Class VI, and Harness and Saddlery in Class VIII. These were subsequently grouped together under a new Class XV—Leather and Leatherware. Since 1924-25 Electrical Engineering has been transferred from Class XIV to Class IV, and since 1928-29, Blacksmithing from Class IV to Class VIII, being included in the item "Coach and Wagon Works".

CLASSIFICATION OF MANUFACTURING INDUSTRIES.

CLASS I—RAW MATERIAL.

Boiling down, Tallow Refining and Bone Milling.	Cotton Ginning.
Fellmongering and Wool-scouring.	Wattle Bark, Grinding and Compressing (not Wattle Extract).
Chaff-cutting and Corn-crushing.	Other Industries.

CLASS II—STONE, CLAY, ETC.

Asbestos Working (not Mining).	Marble, Stone, Slate Dressing.
Bricks, Tiles, Earthenware, and Pottery.	Cement Factories, Modelling in Cement and Plaster.
Glass.	Other Industries.
Lime Works.	

CLASS III—WOOD.

Baskets and Wickerwork.	Saw Mills.
Brushes and Brooms.	Cooperages.
Carpentry and Joinery.	Shopfitting.
Packing Case and Box Works.	Other Industries.

CLASS IV—METALS, ENGINEERING, ETC.

Brass and Copper, Cutlery.	Steel Ceiling Works.
Engineering, Foundries (including Mine, Railway, and Tramway Workshops), and Steel Works.	Electrical Engineering.
Galvanized Iron Works and Plumbing.	Iron and Steel Furniture.
Wire Working (including Gate and Fence Making).	Other Industries.

CLASS V—FOOD, DRINK, ETC.

Bacon and Ham Curing.
Polony and Sausage Making.
Butter and Cheese and Condensed Milk Making.
Fish Preserving.
Meat Preserving.
Ice and Refrigerating.
Bread and Biscuit Making.
Confectionery and Sweet Making.
Flour and Grain Mills.
Fruit Preserving and Jam Making.
Coffee Roasting and Grinding, Tea, Pickle, Sauce, and Spice Making.
Sugar Mills and Refineries.
Salt Pans, Salt Works.
Aerated Water Factories.
Breweries and Malt Works.
Distilleries.
Tobacco, Cigar, and Cigarette Factories.
Other Industries.

CLASS VI—CLOTHING, TEXTILES, ETC.

Tailoring and Clothing Factories (including Dressmaking, Millinery, Hats and Caps, Waterproof Clothing, etc.).
Dyeing and Cleaning.
Bags and Sacks, Mats and Matting, Rope, Cordage, and Twine.
Tarpaulins, Tents, and Sails.
Textile Factories.
Other Industries.

CLASS VII—BOOKS, PRINTING, ETC.

Printing, Book Binding, and Stationery.
Photo Engraving and Lithographing.
Paper Bags and Cardboard Boxes.
Other Industries.

CLASS VIII—VEHICLES, ETC.

Coach and Wagon Building and Blacksmithing.
Cycle and Motor Repairing.
Spokes, Wheels, Yokes, Tyres, and other Industries.

CLASS IX—SHIP BUILDING, ETC.

Ship and Boat Building and Repairing.

CLASS X—FURNITURE, ETC.

Furniture, Cabinetmaking, and Upholstery.
Mattress Factories.
Picture Frames.
Other Industries.

CLASS XI—CHEMICALS, ETC.

Chemicals, Drugs, Perfumery, Disinfectants, Insecticides, Sheep and Cattle Dips.
Explosives and Matches.
Fertilizers.
Oil and Grease.
Paints and Varnishes.
Blacking, Polishes, Blanco, Whiting, etc.
Soap and Candles.
Tanning Extract.
Other Industries.

CLASS XII—SURGICAL INSTRUMENTS, ETC.

Opticians.
Surgical, Dental, etc., Instruments and Appliances.

CLASS XIII—JEWELLERY, ETC.

Gold and Silver Smiths.
Diamond Cutting.
Other Industries (including Electro-Plating).

CLASS XIV—HEAT, LIGHT, AND POWER.

Electric Light and Power Stations.
Gas, Coke, and Tar Works.
Other Industries.

CLASS XV—LEATHER AND LEATHERWARE.

Tanneries.
Boots, Shoes, and Leggings (manufacturing).
Boot and Shoe Repairing.
Harness and Saddlery, Portmanteaux and Bags.

CLASS XVI—BUILDING AND CONTRACTING.

Building and Contracting (including new railway, road, waterworks and irrigation works construction from 1919-1920).

CLASS XVII—OTHER INDUSTRIES.

Whaling and Miscellaneous.

4. **Statistics of Manufacturing Production from 1904.**—The main results of the inquiries undertaken in 1917 and subsequent years, covering, with the exception of the years 1930-31 and 1931-32, when no census was conducted, the years 1915-16 to 1935-36, are given in the table hereunder in conjunction with those obtained in 1904 and 1911. Comparison with these two years (1904 and 1911), however, cannot be pressed too closely. It seems probable that in the Censuses of 1904 and 1911 the returns included, in some cases at least, figures relating to merchanting, as well as manufacturing. On the other hand mine and railway workshops appear to have been omitted. Clearly, too, the enumeration of distinct works and the methods of valuing land, buildings, and improvements, seem to have differed considerably in 1904 and 1911, and again in the regular annual censuses begun in 1917. Beyond the statement hereunder of the total figures under various main headings for the Union in 1904 and 1911, no further comparisons between these figures have therefore been attempted. The censuses under the *Statistics Act* taken for the first time in 1917 have the advantage of being specialized inquiries taken on a basis which will admit of close comparisons being made from that date.

In the following tables the more important particulars are given for a number of years. The first set (*a*) includes the data relating to government and local government undertakings and railway workshops, the second set (*b*) excludes these.

The first column under "Engines and Motors" shows the total horse-power of all prime movers and the second omits the horse-power of the prime movers of electricity generating concerns, but includes the horse-power of motors driven by purchased power.

In terms of a resolution passed at the Second Conference of British Commonwealth Statisticians (Ottawa, 1935) a calculation of "Net Output" has been made. This is the same as "Value added by Process of Manufacture" less cost of fuel, light, and power, and amounts paid to other establishments in the clothing and tailoring industry for work given out. Owing to limitations of space, information regarding fuel has been omitted, but details with regard to private industries for the last five industrial censuses will be found under paragraph 6, § 2.

MANUFACTURING PRODUCTION—GENERAL SUMMARY—1904, 1911, AND 1915-16 TO 1936-37.

Year.	No. of Establishments.	No. of Employees.		Salaries and Wages Paid to—		Engines and Motors.		Materials Used.	Value of Gross Output.	Value Added by Process of Manufacture.	Net Output.
		European.	Other.	Europeans.	Others.	Prime Movers.	Net Total.				
				£1,000	£1,000	H.P.	H.P.	£1,000	£1,000	£1,000	£1,000
(*a*) ALL UNDERTAKINGS.											
1904...	4,841	30,360	56,004	*	*	41,492†	*	11,658	20,565	8,907	*
1911...	2,473	21,049	44,867	4,209		140,799†	*	9,389	17,249	7,860	*
1915-16	3,998	39,524	61,654	6,740	2,173	317,690	99,483	22,316	40,435	18,119	16,873
1916-17	5,305	46,100	77,742	7,761	2,676	355,619	117,418	28,024	49,457	21,433	19,947
1917-18	5,918	49,918	84,293	9,022	3,206	486,912	119,979	34,248	60,123	25,875	23,983
1918-19	5,968	53,598	89,490	10,712	3,763	470,376	125,066	41,020	70,934	29,914	27,850
1919-20	6,890	62,483	113,037	13,922	5,197	487,590	135,641	53,851	92,914	39,063	36,565
1920-21	7,005	62,962	116,857	16,083	5,824	531,142	132,477	67,965	98,308	40,343	37,546
1921-22	7,055	59,995	110,956	14,777	5,353	562,704	146,796	42,823	79,446	36,623	33,743
1922-23	7,029	61,296	110,751	13,904	5,282	579,869	164,111	37,140	74,486	37,346	34,370
1923-24	7,112	66,189	116,688	14,929	5,577	616,117	150,741	39,293	79,789	40,586	37,250
1924-25	7,206	71,004	120,594	15,661	5,844	665,406	161,635	42,293	84,160	41,867	38,406
1925-26	7,085	75,987	117,435	16,766	5,933	706,243	167,100	47,071	91,537	44,466	40,933
1926-27	7,170	80,745	121,919	17,850	6,281	823,927	191,128	50,536	97,867	47,331	43,816
1927-28	7,338	84,898	122,690	18,758	6,512	860,018	251,049	55,760	106,770	51,010	47,460
1928-29	7,433	89,141	128,345	19,606	6,914	944,332	275,625	59,243	113,182	53,939	50,549
1929-30	7,695	90,858	127,440	20,507	7,019	1,032,910	264,129	56,802	111,799	54,997	51,533
1932-33	7,669	87,173	105,310	16,823	5,052	1,234,061	202,990	43,738	90,948	47,210	43,899
1933-34	8,530	102,232	127,270	20,298	6,102	1,385,117	367,425	55,723	111,392	55,669	51,699
1934-35	9,042	115,971	149,877	24,350	7,325	1,467,416	416,067	66,021	131,597	65,576	61,214
1935-36	9,655	128,995	174,562	28,145	8,691	1,757,932	462,653	74,924‡	150,337‡	75,413‡	70,536‡
1936-37	9,987	140,203	192,565	31,489	10,042	1,899,297	511,434	89,834	175,765	85,931	80,514
(*b*) PRIVATE UNDERTAKINGS ONLY.											
UNION.											
1924-25	6,866	53,450	99,297	10,838	4,829	468,996	140,566	35,878	69,976	34,098	31,062
1925-26	6,829	57,405	104,457	11,764	5,258	500,940	148,578	40,995	77,581	36,586	33,482
1926-27	6,916	61,412	109,000	12,605	5,584	585,814	163,216	42,938	81,964	39,026	35,990
1927-28	7,073	64,916	111,248	13,554	5,906	677,068	222,272	49,028	91,687	42,659	39,579
1928-29	7,148	68,382	116,463	14,296	6,283	762,556	244,801	51,960	97,032	45,072	42,175
1929-30	7,383	69,736	115,680	15,042	6,430	811,667	229,176	49,505	95,503	45,998	43,048
1932-33	7,321	68,981	95,809	12,846	4,607	976,407	260,988	40,329	80,438	40,109	37,298
1933-34	8,180	83,461	117,700	15,910	5,668	1,132,430	322,607	51,741	99,507	47,766	44,521
1934-35	8,689	95,592	138,703	19,299	6,801	1,202,501	370,228	59,866	116,533	56,667	52,858
1935-36	9,289	106,413	162,763	22,449	8,123	1,434,399	414,368	67,824‡	133,725‡	65,901‡	61,605‡
1936-37	9,609	115,227	178,428	25,258	9,344	1,545,945	458,482	80,705	156,162	75,457	70,662
CAPE PROVINCE.											
1932-33	3,023	26,752	23,722	3,948	1,771	127,613	72,939	13,316	26,706	13,390	12,736
1933-34	3,286	30,823	33,894	4,654	2,130	149,766	73,069	17,227	32,606	15,379	14,597
1934-35	3,453	33,639	36,128	5,225	2,350	177,125	77,284	19,049	36,399	17,350	16,525
1935-36	3,665	36,467	42,354	5,800	2,747	178,565	81,282	21,040‡	40,672‡	19,632	18,676
1936-37	3,749	39,413	46,758	6,493	3,188	184,840	94,222	24,601	47,088	22,487	21,407

* Not available. † Not strictly comparable. ‡ Amended figure.

MANUFACTURING PRODUCTION—GENERAL SUMMARY—1904, 1911, AND 1915-16 TO 1936-37—(*continued*).

Year.	No. of Establishments.	No. of Employees.		Salaries and Wages Paid to—		Engines and Motors.		Materials Used.	Value of Gross Output.	Value Added by Process of Manufacture.	Net Output.
		European.	Other.	Europeans.	Others.	Prime Movers.	Net Total.				
				£1,000	£1,000	H.P.	H.P.	£1,000	£1,000	£1,000	£1,000
NATAL PROVINCE.											
1932-33	1,068	9,059	21,722	1,856	917	209,229	78,464	8,921	16,808	7,887	7,494
1933-34	1,146	10,480	25,334	2,168	1,080	251,899	81,600	10,572	19,471	8,899	8,352
1934-35	1,216	11,978	29,437	2,623	1,310	253,364	90,254	12,393	22,129	10,036	9,473
1935-36	1,294	12,555	32,119	2,877	1,479	252,762	93,596	13,257	24,451	11,194	10,709
1936-37	1,333	13,379	34,648	3,272	1,699	258,424	100,460	15,747	29,233	13,486	12,791
TRANSVAAL PROVINCE.											
1932-33	2,671	30,794	42,626	6,714	1,828	621,822	95,776	16,760	34,575	17,815	16,987
1933-34	3,159	39,462	55,146	8,726	2,350	712,818	158,572	22,326	44,586	22,260	21,264
1934-35	3,390	46,880	69,142	10,997	3,012	754,503	192,805	26,572	54,406	27,834	26,543
1935-36	3,673	54,036	83,759	13,269	3,747	984,307	228,332	31,446*	64,877*	33,431*	30,872*
1936-37	3,801	58,560	92,227	14,895	4,283	1,080,031	251,308	37,971	75,561	37,590	34,816
ORANGE FREE STATE PROVINCE.											
1932-33	554	2,376	2,739	328	91	17,743	13,809	1,332	2,349	1,017	921
1933-34	589	2,696	3,326	362	108	17,947	9,366	1,616	2,844	1,228	1,128
1934-35	630	3,095	3,996	454	129	17,509	9,885	1,852	3,299	1,447	1,337
1935-36	657	3,355	4,531	503	150	18,765	11,158	2,081*	3,725*	1,644*	1,527*
1936-37	726	3,875	4,795	598	174	22,641	12,492	2,386	4,250	1,864	1,738
CAPE WESTERN AREA.											
1932-33	1,185	13,477	16,951	2,254	1,218	73,480	36,258	7,473	15,060	8,487	8,129
1933-34	1,303	15,425	20,099	2,564	1,482	100,241	38,659	8,982	18,459	9,477	9,062
1934-35	1,389	16,375	21,200	2,824	1,618	127,234	41,625	9,419	19,723	10,304	9,832
1935-36	1,471	17,605	24,453	3,139	1,902	127,895	42,984	10,486	22,172	11,686	11,116
1936-37	1,513	18,959	27,333	3,512	2,221	127,877	49,506	11,950	25,099	13,149	12,468
PORT ELIZABETH AREA.											
1932-33	204	5,252	3,263	776	207	2,586	9,790	2,559	4,502	1,943	1,856
1933-34	221	6,477	3,978	1,066	253	2,618	11,351	4,619	7,277	2,658	2,551
1934-35	257	7,711	4,366	1,259	292	2,622	11,547	5,383	8,886	3,503	3,380
1935-36	266	8,275	5,179	1,355	336	2,717	13,026	5,794	9,577	3,783	3,648
1936-37	283	9,275	6,017	1,526	398	2,946	17,360	7,355	12,127	4,772	4,630
DURBAN AND PINETOWN AREA.											
1932-33	561	5,626	10,321	1,153	528	72,302	32,013	4,961	8,995	4,034	3,783
1933-34	609	6,847	12,861	1,401	660	100,718	36,369	6,251	11,210	4,959	4,664
1934-35	644	8,027	15,477	1,780	835	100,077	42,378	7,756	13,599	5,843	5,502
1935-36	727	8,426	17,303	1,989	961	99,667	44,532	8,225	14,946	6,721	6,297
1936-37	775	9,282	19,500	2,335	1,144	99,241	47,329	10,201	18,730	8,529	8,117
SOUTHERN TRANSVAAL AREA.											
1932-33	1,994	28,310	37,624	6,296	1,678	453,306	86,438	15,242	31,519	16,277	14,942
1933-34	2,419	36,401	49,256	8,210	2,167	535,964	148,210	20,197	40,591	20,394	18,625
1934-35	2,605	43,257	62,026	10,343	2,788	571,457	181,000	24,191	49,757	25,566	23,065
1935-36	2,806	49,931	76,056	12,549	3,498	798,641	214,526	28,700*	59,803*	31,103*	28,525*
1936-37	2,892	54,066	83,587	14,043	3,987	893,628	234,969	34,946	69,872	34,926	32,508

* Amended figure.

§ 2. Factory Production.

1. **Number of Factories.**—Particulars are given hereunder as to the number of privately-owned factories for the last five Industrial Censuses, arranged according to classes of industry. The classes of industry with which factories are connected are set out in § 1 (3) above. Factories have been separately enumerated, even when under the same management as other establishments, if concerned with a clearly distinct class of work. In many cases, however, factories have been engaged upon various, often dissimilar, operations, for which it has been found impossible to render separate returns. In such cases the establishment has been enumerated in the subjoined return as a single factory, classified according to the character of the principal industry with which it was concerned.

PRIVATELY-OWNED FACTORIES, 1932-33 TO 1936-37.

CLASS OF INDUSTRY.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
I. Raw Material	87	87	86	84	82
II. Stone, Clay, etc.	356	406	444	501	547
III. Wood	251	284	304	343	362
IV. Metals, Engineering, etc.	753	857	938	1,041	1,116
V. Food, Drink, etc.	1,902	1,985	2,038	2,120	2,147
VI. Clothing, Textiles, etc.	785	910	992	1,058	1,060
VII. Books, Printing, etc.	404	442	458	472	467
VIII. Vehicles, etc.	1,345	1,479	1,541	1,623	1,714
IX. Ship Building, etc.	8	7	7	8	8
X. Furniture, etc.	217	270	316	357	369
XI. Chemicals, etc.	157	177	185	194	199
XII. Surgical Instruments, etc.	25	26	26	29	30
XIII. Jewellery, etc.	63	69	67	66	71
XIV. Heat, Light, and Power	92	102	110	118	127
XV. Leather and Leatherware	200	233	247	270	273
XVI. Building and Contracting	620	778	859	932	962
XVII. Other Industries	56	68	71	73	75
TOTAL	7,321	8,180	8,689	9,289	9,609

2. **Capital of Factories.**—The returns asked for in respect of factories in the first two industrial censuses included particulars as to capital, made up of (*a*) the value of land and buildings, (*b*) the value of machinery and plant, and (*c*) other capital (outstandings, stocks, cash in hand and in bank, and all movable assets).

The particulars required in respect of land, buildings, machinery, and plant were accepted as reasonably accurate; but in many cases it was found that establishments encountered difficulty in arriving at the true figure as regards total capital, particularly where a manufacturing and a trading business were combined under one amount of capital, or where the capital covered some other class of industry carried on in the same or even in a separate locality. For this reason it was decided to discontinue returns as to capital, and instead to confine the returns to the value of land and buildings, machinery, and plant.

3. **Land and Buildings.**—The value of land and buildings owned by the occupiers and used as factories is arrived at by giving the government valuation, where such exists, or the municipal or other recognized valuation, or failing such, the price at which the owner is prepared to sell. In the majority of cases a recognized valuation exists and is given, the number falling under the last alternative being inconsiderable. The following table gives the value as returned in respect of each class of industry for the last five Industrial Censuses.

VALUE OF LAND AND BUILDINGS USED BY PRIVATELY-OWNED FACTORIES, 1932-33 TO 1936-37.

Class of Industry.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
	£	£	£	£	£
I. Raw Material	317,636	280,410	246,389	263,082	287,685
II. Stone, Clay, etc.	1,031,470	1,156,603	1,206,683	1,574,198	2,297,945
III. Wood	485,617	491,735	541,929	621,928	717,088
IV. Metals, Engineering, etc.	2,233,935	3,245,912	3,851,465	4,675,925	5,328,680
V. Food, Drink, etc.	6,463,842	6,604,801	6,730,740	7,096,370	7,704,307
VI. Clothing, Textiles, etc.	1,628,126	1,943,672	2,211,152	2,356,673	2,583,483
VII. Books, Printing, etc.	1,730,955	1,840,340	1,887,271	1,992,786	2,244,880
VIII. Vehicles, etc.	1,858,297	2,061,497	2,238,279	2,607,850	3,147,233
IX. Ship Building, etc.	18,370	15,724	15,847	15,707	18,423
X. Furniture, etc.	588,225	652,636	769,396	991,024	1,139,900
XI. Chemicals, etc.	1,772,833	1,876,190	2,354,892	2,645,936	2,578,089
XII. Surgical Instruments, etc.	46,554	46,859	51,899	54,799	71,314
XIII. Jewellery, etc.	119,191	116,374	102,361	104,334	123,326
XIV. Heat, Light, and Power	3,343,145	3,536,309	3,609,694	4,663,252	5,224,473
XV. Leather and Leatherware	670,072	797,795	801,778	847,781	901,685
XVI. Building and Contracting	366,496	433,039	464,880	560,640	633,905
XVII. Other Industries	169,634	185,534	264,068	259,085	363,471
TOTAL £	22,844,398	25,294,520	27,348,723	31,332,270	35,370,887

4. Machinery and Plant in Privately-owned Factories.—The following table gives particulars as to the value of machinery and plant used in privately-owned factories, according to the main classification of industries for the last five Industrial Censuses.

VALUE OF MACHINERY AND PLANT USED IN PRIVATELY-OWNED FACTORIES, 1932-33 TO 1936-37.

Class of Industry.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
	£	£	£	£	£
I. Raw Material	209,514	195,363	168,593	152,698	147,052
II. Stone, Clay, etc.	1,359,223	1,499,632	1,529,490	2,103,417	2,541,078
III. Wood	272,566	292,676	321,864	366,595	416,843
IV. Metals, Engineering, etc.	2,747,554	4,403,565	5,173,762	5,521,763	6,019,589
V. Food, Drink, etc.	6,495,080	6,304,780	6,383,949	6,636,838	6,929,063
VI. Clothing, Textiles, etc.	728,444	898,042	1,074,343	1,243,737	1,305,526
VII. Books, Printing, etc.	1,564,929	1,583,218	1,656,804	1,920,962	1,955,209
VIII. Vehicles, etc.	396,783	424,169	447,785	507,028	583,525
IX. Ship Building, etc.	3,017	2,765	4,461	2,142	3,345
X. Furniture, etc.	142,635	156,426	177,287	233,809	282,443
XI. Chemicals, etc.	1,740,251	1,740,024	2,198,026	2,751,595	2,296,961
XII. Surgical Instruments, etc.	9,150	10,945	10,265	11,047	11,245
XIII. Jewellery, etc.	29,674	29,066	28,393	25,922	28,514
XIV. Heat, Light, and Power	11,653,888	12,689,275	13,574,335	16,513,917	17,709,692
XV. Leather and Leatherware	546,259	573,742	627,676	682,262	719,256
XVI. Building and Contracting	178,651	198,331	245,497	315,983	383,735
XVII. Other Industries	138,205	159,071	355,210	374,186	547,048
TOTAL £	28,215,823	31,161,090	33,977,740	39,363,901	41,881,044

5. Motive Power in Privately-owned Factories.—Particulars are given hereunder as to the class of motive power used in privately-owned factories for the last five Industrial Censuses. Table (ii) shows the total prime movers and the net total in each class of industry for the same period. The net total represents the total horse-power, less electricity undertakings and motors operated by power generated by the establishment. See also § 1, paragraph 4.

(i) CLASS OF MOTIVE POWER USED IN PRIVATELY-OWNED FACTORIES, 1932-33 TO 1936-37.

Class of Motive Power.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
Steam Turbines H.P.	941,759	1,092,891	1,159,989	1,287,785	1,398,304
Steam Reciprocating Engines H.P.	*	*	*	100,736	91,170
Gas Engines H.P.	†	†	†	7,252	8,999
Diesel and Heavy Oil Engines H.P.	27,979	32,937	35,910	22,217	29,225
Petrol, Paraffin and other Light Oil Engines H.P.	†	†	†	9,592	11,175
Electric Motors—					
(*a*) Operated by Power Generated by Establishment H.P.	33,273	38,996	42,331	52,977	54,166
(*b*) Operated by Purchased Power H.P.	169,241	224,384	268,299	306,747	356,763
Water Turbines H.P.	6,669	6,602	6,602	6,817	7,072
Air Compressors ‡ No.	369	410	483	585	625
Water Wheels ‡ No.	121	123	131	122	109
Wind Mills ‡ No.	116	121	133	130	131
Total Prime Movers H.P.	976,407	1,132,430	1,202,501	1,434,399	1,545,945
Net Total H.P.	260,988	322,607	370,228	414,368	458,482

* Included in Steam Turbines.

† Included in Diesel and Heavy Oil Engines.

‡ Number of establishments. Information with regard to H.P. not available.

(ii) MOTIVE POWER USED IN PRIVATELY-OWNED FACTORIES, 1932-33 TO 1936-37.

Class of Industry.	1932-33.		1933-34.	
	Prime Movers.	Net Total.	Prime Movers.	Net Total.
	H.P.	H.P.	H.P.	H.P.
I. Raw Material	2,299	5,343	2,324	5,966
II. Stone, Clay, etc.	9,295	32,225	6,419	27,023
III. Wood	2,963	12,808	2,916	13,725
IV. Metals, Engineering, etc.	4,415	42,536	12,419	95,936
V. Food, Drink, etc.	61,137	103,057	61,986	105,091
VI. Clothing, Textiles, etc.	1,200	6,196	1,438	7,982
VII. Books, Printing, etc.	384	9,003	465	10,002
VIII. Vehicles, etc.	1,238	5,751	1,166	6,711
IX. Ship Building, etc.	30	114	30	113
X. Furniture, etc.	214	5,782	273	6,553
XI. Chemicals, etc.	4,610	21,329	3,996	21,267
XII. Surgical Instruments, etc.	—	84	—	100
XIII. Jewellery, etc.	—	567	—	557
XIV. Heat, Light, and Power	885,913	2,942	1,035,949	6,142
XV. Leather and Leatherware	445	6,147	412	7,518
XVI. Building and Contracting	1,825	5,259	1,610	5,423
XVII. Other Industries	439	1,845	1,027	2,498
TOTAL	976,407	260,988*	1,132,430	322,607

Class of Industry.	1934-35.		1935-36.		1936-37.	
	Prime Movers.	Net Total.	Prime Movers.	Net Total.	Prime Movers.	Net Total.
	H.P.	H.P.	H.P.	H.P.	H.P.	H.P.
I.	2,514	6,003	1,985	5,533	1,906	5,555
II.	4,865	28,955	5,881	38,129	6,940	45,364
III.	2,835	16,188	3,586	16,508	3,873	21,313
IV.	13,667	122,263	13,299	144,338	2,783	145,908
V.	64,891	110,869	66,553	113,786	69,526	124,820
VI.	1,005	8,563	1,411	9,904	1,420	11,103
VII.	618	10,855	605	11,389	214	12,976
VIII.	1,206	7,757	1,177	8,151	1,480	9,482
IX.	30	114	30	100	—	153
X.	156	7,256	220	8,557	162	10,138
XI.	4,054	22,255	4,730	23,895	4,737	30,455
XII.	—	108	—	125	—	130
XIII.	—	481	—	508	—	552
XIV.	1,102,491	6,743	1,329,907	9,102	1,447,478	10,337
XV.	406	7,937	473	8,655	452	9,242
XVI.	2,662	7,161	3,292	8,294	3,677	10,798
XVII.	1,101	6,720	1,250	7,394	1,297	10,156
TOTAL	1,202,501	370,228	1,434,399	414,368	1,545,945	458,482

* Amended figure.

6. Cost of Fuel, Light, and Power in Privately-owned Factories.—The following table gives the cost of fuel, light, and power in each class of industry for the last five Industrial Censuses:—

COST OF FUEL, LIGHT, AND POWER USED IN PRIVATELY-OWNED FACTORIES, 1932-33 TO 1936-37.

Class of Industry.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
	£	£	£	£	£
I. Raw Material	18,344	21,113	19,443	16,353	15,044
II. Stone, Clay, etc	358,420	451,660	489,967	602,848	7[illegible]9
III. Wood	27,677	33,886	36,988	41,461	[illegible]
IV. Metals, Engineering, etc	399,280	686,652	796,019	855,651	[illegible]
V. Food, Drink, etc	503,683	517,658	538,351	570,313	[illegible]
VI. Clothing, Textiles, etc	66,998	79,973	86,715	92,997	[illegible]
VII. Books, Printing, etc	49,073	53,934	56,580	62,568	[illegible]
VIII. Vehicles, etc	52,984	64,536	73,763	81,654	[illegible]
IX. Ship Building, etc	265	379	143	206	[illegible]
X. Furniture, etc	14,065	17,041	20,759	23,609	[illegible]
XI. Chemicals, etc	137,682	141,939	156,874	179,245	[illegible]
XII. Surgical Instruments, etc	839	856	957	1,025	[illegible]
XIII. Jewellery, etc.	3,106	3,248	3,202	3,083	[illegible]
XIV. Heat, Light, and Power	1,085,415	1,247,300	1,359,616	1,545,124	[illegible]
XV. Leather and Leatherware	32,015	36,149	39,245	42,156	[illegible]
XVI. Building and Contracting	14,135	17,751	25,763	34,865	[illegible]
XVII. Other Industries	28,367	37,721	57,303	92,025	[illegible]
TOTAL.....£	2,793,248	3,412,396	3,761,688	4,245,183	[illegible]

7. **Factory Employees.**—The following tables give particulars as to the race and sex of persons employed in privately-owned factories classified according to the nature of the industry, and also the number of Europeans under eighteen years of age employed in various classes of industry:—

(i) RACE AND SEX OF EMPLOYEES IN PRIVATELY-OWNED FACTORIES, 1932-33 TO 1936-37.

Year.	Europeans.		Non-Europeans.		All Races.		Grand Total.
	Male.	Female.	Male.	Female.	Male.	Female.	
1932-33	52,073	16,908	88,350	7,459	140,423	24,367	164,790
1933-34	62,192	21,269	108,966	8,734	171,158	30,003	201,161
1934-35	71,737	23,855	129,944	8,759	201,681	32,614	234,295
1935-36	80,645	25,768	152,786	9,977	233,431	35,745	269,176
1936-37	87,972	27,255	167,729	10,699	255,701	37,954	293,655

(ii) AVERAGE NUMBER OF EMPLOYEES IN PRIVATELY-OWNED FACTORIES, 1936-37.

Class of Industry.*	Europeans.		Natives.		Asiatics.		Other Coloured.		All Races.	
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
I.	219	12	1,123	177	141	32	175	70	1,658	291
II.	3,250	123	24,302	22	362	1	1,635	4	29,549	150
III.	3,056	98	4,591	30	541	43	1,254	41	9,442	212
IV.	22,904	649	35,664	—	957	—	1,806	246	61,331	895
V.	9,352	4,734	17,959	354	4,429	237	4,675	3,052	36,415	8,377
VI.	4,036	12,815	3,796	252	2,316	169	1,919	4,543	12,067	17,779
VII.	5,469	2,735	1,590	1	477	—	1,173	749	8,709	3,485
VIII.	10,432	599	4,949	2	163	—	1,418	1	16,962	602
IX.	101	2	25	—	63	—	51	1	240	3
X.	3,687	323	1,914	32	575	6	1,440	86	7,616	447
XI.	2,436	1,267	6,687	43	429	8	551	209	10,103	1,527
XII.	113	18	22	—	—	—	23	—	158	18
XIII.	477	19	193	—	6	—	34	1	710	20
XIV.	2,639	87	5,726	—	136	—	161	—	8,662	87
XV.	4,757	3,367	1,788	4	649	1	2,545	265	9,739	3,637
XVI.	13,847	221	21,432	4	209	—	3,607	—	39,155	225
XVII.	1,197	186	1,551	—	255	—	182	13	3,185	199
TOTAL	87,972	27,255	133,312	921	11,768	497	22,649	9,281	255,701	37,954

* For description of Industry, see § 1 (3).

(iii) EUROPEANS UNDER EIGHTEEN YEARS OF AGE AND APPRENTICES (ALL AGES), INCLUDED IN TABLES (i) AND (ii) ABOVE, 1936-37.

Class of Industry.	Private Concerns.			Government, etc., Concerns.		
	All Europeans under 18, including Apprentices under 18.	Apprentices (all Ages).		All Europeans under 18, including Apprentices under 18.	Apprentices (all Ages).	
		Under Written Indenture.	Not under Written Indenture.		Under Written Indenture.	Not under Written Indenture.
I. Raw Material	—	—	—	—	—	—
II. Stone, Clay, etc	70	170	37	—	—	—
III. Wood	129	338	51	31	35	—
IV. Metals, Engineering, etc	1,494	3,462	357	444	1,156	3
V. Food, Drink, etc	704	155	130	—	—	—
VI. Clothing, Textiles, etc.	1,254	56	900	—	—	—
VII. Books, Printing, etc..	300	463	45	11	39	9
VIII. Vehicles, etc	541	1,009	416	27	34	—
IX. Ship Building, etc	18	9	9	—	—	—
X. Furniture, etc	230	469	200	—	—	—
XI. Chemicals, etc	180	64	5	—	—	—
XII. Surgical Instruments, etc	16	25	5	1	1	—
XIII. Jewellery, etc	6	8	9	—	—	—
XIV. Heat, Light, and Power	85	123	26	55	172	56
XV. Leather and Leatherware	818	65	387	—	—	—
XVI. Building and Contracting	339	1,050	131	39	146	1
XVII. Other Industries	24	17	14	—	—	—
TOTAL	6,208	7,483	2,722	608	1,583	69

8. **Salaries and Wages Paid in Privately-owned Factories.**—Particulars are given hereunder as to salaries and wages paid and average salaries and wages paid to Europeans and non-Europeans respectively in privately-owned factories, and as to salaries paid to managers and salaried staff and wages paid to wage-earners in each class of industry.

(i) SALARIES AND WAGES PAID IN PRIVATELY-OWNED FACTORIES TO EUROPEANS AND NON-EUROPEANS, 1932-33 TO 1936-37.

Year.	Salaries and Wages.			Average per Employee.		
	European.	Non-European.	All Employees.	European.	Non-European.	All Employees.
	£	£	£	£	£	£
1932-33	12,846,379	4,606,909	17,453,288	203	51	110
1933-34	15,910,181	5,668,485	21,578,666	206	48	111
1934-35	19,298,621	6,801,295	26,099,916	217	49	115
1935-36	22,449,465	8,122,683	30,572,148	226	50	117
1936-37	25,258,419	9,344,370	34,602,789	234	52	121

(ii) TOTAL SALARIES AND WAGES PAID TO EACH CLASS OF EMPLOYEE IN PRIVATELY-OWNED FACTORIES, 1933-34 TO 1936-37.

Class of Industry.*	1933–34.		1934–35.		1935–36.		1936–37.	
	Managers and Salaried Staff.	Wage Earners.	Managers and Salaried Staff.	Wage Earners.	Managers and Salaried Staff.	Wage Earners.	Managers and Salaried Staff.	Wage Earners.
	£	£	£	£	£	£	£	£
I.....	31,607	76,031	32,976	77,981	34,035	75,661	32,860	80,131
II.....	170,277	886,316	201,789	1,091,984	246,084	1,331,127	309,122	1,560,754
III.....	91,572	498,622	106,374	660,073	128,557	829,876	151,386	968,748
IV.....	793,769	4,780,430	955,126	5,865,583	1,126,162	6,969,041	1,354,409	7,641,722
V.....	921,947	2,190,122	992,192	2,380,853	1,079,019†	2,559,693†	1,188,809	2,704,935
VI.....	297,692	1,763,860	326,058	1,982,845	366,206	2,200,757	404,606	2,426,762
VII.....	660,015	1,286,455	724,239	1,392,614	795,177	1,563,779	881,172	1,737,500
VIII.....	169,305	1,105,164	233,294	1,351,082	285,944	1,550,793	342,230	1,882,511
IX.....	1,104	16,515	1,062	17,541	1,086	23,563	2,807	30,591
X.....	79,789	609,589	90,288	780,325	100,812	940,164	127,037	1,059,975
XI.....	342,545	571,594	410,537	665,674	445,892	727,222	475,415	820,119
XII.....	4,226	17,181	7,839	17,032	7,191	18,084	7,489	20,323
XIII.....	10,571	109,242	8,264	106,409	13,254	110,360	12,460	135,224
XIV.....	351,490	540,281	377,840	572,581	435,885	654,336	481,030	741,772
XV.....	168,211	869,068	194,975	931,159	199,099	1,088,222	218,523	1,154,167
XVI.....	104,766	1,884,590	131,008	3,102,942	188,458†	4,109,111†	245,415	4,916,925
XVII.....	38,548	136,172	72,503	186,874	77,552	289,346	94,172	349,899
TOTAL.....£	4,237,434	17,341,232	4,866,364	21,233,552	5,531,013†	25,041,135†	6,328,942	28,273,847

* For description of industry, see § 1 (3).
† Revised figure.

9. Value of Materials Used in Privately-owned Factories.—Particulars are given hereunder as to the value of materials used by privately-owned factories in each class of industry for the last five Industrial Censuses and as to the value of materials, the product of South Africa, included in the value stated in table (i).

(i) VALUE OF MATERIALS USED IN PRIVATELY-OWNED FACTORIES, 1932-33 TO 1936-37.

Class of Industry.	1932–33.	1933–34.	1934–35.	1935–36.	1936–37.
	£	£	£	£	£
I. Raw Material.....	795,053	834,592	913,472	1,115,471*	1,284,705
II. Stone, Clay, etc.....	528,776	721,102	923,581	1,086,178	1,496,171
III. Wood.....	761,544	1,027,067	1,317,835	1,776,785	2,170,522
IV. Metals, Engineering, etc.....	5,453,254	7,408,236	9,071,404	10,522,853	13,195,035
V. Food, Drink, etc.....	18,506,861	21,451,634	22,658,799	24,080,448*	26,499,488
VI. Clothing, Textiles, etc.....	2,561,160	3,481,795	3,838,002	4,277,186	4,944,441
VII. Books, Printing, etc.....	1,262,410	1,489,885	1,657,027	1,885,694	2,241,596
VIII. Vehicles, etc.....	1,214,090	2,937,009	3,967,674	4,300,680	5,577,917
IX. Ship Building, etc.....	12,040	16,321	13,324	14,829	23,328
X. Furniture, etc.....	650,058	948,674	1,202,349	1,492,244	1,718,150
XI. Chemicals, etc.....	3,136,884	3,660,693	4,227,412	4,857,230	5,602,160
XII. Surgical Instruments, etc.....	14,597	15,047	23,566	18,723	21,114
XIII. Jewellery, etc.....	946,753	852,154	891,710	766,789	1,051,607
XIV. Heat, Light, and Power.....	747,596	1,085,486	1,139,742	1,602,199	2,060,930
XV. Leather and Leatherware.....	1,861,530	2,208,303	2,483,472	2,751,675	3,093,485
XVI. Building and Contracting.....	1,790,264	3,454,678	5,231,509	6,774,021	8,839,514
XVII. Other Industries.....	85,942	148,680	305,396	500,077	884,578
TOTAL.....£	40,328,812	51,741,356	59,866,274	67,823,982*	80,705,121

* Amended figure.

(ii) VALUE OF SOUTH AFRICAN MATERIALS INCLUDED IN TABLE (i), 1932-33 TO 1936-37.

Class of Industry.	1932–33.	1933–34.	1934–35.	1935–36.	1936–37.
	£	£	£	£	£
I. Raw Material.....	732,712	794,627	871,098	1,054,131*	1,221,526
II. Stone, Clay, etc.....	265,707	391,149	516,925	607,877	873,741
III. Wood.....	254,012	287,488	360,662	507,476	611,037
IV. Metals, Engineering, etc.....	2,044,093	2,844,522	3,550,493	4,280,033	5,349,179
V. Food, Drink, etc.....	16,150,432	19,089,957	20,202,384	21,618,259*	23,702,838
VI. Clothing, Textiles, etc.....	96,866	229,767	259,999	257,231*	274,000
VII. Books, Printing, etc.....	13,224	17,371	23,294	41,627	56,149
VIII. Vehicles, etc.....	115,083	239,623	383,894	467,225	701,516
IX. Ship Building, etc.....	199	246	839	58	2,050
X. Furniture, etc.....	53,847	93,208	119,583	153,316	171,784
XI. Chemicals, etc.....	658,868	781,691	916,329	1,076,628	1,323,691
XII. Surgical Instruments, etc.....	195	225	511	473	413
XIII. Jewellery, etc.....	938,738	819,997	868,024	732,759	1,014,635
XIV. Heat, Light, and Power.....	531,674	806,320	893,087	1,310,999	1,482,857
XV. Leather and Leatherware.....	1,044,328	1,149,360	1,348,772	1,490,523	1,658,327
XVI. Building and Contracting.....	885,091	1,619,338	2,545,274	3,291,321	4,058,188
XVII. Other Industries.....	18,365	27,521	33,106	14,489	13,636
TOTAL.....£	23,803,434	29,192,410	32,894,274	36,904,455*	42,605,567

* Amended figure.

10. Gross Value of Production of Privately-owned Factories.—The table given hereunder shows the gross value of production in each class of industry. It must be noted that this return in certain respects represents duplicated values. For example, in the value of the product of boot and shoe, harness and saddlery, and portmanteau and bag factories is included again the value of leather produced by tanneries. The average output per employee and per European employee is also given.

GROSS VALUE OF PRODUCTION OF PRIVATELY-OWNED FACTORIES, 1932-33 TO 1936-37.

Class of Industry.	1932–33.	1933–34.	1934–35.	1935–36.	1936–37.
	£	£	£	£	£
I. Raw Material.....	1,031,503	1,083,514	1,180,072	1,350,986	1,560,905
II. Stone, Clay, etc.....	2,692,225	3,803,777	4,745,546	5,765,806	6,921,304
III. Wood.....	1,581,261	2,155,498	2,755,548	3,579,061	4,238,238
IV. Metals, Engineering, etc.....	11,590,318	15,532,890	19,650,201	23,504,091	27,983,277
V. Food, Drink, etc.....	29,180,963	32,612,962	34,579,056	37,252,699*	41,144,875
VI. Clothing, Textiles, etc.....	5,566,168	7,225,590	8,194,662	9,019,841	10,239,673
VII. Books, Printing, etc.....	4,637,107	5,335,152	5,762,100	6,573,508	7,414,202
VIII. Vehicles, etc.....	2,694,641	5,169,065	7,001,550	7,729,739	9,869,357
IX. Ship Building, etc.....	38,371	46,772	40,916	51,393	72,593
X. Furniture, etc.....	1,468,767	2,080,583	2,615,191	3,208,707	3,658,353
XI. Chemicals, etc.....	6,420,912	7,429,219	8,120,294	9,006,828	10,334,612
XII. Surgical Instruments, etc.....	55,584	57,627	70,977	66,491	73,505
XIII. Jewellery, etc.....	1,237,350	1,033,618	1,100,605	933,966	1,271,900
XIV. Heat, Light, and Power.....	4,732,049	5,298,771	5,636,159	6,801,905	8,572,292
XV. Leather and Leatherware.....	3,136,005	3,901,484	4,463,139	4,934,383	5,395,538
XVI. Building and Contracting.....	3,629,016	6,179,469	9,720,165	12,474,317	15,194,494
XVII. Other Industries.....	446,046	561,733	896,852	1,471,468	2,216,948
TOTAL.....£	80,438,286	99,507,724	116,532,733	133,725,189*	156,162,266
Average Value of Output per Employee..	488	495	497	497	52[illegible]
Average Value of Output per European Employee.....	1,166	1,192	1,219	1,257	1,355

* Amended figure.

11. Net Output.—Resolution 23 of the second Conference of British Commonwealth Statisticians held at Ottawa in 1935 reads as follows: "The term 'Net Output' or 'Net Value of Production' should be used to denote the value added in each industry to the cost of the objects used in production, including all materials, whether transformed or not in the industrial processes, and fuel and purchased power consumed, whether used for heating, lighting, or other purposes, but excluding any amount paid to other firms for work given out to be done by them."

Details for the last five years, calculated in accordance with this definition, are given in the following table:—

NET OUTPUT OF PRIVATELY-OWNED FACTORIES, 1932-33 TO 1936-37.

Class of Industry.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.
	£	£	£	£	£
I. Raw Material	218,106	227,809	247,157	219,102*	260,256
II. Stone, Clay, etc.	1,805,029	2,631,015	3,331,998	4,076,780	4,698,984
III. Wood	792,040	1,094,545	1,400,725	1,760,815	2,021,707
IV. Metals, Engineering, etc.	5,737,784	7,438,002	9,782,778	12,125,587	13,870,579
V. Food, Drink, etc.	10,170,419	10,643,670	11,382,506	12,601,938*	13,987,673
VI. Clothing, Textiles, etc.	2,920,267	3,630,731	4,222,989	4,598,407	5,147,953
VII. Books, Printing, etc.	3,325,624	3,791,333	4,048,493	4,625,246	5,101,395
VIII. Vehicles, etc.	1,427,567	2,167,520	2,960,113	3,347,405	4,196,622
IX. Ship Building, etc.	26,066	30,072	27,449	36,358	47,958
X. Furniture, etc.	804,644	1,114,268	1,392,083	1,692,854	1,920,599
XI. Chemicals, etc.	3,146,346	3,626,587	3,736,008	3,970,253	4,526,756
XII. Surgical Instruments, etc.	40,148	41,724	45,554	46,743	51,996
XIII. Jewellery, etc.	287,491	178,216	205,693	164,094	216,561
XIV. Heat, Light, and Power	2,899,038	2,965,985	3,136,801	3,654,582	4,529,240
XV. Leather and Leatherware	1,541,560	1,657,032	1,940,422	2,140,552	2,259,508
XVI. Building and Contracting	1,824,617	2,707,040	4,462,893	5,665,431	6,311,429
XVII. Other Industries	331,737	375,332	534,153	878,466	1,215,451
TOTAL £	37,298,483	44,320,881	52,857,815	61,604,863*	70,662,327
Average Net Output per Employee	226	220	226	229	241
Average Net Output per European Employee	541	531	553	579*	613

* Amended figure.

12. **Index Numbers of Prices and Volume of Output.**—The calculation of these indexes has been revised and a new base year 1934-35 substituted for 1920-21. Quantities and values for an increasing number of articles manufactured have become available necessitating this change. Column 1 gives the census years. Column 2 gives the percentage of the value of manufactured articles for which quantities and values are available. From this information an index of average prices was obtained for each year which is shown in Column 3. The next three columns show the value of all articles manufactured, the value of work done, and the sum of these two, the gross output. The seventh column is obtained by dividing the index of prices into the value of all articles manufactured and expressing the results as an index series with the year 1934-35 as 1000. This measures the output of manufactured articles with changes due to variations of prices eliminated. The eighth and ninth columns measure the changes in the value of articles manufactured and the gross value of output without the elimination of changes due to prices, with the year 1934-35 as 1000. The calculations of volume can only be regarded as approximately correct and are made on the assumption that prices on the whole moved in step with the prices of those commodities for which average prices are available.

INDEX NUMBERS OF PRICES OF PRODUCTS AND VOLUME OF OUPUT, 1916-17 TO 1936-37 (BASED ON THE PARTICULARS OF ALL INDUSTRIAL ESTABLISHMENTS).

Year.	Items for which Quantities and Values are obtainable.		Total Output of all Industry (including Municipal and Government but excluding Non-Generating Electricity Stations).					
	Percentage of Articles Manufactured, from which Index of Prices is obtained.	Index of Prices. Base 1934-35 = 1000.	Articles Manufactured.	Repair and other Work done.	Gross Value of Output.	Index of Volume (excluding Repair Work).	Index of Value of Articles Manufactured.	Index of Gross Value of Output including Repair Work.
	%		£1,000	£1,000	£1,000			
1916-17.	50·96	1281	39,178	10,279	49,457	306	392	376
1917-18.	64·81	1336	49,965	10,158	60,123	374	499	457
1918-19.	62·66	1399	59,468	11,466	70,934	425	594	539
1919-20.	61·92	1631	75,938	16,976	92,914	465	759	706
1920-21.	61·42	1767	77,193	21,115	98,308	437	771	747
1921-22.	60·36	1408	60,453	18,993	79,446	429	604	604
1922-23.	60·67	1322	57,533	16,953	74,486	435	575	566
1923-24.	61·90	1316	61,806	17,983	79,789	469	618	606
1924-25.	60·10	1286	64,583	19,577	84,160	502	645	640
1925-26.	60·35	1251	70,702	20,835	91,537	565	707	696
1926-27.	60·28	1260	73,987	23,880	97,867	587	739	744
1927-28.	59·93	1261	81,350	25,420	106,770	645	813	811
1928-29.	58·44	1239	86,036	27,145	113,181	694	860	860
1929-30.	55·11	1161	86,580	25,219	111,799	745	865	850
1932-33.	59·76	1014	70,622	20,326	90,948	696	706	691
1933-34.	53·69	1018	87,585	23,807	111,392	860	875	846
1934-35.	61·80	1000	100,061	31,536	131,597	1000	1000	1000
1935-36.	58·54*	995	115,141*	35,196*	150,337*	1156*	1151	1142*
1936-37.	57·00	1012	133,879	41,886	175,765	1322	1338	1336

* Amended figure.

13. **International Comparison of Factory Returns.**—Some interest and value attach to the comparison represented in the following table as to certain values and other particulars in regard to factory production in the Union, Canada, New Zealand, and the Commonwealth of Australia. The basis of returns undoubtedly differs in the various Dominions, economic conditions vary greatly, and the elements of the population are dissimilar, so that the comparisons must not in all respects be taken to be exact. Nevertheless, they afford some indication of the relative importance of manufacturing industries in the countries mentioned.

INTERNATIONAL COMPARISON OF FACTORY RETURNS.

Heading.	New Zealand (1936-37).	Commonwealth of Australia (1936-37).	Union of South Africa (1936-37).	Canada (1936).‡
Value of Land and Buildings £1,000	24,445	119,526	40,747	} 672,200
Value of Machinery and Plant £1,000	45,152	126,677	58,086	
Motive Power—				
Prime Movers: Steam 1,000 H.P.	141	1,627§	1,825	743
Water 1,000 H.P.	387	148§	9	649
Other 1,000 H.P.	46	201§	65*	92
TOTAL 1,000 H.P.	574	1,976§	1,899	1,484
Electric Motors 1,000 H.P.	170	947§	462	3,505
Cost of Fuel and Light £1,000	1,322	13,566	5,366	18,206
Employees—Male No.	72,001	381,412	294,351	461,386
" Female No.	24,400	142,536	38,417	132,973
TOTAL No.	96,401	523,948	332,768	594,359
Total Wages Paid £1,000	18,333	90,123	41,531	125,772
Average Wage per Employee £	190	179	128	212†
Value of Material Used £1,000	70,668	260,579	89,834	333,754
Value (Gross) of Production £1,000	105,942	451,829	175,765	616,953
Value Added in Process of Manufacture £1,000	35,274	191,250	85,931	283,199
Net Output £1,000	33,952	177,684	80,514	264,994
Value of Production per Head of Employees £	1,099	862	528	1,038
Value of Production per Head of Mean European Population £	70	66	86	55
Net Output per Head of Employees £	352	339	242	446
Net Output per Head of Mean European Population £	23	26	39	24

* Excludes horse-power of windmills and air compressors.
† Includes working proprietors.
‡ Excludes Central Electric Stations.
§ Rated horse-power.

14. **Monthly Index Numbers of Employment.**—In consultation and co-operation with various manufacturers' associations the Office of Census and Statistics in July, 1922, initiated the compilation of a monthly index of employment in secondary industry. This index is published in the *Monthly Bulletin of Statistics*. The data are obtained from returns of persons employed rendered monthly by a number of selected establishments in the four principal industrial centres, viz., the Cape Peninsula and adjoining areas, Port Elizabeth, Durban and adjoining areas, the Witwatersrand (including Pretoria), and since 1925, East London; and the figures show, by comparison with the results of a base year, the relative condition of employment and activity in each of the principal classes of industry in the different centres concerned. In 1925 a new series of index numbers was commenced with July, 1925, as base, and a further revision was effected during 1935, with base July, 1935=1000.

Information relating to employment is also obtained monthly with regard to mining from the Government Mining Engineer and with regard to railways and harbours from the General Manager. In addition, returns having reference to employment on trams and motor buses is obtained from certain urban centres. This information has been combined to form a general index of employment with the base, July, 1925=1000.

The employment figures obtained for mining and transportation are complete, but those for secondary industry, as mentioned above, are obtained only from a selected number of establishments and, therefore, make no allowance for the expansion of industry due to the opening up of new industrial establishments. The results of the annual industrial censuses up to 1936-37 reveal that there has been a greater increase in employment than the monthly indexes shewed and it has, therefore, been necessary to revise the General Indexes of employment.

The following table gives the revised figures from 1926, under various headings, all calculated to the base 1925=1000.

GENERAL INDEX OF EMPLOYMENT.

(BASE—JULY, 1925=1000.)

Yearly Average.	Secondary Industry.			Mining and Transportation.			All Industries.		
	European.	Other.	All Races.	European.	Other.	All Races.	European.	Other.	All Races.
1926	1066	1076	1072	1050	1078	1072	1056	1078	1073
1927	1127	1090	1103	1100	1075	1080	1111	1079	1087
1928	1189	1133	1153	1136	1099	1107	1157	1108	1120
1929	1248	1176	1202	1161	1106	1118	1196	1124	1142
1930	1230	1151	1180	1142	1110	1117	1177	1120	1134
1931	1219	1058	1117	1101	1068	1075	1148	1066	1087
1932	1175	903	1002	1049	1011	1019	1099	984	1013
1933	1348	1029	1145	1054	1063	1061	1172	1055	1084
1934	1624	1285	1408	1130	1176	1166	1328	1203	1234
1935	1825	1499	1618	1238	1323	1305	1473	1367	1394
1936	2000	1715	1818	1342	1453	1429	1605	1519	1541
1937	2132	1892	1978	1442	1511	1496	1718	1606	1634
1938	2086	1914	1976	1525	1591	1577	1749	1672	1691

15. **Principal Individual Industries.**—The tables given hereunder furnish particulars of the principal manufacturing industries. Certain important industries, owing to their small number, have been regrouped in order to avoid disclosure of their identity and operations.

PRINCIPAL PRIVATELY-OWNED MANUFACTURING INDUSTRIES, 1932-33 TO 1936-37.

YEAR.	Number of Factories.	Value of Land and Buildings. £1,000.	Value of Machinery, Plant, and Tools. £1,000.	Number of Employees.	Amount of Salaries and Wages Paid. £1,000.	Value of Materials Used. £1,000.	Value of Output. £1,000.	Value Added to Materials during Process of Manufacture. £1,000.	Net Output. £1,000.
BACON AND HAM, SAUSAGE AND POLONY FACTORIES.									
1932-33	33	131	53	520	50	386	551	165	153
1933-34	36	116	50	569	57	538	726	188	176
1934-35	34	122	53	600	59	552	763	211	200
1935-36	33	117	58	642	65	583	788	205	194
1936-37	35	132	57	689	73	631	867	236	224
BAKERIES, BREAD AND BISCUIT FACTORIES.									
1932-33	379	947	357	4,359	484	2,100	3,425	1,325	1,256
1933-34	385	1,003	353	4,682	528	2,365	3,753	1,388	1,312
1934-35	384	1,038	350	4,953	569	2,456	3,977	1,521	1,445
1935-36	385	1,021	348	5,019	573	2,562	4,213	1,651	1,574
1936-37	396	1,162	372	5,313	604	2,731	4,469	1,738	1,657
BOOT AND SHOE FACTORIES.									
1932-33	57	301	408	6,554	687	1,221	2,330	1,109	1,094
1933-34	74	395	419	7,573	771	1,438	2,656	1,218	1,200
1934-35	76	389	462	8,685	896	1,682	3,131	1,449	1,429
1935-36	81	401	514	9,381	989	1,809	3,439	1,630	1,608
1936-37	82	428	553	10,108	1,063	1,995	3,733	1,738	1,715

PRINCIPAL PRIVATELY-OWNED MANUFACTURING INDUSTRIES, 1932-33 TO 1936-37—(*continued*).

YEAR.	Number of Factories.	Value of Land and Buildings. £1,000.	Value of Machinery, Plant, and Tools. £1,000.	Number of Employees.	Amount of Salaries and Wages Paid. £1,000.	Value of Materials Used. £1,000.	Value of Output. £1,000.	Value Added to Materials during Process of Manufacture. £1,000.	Net Output. £1,000.
BREWERIES (INCLUDING NATIVE BEER BREWERIES, EXCEPT THOSE ON MINES) AND MALT WORKS.									
1932-33	40	596	381	1,489	200	259	1,218	959	933
1933-34	43	590	381	1,541	204	329	1,418	1,089	1,062
1934-35	44	640	392	1,719	220	380	1,626	1,246	1,218
1935-36	47	664	485	1,859	235	482	1,834	1,352	1,314
1936-37	48	784	431	1,981	253	515	2,032	1,517	1,487
BRICK, TILE, EARTHENWARE, AND POTTERY WORKS.									
1932-33	181	383	300	6,909	302	47	689	642	516
1933-34	213	466	374	10,253	435	76	1,146	1,070	878
1934-35	236	499	404	12,969	549	87	1,422	1,335	1,112
1935-36	271	670	506	16,038	701	43	1,828	1,785	1,509
1936-37	298	1,008	727	17,633	844	52	2,168	2,116	1,784
BRUSH AND BROOM FACTORIES.									
1932-33	9	24	7	339	23	30	71	41	40
1933-34	11	26	9	398	27	38	84	46	45
1934-35	9	24	11	379	23	39	90	51	50
1935-36	12	31	19	471	36	51	116	65	64
1936-37	15	36	21	494	38	57	121	64	62
BUTTER AND CHEESE FACTORIES.									
1932-33	112	380	257	1,540	135	1,124	1,649	525	493
1933-34	126	407	261	1,638	139	1,332	1,851	519	487
1934-35	132	440	313	1,870	155	1,676	2,348	672	633
1935-36	141	511	355	2,089	161	1,895	2,730	835	790
1936-37	139	477	367	2,183	170	1,931	2,822	891	848
CLOTHING, TAILORING, DRESSMAKING, AND MILLINERY ESTABLISHMENTS (WHOLESALE).									
1933-34	197	683	272	14,276	1,158	2,139	4,007	1,868	1,845
1934-35	232	820	318	15,639	1,307	2,404	4,701	2,297	2,273
1935-36	236	890	348	16,428	1,449	2,734	5,153	2,419	2,393
1936-37	249	1,039	387	17,687	1,618	3,272	6,057	2,785	2,757
CLOTHING, TAILORING, DRESSMAKING, AND MILLINERY ESTABLISHMENTS (RETAIL).									
1933-34	591	680	38	3,932	411	447	1,240	793	785
1934-35	622	737	37	4,219	433	450	1,249	799	790
1935-36	667	802	42	4,518	495	505	1,401	896	886
1936-37	655	806	40	4,372	490	494	1,372	878	869
COACH AND WAGON WORKS AND BLACKSMITHING.									
1932-33	410	273	80	2,068	143	139	393	254	240
1933-34	444	304	84	2,492	187	199	560	361	344
1934-35	440	311	79	2,637	210	230	621	391	374
1935-36	438	311	80	2,759	230	254	685	431	414
1936-37	421	320	85	2,790	259	308	772	464	447
ELECTRICITY GENERATING PLANTS.*									
1932-33	224	4,443	21,080	8,587	1,354	982	7,174	6,192	4,788
1933-34	231	4,511	20,640	9,046	1,403	1,084	7,562	6,478	4,968
1934-35	236	4,677	22,333	10,082	1,512	1,213	8,074	6,861	5,236
1935-36	246	5,880	25,087	11,538	1,705	1,751	9,452	7,701	5,878
1936-37	255	6,648	28,380	12,663	1,889	1,951	10,469	8,518	6,549

* Includes municipal and government concerns. For additional data, see § 4.

PRINCIPAL PRIVATELY-OWNED MANUFACTURING INDUSTRIES, 1932-33 TO 1936-37—(*continued*).

YEAR.	Number of Factories.	Value of Land and Buildings. £1,000.	Value of Machinery, Plant, and Tools. £1,000.	Number of Employees.	Amount of Salaries and Wages Paid. £1,000.	Value of Materials Used. £1,000.	Value of Output. £1,000.	Value Added to Materials during Process of Manufacture. £1,000.	Net Output. £1,000.
GALVANIZED WARE, TINWARE, STEEL TRUNK FACTORIES, AND PLUMBING WORKS.									
1932-33	218	305	170	3,242	283	464	948	484	475
1933-34	259	339	187	4,321	383	613	1,271	658	647
1934-35	282	379	203	5,082	496	827	1,690	863	850
1935-36	289	422	222	6,341	618	1,070	2,144	1,074	1,059
1936-37	293	490	230	6,785	748	1,343	2,582	1,239	1,223
GRAIN MILLS.									
1932-33	770	1,328	1,457	5,501	409	6,960	8,532	1,572	1,434
1933-34	813	1,412	1,415	5,784	442	8,445	10,066	1,621	1,476
1934-35	851	1,496	1,370	6,311	464	8,338	10,022	1,684	1,535
1935-36	888	1,530	1,353	6,557	489	8,573	10,635	2,062	1,915
1936-37	912	1,618	1,410	7,061	534	9,301	11,482	2,181	2,028
JAM FACTORIES AND FRUIT PRESERVING WORKS.									
1932-33	16	115	142	1,495	97	333	570	237	227
1933-34	15	101	140	1,723	100	390	680	290	279
1934-35	18	98	140	1,658	107	454	738	284	274
1935-36	18	145	138	2,523	133	544†	940†	396	382
1936-37	19	174	142	2,044	135	511	855	344	330
SWEET FACTORIES.									
1932-33	63	336	234	2,738	261	573	1,216	643	616
1933-34	65	337	211	3,046	297	674	1,330	656	627
1934-35	69	368	255	3,294	328	731	1,496	765	736
1935-36	76	402	277	3,770	371	834	1,680	846	813
1936-37	74	400	329	3,965	406	947	1,912	965	931
LIME WORKS.									
1932-33	30	37	189	1,479	61	40	293	253	203
1933-34	33	64	217	2,244	95	65	385	320	261
1934-35	37	74	221	2,269	99	92	480	388	328
1935-36	37	82	217	2,300	108	95	530	435	369
1936-37	41	87	260	2,564	118	114	593	479	402
PRINTING AND PUBLISHING ESTABLISHMENTS.									
1932-33	354	1,563	1,401	7,783	1,626	984	4,066	3,082	3,039
1933-34	384	1,638	1,395	8,248	1,766	1,098	4,572	3,474	3,428
1934-35	397	1,662	1,449	8,673	1,898	1,217	4,920	3,703	3,656
1935-36	402	1,748	1,671	9,407	2,103	1,419	5,604	4,185	4,133
1936-37	395	1,951	1,707	10,061	2,333	1,643	6,176	4,533	4,476
SALT PANS AND REFINERIES.									
1932-33	44	99*	44	790	31	21	100	79	76
1933-34	46	99*	47	1,000	34	23	87	64	61
1934-35	47	95*	47	1,019	35	26	109	83	80
1935-36	51	102*	46	1,120	39	27	125	98	94
1936-37	54	110*	45	1,276	44	31	128	97	92

* Reflects only the value of land on which actual industrial operations were carried on.
† Amended figure.

PRINCIPAL PRIVATELY-OWNED MANUFACTURING INDUSTRIES, 1932-33 TO 1936-37—(*continued*).

YEAR.	Number of Factories.	Value of Land and Buildings. £1,000.	Value of Machinery Plant, and Tools. £1,000.	Number of Employees.	Amount of Salaries and Wages Paid. £1,000.	Value of Materials Used. £1,000.	Value of Output. £1,000.	Value Added to Materials during Process of Manufacture. £1,000.	Net Output. £1,000.
SAWMILLS, PACKING CASE, CRATE AND WOODEN BOX FACTORIES.									
1932-33	166	337	221	3,296	299	570	1,142	572	549
1933-34	173	329	233	4,027	399	767	1,553	786	759
1934-35	184	358	246	4,850	512	927	1,907	980	951
1935-36	206	408	274	6,054	632	1,315	2,545	1,230	1,198
1936-37	214	462	315	6,849	749	1,603	3,045	1,442	1,405
SOAP AND CANDLE FACTORIES.									
1932-33	36	289	164	1,611	172	818	1,397	579	558
1933-34	35	311	167	1,777	173	860	1,504	644	624
1934-35	36	307	165	1,809	213	884	1,482	598	579
1935-36	32	307	341	1,839	223	950	1,568	618	597
1936-37	32	314	170	2,029	242	1,167	1,946	779	755
TANNERIES.									
1932-33	25	224	109	1,478	144	479	761	282	267
1933-34	25	226	118	1,600	156	573	829	256	240
1934-35	26	239	127	1,725	167	615	907	292	276
1935-36	27	235	125	1,737	170	707	1,002	295	278
1936-37	23	248	123	1,689	170	807	1,084	277	262
TEXTILE FACTORIES.									
1933-34	12	188	320	2,358	215	560	1,010	450	434
1934-35	12	218	437	2,602	245	574	1,132	558	542
1935-36	12	221	514	2,611	262	579	1,208	629	612
1936-37	12	242	528	2,930	308	667	1,357	690	672
TOBACCO, CIGAR, CIGARETTE, AND SNUFF FACTORIES.									
1932-33	57	336	263	2,738	261	968	2,216	1,248	1,240
1933-34	58	330	262	3,102	304	1,054	2,387	1,333	1,324
1934-35	55	340	266	3,208	332	1,091	2,619	1,528	1,520
1935-36	57	368	334	3,593	375	1,226†	2,871†	1,645†	1,637†
1936-37	55	400	353	3,849	405	1,383	3,248	1,865	1,855
WOOL WASHERIES.									
1932-33	11	83	64	581	26	5	50	45	38
1933-34	11	82	61	644	31	7	65	58	51
1934-35	10	44	34	671	35	51*	115	64	57
1935-36	9	39	25	609	31	27*	80	53	47
1936-37	10	41	24	636	33	22*	82	60	53

* Includes value of grease wool, property of wool washeries.
† Amended figure.

16. **Quantity and Value of Articles Produced.**—Particulars are given hereunder of the quantity and value of the chief articles produced by privately-owned establishments during the year 1936-37, with comparative figures for the years 1934-35 and 1935-36.

QUANTITY AND VALUE OF THE CHIEF ARTICLES PRODUCED BY PRIVATELY-OWNED ESTABLISHMENTS, 1934-35, 1935-36, AND 1936-37.

(NOTE.—Ton = 2,000 lb.)

Article.	Unit.	1934-35.		1935-36.		1936-37.	
		Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
CLASS I.			£		£		£
TREATMENT OF RAW MATERIALS.							
Wattle Bark	Tons	89,281	385,577	109,840	468,923	77,987	413,523
Cotton—Lint	lb.	1,041,114	*	759,314	*	1,352,877	*
Seed	lb.	2,064,733	*	1,517,676	*	2,666,601	*
Wool Scoured	lb.	8,919,909		7,450,174	*	8,362,166	*
CLASS II.							
STONE, CLAY, SHALE, ETC.							
Bricks—Building	No.	467,431,468	1,028,506	614,640,398	1,316,188	690,774,343	1,547,325
Fire	No.	6,619,203	50,365	7,255,887	61,695	8,178,741	68,209
Special	No.	3,043,560	30,142	2,891,886	36,824	3,534,920	37,757
Tiles—Roofing	No.	3,598,906	46,007	3,733,403	46,350	4,463,394	50,921
Other	No.	1,953,566	27,068	2,516,978	35,648	3,110,361	43,333
Fireclay and Fireclay Ware	—	*	62,386	*	64,931	*	97,116
Pipes, Concrete	—	*	157,552	*	182,413	*	201,731
Pipes and Fittings, Sanitary	—	*	155,163	*	248,459	*	307,912
Cement	Tons	580,978	—	728,170	—	915,586	—
Lime—Lump and Ground	Tons	108,390	203,422	112,850	221,105	121,871	242,219
Air Separated Slaked	Tons	63,802	126,448	62,332	122,420	66,564	133,836
Blue	Tons	84,829	122,148	90,739	155,768	105,024	178,583
Agricultural	Tons	7,418	5,525	7,630	6,301	7,476	7,972
Glass—Leaded Lights	Sq. ft.	*	*	*	*	339,460	33,510
Mirrors	Sq. ft.	*	*	*	*	412,918	82,521
Safety Glass	Sq. ft.	*	*	*	*	619,017	161,666
Other Glass for Motor Cars	Sq. ft.	*	*	*	*	154,326	26,695
Table Tops	Sq. ft.	*	*	*	*	319,232	34,437
Shelving	Sq. ft.	*	*	*	*	59,979	10,204
CLASS III.							
WOOD.							
Bass Brooms	Doz.	15,859	18,307	21,492	23,396	21,205	23,139
Hair Brooms	Doz.	21,484	25,284	37,751	35,195	36,354	35,159
Carpet Brooms	Doz.	12,295	9,194	13,639	11,430	12,930	11,142
Bannister Brushes	Doz.	4,753	3,399	8,344	6,161	7,879	6,153
Other Brushes and Brooms	Doz.	51,575	23,920	57,872	28,613	62,964	34,479
Sawn Timber	—	*	302,506	*	497,373	*	721,190
Furniture Wood	—	*	25,182	*	35,756	*	40,968
Wagon and Cart Wood	—	*	66,322	*	63,518	*	52,554
Mining Props and Fencing Poles	—	*	78,716	*	202,263	*	230,117
Sleepers	—	*	44,636	*	48,390	*	65,071
Butter and Cheese Boxes	No.	41,990	2,396	63,457	2,700	57,083	2,512
Fruit Boxes	No.	2,486,018	29,792	3,449,796	41,708	3,616,962	45,005
Egg Boxes	No.	11,831	281	12,663	536	13,127	786
Packing Cases and Crates	No.	1,841,819	109,779	2,259,890	112,350	2,347,215	120,090
Wood for Boxes	—	*	4,925	*	10,535	*	11,564
CLASS IV.							
METALS.							
Gates and Fences	—	*	*	*	144,669	*	197,683
Iron and Steel Furniture	—	*	*	*	72,352	*	91,413
Metal Doors and Windows	—	*	*	*	260,465	*	429,839
Pipes, Tubes and Fittings (Iron and Steel)	Tons.	*	*	*	799,812	44,762	1,165,770

* Not available.

ARTICLES MANUFACTURED—(*continued*).

Article.	Unit.	1934-35.		1935-36.		1936-37.	
		Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
CLASS IV.—(*continued*).			£		£		£
METALS—(*continued*).							
Reinforcing Metal Work	Tons.	*	*	23,294	481,910	29,702	665,515
Rock Drills and Rock Drill Spares	Tons.	*	*	*	338,207	1,068	388,998
Steel Ceiling	Tons.	*	*	*	168,755	3,549	137,525
Steel Tanks (including Sanitary Tanks)	No.	*	*	1,663	70,343	1,937	86,874
Structural Steel Work Manufactured	Tons.	*	*	*	1,239,127	43,308	1,152,980
Wheelbarrows	No.	*	*	*	38,823	44,633	46,139
Tanks	No.	16,276	74,432	17,236	86,580	17,083	88,906
Baths	No.	50,542	14,779	58,486	17,764	77,915	23,341
Steel Trunks	No.	2,517	1,189	2,698	1,273	5,989	2,006
Galvanized Iron Articles (Other)	—	*	227,775	*	245,528	*	305,995
Tinplate Articles (Other)	—	*	348,542	*	436,387	*	502,182
Electric—Batteries Primary	—	*	*	*	*	*	28,594
Accumulators	—	*	*	*	*	*	43,808
Heating Apparatus	—	*	*	*	*	*	16,004
Cooking Apparatus	—	*	*	*	*	*	32,719
Signs	—	*	*	*	*	*	69,622
Other Electric Appliances and Parts	—	*	*	*	*	*	156,127
CLASS V.							
FOOD, DRINK, TOBACCO.							
Bacon and Ham	lb.	6,984,400	403,097	7,601,241	413,005	8,042,919	411,131
Lard	lb.	1,213,994	40,707	1,234,195	41,438	1,152,304	36,977
Other Cooked and Smoked Meats	lb.	1,036,858	50,167	1,217,341	59,199	1,438,949	65,147
Polonies and Sausages	lb.	9,742,818	234,919	10,090,894	243,089	12,318,865	299,650
Butter (Creamery)	lb.	26,526,515	1,490,016	32,223,833	1,806,678	30,057,642	1,848,616
Cheese (dry weight)	lb.	9,774,957	399,075	10,997,766	439,796	10,498,283	463,552
Frozen Crawfish	lb.	1,031,113	23,521	1,060,820	30,724	1,291,720	33,023
Canned Crawfish	lb.	2,137,544	125,950	3,454,024	203,124	3,627,764	203,691
Other Canned Fish	lb.	255,088	5,541	†	†	†	†
Smoked and Dried Fish	lb.	7,006,109	87,685	8,416,965	95,216	7,344,850	112,012
Ice made	Tons	75,656	111,625	79,459	111,063	76,890	105,714
Bread	lb.	255,026,175	2,757,499	269,273,859‡	2,914,822	296,961,238	3,066,731
Biscuits	lb.	9,314,704	435,288	10,241,428	482,875	11,475,544	539,978
Cakes	—	*	723,164	*	740,641	*	767,553
Jams, Jellies, and Marmalade	lb.	25,059,700	428,613	25,503,361	440,816	27,841,739	461,262
Canned and Bottled Fruit	lb.	12,671,354	179,234	20,590,521	356,180	14,049,081	225,455
Candied Peel and Preserved Fruit	lb.	†	†	473,412	8,499	549,377	13,535
Dried Fruit	lb.	4,171,053	81,879	4,526,074‡	94,902‡	2,577,255	49,845
Sweets (including Chocolates)	lb.	41,213,380	1,381,677	45,960,383	1,524,582	49,355,142	1,705,871
Pickles	lb.	1,513,902	18,908	1,035,310	22,883	1,015,332	16,579
Preserved Vegetables	lb.					3,085,637	50,818
Sauces and Chutney	lb.	696,490	26,824	517,434	18,920	1,037,851	33,836
Spices and Condiments	lb.	1,403,618	66,983	1,529,127	68,985	1,618,957	70,643
Vinegar	Galls.	898,952	46,105	1,012,077	44,408	988,089	47,973
Coffee	lb.	11,020,888	418,731	13,597,778	459,464	14,862,186	514,943
Chicory	lb.	2,214,714	46,599	2,278,978	36,840	2,146,254	33,787
Ice Cream	—	*	102,126	*	140,813	*	171,830
Flour (Wheaten)	Tons	119,065	2,094,501	133,312	2,292,672	135,833	2,282,427
Wheat Meal and Boer Meal (sifted or unsifted)	Tons	209,722	3,106,828	209,119	2,961,706	220,808	3,073,406
Maize Meal	Tons	629,321	3,436,509	578,850	3,870,051	654,999	4,413,660
Hominy Chop	Tons	38,561	139,960	32,831	132,467	36,113	150,343
Maize Grits	Tons	13,526	84,578	7,809	53,017	12,152	98,936
Samp	Tons	12,491	78,731	14,452	112,176	15,471	133,728
Crushed Maize	Tons	30,824	170,196	28,452	174,154	36,243	234,418
Rye Meal	Tons	2,813	30,488	5,435	51,716	3,257	35,806
Kaffir-corn Meal	Tons	4,082	26,215	2,840	23,718	3,202	25,493
Bran and Pollard (Wheat)	Tons	95,659	429,853	104,082	496,419	104,948	517,568
Bran (Maize)	Tons	24,658	64,797	27,224	81,106	25,718	82,625
Aerated Waters (large Bottles)	Doz.	2,634,396	238,842	2,880,278	264,911	3,417,244	315,003
Aerated Waters (small Bottles)	Doz.	3,038,999	197,847	3,693,397	246,347	4,475,109	297,954
Aerated Waters (Syphons)	Doz.	44,160	14,463	59,009	16,831	64,372	20,417

* Not available. † Fewer than four establishments. ‡ Amended figure.

ARTICLES MANUFACTURED—(*continued*).

Article.	Unit.	1934–35.		1935–36.		1936–37.	
		Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
			£		£		£
CLASS V.—(*continued*). FOOD, DRINK, TOBACCO—(*continued*).							
Cordials and Syrups	Doz.	112,334	61,397	146,748	75,579	260,749	99,990
Hop Beer	Doz.	52,327	6,408	93,887	6,905	126,724	9,737
Ginger Beer	Galls.	830,552	44,824	814,823	39,691	949,731	45,856
Ale, Beer, and Stout	Galls.	7,054,929	1,387,228	7,495,490	1,489,324	8,399,782	1,666,677
Native Beer	Galls.	593,049	19,789	660,980	22,140	498,276	20,702
Kaffir-corn Malt	Tons	37,521	239,980	39,452	361,914	42,536	393,291
Rectified Spirit	Pf. Gal	3,339,689	570,229	3,358,647	707,293	3,673,877	767,692
Grape Syrup	Galls.	531,558	55,440	901,977	110,256	814,529	111,734
Yeast	lb.	*	*	*	*	4,143,905	148,886
Tobacco—							
Manufacturer's Brand	lb.	6,813,516	487,063	7,623,812	498,281	6,720,966	515,172
Loose Cut	lb.	2,377,644	92,923	2,374,050	99,409	3,415,511	158,849
Roll	lb.	2,322,055	65,933	2,095,635	72,991	2,445,682	79,225
Cigars and Cheroots	No.	5,657,965	12,166	6,671,323	15,579	7,076,949	16,110
Cigarettes	No.	2,950,741,043	1,945,102	3,337,175,053	2,171,337	3,754,538,621	2,459,104
Snuff	lb.	85,068	6,989	103,326†	8,233†	93,919	8,342
Waste Tobacco Leaf Sold	lb.	206,173	3,123	266,369	4,042	283,651	9,883
Jelly Powder	lb.	2,025,051	70,375	2,232,378	78,292	2,494,935	84,897
Baking Powder	lb.	1,349,917	136,555	1,504,242	141,375	1,568,508	155,359
Salt Produced	Tons	96,189	105,458	107,921	121,759	117,218	129,763
CLASS VI. CLOTHING, TEXTILES, ETC.							
Wholesale Establishments—							
Jackets	No.	*		1,215,090†		1,393,768	
Waistcoats	No.	*		351,357†		319,562	
Trousers	Prs.	*	2,396,499†	3,101,090	2,548,572	3,320,330	3,051,068
Shorts and Knickers	Prs.	*		946,866		1,159,661	
Other Outer Garments	No.	*		638,820		755,158	
Retail Establishments—							
Men's and Boys' Outer Garments	—	*	937,781†	*	1,063,997	*	1,057,349
Women's and Girls' Outer Garments	—	*	269,311	*	328,347	*	294,803
Millinery	—	*	197,541	*	203,208	*	222,856
Hats and Caps	—	*	61,244	*	101,532	*	103,655
Waterproof Clothing	—	*	54,216	*	82,812	*	72,744
Shirts	No.	6,726,061	1,066,380	7,637,671	1,138,844	9,958,808	1,378,881
Pyjamas	No.	575,815	128,738	577,856	141,618	810,603	184,462
Other Underwear—							
Men's and Boys'	—	*	*	*	26,207	*	50,380
Women's and Girls'	—	*	*	*	56,806	*	88,819
Ties	No.	1,442,367	63,946	1,085,447	51,462	1,069,056	57,394
Knitted Goods	—	*	143,474	*	167,950	*	151,224
Cotton Blankets	No.	3,500,914	455,657	2,455,386	386,704	2,513,291	381,687
Rugs	No.	640,414	293,308	684,696	384,899	819,461	450,278
Sheeting	Yds.	1,507,873	65,222	1,483,368	63,874	1,822,210	93,409
Tents—All kinds	No.	8,724	76,649	8,809	70,700	13,558	86,282
Tarpaulins and Wagon Covers	No.	12,859	53,165	12,528	54,228	17,163	72,605
Awnings and Sunblinds	—	*	21,895	*	28,769	*	30,768
CLASS VII. BOOKS, PRINTING, ETC.							
Newspapers, Books, Magazines	—	*	2,338,646	*	2,710,711	*	2,870,785
Job Printing	—	*	2,139,585	*	2,401,196	*	2,623,129
Stationery	—	*	314,761	*	378,239	*	450,085
Cardboard Boxes	—	*	445,843	*	496,248	*	533,483
Paper Bags	—	*	259,821	*	284,131	*	404,893
CLASS VIII. VEHICLES, ETC.							
Wagons	No.	1,016	61,674	984	59,573	1,081	65,999
Trollies and Vans	No.	444	13,691	371	13,503	463	15,797
Other Vehicles	No.	1,282	35,838	1,126	34,623	1,186	52,850
Bodies for Vehicles Mechanically Propelled	No.	4,696	222,134	6,298	320,487	8,073	404,734
Horse-shoes made for Sale	No.	50,683	2,811	56,404	3,222	32,458	1,981
Horse-shoes made and used in Establishment	No.	171,512	*	140,052	*	173,240	*

* Not available. † Amended figure.

ARTICLES MANUFACTURED—(*continued*).

Article.	Unit.	1934–35.		1935–36.		1936–37.	
		Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
			£		£		£
CLASS XI. CHEMICALS, ETC.							
Furniture Polish	Galls.	1,176	675	949‖	760‖	2,426	1,265
Floor Polish	lb.	3,328,975	140,637	5,587,366‖	218,316‖	6,332,722	241,882
Boot Polish	lb.	§	§	650,732	109,807	712,767	120,506
Metal Polish	lb.	60,202	2,068	55,090	2,366	60,946	2,457
Motor Car Polish	lb.	10,556	1,218	9,612	982	8,082	826
Soap—							
Laundry and Household	lb.	76,972,327	843,902	79,335,937	844,084	88,388,602	1,011,580
Scouring	lb.	1,887,520	55,123	2,033,552	60,301	3,043,897	77,250
Toilet	lb.	2,303,551	96,024	2,434,280	108,961	2,863,171	128,432
Soft	lb.	891,267	10,756	1,426,272	17,197	1,293,287	15,015
Liquid	Galls.	12,515	2,160	6,633	1,136	6,016	1,871
Powder and Flakes	lb.	1,598,826	68,024	2,065,922	77,994	2,842,314	113,092
Soda Crystals	lb.	1,409,099	6,477	1,646,512	7,224	1,622,818	7,192
Grease	lb.	7,672,798	99,938	8,025,854	107,449	8,748,081	115,103
Oil, Lubricating	Galls.	100,235	19,674	110,097‖	20,195	119,917	19,415
Candles	lb.	21,168,917	361,405	22,388,591	355,875	24,529,342	414,118
Fertilizers—							
Ammonium Sulphate	Tons	938	6,878	695	5,563	1,290	10,092
Superphosphate	Tons	157,641	374,193	154,712	389,030	185,252	463,616
Bonemeal	Tons	11,839	72,192	13,965	86,582	14,654	97,143
Bloodmeal and Meatmeal	Tons	705	4,802	597	4,983	559	6,154
Nitrogen and Phosphorus	Tons	2,593	11,451	3,084	14,038	2,976	14,028
Potassium and Phosphorus	Tons	1,839	8,166	975	4,027	561	2,373
Nitrogen, Potassium, and Phosphorus	Tons	42,665	212,614	59,379	305,149	73,201	368,432
Oil Paints—Ready Mixed	lb.	11,719,708	238,427	13,833,426	287,132	18,197,885	340,736
Water Paints and Distempers	lb.	2,394,791	32,713	2,857,016	40,283	3,405,565	48,202
Varnishes and Varnish Stains	Galls.	80,437	35,291	112,103	44,336	161,579	50,142
Carbolineum	Galls.	25,617	2,272	26,279	2,030	46,952	3,175
Wattle Bark Extract	Tons	33,207	344,888	44,541	495,884	44,077	561,878
Ground Nut Oils	lb.	9,862,283	169,433	14,873,719	258,221	12,836,131	259,468
Other Vegetable Oils	lb.					6,782,851	111,861
Oil Seed Cake	—	†	†	†	†	30,927,137	84,660
Medicinal Preparations	—	†	†	†	†	408,147	471,298
Pills and Tablets	—					106,541	†
Perfumery, Cosmetics and Toilet Preparations	—	†	†	†	†	180,137	184,944
Dips, Disinfectants, etc.	—	†	†	†	†	131,190	†
CLASS XIII. JEWELLERY, ETC.							
Diamonds, Cut and Polished	Carats	47,757	1,012,823	37,268	825,014	52,148	1,186,280
* CLASS XIV. HEAT, LIGHT, AND POWER.							
Gas	Cub.ft.	3,176,176,900	191,822	3,172,955,900	208,263	3,163,483,300	* 260,965
Coke	Tons	269,787	235,863	284,428	276,146	349,706	352,690
Tar	Galls.	1,964,152	58,455	1,914,066	52,183	1,866,046	45,596
Electricity (Units Used and Sold)	1,000 KWH	3,246,249	7,251,087‡	3,767,860	8,162,881‡	4,361,331	8,985,000‡
CLASS XV. LEATHER AND LEATHERWARE.							
Footwear (Canvas Uppers)	Prs.	1,822,714	161,344	2,593,469	262,121	3,280,321	253,181
Boots and Shoes	Prs.	5,717,189	2,695,163	6,079,136	2,898,648	6,391,196	3,138,927
Slippers	Prs.	869,555	119,217	1,200,143	142,208	1,125,391	123,621
Veldschoens and Sandals	Prs.	442,482	137,077	573,120	176,749	591,910	191,786
Leather Portmanteaux and Bags	No.	73,346	38,575	69,161	38,750	71,244	* 59,132
Fibre Portmanteaux and Bags	No.	866,778	103,146	1,028,761	134,254	1,172,258	133,394
Harness and Saddlery	—	†	116,256	†	125,557	†	168,211
Leather, Sole—							
Vegetable Tanned	lb.	7,792,200	402,039	8,592,750	475,430	9,196,088	518,314
Chrome and Alum Tanned	lb.	2,074,208	107,915	1,842,624	108,094	1,834,492	111,365
Leather, Upper—							
Vegetable Tanned	sq. ft.	1,150,243	38,533	1,541,885	46,512	1,728,364	69,406
Chrome and Alum Tanned	sq. ft.	4,824,738	214,385	5,861,975	240,857	5,344,046	225,619
Leather Harness, etc.—							
Vegetable Tanned	lb.	1,159,523	80,544	989,445	70,420	1,131,713	92,257
Chrome Tanned	lb.	56,216	3,921	109,020	7,703	113,143	6,243
Leather, Other—							
Vegetable Tanned	lb.	167,090	4,902	121,307	3,625	109,322	4,284
Chrome Tanned	lb.	124,282	6,127	125,716	5,771	70,370	3,145
Skins, Tanned (Calf, Goat, and Sheep)	No.	183,546	36,562	137,654	28,353	114,396	* 34,755

* The figures for Class XIV relate to private, government, and municipal undertakings.
† Not available. ‡ Net figure. § Fewer than four establishments. ‖ Amended figure.

§ 17. **Municipal and Government-owned Establishments.**—The following is a summary showing the principal items of information regarding government and local government undertakings and railway workshops during the year 1936-37.

MUNICIPAL AND GOVERNMENT-OWNED ESTABLISHMENTS, 1936-37.

Class of Industry or Area.†	No. of Establishments.	No. of Employees.		Salaries and Wages Paid to—		Engines and Motors.		Materials Used.	Value of Gross Output.	Value Added by Process of Manufacture.	Net Output.
		European.	Other.	Europeans.	Others.	Prime Movers.	Net Total.*				
				£	£	H.P.	H.P.	£	£	£	£
I.	3	4	35	942	1,547	—	102	48,425	52,220	3,801	3,564
II.	6	7	55	927	1,804	—	145	3,001	6,881	3,880	3,611
III.	14	513	102	124,313	4,442	509	4,714	177,764	308,857	161,093	152,902
IV.	87	16,738	2,974	4,057,471	146,333	372	36,704	6,659,929	11,081,811	5,021,882	4,881,905
V.	29	89	104	19,726	3,481	53	6,180	13,923	30,946	23,023	3,042
VI.	9	200	92	41,554	4,680	—	74	106,191	155,316	49,125	47,998
VII.	3	920	—	142,524	—	—	697	121,086	357,112	235,426	233,042
VIII.	25	990	357	203,743	17,959	15	655	203,711	439,452	235,738	230,283
IX.	—	—	—	—	—	—	—	—	—	—	—
X.	—	—	—	—	—	—	—	—	—	—	—
XI.	13	139	259	41,072	14,040	—	726	37,803	140,845	103,042	95,901
XII.	1	24	3	7,065	108	—	32	2,493	10,120	7,627	7,581
XIII.	—	—	—	—	—	—	—	—	—	—	—
XIV.	151	2,503	3,741	738,332	207,702	350,74	371	771,038	4,196,307	3425,329	2,999,447
XV.	3	5	11	1,185	1,032	—	—	1,200	4,228	3,028	3,023
XVI.	34	3,244	6,404	851,678	293,586	1,627	2,402	982,071	2,182,843	1,200,772	1,196,332
XVII.	—	—	—	—	—	—	—	—	—	—	—
TOTAL	378	24,976	14,137	6,230,532	697,974	353,352	52,952	9,129,238	19,603,004	10,473,766	9,851,935
Provinces—											
Cape of Good Hope	165	9,591	4,986	2,302,751	312,592	137,442	21,377	3,392,124	7,388,869	3,996,745	3,714,729
Natal	54	3,842	2,733	1,101,845	117,280	21,357	12,007	2,460,713	4,320,400	1,859,687	1,818,318
Transvaal	111	9,227	5,410	2,203,773	223,430	178,193	12,809	2,317,457	6,189,052	3,811,325	3,582,748
Orange Free State	48	2,316	1,008	532,163	44,672	21,460	6,739	808,044	1,704,653	806,009	736,140
Industrial Areas—											
Southern Transvaal	67	8,759	5,283	2,183,615	219,043	165,183	12,446	2,301,081	5,004,682	3,603,601	3,400,240
Cape Western	36	5,215	2,074	1,226,809	185,272	38,857	11,740	2,142,931	4,288,091	2,125,146	2,025,444
Durban and Pinetown	24	2,824	2,118	840,514	94,431	18,610	8,738	2,145,057	3,651,911	1,506,854	1,477,318
Port Elizabeth	9	506	674	111,538	26,831	48,751	166	103,187	156,240	52,053	248,110

* Total H.P. less electricity undertakings and motors operated by power generated by establishment.
† For class of industry, see § 1 (3).

18. **Building Plans Passed in Municipal Areas.**—The following tables give particulars of building plans passed (i) in municipal areas and (ii) in certain urban localities.

(i) URBAN AUTHORITIES—(*a*) NUMBER OF BUILDING PLANS PASSED WITH ESTIMATED VALUE OF NEW BUILDINGS, AND ALTERATIONS TO EXISTING BUILDINGS, AND (*b*) NUMBER OF DWELLING-HOUSES ACTUALLY COMPLETED, 1932-33 TO 1936-37.

Heading.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Total.
(*a*) Plans Passed—	No.	No.	No.	No.	No.
1932-33	6,709	1,347	9,307	541	17,904
1933-34	6,700	2,136	18,079	462	27,377
1934-35	6,687	2,000	22,621	601	31,909
1935-36	7,369	2,351	30,197	644	40,561
1936-37	7,646	2,426	36,699	800	47,571
Estimated Value—	£	£	£	£	£
1932-33	2,874,047	469,275	2,719,720	104,969	6,168,020
1933-34	3,697,014	1,149,556	6,426,027	86,542	11,359,139
1934-35	4,225,471	1,294,004	10,111,649	191,956	15,823,080
1935-36	4,795,327	1,492,972	14,055,570	151,275	20,495,144
1936-37	5,011,991	2,316,813	17,895,080	336,677	25,560,561
(*b*) New Dwelling Houses completed during—	No.	No.	No.	No.	No.
1932-33	1,524	114	1,850	103	3,591
1933-34	1,785	325	3,003	58	5,171
1934-35	2,347	284	3,603	93	6,327
1935-36	2,032	365	4,908	84	7,389
1936-37	2,307	405	5,299	135	8,146

(ii) PLANS PASSED, ESTIMATED VALUE OF BUILDINGS TO BE ERECTED AND OF ALTERATIONS TO EXISTING BUILDINGS, AND THE NUMBER OF NEW DWELLING-HOUSES COMPLETED, 1935-36 TO 1937-38. (CERTAIN URBAN LOCALITIES ONLY.)

Area.	Number of Plans Passed during Year.			Estimated Value of Plans Passed during Year.			Number of Dwelling-houses Actually Completed.		
	1935-36	1936-37	1937-38	1935-36	1936-37	1937-38	1935-36	1936-37	1937-38
	No.	No.	No.	£	£	£	No.	No.	No.
Capetown	3,493	3,564	3,547*	2,353,469	2,505,608	2,915,082*	881	988	724*
East London	266	200	177*	326,847	245,859	217,182*	21	16	18*
Kimberley	206	276	253*	57,855	84,310	67,180*	3	9	10*
Port Elizabeth	693	590	658*	971,271	1,025,907	933,021*	267	357	1,322*
Durban	1,924	1,961	2,167	1,291,311	2,091,639	2,939,687	300	331	369
Pietermaritzburg	258	274	272	134,643	176,920	198,028	38	55	68
Benoni	274	419	479	194,492	407,257	400,325	133	170	158
Boksburg	335	344	328	255,452	247,747	293,421	159	196	168
Brakpan	700	555	466	526,082	479,089	367,004	418	334	211
Germiston	612	602	582	756,198	694,918	798,660	292	233	243
Johannesburg	23,573	29,291	21,339	8,351,333	10,907,570	8,056,141	1,982	1,870	1,744
Krugersdorp	593	484	456	477,603	380,393	377,358	255	270	205
Nigel	158	286	205	232,285	406,095	185,020	113	153	126
Pretoria	1,025	1,245	1,312	1,117,653	1,662,811	1,391,464	325	463	650
Randfontein	206	292	235	192,290	234,234	197,464	123	158	97
Roodepoort-Maraisburg	407	421	470	353,234	400,600	446,815	190	230	270
Springs	877	865	444	1,040,742	1,046,581	549,282	350	485	175
Bloemfontein	144	169	198	45,458	154,815	214,461	12	16	27
TOTAL	35,744	41,838	33,588	18,678,218	23,212,362	20,547,604	5,862	6,334	6,585

* Preliminary figures.

§ 3. Iron and Steel Industry.

1. **Development.**—Although the question of the exploitation of the Union's iron ore deposits had since 1860 been under consideration at different times and by different interests, nothing practical was accomplished till 1901, when the first quantity of pig-iron was produced by Mr. C. L. Green from a primitive blast furnace near Pietermaritzburg. The enterprise did not meet with great success and after some years the plant was dismantled.

In 1908 serious attention was focused upon the potentialities of the iron and steel industry by Sir Robert (then Mr. R. N.) Kotze in a report issued by him as Government Mining Engineer to the Transvaal Government. It was not until Union, however, that further progress was made. The Government then called for tenders for scrap iron accumulated by the Railways, making it a condition that the successful tenderer should erect the necessary plant for converting the scrap into steel and that later experimental work should be conducted on the production of steel from local ores. This led to the coming into existence, in 1912, of the Union Steel Corporation, which actually commenced production the following year at its Vereeniging works.

In the meantime production had also started at Dunswart, and in 1911 the Dunswart Iron and Steel Works, with a capital of £25,000, was formed. Soon afterwards the Witwatersrand Co-operative Smelting Works erected a Shoe and Die branch at Driehoek. This undertaking has enjoyed considerable success, and to-day supplies the total requirements of the gold mines for shoes and dies.

In 1917 the Union Steel Corporation floated the Transvaal Blast Furnace Company, which erected an experimental blast furnace at Vereeniging. During the same year yet another company, the Pretoria Iron Mines, Ltd., came into being. This undertaking, operating only intermittently, produced in all 4,000 tons up to April, 1921. The outcome of the work thus done was the formation at Pretoria, at the end of 1919, of the South African Iron and Steel Corporation, Ltd., with a capital of £1,500,000.

The Newcastle Iron and Steel Corporation, which was floated in 1920, sold its assets to the Union Steel Corporation in November, 1924. Production at Newcastle commenced in June, 1926, but operations ceased in 1933. In 1937 the plant was acquired by the African Metals Corporation, and production re-commenced in April, 1938.

In an endeavour to stimulate the industry, the Government passed the *Iron and Steel Encouragement Act* in 1922, introducing the bounty system in respect of pig-iron and steel produced in the Union from ores mined in the Union. These bounties were to be paid only if the plant, in the opinion of the Minister, was capable of producing at least 50,000 tons of pig-iron or steel per annum. Advances could be made to the producer before the stage of production had been reached, provided that the advances did not exceed in any one year the amount of bounties, which would be obtained, if the stage of production had been reached. Only one Company, the Union Steel Corporation (S.A.), Ltd., qualified under the Act, and £49,217 was paid to its Newcastle works in 1928. The Act has since lapsed.

In 1928 the Government once more took active measures and passed the *Iron and Steel Industry Act*, No. 11 of 1928, under which the South African Iron and Steel Industrial Corporation was constituted on the 5th June, 1928. The blowing in of the Corporation's first furnace on the 9th March, 1934, marked the commencement of a new era in the history of the industry.

2. **South African Iron and Steel Industrial Corporation, Ltd.**—In 1927 a Bill was introduced in Parliament, to promote the development of the iron and allied industries within the Union and, for that purpose, to constitute the South African Iron and Steel Industrial Corporation, Limited. This Bill was passed and became law in 1928 (*Iron and Steel Industry Act*, No. 11 of 1928). Subsequently in *Government Gazette* No. 1718 of the 20th July, 1928, regulations were published, framed under section (1) (*a*) of the Act, defining the remuneration and the manner and other conditions of appointment of the members of the board of the Corporation, and the appointment and personnel of the government directors on the board was gazetted on the 10th August following (*Gazette* No. 1722).

The South African Iron and Steel Industrial Corporation, Ltd., is a public company and its capital is as follows:—

Share Capital:—	
500,000 Ordinary A Shares of £1 each	£500,000
5,500,000 Ordinary B Shares of £1 each	£5,500,000
Total share capital (issued and fully paid)	£6,000,000
Debentures:—	
Five per cent. Debentures	£1,500,000

The ordinary A Shares were subscribed by the Governor-General from funds appropriated by Parliament for the purpose. These shares are not transferable, except by Act of Parliament, and entitle the Governor-General, as holder, to a number of votes which shall always exceed by one the total number of votes of all the other shareholders in the aggregate.

Act No. 40 of 1931, which amended Act No. 11 of 1928, enabled the Government to take up any B Shares (or any preference shares issued in lieu thereof) which had been offered to the public for three months and had not been subscribed.

The debentures, which are guaranteed as to both principal and interest by the Governor-General, are redeemable from 1946 to 1971. The greater part of them is held by the Public Debt Commissioners. Section 9 of Act No. 11 of 1928 places the following limitation on dividends payable: 6 per cent. per annum on the A Shares and 12½ per cent. per annum on the B Shares. The Corporation may not be wound up without the authority of an Act of Parliament.

The following were the nominees on the Board of Directors of the Corporation as at 31st December, 1938.

Directors appointed by Governor-General.	*Directors appointed by B shareholders.*
Dr. H. J. van der Bijl (*Chairman*).	A. M. Mostert.
General B. G. L. Enslin.	G. H. Whitehouse.
R. Dyason.	J. Dommisse.
P. V. Gawith.	

The works have been erected on the Pretoria Town Lands some five miles west of the centre of the city and comprise the following:—

Coke Oven Battery (57 Ovens) and By-Product Plant; two Blast Furnaces, 500/600 tons per diem each; one 500-ton Inactive Mixer; three Basic Open Hearth Steel Furnaces, two of 120 tons and one of 250 tons hearth capacity; Heavy and Light Rolling Mills; and Sheetworks with an annual capacity of 50,000 tons.

There are, in addition, the requisite workshops, stores, calcining plant, laboratories, test house, offices, etc., necessary to furnish a complete works. Iron ore is mined, as a branch of the Corporation's activities, at Thabazimbi in the district of Rustenburg, and also on the Pretoria Town Lands adjacent to the works. Dolomite is also quarried close to the works, and a limestone deposit is worked at Taungs, Cape Province.

The Thabazimbi ore averages 66 per cent. of metallic iron and requires to be mixed with the silicious iron ore from the Pretoria Town Lands in order to produce the requisite flux in the blast furnace. Washed coal is drawn from the Navigation Pit of the South African Coal Estates (Witbank), Ltd. Experience has proved that satisfactory coke can be made from the Transvaal coal alone. Practically all the remaining raw materials required in the works, as well as much of the refractory material for furnaces, etc., are available from South African sources.

The ingot capacity of the Corporation's works as at present constituted is approximately 325,000 tons per annum. Iron and steel products, many of which are used in the development of main and secondary industries in the Union, are turned out by the Corporation's rolling mills. These products comprise such finished articles as rails of heavy and light sections, joists, channels and angles for structural work, light plates, black sheets, galvanized plain and corrugated sheets, reinforcing steel and tube billets; as well as semi-finished products such as blooms, billets and slabs, pig iron of various grades, etc.

In addition to iron and steel products large quantities of valuable by-products are extracted in the course of manufacture and coking, viz.: Ammonia, motor spirit (benzole), benzine, toluene, xylene, naphthas, naphthalene, creosote, furnace oil, black paints, dehydrated tar, road tars, pitch, and road-making materials.

Associated with the South African Iron and Steel Industrial Corporation, Ltd., is the Union Steel Corporation (of South Africa), Ltd. This Corporation was originally formed in 1912 to undertake a contract for a period of sixteen years for the purchase and conversion into steel of accumulations of scrap,

wrought iron, and steel lying at the various depots of the South African Railways and Harbours Administration, and also of subsequent accumulations at certain depots. For many years steel was produced by the Corporation at Vereeniging, Transvaal, solely from scrap, and a satisfactory technique and product were established. Towards the end of 1924 the Corporation purchased the assets of the Newcastle Iron and Steel, Ltd., and the blast furnace thus acquired at Newcastle, Natal, was blown in in June, 1926. From then onwards a proportion of pig-iron has been regularly used in the steel furnaces at Vereeniging. The Newcastle blast furnace was idle from November, 1933, until April, 1938, and during that period supplies of pig-iron for Vereeniging were drawn from Pretoria. The Newcastle plant was taken over by the African Metals Corporation, Limited, in August, 1937, and the blast furnace re-commenced production in April, 1938.

The ingot capacity of the open hearth plant is approximately 60,000 tons per annum.

The capital of the Union Steel Corporation is as follows:—

*125,000 A Cumulative Participating Preference Shares of £1 each.....	£125,000
125,000 B Cumulative Participating Preference Shares of £1 each.....	125,000
2,400,000 Ordinary Shares of 5s. each.....	600,000
Total Capital (authorized, issued, and fully paid).....	£850,000

* These shares are held by the South African Iron and Steel Industrial Corporation, Ltd.

§ 4. Electricity Supply and Electricity Undertakings.

1. **Electricity Supply Commission.**†—(i) *General.*—In 1921 the Government took steps to ensure that the electricity supply industry should be directed along lines indicated by experience in the more highly developed countries, and appointed a committee to investigate the subject. The outcome of this investigation was the enactment of the *Electricity Act*, No. 42 of 1922.

The Act provides *inter alia* for the establishment of the Electricity Supply Commission, the members of which are appointed by the Government. The Commission is not a government department, but is a corporate body required to operate like a private concern, free from parliamentary control and influence. It is, however, subject, like most private electricity undertakings, to the jurisdiction of the Electricity Control Board, a body appointed under the Act as the controlling authority of electricity production and supply within the Union, to which all applications must be made for licences for the establishment of electricity undertakings. The Commission, however, differs from private enterprise, primarily in that it is required to operate as far as practicable on the basis of neither profit nor loss, and it received financial assistance from the Government only during the first seven years of its existence. This assistance was given, not in the form of grants, but by advances from the Treasury, subsequently consolidated into loans, the Commission being obliged to pay interest and to repay the principal in specified periods of time, exactly as if the loans had been raised by public subscription, the security for the loans being the revenues and assets of the Commission. The Commission has since raised all its capital in South Africa, including the amounts necessary to repay the government advances, by the issue of Local Registered Stock.

(ii) *Functions.*—The Commission was appointed under the provisions of the Act on the 1st March, 1923, and is now composed of the following members:—

Dr. H. J. van der Bijl (*Chairman*).
A. M. Jacobs.
W. P. M. Henderson.
R. B. Waterson.

Broadly, its functions are—

(*a*) to establish, acquire, maintain, and work undertakings for an efficient supply of electricity;
(*b*) to investigate new or additional facilities for the supply of electricity and the co-ordination of existing undertakings so as to stimulate the provision of a cheap and abundant supply of electricity; and
(*c*) to advise the Administrators of the several provinces upon new municipal electricity schemes and extensions of existing schemes, and to give its opinion as to the best course to be pursued,

† Supplied by the Electricity Supply Commission.

and particularly as to whether the Commission itself could not furnish a supply to the advantage of the local authority. The Commission's functions in this respect are purely advisory.

(iii) *Undertakings.*—Since its inception the Electricity Supply Commission has established seven undertakings, namely, Natal Central, Witbank, Capetown, Durban, Klip, Sabie, and Rand Extension, the latter comprising a distributing network serving the Witwatersrand and adjoining areas. The six power stations serving the other undertakings have a total installed generating station capacity of 636,230 kw., while machinery of 146,000 kw. capacity is in course of construction or on order. The Commission's undertakings commenced supplying electricity in 1923, and in 1926 approximately 160 million units were sold; in 1938 the quantity sold had risen to 2,986 million units. In March, 1939, the construction of the Vaal Station was commenced; the initial installation will comprise three generating sets, each 33,000 kw., and one house set.

(*a*) *Natal Central Undertaking.*—The power station is located at Colenso with installed capacity of 60,000 kw.; there are duplicate 88,000-volt transmission lines from Glencoe to Pietermaritzburg and single circuit 88,000-volt lines from Pietermaritzburg to Booth substation (Durban), Glencoe to Volksrust, and Daimana to Bethlehem, making 546 route miles in all. Electricity is supplied as direct current to the Railway Administration from 27 substations. Bulk supply is given to the towns of Bethlehem, Dundee, Estcourt, Glencoe, Harrismith, Ladysmith, Mooi River, Newcastle, and Pietermaritzburg; the Commission also reticulates 1,408 smaller industrial, domestic, and lighting consumers.

(*b*) *Witbank Undertaking.*—This undertaking comprises a power station (installed capacity, 101,000 kw.) at Witbank and transmission and distribution systems in the Witbank district for the supply of electricity to industrial concerns, collieries, and domestic and other consumers; it also supplies power to the Victoria Falls and Transvaal Power Company, Limited, on the Witwatersrand, by means of a 132,000-volt overhead line between Witbank and Brakpan, owned and operated by that Company.

(*c*) *Capetown Undertaking.*—This undertaking comprises a power station (installed capacity, 90,300 kw.) at Salt River (which is inter-connected with the Capetown Corporation's power station), a transmission system, and substations in the Cape Peninsula for the supply of electricity to the Railway Administration for traction and other purposes, as well as transmission and distribution systems in the Cape rural areas extending through the Bellville, Paarl, Stellenbosch, Somerset West, and Malmesbury districts, for the supply of electricity to municipalities and industrial, domestic, and other consumers.

(*d*) *Durban Undertaking.*—This undertaking comprises a power station (installed capacity, 98,000 kw.) at Congella, supplying electricity in bulk to the Durban Corporation. Supply is also given along the Natal South Coast to Clansthal, Kelso Junction, Park Rynie, Pennington, Renishaw, Scottburgh, Sezela, Umkomaas, Umzinto, Port Shepstone, and Margate, which are reticulated by the Commission.

(*e*) *Sabie Undertaking.*—This undertaking comprises a hydro-electric power station (installed capacity, 1,350 kw.) and transmission and distribution lines, and supplies electricity to gold mining companies in the Sabie district.

(*f*) *Klip Generating Station.*—The Klip Generating Station, started up in March, 1936, has 8 units, each 33,000 kw., working, whilst there are 4 similar sets under construction or on order, giving a total station capacity of 421,000 kw. when the four 7,000-kw. house sets are included; all the power generated is sold to the Victoria Falls and Transvaal Power Co. Ltd., which operates the station on behalf of the Commission.

(*g*) *Rand Extension Undertaking.*—The Electricity Control Board granted a licence in 1934 to supply electricity in an area surrounding that already held by the Victoria Falls and Transvaal Power Co. Ltd.; this licence was subsequently ceded by the Commission to the Victoria Falls and Transvaal Power Co. Ltd.

Tariffs for the supply of electricity from any of the Commission's undertakings may be had on application to the Commission at its head office, Escom House, Rissik Street, Johannesburg, or at its local offices in Capetown, Durban, and Witbank.

(iv) *Finance.*—The Commission's total capital expenditure to 31st December, 1938, was £17,148,484, made up as follows:—

Undertaking.	*Capital Expenditure.* £
Natal Central	4,084,463
Witbank	2,479,782
Capetown	2,449,491
Durban	1,453,334
Sabie	96,145
Klip	5,611,448
Rand Extension	582,697
Escom House	391,122
TOTAL	£17,148,484

The Commission's loan capital at 31st December, 1938, was £16,250,000, made up as follows:—

Loan No. 1.—Government of the Union of South Africa	£3,000,000
Loan No. 2.—Government of the Union of South Africa	5,000,000
	£8,000,000
Less repaid during 1933 and 1934	£8,000,000
Local Registered Stocks.	
Loan No. 3 4¾ per cent. 1953–63	£500,000
Loan No. 4 4½ per cent. 1953	£2,500,000
Loan No. 5 3¾ per cent. 1954–64	£6,750,000
Loan No. 6 3½ per cent. 1959–64	£2,500,000
Loan No. 7 3¼ per cent. 1956–66	£2,000,000
Loan No. 8 3½ per cent. 1957–67	£2,000,000
	£16,250,000

(v) *Statistics.*—The figures of primary interest in connexion with the Commission's undertakings for the year 1938 are:—

Total capital expenditure at 31st December, 1938	£	17,148,484
Total revenue	£	2,232,022
Total production costs (including capital charges, reserve fund contributions, etc.)	£	2,218,696
Total station capacity	kilowatts	636,230
Total electricity sales	units	2,985,502,089
Average cost per unit sold	d.	0·178
Total coal consumption	tons	2,630,740
Number of consumers		7,254
Total area of supply (approximately)	sq. miles	20,000

The total revenue for the year 1938 is made up as follows:—

Heading.	Receipts.	Percentage of Total Receipts.	Average Price per Unit Sold.
	£	%	d.
Sales for—			
Traction (Converted to Direct Current)	638,734	29·26	0·486
Bulk	1,246,641	57·11	0·118
Industrial and Mining	221,028	10·12	0·429
Domestic and Lighting	76,578	3·51	1·754
TOTAL	2,182,981	100·00	0·176
Other Revenue	49,041	—	—
GRAND TOTAL	2,232,022	—	—

The total production costs for the year 1938 are made up as follows:—

Heading.	Expenditure.	Percentage of Total Expenditure.	Cost per Unit Sold.
	£	%	d.
Generation	881,347	39·72	0·071
Electricity Purchased	93,402	4·21	0·007
Distribution	58,674	2·65	0·005
General Expenses	146,196	6·59	0·012
Interest and Redemption	862,610	38·88	0·069
Reserve Fund	176,467	7·95	0·014
TOTAL	2,218,696	100·00	0·178

2. **Electricity Control Board.**—The *Electricity Act* of 1922 also provides for the appointment of a board, called the Electricity Control Board, which is the licensing and controlling authority for all electricity undertakings (including the Commission's) other than municipal, except in certain circumstances, in the Union of South Africa. The Board was first appointed under the Act on 28th August, 1922. Regulations under the Act were published on 8th December, 1922. (For the personnel of the Board, see Chapter XXVIII.)

3. **Power Supply on the Witwatersrand and in the Southern Transvaal—The Victoria Falls and Transvaal Power Company, Limited.**†—This Company in conjunction with a subsidiary company, the Rand Mines Power Supply Company, Limited, formed and controlled by it, supplies the requirements of electrical energy for the whole of the Witwatersrand gold mining industry, excepting only three mines, the Randfontein Estates G.M. Company, the East Rand Proprietary Mines, and the New Kleinfontein Company, which have for many years operated separate generating stations to supply their own requirements of electricity; and during recent years power from this Company's system has been placed at the disposal of developing and producing mines in the Potchefstroom and Klerksdorp districts. The vast bulk of the Company's output is consumed by the gold mining industry, but the Reef municipalities from Randfontein to Springs (with the exception of Johannesburg) and the municipalities of Nigel, Heidelberg, Vereeniging, Potchefstroom, and Klerksdorp, draw bulk supplies of electricity from the Company's system for distribution to consumers within their own municipal boundaries. The Company furnishes the Johannesburg Municipality with a stand-by supply to augment when necessary the supply available from the city power station. In Germiston, by agreement with the Municipality, the Company undertakes the service of street lighting and the reticulation of supply to individual consumers. Apart from the mines and municipalities numerous industrial enterprises of all kinds—steel furnaces and rolling mills, structural steel works, wire works, pipe works, milling companies, and many others in the Witwatersrand and Vereeniging districts—purchase their electric power direct from The Victoria Falls and Transvaal Power Company. By arrangement with the Electricity Supply Commission, the supply of electricity required by the South African Railways and Harbours Administration for the Railway Electrification Scheme on the Reef is furnished by the Company from convenient points on its network.

The Company was established in 1906 and commenced operations in that year. Later it applied for and was granted a licence under the provisions of the *Power Act*, 1910, (Transvaal), and when the *Electricity Act* of 1922 became law certain amendments to the original licence were effected to bring it into conformity with that Act. From time to time as the Company's field of operations has expanded, amendments to the licence have been made to permit of extensions to the Company's generating stations, transmission system, and area of supply.

When The Victoria Falls and Transvaal Power Company, Limited, was first established, a proposal to tap by means of hydro-electric generation the natural source of energy available at the Victoria Falls on the Zambezi for use on the Rand was given consideration. As, however, agreements in existence at that time for the supply of power to the mining groups stipulated—whether power was transmitted from the Falls or not—that steam-driven stations should also be established to ensure security of supply, it was decided that it would be uneconomic, even if technically practicable, to develop and transmit power from the Zambezi to the Rand. Thus the electricity which is supplied from the Witwatersrand system is drawn from steam generating stations situated at Brakpan, Simmer Pan, Rosherville, Vereeniging, Witbank, and Klip. The stations at Brakpan and Simmer Pan (near Germiston) are owned by the Company, while those at Rosherville and Vereeniging are owned by the Rand Mines Power Supply Company, Limited. The Witbank generating station and the new Klip station are owned by the Electricity Supply Commission, but were built by the Company for and on behalf of the Commission, and are operated by the Company as integral parts of its interconnected system, the Company taking approximately 90 per cent. of the output from the Witbank station and the whole output from the Klip station.

Since the bulk of the Company's output is consumed by the gold mining industry, an unprecedented growth of the Company's business resulted from the expansion of the mining industry brought about by the rise in the price of gold which has taken place since December, 1932. The extent of this

† Data supplied by The Victoria Falls and Transvaal Power Company, Limited.

growth may be judged from the increase in the Company's total sales of electricity and compressed air from 1,502 million units in 1932 to 3,017 million units for the year 1938.

To meet this phenomenal increase in the demand for power, not only on the Witwatersrand but also in the new mining areas to the south-west, east, and south-east of the Witwatersrand, the Company has carried out very large extensions to the power supply system operated by it. In 1934, in accordance with an agreement arrived at between the Company and the Electricity Supply Commission (established by the Government under the *Electricity Act* of 1922), the Commission applied to the Electricity Control Board for, and was granted, a licence to supply electricity within an extensive area surrounding the area of supply of the Company and a permit for the establishment of the new Klip Generating Station. This licence which is known as the "Rand Extension Licence" was, with the consent of the Control Board, ceded by the Commission to the Victoria Falls and Transvaal Power Company. Including the area of the Rand Extension Licence, the area in which the Power Company is authorized to supply electricity is now approximately 12,000 square miles in extent and in addition to the Witwatersrand comprises the magisterial districts of Potchefstroom, Krugersdorp, Vereeniging, and Heidelberg, and portions of the Witbank, Pretoria, Ventersdorp, and Klerksdorp districts, as well as a large area in the northern Orange Free State south of the Vaal River between Standerton and Klerksdorp; and the agreement between the Commission and the Company, under which the latter took cession of the Rand Extension Licence, enables consumers operating in the area of supply of that licence, although in many cases far removed from the Witwatersrand, to obtain supplies of electricity from the Company at the favourable tariffs applicable in the highly industrialized and densely populated Witwatersrand area.

Under the agreement with the Electricity Supply Commission, the new Klip Station, which is situated at Redan about 5 miles north of Vereeniging, is being constructed and is operated by the Company. The station has been designed for an ultimate capacity of 424,000 kilowatts and when completed will be the largest generating station in the Southern Hemisphere. The present programme provides for the installation of twelve 33,000-kilowatt turbo-generators and four 7,000-kilowatt house sets, with twenty-two boilers each with an evaporative capacity of 180,000 lb. per hour; eight of the large generating units and three house sets are already in commercial service, making the installed capacity of Klip Station 285,000 kilowatts at the end of 1938. Under normal loading conditions the steam required for the operation of each of the large generators necessitates burning 30 tons of coal per hour, and the ultimate coal consumption at this station alone will reach about 2,250,000 tons of coal per annum.

But even with Klip Station at its completed capacity of 424,000 kilowatts, the Company's forecast of power requirements indicates that still further generating plant will be necessary. Plans for the construction of another new station have been under consideration for some time, and in 1938 a further agreement was made with the Electricity Supply Commission for the erection of a station to be known as Vaal Station on the farm Bankfontein approximately 4 miles south of Vereeniging. Like the Klip Station, this new station will also be owned by the Electricity Supply Commission but will be erected by the Company and operated by it as an integral part of its system. The initial capacity of Vaal Station will it is expected be 108,000 kilowatts, but the station is being designed so as to be readily capable of extension.

The installed electric generating plant capacity at the end of 1938 of the stations operated by the Company was as follows:—

	Kilowatts.
Brakpan	48,000
Simmer Pan	40,000
Rosherville	60,500
Vereeniging	139,100
Witbank (Electricity Supply Commission)	100,000
Klip (Electricity Supply Commission)	285,000
TOTAL KILOWATTS	672,600*

* Equivalent to approximately 902,000 horse-power.

A unique feature of the Company's operations is the supply of compressed air in bulk to mines situated within the central area of the Witwatersrand. This centralized system of air distribution, on which the maximum demand is close upon 112,000 horse-power, is the largest and most important scheme of its kind in the world and has proved most successful in its operation. The Company is not obliged under its licence to supply compressed air, but it has contracted to supply certain mines of the Rand Mines Group, and, subject to certain conditions which ensure priority of supply to those mines, supply is also given to a few other mines and to several relatively small industrial consumers situated within economic reach of the air pipe system, that is to say, within an area about 16 miles in length along the Central Rand.

The compressed air supplied by the Company is drawn from steam turbine-driven compressor plant installed at Rosherville generating station, from the Robinson electrically driven compressor station on the property of the Crown Mines, and from the Canada Dam electrically driven compressor station which The Victoria Falls and Transvaal Power Company, Limited, has erected in recent years near Canada Junction. The Company also supplies compressed air to the Brakpan Mines, Limited, from steam compressors installed at Brakpan power station. The installed capacity of the air compressing plant feeding the Company's air system is as follows:—

	Horse-power.
Rosherville Compressor Station	76,000
Robinson Compressor Station	20,000
Canada Compressor Station	32,000
Brakpan Compressor Station	10,500
TOTAL HORSE-POWER	138,500

The Company's total sales of electricity and compressed air during the last five years have been:—

	Million Units.
1934	1,753
1935	1,979
1936	2,332
1937	2,676
1938	3,017

The charges for power made by the Company are in accordance with standard tariffs which have been evolved to give a sliding scale of prices, varying according to the size and constancy of the consumer's load; and in addition the standard agreements provide for the participation by consumers in the profits of the Company through the medium of an annual rebate.

The output taken by the gold mining industry represented well over 90 per cent. of the Company's total sales for 1938. The net cost of electrical energy to the mining groups for that year was just under three-tenths of a penny per unit and for compressed air slightly less than a penny per thousand cubic feet of free air delivered at an average gauge pressure of about 105 lb. per square inch, prices which compare very favourably with those ruling in any part of the world for similar types of supply.

In general The Victoria Falls and Transvaal Power Company's system consists of a main distribution system extending between Heidelberg in the east and Randfontein in the west, with Witbank interconnected to the East Rand through two 132,000-volt transmission lines. The Vereeniging station and Klip station are interconnected and are linked with the main distribution system through thirteen 88,000-volt transmission lines radiating to the Company's generating and distribution stations situated at suitable points on the west, central, and east Rand. In addition to this main system the Company has recently completed the construction of an 88,000-volt transmission line running from the Vereeniging station through the Potchefstroom and Klerksdorp districts to a point 16 miles beyond Klerksdorp. Although this line was built at a time when the demand in the area was largely conjectural, mining activity has increased to such an extent that a second 88,000-volt transmission line has had to be constructed.

Each of the gold mines is supplied from the distribution system by one or more feeders connected to a transformer station situated on the mine property, and the majority of the larger mines are supplied from several

transformer stations situated at points most convenient for their operations. The large majority of the Witwatersrand Gold Mines are thus fed from more than one source; in some cases a single mine transformer station is supplied from as many as six independent feeders so that, in the event of a fault rendering one or more feeders unserviceable, supply is maintained from the remainder, a layout which has proved extremely efficient under the severe lightning conditions obtaining on the Witwatersrand during the summer months in every year.

The Head Office of The Victoria Falls and Transvaal Power Company, Limited, is at 2, London Wall Buildings, London, E.C.2, and the Johannesburg offices (where full particulars as to terms of supply may be obtained) are at 501/525 Consolidated Building, Fox Street, Johannesburg.

4. **Electricity Supply—Municipalities and other Local Authorities.**—The subjoined tables give particulars in respect of electric light and power stations operated by municipalities and other local authorities, as to (i) the revenue, expenditure, and number of employees, and (ii) plant, units of power sold or used, working expenses, and number of consumers. The figures have been extracted from the returns received in connexion with the Industrial Census, 1937. This census covers the financial years which ended on any date in the calendar year 1937.

ELECTRICITY SUPPLY—MUNICIPALITIES AND OTHER LOCAL AUTHORITIES.

(i) REVENUE, EXPENDITURE, AND NUMBER OF EMPLOYEES, 1936-37.

Note.—The expenditure given below includes the cost of units purchased by those concerns which do not generate, but which purchase, electricity. In the case of Capetown, Durban, Johannesburg, Klerksdorp, and Potchefstroom, the municipalities both generate and purchase.

Town.	Date of Establishment.	Revenue.	Expenditure.	Number of Employees.		
				European.	Non-European.	Total.
CAPE PROVINCE.						
		£	£			
Aberdeen	1936	1,412	1,259	5	—	5
Adelaide	1927	3,369	2,950	5	4	9
Alice	1921	3,705	3,666	5	4	9
Allwal North	1905	9,135	8,574	12	9	21
Barkly East	1927	2,855	3,119	5	2	7
Beaufort West	1921	8,246	7,181	8	5	13
Bedford	1926	2,243	1,793	5	2	7
Bredasdorp	1931	3,110	2,739	5	2	7
Burghersdorp	1922	4,482	4,821	5	4	9
Butterworth	1937	1,543	1,027	5	4	9
Caledon	1923	4,458	4,269	7	—	7
Calitzdorp	1937	356	317	2	—	2
Calvinia	1929	2,143	2,111	4	—	4
Cambridge	1925	21,706	20,795	1	—	1
Capetown	1895	925,171	814,173	428	464	892
Cathcart	1925	2,171	2,138	6	2	8
Ceres	1910	2,564	2,543	4	1	5
Colesberg	1927	3,020	2,705	4	2	6
Cradock	1914	12,450	11,616	9	20	29
De Aar	1927	4,973	4,465	3	1	4
Dordrecht	1926	2,545	2,447	3	4	7
Douglas	1930	1,720	2,055	4	—	4
East London	1899	120,378	103,470	59	71	130
Elliot	1928	2,225	2,229	6	1	7
Fort Beaufort	1927	4,958	4,492	5	5	10
George	1926	9,438	14,918	12	11	23
Gordon's Bay	1931	1,265	1,314	1	1	2
Graaff-Reinet	1925	9,974	8,810	7	9	16
Grahamstown	1924	26,831	25,765	20	26	46
Griquatown	1936	1,232	1,340	4	2	6
Heidelberg	1931	1,522	1,509	6	—	6
Hermanus	1928	4,342	3,682	6	1	7
Hopefield	1933	590	613	1	—	1
Hopetown	1927	1,682	1,802	2	—	2
Humansdorp	1925	2,352	2,258	3	1	4
Idutywa	1937	1,065	1,057	4	2	6
Indwe	1917	1,509	1,538	3	2	5
Kimberley	1900	50,102	31,684	8	1	9
Kingwilliamstown	1903	20,208	20,549	12	21	33
Koysna	1929	3,553	2,960	5	2	7
Kokstad	1924	5,913	5,591	8	5	13
Kuruman	1932	2,445	2,328	7	3	10
Laingsburg	1935	1,286	1,278	4	—	4
Mafeking	1925	11,664	11,044	7	7	14
Malmesbury	1924	7,902	6,956	3	3	6

ELECTRICITY SUPPLY—MUNICIPALITIES AND OTHER LOCAL AUTHORITIES—(*continued*).

(i) REVENUE, EXPENDITURE, AND NUMBER OF EMPLOYEES, 1936-37—(*continued*).

Town.	Date of Establishment.	Revenue.	Expenditure.	Number of Employees.		
				European.	Non-European.	Total.
CAPE PROVINCE—(*continued*).						
		£	£			
Matatiele	1929	2,511	2,544	5	2	7
Middelburg	1922	8,277	7,236	7	6	13
Molteno	1924	2,421	2,357	4	3	7
Montagu	1931	2,837	2,725	5	1	6
Moorreesburg	1927	2,594	2,355	6	—	6
Mossel Bay	1922	11,308	10,839	11	5	16
Oudtshoorn	1911	15,525	14,847	9	11	20
Paarl	1917	39,820	34,952	18	8	26
Port Alfred	1931	3,443	3,172	7	4	11
Port Elizabeth	1906	247,785	206,735	91	209	300
Porterville	1933	1,605	1,512	5	—	5
Queenstown	1912	24,233	21,669	13	21	34
Riversdale	1924	4,656	4,904	6	1	7
Robertson	1923	6,663	9,443	13	5	18
Somerset East	1914	4,347	3,793	4	3	7
Somerset West	1916	4,801	4,576	1	2	3
Stellenbosch	1914	16,138	18,395	10	4	14
Sterkstroom	1928	1,921	1,837	2	2	4
Steynsburg	1929	2,079	1,937	4	—	4
Strand	1921	8,769	7,658	9	1	10
Stutterheim	1929	1,997	1,757	4	3	7
Swellendam	1928	3,859	3,560	7	1	8
Tarkastad	1927	2,830	2,441	6	3	9
Tulbagh	1928	1,322	1,817	1	—	1
Uitenhage	1907	33,267	32,647	11	7	18
Umtata	1921	8,953	7,575	5	7	12
Upington	1929	6,314	5,736	5	4	9
Victoria West	1931	2,091	2,190	4	—	4
Villiersdorp	1928	1,600	1,532	3	1	4
Vryburg	1933	4,268	4,268	3	1	4
Walmer	1925	11,300	11,320	3	4	7
Wellington	1914	7,418	6,327	8	1	9
Wolseley	1931	1,568	1,239	4	2	6
Worcester	1916	18,631	18,136	15	26	41
NATAL.						
		£	£			
Dundee	1902	6,633	6,642	5	4	9
Durban	1897	603,571	525,030	223	398	621
Eshowe	1933	4,145	3,670	8	2	10
Estcourt	1921	7,288	8,601	2	1	3
Glencoe	1927	4,552	4,437	4	2	6
Greytown	1904	4,823	4,742	5	10	15
Harding	1936	1,122	1,384	3	4	7
Howick	1922	1,540	1,333	2	6	8
Ladysmith	1903	12,345	9,954	7	9	16
Mooi River	1929	2,036	2,009	1	1	2
Newcastle	1913	5,837	5,100	3	2	5
Paulpietersburg	1930	1,355	1,506	2	2	4
Pietermaritzburg	1896	107,150	87,301	39	31	70
Port Shepstone	1930	5,147	5,023	5	8	13
Utrecht	1925	1,293	1,252	2	2	4
Vryheid	1906	10,124	9,683	7	12	19
TRANSVAAL.						
		£	£			
Alberton	1928	4,975	2,775	2	—	2
Balfour	1929	556	649	1	—	1
Barberton	1923	5,573	3,131	3	4	7
Belfast	1926	1,084	882	1	—	1
Benoni	1911	58,537	31,782	9	14	23
Bethal	1916	5,551	4,634	4	3	7
Bloemhof	1930	2,885	3,095	5	1	6
Boksburg	1905	28,879	17,475	9	12	21
Brakpan	1919	38,327	20,321	35	1	36
Breyten	1925	735	785	1	1	2

ELECTRICITY SUPPLY—MUNICIPALITIES AND OTHER LOCAL AUTHORITIES—(*continued*).

(i) REVENUE, EXPENDITURE, AND NUMBER OF EMPLOYEES, 1936-37—(*continued*).

Town.	Date of Establishment.	Revenue.	Expenditure.	Number of Employees.		
				European.	Non-European.	Total.
TRANSVAAL—(*continued*).		£	£			
Carolina	1929	2,785	2,607	3	3	6
Coligny	1933	639	576	1	—	1
Elsburg	1930	1,709	956	3	—	3
Ermelo	1914	6,115	5,532	5	7	12
Greymont	1936	269	326	1	—	1
Heidelberg	1915	6,807	3,366	2	3	5
Hercules	1930	4,644	4,157	3	1	4
Johannesburg	1889	1,106,610	871,759	699	1,682	2,381
Kempton Park	1937	1,117	812	1	1	2
Klerksdorp	1911	21,858	15,834	7	7	14
Koster	1928	689	576	1	—	1
Krugersdorp	1907	38,763	25,253	14	25	39
Lichtenburg	1927	3,410	2,942	6	2	8
Louis Trichardt	1931	4,359	4,042	5	5	10
Lydenburg	1926	3,989	3,174	3	2	5
Maquassi	1930	343	359	1	—	1
Middelburg	1922	6,903	4,974	2	2	4
Nelspruit	1927	3,628	2,131	2	2	4
Nigel	1928	10,824	9,315	8	34	42
Nylstroom	1930	2,120	1,877	4	2	6
Pietersburg	1916	17,168	13,826	10	24	34
Piet Retief	1932	1,896	1,981	5	2	7
Potchefstroom	1912	19,323	17,999	8	10	18
Pretoria	1892	293,719	255,296	188	220	408
Randfontein	1911	13,615	9,449	4	9	13
Roodepoort-Maraisburg	1912	21,514	15,379	10	6	16
Rustenburg	1923	8,944	7,589	7	12	19
Springs	1904	50,621	36,497	17	25	42
Standerton	1923	8,827	7,647	7	6	13
Ventersdorp	1931	2,209	2,085	4	2	6
Vereeniging	1920	12,857	7,409	8	3	11
Warmbaths	1927	2,306	2,182	1	1	2
Wolmaransstad	1936	1,998	1,992	4	1	5
Zeerust	1927	2,046	1,423	2	1	3
ORANGE FREE STATE.		£	£			
Bethlehem	1905	16,248	14,326	9	19	28
Bloemfontein	1900	114,013	79,814	41	50	91
Boshof	1928	1,350	1,628	3	1	4
Brandfort	1924	3,822	4,151	5	3	8
Clocolan	1931	3,539	3,317	4	3	7
Dewetsdorp	1931	1,483	1,643	4	1	5
Edenburg	1928	1,580	1,367	4	—	4
Fauresmith	1927	2,002	1,918	4	1	5
Ficksburg	1924	8,398	7,813	7	6	13
Frankfort	1923	5,647	4,536	10	1	11
Harrismith	1904	8,097	7,320	2	5	7
Heilbron	1904	3,959	3,471	5	3	8
Hoopstad	1937	1,316	1,056	3	—	3
Jagersfontein	1929	772	996	2	1	3
Koffiefontein	1931	814	762	1	—	1
Kroonstad	1904	20,001	18,369	9	25	34
Ladybrand	1926	5,054	5,284	5	4	9
Lindley	1918	2,086	2,059	5	—	5
Marquard	1931	1,733	1,890	4	—	4
Parys	1912	6,482	6,483	8	1	9
Petrus Steyn	1927	1,631	1,504	3	2	5
Reitz	1924	3,448	3,411	5	6	11
Rouxville	1927	1,622	1,638	3	3	6
Senekal	1915	6,236	4,889	6	4	10
Smithfield	1920	2,260	2,470	8	—	8
Springfontein	1929	2,543	2,454	4	2	6
Vrede	1921	4,720	4,876	7	2	9
Wepener	1928	2,845	2,956	4	3	7
Winburg	1902	3,513	3,400	6	3	9
Zastron	1929	2,744	2,666	4	—	4

(ii) PLANT, UNITS, WORKING EXPENSES, AND CONSUMERS, 1936-37.

Town.	Total Capacity of Plant.		Units Generated and Sold or Used.	Working Expenses.	Consumers.
	A.C.	D.C.			
CAPE PROVINCE.	Kilowatts.	Kilowatts.	No.	£	No.
Aberdeen	62	—	40,201	949	134
Adelaide	—	117	140,231	2,060	367
Alice	—	230	199,478	2,090	230
Aliwal North	450	—	1,075,491	5,433	397
Barkly East	135	—	111,890	2,256	218
Beaufort West	—	255	380,514	4,704	501
Bedford	—	80	71,622	1,077	162
Bredasdorp	104	—	155,382	1,877	292
Burghersdorp	—	170	239,440	2,914	208
Butterworth	—	80	33,904	927	152
Caledon	—	235	230,372	3,327	408
Calitzdorp	40	—	12,116	254	87
Calvinia	—	48	76,829	1,546	192
Cambridge	*	*	*	1,220	1,910
Capetown †	28,500	—	11,922,840	259,973	46,277
Cathcart	—	73	51,647	1,361	182
Ceres	60	40	101,101	1,494	312
Colesberg	—	145	116,771	1,770	241
Cradock	1,470	—	1,097,100	7,232	729
De Aar	*	*	*	1,318	589
Dordrecht	—	88	85,594	1,437	209
Douglas	80	—	45,176	977	128
East London	11,000	—	22,403,058	63,767	5,708
Elliot	—	55	58,755	1,351	163
Fort Beaufort	225	—	277,973	3,001	241
George	1,500	—	644,163	7,036	594
Gordon's Bay	*	*	*	336	141
Graaff-Reinet	500	—	768,615	5,207	790
Grahamstown	2,900	—	3,265,121	15,796	1,550
Griquatown	80	—	23,603	647	59
Heidelberg	44	—	45,459	1,069	189
Hermanus	212	—	241,382	2,444	334
Hopefield	25	—	19,550	310	53
Hopetown	91	—	74,700	1,367	149
Humansdorp	—	80	60,190	1,528	266
Idutywa	69	—	42,934	804	89
Indwe	—	125	63,165	1,029	145
Kimberley	*	*	*	4,777	4,163
Kingwilliamstown	3,240	—	3,092,035	12,728	1,219
Knysna	108	—	116,919	2,224	300
Kokstad	—	214	304,942	3,897	317
Kuruman	85	—	76,251	2,022	109
Laingsburg	59	—	49,558	1,007	110
Mafeking	450	—	1,071,018	6,432	528
Malmesbury	*	*	*	1,128	956
Matatiele	—	86	107,594	1,770	208
Middelburg	600	—	509,695	4,531	466
Molteno	100	—	71,943	1,306	204
Montagu	208	—	174,259	1,668	251
Moorreesburg	—	131	79,311	1,213	265
Mossel Bay	500	—	1,021,687	6,764	706
Oudtshoorn	700	—	1,133,020	8,682	982
Paarl	*	*	*	8,168	2,783
Port Alfred	135	—	165,452	2,131	333
Port Elizabeth	36,000	350	57,841,342	129,354	12,211
Porterville	82	—	62,737	1,122	176
Queenstown	3,000	—	3,120,764	13,311	1,364
Riversdale	—	170	160,850	3,034	427
Robertson	400	150	633,798	6,598	850
Somerset East	—	145	169,934	2,661	435
Somerset West	*	*	*	1,676	513
Stellenbosch	*	*	*	3,570	1,090
Sterkstroom	82	—	84,692	1,114	173
Steynsburg	114	—	44,774	1,115	219
Strand	*	*	*	1,417	1,086
Stutterheim	74	—	76,892	1,384	172
Swellendam	128	—	140,034	2,209	346
Tarkastad	—	123	82,848	1,730	234
Tulbagh	—	51	35,629	720	121
Uitenhage	*	*	*	4,773	2,086
Umtata	620	—	1,207,876	3,284	507
Uplington	200	—	300,000	3,743	300

* Electric current purchased from another source; not generated by local authority.
† Electric current is both generated and purchased. The figure for the units represents the total number generated and includes the units lost in generation and transmission and used in station.

ELECTRICITY SUPPLY—MUNICIPALITIES AND OTHER LOCAL AUTHORITIES—(*continued*).

(ii) PLANT, UNITS, WORKING EXPENSES, AND CONSUMERS, 1936-37—(*continued*).

Town.	Total Capacity of Plant. A.C.	Total Capacity of Plant. D.C.	Units Generated and Sold or Used.	Working Expenses.	Consumers.
CAPE PROVINCE—(*continued*).					
	Kilowatts.	Kilowatts.	No.	£	No.
Victoria West	95	—	100,158	1,621	181
Villiersdorp	185	—	143,483	944	116
Vryburg	*	*	*	1,122	324
Walmer	*	*	*	1,877	956
Wellington	—	223	671,763	5,008	896
Wolseley	50	—	70,804	753	145
Worcester	—	1,700	2,525,504	12,421	2,128
NATAL.					
	Kilowatts.	Kilowatts.	No.	£	No.
Dundee	*	*	*	1,642	526
Durban†	13,500	—	11,502,480	128,982	31,353
Eshowe	262	—	268,891	2,452	200
Estcourt	*	*	*	3,754	315
Glencoe	*	*	*	1,514	268
Greytown	—	300	232,883	3,644	334
Harding	80	—	30,561	1,045	74
Howick	*	*	*	558	157
Ladysmith	*	*	*	3,157	881
Mool River	*	*	*	859	114
Newcastle	*	*	*	1,330	370
Paulpietersburg	63	—	36,874	850	101
Pietermaritzburg	*	*	*	18,610	5,772
Port Shepstone	212	—	340,449	3,589	274
Utrecht	—	—	*	408	107
Vryheid	840	—	867,449	4,486	630
TRANSVAAL.					
	Kilowatts.	Kilowatts.	No.	£	No.
Alberton	*	*	*	889	624
Balfour	*	*	*	162	79
Barberton	280	—	316,015	1,395	337
Belfast	*	*	*	208	94
Benoni	*	*	*	8,243	4,240
Bethal	108	—	194,528	2,712	257
Bloemhof	64	—	140,430	2,358	147
Boksburg	*	*	*	6,651	3,017
Brakpan	*	*	*	6,216	4,208
Breyten	*	*	*	110	93
Carolina	115	—	277,283	1,769	201
Coligny	*	*	*	171	81
Elsburg	*	*	*	370	246
Ermelo	272	—	353,063	3,082	427
Greymont	*	*	*	62	38
Heidelberg	*	*	*	1,282	515
Hercules	*	*	*	1,399	587
Johannesburg†	81,500	—	268,742,850	550,689	48,378
Kempton Park	*	*	*	430	158
Klerksdorp†	500	—	1,326,340	5,237	677
Koster	*	*	*	172	56
Krugersdorp	*	*	*	8,654	3,403
Lichtenburg	130	—	122,000	2,613	322
Louis Trichardt	400	—	394,971	2,847	321
Lydenburg	300	—	303,491	1,651	376
Maquassi	*	*	*	100	44
Middelburg	*	*	*	1,247	493
Nelspruit	100	—	359,030	953	193
Nigel	*	*	*	3,927	825
Nylstroom	51	—	90,799	1,387	144
Pietersburg	850	—	1,255,236	8,358	577

* Electric current purchased from another source; not generated by local authority.

† Electric current is both generated and purchased. The figure for the units represents the total number generated and includes the units lost in generation and transmission and used in station.

ELECTRICITY SUPPLY—MUNICIPALITIES AND OTHER LOCAL AUTHORITIES—(*continued*).

(ii) PLANT, UNITS, WORKING EXPENSES, AND CONSUMERS, 1936-37—(*continued*).

Town.	Total Capacity of Plant. A.C.	Total Capacity of Plant. D.C.	Units Generated and Sold or Used.	Working Expenses.	Consumers.
TRANSVAAL—(*continued*).					
	Kilowatts.	Kilowatts.	No.	£	No.
Piet Retief	101	—	78,015	1,594	201
Potchefstroom†	650	120	1,279,392	6,824	1,200
Pretoria	41,500	—	64,219,383	128,807	14,621
Randfontein	*	*	*	2,581	928
Roodepoort-Maraisburg	*	*	*	5,874	2,448
Rustenburg	260	—	549,730	5,109	626
Springs	*	*	*	12,162	4,950
Standerton	500	—	907,471	5,482	405
Ventersdorp	80	—	101,755	1,018	186
Vereeniging	*	*	*	3,045	1,092
Warmbaths	*	*	*	200	129
Wolmaransstad	114	—	58,135	1,515	200
Zeerust	*	*	*	226	217
ORANGE FREE STATE.					
	Kilowatts.	Kilowatts.	No.	£	No.
Bethlehem	—	600	1,762,996	8,881	711
Bloemfontein	9,000	—	19,918,077	46,715	4,524
Boshof	50	—	32,410	800	140
Brandfort	100	—	206,915	1,724	287
Clocolan	190	—	186,071	1,853	196
Dewetsdorp	55	—	42,742	932	126
Edenburg	—	91	35,431	731	137
Fauresmith	—	160	54,330	1,168	135
Ficksburg	400	—	728,890	5,426	390
Frankfort	330	—	567,500	2,519	215
Harrismith	*	*	*	2,705	371
Heilbron	—	170	384,204	1,929	259
Hoopstad	28	—	18,541	568	44
Jagersfontein	*	*	*	153	241
Koffiefontein	*	*	*	288	140
Kroonstad	2,500	—	2,281,057	9,576	987
Ladybrand	225	—	266,000	2,029	300
Lindley	—	90	79,995	1,299	145
Marquard	55	—	42,531	1,154	123
Parys	475	—	755,937	2,862	469
Petrus Steyn	—	50	54,787	840	119
Reitz	—	90	119,791	1,983	190
Rouxville	—	91	49,503	966	141
Senekal	—	437	336,056	3,062	353
Smithfield	155	—	66,159	1,520	152
Springfontein	60	—	120,030	1,667	102
Vrede	200	—	244,061	2,627	254
Wepener	138	—	140,492	1,461	202
Winburg	150	—	211,535	2,210	260
Zastron	88	—	72,487	1,286	188

* Electric current purchased from another source; not generated by local authority.

† Electric current is both generated and purchased. The figure for the units represents the total number generated and includes the units lost in generation and transmission and used in the station.

5. **Statistics of Electricity Generating and Distributing Plants.**—The following tables containing varied information concerning the production and distribution of electric power, the capacity of the installations, employment, finance, etc., have been compiled from data collected for 1932-33 to 1936-37 through the medium of the industrial census. The figures relate to the financial years ended on any date in each of the calendar years 1933 to 1937.

ALL UNDERTAKINGS GENERATING AND/OR DISTRIBUTING ELECTRICITY.

(i) CLASSIFICATION OF UNDERTAKINGS, 1936-37, WITH COMPARATIVE FIGURES FROM 1932-33.

Province and Year.	No. of Undertakings.		Units Generated.	Units Generated and Used.	Units Generated and Sold.
	Generating.	Total.			
LOCAL AUTHORITIES AND GOVERNMENT UNDERTAKINGS.					
Cape of Good Hope	81	96	144,420,209	1,749,159	108,436,150
Natal	7	16	13,591,570	—	13,279,578
Transvaal	32	56	356,550,428	1,116,014	300,036,925
Orange Free State	30	33	34,099,190	36,180	28,776,373
TOTAL 1936-37	150	201	548,661,697	2,901,353	450,529,026
1935-36	149	197	470,018,552	2,798,683	386,041,443
1934-35	146	190	424,053,032	2,558,630	340,064,575
1933-34	148	191	368,210,643	2,135,644	296,293,762
1932-33	145	188	372,566,997	1,681,227	309,157,449
PRIVATE COMPANIES.					
Cape of Good Hope	13	13	368,718,696	34,065,395	301,156,919
Natal	31	33	534,174,651	66,918,554	391,455,939
Transvaal	56	133	3,853,548,831	697,550,034	2,389,202,768
Orange Free State	5	5	30,862,411	27,262,035	288,984
TOTAL 1936-37	105	184	4,787,304,589	825,796,018	3,082,104,550
1935-36	97	159	4,132,888,735	749,416,133	2,629,604,229
1934-35	90	142	3,348,427,331	674,855,326	2,228,770,841
1933-34	83	129	2,940,385,798	623,963,042	1,931,478,632
1932-33	79	125	2,573,989,759	506,290,214	1,645,062,501
TOTAL UNDERTAKINGS.					
Cape of Good Hope	94	109	513,138,905	35,814,554	409,593,069
Natal	38	49	547,766,221	66,918,554	404,735,517
Transvaal	88	189	4,210,099,259	698,666,048	2,689,239,693
Orange Free State	35	38	64,961,901	27,298,215	29,065,367
TOTAL 1936-37	255	385	5,335,966,286	828,697,371	3,532,633,576
1935-36	246	356	4,602,907,287	752,214,816	3,015,645,672
1934-35	236	332	3,772,480,303	677,413,056	2,568,835,416
1933-34	231	320	3,308,596,441	626,098,686	2,227,772,394
1932-33	224	313	2,946,556,756	507,971,441	1,954,219,950

ALL UNDERTAKINGS GENERATING AND/OR DISTRIBUTING ELECTRICITY—(*continued*).

(ii) ANALYSIS OF UNITS CONSUMED AND GENERATED, 1936-37, WITH COMPARATIVE TOTAL FIGURES FROM 1932-33.

Heading.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Union.
Total Domestic Consumers	100,136	34,902	96,948	10,599	242,585
Total Consumers other than Domestic	11,471	9,487	17,223	1,489	39,670
	Units.	Units.	Units.	Units.	Units.
Total Units Sold and Used for Domestic Consumption	193,521,977	89,618,009	184,605,426	8,003,843	475,749,255
Units per Domestic Consumer	1,932·59	2,567·70	1,904·17	755·15	1,961·17
Units Sold to Mines	—	1,388,730	2,077,965,237	—	2,079,353,967
Units Generated by Mines and Used for Mining	17,842,769	19,571,380	482,111,334	2,950,781	522,476,264
Total Units Generated by Mines	30,211,649	61,321,326	528,626,724	3,695,508	623,855,207
Units Sold and Used for Street Lighting	13,301,233	7,545,556	21,718,910	1,774,914	44,340,613
Units Sold and Used for Tramways	9,265,582	7,169,895	30,875,475	325,161	47,636,113
Units Sold and Used for Private Motive Power and Industrial Purposes (excluding Traction and Mines)	131,456,924	135,674,960	352,816,063	35,294,265	655,242,212
Units Sold and Used for S.A. Railways and Harbours (Traction)	50,244,014	174,831,231	—	—	225,075,245
Units Sold and Used for Purposes Other than those Mentioned above (excluding Bulk Supply and Units Lost and Used in Stations)	29,775,114	35,854,310	237,813,236	8,014,618	311,457,278
Grand Total of Units Consumed—					
1936-37	445,407,613	471,654,071	3,387,905,681	56,363,582	4,361,330,947
1935-36	378,105,022	396,287,336	2,950,203,753	43,264,377	3,767,860,488
1934-35	338,865,971	358,629,988	2,509,762,594	38,990,819	3,246,249,372
1933-34	294,931,498	298,919,743	2,223,286,152	36,733,687	2,853,871,080
1932-33	246,860,515	251,457,323	1,932,628,782	31,244,771	2,462,191,391
Grand Total of Units Generated—					
1936-37	513,138,905	547,766,221	4,210,099,259	64,961,901	5,335,966,286
1935-36	438,646,163	467,494,006	3,647,016,490	49,750,628	4,602,907,287
1934-35	388,231,116	421,305,165	2,918,477,450	44,466,632	3,772,480,363
1933-34	337,260,772	356,330,761	2,572,536,417	42,468,491	3,308,596,441
1932-33	284,361,915	300,201,443	2,326,165,219	35,828,179	2,946,556,756

(iii) INSTALLED CAPACITY OF GENERATING PLANTS, 1936-37, WITH COMPARATIVE FIGURES FROM 1932-33.

Station Capacity in Kilowatts.	Number of Stations.*	Total Installed Capacity in Kilowatts.†
Below 1,000 k.w.	220	49,813
1,000-4,999 k.w.	29	64,522
5,000-9,999 k.w.	6	45,280
10,000-19,999 k.w.	4	46,000
20,000-49,999 k.w.	7	207,350
50,000 kw. and over	9	865,883
TOTAL: 1936-37	275	1,338,848
1935-36	207	1,229,873
1934-35	260	1,017,490
1933-34	256	958,452
1932-33	244	851,003

* The difference between the total number of stations given herb and the total number of generating undertakings given in table (i) is due to some undertakings possessing more than one station.
† 0·746 kw. = 1 h.p.

ALL UNDERTAKINGS GENERATING AND/OR DISTRIBUTING ELECTRICITY—(*continued*).

(iv) MOTIVE POWER (EXCLUSIVE OF PLANT BEING INSTALLED AT END OF YEAR), 1936-37, WITH COMPARATIVE FIGURES FROM 1932-33.

Class of Motive Power.		Number of Prime Movers.		Normal Rated K.W. Output of Sets.*		
		A.C.	D.C.	Total A.C.	Total D.C.	Grand Total.
Steam Turbines		171	6	1,263,122	6,895	1,270,017
Steam Reciprocating Engines		133	67	30,657	9,680	40,337
Diesel and Heavy Oil Engines		188	117	10,837	5,118	15,955
Paraffin, Petrol, and other Light Oil Engines		10	19	407	316	723
Gas Engines		20	19	3,672	1,107	4,779
Water-wheels and Turbines		32	2	7,066	25	7,091
TOTAL:	1936-37	554	230	1,315,761	23,147	1,338,848
	1935-36	497	250	1,203,717	26,156	1,229,873
	1934-35	455	262	995,932	21,558	1,017,490
	1933-34	426	276	936,371	22,081	958,452
	1932-33	394	272	827,808	23,195	851,003

*0·746 kw. = 1 h.p.

(v) TOTAL AVERAGE NUMBER OF EMPLOYEES ENGAGED IN ELECTRICITY UNDERTAKINGS, AND THE AMOUNT OF SALARIES AND WAGES PAID EACH YEAR, 1932-33 TO 1936-37.

Year.	European.		Native.	
	In Generating Establishments.	In all Establishments.	In Generating Establishments.	In all Establishments.
NUMBER OF EMPLOYEES.				
1932-33	3,640	4,114	4,402	4,997
1933-34	3,815	4,330	4,670	5,240
1934-35	3,950	4,543	5,487	6,173
1935-36	4,315	4,967	6,578	7,461
1936-37	4,626	5,455	7,319	8,394
SALARIES AND WAGES.				
1932-33	£ 1,088,767	£ 1,228,908	£ 206,688	£ 231,238
1933-34	1,141,870	1,292,617	201,543	224,429
1934-35	1,212,300	1,390,412	238,395	266,193
1935-36	1,344,254	1,544,453	297,552	330,490
1936-37	1,490,429	1,742,571	324,396	366,115

Year.	Asiatic.		Coloured.		Total.	
	In Generating Establishments.	In all Establishments.	In Generating Establishments.	In all Establishments.	In Generating Establishments.	In all Establishments.
NUMBER OF EMPLOYEES.						
1932-33	90	90	455	470	8,587	9,671
1933-34	98	98	463	478	10,082	11,377
1934-35	108	108	537	553	11,528	13,096
1935-36	101	105	544	560	12,663	14,597
1936-37	106	112	612	636		
SALARIES AND WAGES.						
1932-33	£ 4,571	£ 4,571	£ 53,873	£ 54,931	£ 1,353,899	£ 1,519,648
1933-34	4,785	4,785	54,757	55,772	1,402,955	1,577,603
1934-35	5,218	5,218	56,219	57,429	1,612,132	1,719,252
1935-36	5,339	5,531	58,065	59,437	1,705,210	1,939,911
1936-37	5,687	5,928	63,158	70,256	1,888,670	2,184,870

ALL UNDERTAKINGS GENERATING AND/OR DISTRIBUTING ELECTRICITY—(*continued*).

(vi) VALUE OF LAND AND BUILDINGS, MACHINERY, TOOLS, AND PLANT, 1936-37, WITH COMPARATIVE FIGURES FROM 1932-33.

Used by—		Buildings and Sites.		Machinery, Tools, and Plant.		Total for—	
		Generating Establishments.	All Establishments.	Generating Establishments.	All Establishments.	Generating Establishments.	All Establishments.
		£	£	£	£	£	£
Local Authorities and Government Undertakings		1,932,449	2,070,681	12,124,745	13,217,238	14,057,194	15,287,919
Private Companies		4,715,143	4,992,642	16,254,812	17,870,824	20,969,955	22,863,466
TOTAL:	1936-37	6,647,592	7,063,323	28,379,557	31,088,062	35,027,149	38,151,385
	1935-36	5,879,967	6,242,165	25,986,520	28,216,094	31,866,487	34,458,259
	1934-35	4,676,751	4,991,809	22,332,754	24,002,133	27,009,505	28,993,942
	1933-34	4,510,559	4,768,462	20,640,028	22,114,251	25,150,587	26,882,713
	1932-33	4,442,775	4,663,275	21,079,515	22,439,616	25,522,290	27,102,891

(vii) REVENUE AND EXPENDITURE OF ELECTRICITY UNDERTAKINGS, 1936-37, WITH COMPARATIVE FIGURES FROM 1933-34.

(*a*) REVENUE (INCLUDING REVENUE DERIVED BY THE GENERATING ESTABLISHMENTS FROM SALE OF BULK SUPPLY).

Nature of Establishment.		Revenue from—			Estimated Value of all Units used by Concerns themselves.	Total of Revenue and Estimated Value of Units used.
		Electricity Supply.*	Meter Rents, etc.	Total.		
		£	£	£	£	£
Generating Establishments—						
Local Authorities and Government Undertakings		3,653,362	374,426	4,027,788	29,738	4,057,526
Private Companies		5,253,677	35,853	5,289,530	1,122,136	6,411,666
TOTAL	1936-37	8,907,039	410,279	9,317,318	1,151,874	10,469,192
	1935-36	7,873,168	356,390	8,229,558	1,222,018	9,451,576
	1934-35	6,749,507	312,764	7,062,271	1,011,433	8,073,704
	1933-34	6,344,313	298,375	6,642,688	919,808	7,562,496
Non-Generating Establishments—						
Local Authorities and Government Undertakings		647,105	27,269	674,374	18,363	692,737
Private Companies		8,026	18,419	26,445	3,141,821	3,168,266
TOTAL	1936-37	655,131	45,688	700,819	3,160,184	3,861,003
	1935-36	586,459	35,751	622,210	2,570,665	3,192,875
	1934-35	518,461	19,516	537,977	2,358,342	2,896,319
	1933-34	448,896	17,912	466,808	2,360,613	2,827,421
All Establishments—						
Local Authorities and Government Undertakings		4,300,467	401,695	4,702,162	48,101	4,750,263
Private Companies		5,261,703	54,272	5,315,975	4,263,957	9,579,932
TOTAL	1936-37	9,562,170	455,967	10,018,137	4,312,058	14,330,195
	1935-36	8,459,627	392,141	8,851,768	3,792,683	12,644,451
	1934-35	7,267,968	332,280	7,600,248	3,369,775	10,970,023
	1933-34	6,793,209	316,287	7,109,496	3,280,421	10,389,917

* This column includes the value of all units sold in bulk, as well as the revenue derived from the re-sale of such portion of these units as was acquired by the purchasing concern with the object of re-selling to consumers. In other words the value of such re-sold units is duplicated. For this reason the totals appearing in the last column of tables (vii) (*a*) and (*b*) are furnished in order to enable the calculation to be made of the net increase of revenue over expenditure in respect of all electricity undertakings.

ALL UNDERTAKINGS GENERATING AND/OR DISTRIBUTING ELECTRICITY—(*continued*).

(vii) REVENUE AND EXPENDITURE OF ELECTRICITY UNDERTAKINGS, 1936-37, WITH COMPARATIVE FIGURES FROM 1933-34—(*continued*).

(*b*) EXPENDITURE.

Nature of Establishment.	Normal Expenditure.					Cost of Units Purchased in Bulk.	Total of Expenditure and Cost of Units Purchased in Bulk.
	Working Expenses.	Interest and Loan Redemption.	Depreciation or Renewals.	Other.	Total.		
	£	£	£	£	£	£	£
Generating Establishments—							
Local Authorities and Government Undertakings....	1,683,628	688,560	307,760	284,573	2,964,521	496,918	3,461,439
Private Companies	2,966,790	810,540	638,412	681	4,416,423	987,274	5,403,697
TOTAL: 1936-37	4,650,418	1,499,100	946,172	285,254	7,380,944	1,484,192	8,865,136
1935-36	4,364,637	1,333,826	847,873	224,848	6,771,184	1,288,695	8,059,879
1934-35	3,880,154	1,243,427	793,571	171,244	6,088,396	822,617	6,911,013
1933-34	3,692,091	1,242,489	834,184	179,596	5,948,360	731,058	6,679,418
Non-Generating Establishments—							
Local Authorities and Government Undertakings....	131,955	74,881	27,419	28,461	262,716	273,031	535,747
Private Companies	361,183	14,356	3,334	2,037	380,910	2,808,053	3,188,963
TOTAL: 1936-37	493,138	89,237	30,753	30,498	643,626	3,081,084	3,724,710
1935-36	383,367	80,915	25,702	18,098	508,082	2,531,963	3,040,045
1934-35	342,378	71,463	18,783	22,018	454,642	2,319,341	2,773,983
1933-34	278,208	68,131	18,721	16,670	381,730	2,347,631	2,729,361
All Establishments—							
Local Authorities and Government Undertakings....	1,815,583	763,441	335,179	313,034	3,227,237	769,949	3,997,186
Private Companies	3,327,973	824,896	641,746	2,718	4,797,333	3,795,327	8,592,660
TOTAL: 1936-37	5,143,556	1,588,337	976,925	315,752	8,024,570	4,565,276	12,589,846
1935-36	4,748,004	1,414,741	873,575	242,946	7,279,266	3,820,658	11,099,924
1934-35	4,222,532	1,314,890	812,354	193,262	6,543,038	3,141,958	9,684,996
1933-34	3,970,299	1,310,620	852,905	196,266	6,330,090	3,078,689	9,408,779

§ 5. Energy Balance Sheet.

At the request of the World Power Conference, Energy Balance Sheets for the Union were calculated for the years 1932 and 1933 on the principles proposed by Dr. Ernst Haidegger of Budapest. The production and net imports and exports of the different primary fuels were calculated and converted into calorific values. From these consumption figures were arrived at. Information was obtained from the Departments of Mines, Forests, and Customs, and valuable assistance and advice were given by the Institute of Fuel Research.

The production of electric energy by hydro-electric plants was converted into calories on the assumption of a 15 per cent. efficiency.

The electric energy generated was converted into terms of primary fuel used plus the number of calories assumed for the hydro-electric plant. This total divided by the total consumption gave the electrification factor. The number of total population was divided into the total consumption and into the total electric energy generated to obtain the energy consumption and the electric energy consumption per head of population.

(i) ENERGY BALANCE SHEET—UNION OF SOUTH AFRICA, 1932 AND 1933.

Fuels.	Consumption.		Production.		Deficit.	
	Metric Tons.	10^{12} Cal.	Metric Tons.	10^{12} Cal.	Metric Tons.	10^{12} Cal.
1932.						
Coal	8,585,480	56·66	9,920,120	66·27	– 1,334,640	– 9·61
Coke	– 10,670	– 0·07	—	—	– 10,670	– 0·07
Wood	328,200	1·36	328,200	1·36	—	—
Crude and Fuel Oil	18,600	0·20	—	—	18,600	0·20
Burning Oil	37,600	0·42	—	—	37,600	0·42
Power Paraffin	13,000	0·15	—	—	13,000	0·15
Petrol	222,000	2·50	—	—	222,000	2·50
Paraffin Wax	8,200	0·09	—	—	8,200	0·09
Ethyl Alcohol	2,580	0·02	2,580	0·02	—	—
Water Power	19×10^6KWH	0·11	19×10^6KWH	0·11	—	—
TOTAL	—	61·44	—	67·76	—	– 6·32
PERCENTAGE	—	100	—	110·3	—	– 10·3
1933.						
Coal	9,135,927	60·30	10,724,202	71·74	– 1,588,275	– 11·44
Coke	– 21,074	– 0·15	—	—	– 21,074	– 0·15
Wood	342,132	1·42	342,132	1·42	—	—
Crude and Fuel Oil	37,831	0·40	—	—	37,831	0·40
Burning Oil	39,916	0·44	—	—	39,916	0·44
Power Paraffin	13,732	0·15	—	—	13,732	0·15
Petrol	247,402	2·77	—	—	247,402	2·77
Paraffin Wax	9,667	0·11	—	—	9,667	0·11
Ethyl Alcohol	2,943	0·02	2,943	0·02	—	—
Water Power	21×10^6KWH	0·12	19×10^6KWH	0·12	—	—
TOTAL	—	65·58	—	73·30	—	– 7·72
PERCENTAGE	—	100	—	111·8	—	– 11·8

(ii) FACTORS DERIVED FROM ENERGY BALANCE SHEET.

Year.	Electricity Generated.		Electrification Factor.	Energy Consumption per Head of Population. 10^6 Cal.	Electric Energy Consumption per Head of Population. K.W.H.
	Million K.W.H.	10^{12} Cal.	%		
1932	2,660·6 =	16·93	27·55	7·5	322
1933	2,946·6 =	18·01	27·45	7·8	353

§ 6. Department of Commerce and Industries.

1. **Organization of Department.**—Upon the constitution of the first Ministry of the Union, a portfolio of Commerce and Industries was created, which provided for the control of customs and excise and of industrial and commercial matters. On a rearrangement of portfolios, the Department of Commerce and Industries was abolished, ministerial control of customs and excise being vested in the Department of Finance. Matters connected with commerce and industry were then dealt with by a branch of the Customs Department, designated the *Commercial Section*. Simultaneously with these changes, the portfolio of Mines, which already administered the machinery regulations and dealt with matters in connexion with the manufacture of explosives, was extended to include industries, with special reference to labour organization as a result of the rise of labour problems connected with the mining and allied industries, the title of the department being altered to Mines and Industries. This arrangement as regards the *Commercial Section* of the Customs Department and the industrial

side of the Mines Department continued until the middle of 1916, when, owing to the growing importance of questions affecting industrial production, further alteration was found to be necessary, and the work of the commercial section of the Customs Department was transferred to the Department of Mines and Industries, thus concentrating in the one department the work previously carried out by the two branches.

In July, 1924, upon the constitution of a Ministry of Labour, the Department of Labour took over from the Department of Mines and Industries the existing Labour Division, and with it the control of relief work and the administration of the *Industrial Conciliation Act*, the *Apprenticeship Act*, the *Juveniles Act*, and the *Regulation of Wages Act*.

In May, 1925, the control of the Trade Commissioner service, which up to that date had been exercised by several Departments of State, was definitely vested in the Department of Mines and Industries, and the service then formed a section of the Division of Industries.

On the 1st December, 1925, the Industries Division of the Department of Mines and Industries ceased to exist, and the Board of Trade and Industries, acting subject to the direction of the Minister of Mines and Industries, assumed control of the functions formerly exercised by the Industries Division. From this date, also, the Board of Trade and Industries was authorized to act as the co-ordinating medium between the public and the trade commissioners for the Union in matters relating to overseas trade. This service is now controlled by the Department of Commerce and Industries.

On the 1st May, 1933, a Department of Commerce and Industries was established in charge of the then Minister of Labour, in his capacity as Minister of Commerce and Industries. The functions of the Department comprise the encouragement and development of South African manufacturing industries and matters relating to the industrial utilization of the Union's natural resources and raw materials. It controls funds voted for grants-in-aid, the advertising and exhibition of Union products overseas, and the marketing overseas of the products of the Union's base metal industry.

The Department has in its charge the administration or executive work, or both, connected with the activities of the trade representatives overseas, the Assize Division, the Fisheries and Marine Biological Survey, and the Office of the Chief Inspector of Explosives.

The Department also controls the administration of the Acts, and all matters arising therefrom, under which the following boards and other bodies are established: the Assize Board, the South African Iron and Steel Industrial Corporation, Ltd., the Electricity Control Board, the Electricity Supply Commission, the Board of Trade and Industries, the Fuel Research Board.

The Acts administered by the Department are the following:—

The Adulterated Leather Act, No. 32 of 1923.

The Board of Trade and Industries Acts, Nos. 28 of 1923 and 33 of 1924.

The Electricity Act, No. 42 of 1922, as amended by Act No. 34 of 1924, Act No. 27 of 1927, and Act No. 21 of 1928.

The Explosives Act, No. 8 of 1911.

The Fuel Research Institute and Coal Act, No. 36 of 1930, as amended by Act No. 2 of 1933.

The Iron and Steel Industry Encouragement Act, No. 41 of 1922, as amended by Act No. 43 of 1926.

The Iron and Steel Industry Act, No. 11 of 1928, as amended by Act No. 40 of 1931, Act No. 61 of 1934, and Act No. 30 of 1935.

The Sugar Act, No. 28 of 1936.

The Unlawful Determination of Prices Act, No. 24 of 1931, as amended by Act No. 14 of 1937.

The Weights and Measures Act, No. 32 of 1922, as amended by Act No. 13 of 1933.

The Trade Coupons Act, No. 18 of 1935.

The Crawfish Export Control Act, No. 50 of 1934, as amended by Act No. 41 of 1935.

2. **Board of Trade and Industries.**—In October, 1916, an Industries Advisory Board, designed to advise the Minister in regard to the industrial development of the Union, was appointed, and early in 1917 a scientific and technical committee to deal with scientific methods of research and management was created. In October, 1918, these bodies were amalgamated under the title of the Advisory Board of Industries and Science. This board, having completed the work for which it and its predecessors were constituted, was dissolved in January, 1923.

The first Board of Trade and Industries was established on the 6th July, 1921. In 1923 the Board was placed on a statutory basis by Act No. 28 of 1923. The first Board was replaced on the 1st October, 1924, by a Board established under Act No. 33 of 1924.

The Board consists of a chairman and not more than three other members, who hold office for a period not exceeding three years, and who may be re-appointed from time to time for a further period not exceeding three years. The section of the Act dealing with the appointment or re-appointment of members provides for their retirement by rotation. The chairman and members receive such salaries or remuneration (out of moneys appropriated by Parliament for the purpose) as the Governor-General may determine.

Subject to the direction of the Minister, the functions and duties of the Board, as defined by Act No. 33 of 1924, shall be to inquire into and advise the Government on all matters concerning the economic development of the natural resources of the Union and its industries and trade and in particular on—

(*a*) the payment of bounties or other forms of State aid for industries;

(*b*) fiscal policy in so far as it bears on commerce and industries;

(*c*) the recasting and revision of the customs tariff;

(*d*) the removal of anomalies from time to time in the customs and excise tariffs;

(*e*) complaints or recommendations on the working of the customs and excise tariffs;

(*f*) combinations, trusts, monopolies, and restraints of trade tending to affect the general interest injuriously, especially by restricting production or maintaining or raising prices; and the prevention thereof;

(*g*) the dumping of imported goods whereby Union industries are likely to be unfavourably affected;

(*h*) the supply of raw materials, labour, and technical knowledge for industry, and the encouragement of the investment of capital in industry;

(*i*) transport and markets for the requisites and products of industries;

(*j*) the relation between factory, wholesale, and retail prices;

(*k*) commercial legislation;

(*l*) such other matters as the Minister may refer to it for report.

The Board shall report to the Minister on the matters referred to it and on such matters as may be referred to it by statute, and, in doing so, it is the duty of the Board to report as fully as possible on all aspects of any matters referred to it, in so far as they may affect revenue, trade, and commercial and economic conditions, with special reference to the probable effect of any action recommended on the consumer and those employed in the industry.

The Board may take evidence under oath for the purpose of any inquiry falling within its functions and duties, may subpoena witnesses, and may examine books, records, or documents which any witness has been required to produce. Penalties are provided for failure to obey a subpoena or for giving false evidence. Penalties are also provided in the case of any member or officer of the Board, who discloses information acquired by the Board in the exercise of its powers of hearing evidence on oath.

The recommendations and reports made by the Board upon any matter under the Act must be submitted to Parliament.

The first Board submitted forty-two reports to the Government on various matters connected with the trade and industry of the country, and the total number presented to March, 1939, was 244. A list of reports, Nos. 1 to 102, appeared in *Official Year Book* No. 11, 103 to 113 in No. 12, 114 to 127 in No. 13, 128 to 153 in No. 14, 154 to 165 in No. 15, 166 to 188 in No. 16, 189 to 206 in No. 17, 207 to 223 in No. 18, and 224 to 228 in No. 19. A list is given below of those since issued. Of these documents some have been published as White Papers by the Government Printer, Pretoria.

229. Control of the Export of Scrap Metal.
230. Dumping of Electric Welding Electrodes.
231. Dumping of Hauling and Hoisting Chains.
232. Dumping of Coal-burning Stoves.
233. Operation of the Sugar Exchanges.
234. Dumping of Iron and Steel Products from the United States of America.
235. Rebate of Duty on Cashew Nuts for Experimental Purposes.
236. Customs Tariff Amendments, 1938.
237. Rebate of Customs Duty on Mafurra Oil Fatty Acid and Boxboards for Packing Citrus Fruits for Export.
238. Freight Dumping of Iron and Steel Products.
239. Admission under Rebate of Customs Duty of Cokes for the Copper Smelting Industry in South West Africa.
240. Ordinary Dumping of Rubber Pneumatic Tyres and Inner Tubes imported from the United States of America and Canada.
241. Importation of Soya Beans under Rebate for Milling Purposes.
242. Admission under Rebate of Customs Duty of Materials required by the Boot and Shoe-making Industry.
243. Ordinary Dumping of Rubber Pneumatic Tyres and Inner Tubes imported from the United Kingdom and Sales Dumping of Tyres and Tubes imported from the United States of America, Canada, and the United Kingdom.
244. Admission under Rebate of Customs Duties of Glacial Acetic Acid, Powdered Pectin, Second-hand Casks, Steel Wheels and Caps, Nozzles and Studs for Industrial Purposes.

3. **Publications.**—The *Journal of Industries*, which served as a medium for the dissemination of industrial and allied information, ceased publication with the December, 1925, issue. A list of reports published in that journal will be found in the eighth issue of this *Year Book*. The place of the journal was taken by the *Commercial and Industrial Gazette*, which was issued monthly by the Board of Trade and Industries from May, 1926, till March, 1931, when publication ceased. A list of the special reports published in the *Gazette* was given in *Official Year Book* No. 12. The only additional report published since then has been No. 22, *Salt and Saltpans of the Union*, by Dr. Vernon Bosman (*Gazette* No. 57, January, 1931).

In April, 1936, the Department of Commerce and Industries published a handbook entitled *Industrial Development in South Africa and Facilities for the Establishment of Factories* and edited by Dr. Vernon Bosman. The publication deals with secondary industries and their development over the last 25 years, and is a valuable guide to the establishment of industries in the Union of South Africa. This handbook is obtainable from the Government Printer at a cost of 1s.

In July, 1938, the first issue of the *Journal of the Department of Commerce and Industries* was published. This is a monthly publication and deals with foreign and domestic trade, the formation of trade contracts, and commercial and industrial enterprise in the Union of South Africa.

4. **Rural Industries Commission.**—In accordance with the undertaking given in the House of Assembly during the 1937 parliamentary session by the Minister of Commerce and Industries, the Government decided to appoint a commission to investigate the possibility of establishing industries in the rural areas of the Union.

The commission was appointed on the 13th August, 1937, with the following terms of reference:—

> "To make a survey of the industrial possibilities of the rural areas in the Union, and to secure information in regard to facilities essential to the establishment of industries in those areas, namely: raw materials, land, water, power, transport, labour, etc., the information so secured to be made available for the guidance of private enterprise."

CHAPTER XXIV.

COMMERCE.

§ 1. Customs Conventions and Trade Agreements.

1. **Conventions and Agreements in Force.**—The following is a list of Customs Conventions, Commercial Agreements, and Trade Treaties at present in force between the Union and various countries. Detailed information regarding the more important agreements was published in *Official Year Book* No. 17 and previous issues.

(i) *Contiguous Territories.*

(*a*) Union-Mozambique Convention providing for customs matters, commerce, native labour, and railway traffic between the two territories.

(*b*) Union-Northern Rhodesia Customs Agreement.

(*c*) Union-Southern Rhodesia Trade Agreement.

(*d*) Customs Agreement between the Union and the Territories of Basutoland, Swaziland, and the Bechuanaland Protectorate.

(ii) *Other Countries.*

(*a*) Preferential Trade Agreements between the Union and the United Kingdom, the Dominion of Canada, the Irish Free State, and New Zealand.

(*b*) Agreements for the reciprocal exchange of most-favoured-foreign-nation treatment with the United Kingdom and the British Colonial Empire, Canada, Irish Free State, and Australia.

(*c*) In consequence of the accession to treaties entered into between the United Kingdom and the following countries, most-favoured-nation treatment is accorded on a reciprocal basis to the Argentine, Colombia, Costa Rica, Denmark, Egypt, Italy, Liberia, Morocco, Norway, Sweden, Switzerland, and Venezuela.

(*d*) Treaty of Commerce and Navigation with the German Reich.

(*e*) Temporary Commercial Agreements providing, generally, for the mutual extension of most-favoured-nation treatment in matters of customs and trade, or stipulating, in some instances, specified customs concessions, have been concluded between the Union and India, Burma, the Belgian and Luxemburg Economic Union, Czechoslovakia, France, Italy, and the Netherlands. The Agreement with the Kingdom of the Netherlands also establishes a régime of most-favoured-nation treatment in respect of shipping.

2. **Imperial Conference, Ottawa.**—At the Imperial Conference, held at Ottawa during July and August, 1932, where the Union was officially represented by the Hon. N. C. Havenga, Minister of Finance, the Hon. A. P. J. Fourie, Minister of Mines and Industries, and the Hon. P. G. W. Grobler, Minister of Lands, trade treaties were negotiated between the Union and (i) the Dominion of Canada, (ii) the United Kingdom of Great Britain and Northern Ireland, and (iii) the Irish Free State. These treaties, together with the various schedules, were subsequently ratified by the Union Parliament and embodied in Act No. 8 of 1933. A brief résumé of the Articles contained in these agreements was published in *Official Year Book* No. 17.

§ 2. Union Customs Management and Tariff.

1. **Customs Management.**—In terms of section 130 of the *South Africa Act*, 1909, there is free trade throughout the Union. The application of customs control, therefore, affects only the trade of the Union with other countries, carried on in the main with countries overseas.

The management of the customs of the Union is provided for by Act No. 9 of 1913 (*Customs Management Act*), which became operative on the 1st August, 1913, in substitution for numerous laws previously in force in the various provinces. The control and management of the collection of duties is vested in a Commissioner of Customs. Every person employed on any duty relating to customs by order or with the concurrence of the Governor-General, or of the Commissioner of Customs, is an officer of customs. Provision is made for the boarding and searching of ships, the sealing of goods, the taking of samples, and the appointment of ports and landing places—free warehousing ports, or ports for limited purposes.

All duties collected are paid into the Union Treasury and are levied on weights and measures established by law in the Union, or on an *ad valorem* basis. When notice is given in the House of Assembly by any Minister of State of a resolution to affirm the expediency of increasing any customs dues, the officer of customs is empowered to demand a bond from importers to cover the payment of any such increase which may thereafter be imposed; but such bond may extend over a single session of Parliament only.

(i) *Prohibitions of Importations.*—The importation into the Union of the goods enumerated in the following list is prohibited:—

(*a*) Goods which, being foreign manufacture, bear the name, mark, or brand of manufacturers resident in the United Kingdom or any British possession, or which, whether of foreign manufacture or not, bear marks contravening the provisions of any law in force in the Union relating to merchandise marks.
(*b*) Coins, base or counterfeit.
(*c*) Goods which are indecent or obscene or on any ground whatsoever objectionable; in the event of any question arising as to whether any goods are indecent or obscene or objectionable, the decision of the Minister of the Interior shall be final: Provided that in respect of printed, engraved, lithographic, and photographic matter the decision shall be given after consultation with the Board of Censors appointed in terms of sub-section (1) of section 2 of the *Entertainments (Censorship) Act*, 1931 (Act No. 28 of 1931).
(*d*) Prison-made and penitentiary-made goods.
(*e*) Printed books, music, and newspapers which are unauthorized prints of any works which are copyright in the United Kingdom or the Union or any British possession.
(*f*) All animals, articles, matter, or things, the importation of which is from time to time prohibited by or under the authority of any law.
(*g*) Carbide of calcium which, when treated with water, yields less than 250 litres of gas from one kilogram, the gas being measured at 15° C. under a pressure of 760 millimetres of mercury.
(*h*) Second-hand boots and shoes.

NOTE.—Amongst the articles under paragraph (*f*) the importation of which is prohibited are adulterated leather, adulterated foods, wines and spirits and vinegar not complying with standards to which similar Union products must conform, honey, used beehives and accessories or appliances, eucalyptus, acacia, or coniferous plants, fresh stone fruits, and peach stones.

Restrictions are imposed upon the importation of habit-forming drugs, yeast, dangerous weapons, second-hand clothing, birds of the parrot family, lovebirds and budgerigars, donkeys from Southern Rhodesia and certain animal and vegetable products from Southern Rhodesia and Bechuanaland Protectorate, butter, cheese, wheaten flour, wheaten meal, and wheat. The importation of certain plants and seeds, such as barley, maize, tea, elm seeds, acorns, chestnuts, lucerne, tomato and cotton seed, and peach stones, liable to introduce pests into the Union, bees and their larvae or eggs, beeswax, and foundation comb, is prohibited except on permit from the Department of Agriculture and Forestry. In addition to forfeiture of such any person importing prohibited goods is liable to the imposition of a penalty.

(ii) *Obligations of Importers.*—No importation of goods into the Union may be made without due entry and the payment of customs dues. Every person carrying on business in the Union is required to keep within the Union reasonable and proper books or accounts of his transactions in one of the official languages of the Union, and within two years after the date of any importation may be required to produce bills of lading, invoices, and other documents relating to the goods. The particulars to be contained in invoices are prescribed by regulation. Any person offering goods for sale, or removing them, or having such goods entered in his books, may be required to produce proof as to the person from whom the goods were obtained, and, if he is the importer, as to the place where the import dues were paid.

(iii) *Entry Inwards.*—The master of every ship is required to report in person, or by his authorized agent, within twenty-four hours after the arrival of his ship in a Union port. Due entry of goods must be made before landing. Importers must effect entry within fourteen days of a ship's arrival. In default, the goods may be conveyed to the King's Warehouse, and, if not cleared within three months, may be sold.

Station masters on the railways are required to report the arrival of goods from without the Union by train. Similarly, persons arriving overland with goods are required to report.

Penalties are imposed for undervaluation of goods.

Provision is made for bonded warehouses under licence of the Commissioner of Customs. Heavy penalties are imposed in respect of unlawful warehousing and smuggling.

(iv) *Exportation of Goods.*—The exportation or caariage coastwise of arms, ammunition, military and naval stores, or goods being capable of conversion into such stores, may be prohibited. Entry outwards has to be made in respect of every ship bound from the Union, delivery being made to the officer of customs of a content of goods loaded in such ship, with other particulars. Exporters are required to deliver a bill of entry, and export duty (if any) must be paid.

Special provisions are made in respect of coasting trade between Union ports.

(v) *Ports of Entry.*—Under the *Customs Management Act* the following places have been proclaimed ports of entry for the Union to or through which goods may be imported, or through which alone they may be exported:—

Cape Province.—Capetown, Port Elizabeth, East London, Mossel Bay, Port Nolloth, Knysna, Simonstown, St. John's River, Kimberley, and Mafeking.

Natal.—Durban, Pietermaritzburg, Ingwavuma, Maputa (Manguzi), Muzi, and Sikova Drift.

Transvaal.—Johannesburg, Pretoria, Germiston, Boksburg, Lebombo, Komatipoort, and Alfred Beit Bridge.

Orange Free State.—Bloemfontein.

South West Africa.—Walvis Bay and Luderitz.

In addition to the above the following ports have been proclaimed ports of export only:—St. Helena Bay, Hout Bay, Struys Bay, Hondeklip Bay, Saldanha Bay, Lambert's Bay, Port Beaufort, and Kalk Bay.

Aerodromes have been prescribed for customs purposes at Capetown, Durban, Kimberley, Johannesburg (Rand Airport, Germiston), Pietersburg, Komatipoort, Walvis Bay, and Windhoek.

(vi) *Free Warehousing Ports.*—The following places have been proclaimed free warehousing ports for the purpose of warehousing and securing goods:—Capetown, Port Elizabeth, East London, Mossel Bay, Simonstown, Kimberley, Durban, Pietermaritzburg, Johannesburg, Pretoria, Germiston, Boksburg, Komatipoort, Bloemfontein, Walvis Bay, and Luderitz.

(vii) *Declaration of Value.*—(*a*) *Imports.*—For goods subject to an *ad valorem* duty, the value of such goods shall ordinarily be taken as—

(i) the market price at which at the time of exportation such or similar goods are offered for sale, for consumption in the country from which the goods are exported, to all purchasers in the usual wholesale quantities in the ordinary course of trade in the principal

markets of such country, including the cost of packages ordinarily used in those markets, carriage to the port of shipment, and all other expenses incidental to placing the goods on board ship ready for exportation to the Union, but not including excise duties payable in that country; or

(ii) the f.o.b. price of the goods to the importer, including agents' or buying commission in excess of 5 per cent., whichever is the greater.

(b) *Exports.*—The value of South African goods exported is their current value in the open market at the port of shipment, including the cost of packing and packages. For re-exports from open stocks, the f.o.b. price is given, and in the case of exports from bond, the value recorded is that at which the goods were originally warehoused.

(viii) *Customs Investigation Officers.*—Since the beginning of 1923 Customs Investigation Officers for the Union of South Africa have been established in New York for the purpose of examining the invoices and shipping documents of American and Canadian exports to the Union, inquiring into the domestic value of similar goods in America, and investigating into the country of origin of Canadian goods shipped *via* the United States.

Similar officers have been stationed in London since the beginning of 1926, for the purpose of investigating the values of goods shipped from the United Kingdom and the Continent of Europe.

(ix) *Duties on Spirits.*—An amendment of Act No. 9 of 1913 was effected by Act No. 27 of 1919, the main provision of which was to make retrospective any increase of duty resolved upon under the *Excise Act* (1913) and under the *Customs Acts* as regards spirits (beverages) in stock on the date of any notice of proposed increase issued under the law.

2. **Statistics of External Trade.**—Prior to July, 1905, each Colony or Territory in the Customs Union had its own statistical department which recorded particulars of its import, export, and inter-colonial trade. In addition, each maintained what was generally known as a Customs Union Office, where records were compiled of the trade between the parties to the Union. From such records was ascertained the amount of customs duty due to each party in the Customs Union. In 1904, the Governments of the countries in the Customs Union decided that it was desirable that statistics relating to the import, export, and inter-colonial trade should be kept on a uniform basis and by an office created for the purpose.

Since the coming into operation of the *South Africa Act* the compilation of trade statistics has been continued under the Union Government.

It should be noted that for statistical purposes the Protectorates of Basutoland, Swaziland, and Bechuanaland are regarded as integral parts of the Union of South Africa, and no separate information is available for their trade, whether direct to or in transit through the Union, other than the estimates given in Part II of this *Year Book*. Payments in respect of customs collections are, however, made by the Union Government to these protectorates by agreement, on the basis contained in paragraph 12 of the Schedule to the *South Africa Act*.

3. **Preference.**—(a) *Union of South Africa.*—The first record of preferential rates of duty is to be found in the records of the Cape Colony. From 1821 to 1830 the duty was approximately 3 per cent. *ad valorem* on British goods, and 10 per cent. on foreign goods and those imported from the East.

Again, in 1840, by an Order-in-Council, dated the 10th August, differential rated duties were imposed on certain articles, and these early differential tariff rates were continued, subject to variations, until 1855, when they were abolished by the *Customs Tariff Act* of that year. From that time until 1903 customs duties were levied equally on all goods and articles imported, irrespective of the country of origin or manufacture. In that year, under the Customs Union Convention concluded between the Cape Colony, Natal, the Orange River Colony, the Transvaal, and Southern Rhodesia, it was agreed as follows:—

> A rebate of customs duties shall be granted on any goods and articles the growth, produce or manufacture of the United Kingdom imported therefrom into the Union for consumption therein, and that a rebate should also be granted on goods and articles the growth, produce, or manufacture of any British Colony, Protectorate, or Possession granting equivalent reciprocal privileges to the Colonies and Territories in the Customs Union.

Rebates of duty were continued in subsequent Conventions,* and have been continued since the constitution of the Union in favour of the United Kingdom and those British Dominions which have afforded reciprocal treatment, viz., Canada and New Zealand.

The *Customs Tariff and Excise Duties Amendment Act*, No. 36 of 1925, made provision for preference as a fundamental factor in the general tariff policy of the country. In addition to extending preference to a list of scheduled goods produced and manufactured in the United Kingdom, it provides for the extension of equivalent reciprocal privileges between the Union and any† British Dominion, colony or possession, and for tariff agreements to be entered into with foreign nations on the principle of the most-favoured-foreign-nation treatment, in consideration of the extension by the contracting State of equivalent reciprocal tariff privileges in respect of goods imported into its territory from the Union. These agreements with foreign countries are, however, subject to the limitation that they may not apply to such goods or articles, named in the schedules to the Act, in respect of which preference has been granted to the United Kingdom.*

As an outcome of the Imperial Conference held at Ottawa in 1932, the preferences extended to the United Kingdom and Dominions under the provisions of Act No. 36 of 1925 have been abandoned in favour of specific trade agreements; such agreements have been entered into between the Union and (i) Canada, (ii) Great Britain and Northern Ireland, and (iii) the Irish Free State. The schedules of preference as arranged between those units of the Empire are embodied in Act No. 8 of 1933 and are published in the lists of tariffs appearing below. Although no specific agreement has as yet been concluded between the Union and New Zealand, nevertheless certain articles, the product of that Dominion, are accorded a preferential rebate on importation into the Union.

The schedules to the Act have since been considerably modified by the introduction of a "three line tariff", making provision for minimum, intermediate, and maximum rates of duty, the application of which is determined by specific agreement with various foreign countries.

(b) *United Kingdom.*—The principle of Imperial preference was adopted by the British Parliament in 1919, and preference was given on the duties in force in the United Kingdom to the following articles, the produce of countries within the British Empire. The present values of the rebates are as follows:—

One-third of the duty on clocks and watches, motor cars and accessories, musical instruments and accessories, cinematograph films, and hops.

One-fourth (approx.) of duty on tobacco, cigars, cigarettes, and snuff.

One-sixth of duty on chicory, cocoa, coffee (other than raw coffee), silk, and artificial silk.

Two-thirds of duty on raw coffee.

One-third of duty on tea.

One-half of duty on wines. On South African wines exceeding 25° but not exceeding 27°, three-quarters of the duty is rebated.

Brandy, rum, gin, naphtha, methylic alcohol, and unsweetened potable spirits are rebated 2s. 6d. per proof gallon.

Sweetened spirits, 2s. 9d. per proof gallon.

Perfumed spirits, 4s. per proof gallon.

Sugar, glucose, chutney, preserved and crystallized fruits, jams and jellies, condensed milk (sweetened), the rebate varies from 2s. to 5s. 10d. per cwt.

Saccharine and like substances, 30s. per lb.

The whole duty is rebated on dried fruits, optical glass, elements and instruments, certain synthetic organic chemicals, scientific glassware and instruments, and various other key industry goods.

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* These have since been abandoned in favour of specific agreements.

† On the 1st July, 1926, the Commonwealth Government withdrew the preferential tariff on goods produced or manufactured in the Union, and from that date the preference on Australian goods named in Part III of the Second Schedule to Act No. 36 of 1925 ceased to operate.

Until the passing of the *Import Duties Act* (United Kingdom) of 1932 the articles liable to duty on importation were relatively few. The *Import Duties Act* introduced a general tariff of 10 per cent. on most manufactured and semi-manufactured goods and this duty, in many cases, has since been raised by additional duties to amounts varying up to a maximum of 100 per cent. *ad valorem*. Imported goods liable to duty under this Act which are the product or manufacture of Empire countries are exempted from duty.

As the result of the Imperial Economic Conference held at Ottawa during August, 1932, the Government of the United Kingdom imposed duties on certain commodities imported from all sources other than Empire countries. The list included the following of interest to South African exporters, viz.: Maize (flat white), butter, cheese, eggs, and fresh and preserved fruits. One or two of these duties were subsequently modified under the Anglo-American Trade Agreement of November, 1938, but the whole of the duties is still rebated on the products of Empire countries.

4. **Protection.**—*Normal Tariff.*—Act No. 36 of 1925, which amends and supersedes the customs tariff formerly in force, was designed largely for the purpose of encouraging industrial development within the Union. A distinctive feature of this tariff and a fundamental departure from any previous one was its division into *maximum* and *minimum* rates of duty. Normally the *maximum* rates were imposed. Under Act No. 44 of 1935 a further division into a three-line tariff has been made, i.e., a *minimum*, an *intermediate*, and a *maximum* rate. Briefly the *minimum* tariff is applicable to designated goods imported into the Union from the United Kingdom or any British Dominion, colony, or possession with which the Union has concluded an agreement for equivalent reciprocal privileges and incorporates the existing preferences under Ottawa agreements.

The *intermediate* rate incorporates the then existing maximum duties, and constitutes the effective protective tariff for Union industries, primary and secondary. It will form the basis for negotiating treaties to secure tariff concessions from other countries in exchange for the application of these rates to certain of their products, or to obtain reciprocal most-favoured-nation treatment.

The *maximum* rate is the tariff rate applicable to all goods to which the minimum or the intermediate rate has not been applied. Ordinarily it should have been made effective immediately, but the Government was faced with the position that in such an event taxation through the customs would be greatly increased until treaties or agreements brought the intermediate rates into operation. This was clearly impossible, and provision is, therefore, made in Act No. 44 of 1935 for bringing into operation from time to time the maximum duties on those articles: intermediate rates will thereafter apply only when they are imported from countries with which agreements have been concluded involving those articles.

Provision is made that in the event of its being reported to the Minister through the appropriate official channel that any protected industry is—

(*a*) charging unduly high prices for any product; or
(*b*) acting in a manner which tends to such restraint of trade or the establishment of such a monopoly as is injurious to the public interests; or
(*c*) maintaining unsatisfactory labour conditions;

the Governor-General may, by proclamation, after due notice has been given to the industry, declare that the minimum duty shall be levied and collected in respect of the article concerned.

Suspended Duties.—In addition to the minimum, intermediate, and maximum rates provided for in the tariff, provision is made for the imposition of suspended duties upon certain imported manufactured goods when occasion arises. These duties may be brought into force by proclamation as from date of publication in the *Gazette* on any article specified, whenever the prevailing imposts are found to provide an inadequate protection to the industries which they are designed to assist.

The following are the goods in respect of which suspended duties have been brought into operation:—

Sugar other than candy and icing sugar, loaf and cube sugar and golden and maple syrup, jaggery, molasses, saccharum, glucose, and treacle	from 26/7/30.
Liquid disinfectants and disinfectant powders (in bulk), the active ingredients of which are derivates of coal tar	from 22/8/30.

Common bottles of glass of the beer and mineral water types	from 22/8/30.
Bentwood chairs	from 22/8/30.
Milk, full cream, sweetened, condensed	from 22/8/30.
Medicine bottles, i.e., medicinal or dispensing flats, panelled flats, and poison flats in sizes from two fluid ounces up to and including sixteen fluid ounces	from 8/7/32.
Milk, full cream, unsweetened, condensed	from 12/8/32.
Deodorized or hydrogenated refined vegetable fats	from 28/7/33.
Vegetable oils of certain types	from 29/5/35.
Mustard and Rape seed oil	from 24/7/36.
Mules	from 15/7/37.

Dumping Duties.—The principle of a special dumping or countervailing duty was first introduced into the customs legislation of the Union by Act No. 26 of 1914 (section 8), and became recognized as a fundamental factor in the economic development of the Union by its inclusion in the *Customs and Excise Amendment Act*, No. 23 of 1923 (section 12). Act No. 36 of 1925 (section 15), as amended, provides that dumping duties shall be imposed whenever, after investigation and report by the Board of Trade and Industries, the Minister is satisfied—

(i) that goods, which are of a class or kind produced or manufactured in the Union—
  (*a*) have been or are being or are likely to be exported to the Union at an export price which is less than the domestic value thereof, plus the extra cost of packing and packages for export, carriage to the port of shipment, and all other expenses incidental to placing the goods on board ship ready for exportation to the Union; or
  (*b*) are being sold or offered for sale at a port of entry or other place in the Union, in the usual and ordinary course of trade, for an amount which is less than the domestic value thereof, plus the extra cost of packing and packages for export, inland carriage, sea freight, insurance, and all charges to that port or place, including landing, transportation, and delivery charges, and any duty (other than a dumping duty) payable under this Act or any amendment thereof; or
(ii) that a bounty has been or will be granted in respect of such goods in the country in which they were produced or manufactured or from which they were exported, by way of a bonus, rebate, subsidy, or otherwise, whether granted by a Government or other authority or person.

The dumping duties which may be imposed in terms of section 15 of the Act are—

(*a*) "ordinary" dumping duty, which shall be the difference between the export price and the domestic value plus the extra cost of packing and packages for export, carriage to the port of shipment, and all other expenses incidental to placing the goods on board ship ready for exportation to the Union; Provided that such difference is greater than five per centum of the export price: Provided, further, that in respect of any particular class or kind of goods the ordinary dumping duty may be limited to a percentage of the value for duty purposes, or alternatively to a specific rate per unit of quantity, volume, or weight, such percentage or alternative specific rate to be determined by the Governor-General and notified by him by proclamation in the *Gazette*.
(*b*) "sales" dumping duty, which shall be the difference between the selling price in the Union and the domestic value plus the expenses and charges set forth in paragraph (*d*) of section 15 (1) of the Act;
(*c*) "bounty" dumping duty, which shall be the amount of the bounty referred to in paragraph (*c*) of section 15 (1) of the Act.

"Exchange" dumping duty is leviable under the provisions of the above-mentioned section 15, as follows:—

(*a*) Whenever after investigation and report by the Board of Trade and Industries the Minister is satisfied that the exchange value of the currency of the country of origin or export of goods imported

into the Union is depreciated in relation to Union currency, and is of opinion that by reason of such depreciation goods of a class or kind manufactured or produced in the Union are being imported into the Union at prices which are detrimental to an industry in the Union, and is further of opinion that it would be in the public interests to impose, in respect of such goods, a dumping duty, the Minister shall from time to time determine the rate at which the currency of such country shall be computed in terms of Union currency for the purposes of assessing the dumping duty and he shall thereupon notify in the *Gazette* the rate so determined and the class or kind of goods to which such duty shall apply.

(*b*) If after the issue of such notification any person imports from such country into the Union any goods of a class or kind so notified, there shall be charged, levied, collected, and paid on such goods on their importation into the Union, in addition to the duties otherwise prescribed, an exchange dumping duty equal to the difference between the cost free on board at the port of shipment of such goods to the importer in Union currency and such cost, expressed in the currency of the country of origin or export of such goods, computed in terms of Union currency at the rate determined by the Minister: Provided that the Minister may in his discretion in respect of any particular class or kind of goods limit such dumping duty to a percentage of the aforesaid difference or alternatively to a specific rate per unit of quantity, volume or weight, such percentage or alternative specific rate to be determined by the Minister and notified by him in the *Gazette*.

(*c*) In the case of goods exported to the Union on consignment account, or for which nominal prices are charged or for which no charge is made, the cost free on board at the port of shipment shall be taken to be the price free on board at which similar goods are ordinarily sold for export, or, if there be no such price, then the value of such goods as determined for purposes of duty in terms of section fourteen.

"Freight" dumping duty is leviable under the provisions of section 15, as follows:—

Whenever after investigation and report by the Board of Trade and Industries the Minister is satisfied—

(*a*) that goods which are of a class or kind produced or manufactured in the Union have been or are being or are likely to be exported to the Union from a particular country or port of shipment at a rate of freight or at freight charges less than the rate of freight certified by the South African Shipping Board as being the normal freight rate chargeable on that class or kind of goods from that country or port;

(*b*) that such reduction is exceptional in character;

(*c*) that detriment to an industry within the Union may result from such reduction; and

(*d*) that it would be in the public interest to impose a freight dumping duty in respect of such goods,

the Minister may from time to time determine the minimum rate of freight which shall be applicable to goods of that class or kind shipped from that country or port to any of the several ports of discharge in the Union or to any of the several ports in Africa at which goods are discharged for removal overland to the Union; and shall thereupon notify the same in the *Gazette*: Provided that the minimum rate so determined and notified shall in no case exceed the normal freight rate as certified in terms of paragraph (*a*).

If after the issue of such notification any person imports into the Union any goods of a class or kind to which in terms thereof any such minimum rate is applicable, there shall, if such goods have been shipped from any such country or port to any such port of discharge at a rate of freight or freight charges less than the minimum rate so determined and notified in respect of goods of that class or kind shipped from that country or port to that port of discharge, be charged, levied, collected and paid on such goods on their importation into the Union, in addition to the duties otherwise prescribed, a freight dumping duty equal to the difference between the rate of freight or freight charges actually paid and the minimum rate of freight so determined and notified.

Special Duties on Iron and Steel Products.—Section 9 of Act No. 25 of 1936 provides that—

(*a*) Whenever, after report by the Board of Trade and Industries, the Minister is satisfied that iron and steel products of any particular class or kind manufactured in the Union have been or are being or are likely to be exported to the Union at a price that would cause detriment to the iron and steel industry in the Union, and is further of opinion that it would be in the public interest to levy in respect of such goods a special duty, the Minister may from time to time determine, in respect of that particular class or kind of iron and steel products, a price on board ship at any of the several ports of discharge in the Union, or at any of the several ports in Africa at which goods are discharged for removal overland to the Union, below which price that class or kind of goods shall not be imported into the Union through that port; and shall thereupon notify the same in the *Gazette*: Provided that the price so determined and notified shall be an amount which, in the opinion of the Minister, based upon a report made by the Board of Trades and Industries, does not exceed the fair average price on the world's markets, plus normal insurance and freight charges to the port of discharge.

(*b*) If, after the issue of such notification, any person imports into the Union any goods of a class or kind, to which in terms thereof such price is applicable, at a c.i.f. price which is less than the price so determined and notified, in respect of the port of discharge of such goods, there shall be charged, levied, collected and paid on such goods on importation into the Union, in addition to any other duties payable thereon, a special duty, equal to the difference between the said c.i.f. price and the price so determined and notified.

(*c*) If, after the issue of such notification, any goods of a class or kind to which on terms thereof such price is applicable are sold or offered for sale by the importer or any other person at any price in the Union in the ordinary course of trade for an amount which is less than the price so determined and notified plus landing, transportation and delivery charges and the duties payable under the principal Act and this Act, there shall be charged, levied, collected and paid on such goods in respect of their sale a special sales duty which shall be equal to the difference between the selling price and the price so determined and notified plus the charges and duty mentioned in this sub-section, and which shall be payable by the person so selling such goods or offering such goods for sale; Provided that the Minister may, if he is satisfied that the goods have deteriorated in quantity or value after importation, reduce, in respect of such goods, the price so determined and notified, and the special sales duty upon such goods shall thereupon be charged, levied, collected, and paid accordingly.

(*d*) For the purpose of this section "c.i.f. price" shall mean the price paid or to be paid by the importer for the goods on board ship at the port of discharge including insurance and freight charges, or the export price as defined in section 19 of the principal Act together with insurance and freight charges paid or to be paid for conveyance of the goods to the port of discharge.

(*e*) No special duty or special sales duty shall be payable under this section in respect of goods which were shipped to the Union on or before the 22nd of May, 1936, or which the Commissioner of Customs is satisfied were purchased or ordered before that date for shipment to the Union in order that they may be used in the fulfilment of contracts entered into before the 22nd day of May, 1936, for the erection of buildings or constructional works.

(*f*) The Minister shall, in the course of each ordinary session of Parliament, lay upon the Tables of both Houses of Parliament a report showing the prices charged by producers in the Union for the classes and kinds of iron and steel products in respect of which

a price has been determined and notified in terms of this section, and the prices charged for those classes and kinds of goods by producers in the principal countries from which such goods are exported to the Union.

(The prices determined in terms of (*a*) are stated in Government Notice No. 327 of 1937, as amended by Government Notices Nos. 459 and 540 of 1937.)

The following dumping duties imposed and operative in terms of Chapter 11 of Act No. 36 of 1925, as amended, were effective and in force on the 31st December, 1938:—

Article.	Country from whence Imported.	Class of Dumping Duty.	Proclamation.	Maximum Leviable.
				%
Cement	Holland	Ordinary	212 of 1937	50
	Belgium	"		50
	Canada	"		50
	Denmark	"		50
	Estonia	"		50
	Germany	"		50
	Great Britain	"		50
	Italy	"		50
	Mozambique	"		50
	Norway	"		50
	Sweden	"		50
	Jugo-Slavia	"		50
	Japan	"		50
	Germany	"		50
Asbestos Cement Sheets	U.S. of America	"	59 of 1925	25
Rubber Hose	Canada	Ordinary and Sales	57 & 58 of 1937	50
		" "	294 & 295 of 1927	50
Wheelbarrows	United Kingdom	Ordinary	16 of 1936	50
	U.S. of America	"	324 of 1926	50
Glass Bottles	Canada	"	324 of 1926	50
	Holland	"	286 of 1930	50
	Czecho-Slovakia	"	286 of 1930	50
Condensed Milk	Holland	"	225 of 1932	50
	Denmark	"	11 of 1934	50
Glucose	Belgium	"	205 of 1934	50
	Holland	"	205 of 1934	50
	U.S. of America	"	205 of 1934	50
	Germany	"	205 of 1934	50
Piping and Tubing, Bends, Flanges, and Tubular Poles	Canada, U.S.A.	"	78 of 1936	50
	United Kingdom	"	244 of 1935, as amended by Nos. 17 and 39 of 1936	—
	Poland	"		50
	France	"		50
	Belgium	"		50
	Germany	"		50
	Czecho-Slovakia	"		50
Bacon and Ham	Various	Bounty	98 of 1935 and 8 of 1938	50
Rope	Philippine Islands	Ordinary	218 of 1935	50
	United Kingdom	"	239 of 1936	50
Certain Iron and Steel Products	U.S. of America	Ordinary	218 of 1938	50
		Freight	G.N. 1335 of 1938	—
Hauling and Hoisting Chains	Canada	Ordinary	216 of 1938	50
	Czechoslovakia	"		
Coal-burning Stoves	U.S. of America	"		
Pneumatic Tyres and Tubes	United Kingdom	"	209 of 1938	50
	Canada, U.S. of America	"	268 of 1938	50
Various	Various	Exchange	Various	50

Exchange dumping duties were imposed under Government Notice No. 1119 of 1932, as amended by Government Notices Nos. 370 of 1933 and 422 and 1141 of 1934, and supplemented by Government Notices Nos. 986 and 1164 of 1933 and Nos. 185 and 977 of 1935, on specified articles imported into the Union from the United Kingdom and Northern Ireland, Irish Free State, Australia, New Zealand, Canada, the Argentine, Norway, Sweden, Denmark, the Province of Mozambique, and Uruguay; and similar duties were imposed under Government Notices Nos. 229 of 1932 as amended by Government Notices No. 1200 of 1932, No. 370 of 1933, and No. 1457 of 1934, and supplemented by Government Notices Nos. 185, 586, and 977 of 1935, and 43 of 1936, on certain articles imported from India and Japan.

Free List.—The goods described in Class XV of the tariff are admitted into the Union under rebate of customs duty to the extent specified in the respective items of the said class, subject to such conditions and regulations as the Minister may prescribe, and provided that the goods are imported for use only in the manufacturing industry mentioned in each instance. Rebate of customs duty will not be allowed in terms of sub-section (1) except in respect of goods imported for use in a factory—

(*a*) which is situated in an area approved by the Minister;

(*b*) which has been registered under the *Factories Act*, No. 28 of 1918, or any amendment thereof; and

(*c*) in which the number of operatives employed exceeds a number to be specified by the Minister in respect of the particular industry carried on in that factory.

5. **Customs Tariff.**—Owing to the magnitude and complexity of the new three-line tariff introduced under the provisions of Act No. 44 of 1935, it is not possible to include the tariff in the form in which it appeared in *Official Year Book* No. 15 and previous issues.

Section 12 (1) of Act No. 36 of 1925, as amended, empowers the Governor-General to proclaim rebates or refunds of duty, subject to compliance with the regulations set out in the relative proclamation, on a variety of goods including goods imported into the Union and exported therefrom to specified countries; imported materials used in the manufacture of goods exported to certain countries; travellers' samples; tourists' personal effects; settlers' household effects; goods for experimental purposes; any article which is a raw material or essential requisite of any industry and in respect of which the Board of Trade and Industries recommends such rebate; and goods of Union origin or manufacture which have been exported from the Union and returned or brought back.

Two publications are issued annually, (i) The Customs Tariff Booklet containing the detailed tariff, together with any regulations which may have been issued in respect of any item, and (ii) The Customs Act Booklet, which contains the enabling Act, No. 36 of 1925, together with particulars of any special or dumping duties leviable in addition to the ordinary duties provided for in the tariff, and details of all rebates and relative regulations which have been proclaimed. These booklets are obtainable from the Government Printer, Pretoria.

§ 3. Imports and Exports.

1. **South African Overseas Trade, 1826 to 1909.**—The earliest statistics relating to the overseas trade of South Africa are those of the Cape of Good Hope, which date from 1826. From the year 1862 records of imports and exports through Durban are available, and from 1905 the figures relative to the trade with the Transvaal through Delagoa Bay become accessible, although the railway line from Lourenco Marques and the Transvaal was opened in 1894. Prior to this date, the whole of the trade of the States now constituting the Union was carried through Cape and Natal ports, but after the opening of the Delagoa Bay-Transvaal railway line an increasing volume of trade was carried along that route.

Summarized particulars of the South African overseas trade from 1826 to 1909 will be found in the sixth and previous issues of this *Year Book*.

2. **Imports and Exports from 1906.**—The value of imports and exports from 1906 to 1909 in respect of the territories constituting the Union, and in respect of the Union from 1910, is given in the subjoined tables (i) and (ii), together with the balance of trade for the period from 1906. Table (iv) shows the value of imports and exports from 1906, with the value per head of the mean population, and per head of the mean European population, and the proportion per cent. of exports to imports.

From 1926 gold and silver from Rhodesia, Tanganyika, and Mozambique refined in the Union are included in both imports and exports at the value of the bullion content. Previous to that date they were omitted from the statistics.

Gold Premium.—The following method has been employed in calculating the gold premium for 1933 and 1934: the monthly exports and imports of gold bullion and specie have been valued at the prices of gold announced by the Chamber of Mines each month, plus an allowance for the difference between the average price of gold declared for the year's output and that ultimately

received for the output by the gold mines. As from 1935 the gold premium is based on the price of gold ruling at the date of importation or exportation. Table (iii) gives the value of the gold premium from 1934. These figures have been included in the values of gold bullion and gold specie wherever these appear in this chapter.

Gold Earmarked.—During the latter half of 1938 the South African Reserve Bank published a notification to the effect that it was now also holding gold, specially earmarked, for the account of other banks and customers. The quantity so held on the 31st December, 1938, was 2,821,207 fine ounces, valued at £20,714,902, and for purposes of comparability these figures have been included in the export statistics wherever applicable.

(i) VALUE OF IMPORTS OF MERCHANDISE, GOVERNMENT STORES, AND SPECIE, AND RE-EXPORTS FROM 1906.

Year.	Imports.				Imported Goods Re-exported.
	Merchandise.	Government Stores.	Specie.	Total.	
	£	£	£	£	£
Pre-Union Average 1906-09	26,150,386	1,301,050	1,008,226	28,459,662	1,109,673
Union— Average:					
1910-14	34,962,288	2,972,817	1,266,963	39,202,068	1,457,797
1915-19	39,365,826	2,427,220	1,816,817	43,609,872	3,071,596
1920-24	60,935,306	5,998,859	949,306	67,883,471	3,742,515
1925-29	71,295,355	4,243,448	52,044	75,590,847	3,390,550
1930-34	50,671,245	2,440,015	111,984	53,223,244	2,299,827
1934	63,892,504	2,366,556	69,346	66,328,406	1,886,780
1935	71,630,182	3,670,954	44,135	75,345,271	2,127,787
1936	81,099,318	5,182,748	22,018	86,304,084	2,202,899
1937	97,304,619	6,063,146	15,861	103,383,626	2,831,536
1938	86,371,230	9,487,496	28,191	95,886,917	2,992,613

(ii) VALUE OF EXPORTS FROM 1906.

Year.	South African Produce.	Imported Goods Re-exported.	Specie.	Total.	Excess of Exports over Imports.
	£	£	£	£	£
Pre-Union Average: 1906-09	44,277,744	1,109,673	414,425	45,801,842	17,342,180
Union— Average:					
1910-14	54,564,310	1,457,797	258,474	56,280,581	17,078,513
1915-19	70,750,754	3,071,596	161,196	73,983,546	30,373,674
1920-24	76,964,131	3,742,515	135,591	80,842,237	12,958,766
1925-29	77,349,826	3,390,550	12,552,822	93,293,198	17,702,351
1930-34	73,924,677	2,299,827	4,156,338	80,380,842	27,157,598
1934	80,093,024	1,886,780	205,040	82,184,844	15,856,438
1935	100,072,322	2,127,787	207,047	102,407,156	27,061,885
1936	110,686,215	2,202,899	1,645,002	114,534,116	28,230,032
1937	122,497,693	2,831,536	86,381	125,415,610	22,031,984
1938*	98,338,062	2,992,613	4,568,430	105,899,105	10,012,188

(iii) VALUE OF PREMIUM ON GOLD BULLION AND GOLD SPECIE IMPORTED AND EXPORTED FROM 1934.

Year.	IMPORTS.			EXPORTS.		
	Bullion.	Specie.	Total.	Bullion.	Specie.	Total.
	£	£	£	£	£	£
1934	24,080	16,769	40,849	21,528,837	35,438	21,564,275
1935	65,535	7,654	73,189	28,654,325	37,086	28,691,411
1936	25,854	4,723	30,577	32,293,646†	342,305	32,635,951†
1937	34,036	1,384	35,420	32,823,985†	20,174	32,844,159†
1938*	101,622	5,067	106,689	27,720,004	1,800,197	29,520,201

* Includes gold earmarked. See text above.
† Amended figure.

(iv) IMPORTS AND EXPORTS FROM 1906 (INCLUDING GOVERNMENT STORES AND SPECIE).

Year.	Value.			Value per Head of Mean Population.				Proportion per cent. of Exports to Imports.
				Total Population.			European Population.	
	Imports.	Exports.	Total.	Imports.	Exports.	Imports and Exports.	Imports and Exports.	
	£	£	£	£ s. d.	£ s. d.	£ s. d.	£ s. d.	%
Pre-Union Average: 1906-09	28,459,662	45,801,842	74,261,504	5 1 9	8 3 9	13 5 6	61 17 4	160·9
Union— Average:								
1910-14	39,202,068	56,280,581	95,482,649	6 8 5	9 4 6	15 12 11	73 3 1	143·6
1915-19	43,609,872	73,983,546	117,593,418	6 11 7	11 3 3	17 14 10	82 6 0	169·6
1920-24	67,883,471	80,842,237	148,725,708	9 12 2	11 8 11	21 1 1	95 14 3	119·1
1925-29	75,590,847	93,293,198	168,884,045	9 17 6	12 3 8	22 1 2	98 19 9	123·4
1930-34	53,223,244	80,380,842	133,604,086	6 1 2	9 3 0	15 4 2	71 15 6	151·0
1934	66,328,406	82,184,844	148,513,250	7 3 6	8 17 10	16 1 4	77 3 4	123·9
1935	75,345,271	102,407,156	177,752,427	7 19 10	10 17 3	18 17 1	90 9 10	135·9
1936	86,304,084	114,534,116	200,838,200	8 19 6	11 18 2	20 17 8	99 19 8	132·7
1937	103,383,626	125,415,610	228,799,236	10 11 1	12 16 0	23 7 1	111 19 1	121·3
1938	95,886,917	105,899,105	201,786,022	9 12 2	10 12 3	20 4 5	96 18 11	110·4

3. **Imports.**—Statistics of imports from countries overseas and from the neighbouring territories are compiled by the Department of Customs and Excise, and the analysis which appeared in *Official Year Book* No. 19 and previous issues was compiled in the Census Office according to a classification which was adopted about twenty years ago. The Union of South Africa is a party to the 1928 International Convention on Economic Statistics, and during 1938 adopted the International List of Trade Commodities as prepared by the Committee of Statistical Experts. Statistics on this basis, commencing with the year 1937, have been compiled and published by the Department of Customs and Excise, and the table following gives particulars of imports in an abridged form. Comparable statistics for 1935 and 1936 are also given.

VALUE OF IMPORTS, INCLUDING GOVERNMENT STORES AND SPECIE, 1935 TO 1938.

International Minimum List.	Heading.	1935.	1936.	1937.	1938.
		£	£	£	£
	I.—FOOD PRODUCTS AND BEVERAGES.				
1-5	Live Animals for food	566,829	385,740	307,902	370,699
6-14	Meat and preparations	283,011	249,180	329,751	344,181
16	Milk, condensed	18,784	45,523	147,748	88,313
17	Butter	117,539	149,447	341,158	259,582
18	Cheese	22,863	24,119	29,745	38,833
15, 19-21	Other dairy products	6,424	7,602	6,088	6,930
22-25	Fish	407,310	439,619	492,685	457,238
26	Grain—Wheat	10,419	7,175	5,789	459,714
28-29	Rice	409,747	437,000	494,893	440,902
27, 30-33	Other	4,850	60,912	24,885	18,824
34-41	Manufactured products of cereals	156,680	178,390	189,966	203,258
42-49	Fruits and nuts, except oil nuts	247,070	301,817	275,861	251,752
50-58	Vegetables, roots, and tubers	309,709	345,448	353,305	373,934
59-63	Sugar and confectionery	238,638	258,856	282,344	288,255
64-66	Coffee	469,193	424,172	489,701	396,589
67	Tea	690,205	759,842	878,236	866,932
68-69	Cocoa and preparations	150,089	141,313	222,444	191,721
70	Spices	44,445	44,468	44,846	34,505
71-78	Beverages and vinegars	519,500	598,442	597,315	636,326
79-84	Feeding stuffs for animals	35,394	28,671	35,336	47,266
	TOTAL	4,708,699	4,887,736	5,549,998	5,775,754
	II.—TOBACCO.				
85	Unmanufactured	169,209	176,820	245,926	218,559
86	Manufactured	113,361	123,788	121,545	128,828
	TOTAL	282,570	300,608	367,471	347,387

VALUE OF IMPORTS, INCLUDING GOVERNMENT STORES AND SPECIE, 1935 TO 1938—(*continued*).

International Minimum List.	Heading.	1935.	1936.	1937.	1938.
		£	£	£	£
	III.—OIL SEEDS, OILS, FATS, ETC.				
87–88	Ground-nuts	142,525	205,439	222,668	246,157
89–94	Other oil seeds, etc.	30,441	56,421	69,715	57,552
103–104	Palm and palm kernel oil	122,080	142,334	238,937	240,446
105–106	Cocoanut oil	105,523	92,717	128,893	79,420
111	Glycerine	276,209	288,470	444,649	540,787
113	Waxes	46,330	63,066	69,851	76,364
95–102, 107–110, 112	Other oils, fats, etc.	283,752	268,441	277,042	266,808
	TOTAL	1,006,860	1,116,888	1,451,805	1,507,534
	IV.—CHEMICALS AND ALLIED PRODUCTS.				
117(*d*)	Cyanide	446,481	422,894	444,086	358,341
125	Pharmaceutical products	760,350	806,870	873,477	860,118
114–124*	Other chemicals	784,948	804,197	985,157	952,553
126–132	Dyeing, tanning, and colouring substances	733,451	839,324	951,900	886,482
133	Essential oils	41,478	46,570	64,385	63,614
134	Perfumes and cosmetics	387,857	420,383	431,046	383,713
135	Soaps	107,677	127,016	124,158	79,148
137	Cleaning and polishing materials	117,219	129,953	141,127	133,003
138–146	Fertilizers	652,369	746,635	839,548	791,828
	TOTAL	4,031,830	4,343,842	4,854,884	4,508,800
	V.—RUBBER AND MANUFACTURES THEREOF.				
147–149	Rubber and substitutes	64,703	247,133	518,315	342,938
150	Rubber tyres	433,805	465,246	332,532	274,206
151	Other rubber manufactures	207,691	262,973	329,012	254,276
	TOTAL	706,199	975,352	1,179,859	871,420
	VI.—WOOD, CORK, AND MANUFACTURES THEREOF.				
155–157	Wood in the round	1,586,918	2,041,108	2,594,080	1,910,680
158	Railway sleepers	226,453	274,814	256,773	233,276
161–162, 164–165	Wood partly manufactured	275,771	401,748	537,152	331,597
175–176	Wood pulp	—	2,307	4,067	8,178
163	Boxes, cases, and crates	337,968	364,838	615,093	582,335
167	Veneers and plywood	123,501	186,651	224,529	145,879
169	Builder's woodwork	28,547	48,070	73,434	35,172
170	Furniture	85,790	134,085	171,506	130,965
168, 171	Other manufactures of wood	202,730	279,333	314,107	323,107
172–173	Cork	39,779	45,152	62,948	52,997
	TOTAL	2,907,457	3,778,106	4,853,689	3,754,186
	VII.—CARDBOARD, PAPER AND MANUFACTURES THEREOF.				
177	Cardboard	204,042	253,172	316,388	320,197
178	Newsprint	223,366	293,327	368,345	379,716
179	Packing paper	213,865	258,942	392,031	311,246
180 (part)	Other printing paper	388,277	492,470	730,926	526,844
180 (part)	Wrapping paper	99,393	132,119	200,479	167,488
181	Wall paper	29,613	34,310	32,339	28,106
184	Writing paper	212,715	244,336	279,994	270,466
180 (balance), 182, 183, 185	Other manufactures of paper	429,449	488,388	539,584	513,058
	TOTAL	1,805,820	2,197,064	2,860,077	2,517,121
	VIII.—HIDES, SKINS, LEATHER AND MANUFACTURES THEREOF (EXCLUDING CLOTHING).				
186–187	Hides and skins	99,290	151,749	224,094	137,433
188	Leather	556,638	647,312	759,194	567,678
191–192	Leather manufactures	111,683	116,542	143,287	131,876
193–194	Furs	2,426	2,012	7,414	7,986
	TOTAL	770,037	917,615	1,133,989	844,973
	IX.—TEXTILES.				
195–215	Textile materials, raw or simply prepared	450,716	302,919	463,062	336,248
216–223	Yarns and thread	602,724	860,943	979,809	809,504
224–225	Silk fabrics	422,725	376,680	344,939	228,335
228–229	Fabrics of artificial textile fibres	957,712	1,058,723	1,182,515	869,118
232	Wool fabrics	1,865,518	2,067,157	2,498,061	2,015,389
235–236	Cotton fabrics	3,893,499	4,038,074	4,802,370	3,951,844

* Except Cyanide 117(*d*).

VALUE OF IMPORTS, INCLUDING GOVERNMENT STORES AND SPECIE, 1935 TO 1938—(*continued*).

International Minimum List.	Heading.	1935.	1936.	1937.	1938.
		£	£	£	£
	IX.—TEXTILES—(*contd.*).				
239, 240, 241	Fabrics of flax, hemp, and jute	636,198	668,473	743,998	659,925
244, 226, 227, 231, 233, 237, 238, 242	Carpets and rugs	281,345	393,471	413,162	330,336
	Ribbons and lace	158,142	177,382	223,940	228,540
247	Cordage, rope, twine	93,981	113,089	127,464	98,894
248	Fabrics and felt, impregnated or coated	302,596	371,226	410,358	361,189
249	Small wares	732,168	814,471	820,700	641,654
246, 250	Other textiles, not clothing	197,000	174,670	299,613	264,857
	TOTAL	10,594,324	11,417,278	13,309,991	10,795,833
	X.—CLOTHING (INCLUDING LEATHER).				
251	Knitted goods	1,441,439	1,759,220	1,924,423	1,845,724
252	Outer garments	2,075,101	2,471,185	2,652,028	2,534,956
254	Underclothing	166,614	214,825	288,281	286,755
255	Hats and caps	497,481	532,952	570,407	441,981
253, 256	All other textile clothing	458,637	465,712	605,358	560,888
257–259	Clothing of leather and fur	108,944	143,933	161,385	131,402
260–265	Footwear	413,177	482,279	501,210	465,300
	TOTAL	5,161,393	6,070,108	6,703,092	6,267,006
	XI.—MADE UP ARTICLES OF TEXTILE MATERIALS (OTHER THAN CLOTHING).				
266	House linen	439,850	519,306	579,610	570,610
267	Bags and sacks	854,168	806,474	955,469	711,420
268	Other textile articles	294,000	359,845	408,721	373,049
	TOTAL	1,588,018	1,685,625	1,943,800	1,655,079
	XII.—MATERIALS FOR HEATING, LIGHTING, ETC.				
269	Coal	7,794	13,205	14,122	13,387
274	Asphalt	86,934	110,802	127,266	99,823
276	Motor spirit	1,347,585	1,823,971	2,228,194	2,212,548
276	Illuminating oil	288,588	303,958	382,693	369,138
277	Fuel oil	164,725	271,150	437,476	485,334
278	Lubricating oil	585,775	638,808	818,319	781,755
279	Mineral jelly and waxes	251,925	245,297	319,771	279,679
283	Other products for heating, light, and power	71,440	101,101	164,015	187,265
272, 275, 280–282, 284	TOTAL	2,804,766	3,508,292	4,491,856	4,428,929
	XIII.—NON-METALLIC MINERALS AND MANUFACTURES THEREOF.				
286–297	Non-metallic minerals	365,704	253,585	269,654	198,218
298–302	Pottery and other clay products	585,830	649,191	738,763	635,656
303–311	Glass and glassware	651,434	765,617	856,469	752,153
312–316	Manufactures of non-metallic minerals	192,263	237,203	309,190	302,456
	TOTAL	1,795,231	1,905,596	2,174,076	1,888,483
	XIV.—JEWELLERY AND PRECIOUS METALS.				
317–323	Jewellery and precious metals	314,229	334,582	413,471	356,895
	XV.—BASE METALS AND SUPPLY CAST MANUFACTURES.				
324–327	Ores, slag, and cinder	—	1,292	1,027	630
328–330, 336	Crude iron and steel	93,612	129,573	157,360	143,560
331	Bars, rods, and structural shapes	918,387	1,023,796	1,384,869	1,355,379
332	Wire	459,776	633,365	746,505	619,540
333	Plates, sheets, hoops, and strips	1,653,403	1,720,399	2,566,706	1,560,695
334	Tubes, pipes, and fittings	1,065,729	1,059,218	1,397,650	1,245,993
335	Railway track materials	1,298,415	1,255,400	1,341,608	2,063,925
337–339	Copper	267,891	348,351	473,069	385,258
340–341	Aluminium	69,449	77,745	100,008	87,968
342–343	Lead	43,910	46,115	94,837	76,101
344–345	Zinc	81,923	108,921	158,993	102,396
346–347	Tin	205,208	216,457	327,805	233,718
349	Other	22,875	24,464	26,143	11,960
	TOTAL	6,180,578	6,645,096	8,776,580	7,887,123

VALUE OF IMPORTS, INCLUDING GOVERNMENT STORES AND SPECIE, 1935 TO 1938—(*continued*).

International Minimum List.	Heading.	1935.	1936.	1937.	1938.
		£	£	£	£
	XVI.—MANUFACTURES OF BASE METALS.				
350	Metallic structures	263,716	327,435	502,451	554,265
353	Nails, bolts, nuts, etc.	462,566	532,471	687,088	639,382
359	Household utensils	314,438	360,143	455,052	334,464
360	Hand tools—agriculture	226,820	214,488	275,465	216,708
361	Hand tools—other	414,118	490,472	586,884	512,639
362	Cutlery, forks, and spoons	254,674	251,765	312,002	277,252
351, 352, 355–358, 363	Other iron and steel	1,403,363	1,691,795	2,138,831	1,862,256
370	Metal articles for lighting	132,387	163,068	196,526	174,473
364–369, 371	Non-ferrous manufactures	651,608	743,569	920,890	754,685
	TOTAL	4,123,990	4,775,206	6,075,189	5,326,124
	XVII.—MACHINERY APPARATUS AND APPLIANCES (NON ELECTRICAL).				
372	Prime movers	1,041,176	1,061,928	1,436,792	1,268,951
373	Agricultural machinery	843,446	859,695	1,058,420	948,659
374	Office machines	200,246	281,904	331,795	313,186
375	Household machines	507,093	678,935	711,988	642,567
376(*a*)	Pumps	314,593	410,924	513,952	410,252
376(*b*)	Cranes, hoists, etc.	285,724	509,650	602,609	741,170
376(*c*)	Sewing machines	205,210	247,145	263,226	226,893
376 (rest of)	Other machines	4,267,926	4,799,725	5,440,217	5,460,923
	TOTAL	7,665,414	8,849,966	10,358,999	10,012,610
	XVIII.—ELECTRICAL MACHINERY, APPARATUS, ETC.				
378	Dynamos, motors, etc.	800,052	851,216	1,107,068	1,297,326
379	Batteries and accumulators	237,654	236,377	316,941	265,261
380	Bulbs and tubes	168,970	196,969	218,949	203,527
381(*a*)	Apparatus for wireless	552,639	653,257	795,821	775,992
381(*b*)	Apparatus—telegraphy and telephony	444,670	485,186	430,492	460,575
382	Cables and wires	921,677	1,131,613	1,376,322	1,036,123
383–385	Other electric	2,317,873	2,334,777	2,669,042	3,082,693
	TOTAL	5,443,535	5,889,395	6,914,635	7,121,497
	XIX.—VEHICLES.				
389–390	Railway	1,236,166	2,280,961	2,563,170	4,824,732
391	Tractors	263,270	339,048	458,879	531,199
392–393	Motor vehicles	3,484,384	4,629,023	5,410,782	4,077,991
394–395	Chassis	2,343,965	2,461,876	3,056,385	2,333,502
396	Bodies and other parts	1,256,536	1,333,842	1,767,891	1,554,207
397	Motor cycles and parts	142,242	162,076	153,821	104,710
398	Cycles	385,610	470,523	582,211	414,420
399	Other vehicles	96,573	125,744	180,707	227,213
400	Aircraft, all parts	156,364	264,771	633,710	607,146
401–402	Vessels	9,937	19,055	25,452	47,491
	TOTAL	9,375,047	12,086,919	14,833,008	14,722,611
	XX.—MISCELLANEOUS MANUFACTURES.				
403–417	Crude, or simply prepared products	176,882	210,741	263,363	239,612
418	Scientific, medical, and optical	394,882	479,628	563,219	598,465
419–420	Clocks and watches	183,958	206,779	234,745	216,822
421	Gramophones and records	150,742	232,950	239,051	164,435
422	Other musical instruments	121,537	153,875	202,503	203,008
423–426	Arms and ammunition	148,228	183,020	230,591	297,654
428	Fuses, primers, and detonators	432,023	455,315	496,568	536,428
437	Brooms and brushes	120,369	143,684	167,778	157,436
439	Toys and sport goods	374,832	416,922	473,794	461,452
442	Pipes and cigarette holders	106,878	113,631	127,950	117,105
445	Bioscope films	229,811	236,211	229,997	275,507
447	Books and periodicals	445,356	520,541	562,657	540,725
448–449	Other printed matter	241,718	311,137	332,843	357,586
427, 429–432, 434–436, 443, 444, 446	Other articles	216,917	234,572	239,267	261,025
452 (*a*), (*b*), (*c*)	Personal effects	223,462	280,010	261,847	252,179
452	Unclassified articles*	298,423	350,311	339,074	343,554
	TOTAL	3,866,918	4,529,336	5,035,247	5,022,993

* Goods which it has not been found possible to allocate to specific items.

VALUE OF IMPORTS, INCLUDING GOVERNMENT STORES AND SPECIE, 1935 TO 1938—(*continued*).

International Minimum List.	Heading.	1935.	1936.	1937.	1938.
		£	£	£	£
	XXI.—GOLD AND SPECIE.				
453	Gold bullion	168,220	67,456	86,049	246,368
454	Gold specie*	19,083	11,982	3,506	11,921
455	Silver specie	25,029	10,027	12,323	16,243
456	Other specie	23	9	32	27
	TOTAL	212,355	89,474	101,910	274,559
	GRAND TOTAL	75,345,270	86,304,084	103,383,626	95,886,917

* Includes gold premium on gold specie.

4. **Exports.**—The following tables give particulars as to the value of various classes of articles, the quantity and value of various articles in detail, and the total value of articles the produce of the Union exported each year from 1910. Want of space necessitates the elimination from Tables (iii) to (vi) of the averages for the years 1915-19 and 1920-24, but these may be obtained from earlier issues of the *Year Book* (Nos. 7 to 16).

In view of the fact that a considerable portion of the gold output was being exported in the form of gold coin, the figures for gold specie have been included since 1925 to enable a more satisfactory comparison to be made with the figures for previous years. Silver and copper specie are, however, excluded. The value of the gold premium is included in the figures where applicable, and from 1938 the value of gold earmarked has also been added (see paragraph 2 above).

For the years 1910 to 1934 the value of removals to Southern and Northern Rhodesia and South West Africa was shown in a separate column, but as from 1935 these figures have been included under the various classes.

In the following tables 1 ton=2,000 lb.

(i) VALUE OF EXPORTS FROM 1910 (INCLUDING SHIPS' STORES).

Year.	Living Animals.	Agricultural and Pastoral Produce.	Products of Mines.*	Other Articles.	Exports to Rhodesias and South West Africa.	Total South African Products.*	Imports Re-exported.	Grand Total.*
Average:	£	£	£	£	£	£	£	£
1910–14	38,082	10,244,899	43,404,821	350,497	526,011	54,564,310	1,457,797	56,022,107
1915–19	47,836	18,078,711	50,799,210	1,122,009	702,988	70,750,754	3,071,596	73,822,350
1920–24	44,969	21,888,514	52,518,160	1,236,661	1,275,827	76,964,131	3,742,515	80,706,646
1925–29	27,140	27,425,321	59,059,044	1,087,939	2,202,399	89,801,843	3,390,550	93,192,393
1930–34	11,675	15,813,435	59,489,042	741,042	1,949,003	78,005,397	2,299,827	80,305,224
1934...	8,194	16,108,075	61,489,856	517,220	2,063,562	80,186,907	1,886,780	82,073,687
1935...	60,060	20,398,440	77,490,947	2,215,866	†	100,165,313	2,127,787	102,293,100
1936...	49,521	19,529,167	89,296,558	2,691,925	†	111,567,171	2,202,899	113,770,070
1937...	71,752	28,631,074	90,175,263	3,670,585	†	122,548,674	2,831,536	125,380,210
1938‡..	63,553	19,929,798	79,596,920	3,302,339	†	102,892,610	2,992,613	105,885,223

(ii) PROPORTION PER CENT. TO TOTAL VALUE OF VALUE OF EXPORTS OF VARIOUS CLASSES FROM 1910 (INCLUDING SHIPS' STORES).

Year.	Living Animals.	Agricultural and Pastoral Produce.	Products of Mines.*	Other Articles.	Exports to Rhodesias and South West Africa.	Total South African Products.*	Imports Re-exported.	Grand Total.*
Average:								
1910–14	0·07	18·29	77·48	0·62	0·94	97·40	2·60	100·00
1915–19	0·07	24·49	68·80	1·53	0·95	95·84	4·16	100·00
1920–24	0·06	27·12	64·92	1·68	1·58	95·36	4·64	100·00
1925–29	0·03	29·39	63·45	1·17	2·34	96·38	3·62	100·00
1930–34	0·02	19·69	74·08	0·92	2·43	97·14	2·86	100·00
1934...	0·01	19·63	74·92	0·63	2·51	97·70	2·30	100·00
1935...	0·06	19·94	75·75	2·17	†	97·92	2·08	100·00
1936...	0·04	17·16	78·49	2·37	†	98·06	1·94	100·00
1937...	0·06	22·83	71·92	2·93	†	97·74	2·26	100·00
1938‡..	0·06	18·82	75·17	3·12	†	97·17	2·83	100·00

* Gold specie included from 1925.
† Included under various classes.
‡ Includes gold earmarked. See text above.

(iii) NUMBER AND VALUE OF LIVING ANIMALS EXPORTED FROM 1910 (INCLUDING SHIPS' STORES).

(a) Number.

Animals.	Average: 1910–14.	Average: 1925–29.	Average: 1930–34.	1936.	1937.	1938.
Bulls and Oxen	315	61	32	162	155	155
Cows and Calves	110	101	102	351	378	283
Donkeys and Jackasses	2	38	4	138	9	4
Goats	219	892	345	142	185	304
Horses	446	138	13	206	389	238
Mules	141	264	88	162	151	290
Ostriches	26	—	—	—	—	—
Pigs	2,189	119	67	42	37	34
Poultry	13,669	5,834	6,469	7,777	8,459	6,082
Sheep and Lambs	3,794	2,491	1,904	22,118	39,592	28,098

(b) Value.

Animals.	Average: 1910–14.	Average: 1925–29.	Average: 1930–34.	1936.	1937.	1938.
	£	£	£	£	£	£
Bulls and Oxen	3,942	2,572	968	5,657	5,683	4,593
Cows and Calves	1,316	2,360	2,147	5,360	8,059	4,987
Donkeys and Jackasses	16	114	13	321	46	4
Goats	221	1,221	412	141	566	405
Horses	12,901	3,961	371	5,054	9,160	4,693
Mules	4,085	5,413	1,366	3,313	3,311	3,573
Ostriches	933	—	—	—	—	—
Pigs	5,820	246	191	239	167	194
Poultry	2,357	2,025	1,296	1,624	1,939	1,379
Sheep and Lambs	4,031	4,226	2,539	25,322	33,970	30,163
All other animals	2,450	4,992	2,372	2,490	8,851	13,562
TOTAL £	38,082	27,140	11,675	49,521	71,752	63,553

(iv) QUANTITY AND VALUE OF EXPORTS OF PRODUCE OF THE LAND, AGRICULTURAL AND PASTORAL (OTHER THAN LIVING ANIMALS), FROM 1910 (INCLUDING SHIPS' STORES).

(a) Quantity.

Articles.	Average: 1910–14.	Average: 1925–29.	Average: 1930–34.	1936.	1937.	1938.
Aloes lb.	773,391	968,725	831,629	719,635	926,402	1,078,990
Argol lb.	138,404	99,450	833	60	—	—
Arrowroot lb.	43,119	—	—	—	—	—
Bark—						
Wattle tons	59,796	93,200	72,780	83,069	76,670	72,417
Extract tons	—	16,295	20,108	38,344	45,769	32,488
Buchu Leaves lb.	204,271	189,749	176,407	217,070	248,420	185,902
Butter lb.	39,946	742,874	3,253,370	9,405,560	7,347,008	3,681,422
Cheese lb.	445	167,218	1,491,001	1,444,468	1,068,382	2,793,651
Coffee lb.	35,388	13,098	6,995	279,442	318,263	337,790
Corn, Grain, Pulse, and Meal—						
Barley lb.	89,812	20,223	59,104	86,999	58,017	63,787
Beans and Peas lb.	78,443	182,733	58,029	589,707	1,291,975	1,448,299
Bran lb.	524,608	438,318	296,627	1,468,973	2,658,661	1,474,073
Kaffir-corn lb.	1,175,540	14,557,506	3,183,186	95,057	2,190,095	284,331
Maize tons	99,861	448,282	237,538	18,421	856,217	221,194
Oats lb.	8,856,208	5,785,397	683,149	2,734,088	11,604,849	2,481,051
Wheat lb.	22,636	99,444	49,389	129,038	58,939,666	96,842
Wheaten Flour lb.	965,972	212,898	267,978	7,623,883	9,328,949	9,076,446
All other Corn, Grain, and Meal lb.	5,686,834	159,390,764	136,304,670	38,172,202	443,030,834	169,969,563
Cotton, Raw lb.	31,796	5,608,998	2,503,320	760,601	1,084,986	396,438
Eggs No.	1,265,257	39,899,403	60,424,619	47,590,518	34,443,701	35,832,074
Feathers, Ostrich lb.	869,281	134,141	77,768	59,668	68,856	64,252
Flowers, Dried, lb.	81,279	56,239	20,347	8,600	14,783	9,707
Fruit, Fresh, including Nuts*	—	—	—	—	—	—
Fruit, Dried and Preserved lb.	48,380	11,072,921	17,125,410	25,899,081	20,346,335†	28,264,969
Hay and Fodder lb.	17,331,902	194,414,296	93,135,171	114,277,268	135,896,178†	131,753,779

* See Table (*b*).
† Amended figure.

(iv) QUANTITY AND VALUE OF EXPORTS OF PRODUCE OF THE LAND, AGRICULTURAL AND PASTORAL (OTHER THAN LIVING ANIMALS), FROM 1910 (INCLUDING SHIPS' STORES)—(*continued*).

(a) QUANTITY—(*continued*).

Articles.	Average: 1910–14.	Average: 1925–29.	Average: 1930–34.	1936.	1937.	1938.
Hides and Skins—						
Ox and Cow lb.	16,569,636	35,256,283	25,133,327	30,243,308	27,810,562	18,594,243
Goat lb.	7,984,707	6,787,919	4,887,138	5,270,146	5,381,510	5,520,631
Sheep lb.	28,041,336	32,989,522	37,047,959	32,502,860	31,495,293	32,688,252
Seal lb.	86,061	123,829	19,644	30,250	122,285	101,347
All other kinds*	—	—	—	—	—	—
Horns*	—	—	—	—	—	—
Meats lb.	335,888	24,134,358	20,333,998	22,983,372	18,391,995	5,121,059
Mohair lb.	19,717,080	10,224,941	8,194,448	6,341,602	4,560,583	5,111,205
Oatmeal lb.	19,781	12,017	48,405	67,711	58,015	69,365
Plants, Bulbs, and Trees*	—	—	—	—	—	—
Seeds lb.	—	5,312,087	2,115,550	1,484,254	2,196,916	897,457
Spirits—						
Brandy Gall.	726	1,939	9,872	75,132	89,587‡	101,396
All other (Potable) Gall.	122,725	33,994	23,362	28,168	27,462	24,181
Sugar lb.	1,330,996	155,168,672	339,257,910	304,166,288	494,697,215	483,693,992
Sugar Products (Molasses and Treacle) lb.	9,695,766	42,473,121	43,521,118	95,331,684	111,698,576‡	69,124,459
Tea lb.	87,610	115,506	6,939	371,397	286,113	365,067
Tobacco lb.	175,896	826,747	1,035,206	1,360,812	1,460,302	756,266
Tobacconists' Wares (Calabashes) No.	—	32,233	7,693	—	—	—
Vegetables—						
Onions lb.	401,048	1,052,164	1,514,449	4,346,743	3,295,461	3,654,272
Potatoes lb.	1,855,460	4,579,050	6,577,268	10,998,095	21,320,041	8,528,230
All other Fresh*	—	—	—	—	—	—
Wax—						
Bees lb.	301	1,506	53	20	42	10
Berry lb.	11,085	2,114	—	—	—	—
Wines Gall.	56,646	329,747	1,007,922	1,477,297	1,731,113	1,935,728
Wood and Timber*	—	—	—	—	—	—
Wool, Sheep's—						
Greasy tons	70,487	118,721	131,694	103,186	114,917	118,629
Other tons	2,194	3,382	2,960	3,786‡	3,741	3,578

(b) Value.

	Average: 1910–14.	Average: 1925–29.	Average: 1930–34.	1936.	1937.	1938.
	£	£	£	£	£	£
Aloes	8,043	7,634	7,952	13,855	21,474	19,619
Argol	2,650	1,221	12	1	—	—
Arrowroot	957	—	—	—	—	—
Bark—						
Wattle	277,545	709,945	371,260	348,919	425,040	453,042
Extract	†	273,313	248,780	428,107	575,926	454,980
Buchu Leaves	30,394	9,489	4,880	14,916	18,918	10,379
Butter and Substitutes	2,342	54,940	174,678	513,948	391,816	230,341
Cheese	19	8,569	58,559	58,388	71,988	125,915
Coffee	1,347	1,160	512	15,500	17,623	18,132
Corn, Grain, Pulse, and Meal—						
Barley	306	103	157	344	261	309
Beans and Peas	454	1,574	445	4,008	6,456	7,085
Bran	1,097	1,286	698	3,847	7,008	4,116
Kaffir-corn	2,337	38,841	7,137	386	5,020	928
Maize	408,642	2,735,210	999,211	60,032	3,198,316	965,463
Oats	23,688	19,380	1,827	7,277	35,348	10,684
Wheat	104	901	326	627	237,722	614
Wheaten Flour	4,181	2,158	2,454	51,356	62,293	74,703
All other Corn, Grain, and Meal	16,805	484,240	239,789	97,586	929,715	391,620
Cotton, Raw	930	242,518	62,612	21,167	29,369	8,320
Eggs	7,028	226,164	260,423	184,000	132,221	144,813
Feathers, Ostrich	2,286,386	78,786	37,664	28,200	28,756	30,240
Flowers, Dried	4,820	2,693	1,129	729	1,299	762
Fruit, Fresh, including Nuts	56,270	818,077	1,758,141	2,748,241	3,323,340	2,721,915
Fruit, Dried and Preserved	1,293	211,152	322,466	490,748	354,563	475,431
Hay and Fodder	39,820	592,165	172,513	171,001	301,327	300,882

* See Table (*b*).
† Included with Wattle Bark.
‡ Amended figure.

(iv) QUANTITY AND VALUE OF EXPORTS OF PRODUCE OF THE LAND, AGRICULTURAL AND PASTORAL (OTHER THAN LIVING ANIMALS), FROM 1910 (INCLUDING SHIPS' STORES)—(*continued*).

(*b*) VALUE—(*continued*).

Articles.	Average: 1910–14.	Average: 1925–29.	Average: 1930–34.	1936.	1937.	1938.
	£	£	£	£	£	£
Hides and Skins—						
Ox and Cow....	556,899	1,350,147	467,565	655,260	845,979	433,809
Goat.....	285,077	353,690	136,594	206,220	293,626	207,736
Sheep.....	708,963	1,645,842	794,848	1,021,005	1,230,669	781,726
Seal.....	3,409	14,654	1,983	1,630	8,113	5,048
All other kinds.	1,449	44,941	10,904	19,333	19,137	14,824
Horns.....	12,332	19,518	9,373	12,715	14,153	7,073
Meats.....	8,041	330,546	238,748	307,276	275,846	105,470
Mohair.....	899,756	750,634	225,527	427,265	476,382	353,949
Oatmeal.....	200	189	172	671	562	781
Plants, Bulbs, and Trees.....	2,337	4,238	3,913	6,665	8,193	12,649
Seeds.....	851	34,777	25,329	13,428	20,840	6,401
Spirits—						
Brandy.....	252	982	3,650	40,258	49,672	56,065
All other (Potable)....	3,931	3,047	2,928	5,716	5,775	6,746
Sugar.....	8,975	906,958	1,362,736	1,259,307	2,033,574	1,988,100
Sugar Products (Molasses and Treacle).....	13,951	25,478	26,702	82,837	86,553	83,917
Tea.....	2,032	6,120	786	15,123	10,732	14,437
Tobacco.....	12,425	65,804	27,182	51,529	59,393	51,927
Tobacconists' Wares (Calabashes).....	16,325	575	142	442	2,134	1,228
Vegetables—						
Onions.....	1,718	5,263	5,839	10,193	13,477	17,823
Potatoes.....	7,268	17,194	18,105	34,103	65,260	29,907
All other Fresh	11,899	21,156	12,667	15,901	17,777	26,762
Wax—						
Bees.....	20	41	1	3	6	1
Berry.....	441	79	—	—	—	—
Wines.....	11,578	47,531	127,360	205,951	244,178	276,091
Wood and Timber	3,565	8,061	4,501	32,587	27,733	13,286
Wool, Sheep's—						
Greasy.....	4,207,916	14,390,062	7,216,220	9,249,658	11,934,202	8,488,334
Other.....	285,831	856,275	347,935	590,908	711,369	493,406
TOTAL.....£	10,244,899	27,425,321	15,813,425	19,529,167	28,631,074	19,929,798

(v) QUANTITY AND VALUE OF THE PRODUCTS OF MINES EXPORTED FROM 1910 (INCLUDING SHIPS' STORES).

(*a*) Quantity.

Articles.	Average: 1910–14.	Average: 1925–29.	Average: 1930–34.	1936.	1937.	1938.
Asbestos.....lb.	2,849,581	20,597,212	28,869,672	49,417,379	55,641,064	43,959,411
Coal—						
Bunker.....Tons	1,392,301	1,829,285	1,027,419	1,365,276	1,260,603*	1,258,139
Cargo.....Tons	379,032	1,879,360	1,009,866	1,178,041	887,662*	993,120
Copper Ore and Concentrates Tons	8,332	65	1,273	29	88	—
Copper Regulus and Matte, Tons	14,502	301	2	—	—	—
Copper, Bar, Plate, and Blister Centals	46	175,517	173,628	199,732	230,837	227,280
Corundum.....Tons	—	2,824	1,502	4,838	2,497	1,546
Diamonds (uncut).....Carats	4,620,891	3,245,024	1,136,293	1,002,603	837,916	598,439
Diamonds (cut and polished) Carats	—	7,077	49,000	35,372	42,217	37,482

* Amended figure.

(v) QUANTITY AND VALUE OF THE PRODUCTS OF MINES EXPORTED FROM 1910 (INCLUDING SHIPS' STORES)—(*continued*).

(*a*) QUANTITY—(*continued*).

Articles.	Average: 1910–14.	Average: 1925–29.	Average: 1930–34.	1936.	1937.	1938.
Gold, Bullion.....Fine oz.	8,034,081	7,217,596	9,531,323	11,666,678	11,768,913	9,661,147‖
Gold, Slag or Concentrates† Fine oz.	5,220	1,594	5,192	6,711	11,471	9,749
Gold, Produce of Rhodesia Fine oz.	—	206,240	103,724	1,941	2,296	4,734
Gold, Produce of Tanganyika‡ Fine oz.	—	—	1,374	5,729	9,245	5,730
Gold Coin§.....	—	—	—	—	—	—
Iron (Chrome) Ore.....Tons	452	23,341	30,311	109,396	186,882	129,590
Lead Ore.....Tons	—	189	—	—	71	48
Manganese Ore.....Tons	577	*	33,491	229,105	531,589	351,693
Osmiridium.....Oz.	—	4,551	5,706	5,113	5,123	3,444
Platinum.....Oz.	—	10,491	27,020	27,950	29,665	39,283
Salt.....lb.	124,348	627,759	276,013	15,346,948	16,686,617	15,933,018
Silver.....Oz.	—	979,585	763,219	605,794	171,723	762,325
Silver, Produce of Rhodesia Fine oz.	—	33,431	11,246	—	—	—
Tin Ore.....Tons	3,241	2,163	1,004	1,158	1,065	1,374
Zinc Ores.....Tons	—	—	—	—	—	—
Other Ores and Minerals§.....	—	—	—	—	—	—

(*b*) Value.

Articles.	Average: 1910–14.	Average: 1925–29.	Average: 1930–34.	1936.	1937.	1938.
	£	£	£	£	£	£
Asbestos.....	21,011	159,042	233,792	326,464	427,557	422,194
Coal—						
Bunker.....	1,015,607	2,039,447	980,358	1,123,790	1,078,629	1,172,304
Cargo.....	157,414	1,076,699	462,702	530,291	407,460	491,759
Copper Ore and Concentrates...	188,430	2,859	8,189	292	3,612	—
Copper Regulus and Matte.....	338,870	10,188	190	—	—	—
Copper, Bar, Plate, and Blister.	204	518,741	394,200	342,315	592,749	426,392
Corundum.....	—	25,943	13,636	38,155	18,972	12,054
Diamonds (uncut).....	8,683,803	10,252,594	2,177,430	2,509,114	2,254,516	1,499,353
Diamonds (cut and polished)...	—	264,522	1,013,725	804,387	1,063,652	887,754
Gold, Bullion.....	32,666,162	30,658,340	49,121,579	81,801,421	82,751,159	68,710,157‖
Gold, Slag or Concentrates.....	22,174	6,769	22,055	47,055	80,655	69,337
Gold, Produce of Rhodesia.....	—	876,052	442,514	13,630	16,101	33,372
Gold, Produce of Tanganyika‡..	—	—	9,688	40,147	64,984	40,318
Gold Coin.....	—	12,452,018	4,080,719	880,956	50,981	4,554,548
Iron (Chrome) Ore.....	122	36,776	61,033	181,640	324,816	239,528
Lead Ore.....	1,205	2,298	—	—	644	313
Manganese Ore.....	485	*	31,033	—	578,077	537,906
Osmiridium.....	—	97,326	47,266	26,757	33,683	35,441
Platinum.....	—	135,948	174,690	164,718	239,069	228,210
Salt.....	118	592	343	8,041	8,565	7,281
Silver.....	*	122,573	53,379	57,167	17,049	68,511
Silver, Produce of Rhodesia....	—	4,179	1,188	—	—	—
Tin Ore.....	301,196	286,740	113,773	128,330	136,316	124,255
Zinc Ores.....	55	—	—	—	—	—
Other Ores and Minerals.....	2,965	29,398	45,560	271,888	25,417	35,933
TOTAL.....£	43,404,821	59,059,044	59,489,642	89,296,558	90,175,263	79,596,920

* Included with "Other Ores and Minerals."
† Estimated.
‡ Includes a small quantity of United Kingdom origin.
§ See Table (*b*).
‖ Includes gold earmarked, amounting to 2,821,207 fine ounces of a value of £20,714,902.

(vi) QUANTITY AND VALUE OF ALL OTHER ARTICLES NOT ENUMERATED IN THE PRECEDING TABLES EXPORTED FROM 1910 (INCLUDING SHIPS' STORES).

(a) Quantity.

Articles.	Average: 1910–14.	Average: 1925–29.	Average: 1930–34.	1936.	1937.	1938.
Aerated Waters.....Doz.	—	442	134	13,737	18,934	19,774
Ale, Beer, and Stout.....Gall.	31,787	41,670	34,117	118,550	127,076	129,052
Apparel and Slops*.....	—	—	—	—	—	—
Bags.....No.	4,067	6,837	*	*	*	*
Biscuits, Bread, and Cakes..lb.	60,570	100,395	46,438	361,495	477,718	471,771
Blasting Compounds.....lb.	675,218	359,554	66,100	10,626,031	13,674,760	14,644,140
Books, Printed*	—	—	—	—	—	—
Candles.....lb.	128,814	52,401	23,113	66,785	134,523	146,020
Confectionery and Jams....lb.	335,029	624,600	295,214	2,493,963	2,715,643	3,023,893
Curiosities*.....	—	—	—	—	—	—
Drugs and Chemicals*.....	—	—	—	—	—	—
Fish, Dried.....lb.	1,496,647	2,542,279	1,728,193	3,400,522	3,899,121	3,571,583
Fish, Fresh.....lb.	436,049	1,946,645	2,057,128	2,935,575	3,876,755	4,845,869
Fish, Preserved.....lb.	2,045,633	3,871,319	4,205,147	3,452,984	3,181,710	2,541,259
Flour, ground from Imported Wheat.....lb.	9,265,741	273,094	59,811	—	2,000	—
Furniture.*.....	—	—	—	—	—	—
Glycerine.....lb.	754,903	—	—	—	—	—
Haberdashery*.....	—	—	—	—	—	—
Hats and Caps.....Doz.	—	23	9	1,387	3,076	2,802
Iron and Steel Manufactures*.	—	—	—	—	—	—
Ivory.....lb.	746	2,424	986	1,218	336	868
Jewellery and Platedware*....	—	—	—	—	—	—
Leather and Leather Manufactures*.....	—	—	—	—	—	—
Manures.....lb.	2,910,228	14,666,962	9,989,075	20,081,387	17,846,428	20,320,819
Matches.....Gross	3,896	1,421	619	144,603	154,344	91,098
Oil, Whale.....Gall.	1,811,352	3,772,641	1,754,315	4,418,556	7,741,399	1,337,281
Pickles and Sauces.....lb.	1,909	5,657	4,270	60,534	99,738	101,372
Soap.....lb.	110,687	72,348	18,073	1,263,204	1,609,966	1,694,008
Stationery*.....	—	—	—	—	—	—
Tents and Tarpaulins*.....	—	—	—	—	—	—
Tobacco, Cigars, and Cigarettes.....lb.	8,676	104,130	54,395	91,054	102,021	113,357
Vehicles*.....	—	—	—	—	—	—
Wood Manufactures*.....	—	—	—	—	—	—
Works of Art*.....	—	—	—	—	—	—
All other Articles*.....	—	—	—	—	—	—

(b) Value.

Articles.	Average: 1910–14.	Average: 1925–29.	Average: 1930–34.	1936.	1937.	1938.
	£	£	£	£	£	£
Aerated Waters.....	1,506	88	31	2,378	3,006	3,019
Ale, Beer, and Stout.....	3,484	8,779	7,829	15,895	16,027	16,051
Apparel and Slops.....	232	1,378	722	194,388	246,471	287,059
Bags.....	47	341	204	7,328	7,163	7,398
Biscuits, Bread, and Cakes.....	1,049	4,630	2,722	19,246	23,511	25,065
Blasting Compounds.....	22,978	13,380	2,943	266,188	327,718	363,901
Books, Printed.....	2,610	1,860	2,564	6,710	9,387	11,171
Candles.....	2,267	1,319	490	1,327	2,255	2,256
Confectionery and Jams.....	5,687	10,285	7,784	73,370	84,737	96,307
Curiosities.....	1,560	643	447	265	228	536
Drugs and Chemicals.....	698	12,796	12,764	124,248	154,854	132,870
Fish, Dried.....	15,759	48,107	25,000	54,234	62,262	58,765
Fish, Fresh.....	6,159	41,727	46,596	81,312	129,228	127,357
Fish, Preserved.....	55,314	210,825	233,213	229,548	187,234	130,400
Flour, ground from Imported Wheat.....	30,761	1,939	236	—	17	—
Furniture.....	2,604	13,358	7,890	81,556	115,992	113,957
Glycerine.....	17,486	—	—	—	—	—
Haberdashery.....	426	1,028	221	3,490	5,026	5,200
Hats and Caps.....	9	39	19	2,382	5,412	5,859
Iron and Steel Manufactures...	785	9,416	9,644	81,328	180,932	201,142
Ivory.....	224	951	229	202	77	123

* See Table (*b*).

(vi) QUANTITY AND VALUE OF ALL OTHER ARTICLES NOT ENUMERATED IN THE PRECEDING TABLES EXPORTED FROM 1910 (INCLUDING SHIPS' STORES)—(*continued*).

(*b*) VALUE—(*continued*).

Articles.	Average: 1910–14.	Average: 1925–29.	Average: 1930–34.	1936.	1937.	1938.
	£	£	£	£	£	£
Jewellery and Platedware.....	368	76	370	1,406	2,586	1,507
Leather and Leather Manufactures.....	2,796	4,795	3,119	124,994	147,907	151,604
Manures.....	9,740	68,405	37,358	41,575	24,311	38,199
Matches.....	550	306	120	28,465	30,501	20,630
Oil, Whale.....	106,989	381,541	114,133	291,073	499,571	48,545
Pickles and Sauces.....	103	200	183	1,994	3,773	3,839
Soap.....	1,386	2,281	428	29,280	39,011	36,970
Stationery.....	3,935	13,697	9,660	54,293	59,688	65,344
Tents and Tarpaulins.....	551	1,222	665	2,171	3,770	4,663
Tobacco, Cigars, and Cigarettes.	1,978	26,664	13,231	46,212	54,894	61,171
Vehicles.....	9,019	8,822	10,748	251,699	330,220	238,671
Wood Manufactures.....	2,498	13,093	2,859	10,543	18,401	18,151
Works of Art.....	1,671	1,486	3,485	2,618	6,182	2,757
All other Articles.....	37,268	176,462	183,685	560,198	887,913	1,021,852
TOTAL.....£	350,497	1,087,939	741,642	2,691,925	3,670,585	3,302,339

5. **Imports and Exports: Stage of Production and use.**—A further classification of trade commodities by stage of production and use, as recommended by the Committee of Statistical Experts, for the years 1937 and 1938 is given hereunder.

IMPORTS AND EXPORTS: CLASSIFICATION BY STAGE OF PRODUCTION AND USE, 1937 AND 1938.

(i) IMPORTS.

Class.	Year.	Crude.	Simply transformed.	More elaborately transformed.	Total.
		£	£	£	£
1. Materials for the production of human food, of beverages, and of tobacco (all non-durable)..	1937	1,137,283	75,966	—	1,213,249
	1938	1,522,182	86,909	—	1,609,091
2. Materials for agricultural production (all non-durable)....	1937	402,664	545,405	—	948,069
	1938	376,478	545,815	—	922,293
3. Non-durable materials for industry and commerce (except groups 1 and 2).....	1937	1,476,526	2,127,457	15,382,410	18,986,393
	1938	1,051,915	1,774,943	15,113,879	17,940,737
4. Durable materials for industry and commerce.....	1937	2,697,326	9,495,092	4,334,916	16,527,334
	1938	2,013,064	8,306,426	3,456,011	13,775,501
5. Animal and vegetable oils and fats and materials therefor (all non-durable).....	1937	292,383	1,159,422	—	1,451,805
	1938	303,709	1,203,825	—	1,507,534
6. Fuels, electric energy, and lubricants (all non-durable)..	1937	210,381	4,281,475	—	4,491,856
	1938	192,377	4,236,552	—	4,428,929
7. Capital equipment for agriculture, industry, and commerce (all durable).....	1937	40,243	—	24,460,378	24,500,621
	1938	42,460	—	26,383,263	26,425,723
8. Food, beverages, and tobacco (all non-durable).....	1937	1,244,542	1,094,213	2,314,300	4,653,055
	1938	1,239,264	906,793	2,308,459	4,454,516
9. Other non-durable articles....	1937	—	—	15,211,554	15,211,554
	1938	—	—	11,976,801	11,976,801
10. Durable equipment ("Consumer's Capital").....	1937	—	—	14,980,757	14,980,757
	1938	—	—	12,248,631	12,248,631
TOTAL.....	1937	7,501,348	18,779,030	76,684,315	102,964,693
	1938	6,741,449	17,061,263	71,487,044	95,289,756
11. Articles which cannot be classified (postal packages, returned goods, and special transactions)	1937	—	—	—	317,023
	1938	—	—	—	322,602
12. Gold and Specie.....	1937	—	—	—	101,910
	1938	—	—	—	274,559
GRAND TOTAL.....	1937	—	—	—	103,383,626
	1938	—	—	—	95,886,917

IMPORTS AND EXPORTS: CLASSIFICATION BY STAGE OF PRODUCTION AND USE, 1937 AND 1938—(*continued*).

Class.	Year.	Crude.	Simply transformed.	More elaborately transformed.	Total.
(ii) Exports (S.A. Produce).					
		£	£	£	£
1. Materials for the production of human food, of beverages, and of tobacco (all non-durable)..	1937	315,903	1,242,309	—	1,558,212
	1938	62,291	723,306	—	785,597
2. Materials for agricultural production (all non-durable)....	1937	3,283,586	80,638	—	3,364,224
	1938	1,019,695	65,858	—	1,085,553
3. Non-durable materials for industry and commerce (except groups 1 and 2).....	1937	16,132,666	613,872	505,200	17,251,738
	1938	11,385,280	492,192	572,494	12,449,966
4. Durable materials for industry and commerce.....	1937	3,868,936	1,122,815	1,141,051	6,132,802
	1938	2,941,583	977,793	988,123	4,907,499
5. Animal and vegetable oils and fats and materials therefor (all non-durable).....	1937	18,167	517,411	—	535,578
	1938	12,021	62,299	—	74,920
6. Fuels, electric energy, and lubricants (all non-durable).	1937	1,486,173	31,793	—	1,517,966
	1938	1,664,197	31,221	—	1,695,418
7. Capital equipment for agriculture, industry, and commerce (all durable).....	1937	15,278	—	331,709	346,987
	1938	10,914	—	322,510	333,424
8. Food, beverages, and tobacco (all non-durable).....	1937	4,039,717	783,876	2,944,989	7,768,582
	1938	3,540,315	598,394	2,975,936	7,024,645
9. Other non-durable articles....	1937	—	—	767,488	767,488
	1938	—	—	823,752	823,752
10. Durable equipment ("Consumer's Capital").....	1937	—	—	375,395	375,395
	1938	—	—	308,263	308,263
TOTAL.....	1937	29,160,426	4,392,714	6,065,832	39,618,972
	1938	20,636,896	2,861,063	5,991,078	29,489,037
11. Articles which cannot be classified (postal packages, returned goods, and special transactions)	1937	—	—	—	46,477
	1938	—	—	—	65,178
12. Gold and Specie.....	1937	—	—	—	82,907,125
	1938*	—	—	—	73,352,065
GRAND TOTAL.....	1937	—	—	—	122,572,574
	1938	—	—	—	102,906,220
(iii) Imports Re-Exported.					
		£	£	£	£
1. Materials for the production of human food, of beverages, and of tobacco (all non-durable)..	1937	5,636	2,664	—	8,300
	1938	4,022	2,418	—	6,440
2. Materials for agricultural production (all non-durable)....	1937	6,185	1,797	—	7,982
	1938	7,474	2,906	—	10,380
3. Non-durable materials for industry and commerce (except groups 1 and 2).....	1937	9,321	14,199	259,397	282,917
	1938	6,787	9,345	270,267	286,399
4. Durable materials for industry and commerce.....	1937	66,070	99,780	70,751	236,601
	1938	53,750	62,360	66,966	183,076
5. Animal and vegetable oils and fats and materials therefor (all non-durable).....	1937	35	3,326	—	3,361
	1938	31	3,724	—	3,755
6. Fuels, electric energy, and lubricants (all non-durable)..	1937	331	511,976	—	512,307
	1938	1,624	506,121	—	507,745
7. Capital equipment for agriculture, industry, and commerce (all durable).....	1937	863	—	697,919	698,782
	1938	793	—	831,497	832,290
8. Food, beverages, and tobacco (all non-durable).....	1937	62,985	20,380	42,381	125,746
	1938	64,730	16,385	44,325	125,440
9. Other non-durable articles....	1937	—	—	339,915	339,915
	1938	—	—	372,892	372,892
10. Durable equipment ("Consumer's Capital").....	1937	—	—	383,124	383,124
	1938	—	—	369,830	369,830
TOTAL.....	1937	151,426	654,122	1,793,487	2,599,035
	1938	139,211	603,259	1,955,777	2,698,247
11. Articles which cannot be classified (postal packages, returned goods, and special transactions)	1937	—	—	—	232,561
	1938	—	—	—	294,366
12. Gold and Specie.....	1937	—	—	—	11,500
	1938	—	—	—	272
GRAND TOTAL.....	1937	—	—	—	2,843,036
	1938	—	—	—	2,992,885

* Includes gold earmarked.

6. **Foreign Trade.**—The tables below give particulars as to the value of the trade carried on by the Union with certain British and other countries since 1910. Imports are credited, where possible, to the country in which the goods have been manufactured, grown, or produced. Where the particulars of origin are not available, the goods are credited to the country from whence shipped. Exports are credited to the countries of final destination as far as can be ascertained up to the time of shipment. A considerable proportion of the goods declared to be for export to the United Kingdom is distributed from that country over Europe, but as the ultimate country of destination is unknown when the consignment leaves South Africa, the export figures are credited to the United Kingdom; to a less degree this also applies to exports consigned to Antwerp and Rotterdam. In the case of goods consigned on an optional bill of lading the country of delivery is subsequently ascertained. From the restoration of more or less normal relations after the war up to 1922, the direction of trade, as far as imports were concerned, tended to revert to pre-war conditions except in the case of Rhodesia and Kenya Colony, with which countries there was considerable trade expansion. Among the new European States the most notable increases in imports occurred in the imports from Czechoslovakia, chiefly cyanide of sodium, beads, glassware, shoes, and textiles, and from Finland, chiefly wood and paper. The outstanding feature of exports was the increase in the trade with the Continent of Europe, where France, Belgium, Germany, Holland, and Italy are the Union's chief foreign customers. These countries take considerable quantities of wool, hides and skins, maize, and bark. Belgium and Holland import diamonds. Some of the Union's gold export, though sold in London, went to the United States, and the same country was one of the best customers for diamonds.

Outside of Europe and Africa the greatest increases in imports have been from the United States, Canada, Japan, and the Netherlands Indies. Exports to those countries have increased considerably though on nothing like the same scale.

(i) VALUE OF IMPORTS FROM BRITISH AND OTHER COUNTRIES FROM 1910 (INCLUDING GOVERNMENT STORES, BUT EXCLUDING SPECIE).

Year.	From United Kingdom.	From other parts of the British Commonwealth.*	Total, British Commonwealth.*	From Other Countries.	Grand Total.
Average:	£	£	£	£	£
1910–14.....	22,366,497	4,230,520	26,597,017	11,338,088	37,935,105
1915–19.....	22,638,411	5,983,850	28,622,261	13,170,794	41,793,055
1920–24.....	36,709,494	8,638,281	45,347,775	21,586,390	66,934,165*
1925–29.....	34,579,949	10,817,338	45,397,287	30,141,516	75,538,803
1930–34.....	25,100,922	5,978,224	31,079,146	22,032,114	53,111,260
1934.....	32,301,103	6,540,573	38,841,736	27,417,324	66,259,060
1935.....	36,627,895	7,293,363	43,926,258	31,374,877	75,301,135
1936.....	39,952,119	8,108,023	48,060,142	38,221,924	86,282,066
1937.....	43,905,658	9,675,043	53,670,701	49,697,064	103,367,765
1938.....	41,458,938	9,662,555	51,121,493	44,737,233	95,858,726

(ii) VALUE OF EXPORTS TO BRITISH AND OTHER COUNTRIES FROM 1910 (INCLUDING SHIPS' STORES). GOLD SPECIE INCLUDED FROM 1925.

Year.	To United Kingdom.	To other parts of the British Commonwealth.*	Total, British Commonwealth.*	To Other Countries.	Shipped as Stores.	Articles through the Post.	Grand Total.
Average:	£	£	£	£	£	£	£
1910–14..	49,472,184	1,819,012	51,291,196	3,568,580	1,107,669	54,662	56,022,107
1915–19..	58,010,321	4,550,624	62,560,945	8,834,240	2,337,701	89,464	73,822,350
1920–24..	56,726,986	9,370,560	66,097,546	11,584,703	2,896,957	127,380	80,706,646
1925–29..	53,157,176	17,513,699	70,670,875	20,173,169	2,241,229	107,120	93,192,393
1930–34..	62,266,241	6,454,954	68,721,195	10,379,635	1,122,084	82,310	80,305,224
1934.....	65,793,603	4,905,746	70,699,349	10,300,531	977,894	35,913	82,073,687
1935.....	83,287,286	5,185,128	88,472,414	12,537,284	1,172,715	110,687	102,293,100
1936.....	94,147,004	4,808,258	98,955,262	13,311,420	1,368,619	134,769	113,770,070
1937.....	98,127,632	7,021,503	105,149,135	18,660,289	1,418,544	152,242	125,380,210
1938.....	84,199,855	6,283,639	90,483,494	13,609,235	1,642,731	149,763	105,885,223

* Union included with British Commonwealth subsequent to 1924.

ANALYSIS OF TRADE BETWEEN THE UNION AND CERTAIN OTHER COUNTRIES—*(continued)*.

(xxii) BRAZIL.

Classification.	Average: 1910–14.	Average: 1925–29.	Average: 1930–34.	1937.	1938.
IMPORTS.					
TOTAL IMPORTS.....	£ 585,079	£ 923,436	£ 411,709	£ 309,680	£ 291,262
Coffee (Raw).....	573,634	904,356	377,710	220,986	205,730

(xxiii) CHILE.

Classification.	Average: 1910–14.	Average: 1925–29.	Average: 1930–34.	1937.	1938.
IMPORTS.					
TOTAL IMPORTS.....	£ 220,742	£ 214,494	£ 53,601	£ 31,886	£ 34,257
Nitrates for Manufacturing Purposes.....	217,287	205,785	52,144	31,193	32,645

(xxiv) INDIA.

Classification.	Average: 1910–14.	Average: 1925–29.	Average: 1930–34.	1937.	1938.
IMPORTS.					
TOTAL IMPORTS.....	£ 1,007,331	£ 2,636,224	£ 1,489,788	£ 1,944,223	£ 1,544,875
Rice (including Paddy).....	280,890	432,153	246,327	290,592	226,437
Tea.....	42,366	185,104	61,252	38,971	39,754
Food and Drink (N.O.D.).....	81,538	129,570	76,947	91,256	209,647
Wood (Unmanufactured—Teak)	64,317	166,355	62,230	127,097	4,258
Cotton Manufactures.....	8,091	44,078	17,669	22,420	25,989
Apparel and Slops.....	15,949	76,321	44,791	47,557	55,181
Bags (Coal, Grain, Sugar, and Wool).....	350,733	1,169,322	649,377	833,631	586,257
Wax (Paraffin).....	33,818	105,837	153,020	210,169	142,868
Carpets and Floor Rugs.....	4,038	8,136	2,580	1,148	2,190
Bagging (Jute and Hessian).....	20,277	96,050	84,500	111,215*	114,237
EXPORTS.					
TOTAL EXPORTS.....	£ 60,928	£ 9,498,283	£ 1,234,252	£ 316,163	£ 212,963
SOUTH AFRICAN PRODUCE..	58,285	9,492,527	1,232,282	311,132	208,106
Coal (Cargo).....	55,804	135,070	29,829	22,607	11,563
Wattle Bark.....	—	83,090	67,788	117,656	111,370
Gold Specie.....	—	3,163,725	816,548	—	—
Gold Bullion.....	140	5,969,778	272,906	—	—
Coke and Patent Fuel.....	—	13,311	12,138	14,212	1,412
Silver Bullion.....	—	112,030	19,369	—	—

* Amended figure.

ANALYSIS OF TRADE BETWEEN THE UNION AND CERTAIN OTHER COUNTRIES—*(continued)*.

(xxv) CEYLON.

Classification.	Average: 1910–14.	Average: 1925–29.	Average: 1930–34.	1937.	1938.
IMPORTS.					
TOTAL IMPORTS.....	£ 192,383	£ 720,324	£ 521,042	£ 754,214	£ 738,501
Tea.....	173,400	620,182	447,286	622,575	651,337
Oil, Coconut.....	3,497	49,992	50,929	86,230	49,460
EXPORTS.					
TOTAL EXPORTS.....	£ 23,068	£ 619,751	£ 199,098	£ 56,132	£ 71,157
SOUTH AFRICAN PRODUCE..	22,096	619,391	198,858	55,701	70,898
Coal (Cargo).....	21,641	187,744	68,061	51,575	65,432
Guano.....	—	29,719	13,338	1,618	3,620
Gold Specie.....	—	400,200	115,800	—	—

(xxvi) BRITISH MALAYA.*

Classification.	Average: 1910–14.	Average: 1925–29.	Average: 1930–34.	1937.	1938.
EXPORTS.					
TOTAL EXPORTS.....	£ 170,757	£ 787,705	£ 182,687	£ 104,961	£ 106,030
SOUTH AFRICAN PRODUCE..	167,714	775,678	181,714	103,722	104,704
Tin Ore.....	156,116	250,938	95,382	67,253	26,226
Coal (Cargo).....	11,520	140,956	60,515	31,340	70,992
Gold Specie.....	—	381,820	24,300	—	—

(xxvii) CHINA.

Classification.	Average: 1910–14.	Average: 1925–29.	Average: 1930–34.	1937.	1938.
IMPORTS.					
TOTAL IMPORTS.....	£ 46,308	£ 80,910	£ 78,723	£ 253,840	£ 167,387
Rice (including Paddy).....	11,894	8,664	2,154	714	116
Silk Manufactures (Piece Goods)	4,295	9,370	9,961	24,032	17,030

(xxviii) JAPAN.

Classification.	Average: 1910–14.	Average: 1925–29.	Average: 1930–34.	1937.	1938.
IMPORTS.					
TOTAL IMPORTS.....	£ 99,678	£ 1,128,594	£ 1,904,014	£ 3,869,225	£ 2,785,359
Silk Manufactures.....	27,238	568,450	479,450	381,304	252,895
Cotton Manufactures.....	24,114	321,929	457,827	679,582	517,792
Glass and Glassware.....	76	14,105	21,320	45,252	38,888
Toys and Fancy Goods.....	5,816	14,894	34,541	91,507	55,040
Wood (Unmanufactured—Oak)	588	39,105	27,657	27,356	17,454
EXPORTS.					
TOTAL EXPORTS.....	£ 1,041	£ 105,068	£ 194,276	£ 3,310,895	£ 412,401
SOUTH AFRICAN PRODUCE..	46	98,439	192,570	3,308,466	404,945
Wool (in Grease).....	—	11,502	94,743	3,010,675	221,709
Wool (Scoured).....	—	1,498	656	16,843	—
Bark (Wattle).....	—	68,604	51,035	63,054	92,238

* Formerly Straits Settlements.

ANALYSIS OF TRADE BETWEEN THE UNION AND CERTAIN OTHER COUNTRIES—(*continued*).

(xxii) BRAZIL.

Classification.	Average: 1910–14.	Average: 1925–29.	Average: 1930–34.	1937.	1938.
IMPORTS.					
TOTAL IMPORTS.....	£ 585,079	£ 923,436	£ 411,709	£ 309,080	£ 291,262
Coffee (Raw).....	573,634	904,356	377,710	220,986	203,730

(xxiii) CHILE.

Classification.	Average: 1910–14.	Average: 1925–29.	Average: 1930–34.	1937.	1938.
IMPORTS.					
TOTAL IMPORTS.....	£ 220,742	£ 214,494	£ 53,601	£ 31,886	£ 34,257
Nitrates for Manufacturing Purposes.....	217,287	205,785	52,144	31,193	32,045

(xxiv) INDIA.

Classification.	Average: 1910–14.	Average: 1925–29.	Average: 1930–34.	1937.	1938.
IMPORTS.					
TOTAL IMPORTS.....	£ 1,007,331	£ 2,636,224	£ 1,489,788	£ 1,944,223	£ 1,544,875
Rice (including Paddy).....	280,896	432,153	246,327	290,592	226,437
Tea.....	42,366	185,104	61,252	38,071	39,754
Food and Drink (N.O.D.).....	81,538	129,570	76,947	91,256	209,647
Wood (Unmanufactured—Teak)	64,317	166,355	62,239	127,697	4,258
Cotton Manufactures.....	8,091	44,078	17,669	22,420	25,989
Apparel and Slops.....	15,949	76,321	44,791	47,557	55,181
Bags (Coal, Grain, Sugar, and Wool).....	350,733	1,169,322	649,377	833,631	586,257
Wax (Paraffin).....	33,818	165,837	153,020	210,169	142,868
Carpets and Floor Rugs.....	4,038	8,136	2,580	1,148	2,190
Bagging (Jute and Hessian).....	20,277	96,050	84,500	111,215*	114,237
EXPORTS.					
TOTAL EXPORTS.....	£ 60,928	£ 9,498,283	£ 1,234,252	£ 316,163	£ 212,963
SOUTH AFRICAN PRODUCE..	58,285	9,492,527	1,232,282	311,132	208,106
Coal (Cargo).....	55,804	135,670	29,829	22,607	11,563
Wattle Bark.....	—	83,690	67,788	117,655	111,370
Gold Specie.....	—	3,163,725	816,548	—	—
Gold Bullion.....	140	5,969,778	272,906	—	—
Coke and Patent Fuel.....	—	13,311	12,138	14,212	1,412
Silver Bullion.....	—	112,030	19,369	—	—

* Amended figure.

ANALYSIS OF TRADE BETWEEN THE UNION AND CERTAIN OTHER COUNTRIES—(*continued*).

(xxv) CEYLON.

Classification.	Average: 1910–14.	Average: 1925–29.	Average: 1930–34.	1937.	1938.
IMPORTS.					
TOTAL IMPORTS.....	£ 192,383	£ 720,324	£ 521,042	£ 754,214	£ 738,801
Tea.....	173,400	620,182	447,286	622,575	651,337
Oil, Coconut.....	3,497	49,992	50,929	86,230	49,460
EXPORTS.					
TOTAL EXPORTS.....	£ 23,068	£ 619,751	£ 199,098	£ 56,132	£ 71,157
SOUTH AFRICAN PRODUCE..	22,696	619,391	198,858	55,701	70,898
Coal (Cargo).....	21,641	187,744	68,061	51,575	65,432
Guano.....	—	29,719	13,338	1,618	3,620
Gold Specie.....	—	400,200	115,800	—	—

(xxvi) BRITISH MALAYA.*

Classification.	Average: 1910–14.	Average: 1925–29.	Average: 1930–34.	1937.	1938.
EXPORTS.					
TOTAL EXPORTS.....	£ 170,757	£ 787,705	£ 182,637	£ 104,961	£ 106,030
SOUTH AFRICAN PRODUCE..	167,714	775,678	181,714	103,722	104,704
Tin Ore.....	156,116	250,933	95,382	67,253	26,226
Coal (Cargo).....	11,520	140,956	60,515	31,340	70,992
Gold Specie.....	—	381,820	24,300	—	—

(xxvii) CHINA.

Classification.	Average: 1910–14.	Average: 1925–29.	Average: 1930–34.	1937.	1938.
IMPORTS.					
TOTAL IMPORTS.....	£ 46,308	£ 80,910	£ 78,723	£ 253,840	£ 167,337
Rice (including Paddy).....	11,894	8,664	2,154	714	116
Silk Manufactures (Piece Goods)	4,295	9,370	9,961	24,032	17,030

(xxviii) JAPAN.

Classification.	Average: 1910–14.	Average: 1925–29.	Average: 1930–34.	1937.	1938.
IMPORTS.					
TOTAL IMPORTS.....	£ 99,678	£ 1,128,594	£ 1,904,014	£ 3,869,225	£ 2,785,359
Silk Manufactures.....	27,238	563,459	479,450	381,304	252,895
Cotton Manufactures.....	24,114	321,929	457,827	679,582	517,792
Glass and Glassware.....	76	14,105	21,320	45,252	38,888
Toys and Fancy Goods.....	5,816	14,894	34,541	91,507	55,040
Wood (Unmanufactured—Oak)	588	39,105	27,657	27,356	17,454
EXPORTS.					
TOTAL EXPORTS.....	£ 1,041	£ 105,068	£ 194,276	£ 3,310,895	£ 412,401
SOUTH AFRICAN PRODUCE..	46	98,439	192,570	3,308,466	404,945
Wool (in Grease).....	—	11,502	94,743	3,010,675	221,709
Wool (Scoured).....	—	1,498	656	16,843	—
Bark (Wattle).....	—	68,604	51,035	63,054	92,238

* Formerly Straits Settlements.

ANALYSIS OF TRADE BETWEEN THE UNION AND CERTAIN OTHER COUNTRIES—(*continued*).

(xxix) NETHERLANDS INDIES.*

Classification.	Average: 1910–14.	Average: 1925–29.	Average: 1930–34.	1937.	1938.
IMPORTS.					
	£	£	£	£	£
TOTAL IMPORTS.....	105,440	641,741	800,391	1,510,856	1,227,116
Motor Spirit.....	46,025	436,640	504,090	414,408	480,863
Other Mineral Oils.....	6,045	48,301	107,234	258,269	227,699
Wax (Paraffin).....	60	48,535	21,966	32,913	43,872
Tea.....	74	41,905	49,257	102,901	152,054
EXPORTS.					
	£	£	£	£	£
TOTAL EXPORTS.....	2,991	539,535	86,076	88,313	53,713
SOUTH AFRICAN PRODUCE..	2,975	539,442	85,664	87,757	53,252
Coal (Cargo).....	2,916	177,808	63,583	77,363	43,476
Gold Coin.....	—	361,356	16,000	—	—

* Formerly Dutch East India Islands.

8. **Trade Routes through Union Ports.**—The following tables give particulars as to the value of overseas trade passing through the various ports of the Union and the percentage in each case of the total value of imports and exports passing through the ports since 1910:—

(i) VALUE OF IMPORTS THROUGH VARIOUS PORTS AND ROUTES FROM 1910 (INCLUDING GOVERNMENT STORES, BUT EXCLUDING SPECIE).

Port or Route.	Average: 1910–14.	Average: 1925–29.	Average: 1930–34.	1936.	1937.	1938.
	£	£	£	£	£	£
Capetown.....	7,151,024	16,142,723	11,625,747	17,317,412	21,370,836	20,481,908
(Parcel Post).	696,770	2,811,915	1,848,041	1,975,152	2,108,104	2,071,276
Port Elizabeth.....	8,856,621	16,792,108	11,661,184	19,541,904	23,293,707	20,396,041
East London.....	4,261,466	7,393,163	4,045,322	6,979,482	7,959,624	8,319,287
Durban.....	11,354,719	23,206,972	16,442,887	29,869,228	36,306,381	33,198,374
Other Ports and Routes.	581,288	550,771	386,941	689,988	999,656	1,029,857
From Southern Rhodesia	90,444	1,863,331	887,728	497,070	640,722	572,250
From Northern Rhodesia	8,112	136,973	98,259	323,387	351,374	292,282
From South West Africa	—	686,470	532,515	662,067	662,984	760,609
Via Union Ports..	33,000,444	69,584,426	47,528,624	77,855,690	93,693,388	87,121,944
Via Delagoa Bay..	4,934,661	5,954,377	5,582,636	8,426,376	9,674,377	8,736,782
TOTAL.....£	37,935,105	75,538,803	53,111,260	86,282,066	103,367,765	95,858,726

(ii) VALUE OF EXPORTS THROUGH VARIOUS PORTS AND ROUTES FROM 1910 (INCLUDING SHIPS' STORES AND PARCEL POST. GOLD SPECIE INCLUDED FROM 1925).

Port or Route.	Average: 1910–14.	Average: 1925–29.	Average: 1930–34.	1936.	1937.	1938*.
	£	£	£	£	£	£
Capetown.....	42,064,806	49,382,161	59,417,120	90,193,760	92,638,608	53,059,153
Port Elizabeth.....	3,679,766	7,170,846	3,658,672	5,763,071	6,553,188	4,672,079
East London.....	2,067,275	6,478,736	2,881,228	3,278,252	3,999,286	2,351,480
Durban.....	4,603,832	23,461,762	9,094,314	8,413,528	13,464,470	9,486,091
Other Ports and Routes	1,629,663	600,133	460,089	1,017,313	736,978	230,545
To Southern Rhodesia..	1,298,393	2,613,065	1,874,111	1,754,533	2,059,301	2,261,242
To Northern Rhodesia..	77,524	563,725	815,271	559,954	1,002,859	1,055,847
To South West Africa..	—	1,511,448	956,020	1,318,015	1,658,069	1,657,493
Via Union Ports.....	55,421,259	92,021,876	79,156,825	112,208,476	122,142,759	81,333,960
Via Delagoa Bay.....	600,848	1,170,517	1,148,399	1,471,594	3,237,451	3,836,361
TOTAL.....£	56,022,107	93,192,393	80,305,224	113,770,070	125,380,210	85,170,321

* Gold earmarked, to the value of £20,714,902, not included.

(iii) PERCENTAGE VALUE OF IMPORTS VIA VARIOUS PORTS AND ROUTES FROM 1910 (INCLUDING GOVERNMENT STORES, BUT EXCLUDING SPECIE).

Port or Route.	Average: 1910–14.	Average: 1925–29.	Average: 1930–34.	1936.	1937.	1938.
Capetown.....	18·85	21·39	21·89	20·07	20·68	21·37
(Parcel Post).....	1·84	3·71	3·48	2·29	2·04	2·16
Port Elizabeth.....	23·35	22·18	21·96	22·65	22·53	21·28
East London.....	11·23	9·79	7·62	8·09	7·70	8·68
Durban.....	29·93	30·80	30·96	34·62	35·12	34·63
Other Ports and Routes.....	1·53	0·73	0·73	0·80	0·97	1·07
From Southern Rhodesia.....	0·24	2·43	1·67	0·57	0·62	0·60
From Northern Rhodesia.....	0·02	0·18	0·18	0·37	0·34	0·30
From South West Africa.....	—	0·91	1·00	0·77	0·64	0·79
Via Union Ports.....	86·99	92·12	89·49	90·23	90·64	90·88
Via Delagoa Bay.....	13·01	7·88	10·51	9·77	9·36	9·12
TOTAL.....	100·00	100·00	100·00	100·00	100·00	100·00

(iv) PERCENTAGE VALUE OF EXPORTS THROUGH VARIOUS PORTS FROM 1910 (INCLUDING SHIPS' STORES AND PARCEL POST. GOLD SPECIE INCLUDED FROM 1925).

Port or Route.	Average: 1910–14.	Average: 1925–29.	Average: 1930–34.	1936.	1937.	1938.
Capetown.....	75·09	52·99	73·99	79·28	73·89	69·34
Port Elizabeth.....	6·57	7·05	4·56	5·07	5·23	5·49
East London.....	3·69	6·95	3·59	2·88	3·19	3·35
Durban.....	8·22	25·18	11·32	7·40	10·74	11·14
Other Ports and Routes.....	2·90	0·64	0·57	0·89	0·59	0·29
To Southern Rhodesia.....	2·32	2·80	2·33	1·54	1·66	2·66
To Northern Rhodesia.....	0·14	0·61	1·02	0·49	0·80	1·27
To South West Africa.....	—	1·62	1·19	1·16	1·32	1·96
Via Union Ports.....	98·93	98·74	98·57	98·71	97·42	95·50
Via Delagoa Bay.....	1·07	1·26	1·43	1·29	2·58	4·50
TOTAL.....	100·00	100·00	100·00	100·00	100·00	100·00

9. **Movements of Specie and Gold Bullion.**—The subjoined tables give particulars as to the imports and exports of specie and gold bullion into and from the Union during a series of years. The information is taken from advices furnished monthly by the banks, after comparison with the movements of coin recorded on customs documents.

(i) VALUE OF IMPORTS OF SPECIE AND GOLD BULLION, 1912 TO 1938.

Year.	Total Gold.	Gold Bullion.	Gold Specie.	Silver Specie.	Copper Specie.	Total Specie.
	£	£	£	£	£	£
1912	858,625	—	858,625	143,765	3,860	1,006,250
1913	896,550	—	896,550	70,686	1,000	968,236
1914	970,123	—	970,123	66,067	700	1,036,890
1915	2,006,016	—	2,006,016	15,179	1,630	2,022,825
1916	706,972	—	706,972	75,330	2,734	785,036
1917	1,476,714	—	1,476,714	406,755	5,873	1,889,342
1918	1,722,854	—	1,722,854	329,769	6,854	2,059,477
1919	1,967,085	—	1,967,085	353,697	6,625	2,327,407
1920	3,541,141	—	3,541,141	548,282	10,580	4,100,003
1921	1,000	—	1,000	394,221	5,800	401,021
1922	36,385	64	36,321	106,387	1,213	143,921
1923	2,084	54	2,030	20,252	39	22,321
1924	—	—	—	79,231	33	79,264
1925	1,227	491	736	7,975	7	8,718
1926	718,448	567,084	151,364	9,267	17	160,648
1927	1,270,667	1,216,388	54,279	4,249	—	58,528
1928	1,366,610	1,348,185	18,425	7,622	21	26,068
1929	1,354,560	1,353,159	1,401	4,856	1	6,258
1930	1,207,121	1,197,178	9,943	11,249	—	21,192
1931	1,013,184	983,096	30,088	39,779	16	69,883
1932	123,373	5,607	117,766	22,419	—	140,185
1933	208,148	17,719	190,429	68,837	49	259,315
1934	105,172	60,887	44,285	25,007	54	69,346
1935	187,303	168,220	19,083	25,029	23	44,135
1936	79,438	67,456	11,982	10,027	9	22,018
1937	89,555	86,049	3,506	12,323	32	15,861
1938	258,289	246,368	11,921	16,243	27	28,191

(ii) VALUE OF EXPORTS OF SPECIE AND GOLD BULLION, 1912 TO 1938.

Year.	Total Gold.	Gold Bullion.	Gold Specie.	Silver Specie.	Copper Specie.	Total Specie.
	£	£	£	£	£	£
1912	38,629,643	38,362,254	267,389	31,135	—	298,524
1913	37,682,220	37,597,142	85,078	5,098	12	90,188
1914	20,802,706	20,545,198	257,508	32,161	2	289,671
1915	18,327,107	18,152,992	174,115	20,259	8	194,382
1916	39,837,466	39,693,313	144,153	42,889	50	187,092
1917	60,002,790	59,910,191	92,599	60,686	20	153,305
1918	35,311,906	35,230,528	81,468	141,425	60	222,953
1919	51,573,772	51,560,519	18,253	29,930	63	48,246
1920	46,809,390	46,776,046	33,344	67,284	175	100,803
1921	42,989,451	42,989,451	—	115,841	5	115,846
1922	31,844,882	31,844,882	—	72,120	137	72,257
1923	41,753,022	41,753,022	—	313,524	300	313,824
1924	44,261,160	44,238,095	23,065	52,017	146	75,228
1925	41,363,689	34,351,294	7,012,395	59,405	200	7,072,000
1926	43,222,651	33,137,221	10,085,430	150,325	1,290	10,237,045
1927	44,898,989	28,604,691	16,294,298	117,618	90	16,412,006
1928	44,198,818	25,817,542	18,381,276	80,216	121	18,461,613
1929	46,377,752	35,891,060	10,486,692	94,636	120	10,581,448
1930	47,521,926	37,094,198	10,427,728	37,540	517	10,465,785
1931	46,119,416	38,970,917	7,148,499	9,950	300	7,158,749
1932	48,523,507	47,607,963	915,544	105,350	130	1,021,024
1933	69,941,144	68,123,201	1,817,943	112,819	331	1,931,093
1934	56,276,788	56,182,905	93,883	111,157	—	205,040
1935	71,572,474	71,479,483	92,991	113,956	100	207,047
1936	82,783,209	81,902,253	880,956	763,926	120	1,645,002
1937	82,963,880	82,912,899	50,981	35,100	300	86,381
1938	73,407,732	68,853,184*	4,554,548	13,782	100	4,568,430

* Includes gold earmarked, to the value of £20,714,902.

(iii) QUANTITY OF GOLD BULLION AND GOLD SPECIE IMPORTED AND EXPORTED, 1930 TO 1938.

Year.	Imports.			Exports.		
	Bullion.	Specie.	Total.	Bullion.	Specie.	Total.
	oz.	oz.	oz.	oz.	oz.	oz.
1930–34 (Average)*	1,551	14,860	16,411	9,662,212	933,107	10,595,319
1935	24,174	2,690	26,864	10,081,892	13,160	10,095,052
1936	9,794	1,709	11,503	11,681,059	126,798	11,807,857
1937	12,245	500	12,745	11,791,925	7,252	11,799,177
1938	34,076	1,613	35,689	9,681,360†	648,375	10,329,735

* For annual figures see Official Year Book No. 19.
† Includes gold earmarked, 2,821,207 fine ounces.

§ 4. General Features of the External Trade.

1. **Vessels Entered at Union Ports, 1937 and 1938.**—The tonnage of vessels entered at Union ports in 1938 was 4 per cent. more than in 1937. The cargo landed showed a decrease of 5 per cent. compared with that of 1937. The percentage of British tonnage decreased from 63·85 per cent. in 1937 to 62·23 per cent. of the whole in 1938.

NUMBER AND TONNAGE OF OVERSEAS VESSELS ENTERED AT UNION HARBOURS AND TONNAGE OF CARGO LANDED AND SHIPPED, 1937 AND 1938.

Nationality.	Number of Vessels.		Tonnage of Vessels.		Cargo Landed.		Cargo Shipped.*	
	1937.	1938.	1937.	1938.	1937.	1938.	1937.	1938.
	No.	No.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
British	1,379	1,381	5,728,310	5,783,930	3,116,819	3,000,274	3,403,398	2,733,887
American	90	82	371,811	346,015	272,954	210,682	99,192	87,706
Danish	17	12	43,665	34,265	38,688	34,494	26,979	3,753
Dutch	136	111	523,716	478,619	346,863	359,099	292,997	236,339
German	118	120	570,863	609,558	328,984	268,370	285,465	273,366
Italian	57	54	346,639	366,057	103,562	96,182	157,751	93,440
Japanese	87	62	425,216	329,669	132,274	89,065	215,203	120,624
Norwegian	127	131	461,259	553,408	414,744	517,096	92,504	70,016
Portuguese	40	46	184,491	216,212	—	—	8,626	1,971
Swedish	64	62	165,662	152,171	167,487	114,662	112,244	57,110
Other Foreign	48	130	149,204	418,792	152,124	132,380	154,858	302,962
TOTAL	2,163	2,191	8,970,836	9,293,696	5,074,499	4,822,310	4,849,217	3,982,479
	%	%	%	%	%	%	%	%
British	63·75	63·03	63·85	62·23	61·42	62·22	70·18	68·65
American	4·16	3·74	4·15	3·72	5·38	4·37	2·05	2·20
Danish	0·79	0·55	0·49	0·37	0·76	0·72	0·56	0·09
Dutch	6·29	5·07	5·84	5·15	6·84	7·45	6·04	5·95
German	5·46	5·48	6·36	6·56	6·48	5·56	5·89	6·86
Italian	2·63	2·46	3·86	3·94	2·04	1·99	3·25	2·35
Japanese	4·02	2·83	4·74	3·55	2·61	1·85	4·44	3·03
Norwegian	5·87	5·98	5·14	6·01	8·17	10·72	1·91	1·78
Portuguese	1·85	2·10	2·06	2·32	—	—	0·18	0·05
Swedish	2·96	2·83	1·85	1·64	3·30	2·38	2·31	1·43
Other Foreign	2·22	5·93	1·66	4·51	3·00	2·74	3·19	7·61

* Including bunker coal.

2. **Decrease in Imports of Various Foodstuffs.**—The following table shows the extent to which certain articles of food were imported during the years before the war, and the reduction which took place in the importation of such articles in subsequent years.

IMPORTS OF VARIOUS ARTICLES OF FOOD FROM 1910 (INCLUDING IMPORTS FOR GOVERNMENT AND IMPORTS FROM RHODESIA AND SOUTH WEST AFRICA).

Year.	Cheese.	Eggs.	Frozen Beef.	Frozen Mutton.	Sugar.	Jams.
Average:	1,000 lb.	Value, £.	1,000 lb.	1,000 lb.	1,000 lb.	1,000 lb.
1910–14	5,129	62,772	5,987	2,356	55,318	1,986
1915–19	1,478	3,887	9	41	19,465	505
1920–24	601	2,597	44	471	13,637	702
1925–29	531	7,094	70	59	20,620	417
1930–34	395	3,413	354	19	7,859	379
Year:						
1934	382	7,859	920	96	3,816	403
1935	433	4,401	514	58	2,277	421
1936	469	5,097	26	58	2,069	573
1937	625	4,295	18	64	2,808	696
1938	732	4,099	11	63	3,417	545

3. **Principal Exports since 1914.**—The succeeding tables give comparisons in respect of some of the principal articles of South African produce, showing in each case the quantity exported, the recorded value, the value assessed at the 1909 price, the value assessed at the previous year's price, showing gain or loss, together with an index number calculated upon the average price for the years 1909 to 1913 (=1000). The figures for the years 1929 to 1934 exclude removals to Rhodesia and South West Africa and ships' stores. From 1935, the figures represent total exports of South African produce.

PRINCIPAL EXPORTS OF SOUTH AFRICAN PRODUCE, 1914 AND 1929 TO 1938—QUANTITY, VALUE ON DIFFERENT BASES, AND INDEX NUMBERS.

Year.	Quantity.	Actual Value Recorded.	Assessed Value at 1909 Price.	Assessed Value at Previous Year's Price.	Gain or Loss (−) Compared with 1909 Price.	Gain or Loss (−) Compared with Previous Year's Price.	Export Unit Value.	Index Number of Export Unit Value. (1909–13 =1000.)
(i) COAL (CARGO).								
	Tons.	£	£	£	£	£	Per ton. s. d.	
1914...	651,210	236,008	337,576	256,714	−101,568	−20,706	7 3	790
1929...	1,832,249	940,117	949,806	989,275	− 9,689	−49,158	10 3·1	1118
1930...	1,405,328	698,004	728,497	721,067	−30,493	−23,063	9 11·2	1082
1931...	1,049,151	496,266	543,861	521,097	−47,595	−24,831	9 5·5	1031
1932...	720,236	290,727	373,358	340,684	−82,631	−49,957	8 0·9	880
1933...	877,601	395,015	454,933	354,248	−59,018	41,667	9 0·3	983
1934...	1,034,415	451,296	536,223	466,659	−84,927	−15,363	8 8·7	951
1935...	1,272,780	560,936	650,787	555,290	−98,851	5,646	8 9·7	961
1936...	1,178,041	530,201	610,676	519,183	−80,385	11,108	9 0·4	981
1937...	887,662	407,460	460,148	399,578	−52,688	7,882	9 2·2	1000
1938...	993,129	491,759	514,821	455,872	−23,062	35,887	9 10·8	1079
(ii) COAL (BUNKER).								
	Tons.	£	£	£	£	£	Per ton. s. d.	
1914...	1,343,240	1,000,521	966,180	973,591	34,341	26,930	14 10·8	1028
1929...	1,735,029	1,810,351	1,247,999	1,844,620	562,352	−34,269	20 10·4	1439
1930...	1,463,529	1,539,280	1,052,710	1,527,065	486,570	12,215	21 0·4	1451
1931...	1,010,274	1,058,150	731,002	1,068,875	327,157	−10,716	20 9·9	1436
1932...	751,249	665,430	540,370	782,211	125,060	−116,781	17 8·6	1222
1933...	911,053	795,444	655,317	806,979	140,127	−11,535	17 5·5	1204
1934...	994,991	843,475	715,603	868,731	127,782	−25,256	16 11·5	1169
1935...	1,187,696	999,154	854,305	1,006,835	144,849	− 7,681	16 9·9	1161
1936...	1,365,276	1,123,790	982,037	1,148,544	141,753	−24,754	16 5·5	1136
1937...	1,260,603	1,078,629	906,746	1,037,031	171,883	40,998	17 1·4	1180
1938...	1,258,139	1,172,304	904,974	1,076,521	267,330	95,783	18 7·6	1285

PRINCIPAL EXPORTS OF SOUTH AFRICAN PRODUCE, 1914 AND 1929 TO 1938—QUANTITY, VALUE ON DIFFERENT BASES, AND INDEX NUMBERS—(*continued*).

Year.	Quantity.	Actual Value Recorded.	Assessed Value at 1909 Price.	Assessed Value at Previous Year's Price.	Gain or Loss (−) Compared with 1909 Price.	Gain or Loss (−) Compared with Previous Year's Price.	Export Unit Value.	Index Number of Export Unit Value. (1909–13 =1000.)
(iii) DIAMONDS (UNCUT).								
	Carats.	£	£	£	£	£	Per carat. s. d.	
1914...	2,880,332	5,512,910	3,711,431	6,288,600	1,801,488	−775,681	38 3·4	1087
1929...	2,776,699	10,751,126	3,577,896	6,069,342	7,173,230	3,781,784	77 5·3	2200
1930...	1,526,398	4,057,638	1,966,829	5,910,074	2,090,809	−1,852,436	53 2·0	1510
1931...	1,725,185	2,744,150	2,222,975	4,586,075	521,175	−1,841,925	31 9·8	904
1932...	773,965	1,176,204	997,287	1,231,100	178,917	− 54,896	30 4·7	863
1933...	455,811	991,540	587,332	692,701	404,208	298,839	43 6·1	1236
1934...	1,200,108	1,917,618	1,546,391	2,610,633	371,227	−693,015	31 11·5	908
1935...	2,450,662	2,091,111	3,169,380	3,930,223	−1,078,269	−1,839,062	17 0·4	483
1936...	1,002,603	2,509,114	1,291,897	852,387	1,217,217	1,656,727	50 0·6*	1422
1937...	837,916	2,254,516	1,070,691	2,096,968	1,174,825	157,548	53 9·7	1529
1938...	598,439	1,499,353	771,114	1,610,174	728,239	−110,821	50 1·3	1423
(iv) OSTRICH FEATHERS.								
	lb.	£	£	£	£	£	Per lb. s. d.	
1914...	755,325	1,342,717	2,003,897	2,180,106	−661,180	−837,389	35 6·6	639
1929...	77,065	42,954	204,455	30,546	−161,501	12,408	11 1·8	200
1930...	86,539	42,478	229,590	48,235	−187,112	− 5,757	9 9·8	176
1931...	80,595	43,969	213,821	39,560	−169,852	4,409	10 10·9	196
1932...	47,485	21,712	125,979	25,906	−104,267	− 4,194	9 1·7	164
1933...	84,298	37,790	223,645	38,544	−185,855	− 754	8 11·6	161
1934...	69,922	42,373	238,565	40,311	−196,192	2,062	9 5·1	169
1935...	68,952	28,252	182,931	32,492	−154,679	− 4,240	8 2·3	147
1936...	59,668	28,200	158,301	24,448	−130,101	3,752	9 5·4	170
1937...	68,856	28,756	182,677	32,542	−153,921	− 3,786*	8 4·2	150
1938...	64,252	30,240	170,462	26,833	−140,222	3,407	9 5·0	169
(v) MOHAIR.								
	lb.	£	£	£	£	£	Per lb. s. d.	
1914...	18,865,743	831,202	827,290	952,484	6,912	−118,282	0 10·6	971
1929...	10,038,287	643,032	440,193	943,564	202,839	−300,532	1 3·4	1406
1930...	6,873,656	295,300	301,420	440,312	− 6,120	−145,012	0 10·3	943
1931...	5,442,883	229,061	238,678	233,832	− 9,617	− 4,771	0 10·1	924
1932...	6,434,774	95,451	282,174	270,804	−186,723	−175,353	0 3·6	326
1933...	15,743,087	330,118	690,357	233,527	−360,239	96,591	0 5·0	460
1934...	6,477,842	177,707	284,063	135,834	−106,356	41,873	0 6·6	602
1935...	10,628,782	361,486	466,087	291,580	−104,601	69,906	0 8·2	747
1936...	6,341,602	427,265	278,088	215,679	149,177	211,586	1 4·2	1479
1937...	4,560,583	476,382	199,988	307,269	276,394	169,113	2 1·1	2293
1938...	5,111,205	353,949	224,134	533,898	129,815	−179,949	1 4·6	1520
(vi) HIDES (OX AND COW).								
	lb.	£	£	£	£	£	Per lb. s. d.	
1914...	14,673,065	544,050	391,823	548,132	152,227	− 4,082	0 8·9	1185
1929...	32,639,490	1,123,798	873,909	1,682,442	249,889	−558,644	0 8·3	1101
1930...	33,185,060	759,226	888,516	1,142,582	−129,290	−383,356	0 5·5	731
1931...	21,978,404	393,436	588,463	502,533	−105,027	−109,097	0 4·3	572
1932...	18,570,204	252,701	497,210	332,426	−244,509	− 79,725	0 3·3	435
1933...	23,652,120	444,785	633,276	321,855	−188,491	122,930	0 4·5	601
1934...	28,280,840	487,675	757,208	531,829	−269,533	− 44,154	0 4·1	551
1935...	24,350,438	481,212	651,973	410,899	−170,761	61,313	0 4·7	632
1936...	30,243,308	655,260	809,752	597,665	−154,492	57,595	0 5·2	693
1937...	27,810,562	845,979	744,616	602,552	101,363	243,427	0 7·3	972
1938...	18,594,243	433,809	497,853	565,024	− 64,044	−131,815	0 5·6	746

* Amended figure.

PRINCIPAL EXPORTS OF SOUTH AFRICAN PRODUCE, 1914 AND 1929 TO 1938—QUANTITY, VALUE ON DIFFERENT BASES, AND INDEX NUMBERS—(*continued*).

Year.	Quantity.	Actual Value Recorded.	Assessed Value at 1909 Price.	Assessed Value at Previous Year's Price.	Gain or Loss (−) Compared with 1909 Price.	Gain or Loss (−) Compared with Previous Year's Price.	Export Unit Value.	Index Number of Export Unit Value. (1909–13 =1000.)
			(vii) SHEEP SKINS.					
	lb.	£	£	£	£	£	Per lb. s. d.	
1914.	30,353,731	753,273	765,469	832,697	47,804	−85,424	0 6·0	992
1929.	35,404,000	1,573,159	822,845	1,816,038	750,314	−242,879	0 10·7	1776
1930.	37,704,298	1,047,982	876,308	1,075,372	171,674	−627,390	0 6·7	1111
1931.	31,271,010	655,354	740,754	885,873	−85,420	−230,539	0 4·0	822
1932.	38,373,592	471,642	891,863	789,018	−420,221	−317,376	0 2·9	491
1933.	47,497,192	1,030,717	1,163,910	583,770	−73,193	446,938	0 5·2	867
1934.	29,732,298	768,565	692,420	646,511	76,145	122,054	0 6·2	1031
1935.	34,708,726	797,439	806,656	885,395	−9,247	−97,956	0 5·5	918
1936.	32,502,860	1,021,005	755,418	740,760	265,587	274,245	0 7·5	1255
1937.	31,495,293	1,230,669	732,001	989,355	498,668	241,314	0 9·4	1561
1938.	32,688,252	731,720	759,727	1,277,284	21,909	−495,558	0 5·7	956
			(viii) MAIZE.					
	lb.	£	£	£	£	£	Per 200 lb. s. d.	
1914.	220,031,205	458,455	474,019	62,494	−35,564	375,961	7 11·6	955
1929.	728,960,543	2,311,542	1,570,561	2,231,513	740,981	80,029	12 8·2	1519
1930.	1,240,570,512	2,428,693	2,673,055	5,934,187	−244,362	−1,505,494	7 10·0	938
1931.	355,928,468	522,526	766,918	696,809	−244,392	−174,283	5 10·5	703
1932.	536,463,893	690,612	1,155,918	787,564	−465,306	−96,952	5 1·8	617
1933.	241,919,854	333,087	521,264	311,433	−188,177	21,654	5 6·1	660
1934.	500,501,996	1,021,134	1,078,431	689,116	−57,297	332,018	8 1·9	977
1935.	1,000,739,625	1,561,095	2,156,292	2,041,729	−595,197	−480,634	6 2·9	747
1936.	36,841,975	60,632	793,833	57,471	−733,801	2,561	6 6·2	781
1937.	1,712,434,930	3,198,316	3,689,780	2,790,320	−491,464	407,996	7 5·6	895
1938.	442,387,993	965,463	953,213	826,248	12,250	139,215	8 8·8	1016
			(ix) MEATS.					
	lb.	£	£	£	£	£	Per lb. s. d.	
1914.	640,353	15,104	13,786	18,880	1,318	− 3,776	0 5·7	979
1929.	26,637,665	340,076	573,463	306,530	−233,387	−56,454	0 3·1	530
1930.	31,351,079	377,110	674,934	400,251	−297,824	−23,141	0 2·9	499
1931.	22,895,933	267,218	490,972	274,324	−223,754	− 7,106	0 2·8	487
1932.	16,836,810	182,992	362,467	197,278	−179,475	−14,286	0 2·6	451
1933.	24,148,174	295,913	519,868	202,456	−223,955	33,457	0 2·9	509
1934.	6,567,992	70,505	141,308	80,485	−70,803	− 9,980	0 2·6	446
1935.	15,283,158	187,758	328,589	163,845	−140,831	23,913	0 3·0	511
1936.	22,990,372	307,276	494,943	282,814	−187,667	24,462	0 3·2	555
1937.	18,391,995	275,846	395,048	245,817	−120,102	30,029	0 3·6	623
1938.	5,121,059	105,470	110,248	76,806	−4,778	28,664	0 4·9	855
			(x) WOOL, SCOURED.					
	1,000 lb.	£	£	£	£	£	Per lb. s. d.	
1914.	4,323	328,073	230,589	318,997	97,484	9,076	1 6·2	1250
1929.	6,731	739,878	359,032	888,975	380,846	−149,097	2 2·4	1811
1930.	6,367	404,796	339,587	699,807	65,209	−295,011	1 3·3	1048
1931.	5,096	224,896	271,817	324,012	−46,921	−99,116	0 10·6	727
1932.	5,462	188,406	291,316	241,029	−102,910	−52,623	0 8·3	568
1933.	6,996	423,669	373,166	241,342	50,503	182,327	1 2·5	998
1934.	5,676	497,905	302,751	343,724	195,154	154,181	1 9·1	1445
1935.	8,590	591,462	458,192	753,543	133,270	−162,081	1 4·5	1135
1936.	7,572	590,908	403,878	521,351	187,030	69,557	1 6·7	1286
1937.	7,481	711,369	399,022	583,803	312,347	127,566	1 10·8	1567
1938.	7,156	495,406	387,673	680,440	113,733	−185,034	1 4·6	1141

PRINCIPAL EXPORTS OF SOUTH AFRICAN PRODUCE, 1914 AND 1929 TO 1938—QUANTITY, VALUE ON DIFFERENT BASES, AND INDEX NUMBERS—(*continued*).

Year.	Quantity.	Actual Value Recorded.	Assessed Value at 1909 Price.	Assessed Value at Previous Year's Price.	Gain or Loss (−) Compared with 1909 Price.	Gain or Loss (−) Compared with Previous Year's Price.	Export Unit Value.	Index Number of Export Unit Value. (1909–13 =1000.)
			(xi) WOOL IN THE GREASE.					
	1,000 lb.	£	£	£	£	£	Per lb. s. d.	
1914...	129,524	3,900,557	3,581,281	4,070,557	319,276	−170,000	0 7·2	1024
1929...	280,147	13,781,210	7,745,956	18,128,749	6,035,254	−4,347,539	0 11·8	1673
1930...	268,658	8,239,694	7,428,276	13,216,011	811,418	−4,976,317	0 7·4	1043
1931...	231,553	5,475,777	6,402,341	7,101,693	−926,564	−1,625,916	0 5·7	804
1932...	367,199	6,372,170	10,152,901	8,683,547	−3,780,731	−2,311,377	0 4·2	590
1933...	265,411	8,407,697	7,338,519	4,605,806	1,069,178	3,801,891	0 7·6	1077
1934...	184,131	7,585,769	5,091,135	5,832,882	2,494,625	1,752,878	0 9·9	1401
1935...	251,201	8,924,370	6,945,596	10,348,897	1,978,774	−1,424,527	0 8·5	1208
1936...	266,371	9,249,658	5,706,089	7,331,733	3,543,569	1,917,925	0 10·8	1524
1937...	229,834	11,934,202	6,354,832	10,301,281	5,579,370	1,632,921	1 0·5	1706
1938...	237,259	8,488,334	6,560,116	12,319,720	1,928,218	−3,831,386	0 8·6	1217

4. Variation of Export Values.—The following tables show the variation in the value of exports, divided into four categories: (i) living animals, (ii) produce of the land, (iii) produce of the mines (excluding gold), and (iv) other articles. Table (v) is a summary of the preceding four. Table (vi) is similarly a summary of the first four tables, with the addition of gold.

The second column in the tables shows the recorded values of exports, the third the values at the average 1909–13 prices. The last two columns show the index numbers (1) of the volume of exports, and (2) of the export values. About 98 per cent. of the exports are shown by quantities as well as values in the annual statements of the Customs Department. In the case of the remaining 2 per cent., where values only are recorded, changes of value have been applied proportional to the other articles in their appropriate class.

Particulars for earlier years were published in previous issues of the *Official Year Book*. A statement covering the period 1909 to 1929 appeared in No. 12.

VARIATIONS IN VOLUME AND VALUE OF EXPORTS (S.A. PRODUCE) FROM 1929.

(Including Ships' Stores but excluding Removals to Rhodesia and South West Africa.)

Year.	Recorded Value.	Value at 1909–13 Average.	Effect of Change of Price.		Index No. of Volume of Export (Average 1909–13 = 1000).	Index No. of Export Values (Average 1909–13 = 1000).
			Gain.	Loss.		
			(i) ANIMALS, LIVING.			
	£	£	£	£		
1929.....	21,452	14,554	6,898	—	365	1474
1930.....	20,328	19,929	399	—	500	1020
1931.....	13,401	12,607	794	—	316	1063
1932.....	10,732	10,419	313	—	261	1030
1933.....	5,720	6,217	—	497	156	920
1934.....	8,194	4,756	3,438	—	119	1723
1935.....	31,759	36,090	—	4,331	905	880
1936.....	11,385	7,238	4,147	—	182	1573
1937.....	11,765	6,617	5,118	—	167	1770
1938.....	11,860	8,202	3,658	—	206	1446

VARIATIONS IN VOLUME AND VALUE OF EXPORTS (S.A. PRODUCE), FROM 1929—*(continued)*.

Year.	Recorded Value.	Value at 1909–13 Average.	Effect of Change of Price.		Index No. of Volume of Export (Average 1909–13 = 1000).	Index No. of Export Values (Average 1909–13 = 1000).
			Gain.	Loss.		
	£	£	£	£		
(ii) PRODUCE OF THE LAND, AGRICULTURAL AND PASTORAL.						
1929	26,343,885	18,952,435	7,391,450	—	1855	1390
1930	19,867,818	20,782,236	—	914,418	2034	956
1931	12,816,882	16,223,901	—	3,407,019	1588	790
1932	13,373,392	22,288,987	—	8,915,595	2182	600
1933	16,901,009	19,054,125	—	2,153,116	1865	887
1934	16,108,075	15,139,168	963,907	—	1482	1064
1935	19,978,264	20,789,037	—	810,773	2035	961
1936	19,087,247	16,216,862	2,870,385	—	1587	1177
1937	28,141,036	22,405,283*	5,735,753*	—	2192*	1256*
1938	19,375,717	18,756,744	618,973	—	1836	1033
(iii) PRODUCE OF MINES, EXCLUDING GOLD.						
1929	16,472,014	8,947,319	7,524,695	—	837	1841
1930	9,304,364	6,708,265	2,596,099	—	627	1387
1931	6,484,110	7,236,730	—	752,620	677	896
1932	3,731,149	4,011,988	—	280,839	375	930
1933	4,332,735	4,004,376	328,359	—	374	1082
1934	5,213,068	5,260,412	—	47,344	492	991
1935	5,893,940	8,186,028	—	2,292,088	765	720
1936	6,495,269	5,453,626*	1,041,643*	—	510*	1191*
1937	7,197,892	5,428,275*	1,769,617*	—	508*	1326*
1938	6,174,067	4,959,090	1,214,977	—	464	1245
(iv) OTHER ARTICLES.						
1929	1,169,217	760,714	408,503	—	2439	1537
1930	1,195,603	825,123	370,480	—	2645	1449
1931	625,348	396,543	228,805	—	1271	1577
1932	543,254	317,321	225,933	—	1017	1712
1933	826,784	575,755	251,029	—	1846	1436
1934	617,220	281,864	235,356	—	904	1835
1935	622,415	377,221	245,194	—	1209	1650
1936	1,007,720	685,524	322,196	—	2198	1470
1937	1,387,710	1,014,408	373,302	—	3252	1368
1938	880,141	626,881	253,260	—	2010	1404
(v) SUMMARY OF TABLES (i) TO (iv).						
1929	44,006,568	28,675,022	15,331,546	—	1347	1535
1930	30,388,113	28,335,553	2,052,560	—	1331	1072
1931	19,939,741	23,869,781	—	3,930,040	1121	835
1932	17,658,527	26,628,715	—	8,970,188	1251	663
1933	22,066,248	23,640,473	—	1,574,225	1110	933
1934	21,846,557	20,686,200	1,160,357	—	971	1056
1935	26,526,378	29,388,376	—	2,861,998	1380	903
1936	26,601,021	22,363,250*	4,238,371*	—	1050*	1190*
1937	36,738,403	28,854,613*	7,883,790*	—	1355*	1273*
1938	26,441,785	24,350,917	2,090,868	—	1144	1086

* Amended figure.

VARIATIONS IN VOLUME AND VALUE OF EXPORTS (S.A. PRODUCE), FROM 1929—*(continued)*.

Year.	Recorded Value.	Value at 1909–13 Average.	Effect of Change of Price.		Index No. of Volume of Export (Average 1909–13 = 1000).	Index No. of Export Values (Average 1909–13 = 1000).
			Gain.	Loss.		
	£	£	£	£		
(vi) SUMMARY OF TABLES (i) TO (iv) INCLUDING GOLD AT STANDARD VALUE, ALL GOLD SPECIE AND VALUE OF GOLD PREMIUM.						
1929	90,383,819	75,052,273	15,331,546	—	1340	1204
1930	77,910,039	75,857,479	2,052,560	—	1355	1027
1931	66,059,157	69,989,197	—	3,930,040	1250	944
1932	66,182,034	75,152,222	—	8,970,188	1342	881
1933	92,007,392	71,357,437	20,649,955	—	1274	1289
1934	78,123,345	55,398,713	22,724,632	—	989	1410
1935	98,098,852	72,269,439	25,829,413	—	1290	1357
1936	109,384,830	72,519,885*	36,864,945*	—	1295*	1508*
1937	119,702,283	78,974,334*	40,727,949*	—	1410*	1516*
1938†	99,849,517	68,229,071	31,620,446	—	1218	1463

* Amended figure.
† Includes gold earmarked.

5. **Variation of Import Values.**—The following tables show the variation of the values of imports divided into three categories: (i) Food and Drink, (ii) Raw Materials, and (iii) Manufactured Articles. Table (iv) is a summary of the preceding three. As far as possible a method of calculation was pursued similar to that followed in the case of exports. As, however, only one-third of the imported articles have quantities as well as values recorded, investigation of other sources of information was necessary. Details of the exports from the United Kingdom to South Africa in the former's trade returns, which are more detailed as to quantities, were extracted and collated with the variations of wholesale prices. Assistance was given by the British Board of Trade. The final results, tabulated below, though not purporting to be absolutely correct, may be taken as substantially accurate. Owing to a considerable accumulation of additional information of a quantitative nature, calculations since 1926 have first been made with 1925 as a base, and then readjusted to the index numbers of that year in order to preserve the continuity of the tables. Confirmation of the limits between which the margin of error might lie is afforded by a comparison of the weight of overseas cargo landed at Union ports and the index of volume arrived at from the above calculation. The results are indicated hereunder. In the former case the year 1913 (the first for which details are available) is taken as the base equal to 1111, the index of volume for that year.

	Overseas Cargo Landed.	Index of Volume of Imports.		Overseas Cargo Landed.	Index of Volume of Imports.
1913	1111	1111	1926	1291	1245
1914	906	927	1927	1386	1306
1915	740	791	1928	1494	1436
1916	782	880	1929	1655	1575
1917	628	663	1930	1438	1309
1918	520	690	1931	1177	1227
1919	555	570	1932	931	989
1920	964	895	1933	1119	1270
1921	612	618	1934	1506	1693
1922	682	712	1935	1736	1867
1923	923	851	1936	2088	2109
1924	1101	1041	1937	2358	2362*
1925	1165	1120	1938	2241	2194

* Amended figure.

Owing to the immense variety of merchandise and also to the fact that information of the weight of cargo landed at Lourenco Marques is not available, no complete comparison can be made between the two sets of figures. The fact, however, that the figures show a remarkable degree of correspondence confirms the general accuracy of the calculations given below.

Particulars for earlier years were published in previous issues of the *Official Year Book*. A statement covering the period 1909 to 1929 appeared in No. 12

VARIATIONS IN VOLUME AND VALUE OF IMPORTS (INCLUDING IMPORTS OF GOVERNMENT STORES, BUT EXCLUDING IMPORTS FROM RHODESIA AND SOUTH WEST AFRICA).

Year.	Recorded Value.	Value at 1909–13 Average.	Effect of Change of Price.		Index No. of Volume of Imports (Average 1909–13 = 1000).	Index No. of Import Values (Average 1909–13 = 1000).
			Increase.	Decrease.		
(i) FOOD AND DRINK.						
	£	£	£	£		
1929.....	8,105,716	6,008,685	2,097,031	—	945	1349
1930.....	5,420,514	4,432,146	988,368	—	697	1223
1931.....	4,571,495	4,603,721	—	32,226	724	993
1932.....	2,672,439	3,271,039	—	598,600	514	817
1933.....	3,488,488	3,884,731	—	396,243	611	893
1934.....	4,263,815	4,764,039	—	500,224	749	895
1935.....	4,278,009	4,378,720	—	100,711	688	977
1936.....	4,600,462	4,591,279	9,183	—	722	1002
1937.....	5,282,967	4,955,879	327,088	—	779	1006
1938.....	5,448,968	5,747,857	—	298,889	904	948
(ii) RAW MATERIALS.						
	£	£	£	£		
1929.....	6,910,106	5,141,448	1,768,658	—	1412	1344
1930.....	5,811,341	4,697,931	1,113,410	—	1290	1237
1931.....	4,383,772	3,952,905	430,867	—	1086	1109
1932.....	2,694,909	3,041,658	—	346,749	835	886
1933.....	4,611,933	4,219,518	392,415	—	1159	1093
1934.....	6,343,061	5,472,874	870,187	—	1503	1159
1935.....	6,635,015	5,818,116	866,899	—	1598	1149
1936.....	7,603,464	6,537,802	1,065,662	—	1796	1163
1937.....	10,139,990	7,166,071	2,973,919	—	1968	1415
1938.....	8,038,832	5,775,023	2,263,809	—	1586	1392
(iii) MANUFACTURED ARTICLES.						
	£	£	£	£		
1929.....	65,352,262	45,328,568	20,023,694	—	1752	1442
1930.....	50,978,629	37,835,380	13,143,249	—	1463	1347
1931.....	41,900,189	35,469,502	6,430,687	—	1371	1181
1932.....	26,387,581	29,162,508	—	2,774,927	1127	905
1933.....	39,887,429	37,442,160	2,445,269	—	1447	1065
1934.....	54,432,960	50,482,049	3,950,911	—	1951	1078
1935.....	62,870,474	57,256,719	5,613,755	—	2213	1098
1936.....	72,532,423	64,528,751	8,003,672	—	2494	1124
1937.....	86,225,477	72,588,799*	13,636,678*	—	2806*	1188*
1938.....	80,694,068	67,161,023	13,533,045	—	2596	1202

* Amended figure.

VARIATIONS IN VOLUME AND VALUE OF IMPORTS (INCLUDING IMPORTS OF GOVERNMENT STORES, BUT EXCLUDING IMPORTS FROM RHODESIA AND SOUTH WEST AFRICA)—(*continued*).

Year.	Recorded Value.	Value at 1909–13 Average.	Effect of Change of Price.		Index No. of Volume of Imports (Average 1909–13 = 1000).	Index No. of Import Values (Average 1909–13 = 1000).
			Increase.	Decrease.		
(iv) SUMMARY OF TABLES (i) TO (iii).						
	£	£	£	£		
1929.....	80,368,084	56,478,701	23,889,383	—	1575	1423
1930.....	62,210,484	46,965,457	15,245,027	—	1309	1325
1931.....	50,855,456	44,026,128	6,829,328	—	1227	1155
1932.....	31,754,929	35,475,205	—	3,720,276	989	895
1933.....	47,987,850	45,546,409	2,441,441	—	1270	1054
1934.....	65,039,836	60,718,962	4,320,874	—	1693	1071
1935.....	73,833,498	67,453,555	6,379,943	—	1867	1094
1936.....	84,736,349	75,657,832	9,078,517	—	2109	1120
1937.....	101,648,434	84,710,749*	16,937,685*	—	2362*	1200*
1938.....	94,181,868	78,683,903	15,497,965	—	2194	1197

* Amended figure.

6. **Exports and Imports per Head of European Population.**—The following table shows the exports of South African produce and imports at the 1909–13 average values and the value per head of the European population. The calculation for 1938 makes allowance for the quantity of gold earmarked.

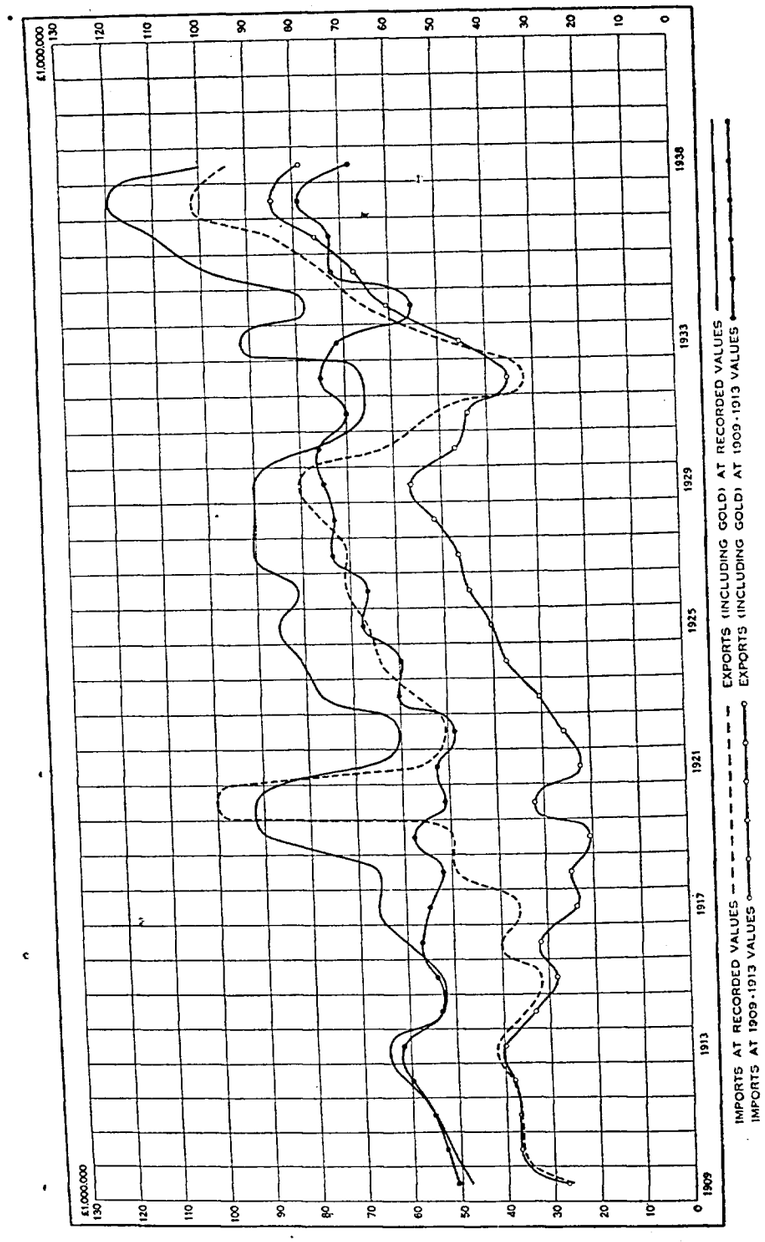
EXPORTS AND IMPORTS PER HEAD OF EUROPEAN POPULATION AT 1909-13 VALUES, 1910 AND 1929 TO 1938.

Year.	South African Exports.		Imports.	
	Value at 1909–13 Average.	Average per Head of European Population.	Value at 1909–13 Average.	Average per Head of European Population.
	£	£ s. d.	£	£ s. d.
1910.....	52,795,152	42 1 0	37,064,613	29 10 5
1929.....	75,052,273	42 9 2	56,478,701	31 19 0
1930.....	75,857,479	42 3 10	46,965,457	26 2 5
1931.....	69,989,197	38 5 2	44,026,128	24 1 4
1932.....	75,152,222	40 6 5	35,475,205	19 0 8
1933.....	71,357,437	37 14 5	45,546,409	24 1 6
1934.....	55,398,713	28 15 8	60,718,962	31 11 0
1935.....	72,269,439	36 15 10	67,453,555	34 6 10
1936.....	72,519,885*	36 2 1*	75,657,832	37 13 4
1937.....	78,974,334*	38 12 10*	84,710,749*	41 9 0*
1938.....	68,229,071	32 15 7	78,683,903	37 16 1

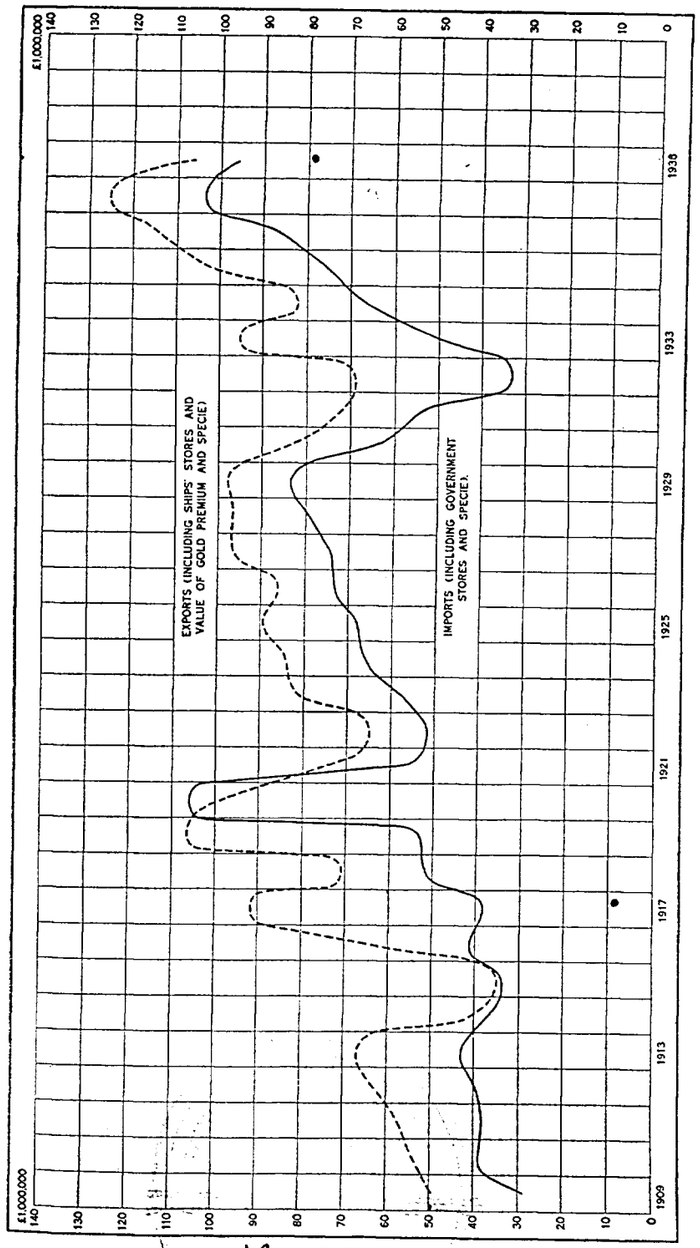
* Amended figure.

Graphs for the purpose of illustrating the above as well as the tables in the two preceding paragraphs are given on the following pages.

IMPORTS AND EXPORTS, 1909-1938.



IMPORTS AND EXPORTS, 1909—1938.



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7. **Trade with Neighbouring Countries.**—The value of the trade of the Union with certain neighbouring countries for a period of years is indicated in the following tables:—

VALUE OF TRADE WITH CERTAIN NEIGHBOURING COUNTRIES, FROM 1910.

(*a*) IMPORTS FROM NEIGHBOURING COUNTRIES (INCLUDING GOVERNMENT STORES, BUT EXCLUDING SPECIE).

Country.	Average: 1910–14.	Average: 1925–29.	Average: 1930–34.	1936.	1937.	1938.
	£	£	£	£	£	£
Belgian Congo	253	11,672	26,844	141,159	246,481	259,409
Kenya Colony (B.E.A.)	5,566	98,972	65,489	117,897	143,302	97,314
Madagascar	10,330	9,101	4,940	1,713	1,454	3,918
Mauritius	194,910	6,845	2,735	3,046	2,950	4,127
Nyasaland	932	845	606	1,934	1,177	1,481
Portuguese East Africa	136,026	274,461	213,430	227,560	159,773	148,831
Southern Rhodesia	91,292	1,863,331	907,514	497,070	640,722*	572,250
Northern Rhodesia	5,803	136,973	98,259	323,387	351,374	292,282
South West Africa	4,125	686,470	512,729	662,067	662,984	760,609
Tanganyika Territory	799	62,932	52,690	113,152	186,999	117,230
Zanzibar	2,297	3,990	2,328	4,255	4,795	5,096

(*b*) EXPORTS TO NEIGHBOURING COUNTRIES (EXCLUDING SPECIE).

Country.	Average: 1910–14.	Average: 1925–29.	Average: 1930–34.	1936.	1937.	1938.
	£	£	£	£	£	£
Belgian Congo	129,068	267,303	90,125	60,393	110,956	80,452
Kenya Colony (B.E.A.)	14,460	102,818	78,194	92,027	91,447	125,959
Madagascar	10,261	13,595	6,808	5,710	7,997	8,329
Mauritius	42,750	73,860	40,255	44,480	48,758	37,617
Nyasaland	470	3,898	3,805	6,386	6,363	11,427
Portuguese East Africa	195,190	359,404	354,325	413,276	446,559	532,123
Southern Rhodesia	1,298,393	2,581,302	1,831,876	1,720,352	2,042,573	2,209,584
Northern Rhodesia	77,524	563,425	814,791	559,954	1,002,859*	1,085,847
South West Africa	149,629	1,510,138	944,369	1,317,917	1,658,036	1,667,144
Tanganyika Territory	3,104	21,647	17,546	15,489	25,917	12,675
Zanzibar	4,226	8,890	3,543	4,495	1,531	2,015

*Amended figure.

8. **Supplies for Ships.**—The following figures give the quantity and value of coal bunkered, and of beef and other articles, the produce of the Union, supplied for the use of vessels, for a series of years:—

COAL, BEEF, AND OTHER ARTICLES OF UNION PRODUCE SUPPLIED TO VESSELS FROM 1910.

Year.	Coal Bunkered.		Beef Supplied.		Value of Other Articles Supplied.	Total Value of All Union Produce Supplied.
	Quantity.	Value.	Quantity.	Value.		
Average:	Tons.	£	lb.	£	£	£
1910–14	1,392,301	1,015,607	190,556	4,273	33,543	1,053,423
1915–19	1,702,460	1,960,478	1,925,481	53,080	169,147	2,182,705
1920–24	1,708,594	2,593,688	1,210,802	36,195	157,901	2,788,084
1925–29	1,829,285	2,039,447	922,066	21,691	84,576	2,145,714
1930–34	1,027,419	980,358	533,393	11,624	58,472	1,050,454
1934	994,991	843,475	318,151	6,765	55,487	905,727
1935	1,187,696	999,154	300,265	8,222	60,618	1,067,994
1936	1,365,276	1,123,730	305,084	6,430	58,510	1,188,730
1937	1,260,603	1,078,629	296,301	6,201	67,541	1,152,371
1938	1,258,139	1,172,304	502,625	12,513	120,345	1,305,162

9. **Actual Cost of Imports.**—Owing to the method of declaring the value of imports [see § 2, 1 (vii)], some items have to be declared at values exceeding the price actually paid for them. On the other hand the cost of freight and insurance, and buying commissions not exceeding 5 per cent., are omitted. From 1933 importers have been required to state separately the total amount of the cost, insurance, freight, commission, and other charges paid on board ship at the port of entry into the Union. From 1922 to 1933 the cost of freight and insurance only was obtained and details will be found in *Official Year Book* No. 17 and previous issues.

The following table shows the difference between the two sets of figures for the years 1935 to 1938. The excess of the c.i.f. and c. values over the declared values of merchandise and government stores imported from overseas, less imports by post as shown at the bottom of the table, is the amount that should be added to the declared value of imports to obtain the actual cost of imports. Calculations for earlier years will be found in previous issues of the *Year Book*.

	1935.	1936.	1937.	1938.
Declared value of—	£	£	£	£
Merchandise and Government Stores Imported from Overseas	74,284,445	85,296,612	102,353,407	94,805,835
Less Goods Received through the Post	1,815,990	1,975,152	2,103,104	2,071,276
(*a*) Balance at Declared Values	72,468,455	83,321,460	100,245,303	92,734,559
(*b*) Calculated c.i.f. and c. Values	77,626,171	89,156,000	107,876,000	100,358,000
EXCESS OF (*b*) OVER (*a*).....£	5,157,716	5,834,540	7,630,697	7,623,441

§ 5. Trade Commissioner Service.

1. **Trade Commissioner Representation.**—(i) *London.*—Until within a short time of the constitution of the Union the Cape was the only South African Government to have its own special trade representative in the United Kingdom. Just before the formation of the Union, however, the Natal Government appointed an officer under the title of Commercial Agent, and both the Transvaal and Orange River Colony had attached to the offices of their Agents-General in London officers specially charged with the supervision of trade and commercial matters. On the establishment of Union in 1910, these offices were merged in one and placed under the control of an officer styled the Trade Commissioner for the Union of South Africa, who with his staff forms an integral portion of the High Commissioner's Office in London, and is concerned with the marketing of products of the Union of South Africa in the British Isles.

(ii) *Continent of Europe.*—At the beginning of 1922 the first official Commercial Office of the Union of South Africa on the Continent was created, with headquarters at Rotterdam. The headquarters were removed to Milan in 1925.

In 1929 the Union Government appointed Envoys Extraordinary and Ministers Plenipotentiary as its representatives abroad. The Office of the Commissioner for Commerce on the Continent of Europe was then abolished, and in its stead two Commercial Counsellors were appointed in Europe, one for the northern European States with headquarters at the South African Legation, Berlin, the other for the southern and eastern European States with headquarters at the South African Legation, Rome. During 1938 the posts of Commercial Counsellor, Berlin, and Commercial Attachés at Paris and the Hague, were abolished and replaced by posts of Commercial Secretary. A Union Consulate is maintained at Hamburg under the control of the South African Legation at Berlin. The staffs of the Union's legations at Lisbon, Brussels, and Stockholm handle commercial matters affecting their particular areas.

Honorary trade commissioners have been appointed at Gothenburg, Sweden; Oslo, Norway; Genoa, Italy; and Rotterdam, Holland.

(iii) *Canada.*—An Accredited Representative for the Union, with offices in Ottawa, was appointed during 1938. The duties of the Accredited Representative include amongst others the development of the Union's export trade to Canada. There is also an honorary Trade Commissioner stationed at Vancouver.

(iv) *America.*—The Union's trade interests are represented by a Consul at New York, appointed during 1938, and a Commercial Attaché assigned to the South African Legation at Washington, D.C. An honorary Trade Commissioner is stationed at San Francisco, California.

(v) *East Africa, Mozambique, Batavia, and China.*—The Commissioner for the Union in East African Territories, whose headquarters are at Nairobi, also acts as its Commercial Representative. A Union Consulate is maintained at Lourenco Marques, and in the Far East a Trade Commissioner's office exists, with headquarters at Batavia, and sub-offices at Singapore and Calcutta.

An honorary trade commissioner is stationed at Shanghai, China.

The two Assistant Trade Commissionerships for East and West African Territories, created in October, 1934, have been abolished. To replace these the post of Commercial Attaché for East African Territories, with headquarters at Nairobi, and the post of Trade Commissioner for North and West African Territories, with headquarters at Tangier, were created with effect from 1st January and 1st February, 1938, respectively.

2. **Activities.**—The functions of the Union's trade representatives are to explore the marketing possibilities of South African products abroad, the development and extension of the Union's export trade, the establishment of new markets, and the collection of information relating to commercial conditions overseas. These activities are co-ordinated by the Department of Commerce and Industries at Pretoria, which undertakes the dissemination of the data collected and forwarded to the Union for the information of producers and exporters.

Trade propaganda takes the form of exhibitions and displays, organized and conducted by the trade commissioners, participation in industrial and commercial fairs, and general trade advertising. The resulting trade inquiries are passed to the Union for the attention of exporters. Through the medium first of the trade commissioners abroad, and secondly of the Department of Commerce and Industries, producers in the Union can, accordingly, be brought into touch with prospective buyers overseas.

Shipments of perishable products from the Union are examined at the Southampton docks by the staff of the Trade Commissioner, and reports as to condition and quality are forwarded to the Union. The disposal of consignments is followed up and market reports are prepared, whilst auction sales of Union products are attended and reported upon. Where goods fall short of market requirements, directions are indicated in which improvement in packing, quality, or grading are desirable.

Ruling prices of the Union's products are reported by cable, and any important information regarding future marketing possibilities is immediately conveyed to the Union. Changes in foreign customs tariffs which affect the export trade of the Union are immediately notified.

The trade representatives attend conferences held in their respective areas in order to protect the interests of South African trade. The Trade Commissioner, London, has a seat on several important bodies affecting commerce, which have been created by mutual agreement at previous Imperial Conferences.

3. **H.M. Trade Commissioner Service in South Africa.**—The post of His Majesty's Trade Commissioner was created in 1908, as a result of the Imperial Conference of 1907. An officer was appointed for each of the four larger Dominions by the Board of Trade, to co-operate with their Commercial Intelligence Branch, which was afterwards re-organized as the Department of Overseas Trade, in fostering British trade, and to undertake work similar to the commercial side of the activities of the British Consular Service in foreign countries. The scheme was in the nature of an experiment, and the organization proportionately small. The four trade commissioners were respectively instructed to open offices at Capetown, Melbourne, Montreal, and Wellington. In 1918 steps were taken to carry out an important scheme of development as recommended by the Dominions Royal Commission, and it was decided to appoint trade commissioners in Calcutta and Bombay, the West Indies (Port of Spain, Trinidad), the East Indies (Singapore), as well as additional trade commissioners in the Dominions. Since then further posts have been created in the Irish Free State (Dublin), East Africa (Nairobi), and Rhodesia (Salisbury).

The service has two offices in the Union, at Capetown and Johannesburg. The Trade Commissioner at Johannesburg is specially concerned with the trade of the Transvaal, and matters relating to the other provinces and South West Africa are attended to by the Trade Commissioner at Capetown. A Senior Trade Commissioner with jurisdiction over the two offices is also stationed in Capetown. Imperial trade correspondents, who co-operate with the trade commissioners, have been appointed in Durban, Port Elizabeth, and Windhoek, and in Maseru.

The primary object of the trade commissioner is to direct importers in South Africa, whether of finished manufactures, machinery for local production, or raw materials, to United Kingdom sources of supply, and generally to work for the promotion of trade within the Empire. This obviously entails a close study of local requirements and of foreign competition in this market, as well as a knowledge of the capabilities of British producers and manufacturers overseas. It is also clear that there is almost unlimited scope for work in this field. The work is complementary and parallel to that of the Union Trade Commissioner in London, with whom the Department of Overseas Trade in London and the trade commissioners in South Africa are in constant touch.

His Majesty's Senior Trade Commissioner in South Africa is Mr. W. Peters, C.M.G., stationed at Capetown, the Trade Commissioner at Johannesburg is Mr. J. W. Brigden, and the Trade Commissioner at Capetown is Mr. C. Kemp.

4. **Canadian Trade Commissioner in South Africa.**—The Canadian trade commissioner service was established by Order-in-Council on the 21st November, 1891, and the first officer was appointed in 1894. Since then the service has extended, and at present there are thirty-four Canadian trade commissioner offices in various parts of the world, including two in South Africa. The present officers in South Africa are Mr. J. C. Macgillivray, Trade Commissioner, and Mr. H. W. Brighton, Assistant Trade Commissioner, Capetown; Mr. J. H. English, Trade Commissioner, and Mr. J. C. Britton, Assistant Trade Commissioner, Johannesburg. In addition, arrangements were made by the Canadian Government with the British Government in 1912, whereby a large number of British consuls were placed at the disposal of Canadians who may wish to consult them on trade matters.

The purpose of the Canadian trade commissioner service is to promote the sale of Canadian products abroad, and to provide Canadian manufacturers and exporters with information regarding trade conditions in countries where Canadian goods are likely to find a market. Within the British Empire, they also have instructions regarding co-operation with other Canadian government departments in such matters as distressed nationals, immigration, and similar subjects of general Canadian interest. Within the Empire, they are likewise instructed to assist exports to Canada.

The Canadian Government has subsidized monthly steamship services to South African ports from the ports of Montreal and St. John in eastern Canada and Vancouver in western Canada.

5. **American Commercial Attaché in South Africa.**—The trade promotion activities of the American Government are concentrated in the Bureau of Foreign and Domestic Commerce, which is a part of the United States Department of Commerce, established as a separate department in 1912. This bureau now has eleven industrial, eleven economic, and eight administrative divisions, with a staff of about 300 in Washington, D.C. In addition, there are twenty-five district offices located in the principal commercial centres in the United States, and fifty-five co-operative offices, which are maintained by local chambers of commerce. In the foreign field, the Department of Commerce maintains thirty-four offices, including the Johannesburg office, which was opened in 1920. The Johannesburg staff consists of the Commercial Attaché, Mr. Clayton Lane, and the Assistant Trade Commissioner, Mr. Frederick J. Cunningham. In addition to these resources, the Department has the active co-operation of about 1,000 American diplomatic and consular officers, located in every part of the world.

The chief function of the Bureau of Foreign and Domestic Commerce is to render assistance to American commerce in its broadest sense: in addition to replies to business inquiries, information on general commercial conditions, as well as on various trades and industries, is made available to the business public through many channels, especially through the publications of the Bureau, the most important of which is a weekly publication, *Commerce Reports*. Accurate, up-to-date reports, which can be of practical value to American manufacturers and exporters, are received in Washington by cable and mail, and are promptly disseminated.

6. **French Commercial Attaché in South Africa.**—Since the establishment in 1919 of the "Services français d'Expansion Commerciale", a special division of the French Department of Commerce (Ministère du Commerce), there has been a considerable development of the official efforts for the promotion of overseas trade.

Commercial attachés have been appointed in foreign countries. They number now more than sixty. One of their chief functions is to find reliable French firms which can be put in touch with importers desirous of securing French products. In order to be well acquainted with the changes in production which may take place, the commercial attachés go periodically to France, where they get in touch with the various producers or manufacturers through their syndicates or chambers of commerce. They also report to the Ministry of Commerce on economic and commercial conditions in the countries where they are stationed. This information is collected by a special division of the Ministry of Commerce, the "Service de Renseignements pour le Commerce Extérieur", and is communicated when required to the interested parties through the medium of an official publication, the *Moniteur Officiel du Commerce et de l'Industrie*.

A French Commercial Attaché has been stationed in the Union since 1925, and his functions are to foster and extend the trade relations between the two countries and to endeavour to open up commercial relations between the Union and the French colonies. The Johannesburg staff consists of one Commercial Attaché, Monsieur Yves Lederlin, and one Secretary-General, Monsieur René Miot. The head office is at 24, Geneva House, Johannesburg, where inquiries as to French trade and industries, or as to securing French agencies or purchasing French products, should be addressed.

7. **Trade Commissioner for the Netherlands Indies.**—In March, 1934, the Government of the Netherlands Indies appointed a Trade Commissioner for the Union of South Africa, in the person of Mr. F. Heckman, who established his office at Durban.

The purpose of this appointment was to promote trade relations between the two countries. The establishment of a direct shipping line in 1931 by the Royal Packet Navigation Company [K.P.M. (Pty.), Ltd.] to trade between the Union of South Africa and the Netherlands Indies has been of material assistance in achieving this object.

§ 6. Excise Duties.

Excise Duties Imposed.—Particulars of excise legislation, both before and since the establishment of the Union, will be found in previous issues of the *Official Year Book* (Nos. 1 to 3). Details as to revenue collections of excise are given in Chapter XV.

(i) *Spirits and Beer.*—The following table shows the duties and the rebates allowed under Act No. 35 of 1921.

TARIFF OF EXCISE DUTY ON SPIRITS AND BEERS MANUFACTURED IN THE UNION (ACT No. 35 OF 1921).

ARTICLE.

Spirits.	Rate of Duty.
	£ s. d.
Wine brandy, viz., spirits distilled from wine or must produced solely by the alcoholic fermentation of the juice of fresh grapes, per imperial proof gallon	0 12 6
Grape brandy, viz., the distillate resulting from the distillation solely of grape juice together with the husks, per imperial proof gallon	0 17 6
Dop brandy and spirits distilled from materials other than the produce of the vine, per imperial proof gallon	1 2 6
Mixtures of wine with wine brandy or grape brandy, when the alcoholic strength of such mixture exceeds forty and a half per centum of proof spirits; and mixtures of wine with spirits other than wine brandy or grape brandy, per imperial proof gallon	1 2 6
Beer brewed from worts of the specific gravity of not less than one thousand and twenty degrees, and not more than one thousand and thirty-nine degrees, per 36 imperial gallons	0 15 0
Beer brewed from worts of the specific gravity below one thousand and twenty degrees and above one thousand and thirty-nine degrees, per 36 standard gallons.... (With a proportionate increase or decrease for any difference in gravity.)	1 10 0
Lager beer produced from worts of the specific gravity of less than one thousand and forty degrees shall be charged at the higher rate of duty.	

TARIFF OF EXCISE DUTY ON SPIRITS AND BEERS MANUFACTURED IN THE UNION (ACT No. 35 OF 1921)—(*continued*).

Rebates of Excise Duties on Spirits.	Extent of Rebates.
(*a*) Spirits of a strength of 50 per cent. overproof and upwards, when methylated in the manner prescribed by regulation	The whole duty.
(*b*) Plain spirits used in the manufacture of medicinal preparations, flavouring essences, and perfumed spirits; subject to the approval of, and to conditions imposed by, the Commissioner of Excise	The whole duty less 7s. 6d. per imperial proof gallon.
(*c*) Plain spirits used for industrial purposes, and rendered unpotable to the satisfaction of the Commissioner of Excise	The whole duty.
(*d*) Plain spirits used by scientific or teaching institutions for burning, preserving, or experimental purposes, plain spirits used in, and essential for, the working of X-ray and similar apparatus, and plain spirits used in Government or public hospitals, under such safeguards as the Commissioner of Excise may impose	The whole duty.
(*e*) Wine brandy and grape brandy, used in the fortification or preservation of pure wine, subject to compliance with the provisions of any Act relating to excise duties, or any regulations issued thereunder	The whole duty.
(*f*) Rectified spirit used in the manufacture of ether, or other substance, by a process which causes the ethyl alcohol to undergo chemical change, and provided that not more than 2 per cent. by volume of ethyl alcohol remains in the resulting ether or other product	The whole duty.
(*g*) Spirits exported for consumption outside the limits of the Union	The whole duty.
(*h*) Spirits lost through evaporation, leakage, or other unavoidable cause, when such loss is proved to the satisfaction of the Commissioner of Excise	The whole duty.
(*i*) Spirits distilled in Natal from the products or by-products of the sugar-cane, when duty paid for consumption in Natal	5s. per imperial proof gallon.
(*j*) Plain spirits used in the manufacture of vinegar and acetic acid; subject to the approval of, and to conditions imposed by, the Commissioner of Excise	The whole duty, less 2s. per imperial proof gallon.
(*k*) Brandy distilled in a pot still, under excise supervision, wholly from pure wine or must the produce of fresh grapes, approved of by the Government Brandy Board, at a strength not exceeding 30 per cent. overproof, matured by storage in an approved warehouse in approved wood for a period of three years and certified by the said board to be pure wine brandy	3s. per imperial proof gallon.

NOTE.—The regulations under which rebates of excise duties on spirits manufactured in the Union are made were published in *Government Gazette* No. 2153 of the 15th December, 1933—Government Notice No. 1697, and Government Notice No. 2114 published in *Government Gazette* No. 2594 of 30th December, 1938.

(ii) *Cigarette Excise Surtax.—The Cigarette Excise and Surtax Act*, 1911, repealed the Cape Act of 1909, and re-enacted the tax throughout the Union. Instead, however, of the tax being collected by means of stamps affixed to each container at the time of their retail sale, the tax is now collected from the manufacturer by means of stamps affixed to the container before cigarettes leave the factory, or from an importer at the time of first importation or delivery from a bonded warehouse. Manufacturers overseas are allowed to purchase the necessary stamps and affix them to the containers of cigarettes at the time of manufacture. The schedule of the Act imposing these duties, as amended by Act No. 35 of 1922, reads as follows:—

(*a*) On all cigarettes manufactured in the Union, whether made from tobacco grown or produced therein, or from tobacco imported therein, or from a mixture of Union grown and imported tobaccos, an excise duty for every one-half ounce net weight or fraction thereof ½d.
(*b*) On all cigarettes imported into the Union and delivered for consumption therein, a surtax (in addition to the duty payable under the customs laws) for every one-half ounce net weight or fraction thereof ½d.

(iii) *Tobacco.*—Act No. 36 of 1925 repealed the duties imposed under Act No. 27 of 1924 and imposed the excise duties given in (*a*) and (*b*) below on tobacco manufactured in the Union, with similar customs duties on tobacco manufactured in a territory, the Government of which has entered into a customs agreement with the Government of the Union, on importation into the Union. Act No. 28 of 1933 imposed in addition the excise and surtax duties set out in (*c*).

(*a*) Ready for use in the making of cigarettes, per pound weight 6d.
(*b*) In the form of cigarettes, per pound weight 6d.
(*c*) On all cigarette tobacco manufactured in the Union whether made from tobacco grown or produced therein or from tobacco imported therein, or from a mixture of Union-grown and imported tobaccos, an excise duty for every two ounces net weight or fraction thereof 1½d.
A surtax of equivalent amount in addition to the duty payable under the customs laws is imposed on all cigarette tobacco imported into the Union.

(iv) *Sugar.*—The *Customs Amendment and Excise Duties Extension Act*, No. 22 of 1915, imposed a duty on Union sugar of 1s. per 100 lb. Act No. 37 of 1916 reimposed the duty until the 30th June, 1917; Act No. 36 of 1917 until 30th June, 1918; Act No. 20 of 1918 until 30th June, 1919; Act No. 32 of 1919 until 30th June, 1920; and the duty was made permanent by Act No. 44 of 1920.

(v) *Matches.*—The *Matches Duty Act*, No. 13 of 1914, imposed a duty on Union-made matches, and the duty was increased by Act No. 23 of 1923 to 1s. per gross of boxes containing not more than 100 matches, 2s. per gross of boxes containing not more than 200 matches, and so on in proportion for any increase in size of boxes.

(vi) *Playing Cards.*—Act No. 44 of 1920 imposed a duty at the rate of 3d. per pack (not exceeding fifty-three cards) on Union made playing-cards.

(vii) *Acetic and Pyroligneous Acids, etc.*—The *Excise and Customs Tariff Amendment Act*, No. 37 of 1913, imposed a duty on Union-made acetic and pyroligneous acids, extracts and essences of vinegar, as follows:—

If of a strength not exceeding the strength of proof, per gallon or fraction of a gallon.....	1s.
And in addition for each degree of strength in excess of the strength of proof, per degree.....	4d.

Proof held to be equal to 6 per cent. of absolute acid.

Under Act No. 44 of 1920, a rebate or refund of the excise duty is allowable in respect of acetic and pyroligneous acids manufactured in the Union, when used in the manufacture of chemical and other substances, not being articles intended for use as food, beverages, or condiments.

§ 7. Patents, Designs, Trade Marks, and Copyright.

1. **General.**—Act No. 9 of 1916, which was brought into force on the 1st January, 1917, repealed all previous legislation embraced in no fewer than thirty-two Acts and Proclamations of the various provinces, and made consolidated and comprehensive provision in respect of patents, designs, trade marks, and copyright in the Union. The administration of the Act is vested in the Minister of Justice, and the office concerned with each of the four subjects of the Act is expressly fixed at Pretoria, under a Registrar. Seals of office are provided for. Impressions of such seals are to be admitted in evidence and judicially noted. The Registrar may in any proceedings before him—

(*a*) receive evidence on affidavit or *viva voce* upon oath;
(*b*) summon witnesses and issue commissions *de bene esse*;
(*c*) order discovery or inspection and require the production of documents;
(*d*) award costs against any party to proceedings before him.

The registers kept under the Act are open to public inspection on payment of the prescribed fee. Penalties are provided for offences against the Act, including the making of false entries and of false statements. Officers of the Patent Office are forbidden to traffic in patents. Special penalty is enforceable in the case of the unauthorized use of the Royal Arms or the Arms of the Union upon any article.

Copies of the *Patent Act* and Regulations framed thereunder may be obtained from the Government Printer, Pretoria.

2. **Patents.**—The following persons, whether British subjects or not, may make application for a patent:—

(*a*) The inventor, either alone or jointly with one or more other persons; or
(*b*) the inventor jointly with the assignee of a part interest in the invention; or
(*c*) the assignee of the inventor, either alone or jointly with one or more other persons.

An application for a patent must be made in a prescribed form, and must contain a declaration as to the facts relied upon to support the application. A provisional or complete specification in quadruplicate must be supplied.

The Registrar may accept or refuse the application or may return the specification or drawing for amendment; but in the case of refusal, the applicant is permitted to appeal to the law officer. If the application and the specification have been accepted, the Registrar gives written notice of that fact to the applicant, and in the case of a complete specification transmits copies of the specifications to the Attorneys-General at Capetown, Pietermaritzburg, and Bloemfontein respectively. The acceptance, if of a complete specification, must be advertised not later than one month from the date

of such acceptance. Within two months after the last advertisement, or such further time as the Registrar may allow, any person may give notice to oppose such patent on any of the following grounds, but no other:—

(*a*) That the applicant has obtained the invention from the person giving such notice (hereinafter referred to as the objector), or from a person of whom the objector is the legal representative or assignee;
(*b*) that the invention has been fraudulently obtained to the prejudice of another's rights;
(*c*) that the complete specification describes or claims an invention other than that described in the provisional specification, and that such other invention forms the subject of an application, made by the objector in the interval between the leaving of the provisional specification and the leaving of the complete specification;
(*d*) that the invention is not novel, or is not capable of being patented in terms of the definition of invention in section *six* of the Act;
(*e*) that the person represented as being the inventor is not such;
(*f*) that the invention or the application of the same is contrary to law, public order, or good morals;
(*g*) that the complete specification does not sufficiently disclose or explain the invention or the manner in which it is to be performed.

Opposed applications are heard and determined by a judge. If there is no opposition, or if an opposed application is determined in favour of the patent, a patent is granted on payment of the prescribed fee, and the patent is sealed. The term limit of a patent is fourteen years from its date, subject to extensions, which must be applied for under prescribed procedure. The effect of a patent is to grant to the patentee, subject to the Act and the conditions of the patent, full power, sole privilege, and authority, by himself, his agents, and licensee during the term of the patent, to make, use, exercise, and vend the invention within the Union, so that he shall have the sole profit and advantage thereof.

Provision is also made for patents of addition, the restoration of lapsed patents, the revocation of patents, and the issue of a single patent for cognate inventions. Certain provisions are made as to procedure in respect of actions for infringements of patents. A patent may be acquired by the Government by agreement with the patentee or by arbitration. The inventor of any improvement in instruments or munitions of war may assign the patent to the Government.

Any person resident in the Union on passing the prescribed examination, and on paying to the Registrar a fee of £5, may be registered as a patent agent. Attorneys are entitled to practise as patent agents without passing an examination.

Fees.—The following fees are payable in respect of a patent:—

On filing application for patent	£1
On filing complete specification	£3
On sealing patent	£1

Renewal Fees.

1. Before the expiration of the third year from the date of the patent	£4
2. Before the expiration of the seventh year from the date of the patent	£6
3. Before the expiration of the tenth year from the date of the patent	£10

NOTE.—Any or all of the payments for renewals may be made in one sum.

3. **Designs.**—The Registrar may, on the application (made in the prescribed form and manner) of any person claiming to be the proprietor of any new or original design not previously used in the Union, and not described in any printed publication, nor registered or patented in the Union or in any other country, register the design under the Act. A certificate of registration is then given. The effect of registration is to give the proprietor copyright for a period of five years. Extension of the period may be authorized on application and payment of the prescribed fee.

4. **Trade Marks.**—A registrable trade mark must contain or consist of at least one of the following essential particulars:—

(*a*) The name of a company, individual, or firm represented in a special or particular manner; or

(*b*) the signature of the applicant for registration or of some predecessor in his business; or

(*c*) an invented word or invented words; or

(*d*) a distinctive word or words not reasonably required for use in the trade; or

(*e*) any other distinctive mark.

The Registrar may refuse to register a trade mark which contains—

(*a*) a representation of the King or any member of the Royal Family, or of the Royal Crown; or

(*b*) the word "Royal" or any word, letter, or device indicating Royal or Government patronage; or

(*c*) a representation of the Royal Arms, or of a national flag of the United Kingdom, or of the national arms of the United Kingdom, or of the Arms or Seal of the Union; or

(*d*) a representation of any living person without his written consent.

Any person claiming to be the proprietor of a trade mark may apply for its registration in accordance with prescribed procedure, and the Registrar's refusal to register may be appealed against. Opposition to registration may be noted. The registration of a trade mark is for fourteen years, but may be renewed from time to time upon payment of the prescribed fee. A trade mark may be removed from the register if the conditions as to use and renewal are not complied with.

5. **Copyright.**—The British *Copyright Act*, 1911, has been given effect in the Union, subject to certain slight modifications. The result is that copyright subsists in every original dramatic, musical, or artistic work if, in the case of a published work, the work was first published within any part of the British Dominions; and if, in the case of an unpublished work, the author was at the date of making of the work a British subject or resident within the British Dominions. The Union is a member of the Copyright Union and has acceded to the Rome Convention (see Proclamation No. 32 of 1936). The effect of this proclamation is to extend copyright protection within the Union to works published in or made by any of the subjects of any of the countries of the Copyright Union. Reciprocal arrangements as to protection of copyright also exist between the Union and the United States of America (Proclamation No. 118 of 1924), the Irish Free State (Proclamation No. 185 of 1930), and the Federated Malay States (Proclamation No. 39 of 1933). Provision is made for the registration of copyrights, but registration is optional, since copyright subsists apart from registration. Registration is, however, notice to the world of the existence of copyright.

Under section 150 of the *Copyright Act*, No. 9 of 1916, it is compulsory for the publisher of every book first published in the Union, whether printed therein or not, to send free of charge, within one month after such book has been delivered out of press, one of the best copies of such book produced, to each of the following libraries: British Museum, London; South African Public Library, Capetown; Library of the Natal Society, Pietermaritzburg; State Library, Pretoria; and the Bloemfontein Public Library. In the case of a work published in serial form or in parts, a copy of each part or number has to be sent.

Any publisher who fails to comply with this provision is liable, on conviction, to a fine not exceeding £5 and the value of the book. A certificate given under the hand of a librarian of a benefiting library, to the effect that a copy of a book has not been delivered, shall be deemed to be sufficient evidence.

The expression "book" includes every part or division of a book, pamphlet, sheet of letterpress, sheet of music, map, plan, or chart separately published. Subsequent editions of a book are included if they contain any alterations.

Copyright in works prepared or published by or under the direction or control of any government department is vested in the Government Printer, in terms of section 18 of the British *Copyright Act*, 1911, and extracts therefrom for publication may be made only by permission, for which application should be made to the Government Printer, Pretoria (Government Notice No. 2, dated the 22nd December, 1930, *Government Gazette* of the 2nd January, 1931).

6. **Applications for and Registrations of Patents, etc.**—The subjoined tables give for a period of years particulars as to the number of applications and registrations in respect of patents, trade marks, and copyright in the Union, together with details of the countries of origin of patents and trade marks and the classes of copyright works registered.

(i) PATENTS, TRADE MARKS, AND COPYRIGHT.—APPLICATIONS AND REGISTRATIONS, 1934 TO 1938.

Heading.	1934.	1935.	1936.	1937.	1938.
Patents—					
Applications	1,389	1,393	1,614	1,719	1,700
Patents Granted	823	1,123	980	1,221	1,290
Trade Marks—					
Applications	2,344	1,534	1,817	1,691	1,669
Registrations	1,793	1,530	1,136	1,248	1,273
Assignments Registered	231	264	461	426	606
Copyrights—					
Registrations	59	60	66	33	40

(ii) PATENTS AND TRADE MARKS.—COUNTRIES OF ORIGIN OF APPLICATIONS, 1934 TO 1938.

Country of Origin.	1934.	1935.	1936.	1937.	1938.
PATENTS.					
Union of South Africa	494	493	497	479	576
Great Britain	421	403	502	520	543
Irish Free State	1	4	—	—	—
Australia	52	45	52	39	60
New Zealand	11	11	14	17	13
Canada	10	6	19	7	20
India	3	1	1	5	9
Southern Rhodesia	6	6	2	6	2
United States of America	105	124	191	204	148
Germany	153	154	170	244	159
Other Countries	133	146	166	198	170
TOTAL	1,389	1,393	1,614	1,719	1,700
TRADE MARKS.					
Union of South Africa	757	804	1,028	869*	894
Great Britain	968	419	432	463	354
Australia	8	8	13	8	9
New Zealand	5	4	5	2	2
Canada	51	13	9	13	21
Germany	171	54	69	94	132
United States of America	216	131	162	135	144
Other Countries	168	101	99	77*	123
TOTAL	2,344	1,534	1,817	1,661*	1,669

(iii) COPYRIGHT.—CLASSES OF WORKS REGISTERED, 1934 TO 1938.

Description.	1934.	1935.	1936.	1937.	1938.
Artistic	12	6	8	3	6
Dramatic	2	1	—	1	2
Literary	27	28	34	9	16
Literary (Collective)	12	15	18	12	7
Musical	5	5	4	7	4
Photographs	1	5	2	1	5
TOTAL	59	60	66	33	40

* Amended figure.

§ 8. Trading and other Licences.

1. **Description and Scale of Licences.**—Act No. 32 of 1925 (as amended), which has had effect as from the 1st January, 1926, has two schedules appended containing a list of specified trades, professions, and occupations for which licences have to be taken out before the trade, profession (see below), or occupation may be carried on. The *First Schedule* provides for the following

licences, which have full force and effect throughout the Union wheresoever they may be issued, except in the case of those which, in terms of the schedule, are required for or restricted to specific premises or areas.

(i) Agent of Foreign Firm.
(ii) Banker or Banking Institution.
(iii) Commercial Traveller.
(iv) For the Sale of Fireworks.
(v) Newspaper Publishers.

The duties collected in respect of these licences accrue to the Consolidated Revenue Fund.

The *Second Schedule* contains a list of licences, shown by an asterisk in the list below, which have force and effect only within the province in which they are issued, save in those cases in which other provision is specially made, either in the schedule itself or elsewhere in the Act. The duties collected in regard to these licences accrue to the Provincial Revenue Fund of the province in which liability for such licence duties arises. The Ordinances of the various provinces provide, in addition, for a number of licences, the duties on which are assigned to provincial revenue.

Professional licences.—In terms of section *four* of Act No. 17 of 1938, Provincial Councils may by resolution authorize the carrying on in their respective provinces of the professions or callings specified in Part II of the second schedule to the *Licences Consolidation Act*, 1925, without the taking out of the licences, and without payment of the licence duties prescribed.

With a few exceptions, licences fall due to be renewed on the first day of January each year, but in most cases if the liability to take out a licence commences only after the thirtieth day of June, the amount payable in respect of the licence is one-half the scheduled amount.

Licences are issued by Receivers of Revenue except where otherwise stated in the list following, and every licence must be taken out in the district where the trade, profession (see above), or occupation is carried on.

The following lists show the licences required to be taken out in the different provinces and the scale of duties payable:—

A.—LICENCES IN FORCE IN ALL PROVINCES.

	£	s.	d.
*†Advertising agent or advertising contractor	5	0	0
*‡Aerated or mineral water manufacturer	10	0	0
*‡Aerated or mineral water dealer	3	0	0
Agent of foreign firm—			
Yearly	20	0	0
For period of three months	10	0	0
(An agent who has been ordinarily resident within the Union for three years immediately prior to taking out such licence is charged half the rates specified, and any agent who is the *bona fide* employee of a duly licensed agent of a foreign firm is charged £5.)			
*‡Apothecary (This licence is not required by a medical practitioner dispensing his own prescriptions.)	5	0	0
*Accountant	10	0	0
*Actuary	10	0	0
*Advocate	10	0	0
*†Appraiser or assessor	5	0	0
*Architect	10	0	0
Arms: Licence to possess (Act No. 28 of 1937). For a firearm (other than a pistol or revolver) containing one or more rifled barrels (other than a barrel designed to fire a rimfire cartridge loaded with a bullet of a reputed diameter not exceeding ·22 of an inch)		10	0
Any other firearm		5	0
Copy of a licence or certificate		2	6
(Licences to possess arms are issued by the Magistrate of the district.)			
Arms and Ammunition: Licence to deal in (Act No. 28 of 1937)	10	0	0
*Attorney (If practising in the Transkeian Native Territories or the District of Glen Grey, £5.)	10	0	0
*Auctioneer—			
For an entire province	20	0	0
For a particular magisterial district only	10	0	0
*†Bagatelle table keeper (for each table)	4	0	0
*‡Baker	5	0	0
*†Billiard table keeper (for each table)—			
On licensed premises	12	0	0
Not on licensed premises	5	0	0
Banker or banking institution (in respect of each branch)	20	0	0
*Boarding and lodging-house keeper	5	0	0
*Board of executors or trust company—			
Head office	50	0	0
Each branch office	25	0	0
*†Broker or agent	5	0	0
§Bonded or bonding warehouse	20	0	0
*†Buchu buyer	1	0	0
¶Building society, 1% of net profits—			
Minimum duty	0	5	0
Maximum duty	20	0	0
For first year or portion of a year	1	0	0
*Butcher—			
Wholesale	75	0	0
‡Retail—			
In urban area	7	10	0
In rural area	2	10	0
*Canvasser for sale of shares or land	50	0	0
§Cigarette manufacturer	1	0	0

* Second Schedule, Act No. 32 of 1925 (see text, § 8 above).
† In the Cape Province these licences are also issued at all money order offices, with the exception of such offices in the Transkei.
‡ In the Cape Province these licences are also issued at all money order offices with the exception of such offices in the Transkei, but certificates or authorities are required before the licence is issued.
§ Issued by the Commissioner of Customs and Excise, Pretoria.
¶ Act No. 62 of 1934, as amended by Act No. 19 of 1935.

A.—LICENCES IN FORCE IN ALL PROVINCES—(*continued*).

	£	s.	d.
¶Cigarette tobacco manufacturer	1	0	0
Company (under Act No. 46 of 1926): (5s. for every £1,000 or part of £1,000 of subscribed capital, subject to minimum of £1.)			
*Consulting engineer (any branch of engineering)	10	0	0
*Conveyancer	3	0	0
Commercial traveller—			
Wholesale	10	0	0
Retail	5	0	0
*†Dealer or speculator in live stock or produce	10	0	0
*Dentist	10	0	0
*‡Eating-house keeper (In the Transkeian Native Territories or the District of Glen Grey, £1.)	5	0	0
‖Explosives—			
Manufacture of	50	0	0
Magazine	5	0	0
Fireworks, for the sale of, in respect of each shop	1	0	0
*‡Fresh produce dealer	2	0	0
*‡General Dealer—			
Where average stock in hand—			
(*a*) Does not exceed £2,000;	5	0	0
(*b*) Exceeds £2,000:			
Upon so much stock as does not exceed £2,000	5	0	0
As exceeds £2,000, but does not exceed £5,000: £1. 10s. per £1,000 or part thereof; As exceeds £5,000 but does not exceed £10,000: £2 per £1,000 or part thereof; As exceeds £10,000, but does not exceed £20,000: £2. 10s. per £1,000 or part thereof; As exceeds £20,000, but does not exceed £30,000: £3 per £1,000 or part thereof; As exceeds £30,000: £3. 10s. per £1,000 or part thereof, subject to maximum of	100	0	0
*‡Hawker—			
(*a*) To trade in certain specified areas—			
For each person and in each area	5	0	0
(*b*) To trade as in (*a*) in certain specified products or manufactures only—			
For each person and in each area	1	0	0
(*c*) To trade in one of the products only named in (*b*)—			
For each class of product	0	5	0
For each additional vehicle, pack animal or carrier	1	0	0
Insurance company	50	0	0
From 1st August (Each person transacting insurance business in the Union on behalf of brokers or underwriters at Lloyds, or on behalf of members of similar associations of individual underwriters, must take out a licence.)	25	0	0
*Interpreter or translator	2	10	0
*Land surveyor	5	0	0
*Law agent (If practising in the Transkeian Territories or the District of Glen Grey, £3. 15s.)	7	10	0
*‡Laundry—			
Steam	10	0	0
Other	5	0	0
*Medical practitioner	10	0	0
¶Methylated spirits	1	0	0
*Miller	5	0	0
*‡Motor garage	3	0	0
§Native labour regulations (Act No. 15 of 1911) applicable throughout the Union are as follows:—			
(*a*) For a district labour agent's licence	6	0	0
(*b*) For a provincial labour agent's licence	25	0	0
(*c*) For a Union labour agent's licence	50	0	0
(*d*) For a compound manager's licence	1	0	0
(*e*) For a conductor's licence	1	0	0
(*f*) For an employer's recruiting licence, applicable to any one district	1	0	0
Newspaper publishers—			
For every daily newspaper published	10	0	0
For newspapers issued at intervals not exceeding seven days	5	0	0
*Notary	3	0	0
*†Ostrich feather buyer	10	0	0
For period of three months	2	10	0
*†Patent and proprietary medicines (not including Dutch medicines), general dealers only, to sell	2	0	0
*Pawnbroker	15	0	0
*‡Pedlar—			
(*a*) To trade in certain specified areas—			
For each person and in each area	1	0	0
(*b*) To trade as in (*a*) in certain specified products or manufactures—			
For each person, each area, and each product	0	5	0
*Produce (fresh) dealer	2	0	0
*Quantity surveyor	10	0	0
*‡Restaurant, refreshment or tea room keeper	5	0	0
*Speculator in futures	25	0	0
*†Stock and share broker	10	0	0
*Temporary or special licence (for each day)	0	10	0

* Second Schedule, Act No. 32 of 1925 (see text, § 8 above).
† In the Cape Province these licences are also issued at all money order offices, with the exception of such offices in the Transkei.
‡ In the Cape Province these licences are also issued at all money order offices with the exception of such offices in the Transkei, but certificates or authorities are required before the licence is issued.
§ Issued by the Director of Native Labour.
¶ Issued by the Commissioner of Customs and Excise, Pretoria.
‖ Issued by the Chief Inspector of Explosives, Johannesburg.

B.—LICENCES IN FORCE IN RESPECTIVE PROVINCES ONLY.

(i) CAPE PROVINCE.

	£	s.	d.
Bookmaker	5	0	0
†Bulbs and wild flowers (Whole year from date of issue.)	0	5	0
Diamond broker	15	0	0
Diamond dealer	30	0	0
Endorsement on licence (For one month)	0	5	0
Excise licences—			
Brewer	1	0	0
Compounder or rectifier of spirits	10	0	0
Distiller (other than agricultural distiller)—			
To distil wine brandy	5	0	0
To distil other colonial spirits	5	0	0
Distiller (agricultural)—			
To distil wine brandy	0	2	6
To distil other colonial spirits	0	2	6
Distiller (other than wine farmer or distiller distilling spirits from wine only)	10	0	0
Stillmaker	1	0	0
To import a still	1	0	0
Stillkeeper, not being licensed distiller, rectifier or compounder	1	0	0
Maker of vinegar or acetous acid or pyroligneous acid	1	0	0
Ferry (Griqualand West)	10	0	0
Fishing vessels—			
Boats, 50 tons and over	5	0	0
20–49 tons	2	10	0
Under 20 tons (sailing or rowing)	0	1	0
Under 20 tons (motor)	1	0	0
Trawling vessel, to operate trawl nets to a number to be specified on licence :			
Each trawl net	5	0	0
Fishing vessels—*(cont.)*			
Whale fishing, per vessel	50	0	0
†Flowers, ferns, shrubs (whole year from date of issue)	0	5	0
Game—			
‡To hunt Royal game—			
(*a*) Person not domiciled in Cape Province	25	0	0
(*b*) Person domiciled in Cape Province	5	0	0
†To kill (for one season)	1	0	0
‡To sell (Game dealer)	4	0	0
‖Hulk (not in process of breaking up)	20	0	0
‖Hulk or condemned vessel (in process of breaking up)—			
First six months	25	0	0
Second six months	30	0	0
Third six months	35	0	0
Importer—			
In respect of goods imported for sale within the Cape Province from beyond the borders of the Union, for every completed £100 of the value of such goods £1. An importer whose importations during any calendar year do not exceed £500 is exempt. (Ordinance No. 19 of 1930 as amended by Ordinance No. 3 of 1937.)			

† In the Cape Province these licences are also issued at all money order offices, with the exception of such offices in the Transkei.

‡ In the Cape Province these licences are also issued at all money order offices with the exception of such offices in the Transkei, but certificates or authorities are required before the licence is issued.

‖ Issued by the South African Railways and Harbours Administration.

§ Liquor Licences.	Fee Payable. On Issue.			On Renewal. Basic Fee.			Off Sale Privileges.			3% on Liquor Purchases.			Maximum Fee.‡			On Transfer.			On Removal.		
	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.
Wholesale	100	0	0	100	0	0	—			—			100	0	0	25	0	0	25	0	0
Foreign	100	0	0	50	0	0	—			—			50	0	0	25	0	0	25	0	0
Brewer	100	0	0	100	0	0	—			—			100	0	0	25	0	0	25	0	0
Restaurant	50	0	0	25	0	0	—			—			25	0	0	15	0	0	15	0	0
Bottle	100	0	0	35	0	0	—			Over 1,000 0 0			125	0	0	25	0	0	25	0	0
Hotel in Urban Area	100	0	0	35	0	0	15	0	0	Over 1,000 0 0			125	0	0	25	0	0	25	0	0
Hotel in Rural Area	100	0	0	20	0	0	10	0	0	Over 500 0 0			125	0	0	15	0	0	15	0	0
Bar		—		65	0	0	35	0	0	Over 1,000 0 0			175	0	0	50	0	0	50	0	0
Club	100	0	0	35	0	0		—		Over 1,000 0 0			100	0	0	25	0	0	25	0	0
Theatre or Sports Ground	50	0	0	25	0	0		—		—			25	0	0	25	0	0	25	0	0
Wine and Malt Liquor	20	0	0	10	0	0		—		Over 500 0 0			50	0	0	10	0	0	10	0	0
Wine Farmer	0	5	0	0	2	6		—		—			0	2	6	0	2	6	0	2	6

Temporary..... £5 per diem in respect of each bar kept under the licence but not exceeding, £15 in respect of all bars kept under any one temporary liquor licence.

Late Hours—Occasional £1 in respect of each hour or portion of an hour for which the licence is granted.

‡ Subject to increase in respect of extended hour privileges.

§ Third Schedule, Act No. 30 of 1928, as amended by Act No. 41 of 1934. Fees prescribed by Schedule to Ordinance No. 32 of 1934 (Cape).

B.—LICENCES IN FORCE IN RESPECTIVE PROVINCES ONLY—(*contd.*).

(i) CAPE PROVINCE—(*continued*).

	£	s.	d.
Native location on private property—			
For each labour tenant	0	10	0
For each ordinary tenant	2	0	0
Ostrich, wild : to kill, catch, or hunt, for one year from date of issue	5	0	0
†Oysters, to collect—			
Whole season	0	6	0
Per month	0	2	6
Prospecting—			
For precious stones or minerals (per month)	0	2	6
Prospecting *(continued)*—			
Dredging for precious stones (for one year from date of issue)	15	0	0
For base metals (per month)	0	1	0
Trout and other non-indigenous fish			
(*a*) Male Adults : per month	0	10	0
per full season	1	0	0
Women and Juveniles under the age of 16 years :			
Per full season	0	5	0
(*b*) To fish for Black Bass and Perch only : per full season	0	2	6

With the following exceptions and those mentioned above under attorney, eating-house keeper and law agent, the tariff in force in the Cape Province applies also to the Transkeian Native Territories.

	£	s.	d.
Liquor licences—			
Bottle store	15	0	0
(In addition £5 for every £1,000 or part thereof of gross receipts exceeding £1,500 : maximum licence, £150.)			
Club	30	0	0
Hotel—			
In urban area	20	0	0
Not in urban area	15	0	0
Liquor licences *(continued)*—			
Hotel *(continued)*—			
(In addition, £5 for every £1,000 or part thereof of gross receipts exceeding £2,000 up to £3,000, and £10 for every £1,000 or part thereof of gross receipts exceeding £3,000; maximum licence, £150.)			
Regimental canteen	Free.		
Removal (club only)	0	10	0
Temporary, per diem	0	10	0
Transfer (club only)	Free.		
Transfer or removal (other)	5	0	0

Trading by natives in Transkeian Territories (Proclamation No. 244 of 1934) as amended :—

	£	s.	d.
Native baker	0	10	0
Native butcher	0	10	0
Native trader	5	0	0

(ii) NATAL PROVINCE.

	£	s.	d.
Bookmaker	50	0	0
After 30th June	30	0	0
(Provided that in the case of a bookmaker who carries on a business only at race meetings and/or at gymkhanas, and there only in what is known as the "silver ring" and conformably to the recognized practice at a "silver ring," the fees shall be respectively, £15 and £10.)			
Dealer in old metal	5	0	0
Dog licence	0	10	0
*Excise licences—			
Brewer	1	0	0
To keep an unused still	1	0	0
Distiller, rectifier, or compounder, for each still of a capacity of 150 gallons or more	5	0	0
Of a capacity of less than 150 gallons	1	0	0
To make stills	1	0	0
To make wine	1	0	0
Fisheries—			
‡By net (according to size of net)	1	0	0
	to		
	10	0	0
‡To angle	1	0	0
Fisheries *(continued)*—			
‡For every crab-pot	0	10	0
‡For every fish factory	1	0	0
‡For every fishing boat—			
(i) Not mechanically propelled	0	10	0
(ii) Mechanically propelled	1	0	0
‡For every fish kraal	7	10	0
‡For taking oysters—			
(i) For trade	5	0	0
(ii) Visitors (per diem)	0	1	0
‡For taking mussels	0	10	0
‡For each additional mussel licence (up to four)	0	5	0
Trout—			
‡Farming	1	0	0
Fishing—			
General Licence (whole open season)	1	0	0
Occasional licence (seven days)		7	6
Special licence (women, juveniles, and students)		5	0
Game—			
Shooting specially protected game, for each head	0	2	6
	to		
	20	0	0
Shooting ordinary game (per season)	1	0	0
To sell	5	0	0

* Issued by the Commissioner of Customs and Excise, Pretoria.

† In the Cape Province these licences are also issued at all Money Order Offices, with the exception of such offices in the Transkei.

‡ Issued by the Principal Fisheries Officer, Durban.

‖ Issued only by Provincial Secretary and by Magistrate, Nongoma.

B.—LICENCES IN FORCE IN RESPECTIVE PROVINCES ONLY—(*contd.*).

(ii) NATAL PROVINCE—*continued.*

† Liquor licences—	Fee Payable. On Issue. £ s. d.	On Renewal. £ s. d.	On Transfer. £ s. d.	On Removal. £ s. d.
Wholesale; Foreign; Brewer	100 0 0	50 0 0	25 0 0	25 0 0
Bottle or hotel	100 0 0	50 0 0	25 0 0	25 0 0
If premises situate in urban area of less than 1,500 parliamentary voters	50 0 0	25 0 0	12 10 0	12 10 0
If premises situate in a rural area	20 0 0	10 0 0	5 0 0	5 0 0
Club	100 0 0	50 0 0	25 0 0	25 0 0
Bar	—	100 0 0	50 0 0	50 0 0
Restaurant	50 0 0	25 0 0	15 0 0	15 0 0
Theatre or sports ground	50 0 0	25 0 0	25 0 0	25 0 0
Wine and malt liquor	20 0 0	10 0 0	10 0 0	10 0 0
Wine farmer	0 5 0	0 2 6	0 2 6	0 2 6
Temporary	£5 per diem in respect of each bar, but not exceeding £15 for all bars kept under one temporary licence.			
Late hours—Occasional	£1 in respect of each hour or portion of an hour.			

	£ s. d.
Native herbalist	3 0 0
If practising in Zululand only	1 0 0

	£ s. d.
Prospecting claim licence (for each period of three months)	0 1 0

(iii) TRANSVAAL PROVINCE.

	£ s. d.
Boiler (for each boiler)	0 10 0
Bookmaker	5 0 0
Diamond broker	10 0 0
Diamond dealer	20 0 0
Dog licence	0 10 0
Greyhound	5 0 0
(One watchdog outside a municipality free.)	
Duplicate badge	0 2 6
*Excise licences—	
Brewer	1 0 0
To keep an unused still	1 0 0
Distiller, rectifier, or compounder, for each still of a capacity of 150 gallons or more	5 0 0
Of a capacity of less than 150 gallons	1 0 0
To make stills	1 0 0
To make wine	1 0 0

	£ s. d.
Fishing (for using net), per season	0 7 6
Fishing for trout	0 10 0
Game—	
Dealer	3 0 0
To hunt—	
(1) Owners:	
(*a*) Small game	Free.
(*b*) Big game	10s. per permit.
(2) Non-Owners:	
(*a*) Small game licences; 15s. per month or 30s. per whole open season.	
(*b*) Small game permits; according to number of head per permit, 5s. to £5.	
(*c*) Big game permits; according to number of head per permit, 15s. to £5.	
Jeweller's Permit	1 0 0

Liquor licences—	Fee Payable. On Issue. £ s. d.	On Renewal. £ s. d.	On Transfer. £ s. d.	On Removal. £ s. d.
Wholesale; Foreign; Brewer; Bottle	100 0 0	50 0 0	25 0 0	25 0 0
Hotel	100 0 0	50 0 0	25 0 0	25 0 0
If situate in urban area of less than 1,500 parliamentary voters	50 0 0	25 0 0	12 10 0	12 10 0
If situate in a rural area	20 0 0	10 0 0	5 0 0	5 0 0
Club	100 0 0	50 0 0	25 0 0	25 0 0
Bar	—	100 0 0	50 0 0	50 0 0
Restaurant	50 0 0	25 0 0	15 0 0	15 0 0
Theatre or sports ground	50 0 0	25 0 0	25 0 0	25 0 0
Wine and malt liquor	20 0 0	10 0 0	10 0 0	10 0 0
Wine farmer	0 5 0	0 2 6	0 2 6	0 2 6
Temporary	£5 per diem in respect of each bar, but not exceeding £15 for all bars kept under one temporary licence.			
Late hours—Occasional	£1 in respect of each hour or portion of an hour.			

Recovery works—	£ s. d.
To deal in unwrought precious metals	25 0 0
Quarterly licence	8 0 0

* Issued by the Commissioner of Customs and Excise, Pretoria.

† Third Schedule, Act No. 30 of 1928, as amended by Act No. 41 of 1934, and Ordinance No. 4 of 1935 (Natal).

§ Third Schedule, Act No. 30 of 1928, as amended by Act No. 41 of 1934. See also Ordinance No. 7 of 1935 (Transvaal).

B.—LICENCES IN FORCE IN RESPECTIVE PROVINCES ONLY—(*contd.*).

(iv) ORANGE FREE STATE.

	£ s. d.
Bookmaker	10 0 0
Betting room	25 0 0
After 30th June	12 10 0
Boxing, wrestling, or endurance competitions (professional), per day or part thereof	4 0 0
Diamond broker or factor	10 0 0
Diamond dealer	25 0 0
Dog licence	0 10 0
‡Excise licences—	
To keep an unused still	1 0 0

	£ s. d.
‡Excise licences—(*cont.*)	
Distiller, rectifier, or compounder, for each still, of a capacity of 150 gallons or more	5 0 0
Of a capacity of less than 150 gallons	1 0 0
To make stills	1 0 0
To make wine	1 0 0
Game—	
To kill (for one season)	1 10 0
To kill (for two weeks)	0 10 0
To sell (for any open season)	0 5 0
Jeweller's Permit	1 0 0

§ *Entertainment Licences.*

The following licences are now payable for a theatre, concert hall, music hall, bioscope, skating rink, circus, travelling show, or other like entertainment:—

Where the Price Charged for Admission—	Per Performance. If Seating Accommodation does not Exceed 250.	If Seating Accommodation Exceeds 250 and does not Exceed 500.	If Seating Accommodation Exceeds 500.	Per Month. If Seating Accommodation does not Exceed 250.	If Seating Accommodation Exceeds 250 and does not Exceed 500.	If Seating Accommodation Exceeds 500.
	s. d.	s. d.	s. d.	£ s.	£	£
Does not exceed 1s.	5 0	12 6	15 0	5 0	12	15
Does not exceed 2s.	6 0	15 0	17 6	6 0	15	18
Does not exceed 5s.	7 6	17 6	20 0	7 10	18	21
Exceeds 5s.	10 0	25 0	30 0	10 0	21	24

Where the Price Charged for Admission—	Per Three Months. If Seating Accommodation does not Exceed 250.	If Seating Accommodation Exceeds 250 and does not Exceed 500.	If Seating Accommodation Exceeds 500.	Per Six Months. If Seating Accommodation does not Exceed 250.	If Seating Accommodation Exceeds 250 and does not Exceed 500.	If Seating Accommodation Exceeds 500.
	£ s.	£	£	£	£	£
Does not exceed 1s.	7 10	18	22	10	24	30
Does not exceed 2s.	9 0	22	26	12	30	36
Does not exceed 5s.	11 0	26	30	15	36	42
Exceeds 5s.	15 0	30	34	20	42	48

Where the seating capacity, owing to the nature of the entertainment or the place in which it is given, cannot be readily ascertained, the licence payable is 10s. per day or part of a day; £2. 10s. per week; £7. 10s. per month.

‡ Issued by Commissioner of Customs and Excise, Pretoria.

§ See also Chapter XV for Entertainment Taxes.

B.—LICENCES IN FORCE IN RESPECTIVE PROVINCES ONLY—(*contd.*).

(iv) ORANGE FREE STATE—(*continued*).

‡ Liquor licences—	Fee Payable. On Issue. £ s. d.	On Renewal. £ s. d.	On Transfer. £ s. d.	On Removal. £ s. d.
Wholesale, Foreign, Brewer, Bottle	100 0 0	50 0 0	25 0 0	25 0 0
Hotel	100 0 0	50 0 0	25 0 0	25 0 0
If situate in urban area of less than 1,500 parliamentary voters	50 0 0	25 0 0	12 10 0	12 10 0
If situate in a rural area	20 0 0	10 0 0	5 0 0	5 0 0
Club	100 0 0	50 0 0	25 0 0	25 0 0
Bar	—	100 0 0	50 0 0	50 0 0
Restaurant	50 0 0	25 0 0	15 0 0	15 0 0
Theatre or sports ground	50 0 0	25 0 0	25 0 0	25 0 0
Wine and malt liquor	20 0 0	10 0 0	10 0 6	10 0 0
Wine farmer	0 5 0	0 2 6	0 2 6	0 2 6
Temporary	£5 per diem in respect of each bar, but not exceeding £15 for all bars kept under one temporary licence.			
Late hours—Occasional	£1 in respect of each hour or portion of an hour.			
Recovery Works—				
To deal in unwrought precious metals	£25 0 0			
Quarterly licence	£8 0 0			

‡ Third Schedule, Act No. 30 of 1928, as amended by Act No. 41 of 1934.

2. **Licences Issued.**—(*a*) *All Licences.*—Particulars are given in the tables below as to the number of licences issued and the amount paid for licences in each province for a period of years, distinguishing between licences reserved to the Union Government and licences assigned and transferred to the provinces. In making use of information contained in the tables, it should be observed that while a large proportion of the licences are imposed under the provisions of Act No. 32 of 1925, which made uniform the collection of certain licences throughout all the provinces, others are particular to certain Provincial Administrations only, these having been enacted under the provisions of the Ordinances of those provinces, or continued under the powers of pre-Union legislation. A few licences mentioned above, e.g., explosives, hulks, etc., are issued and accounted for by the Departments directly concerned.

(i) (*a*) NUMBER OF LICENCES RESERVED TO THE UNION GOVERNMENT, 1934-35 TO 1937-38.

Description of Licence.	1934-35.	1935-36.	1936-37.	1937-38.
	Number.	Number.	Number.	Number.
Agent of Foreign Firm	1,214	1,362	1,544	1,628
Arms, Rifle and other (to possess)	5,749	6,717	8,181	86,247
Banker or Banking Institution	507	583	577	603
Boiler	1,613	1,444	1,578	1,515
Building Society	1	57	44	51
Commercial Traveller	1,883	2,208	2,615	2,744
Company	8,240	9,002	10,299	11,391
Dealer in—				
Arms and Ammunition	207	209	215	375
Fireworks	1,210	1,308	1,522	1,702
Gunpowder	267	280	275	26
Old Metals	4	12	12	20
Diamond Broker or Factor	11	4	6	5
Diamond Dealer	176	151	135	127
Diamond Trade, Endorsement on Licence	4	1	—	3
Electric Power*	3	—	1	4
Insurance Company	100	102	102	105
Jeweller's Permit	48	50	54	60
Mealie Trader	3,472	3,393	1,224	3,038
Native Compound Manager	303	341	340	355
Native Labour Agent, etc	944	1,444	1,362	1,809
Native Medicine Man	328	293	300	283
Newspaper Publisher	188	172	173	185
Performing Animals (Act No. 24 of 1935)	—	—	1	6
Prospecting	—	—	—	—
Recovery Works (Dealer in Unwrought Gold)	38	48	54	64
Runner's Permit	—	—	—	—
Squatter	—	—	—	—
Tobacco Trader	276	368	330	277
TOTAL.....No.	26,846	29,579	30,983	112,823

* Issued by the Electricity Control Board under the authority of section 19 of Act No. 42 of 1922 (Government Notice No. 1957 of 1922).

(i) (*b*) REVENUE FROM LICENCES RESERVED TO THE UNION GOVERNMENT, 1934-35 TO 1937-38.

Description of Licence.	1934-35.	1935-36.	1936-37.	1937-38.
	£	£	£	£
Agent of Foreign Firm	12,931	12,139	14,211	14,793
Arms, Rifle and other (to possess)	1,712	1,904	2,313	27,850
Banker or Banking Institution	11,310	11,650	11,512	11,968
Boiler	1,675	1,733	1,851	1,796
Building Society	20	1,145	645	811
Commercial Traveller	18,134	16,853	18,059	18,588
Company	72,211	76,120	88,477	92,467
Dealer in—				
Arms and Ammunition	2,020	2,107	2,162	4,915
Fireworks	712	767	900	987
Gunpowder	1,294	1,379	1,361	126
Old Metals	20	60	61	146
Diamond Broker or Factor	96	41	62	52
Diamond Dealer	3,044	2,745	2,495	2,315
Diamond Trade, Endorsement on Licence	—	—	—	—
Electric Power*	20	—	20	40
Insurance Company	5,000	4,725	5,100	5,250
Jeweller's Permit	42	42	45	47
Mealie Trader	869	858	306	766
Native Compound Manager	298	329	337	339
Native Labour Agent, etc	3,495	4,082	4,156	5,236
Native Medicine Man	998	903	926	849
Newspaper Publisher	974	980	976	1,076
Performing Animals (Act No. 24 of 1935)	—	—	—	26
Prospecting	—	—	—	—
Recovery Works (Dealer in Unwrought Gold)	558	569	659	698
Runner's Permit	—	—	—	—
Squatter	—	—	—	—
Tobacco Trader	70	90	89	70
TOTAL.....£	137,503	141,230	156,723	191,211

* Issued by the Electricity Control Board under the authority of section 19 of Act No. 42 of 1922 (Government Notice No. 1957 of 1922.)

(ii) (*a*) NUMBER OF LICENCES ASSIGNED AND TRANSFERRED TO THE PROVINCES, 1934-35 TO 1937-38.

Description.	1934-35.	1935-36.	1936-37.	1937-38.
	Number.	Number.	Number.	Number.
Advertising Agent or Contractor	60	65	64	72
Aerated or Mineral Water—				
Manufacturer	356	300	279	301
Dealer	2,910	2,989	3,093	3,068
Apothecary	872	875	899	914
Accountant	713	732	749	764
Actuary	8	4	4	7
Advocate	334	336	321	243
Appraiser or Assessor	123	133	145	132
Architect	285	320	334	338
Attorney	2,113	2,163	2,185	2,188
Auctioneer	772	731	801	808
Baker	669	620	626	608
Bagatelle Table Keeper	24	16	18	23
Billiard Table Keeper	464	476	440	415
Boarding or Lodging-house Keeper	1,360	1,505	1,726	1,935
Board of Executors or Trust Company	96	98	87	89
Broker or Agent	1,995	2,050	2,170	2,210
Buchu Buyer	20	18	29	38
Butcher	4,666	4,517	4,632	4,597
Canvasser for Sale of Shares or Land	3	2	23	6
Consulting Engineer	46	89	76	79
Conveyancer	1,072	1,116	1,124	1,125
Dealer or Speculator in Live Stock or Produce	1,038	1,098	1,137	1,157
Dentist	626	634	630	634
Dog Licence	54,986	69,643	71,917	107,744
Eating-house Keeper	1,110	1,157	1,152	1,221
Ferry	9	7	5	4
Fishing-boat	1,070	998	1,204	1,116

(ii) (a) NUMBER OF LICENCES ASSIGNED AND TRANSFERRED TO THE PROVINCES, 1934-35 TO 1937-38—(*continued*).

Description.	1934-35.	1935-36.	1936-37.	1937-38.
	Number.	Number.	Number.	Number.
Fishing for Trout or other non-indigenous Fish, etc.	1,242	1,475	2,052	2,430
Flowers (wild), Ferns, Shrubs, Bulbs, etc.	62	92	100	83
Game—				
Dealer	99	100	89	73
To Hunt or Kill	5,922	5,805	5,720	6,053
General Dealer	35,464	36,706	38,300	39,496
Hawker	5,870	6,117	5,664	5,307
Importer	1,127	1,217	1,600	1,227
Interpreter or Translator	19	24	21	17
Land Surveyor	182	176	177	179
Law Agent	34	30	28	26
Laundry—Steam and Other	96	107	138	116
Liquor Licences—				
Bar	285	270	253	67
Bottle	570	587	561	573
Brewer	23	24	25	17
Club	157	153	163	174
Foreign	3	7	5	9
Hotel	1,384	1,391	1,358	1,392
Wine and Malt	53	58	61	162
Kaffir Beer	14	16	14	15
Late Hours (occasional)	2,260	2,241	2,502	2,864
Restaurant	—	41	1	2
Theatre or Sports Ground	34	36	38	39
Temporary	341	316	416	547
Transfer or Removal	1	2	6	2
Wholesale	235	259	262	261
Wine Farmer	379	368	368	230
Medical Practitioner	1,784	1,840	1,888	1,909
Miller	1,549	1,644	1,716	1,874
Motor Garage	3,354	3,507	3,629	3,731
Native Baker (Transkeian Territories)	—	1	—	—
Native Butcher " "	1	5	14	8
Native Trader " "	—	6	11	20
Notary	1,595	1,637	1,628	1,639
Ostrich Feather Buyer	31	40	30	36
Oysters, to Collect	409	381	425	408
Patent or Proprietary Medicines, to Sell	6,777	7,362	7,638	8,204
Pawnbroker	18	16	17	14
Pedlar	4,908	4,984	5,112	5,350
Produce (fresh) Dealer	4,653	4,950	5,282	5,543
Quantity Surveyor	43	51	61	60
Restaurant, Refreshment, or Tearoom-keeper	3,483	3,647	3,776	3,946
Slaughtering	—	47	97	222
Speculator in Futures	1	—	3	—
Stock and/or Share Broker	259	239	253	241
Temporary or Special	93	72	101	80
Trawling Vessel	19	20	26	18
Whaling Vessel	—	—	14	13
TOTAL.....No.	162,633	180,769	187,519	226,543

(ii) (b) REVENUE FROM LICENCES ASSIGNED AND TRANSFERRED TO THE PROVINCES, 1934-35 TO 1937-38.

Description.	1934-35.	1935-36.	1936-37.	1937-38.
	£	£	£	£
Advertising Agent or Contractor	296	340	328	382
Aerated or Mineral Water—				
Manufacturer	1,805	1,614	1,607	1,662
Dealer	8,692	8,936	9,307	9,256
Apothecary	4,304	4,315	4,457	4,528
Accountant	6,339	6,487	6,654	6,859
Actuary	62	35	39	65
Advocate	2,966	3,017	2,863	2,268
Appraiser or Assessor	641	673	739	656
Architect	2,497	2,892	2,871	3,032

(ii) (b) REVENUE FROM LICENCES ASSIGNED AND TRANSFERRED TO THE PROVINCES, 1934-35 TO 1937-38—(*continued*).

Description.	1934-35.	1935-36.	1936-37.	1937-38.
	£	£	£	£
Attorney	19,018	19,347	19,977	20,209
Auctioneer	8,471	8,135	8,908	9,118
Baker	3,331	2,988	3,082	3,011
Bagatelle Table Keeper	144	69	114	127
Billiard Table Keeper	5,797	5,841	5,483	5,389
Boarding or Lodging-house Keeper	7,531	8,342	9,330	10,747
Board of Executors or Trust Company	3,845	4,057	3,815	3,821
Broker or Agent	9,811	10,193	10,693	11,091
Buchu Buyer	20	18	29	31
Butcher	32,201	32,214	33,724	33,070
Canvasser for Sale of Shares or Land	125	75	825	275
Consulting Engineer	383	1,047	643	695
Conveyancer	1,619	1,632	1,659	1,632
Dealer or Speculator in Live Stock or Produce	9,770	10,486	10,750	10,860
Dentist	6,214	6,239	6,216	6,185
Dog Licence	29,306	34,799	37,065	55,215
Eating-house Keeper	5,050	5,439	5,260	5,522
Ferry	85	70	50	40
Fishing-boat	537	477	503	544
Fishing for Trout or other Non-indigenous Fish, etc.	2,055	2,487	2,402	2,485
Flowers (Wild), Ferns, Shrubs, Bulbs, etc.	16	21	25	26
Game—				
Dealer	212	254	204	183
To Hunt or Kill	6,984	6,621	6,455	6,596
General Dealer	224,504	236,058	249,172	269,630
Hawker	5,212	5,380	5,458	5,110
Importer	105,786	109,938	116,530	98,950
Interpreter or Translator	34	39	33	47
Land Surveyor	865	867	876	886
Law Agent	245	214	198	189
Laundry—Steam and Other	753	945	1,171	1,012
Liquor Licences—				
Bar	34,162	31,860	30,906	7,362
Bottle	31,375	34,424	29,294	40,794
Brewer	1,625	1,650	1,750	1,725
Club	7,697	7,470	8,207	9,469
Foreign	150	392	250	567
Hotel	69,273	70,790	72,605	79,319
Wine and Malt	739	841	844	4,069
Kaffir Beer	160	260	170	180
Late Hours (occasional)	4,186	4,142	4,763	5,251
Restaurant	—	790	25	109
Theatre or Sports Ground	1,030	925	1,025	969
Temporary	2,552	2,400	2,496	3,323
Transfer or Removal	10	30	30	19
Wholesale	15,750	15,904	16,493	16,275
Wine Farmer	57	57	55	51
Medical Practitioner	16,658	17,175	17,744	17,673
Miller	3,197	3,325	3,526	3,685
Motor Garage	10,026	10,767	10,920	11,307
Native Baker (Transkeian Territories)	—	1	—	—
Native Butcher " "	1	4	8	3
Native Trader " "	—	27	49	98
Notary	2,379	2,388	2,426	2,451
Ostrich Feather Buyer	137	144	110	111
Oysters, to Collect	37	29	24	31
Patent or Proprietary Medicines, to Sell	13,493	14,657	15,193	16,355
Pawnbroker	270	251	249	210
Pedlar	2,096	2,142	2,156	2,312
Produce (fresh) Dealer	9,142	9,791	10,695	11,470
Quantity Surveyor	347	383	415	511
Restaurant, Refreshment, or Tearoom-keeper	17,006	17,974	18,673	19,424
Slaughtering	—	12	14	38
Speculator in Futures	10	—	40	—
Stock and/or Share Broker	2,544	2,360	2,498	2,329
Temporary or Special	377	99	126	89
Trawling Vessel	95	103	125	90
Whaling Vessel	—	—	700	650
Application Fees	452	532	588	628
Fees (Embossed Application Forms)	6,153	6,748	7,084	8,817
TOTAL.....£	770,812	803,448	831,798	859,376

These amounts are included for these and previous years in the tables of Provincial Revenue, Chapter XV.

(iii) LICENCES RESERVED TO THE UNION GOVERNMENT, ISSUED IN THE SEVERAL PROVINCES, 1937-38.

Description of Licence.	Cape of Good Hope.		Natal.		Transvaal.		Orange Free State.		Total.	
	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.
		£		£		£		£		£
Agent of Foreign Firm.....	651	5,784	162	1,389	812	7,590	3	30	1,628	14,793
Arms, Rifle and Other (to possess).....	6,457	2,015	9,185	2,875	49,579	16,630	21,026	6,350	86,247	27,870
Banker or Banking Institution	264	5,198	49	980	189	3,780	101	2,010	603	11,968
Boiler.....	—	—	—	—	1,515	1,796	—	—	1,515	1,796
Building Society.....	18	379	11	163	15	212	7	57	51	811
Commercial Traveller—										
Wholesale.....	258	2,539	193	1,838	455	4,462	154	1,410	1,057	10,249
Retail.....	757	3,726	264	1,312	501	2,479	165	822	1,687	8,339
Company.....	2,337	19,019	1,204	7,694	7,657	65,093	193	661	11,391	92,467
Dealer in—										
Arms and Ammunition....	381	3,044	31	252	123	1,247	40	372	575	4,915
Fireworks.....	622	369	226	137	729	496	125	75	1,702	1,077
Gunpowder.....	26	126	—	—	—	—	—	—	26	126
Old Metals.....	—	—	20	146	—	—	—	—	20	146
Diamond Broker or Factor..	2	30	—	—	3	22	—	—	5	52
Diamond Dealer.....	40	980	—	—	87	1,335	—	—	127	2,315
Diamond Trade, Endorsement of Licence.....	3	—	—	—	—	—	—	—	3	—
Electric Power*.....	—	—	—	—	4	40	—	—	4	40
Insurance Company.....	51	2,550	2	100	52	2,600	—	—	105	5,250
Jeweller's Permit.....	—	—	—	—	60	47	—	—	60	47
Mealie Trader.....	734	186	353	86	1,160	371	491	123	3,038	766
Native Compound Manager	—	—	—	—	355	339	—	—	355	339
Native Labour Agent, Conductor, Runner, or Employer	255	255	213	221	1,340	4,759	1	1	1,809	5,236
Native Medicine Man.....	—	—	283	849	—	—	—	—	283	849
Newspaper Publisher.....	89	503	16	95	62	378	18	100	185	1,076
Performing Animals (Act No. 24 of 1935).....	3	11	2	10	—	—	1	5	6	26
Recovery Works (Dealer in Unwrought Gold).....	—	—	—	—	61	698	—	—	61	698
Tobacco Trader	155	37	47	15	71	16	4	2	277	70
TOTAL.....	13,103	46,751	12,261	18,162	65,133	114,390	22,326	11,998	112,823	191,211

* See note Table (I) (*a*) or (I) (*b*).

(iv) LICENCES (TRANSFERRED AND ASSIGNED TO THE PROVINCES) ISSUED IN THE SEVERAL PROVINCES, 1937-38.

Description of Licence.	Cape of Good Hope.		Natal.		Transvaal.		Orange Free State.		Total.	
	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.
		£		£		£		£		£
Advertising Agent or Contractor.....	31	152	14	96	26	129	1	5	72	382
Aerated or Mineral Water—										
Manufacturer.....	169	829	23	155	78	518	31	160	301	1,662
Dealer.....	1,376	4,102	897	2,688	661	2,057	134	409	3,068	9,256
Accountant.....	293	2,647	114	1,033	312	2,705	45	414	764	6,859
Actuary.....	3	30	—	—	4	35	—	—	7	65
Advocate.....	74	713	41	374	112	1,017	16	164	243	2,268
Apothecary.....	287	1,423	132	657	437	2,160	58	288	914	4,528
Appraiser or Assessor.....	50	249	33	162	39	195	10	50	132	656
Architect.....	108	1,009	48	446	174	1,497	8	80	338	3,032
Attorney.....	857	7,710	238	2,205	866	8,192	227	2,102	2,188	20,209
Auctioneer.....	373	4,305	88	959	248	2,678	99	1,176	808	9,118
Baker.....	283	1,385	93	444	179	933	53	249	608	3,011
Bagatelle Table Keeper.....	13	62	—	—	10	65	—	—	23	127
Billiard Table Keeper.....	222	2,585	56	766	99	1,542	38	487	415	5,380
Boarding or Lodging-house Keeper.....	620	3,258	368	2,002	868	5,076	79	411	1,935	10,747
Board of Executors or Trust Company.....	63	2,646	3	125	19	850	4	200	89	3,821
Broker or Agent.....	704	3,555	431	2,140	936	4,724	139	672	2,210	11,091
Brewery.....	10	1,000	3	150	8	425	3	150	24	1,725
Buchu Buyer.....	38	81	—	—	—	—	—	—	38	81
Butcher.....	1,862	11,815	599	3,678	1,901	16,064	235	1,513	4,597	33,070

(iv) LICENCES (TRANSFERRED AND ASSIGNED TO THE PROVINCES) ISSUED IN THE SEVERAL PROVINCES, 1937-38—(*continued*).

Description of Licence.	Cape of Good Hope.		Natal.		Transvaal.		Orange Free State.		Total.	
	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.
		£		£		£		£		£
Canvasser for Sale of Shares or Land.....	4	200	—	—	—	—	2	75	6	275
Consulting Engineer.....	24	218	9	59	45	408	1	10	79	695
Conveyancer.....	247	375	242	388	451	598	185	271	1,125	1,632
Dealer or Speculator in Live Stock or Produce.....	478	4,502	189	1,670	204	2,718	205	1,970	1,157	10,860
Dentist.....	246	2,431	71	702	271	2,613	46	439	634	6,185
Dog Licence.....	—	—	44,050	22,620	25,691	15,907	37,103	16,688	107,744	55,215
Eating-house Keeper.....	311	988	339	1,083	528	2,644	43	207	1,221	5,522
Ferry.....	4	40	—	—	—	—	—	—	4	40
Fishing-boat.....	1,116	544	—	—	—	—	—	—	1,116	544
Fishing for Trout or other non-indigenous Fish.....	827	572	1,410	1,826	140	69	53	18	2,430	2,485
Flowers (Wild), Ferns, Shrubs, Bulbs, etc.....	88	26	—	—	—	—	—	—	88	26
Game—										
Dealer.....	17	49	—	—	49	130	7	4	73	183
To Hunt or Kill.....	2,635	2,660	677	929	2,491	2,820	250	187	6,053	6,596
General Dealer.....	15,143	98,506	4,979	36,191	17,008	120,831	2,366	14,102	39,496	269,630
Hawker.....	2,980	1,901	584	446	1,568	2,341	175	422	5,307	5,110
Importer.....	1,227	98,950	—	—	—	—	—	—	1,227	98,950
Interpreter or Translator.....	6	11	2	4	21	32	—	—	29	47
Land Surveyor.....	82	402	29	141	53	277	14	66	178	886
Law Agent.....	15	105	1	7	4	31	6	45	26	189
Laundry—Steam and Other.	37	301	32	247	43	429	4	35	116	1,012
Liquor Licences—										
Bar.....	19	2,134	16	1,858	30	3,140	2	230	67	7,362
Bottle.....	184	12,615	80	2,629	261	23,347	48	2,203	573	40,794
Club.....	60	2,871	27	1,350	68	4,383	17	865	172	9,469
Foreign.....	5	275	2	142	2	150	—	—	9	567
Hotel.....	696	50,993	266	10,423	330	13,820	100	4,173	1,392	79,319
Wine and Malt.....	94	3,146	16	216	50	687	2	20	162	4,069
Kaffir Beer.....	—	—	15	160	—	—	—	—	15	160
Late Hours (occasional)..	1,405	2,560	443	821	855	1,594	161	276	2,864	5,251
Restaurant.....	—	—	—	—	2	100	—	—	2	100
Wholesale.....	78	6,800	29	1,525	146	7,500	8	450	261	16,275
Theatre or Sports Ground..	12	340	6	150	18	404	3	75	39	969
Temporary.....	162	1,228	71	356	281	1,659	33	280	547	3,523
Transfer or Removal.....	2	15	—	—	—	—	—	—	2	15
Wine Farmer.....	221	49	3	1	6	1	—	—	230	51
Medical Practitioner.....	760	7,114	241	2,276	742	6,758	166	1,525	1,909	17,673
Miller.....	675	1,201	245	489	545	1,246	409	749	1,874	3,685
Motor Garage.....	1,340	4,000	619	1,837	1,386	4,322	386	1,148	3,731	11,307
Native Baker (Transkeian Territories).....	—	—	—	—	—	—	—	—	—	—
Native Butcher (Transkeian Territories).....	8	3	—	—	—	—	—	—	8	3
Native Trader (Transkeian Territories).....	20	98	—	—	—	—	—	—	20	98
Notary.....	668	1,013	138	206	655	956	178	276	1,639	2,451
Ostrich Feather Buyer.....	36	111	—	—	—	—	—	—	36	111
Oysters, to Collect.....	408	31	—	—	—	—	—	—	408	31
Patent or Proprietary Medicines, to Sell.....	3,602	7,080	809	1,681	3,126	6,269	667	1,225	8,204	16,355
Pawnbroker.....	5	75	4	60	5	75	—	—	14	210
Pedlar.....	391	132	3,590	1,189	1,158	821	211	170	5,350	2,312
Produce (fresh) Dealer.....	2,349	4,777	1,148	2,326	1,088	3,664	358	703	5,543	11,470
Quantity Surveyor.....	17	153	9	71	43	287	—	—	69	511
Restaurant, Refreshment, or Tearoom-keeper.....	1,133	5,497	844	4,175	1,717	8,528	252	1,224	3,946	19,424
Slaughtering.....	—	—	83	8	139	30	—	—	222	38
Speculator in Futures.....	—	—	—	—	—	—	—	—	—	—
Stock and/or Share Broker..	35	265	12	120	191	1,914	3	30	241	2,329
Temporary or Special.....	34	38	15	29	—	—	31	22	80	89
Trawling Vessel.....	18	90	—	—	—	—	—	—	18	90
Whaling Vessel.....	13	650	—	—	—	—	—	—	13	650
Application Fees.....	—	—	—	—	—	628	—	—	—	628
Fees (Embossed Application Forms).....	—	2,933	—	1,423	—	4,017	—	444	—	8,817
TOTAL.....	47,373	380,535	65,417	120,514	69,078	299,070	44,675	59,257	226,543	859,376

(*b*) ***Licences Issued to Asiatics.***—The following supplementary table contains information relative to the number and value of licences issued to Asiatics in the Provinces of the Cape, Natal, and the Transvaal during the financial years 1936-37 and 1937-38. These are included in the preceding tables.

(i) Number of Licences Issued to Asiatics.

Description.	1936-37.			1937-38.		
	Cape of Good Hope.	Natal.	Transvaal.	Cape of Good Hope.	Natal.	Transvaal.
	No.	No.	No.	No.	No.	No.
Advocate	—	2	—	—	—	—
Aerated or Mineral Water Manufacturer	5	—	1	2	2	1
Aerated or Mineral Water Dealer	207	394	38	196	425	41
Agent of Foreign Firm	—	3	—	—	1	—
Apothecary	1	—	—	—	—	—
Appraiser	—	2	—	—	2	—
Architect	—	6	—	—	3	—
Arms or Ammunition Dealer	—	—	—	—	6	—
Arms (rifle and other) to possess	—	—	1	—	1	—
Attorney	—	3	—	—	2	—
Auctioneer	—	1	—	—	1	—
Baker	4	23	4	3	24	13
Billiard Table Keeper	1	9	—	2	9	—
Boarding-house Keeper	—	6	—	—	—	—
Boiler	—	—	1	—	—	1
Broker or Agent	7	64	—	3	74	—
Buchu Buyer	1	—	—	1	—	—
Bulbs and Wild Flowers—to sell	—	—	—	1	—	—
Butcher	73	143	206	81	149	167
Commercial Traveller—						
Retail	—	4	—	2	3	—
Wholesale	—	8	—	—	12	—
Company	—	74	111	—	90	126
Conveyancer	—	2	—	—	—	—
Dealer in old Metals	—	3	—	—	6	—
Dealer or Speculator in Live Stock or Produce	4	35	3	3	43	4
Dealer—						
Fresh Produce	647	486	504	494	581	491
General	948	1,661	3,297	1,066	1,706	3,371
Dog	—	2,088	13	—	1,704	1
Eating-house Keeper	26	179	46	22	203	35
Fireworks—Sale of	93	129	97	93	138	95
Fishing-boat	4	—	—	3	—	—
Game	—	1	—	—	2	—
Hawker	372	232	802	399	253	664
Hotel—Liquor	2	—	—	1	—	—
Importer	1	—	—	—	—	—
Insurance Company	—	1	—	—	1	—
Interpreter	—	1	—	—	1	—
Laundry	13	10	5	12	14	5
Mealie Trader	1	32	188	1	118	360
Medical Practitioner	—	10	—	—	5	—
Miller	2	18	6	2	26	7
Motor Garage	4	96	38	9	118	38
Newspaper Publisher	—	2	—	—	2	—
Patent or Proprietary Medicine—to Sell	280	239	933	285	262	1,026
Pawnbroker	—	1	—	—	1	—
Pedlar	52	2,440	498	54	2,583	596
Restaurant, Refreshment, or Tearoom-keeper	43	222	87	57	233	62
Slaughtering	—	8	—	—	6	—
Temporary or Special	—	—	—	—	3	—
Tobacco Trader	—	7	2	—	19	5
TOTAL.....No.	2,791	8,645	6,881	2,792	8,837	7,109

(ii) Revenue from Licences Issued to Asiatics.

Description.	1936-37.			1937-38.		
	Cape of Good Hope.	Natal.	Transvaal.	Cape of Good Hope.	Natal.	Transvaal.
	£	£	£	£	£	£
Advocate	—	15	—	—	—	—
Aerated or Mineral Water Manufacturer	23	—	5	10	9	5
Aerated or Mineral Water Dealer	583	1,088	124	581	1,267	120
Agent of Foreign Firm	—	25	—	—	10	—
Apothecary	5	—	—	—	—	—
Appraiser	—	10	—	—	10	—
Architect	—	42	—	—	52	—
Arms or Ammunition Dealer	—	—	—	—	5	—
Arms (rifle and other) to possess	—	—	—	—	—	—
Attorney	—	30	—	—	22	—
Auctioneer	—	10	—	—	10	—
Baker	20	102	20	15	110	67
Billiard Table Keeper	12	55	—	17	56	—
Boarding-house Keeper	—	34	—	—	—	—
Boiler	—	—	1	—	—	1
Broker or Agent	36	314	—	13	390	—
Buchu Buyer	1	—	—	1	—	—
Bulbs and Wild Flowers—to sell	—	—	—	—	—	—
Butcher	508	957	1,248	580	1,137	1,141
Commercial Traveller—						
Retail	—	18	—	7	12	—
Wholesale	—	106	—	—	129	—
Company	—	128	122	—	220	155
Conveyancer	—	4	—	—	—	—
Dealer in old Metals	—	15	—	—	32	—
Dealer or Speculator in Live Stock or Produce	40	347	20	30	406	40
Dealer—						
Fresh Produce	1,136	990	1,070	986	1,162	980
General	4,761	9,302	17,630	5,474	9,640	18,003
Dog	—	1,047	8	—	853	1
Eating-house Keeper	126	894	231	108	1,008	183
Fireworks—Sale of	51	79	62	49	91	62
Fishing-boat	3	—	—	3	—	—
Game	—	1	—	—	2	—
Hawker	121	281	914	136	237	935
Hotel—Liquor	118	—	—	61	—	—
Importer	22	—	—	—	—	—
Insurance Company	—	50	—	—	50	—
Interpreter	—	2	—	—	3	—
Laundry	70	66	32	65	100	49
Mealie Trader	—	10	48	—	30	91
Medical Practitioner	—	100	—	—	47	—
Miller	2	36	10	2	48	11
Motor Garage	19	284	119	41	329	116
Newspaper Publisher	—	10	—	—	10	—
Patent or Proprietary Medicine—to Sell	457	469	1,863	561	525	2,027
Pawnbroker	—	15	—	—	15	—
Pedlar	17	828	351	15	868	447
Restaurant, Refreshment, or Tearoom Keeper	211	1,118	260	273	1,186	302
Slaughtering	—	2	—	—	1	—
Temporary or Special	—	—	—	—	2	—
Tobacco Trader	—	4	1	—	4	1
Application Fees (Trading Licences)	—	—	22	—	—	43
TOTAL.....£	8,342	18,888	24,161	9,028	20,088	24,880

§ 9. Stamp Duties and Fees.

The following is the tariff of stamp duties and fees prescribed by the *Stamp Duties and Fees Act*, 1911, as amended by Acts Nos. 31 of 1913, 43 of 1919, 31 of 1921, 42 of 1931, 64 of 1934, 49 of 1935, 35 of 1936, and 50 of 1937.

	£	s.	d.
Tariff of Stamp Duties:			
Affidavit or Solemn or Attested Declaration—In respect of every deponent or declarant except that an affidavit or declaration made on behalf of a company or partnership, or by persons holding jointly the office of administrator, executor, curator, tutor or trustee, and deposing or declaring only as such, shall be deemed to be made by one deponent or declarant	0	1	0
Exemption:			
Any affidavit or declaration required to be made in connexion with any payment to, or refund from, the public revenue, or any payment in respect of pension by the Imperial or any Colonial Government.			
Antenuptial or Postnuptial Contract....	1	0	0
Agreement or Contract in respect of which no other stamp duty is specifically provided—If the matter thereof be of the value of £10 or upwards.....	0	1	0
Exemptions:			
(*a*) Contracts or agreements relating to the sale, supply, or delivery of goods, wares, or merchandise (including live stock and agricultural produce);			
(*b*) Contracts or agreements for the hire of any domestic servant, labourer, or seaman.			
Arbitration or Award:			
Every deed of submission and every award:			
If the amount or value in dispute do not exceed £50.....	0	2	6
If it exceed £50.....	0	5	0
Authentication Certificate given by any Minister or public officer in his official capacity or under his official seal testifying to the identity of any person or the authenticity of any signature on a document for use outside the Union: Provided that where more than one signature or seal is required to complete the authentication, one payment of duty shall be sufficient.....	0	10	0
Bill of Exchange or Promissory Note:			
(1) Payable on demand.....	0	0	1
(2) Payable otherwise than on demand:			
(i) When the amount or value does not exceed £10.....	0	0	1
(ii) When the amount or value exceeds £10, but does not exceed £50.....	0	0	6
(iii) When the amount or value exceeds £50—for every £50 or part thereof.....	0	0	6
Exemptions:			
(*a*) Draft or order by any banker on another banker not available for payment or credit to any third person and used solely for settling or clearing accounts between such bankers.			
(*b*) Coupon or warrant for interest or dividend attached to or issued with any marketable security.			
(*c*) Bill or draft by or upon the Union Treasury or any public account.			
Bill of Lading for the carriage or transport of any goods by sea, for every such bill or copy or duplicate thereof.	0	0	6

	£	s.	d.
Bond: (1) Any mortgage bond hypothecating immovable property or interest in such property and any general or special bond passed before a notary public: Provided that in the case of any such bond which is executed by way of suretyship only and is collateral to a duly stamped bond for the same debt or obligation executed by the principal debtor or obligor, the duty chargeable shall be one shilling for each £100 or part thereof of the debt secured or to be secured:—			
(*a*) Where the total amount of the debt secured or to be secured does not exceed £500—for every £100 or part thereof.....	0	1	0
(*b*) Where the total amount of the debt secured, or to be secured, exceeds £500, but does not exceed £1,000—for every £100 or part thereof	0	1	6
(*c*) Where the total amount of the debt secured or to be secured exceeds £1,000, but does not exceed £2,000—for every £100 or part thereof.....	0	2	6
(*d*) Where the total amount of the debt secured or to be secured exceeds £2,000—for every £100 or part thereof.....	0	5	0
(2) Any bond mentioned in (1) which is auxiliary or collateral to or substituted for a previously made and duly stamped bond executed by the same person and for the same debt or obligation—a duty at the rates mentioned in (1) but not exceeding....	0	10	0
(3) Cession of any such bond as mentioned in (1) or of any bond substituted therefor:—			
(*a*) Where the amount remaining due does not exceed £1,000—for every £100 or part thereof....	0	1	0
(*b*) Where the amount remaining due exceeds £1,000—for every £100 or part thereof.....	0	2	6
(4) Cession of any auxiliary or collateral bond as aforesaid.....	The like duty as is chargeable on the bond.		
In determining, for the purposes of this item, the amount of any debt secured or to be secured or remaining due under any bond, any sum separately secured by such bond to cover any costs incurred in connexion with such debt shall be excluded from that amount.			
Exemptions.			
(*a*) Bond given solely in security for any payment due to the public revenue.			
(*b*) Bond given by any public official in respect of the discharge of his official duties.			
Broker's Note:			
Where the consideration exceeds £5 and does not exceed £25.....	0	0	1
Where the consideration exceeds £25, but does not exceed £50.....	0	0	6
Where the consideration exceeds £50, but does not exceed £100.....	0	1	0
Where the consideration exceeds £100 for every £100 or part thereof....	0	1	0

	£	s.	d.
Exemptions:			
(*a*) Note of sale or purchase on behalf of another broker or agent within the Union who is acting in the same transaction for a principal.			
(*b*) Note in respect of the sale or purchase of any stock issued by the Government of the Union.			
Certificate by any person (other than a Notary) in a public or official capacity of any act or thing having been done or performed or of any document or copy of any document	0	1	0
Exemption:			
Certificates in respect of which any fee or duty be otherwise chargeable by law or regulation.			
Certificate by any public officer of the Union or of any province within the Union in his official capacity as such:			
(*a*) certifying to the performance of any official act or to anything having been done or performed; or			
(*b*) certifying to the correctness of any document or copy of a document	0	1	0
Provided that there shall be exempt from the payment of this fee any certificate in respect of which any fee or duty is otherwise chargeable under any law or regulation.			
Charter Party:			
(1) Of any vessel or ship not exceeding 500 tons burthen.....	0	15	0
(2) Of any vessel or ship exceeding 500 tons burthen but not exceeding 1,000 tons.....	1	10	0
(3) Of any vessel or ship exceeding 1,000 tons burthen.....	2	10	0
Company Capital Duty:			
Five shillings per cent. on a statement of the amount of nominal capital or increase of nominal capital for registration thereof.			
Customs Documents:			
On each original bill or document of entry or document in lieu thereof..	0	0	6
Exemptions:			
(*a*) Any bill or document of entry coastwise from any port in the Union to any other port in the Union.			
(*b*) Any bill or document of entry relating to any goods imported by post.			
Duplicate original of any instrument, the original whereof is chargeable with stamp duty under any law in force within the Union: the like duty to that chargeable upon the original, but not to exceed.....	0	1	0
Exemptions:			
Any duplicate original in respect of which a substantive stamp duty is otherwise chargeable. Any duplicate original which is required to be filed of record in any public office of the Union.			
Lease or Agreement of Lease or any instrument intended or operating as a lease or agreement to let (including a sub-lease) provided the lease, agreement, or instrument is not chargeable with Transfer Duty:—			
(1) (*a*) If the lease, agreement, or instrument be by the month or for any definite period of less than one year; or			
(*b*) If the lease, agreement, or instrument be for an indefinite period but terminable by one month's notice or less than one month's notice:—			
If the rent does not exceed the rate of £2. 10s. per month.....	0	0	6
If the rent exceeds the rate of £2. 10s. per month but does not exceed the rate of £5 per month	0	1	0
If the rent exceeds the rate of £5 per month but does not exceed the rate of £10 per month.....	0	2	6
If the rent exceeds the rate of £10 per month but does not exceed the rate of £15 per month.....	0	5	0
If the rent exceeds the rate of £15 per month but does not exceed the rate of £20 per month.....	0	10	0
If the rent exceeds the rate of £20 per month but does not exceed the rate of £25 per month.....	0	15	0
If the rent exceeds the rate of £25 per month.....	1	0	0
(2) If the lease, agreement, or instrument be for a definite period of one year or longer, duty shall be payable according to the following scale on a sum equal to the aggregate amount of rent payable during the period of the lease, agreement, or instrument, *plus* the amount of any other consideration whatsoever due or payable in respect of or by virtue thereof:—			
If the lease, agreement, or instrument be for any period not exceeding five years—for every £100 or part thereof.....	0	5	0
If the lease, agreement, or instrument be for any period exceeding five years but not exceeding ten years—for every £100 or part thereof.....	0	7	6
If the lease, agreement, or instrument be for any period exceeding ten years but not exceeding twenty years—for every £100 or part thereof.....	0	10	0
If the lease, agreement, or instrument be for any period exceeding twenty years—for every £100 or part thereof.....	0	15	0
Provided that if in any case it be shown to the satisfaction of the Commissioner that the aggregate amount of rent or other consideration on which duty is payable exceeds the full selling value of the property leased, duty shall be payable only on the amount of such full selling value.			
(3) Any lease, agreement, or instrument for an indefinite period not within any of the foregoing classes shall for the purposes of duty be deemed to be for three years; but after the expiration of any period of three years, the lease, agreement, or instrument shall, if indefinitely continued or renewed, be stamped again for another period of three years.			
(4) Lease, agreement, or instrument aforesaid—			
Cession or Assignment.....	0	5	0
Any Cession or Assignment by a lessee or holder provided such cession be not liable for Transfer Duty.			
Marketable Security—including any scrip, certificate, warrant, or any other like instrument representing any share, stock, or debenture, or any right of option to acquire any such share, stock, or debenture of any company or other corporate body (excepting a local authority or a building society):—			
(1) In respect of the original issue within the Union of any such shares, stocks, or debentures—			
(*a*) if transferable only by registration: for every £10 or part thereof of nominal value.....	0	0	6
(*b*) if made out to bearer or in any manner so as to be transferable by delivery only, for every £10 or part thereof of nominal value	0	2	0
Exemptions:			
(i) Where the scrip, certificate, warrant, or like instrument is issued solely in substitution for any instrument			

	£ s. d.
or instruments of the same nature of like or equivalent value, withdrawn, cancelled, or lost, which were owned by the person to whom the issue in substitution is made: Provided that this exemption shall only be allowable if the new instrument is endorsed by a director, secretary, or responsible officer as being *bona fide* a substitution without change of ownership.	
(ii) Any share or other instrument or document issued in connexion with the capital of any co-operative society or company with limited liability registered under Act No. 23 of 1922.	
(2) In respect of the registration of the transfer of any such marketable security: for every £100 or part thereof of the amount or value of the consideration given, or where no consideration is given, of the value of the marketable security transferred	0 1 0
Notarial Act or Instrument: Any notarial act or instrument in respect of which no other stamp duty is specially provided, and any notarial grosse duplicate, original, or copy of any instrument	0 2 0
Partnership: Agreement of Partnership	1 0 0
Policies of Insurance: (1) Policy of life insurance, including funeral policy:— If the sum assured does not exceed £50	0 0 1
If the sum assured exceeds £50—for every £100 or part thereof	0 1 0
(2) Policy of insurance or renewal thereof in respect of any motor vehicle, including incidental insurance against accidents to persons, damage done to or suffered by such vehicle or injuries suffered by third parties and any other risk ordinarily covered by such policies: In respect of each vehicle the subject of such policy or renewal	0 2 6
(3) Policy of insurance against accident to a person or in respect of injury, incapacity, sickness, or the like, other than insurance included in a policy chargeable under paragraph (2)—every policy	0 1 0
Every renewal thereof	0 1 0
(4) Policy of insurance under which a sum is payable to cover any compensation or damage due under a law relating to workmen's compensation or employer's liability or the common law, in respect of the death, or illness of, or injury to an employee, or any third party insurance, other than insurance included in a policy chargeable under paragraph (2)—every policy	0 1 0
Every renewal thereof	0 1 0
(5) Policy of insurance or renewal thereof of any other kind, including marine insurance, fidelity insurance, plate glass insurance, insurance against burglary, fire, or any other risk, loss or damage or any combined or other insurance, other than insurance ordinarily included in a policy chargeable under paragraph (1), (2), (3), or (4)—for every £100 or part thereof of the sum assured. Subject to minimum duty of 6d. and a maximum duty of £5.	0 0 1
(6) Any policy or renewal thereof where the sum assured is not a specific sum	0 1 0
(7) Cession of any policy of insurance or of any interest under a policy of insurance	0 2 0
Provided that the duty on any cession shall not exceed the duty to which the policy which is ceded or under which an interest is ceded would be liable under the foregoing provisions.	
(8) In respect of any tickets, coupons, notices, bills, or other documents purporting to be or to entitle to an insurance in the event of death, injury, sickness, or the like.	A duty of two and a half per cent. on the amount of all receipts from the sale or issue of valuable consideration on any such document.
	£ s. d.
(9) Any interim policy of insurance, the currency of which does not exceed four calendar months	0 1 0
Provided that the duty on any such interim policy shall not exceed that payable upon a final policy covering a like risk.	
Where a policy or renewal of a policy to which paragraph (2), (3), (4), (5), or (6) applies is for a period of less than a year, a *pro rata* duty only shall be payable, for example, for a half-yearly policy or renewal—one-half of the duty. Subject to a minimum duty of 3d.	
Exemptions:	
(*a*) Interim cover note, when issued in respect of a policy of insurance to be issued within the Union.	
(*b*) Policy solely for the purpose of effecting reinsurance by one insurance company or association in another insurance company or association to cover general risks.	
Power of Attorney or any instrument of like kind:—	
(1) Proxy to vote at any specified meeting or adjournment thereof	0 0 1
(2) Any special power, or substitution under any power of attorney whatsoever (in respect of each grantor)	0 1 0
(3) To act generally for the grantor (in respect of each grantor)	0 5 0
(4) Of any kind not comprised in the foregoing (in respect of each grantor)	0 1 0
Except that a power granted by or on behalf of a company or partnership or by persons holding jointly the offices of administrator, executor, curator, tutor, or trustee, and granting the power in any such capacity only shall be deemed to be given by one grantor.	
Receipt: (1) If given for or upon the payment of money amounting to £1 or more	0 0 1
(2) If given for or in respect of any fixed deposit made with any bank, company, or association whether corporate or unincorporate—for every £100 (or part thereof) and for every period of twelve months (or part thereof) for which the deposit is made	0 0 6
Exemptions:	
(*a*) Receipt or acknowledgment by any Government official for any payment or deposit received by him in his official capacity.	
(*b*) Receipt or acknowledgment on Postal Orders or Money Orders or Post Office Savings Bank forms.	

	£ s. d.
(*c*) Receipt passing between any legally established benefit society, provident society, building society, or savings bank society, and any member thereof, or receipt in respect of the payment or repayment of money deposited with or borrowed from any legally established building society.	
(*d*) Acknowledgment or slip relating to money deposit (other than on fixed deposit) with a bank to the credit or account of any person.	
(*e*) Acknowledgment by a bank or a notary of the receipt of any bill or note for the purpose of being presented for acceptance or payment.	
(*f*) Receipt received in the Union, but executed outside the Union and relating to the payment made outside the Union.	
(*g*) Receipt given by a prisoner or discharged prisoner to the prison authorities in respect of money paid to him or on his behalf during imprisonment or on discharge from prison.	
(*h*) Receipt for pay and allowances given by any member of the Union Defence Forces in time of war, and receipts for pay or allowances given by any member of those forces other than the South African Permanent Force, in time of peace.	
(*i*) Receipt in respect of money deposited in or withdrawn from an account in any bank if that account is, in the opinion of the Commissioner, a savings bank account.	
Security or Suretyship: Any document of security or pledge or any act of suretyship, indemnity, or guarantee not otherwise chargeable with duty:—	
(1) For any sum not exceeding £10	0 0 1
For any sum exceeding £10, but not exceeding £50	0 0 6
For any sum exceeding £50, but not exceeding £100	0 1 0
For any sum exceeding £100—for every £100 or part thereof	0 1 0
(2) Where no amount is stated	0 2 6
(3) Not comprised in the foregoing	0 2 6
Exemptions:	
(1) When given solely in relation to any payment due to the public revenue.	
(2) A cession by a co-operative company to the Land and Agricultural Bank of South Africa as security for a loan of the company's right and title to—	
(*a*) the amount of subscribed but unpaid capital, and to the amount of any contingent liability attaching to its shares; and	
(*b*) the amount of any debts owing to the company (section 3 of Act No. 40 of 1922).	
Survey of a Ship or Vessel: Certificate thereof	0 2 6
Transfer Deed: Relating to immovable property—for every £10 or part thereof of the consideration or value	0 0 6
Exemptions: (1) Partition transfers except in respect of consideration paid by one of the parties thereto to another such party.	
(2) Transfers whereby no change of beneficial interest in the property transferred is effected.	
Warehouse Receipts issued under provisions of Act No. 42 of 1930: (1) Any warehouse receipt	0 0 1
(2) Any endorsement of any warehouse receipt or rail-surety-note by way of security:—	
(*a*) Where the debt to be secured—does not exceed £10	0 0 1
exceeds £10 but does not exceed £50	0 0 6
exceeds £50 but does not exceed £100	0 1 0
exceeds £100—for every £100 or part thereof	0 1 0
(*b*) Where the amount of the debt to be secured is not stated, or is contingent upon the happening of some further event, or is otherwise not ascertainable at the date of the endorsement	0 2 6
General Exemptions in respect of all Instruments: (1) No stamp duty and no fee payable by means of stamps in any court or public office shall be chargeable in respect of:—	
(*a*) Any instrument, or the registration, lodgment, issue, or use thereof, if the duty or fee thereon would be legally payable and borne by the Government of the Union or any department thereof or by the Imperial Government.	
(*b*) Any instrument used, or for use, in or in connexion with criminal proceedings, or charge laid of a criminal offence, or in connexion with bail.	
(2) Any instrument specially exempted from stamp duty under any law shall not be chargeable with duty by reason of the provisions of this Act.	

§ 10. Weights and Measures.

1. **Legislation.**—An historical review of the weights and measures systems of the four provinces of the Union, up to the passing of the Union Act which consolidated the existing legislation, was given in the fourth issue of this *Year Book*. The *Weights and Measures Act*, No. 32 of 1922, which came into operation on the 1st April, 1923, established standard weights and measures throughout the Union, and embodied the principle of optional use of the metric system, subject to provisions contained in the Act. This Act was amended in certain respects by Act No. 13 of 1933, and the current Regulations under the Act are the *Weights and Measures Regulations*, 1933. The Act and Regulations, bound together in pamphlet form, are obtainable from the Government Printer or any Assize Office.

2. **Administration.**—Subject to the control of the Minister of Commerce and Industries, the Act and Regulations are administered by the Superintendent of Assize and assizers.

An Assize Board* is constituted under section *ten* of the Act; its fuctions are to examine, or cause to be examined, applicants for the post of assizer and to make recommendations to the Minister regarding any types or patterns of weighing and measuring instruments, weights, and measures in use or intended to be used in trade.

For administrative purposes the Union has been divided into seven districts, each of which is under the charge of a District Assizer. District offices are situated at Pretoria, Johannesburg, Durban, Capetown, Port Elizabeth, East London, and Bloemfontein, whilst a sub-office was established at Pietermaritzburg during 1938.

3. **Standard Measures.**—The standards prescribed are set forth in the First Schedule to the Act and are as follows:—

STANDARD MEASURES OF WEIGHT, LENGTH, AND CAPACITY.

Weight.

1 pound=0·4535924 kilogram 1 kilogram=2·2046225 pound (avoir).

Length.

1 yard=0·9143992 metre 1 metre=1·0936143 yard.

Capacity.

1 gallon=4·545963 litres 1 litre=0·219975 gallon.

Assizable Weights and Measures.

Weights and Measures submitted for assizing must conform to the denominations specified in the Second Schedule to the Act: the original Schedule was replaced by the one promulgated under Proclamation No. 252 of 1933. The various units of each denomination are given hereunder, but the full range can be ascertained by reference to the Schedule:—

I. WEIGHTS.

1. *Avoirdupois Weight.*
   Cental=100 pounds.
   Pound (lb.).
   Ounce (oz.)=437·5 grains=28·3495 grams.
   Dram (dr.).
2. *Troy Weight (for Precious Metals).*
   Ounce troy (oz. tr.)=480 grains=31·1035 grams.
   Pennyweight (dwt.)=24 grains (grs.).
3. *Carat Weight (for Precious Stones).*
   Carat (cm_4)=200 milligrams=3·08647 grains.
4. *Apothecaries' Weight.*
   Ounce (oz. apoth.)=480 grains.
   Drachm=3 scruples.
   Scruple.
   Grain.
5. *Metric Weights.*
   Kilogram.
   Gram.
   Decigram (0·1 gram).
   Centigram (0·1 decigram).
   Milligram (0·1 centigram).

II. CAPACITY.

1. *Liquid Measure.*
   Gallon (gal.).
   Quart (qt.)=¼ gallon.
   Pint (pt.)=½ quart.
   Gill=¼ pint.
2. *Apothecaries' Measure.*
   Quart.
   Pint.
   Fluid ounce (fl. oz.)
   Fluid drachm (fl. dr.).
   Minim (min.)
3. *Metric Measure (Liquid).*
   Dekalitre (10 litres).
   Litre (1·0).
   Decilitre (0·1 litre).
   Centilitre (0·01 litre).
   Millilitre (0·001 litre).

* For personnel see Chapter XXVIII.

III. LENGTH.

Customary multiples and parts of the yard, the foot, the inch, and the metre.

New Standards may be approved by Proclamation.

Denominations which are Permitted for Expressing Trade Contracts.

Whilst weights and measures can only be assized provided their denominations conform to those laid down in the Second Schedule, for the purpose of expressing trade contracts not only these prescribed denominations, but also multiples thereof, are permitted; in addition, the following are lawful for this purpose:—

Weight.

The ton of 2,000 pounds.
The Metric Tonne of 1,000 kilograms.

Length.

The Cape foot=0·3148581 metre.
The Cape rood.

Area.

The square yard, square foot, square inch, and the square metre.
The morgen, the acre, and the hectare.

The morgen	=	600 sq. roods.
	=	86,400 sq. Cape feet.
The acre	=	4,840 sq. yards.
	=	43,560 sq. feet.
The hectare	=	10,000 sq. metres.

Cape measures of length and area may not be used except for measuring land, and then only so far as the survey laws of any portion of the Union admit of such use.

Cubic Content.

The Standard measures of cubic content are those obtained by cubing the standard measures of length.

4. **Weights prescribed for a "Standard Bag" of Agricultural Products.**—Regulation 9 (2) Part II of the *Weights and Measures Regulations*, 1933, prescribes the following net weights for a "standard bag" of the commodities mentioned:—

	Lb.
Cockle, ground-nuts (shelled), kaffir-corn, mealies, boermeal, ryemeal, rye, samp, and wheat	200
Mealie rice or maize grit	190
Maize flour, kaffir-corn malt, mealies (seconds), crushed mealies, and mealiemeal	180
Barley malt	168
Rice	160
Barley, buckwheat, hominy chop, germ meal, oats, pollard, and potatoes	150
Sweet potatoes and onions	120
Wheaten bran, crushed oats, and sunflower seed	100
Mealie bran	80
Ground-nuts (unshelled)	75

5. **Goods to be sold by prescribed Weights.**—In addition to the requirement of the Act that any goods sold by weight must be sold by "net" weight, certain packed commodities specified in the Regulations under the Act are,

furthermore, required to be sold in accordance with prescribed scales of quantities; amongst these may be mentioned tea, coffee, sugar, flour, butter, jam, salt, rice, breakfast foods, vermicelli, etc. The net weight of the contents is required to be marked on each package.

6. **Approval of Instruments intended for Trade Use.**—Section *twenty-three* of the *Weights and Measures Act* requires the submission for examination and test of all new types of weighing and measuring instruments, weights, and measures intended for trade use, in order to determine whether or not they are likely to facilitate fraud. The fees for such examination are prescribed in Regulation 9 Part III of the *Weights and Measures Regulations*, 1933.

7. **Prescribed Fees for Assizing.**—The current fees tariff issued under section *twenty-six* of the Act was promulgated by Proclamation No. 137 of 1935 and published in *Government Gazette* No. 2289 of the 19th July that year.

CHAPTER XXV.

POPULATION AND MIGRATION.

§ 1. Population.

1. **General.**—The census taken in 1904 in each of the four Colonies which were incorporated in the Union was the first simultaneous census taken in South Africa. The Union Census is taken under Act No. 2 of 1910, as amended by Act No. 5 of 1935. The principal Act specifies the particulars which may be collected, and empowers the Governor-General to make regulations. The forms for the collection of the data are prescribed under the regulations. The *Census Amendment Act* of 1935 made provision for a quinquennial enumeration up to 1941 and thereafter a decennial enumeration, but the *Electoral Quota Act*, No. 21 of 1937, substitutes the year 1951 for 1941 as the date up to which quinquennial censuses shall be taken.

Table (i) hereunder gives the dates of the various censuses which have been taken in the States of South Africa now comprised in the Union; but, while comparisons are possible in respect of the numbers of the population of separate provinces for varying dates prior to 1904, full comparison is only possible in respect of the whole area of the Union for the years 1904, 1911, 1921, and 1936—1911 being the year in which the first Union census was taken—and for the years 1918, 1926, and 1931 in respect of the European population only. The summaries of the population returns for the 1904 and subsequent censuses are given hereunder in tables (ii), (iii), and (iv); while the mean estimated population for the years 1930 to 1939 is shown in tables (v) and (vi). The returns of the 1918 Census given in the tables do not include persons absent from the Union on active service or for other purposes connected with the Great War. A special absentee census in respect of males was taken under the *Electoral Census Further Provision Act* of 1918, simultaneously with the main census of the European population, and 28,312 persons were enumerated; particulars of these will be found in *Official Year Book* No. 4.

At the Census of 1926, the territory of Walvis Bay was enumerated by the authorities of South West Africa, and the figures were included in the population of South West Africa. Walvis Bay, however, is an integral portion of the Union, although administered from Windhoek, under the provisions of Union Act No. 24 of 1922, by the Administrator of South West Africa. With the exception of several detailed tables where, owing to the data not being available, the exclusion of Walvis Bay is mentioned in a footnote, the 1926 Census figures have been corrected by the inclusion of the 662 persons (males 475, females 187) in Walvis Bay within the population of the Union (Cape Province).

A census of all races of the population was due to be taken on 5th May, 1931, but owing to financial stringency the enumeration was restricted to Europeans. The tabulation of the returns was limited to the particulars necessary under the *South Africa Act*, i.e., a count of the number of males and females in each province and district classified according to age.

Detailed information as to the censuses of 1921, 1926, and 1931 will be found in the published Population Census Reports.

A census of all races of the population was taken on 5th May, 1936, and the figures for magisterial districts are given in the District Statistical Summary at the beginning of this volume. A preliminary report showing the geographical distribution of the population was published on 31st December, 1936. It is intended to publish the 1936 Census Report in 12 volumes, and these will be issued from time to time as the detailed statistics become available. Volume I, containing particulars of the distribution of all races of the population was published in September, 1938 (U.G. No. 21—1938); Volume II giving the ages of the European, Asiatic, and Coloured population was published in November, 1938 (U.G. No. 28—1938); Volume III containing information concerning the marital condition of the European, Asiatic, and Coloured population was published in March, 1939 (U.G. 39—1938); Volume IV containing particulars of languages of the European, Asiatic, and Coloured population was published in April, 1939 (U.G. 44—1938). It was decided to publish particulars of the ages and marital condition of the Bantu population in advance of the complete volume dealing with non-Europeans, and a report which is a section of Volume IX was published in April, 1939 (U.G. 50—1938).

The population is divided for census purposes into four racial groups as follows:—

(1) Europeans—persons of pure European descent.
(2) Natives—pure blooded aboriginals of the Bantu race.
(3) Asiatics—Natives of Asia and their descendants; mainly Indians.
(4) Coloured—this group consists chiefly of Cape Coloured, but includes also Cape Malays, Bushmen, Hottentots, and all persons of mixed race.

The last three groups, when combined, form the group referred to as the "Non-European" group.

(i) DATES OF PRE-UNION AND UNION CENSUSES.

Pre-Union Censuses.					Union Censuses.	
Year.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Year.	Date.
1865	5 Mar.	—	—	—	1911	7 May.
1875	7 Mar.	—	—	—	1918*	5 May.*
1880	—	—	—	31 Mar.	1921	3 May.
1890	—	—	1 Apr.*	31 Mar.	1926*	4 May.*
1891	5 Apr.	6 Apr.	—	—	1931*	5 May.*
1904	17 Apr.	17 Apr.	17 Apr.	17 Apr.	1936	5 May.

* European population only.

(ii) GENERAL SUMMARY, CENSUSES, 1904 TO 1936.

Year.	All Races.	European.			Non-European.			
	Total.	Male.	Female.	Total.	Native (Bantu).	Asiatic.	Coloured.	Total.
1904..	5,175,824	635,117	481,689	1,116,806	3,491,056	122,734	445,228	4,059,018
1911..	5,973,394	685,164	591,078	1,276,242	4,019,006	152,203	525,943	4,697,152
1918..	—	728,866	692,915	1,421,781	—	—	—	—
1921..	6,928,580	782,035	737,453	1,519,488	4,697,813	165,731	545,548	5,409,092
1926..	—	857,393	819,929	1,677,322	—	—	—	—
1931..	—	930,541	897,634	1,828,175	—	—	—	—
1936..	9,589,898	1,017,874	985,983	2,003,857	6,596,689	219,691	769,661	7,586,041

(iii) NON-EUROPEAN POPULATION, CENSUSES, 1904 TO 1936.

Year.	Total Non-European.			Native (Bantu).		Asiatic.		Coloured.	
	Total.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
1904	4,059,018	2,047,118	2,011,900	1,737,119	1,753,937	82,809	39,925	227,190	218,038
1911	4,697,152	2,384,228	2,312,924	2,022,949	1,996,057	90,135	56,068	265,144	260,799
1921	5,409,092	2,754,957	2,654,135	2,382,397	2,315,416	97,336	68,395	275,224	270,324
1936	7,586,041	3,819,233	3,766,808	3,312,651	3,284,038	119,151	100,540	387,431	382,230

(iv) POPULATION, PROVINCES, CENSUSES, 1904 TO 1936.

Year.	Cape of Good Hope.*	Natal.	Transvaal.	Orange Free State.	Total.*
Europeans.					
1904....	579,741	97,109	297,277	142,679	1,116,806
1911....	582,377	98,114	420,562	175,189	1,276,242
1921....	650,609	136,838	543,485	188,556	1,519,488
1926....	706,799	158,916	608,622	202,985	1,677,322
1931....	749,231	177,449	696,120	205,375	1,828,175
1936....	791,574	190,549	820,756	200,978	2,003,857
Non-Europeans.					
1904....	1,830,063	1,011,645	972,674	244,636	4,059,018
1911....	1,982,588	1,095,929	1,265,650	352,985	4,697,152
1921....	2,132,110	1,292,560	1,544,151	440,271	5,409,092
1936....	2,738,326	1,755,919	2,520,714	571,082	7,586,041

* Includes population of Walvis Bay.

Estimates of Population.—The estimates of population in the following tables have been framed on the assumption that the rate of increase between any two censuses is uniform, but for Europeans adjustments are made annually according to the net increase due to births, deaths, and migration.

(v) ESTIMATED* MEAN POPULATION, UNION, 1930 TO 1939.

Year.	Total Population.	European.			Non-European.			
		Male.	Female.	Total.	Native (Bantu).	Asiatic.	Coloured.	Total.
1930...	8,536,400	915,600	882,300	1,797,900	5,858,100	198,800	681,600	6,738,500
1931...	8,712,800	931,200	898,100	1,829,360	5,984,700	202,400	696,400	6,883,500
1932...	8,892,300	947,800	916,000	1,863,800	6,111,300	206,000	711,200	7,028,500
1933...	9,065,300	961,500	930,300	1,891,800	6,237,900	209,600	726,000	7,173,500
1934...	9,243,100	977,700	946,900	1,924,600	6,364,500	213,200	740,800	7,318,500
1935...	9,427,800	997,700	966,600	1,964,300	6,491,100	216,800	755,600	7,463,500
1936...	9,617,200	1,020,500	988,200	2,008,700	6,617,700	220,400	770,400	7,608,500
1937...	9,797,200	1,037,900	1,005,800	2,043,700	6,744,300	224,000	785,200	7,753,500
1938...	9,979,900	1,056,500	1,024,900	2,081,400	6,870,900	227,600	800,000	7,898,500
1939...	10,160,000	1,072,800	1,043,700	2,116,500	6,997,500	231,200	814,800	8,043,500

* As at 30th June.

Estimated Population of Provinces.—The estimated population in each province for the last ten years, distinguishing race, is given in the table hereunder.

(vi) ESTIMATED* MEAN POPULATION, PROVINCES, 1930 TO 1939.

Year.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.
	European.				*Native (Bantu).*			
1930...	743,900	174,600	671,000	208,400	1,887,400	1,393,300	2,075,700	501,700
1931...	749,500	177,600	696,700	205,500	1,914,400	1,420,800	2,139,000	510,500
1932...	757,400	180,200	721,700	204,500	1,941,400	1,448,300	2,202,300	519,300
1933...	763,000	182,000	743,300	203,500	1,968,400	1,475,800	2,265,600	528,100
1934...	770,500	184,500	767,100	202,500	1,995,400	1,503,300	2,328,900	536,900
1935...	780,600	187,600	794,400	201,700	2,022,400	1,530,800	2,392,200	545,700
1936...	792,700	191,100	823,900	201,000	2,049,400	1,558,300	2,455,500	554,500
1937...	801,100	193,700	847,900	201,000	2,076,400	1,585,800	2,518,800	563,300
1938...	810,200	196,600	873,600	201,000	2,103,400	1,613,300	2,582,100	572,100
1939...	818,700	199,200	897,600	201,000	2,130,400	1,640,800	2,645,400	580,900

Year.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.
	Asiatic.				*Coloured.*			
1930...	9,500	167,200	22,100	—	604,800	16,200	42,900	17,700
1931...	9,700	170,000	22,700	—	618,000	16,600	44,100	17,700
1932...	9,900	172,800	23,300	—	631,200	17,000	45,300	17,700
1933...	10,100	175,600	23,900	—	644,400	17,400	46,500	17,700
1934...	10,300	178,400	24,500	—	657,600	17,800	47,700	17,700
1935...	10,500	181,200	25,100	—	670,800	18,200	48,900	17,700
1936...	10,700	184,000	25,700	—	684,000	18,600	50,100	17,700
1937...	10,900	186,800	26,300	—	697,200	19,000	51,300	17,700
1938...	11,100	189,600	26,900	—	710,400	19,400	52,500	17,700
1939...	11,300	192,400	27,500	—	723,600	19,800	53,700	17,700

* As at 30th June.

(vi) ESTIMATED* MEAN POPULATION, PROVINCES, 1930 TO 1939—(*continued*).

Year.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.
	Total Non-European.				*Total All Races.*			
1930...	2,501,700	1,576,700	2,140,700	519,400	3,245,600	1,751,300	2,811,700	727,8[illegible]
1931...	2,542,100	1,607,400	2,205,800	523,200	3,291,600	1,785,000	2,902,500	733,700
1932...	2,582,500	1,638,100	2,270,900	537,000	3,339,900	1,818,300	2,992,600	741,560
1933...	2,622,900	1,668,800	2,336,000	545,800	3,385,900	1,850,800	3,079,300	749,300
1934...	2,663,300	1,699,500	2,401,100	554,600	3,433,800	1,884,000	3,168,200	757,100
1935...	2,703,700	1,730,200	2,466,200	563,400	3,484,300	1,917,800	3,260,600	765,100
1936...	2,744,100	1,760,900	2,531,300	572,200	3,536,800	1,952,000	3,355,200	773,200
1937...	2,784,500	1,791,600	2,596,400	581,000	3,585,600	1,985,300	3,444,300	782,000
1938...	2,824,900	1,822,300	2,661,500	589,800	3,635,100	2,018,900	3,535,100	790,800
1939...	2,865,300	1,853,000	2,726,600	598,600	3,684,000	2,052,200	3,624,200	799,600

* As at 30th June.

Increase in the Population.—The average annual rate of increase in the population as shown in the following table was lower for the period 1911 to 1921 than between 1904 and 1911, and notably so in the case of the mixed races and the Asiatics. The former suffered severely in the influenza epidemic of 1918, and in the case of the latter the decline in the average annual increase was due to the considerable emigration of Indians, of whom approximately 29,000 were repatriated between 1911 and 1921. In Natal the number of Indian males decreased by 86 during the ten years, while the number of females showed an increase of 8,391, giving a total increase of 8,305 in the Indian population of that province, which is equivalent to an annual rate of 0.62 per cent.

During the period 1921 to 1936 there were no serious abnormal influences to retard the growth of the population, and there was, therefore, a more or less steady rate of increase.

(vii) INCREASE IN THE POPULATION, 1904 TO 1936.

Race.	Census 1904.	Census 1911.		Census 1921.		Census 1936.	
		Number.	Average Annual Rate of Increase since 1904.	Number.	Average Annual Rate of Increase since 1911.	Number.	Average Annual Rate of Increase since 1921.
European.....	1,116,806	1,276,242	1·93	1,519,488	1·76	2,003,857	1·86
Native (Bantu)....	3,491,056	4,019,006	2·03	4,697,813	1·57	6,596,689	2·29
Asiatic.....	122,734	152,203	3·12	165,731	0·86	219,691	1·90
Coloured.....	445,228	525,943	2·41	545,548	0·37	769,661	2·32
TOTAL.....	5,175,824	5,973,394	2·07	6,928,580	1·49	9,589,898	2·19

2. **Population in Regional Divisions.**—These divisions are non-administrative, but each comprises a group of magisterial districts. The boundaries, although somewhat arbitrarily drawn, follow closely the different climatic conditions found in the Union due to altitude, varying rainfall, etc.

The Union is divided into seven divisions as follows:—

I. *South-Western Coastal.*—Extending from Malmesbury district to Alexandria district inclusive.

II. *South-Eastern Coastal.*—Mainly the coastal districts of Transkei, Natal, and Zululand from Bathurst district to the border of Portuguese East Africa.

III. *Karroo-Cape Central.*—Bounded on the south by Division I, on the east by Division V, and on the north by Divisions IV and VII. Clanwilliam and Piquetberg are the only districts in this division on the Atlantic coast.

IV. *Highveld.*—This embraces the greater portion of the inland plateau land and includes the whole of the Orange Free State, the inland districts of Natal, that portion of Transvaal lying approximately south of the 25° of south latitude, the districts of the Cape Province adjacent to the western boundary of the Transvaal and to the western and south-western boundary of the Orange Free State.

V. *Cape Thornveld.*—Comprising the Transkei hinterland and adjacent districts.

VI. *Transvaal Bushveld.*—This comprises the districts lying approximately north of the 25° of south latitude.

VII. *North-Western Cape.*—Bounded on the south-east by Divisions III and IV, on the west by the Atlantic Ocean, and on the north by South West Africa and Bechuanaland Protectorate.

POPULATION IN SEVEN NON-ADMINISTRATIVE REGIONAL DIVISIONS, CENSUSES, 1921 AND 1936.

Regional Division.	1921.			1936.		
	Male.	Female.	Total.	Male.	Female.	Total.
	EUROPEAN.					
I. South-Western Coastal...	149,827	147,730	297,557	203,674	208,202	411,876
II. South-Eastern Coastal...	72,513	70,545	143,058	100,009	102,682	202,691
III. Karroo and Cape Central	68,545	67,578	136,123	67,394	66,337	133,731
IV. Highveld.....	396,566	365,054	761,620	523,230	494,488	1,017,718
V. Cape Thornveld.....	28,896	27,674	56,570	28,805	28,464	57,269
VI. Transvaal Bushveld.....	36,285	31,973	68,258	55,547	50,134	105,681
VII. North-Western Cape....	29,403	26,899	56,302	39,215	35,676	74,891
	NON-EUROPEAN.					
I. South-Western Coastal..	174,946	159,931	334,877	264,085	249,446	513,531
II. South-Eastern Coastal..	676,001	720,202	1,396,203	879,102	984,799	1,863,901
III. Karroo and Cape Central	109,712	106,734	216,446	130,463	129,416	259,879
IV. Highveld.....	1,142,927	893,864	2,036,091	1,649,169	1,307,513	2,956,682
V. Cape Thornveld.....	288,103	342,985	631,088	340,998	446,706	787,704
VI. Transvaal Bushveld.....	310,763	378,078	688,841	476,333	572,718	1,049,051
VII. North-Western Cape....	53,205	52,341	105,546	79,083	76,210	155,293
	ALL RACES.					
I. South-Western Coastal..	324,773	307,661	632,434	467,759	457,648	925,407
II. South-Eastern Coastal...	748,514	790,747	1,539,261	979,111	1,087,481	2,066,592
III. Karroo and Cape Central	178,257	174,312	352,569	197,857	195,753	393,610
IV. Highveld.....	1,538,793	1,258,918	2,797,711	2,172,399	1,802,001	3,974,400
V. Cape Thornveld.....	316,999	370,659	687,658	369,803	475,170	844,973
VI. Transvaal Bushveld.....	347,048	410,051	757,099	531,880	622,852	1,154,732
VII. North-Western Cape....	82,608	79,240	161,848	118,298	111,886	230,184

3. **Distribution of the Population in British South Africa.**—The following table gives for purposes of comparison with other parts of British South Africa the European and non-European population as returned at the Census of 1936:—

UROPEAN AND NON-EUROPEAN POPULATION IN BRITISH SOUTH AFRICA, 1936.

Territory.	European.	Native (Bantu).	Asiatic.	Coloured.	Total Non-European.	All Races.
nion of South Africa.....	2,003,857	6,596,689	219,691	769,661	7,586,041	9,589,898
outh West Africa*.....	30,677	261,724	14	65,372	327,110	357,787
asutoland.....	1,434	559,273	341	1,263	560,877	562,311
echuanaland Protectorate....	1,899	260,064	66	3,727	263,857	265,756
waziland†.....	2,740	153,270	4	701	153,975	156,715
outhern Rhodesia‡.....	55,408	1,243,000	2,180	3,187	1,248,367	1,303,775
TOTAL.....	2,096,015	9,074,020	222,296	843,911	10,140,227	12,236,242

* Includes an estimate of 191,984 natives and 24,465 coloured outside Police Zone.
† Includes 9,561 natives absent at labour centres outside Swaziland.
‡ Only natives in employment (254,297) enumerated—remainder estimated.

4. Proportions of the Races in the Population.—Between 1865 and 1891 the population of the Cape Colony was affected by the annexation of areas thickly populated by natives. Between 1891 and 1904, in spite of the annexation of Pondoland and Bechuanaland with 10,300 Europeans and 276,522 of the non-European races, the proportion of European population to non-European increased slightly. In the Orange Free State the proportion of European to non-European population is highest, in Natal lowest, but in the former the figure has declined from census to census, while in the latter it has risen. The Transvaal and Cape Provinces occupy intermediate positions.

The following table gives the racial composition of the population in the census years 1904 to 1936:—

RACIAL COMPOSITION OF THE POPULATION AT SUCCESSIVE CENSUSES SHOWING THE PROPORTIONS OF EACH RACE TO THE TOTAL POPULATION.

Year.	European.		Native (Bantu).		Asiatic.		Coloured.		Total Non-European.		Total all Races.
	No.	%	No.	%	No.	%	No.	%	No.	%	No.
1904..	1,116,806	21·6	3,491,056	67·4	122,734	2·4	445,228	8·6	4,059,018	78·4	5,175,824
1911..	1,276,242	21·4	4,019,006	67·3	152,203	2·5	525,943	8·8	4,697,152	78·6	5,973,394
1921..	1,519,488	21·9	4,697,813	67·8	165,731	2·4	545,548	7·9	5,409,092	78·1	6,928,580
1936..	2,003,857	20·9	6,596,689	68·8	219,691	2·3	769,661	8·0	7,586,041	79·1	9,589,898

5. Population of Each Province.—(i) *Cape of Good Hope.*—Between 1921 and 1931 the male European population of the Cape Province increased by 48,000, and the female European population by 50,000. Between 1931 and 1936 the male increase was 18,000 and the female 24,000. These figures reflect not only a natural tendency, but also the fact that there has been a steady flow of male migration from the Cape Province to other parts of the Union, chiefly to the Transvaal.

(*a*) CAPE OF GOOD HOPE—POPULATION AT EACH CENSUS.

Year.	All Races.	European.			Non-European.			
	Total.	Male.	Female.	Total.	Native (Bantu).	Asiatic.	Coloured.	Total.
1865...	496,381	95,410	86,182	181,592	(Not distinguished.)			314,789
1875...	720,984	123,910	112,873	236,783	287,639	*	196,562	484,201
1891...	1,527,224	195,956	181,031	376,987	838,136	1,700	310,401	1,150,237
1904...	2,409,804	318,544	261,197	579,741	1,424,787	10,242	395,034	1,830,063
1911...	2,564,965	301,268	281,109	582,377	1,519,939	7,664	451,985	1,982,588
1918...	—	311,312	307,513	618,825	—	—	—	—
1921...	2,782,719	329,394	321,215	650,609	1,640,162	7,696	484,252	2,132,110
1926...	—	358,058	348,741	706,799	—	—	—	—
1931...	—	378,046	371,185	749,231	—	—	—	—
1936...	3,529,900	396,375	395,199	791,574	2,045,570	10,508	682,248	2,738,326

* Not distinguished—Included in "Coloured."

(*b*) CAPE OF GOOD HOPE—NON-EUROPEAN POPULATION AT EACH CENSUS.

Year.	Native (Bantu).		Asiatic.		Coloured.		Total Non-European.	
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
1865...	—	—	—	—	—	—	160,350	154,439
1875...	146,252	141,387	(Not distinguished.)		99,466	97,096	245,718	238,483
1891...	415,201	422,935	1,305	395	154,865	155,536	571,371	578,866
1904...	692,728	732,059	9,310	926	198,352	196,682	900,390	929,667
1911...	721,441	798,498	6,581	1,083	226,381	228,604	954,403	1,028,185
1921...	769,947	870,215	5,724	1,972	243,524	240,728	1,019,195	1,112,915
1936...	918,345	1,127,225	6,677	3,831	343,011	339,237	1,268,033	1,470,293

(ii) *Natal.*—Between the years 1891 and 1904 the European population of Natal Province, excluding Zululand (annexed in 1897) and the districts of Vryheid, Utrecht, and part of Wakkerstroom, transferred from the Transvaal in 1903, increased from 46,788 to 87,776, i.e. by 87.60 per cent. The 1891 figures include mixed races not specified separately. The number of these was small, and its inclusion would not affect materially the rate of increase. During the period 1904 to 1911 the European population was practically stationary, there having been a decrease of 4,263 males (of which number 1,300 are accounted for by the reduction of military garrisons) and an increase of 5,268 females. Between 1921 and 1931 the European population increased by 40,000, of whom 48 per cent. were males. Between 1931 and 1936 the increase in Europeans was 5,000 males and 8,000 females.

(*a*) NATAL—POPULATION AT EACH CENSUS.

Year.	All Races.	European.			Non-European.			
	Total.	Male.	Female.	Total.	Native (Bantu).	Asiatic.	Coloured.	Total.
1891...	543,913	25,787	21,001	46,788	455,983	41,142	—	497,125
1904...	1,108,754	56,758	40,351	97,109	904,041	100,918	6,686	1,011,645
1911...	1,194,043	52,495	45,619	98,114	953,398	133,420	9,111	1,095,929
1918...	—	62,745	59,186	121,931	—	—	—	—
1921...	1,429,393	70,477	66,361	136,838	1,139,804	141,649	11,107	1,292,560
1926...	—	81,170	77,746	158,916	—	—	—	—
1931...	—	90,253	87,196	177,449	—	—	—	—
1936...	1,946,468	95,157	95,392	190,549	1,553,629	183,661	18,629	1,755,919

(*b*) NATAL—NON-EUROPEAN POPULATION AT EACH CENSUS.

Year.	Native (Bantu).		Asiatic.		Coloured.		Total Non-European.	
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
1891...	216,589	239,394	25,686	15,456	—	—	242,275	254,850
1904...	426,766	477,275	63,497	37,421	3,610	3,076	493,873	517,772
1911...	427,061	526,337	80,477	52,943	4,615	4,496	512,153	583,776
1921...	551,025	588,779	80,314	61,335	5,784	5,323	637,123	655,437
1936...	742,600	811,029	97,073	86,588	9,390	9,239	849,063	906,856

(iii) *Transvaal.*—In 1890 the European population of the Transvaal Province as now constituted was 113,713. In 1904 the number had risen to 297,277 and in 1911 it stood at 420,562. The figures for 1904 and 1911 include respectively about 8,200 and 5,000 men of the military garrison. The normal population for the years 1904 and 1911 was therefore 289,000 and 416,000, respectively.

(*a*) TRANSVAAL—POPULATION AT EACH CENSUS.

Year.	All Races.	European.			Non-European.			
	Total.	Male.	Female.	Total.	Native (Bantu).	Asiatic.	Coloured.	Total.
1890...	—	66,498	52,630	119,128	—	—	—	—
1904...	1,269,951	178,244	119,033	297,277	937,127	11,321	24,226	972,674
1911...	1,686,212	236,913	183,649	420,562	1,219,845	11,012	34,793	1,265,650
1918...	—	260,840	238,507	499,347	—	—	—	—
1921...	2,087,636	284,388	259,097	543,485	1,495,869	15,991	32,291	1,544,151
1926...	—	313,773	294,849	608,622	—	—	—	—
1931...	—	357,504	338,616	696,120	—	—	—	—
1936...	3,341,470	424,470	396,286	820,756	2,444,380	25,493	50,841	2,520,714

(*b*) TRANSVAAL—NON-EUROPEAN POPULATION AT EACH CENSUS.

Year.	Native (Bantu).		Asiatic.		Coloured.		Total Non-European.	
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
1904...	499,719	437,408	9,799	1,522	14,807	9,419	524,325	448,349
1911...	705,862	513,983	8,990	2,022	19,790	15,003	734,642	531,008
1921...	847,446	648,423	11,056	4,935	16,540	15,751	875,042	669,109
1936...	1,381,014	1,063,366	15,379	10,114	25,713	25,128	1,422,106	1,098,608

(iv) *Orange Free State.*—The first census of the Orange Free State Province was taken in 1880, when the European population was returned as 61,022. According to the next census in 1890 the population had increased to 77,716, an increase of 16,694, or 27·36 per cent. in ten years. Making allowance for troops stationed in the province in 1904 and 1911, the population for those two years was 135,000 and 171,000 respectively.

(a) ORANGE FREE STATE—POPULATION AT EACH CENSUS.

Year.	All Races.	European.			Non-European.			
	Total.	Male.	Female.	Total.	Native (Bantu).	Asiatic.	Coloured.	Total.
1880...	133,518	31,906	29,116	61,022	(Not distinguished)			72,496
1890...	207,503	40,571	37,145	77,716	(Not distinguished)			129,787
1904...	387,315	81,571	61,103	142,679	225,101	253	19,282	244,636
1911...	528,174	94,488	80,701	175,189	325,824	107	27,054	352,985
1918...	—	93,969	87,709	181,678	—	—	—	—
1921...	628,827	97,776	90,780	188,556	421,978	395	17,893	440,271
1926...	—	104,392	98,593	202,985	—	—	—	—
1931...	—	104,738	100,637	205,375	—	—	—	—
1936...	772,060	101,872	99,106	200,978	553,110	29	17,043	571,082

(b) ORANGE FREE STATE—NON-EUROPEAN POPULATION AT EACH CENSUS.

Year.	Native (Bantu).		Asiatic.		Coloured.		Total Non-European.	
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
1880...	—	—	—	—	—	—	38,244	34,252
1890...	—	—	—	—	—	—	67,791	61,996
1904...	117,906	107,195	197	56	10,421	8,861	128,524	116,112
1911...	168,585	157,239	87	20	14,358	12,696	183,030	169,955
1921...	213,979	207,999	242	153	9,376	8,522	223,597	216,674
1936...	270,692	282,418	22	7	9,317	8,626	280,031	291,051

§ 2. Analysis of Population.

1. **Area.**—The total area of the Union is approximately 472,550* square miles, divided between the provinces as is shown in the table which follows. This figure is subject to correction from time to time as re-surveys of portions of the country are undertaken.

PROVINCIAL DISTRIBUTION—AREA AND POPULATION.

Province.	Area in Square Miles.	Percentage of Total Area of Union.	Percentage of Total Population.		
			Census 1911.	Census 1921.	Census 1936.
Cape of Good Hope.....	277,169*	58·65	42·04	40·16	36·81
Natal.....	35,284	7·47	19·99	20·63	20·30
Transvaal.....	110,450	23·37	28·23	30·13	34·84
Orange Free State.....	49,647	10·51	8·84	9·08	8·05

* Includes Walvis Bay (430 sq. miles).

2. **Density of Population.**—In 1936 Natal had the largest number of persons to the square mile, there being one individual to 12 acres. In the other provinces the density of population was in the Cape Province one to 50 acres, in the Transvaal one to 21 acres, and in the Orange Free State

one to 41 acres. The density of population from the first census in 1865 is given in the following table:—

DENSITY OF POPULATION, 1936 AND PREVIOUS CENSUS YEARS.
(Number per square mile.)

Year.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Union.
EUROPEAN.					
1865.....	0·92	—	—	—	—
1875.....	1·18	—	—	—	—
1880.....	—	—	—	1·21	—
1890.....	—	—	1·05	1·54	—
1891.....	1·70	2·29	—	—	—
1904.....	2·09	2·74	2·69	2·87	2·36
1911.....	2·10	2·78	3·81	3·53	2·70
1921.....	2·35	3·88	4·92	3·80	3·22
1926*.....	2·55	4·50	5·51	4·09	3·55
1931*.....	2·71	5·03	6·30	4·14	3·87
1936.....	2·86	5·40	7·43	4·05	4·24
NON-EUROPEAN.					
1865.....	1·60	—	—	—	—
1875.....	2·42	—	—	—	—
1880.....	—	—	—	1·44	—
1890.....	—	—	•	2·58	—
1891.....	5·20	24·30	—	—	—
1904.....	6·60	28·60	8·81	4·93	8·59
1911.....	7·15	31·05	11·46	7·11	9·93
1921.....	7·69	36·63	13·98	8·87	11·44
1936.....	9·88	49·79	22·82	11·50	16·05
TOTAL—ALL RACES.					
1865.....	2·52	—	—	—	—
1875.....	3·60	—	—	—	—
1880.....	—	—	—	2·65	—
1890.....	—	—	•	4·12	—
1891.....	6·90	26·59	—	—	—
1904.....	8·69	31·34	11·50	7·80	10·95
1911.....	9·25	33·83	15·27	10·64	12·63
1921.....	10·04	40·51	18·90	12·67	14·66
1936.....	12·74	55·19	30·25	15·55	20·29

* Census of Europeans only.

3. **Density of Rural Population.**—The usual practice is to compute the density of population for provinces and districts irrespective of the number and extent of the towns and villages situated therein, which in effect gives a false comparison between differently constituted areas. In a young country like the Union the true density should be judged on the basis of the distribution of the rural community living in the rural or farming areas. This has been computed for the Census of 1936, and the urban population, numbering 3,009,531 persons and occupying 5,710 square miles of municipal lands, has been eliminated from the total. The results are given in comparative form in the subjoined table, which distinguishes Europeans from non-Europeans.

POPULATION AND DENSITY IN RURAL AREAS—CENSUS, 1936.

Province.	European.		Non-European.		All Races.	
	Population.	Density per Sq. Mile.	Population.	Density per Sq. Mile.	Population.	Density per Sq. Mile.
Cape of Good Hope.....	287,577	1·05	2,152,531	7·86	2,440,108	8·91
Natal.....	45,039	1·29	1,501,957	43·06	1,546,996	44·35
Transvaal.....	254,690	2·33	1,770,798	16·22	2,025,488	18·55
Orange Free State	109,165	2·23	458,610	9·38	567,775	11·61
UNION.....	696,471	1·49	5,883,896	12·60	6,580,367	14·09

4. Densely and Sparsely Populated Districts.—The subjoined table gives the ten most thickly populated and the ten most sparsely populated districts according to the returns of the Census of 1936. It must be understood that the majority of the densely populated districts contain one or more large towns, while others consist largely of mining areas. The majority of the sparsely populated districts are situated in the north-western Cape Province.

DENSELY AND SPARSELY POPULATED DISTRICTS, 1936.

District.	Persons to the Sq. Mile.			District.	Persons to the Sq. Mile.		
	All Races.	European.	Non-European.		All Races.	European.	Non-European.
Durban	2,650·2	964·2	1,686·0	Kenhardt	0·66	0·28	0·38
Cape	2,441·6	1,270·4	1,171·2	Williston	1·13	0·46	0·67
Johannesburg	1,733·0	846·6	886·4	Fraserburg	1·14	0·52	0·62
Boksburg	887·8	289·6	598·2	Sutherland	1·15	0·63	0·52
Brakpan	852·7	271·6	581·1	Calvinia	1·28	0·54	0·74
Wynberg	758·6	338·0	420·6	Namaqualand	1·47	0·47	1·00
Benoni	744·2	197·3	546·9	Carnarvon	1·48	0·55	0·93
Germiston	643·5	256·1	387·4	Lalingsburg	1·61	0·83	0·77
Roodepoort	261·9	74·2	187·7	Prieska	1·78	0·63	1·15
Inanda	255·5	10·8	244·7	Britstown	1·84	0·70	1·14

5. Density Compared with other Countries.—The table given hereunder shows for the purpose of comparison with the Union the density of population in various countries at the latest available dates:—

DENSITY OF POPULATION IN VARIOUS COUNTRIES.

Country.	Density.*	Country.	Density.*
Belgium (1930)	687·2	Norway (1930)	22·6
Netherlands (1930)	630·9	Swaziland (1936)	21·8
United Kingdom (1931)	504·7	Soviet Russia (1933)	20·1
Japanese Empire (1935)	374·9	New Zealand (1936)	14·4
Germany (1933)	363·4	Argentine (1934)	11·3
Italy (1936)	360·0	Canada (1931)	3·0
India (1931)	219·6	Australia (1933)	2·2
France (1936)	197·0	Southern Rhodesia (1936)	0·37†
Spain (1931)	125·4	South West Africa (1936)	0·10†
Basutoland (1936)	48·0	Union of South Africa (1936)	20·29‡
United States of America (1930)	41·3	Union of South Africa (1936)	4·24†
Sweden (1934)	36·0		

* Number of persons to the square mile. † Europeans only. ‡ All races.

6. Distribution of Races in Urban* and Rural Areas.—The table hereunder shows the distribution of races between urban and rural areas according to the returns at the Censuses of 1904 to 1936, the races being distinguished as European and non-European.

The bulk of the non-European population resides in the rural areas of the Union, which term embraces all native reserves in the Union proper and in the Native Territories. The proportion of the non-European population enumerated in urban areas at the Censuses of 1904, 1911, 1921, and 1936 was as shown in the table below. At the Census of 1911 there was a slightly greater proportion in urban areas than at the Census of 1921, but in 1936, owing to mining and industrial activity, the number of non-Europeans in the urban areas was nearly double the number in 1921. The natural habitat of the Bantu is the veld or rural region, and the rate of increase is there entirely natural. The increase in urban areas, however, depends largely on requirements for labour purposes.

* An urban area is defined as an area included within any city, borough, municipality, or village management, health committee, township, or other local board constituted under any law, and possessing some form of urban local authority

DISTRIBUTION OF POPULATION IN URBAN AND RURAL AREAS ACCORDING TO RACE AND SEX, CENSUSES, 1904 TO 1936.

Year.	Urban Areas.			Rural Areas.			Proportion per cent.	
	Male.	Female.	Total.	Male.	Female.	Total.	Urban.	Rural.
EUROPEAN.								
1904...	348,834	242,092	590,926	286,283	239,597	525,880	52·91	47·09
1911...	353,380	304,906	658,286	331,784	286,172	617,956	51·70	48·30
1918...	382,458	384,391	766,849	346,408	308,524	654,932	53·94	46·06
1921...	424,236	423,272	847,508	357,799	314,181	671,980	55·78	44·22
1926...	483,999	491,898	975,897	373,394	328,031	701,425	58·18	41·82
1931...	554,404	565,444	1,119,848	376,137	332,190	708,327	61·25	38·75
1936...	647,324	660,062	1,307,386	370,550	325,921	696,471	65·24	34·76
NON-EUROPEAN.								
1904...	—	—	608,799	—	—	3,450,219	15·00	85·00
1911...	570,111	249,471	819,582	1,814,117	2,063,453	3,877,570	17·45	82·55
1921...	590,224	298,063	888,287	2,164,733	2,356,072	4,520,805	16·42	83·58
1936...	1,062,587	639,558	1,702,145	2,756,646	3,127,250	5,883,896	22·44	77·56
ALL RACES.								
1904...	—	—	1,199,725	—	—	3,976,099	23·18	76·82
1911...	923,491	554,377	1,477,868	2,145,901	2,349,625	4,495,526	24·74	75·26
1921...	1,014,460	721,335	1,735,795	2,522,532	2,670,253	5,192,785	25·05	74·95
1936...	1,709,911	1,299,620	3,009,531	3,127,196	3,453,171	6,580,367	31·38	68·62

7. Proportions of Races in Urban and Rural Areas.—Details of the proportions of the four main race divisions of the population in the urban and rural areas as returned at the Census of 1936 are given in the subjoined table:—

PROPORTIONS OF RACES IN URBAN AND RURAL AREAS, 1936.

Race.	Proportion Per Cent. of Each Race.			Percentage Distribution of Races.		
	Urban Population.	Rural Population.	Total.	Urban Areas.	Rural Areas.	Total
European	43·44	10·58	20·89	65·24	34·76	100
Native (Bantu)	37·93	82·90	68·79	17·31	82·69	100
Asiatic	4·84	1·13	2·29	66·27	33·73	100
Coloured	13·79	5·39	8·03	53·91	46·09	100
TOTAL	100·00	100·00	100·00	31·38	68·62	100

8. Population Returns for Principal Towns.—The following table gives the European population of all towns (including suburbs adjacent to a municipal boundary) having a European population of 2,000 or more at the Census of 1936.

The last four columns show the relative order of the towns, according to their European population, at the Censuses of 1911, 1921, 1931, and 1936. In 1911 there were 35 towns with a European population of over 2,000; in 1921, 55; in 1931, 64; and in 1936, 68.

PRINCIPAL TOWNS (INCLUDING SUBURBS) CLASSIFIED ACCORDING TO THE NUMBER OF EUROPEAN INHABITANTS, CENSUS, 1936.

Town.	1936.					Relative Order, Census of—			
	European.	Native (Bantu).	Asiatic.	Coloured.	All Races.	1936.	1931.	1921.	1911.
Over 20,000.									
*Johannesburg	257,671	229,122	10,109	22,482	519,384	1	1	1	1
*Capetown	173,412	14,160	3,740	152,911	344,223	2	2	2	2
*Durban	95,033	68,698	88,226	7,649	259,606	3	3	3	3
*Pretoria	76,935	45,312	2,932	3,392	128,621	4	4	4	4
*Port Elizabeth	53,461	28,290	2,459	25,631	109,841	5	5	5	5
*Germiston	32,564	44,572	806	1,498	79,440	6	8	8	8
*East London	31,311	21,388	853	4,011	60,563	7	7	6	6
*Bloemfontein	30,291	31,042	8	2,892	64,233	8	6	7	10
*Pietermaritzburg	22,446	15,671	9,088	2,334	49,539	9	9	10	9
Benoni	21,071	53,854	959	1,876	77,760	10	11	11	13
Over 10,000 and less than 20,000.									
Springs	18,436	67,190	642	606	86,874	11	19	24	†
Krugersdorp	18,066	35,285	431	1,028	54,810	12	13	13	11
Brakpan	17,355	37,106	31	319	54,811	13	14	18	‡
Boksburg	15,916	32,405	754	1,051	50,126	14	12	12	12
*Kimberley	15,741	14,499	977	9,014	40,231	15	10	9	7
Potchefstroom	10,774	7,234	280	811	19,099	16	15	14	14
Roodepoort	10,693	29,976	191	712	41,572	17	17	17	15
Over 5,000 and less than 10,000.									
Uitenhage	9,437	6,588	225	4,334	20,584	18	16	15	17
Paarl	8,823	474	34	9,248	18,579	19	18	20	20
Grahamstown	8,198	9,131	122	2,322	19,773	20	20	16	16
Queenstown	6,723	9,662	67	1,803	18,255	21	21	22	23
Oudtshoorn	6,512	284	22	6,411	13,229	22	24	21	19
Kingwilliamstown	5,840	3,564	113	1,152	10,669	23	22	19	18
Worcester	5,631	375	40	6,440	12,486	24	26	26	24
Kroonstad	5,333	7,459	2	584	13,378	25	23	25	25
Randfontein	5,232	23,216	1	314	28,763	26	40	35	33
George	5,195	427	16	3,437	9,075	27	29	34	33
Bethlehem	5,011	4,951	1	416	10,379	28	25	28	†
Over 2,000 and under 5,000.									
Stellenbosch	4,995	177	52	3,558	8,782	29	27	27	27
Vereeniging	4,718	13,414	391	344	18,867	30	35	†	†
Klerksdorp	4,561	3,839	188	355	8,943	31	34	31	29
Graaff-Reinet	4,448	3,277	25	4,234	11,984	32	28	23	21
Pietersburg	4,240	4,343	377	175	9,135	33	31	45	†
Nigel	4,095	17,247	245	145	21,732	34	†	†	†
Cradock	3,690	3,569	50	1,951	9,260	35	33	29	25
Ladysmith (N.)	3,660	4,137	1,644	261	9,702	36	32	30	31
Beaufort West	3,548	949	20	3,449	7,966	37	37	32	34
Strand	3,367	158	54	2,348	5,927	38	38	47	†
Mossel Bay	3,260	92	93	3,782	7,227	39	45	40	†
Lichtenburg	3,237	2,333	143	98	5,811	40	39	†	†
Rustenburg	3,154	2,651	234	64	6,103	41	48	†	†
Harrismith	3,138	5,018	10	117	9,213	42	49	43	23
Vryheid	3,127	3,007	100	112	6,436	43	36	55	†
Robertson	3,012	42	3	1,888	4,945	44	42	41	30
Volksrust	3,003	1,630	99	78	4,810	45	53	50	†
Wellington	2,936	85	55	3,767	6,843	46	43	38	32
Parys	2,905	2,130	—	141	5,176	47	46	39	†
Middelburg (Tvl.)	2,901	2,493	214	171	5,779	48	47	37	†
Witbank	2,772	5,294	75	118	8,259	49	30	†	†
Malmesbury	2,574	18	43	2,221	4,856	50	51	49	†
Aliwal North	2,566	3,048	21	1,112	7,047	51	50	46	†
Ermelo	2,561	2,017	196	60	4,834	52	52	36	†
Ficksburg	2,506	2,398	—	232	5,136	53	54	†	†
Upington	2,416	805	10	3,059	6,380	54	†	†	†
Mafeking	2,362	1,655	198	451	4,666	55	57	†	†
Standerton	2,359	2,805	250	190	5,595	56	44	42	†
Umtata	2,350	2,711	1	480	5,542	57	58	†	†
Heidelberg (Tvl.)	2,332	3,231	135	77	5,825	58	59	48	†
Ladybrand	2,314	2,305	—	134	4,753	59	55	56	†
De Aar	2,263	1,141	25	1,691	5,125	60	41	51	†
Somerset East	2,174	2,169	24	1,666	6,033	61	56	52	†
Riversdale	2,167	26	3	1,965	4,161	62	†	†	†
Swellendam	2,147	35	2	1,600	3,784	63	†	†	†
Middelburg (C.)	2,099	1,329	7	1,896	5,331	64	60	53	†
Christiana	2,095	1,159	51	132	3,437	65	62	†	†
Burghersdorp	2,058	2,203	13	581	4,855	66	†	†	†
Lydenburg	2,051	1,608	104	83	3,846	67	†	†	†
Vryburg	2,029	2,257	213	528	5,027	68	†	†	†

* Including suburbs adjacent to municipal boundary.
† Below 2,000.
‡ Not then constituted an urban area or not separately enumerated.

9. **Population of the Witwatersrand.**—The rapid development of the gold mining industry following the Union's departure from the gold standard at the end of 1932 has resulted in a large increase in the population of the Witwatersrand. This area, consisting of the following towns and their suburbs, viz.

Randfontein, Krugersdorp, Roodepoort, Johannesburg, Germiston, Boksburg, Benoni, Brakpan, Springs, and Nigel, now contains one-fifth of the European population, and more than one-tenth of the total population of the Union. The 1936 Census figures for each town are shown in the table to paragraph 8, and the figures for the Witwatersrand since 1911 are given below:—

POPULATION OF WITWATERSRAND.

Race.	1911.	1921.	1926.	1931.	1936.
European	179,999	231,111	255,260	304,258	402,223
Non-European	285,865	303,115	—	—	614,967
All Races	465,864	534,226	—	—	1,017,190

10. **Population of each District.**—The number of Europeans and non-Europeans in each district, as returned at the Census of 1936, and the area in square miles of each district will be found in the District Statistical Summary at the beginning of this volume.

11. **Ages of the People.**—The following table gives details in quinquennial age groups regarding all races of the population as enumerated at the Census of 1936.

(i) NUMBER AND PERCENTAGE OF EUROPEANS, QUINQUENNIAL AGE GROUPS, AND NATIVES, CENSUS, 1936.

Age Group.	European.				Native.			
	Males.	Females.	Persons.	%	Males.	Females.	Persons.	%
0– 4	107,120	103,378	210,498	10·50	455,101	497,636	952,737	14·44
5– 9	108,193	104,015	212,208	10·59	459,266	456,721	915,987	13·89
10–14	102,596	99,103	201,699	10·06	420,703	385,412	806,115	12·22
15–19	97,864	95,230	193,094	9·64	343,754	320,175	663,929	10·06
20–24	94,670	94,462	189,132	9·44	269,920	283,696	553,616	8·39
25–29	91,939	91,110	183,049	9·13	291,451	253,929	545,380	8·27
30–34	74,499	72,804	147,303	7·35	236,360	237,650	474,010	7·19
35–39	60,367	62,313	122,680	6·12	218,105	189,584	407,689	6·18
40–44	57,540	58,200	115,740	5·78	164,810	165,473	330,283	5·01
45–49	51,524	51,230	102,754	5·13	128,484	112,576	241,060	3·65
50–54	45,424	42,717	88,141	4·40	94,184	108,350	202,534	3·07
55–59	41,597	35,707	77,304	3·86	65,069	68,740	133,809	2·03
60–64	33,079	27,551	60,630	3·03	56,677	77,989	134,666	2·04
65–69	23,522	20,994	44,516	2·22	40,775	43,592	84,367	1·28
70–74	14,466	13,559	28,025	1·40	30,701	38,075	68,776	1·04
75–79	8,106	7,739	15,845	0·79	15,185	16,858	32,043	0·49
80–84	3,635	3,844	7,479	0·37	10,817	15,196	26,013	0·39
85+	1,483	1,848	3,331	0·17	9,178	11,195	20,373	0·31
Unspecified	250	179	429	0·02	1,811	1,191	3,002	0·05
TOTAL	1,017,874	985,983	2,003,857	100·00	3,312,651	3,284,038	6,596,689	100·00
Under 21	433,641	419,436	853,077	42·57	1,763,226	1,760,066	3,523,292	53·41
21+	584,233	566,547	1,150,780	57·43	1,549,425	1,523,972	3,073,397	46·59

(ii) NUMBER AND PERCENTAGE OF ASIATICS AND COLOURED, QUINQUENNIAL AGE GROUPS, CENSUS, 1936.

Age Group.	Asiatic.				Coloured.			
	Males.	Females.	Persons.	%	Males.	Females.	Persons.	%
0– 4	17,832	18,469	36,301	16·52	61,318	61,860	123,178	16·00
5– 9	17,501	17,339	34,840	15·86	55,232	55,108	110,340	14·34
10–14	14,790	13,858	28,648	13·04	46,373	44,776	91,149	11·84
15–19	12,757	11,256	24,013	10·93	36,783	37,686	74,469	9·68
20–24	10,810	9,476	20,286	9·23	33,045	37,190	71,135	9·24
25–29	8,414	7,542	15,956	7·26	30,155	30,848	61,003	7·93
30–34	6,084	5,522	11,606	5·28	24,520	23,440	47,960	6·23
35–39	5,759	4,529	10,288	4·68	21,718	20,317	42,035	5·46
40–44	4,514	3,296	7,810	3·55	16,986	16,024	33,010	4·29
45–49	5,129	2,881	8,010	3·65	15,679	14,081	29,760	3·87
50–54	4,906	2,318	7,224	3·29	13,079	11,549	24,628	3·20
55–59	3,745	1,433	5,178	2·36	9,085	7,803	16,888	2·20
60–64	3,363	1,173	4,536	2·06	7,711	6,862	14,573	1·89
65–69	1,728	593	2,321	1·06	5,998	5,646	11,644	1·51
70–74	901	362	1,263	0·57	4,173	3,965	8,138	1·06
75–79	396	146	542	0·25	2,262	2,044	4,306	0·56
80–84	207	100	307	0·14	1,278	1,276	2,554	0·33
85+	144	87	231	0·15	996	1,044	2,040	0·26
Unspecified	171	160	331		440	411	851	0·11
TOTAL	119,151	100,540	219,691	100·00	387,431	382,230	769,661	100·00
Under 21	65,651	63,495	129,146	58·79	207,537	208,213	415,750	54·02
21+	53,500	37,045	90,545	41·21	179,894	174,017	353,911	45·98

12. **Masculinity.**—The subjoined table gives particulars as to the masculinity (number of males to every 100 females) of the population from 1904.

MASCULINITY OF POPULATION, CENSUSES, 1904 TO 1936.

Year.	European.			Non-European.			All Races.		
	Urban.	Rural.	Union.	Urban.	Rural.	Union.	Urban.	Rural.	Union.
1904.....	144·1	119·5	131·9	—	—	101·8	—	—	107·2
1911.....	115·9	115·9	115·9	223·5	87·9	103·1	166·6	91·3	105·7
1921.....	100·2	113·9	106·1	193·0	91·9	103·8	140·6	94·5	101·2
1926.....	98·3	113·8	104·5	—	—	—	—	—	—
1931.....	98·0	113·2	103·7	—	—	—	—	—	—
1936.....	98·1	113·7	103·2	166·1	88·1	101·4	131·6	90·6	101·5

13. **Marital Condition.**—The tables hereunder summarize the 1936 Census returns in respect of the conjugal condition of the population according to race and sex.

POPULATION CLASSIFIED ACCORDING TO MARITAL CONDITION, CENSUS, 1936.

Province.	Never Married.		Married.		Widowed.		Divorced.		Unspecified.	
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
EUROPEAN.										
Cape of Good Hope.....	235,261	216,389	150,786	150,801	8,586	25,943	1,375	1,788	367	278
Natal.....	51,856	47,067	40,100	40,131	2,390	7,273	634	816	177	105
Transvaal...	246,571	204,305	166,912	164,985	7,876	23,664	2,664	3,061	447	271
O.F.S.....	58,666	52,083	41,135	41,274	1,742	5,376	251	311	78	62
UNION...	592,354	519,844	398,933	397,191	20,594	62,256	4,924	5,976	1,069	716
NATIVE.										
Cape of Good Hope.....	636,080	622,410	263,692	370,834	16,951	127,918	1,265	5,762	357	301
Natal.....	519,390	463,862	210,024	270,373	11,624	74,844	916	1,658	646	292
Transvaal...	855,563	599,497	508,712	362,901	13,738	96,776	1,947	3,443	1,054	749
O.F.S.....	173,792	161,792	91,606	96,775	4,427	21,536	740	2,200	127	115
UNION....	2,184,825	1,847,561	1,074,034	1,100,883	46,740	321,074	4,868	13,063	2,184	1,457
ASIATIC.										
Cape of Good Hope.....	3,148	2,260	3,210	1,404	205	154	30	10	84	3
Natal.....	61,304	50,743	32,251	30,844	2,961	4,629	333	294	224	78
Transvaal...	7,981	5,818	6,935	3,953	400	317	55	22	8	4
O.F.S.....	11	5	0	2	2	—	—	—	—	—
UNION....	72,444	58,826	42,405	36,203	3,568	5,100	418	326	316	85
COLOURED.										
Cape of Good Hope.....	232,186	214,861	100,462	104,595	9,203	18,396	822	1,127	338	258
Natal.....	6,503	5,941	2,588	2,667	230	554	36	60	28	17
Transvaal...	16,970	14,586	7,885	8,547	669	1,751	156	228	33	16
O.F.S.....	6,116	5,166	2,839	2,773	294	599	56	80	12	8
UNION....	261,780	240,554	113,774	118,582	10,396	21,300	1,070	1,495	411	29

14. **Official Languages.**—Information has been collected since 1918 in regard to the number of Europeans able to use either or both of the official languages, viz., English and Afrikaans. The steady growth of bilingualism is shown in the following table: omitting children under school age, nearly two-thirds of the European population can now speak both English and Afrikaans.

OFFICIAL LANGUAGES SPOKEN BY EUROPEANS (7 YEARS OF AGE AND OVER), 1918 TO 1936.

Official Languages Spoken.	Number.				Per cent.			
	1918.	1921.	1926.	1936.	1918.	1921.	1926.	1936.
Both.....	485,710	636,264	818,443	1,098,015	42·07	50·71	58·52	64·37
English.....	350,194	315,733	302,135	323,688	30·33	25·16	21·61	18·98
Afrikaans...	307,039	298,575	274,447	279,618	26·59	23·79	19·62	16·39
Neither.....	5,707	3,011	2,834	3,809	0·49	0·24	0·20	0·22
Unspecified.	5,987	1,227	724	718	0·52	0·10	0·05	0·04
TOTAL....	1,154,637	1,254,810	1,398,583	1,705,848	100·00	100·00	100·00	100·00

15. **Home Language.**—For the first time particulars are available of the language spoken in the homes of the people. In the urban areas 53 per cent. of the European population speak English in their homes against 41 per cent. speaking Afrikaans. On the other hand in the rural areas 84 per cent. speak Afrikaans and only 14 per cent. English. The following table shows the details for each province:—

HOME LANGUAGE—EUROPEANS, 1936.

Home Language.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Union.	
					No.	Per cent.
English.....	297,077	141,550	318,090	26,354	783,071	39·08
Afrikaans.....	461,356	38,301	452,252	168,861	1,120,770	55·93
English and Afrikaans.....	19,698	3,727	23,192	3,794	50,411	2·52
Nederlands.....	826	175	2,740	167	3,908	0·19
German.....	6,048	4,792	6,470	500	17,810	0·89
Yiddish.....	4,745	299	11,528	1,112	17,684	0·88
Greek.....	299	98	1,435	86	1,918	0·10
Portuguese.....	158	67	1,510	8	1,743	0·09
Italian.....	383	114	1,175	7	1,679	0·08
French.....	189	815	423	18	1,445	0·07
Other.....	578	548	1,600	47	2,773	0·14
Unspecified.....	217	63	341	24	645	0·03
TOTAL.....	791,574	190,549	820,756	200,978	2,003,857	100·00

16. **Nationality.**—Nearly 98 per cent. of the Europeans enumerated at the 1936 census were South African nationals—96 per cent. by birth or domicile, and 2 per cent. by naturalization. (For a definition of Union nationality see §8 of this chapter.)

Residents of other British territories temporarily in the Union at the date of the census, and also British subjects whose period of residence was not sufficient to qualify them for union nationality, numbered 11,777 (0.6 per cent.).

All foreign subjects, of whom the most numerous were Germans, Lithuanians, Netherlanders, Russians, and Poles, totalled 31,849 (1.6 per cent.). Sixty per cent. of the total number of foreign subjects were enumerated in the Transvaal.

Particulars for each province are shown in the following table:—

NATIONALITY—EUROPEANS, 1936.

Nationality.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Union.
South African	764,590	182,420	772,836	197,413	1,917,259
South African naturalized	13,287	3,218	23,927	2,436	42,868
Total South African	777,877	185,638	796,763	199,849	1,960,127
British	4,601	2,419	4,329	178	11,527
British naturalized	73	32	145	—	250
Total British	4,674	2,451	4,474	178	11,777
American (United States)	373	194	698	18	1,283
American, South	41	9	52	—	102
Austrian	113	36	256	4	409
Belgian	72	21	240	4	337
Danish	73	40	136	12	261
French	124	135	227	7	493
German	2,895	968	3,902	233	7,998
Greek	247	61	891	33	1,232
Italian	357	86	826	11	1,280
Jewish (not otherwise described)	48	15	148	4	215
Jugoslavian	18	14	326	4	362
Latvian	338	34	659	33	1,064
Lithuanian	1,324	93	3,155	188	4,760
Netherlander	706	132	2,044	127	3,009
Norwegian	305	242	205	2	754
Palestinian	37	8	156	5	206
Polish	661	54	1,177	41	1,933
Portuguese	267	67	1,432	6	1,772
Russian	577	53	1,997	159	2,786
Swedish	87	83	168	2	340
Swiss	172	55	284	16	527
Syrian	54	10	249	31	344
Other foreign	115	35	223	9	382
Total foreign	9,004	2,445	19,451	919	31,849
Unspecified	19	15	68	2	104
GRAND TOTAL	791,574	190,549	820,756	200,978	2,003,857

17. **Birthplaces.**—Persons born in the Union now comprise seven-eighths of the European population, compared with three-quarters in 1904, while the extra-Union-born population has declined from one-quarter to one-eighth. As the number of persons born outside the Union has remained more or less stationary at a quarter of a million, the increase in the population has been entirely due to the natural increase. 60 per cent. of the extra-Union-born came from the United Kingdom, 10 per cent. from other British territories, and 30 per cent. from foreign countries.

The principal birthplaces as revealed at the 1936 Census are shown in Table (i), and the change since 1904 in the ratio of Union-born to those born outside the Union, in Table (ii).

(i) BIRTHPLACES—EUROPEANS—CENSUS, 1936.

Birthplace.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Union.
I. AFRICA.					
Cape	667,252	23,968	128,161	32,986	852,367
Natal	5,392	92,578	18,008	2,547	118,525
Transvaal	20,965	19,339	485,957	8,957	535,218
Orange Free State	16,036	9,212	62,184	146,648	234,080
South Africa (so stated)	5,441	1,998	6,494	1,215	15,148
TOTAL UNION	715,086	147,095	700,804	192,353	1,755,338
South West Africa	1,565	259	1,400	187	3,411
Basutoland	204	105	232	268	809
Swaziland	36	192	466	17	711
Bechuanaland Protectorate	190	24	235	13	462
Rhodesia (South)	643	271	752	44	1,710
Rhodesia (North)	149	49	215	21	434
Rhodesia (so stated)	720	345	1,255	61	2,381
TOTAL BRITISH SOUTH AFRICA	718,593	148,340	705,359	192,964	1,765,256

BIRTHPLACES—EUROPEANS—CENSUS 1936—(*continued*).

Birthplace.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Union.
I. AFRICA—(*continued*).					
Mauritius	93	859	117	6	1,075
Madeira	287	44	903	3	1,237
Portuguese East Africa	60	72	417	6	555
II. EUROPE.					
England	32,957	21,344	41,839	2,654	98,794
Scotland	8,295	7,615	15,924	1,027	32,861
Wales	993	702	1,914	89	3,698
Ireland	3,828	2,007	4,485	302	10,622
United Kingdom (so stated)	294	207	341	31	873
TOTAL UNITED KINGDOM AND IRELAND	46,367	31,875	64,503	4,103	146,848
Austria	275	75	526	31	907
Belgium	141	60	346	12	559
Denmark	194	113	323	18	648
France	291	276	452	24	1,043
Germany	4,796	1,807	6,338	499	13,440
Greece	439	96	1,237	102	1,874
Italy	547	178	1,255	21	2,001
Jugoslavia	40	33	445	5	523
Latvia	1,236	148	1,886	182	3,452
Lithuania	3,897	338	8,307	731	13,273
Netherlands	1,320	342	4,386	339	6,387
Norway	462	553	380	8	1,403
Portugal	90	24	592	5	711
Russia	4,794	528	9,726	1,160	16,208
Poland	1,541	183	2,415	113	4,252
Sweden	250	231	310	8	799
Switzerland	294	115	450	17	876
III. ASIA.					
India	510	394	558	32	1,494
Palestine	114	47	470	31	662
Syria	201	38	509	134	882
IV. AMERICA.					
Canada	227	182	459	22	890
United States of America	526	276	924	33	1,759
V. AUSTRALASIA.					
Australia	1,287	1,653	3,297	114	6,351
New Zealand	287	303	560	22	1,172
VI. OTHER.					
All Other Countries	1,906	1,082	2,662	166	5,816
At Sea	167	104	278	20	569
Unknown and Unspecified	342	180	366	47	935
TOTAL	791,574	190,549	820,756	200,978	2,003,857

(ii) EUROPEAN POPULATION BORN IN AND OUTSIDE THE UNION, CENSUSES, 1904 TO 1936.

Where born.	1904.*	1911.	1921.	1926.	1936.
	NUMBER.				
In the Union	758,442	1,016,106	1,276,406	1,428,071	1,755,338
Outside the Union	261,255	259,938	240,776	247,544	247,584
	Per cent.				
In the Union	74·37	79·62	84·00	85·17	87·60
Outside the Union	25·62	20·37	15·85	14·77	12·36

* Excluding Natal. Figures not available.

Particulars of religions appear in Chapter V of the *Year Book*, but th tabulation of occupations had not been completed at the time of going to pres

§ 3. Asiatic Population.

1. Asiatic Population.—The number of Asiatics in the Union is given in the following table. The decrease in the number of Asiatics in the Orange Free State since 1921 is due principally to a change in classification. Syrians were classified as Asiatics in 1921, but have since been included with Europeans.

ASIATIC POPULATION—CENSUSES, 1904 TO 1936.

Year.	Cape of Good Hope.		Natal.		Transvaal.		Orange Free State.		Union.		
	Male.	Female.	Male.	Female.	Male.	Felhale.	Male.	Female.	Male.	Female.	Total.
1904...	9,316	926	63,497	37,421	9,799	1,522	197	56	82,809	39,925	122,734
1911...	6,581	1,083	80,477	52,943	8,990	2,022	87	20	96,135	56,068	152,203
1921...	5,724	1,972	80,314	61,335	11,056	4,935	242	153	97,336	68,395	165,731
1936...	6,677	3,831	97,073	86,588	15,379	10,114	22	7	119,151	100,540	219,691

2. Asiatics in the Union.—Previous issues of this *Year Book* (Nos. 1 to 6) contained particulars of the Asiatic population in each province. Considerations of space have necessitated the omission of these paragraphs. The question is dealt with in some detail in the Report on the Census of 1921.

Under the *Immigrants Regulation Act*, 1913 (which is applicable to all classes and races), Asiatics, with the exception of wives and children of domiciled relatives, are prohibited from entering the Union, not *eo nomine*, but under a certificate of the Minister issued in terms of section 4 (1) (*a*). The provisions of the Act also restrict the movement of Asiatics to the province in which they are resident.

The *Class Areas Bill*, which was introduced by the Government during the 1924 parliamentary session, aimed at making provision for the reservation in towns of residential and trading areas for persons, other than natives, having racial characteristics in common, and was designed primarily to give the Government powers to enforce a measure of segregation of Asiatics in particular urban centres. The Bill met with a hostile reception from the Asiatic community. Owing to the dissolution of the House of Assembly in May, 1924, the Bill did not pass beyond the preliminary stages.

The Minister of the Interior, in the parliamentary session of 1926, introduced a recast *Class Areas Bill*, which was referred to a Select Committee. A deputation from the Government of India, which visited the Union to study the conditions under which Indians were living, gave evidence before the Select Committee. As a result of the Committee's report, it was decided to postpone consideration of the Bill, and to discuss the whole question at a conference with the Government of India during the recess.

The Asiatic question in the Union has an Imperial context, to which brief reference may here be made. The Imperial Conference of 1917 accepted the principle of reciprocity of treatment between India and the British Dominions in the matter of immigration. The Conference of 1918 elaborated the principle, and laid down that Indians already permanently domiciled in the other British countries should be allowed on certain conditions to bring in their wives and minor children. At the Imperial Conference held in 1921 the position of Indians in the British Empire was further discussed, and a Resolution was passed which, while approving the Resolution of the 1918 Conference on the subject, expressed the opinion that in the interests of the solidarity of the British Commonwealth it was desirable that the rights of British Indians to citizenship should be recognized. This Resolution was not accepted by the South African representatives, and the Indian delegates expressed the hope that by negotiation between the Governments of India and the Union the objections of the latter could be overcome. The question was again raised at the Conference of 1923, when the Indian representatives made certain proposals, with a view to giving effect to the policy laid down in 1921. In the case of the Union, the suggestion was that the Union Government should agree to the sending to South Africa by the Government of India of an agent, who would protect Indian nationals there and act as an intermediary between them and the Union authorities. In rejecting the proposal, General Smuts on behalf of the Union stated that he could hold out no hope of any further extension of the political rights of Indians in South Africa. He defined the issue in the Union to be a question of economic competition, and not of race or colour, and declared that the white community in South Africa felt that the whole question of the continuance of western civilization in that country was involved in this issue.

Fuller information in regard to the Asiatic problem in the Union was published in previous issues of the *Year Book* (Nos. 1 to 4).

3. Asiatic Inquiry Commission.—A summary of the reports (dated May, 1920, and March, 1921, respectively) of the Asiatic Inquiry Commission appointed in February, 1920, was given in the fourth and fifth issues of this *Year Book*. The commission inquired primarily into the legal position arising from and affecting the acquisition of land by Asiatics for trading purposes and their trading activities generally.

4. Indian Delegations, 1926 and 1927.—Capetown Conference and Agreement.—Consequent upon a proposal to introduce into the House of Assembly the *Areas Reservation and Immigration and Registration (Further Provision) Bill*, a deputation from India arrived in the Union to study at first hand certain aspects of the Indian population problems. This deputation was followed by a return visit to India of a parliamentary deputation from the Union Government. As a result of the investigations of these deputations, the Governments of India and the Union arranged for a meeting in the Union of a further delegation from India to explore every possible avenue, in order to arrive at a satisfactory solution of the Indian problem.

The Indian delegation assembled in conference with the parliamentary deputation in Capetown on the 17th December, 1926. At the session, which lasted until the 11th January, 1927, the contentious differences were discussed and recommendations were agreed to which were afterwards approved of by the respective Governments. Particulars of the agreement arrived at were published in *Year Book* No. 19.

One result of the conference was the appointment by the Government of India, at the request of the Union Government, of an Agent-General for the Government of India in the Union in order to secure continuous and effective co-operation between the two Governments. The names and the periods of office of the successive Agents-General for the Government of India in the Union are as follows:—

The Hon. Srinavasa Sastri, 1927-1929.
Sir Venkata Reddi, 1929-1932.
Kunwar Sir Maharaj Singh, 1932-1935.
Syed Sir Raza Ali, C.B.E., 1935-1938.
Sir Benegal Rama Rau, C.I.E., I.C.S., 1938 (present incumbent).

In accordance with the Capetown agreement, delegates of the Government of the Union of South Africa and of the Government of India met at Capetown from 12th January to 4th February, 1932, to consider the working of the agreement and to exchange views as to any modifications that experience might suggest.

In response to a suggestion made at the meeting that the possibilities of a colonization scheme for the settlement of Indians in other countries be explored, a committee was appointed by the Minister of the Interior with the following terms of reference:—

> "To undertake a preliminary investigation in South Africa in connexion with the proposals set forth in paragraph 3 of the Agreement arrived at by the 1932 Round Table Conference, for the exploration of the possibilities of a colonization scheme for settling Indians, both from India and from South Africa, in other countries; and to report as to the country or countries in which further investigation as to the successful operation of such a scheme might advantageously be made, having regard to the political, climatic, and economic conditions in such country or countries, and to the extent to which Indians in the Union would participate therein."

The committee reported on the 26th February, 1934 (U.G. No. 23-1934) and recommended that British North Borneo, British New Guinea, and British Guiana were countries which might be further investigated advantageously in regard to the possibilities of the operation of a successful colonization scheme.

5. Asiatic Land Laws Commission.—This commission was appointed in February, 1938, with the Hon. J. M. Murray as chairman, and Messrs. H. Britten, N. Smit, and B. Bloemsma as members.

The commission was appointed to inquire into and report whether and, if so, to what extent the letter and spirit of any law restricting or prohibiting the ownership, use, or occupation by Asiatics of land is being evaded, and to make recommendations in regard thereto. The report of the commission was published in March, 1939 (U.G. No. 16—1939).

§ 4. Immigration and Emigration.

1. Immigration.—As one of the newer countries of the world, South Africa, since the days of the earliest settlements, has received a more or less steady influx of immigrants, the volume of which was abnormally increased or decreased at certain periods by important events such as the discovery of diamonds and gold, and the period and aftermath of the South African War of 1899-1902 and of the World War (1914-1918). The records of the numbers in earlier years are not complete, and it was not until the year 1903, when the first *Immigration Act* was brought into operation in the Cape Colony, that accurate records began to be kept. The value of these figures as an index to the accession of population is discounted by the absence of corresponding figures for Natal and also of records of the departures from South Africa.

It was not until the passing of the *Immigrants Regulation Act*, 1913, that legislation and statistics of arrivals from abroad became uniform in the two coastal provinces. This Act, however, gave no authority for recording or in any way dealing with departures from the country.

In the year immediately following the South African war a very large accession of population was recorded; but for several years following there was a reaction due to a severe commercial depression, and there was undoubtedly a considerable loss of European population. A change in the direction of flow again occurred in the year 1910, when the country once more received an accession of population from overseas. The period of the World War was marked by a considerable diminution in the flow of immigration. There was a revival after the cessation of hostilities in 1918, and in the two or three succeeding years there was a fairly large influx of immigrants. The movement was, however, checked as a result of the economic depression, which commenced towards the beginning of 1921.

From 1924 onwards, immigrants from countries situated in eastern, central, and southern Europe arrived in increasing numbers each year. This is attributable to the restrictions placed upon immigration by the United States of America and other immigrant countries, and led to the introduction of the *Immigration Quota Act*, No. 8 of 1930, which came into force on the 1st May, 1930. The years 1930 and 1931 showed a very appreciable diminution in the number of immigrants when compared with previous years; this was due to the effects of the *Quota Act* and the world economic depression. In January, 1937, the *Aliens Act* was passed, and the *Quota Act* was repealed (see § 6 of this chapter).

2. Statistics of Migration.—(i) *Prior to* 1918.—Although the Union has extensive land borders of many thousands of miles on the north, it was not until the latter part of 1914 that figures were recorded in respect of the movement of population other than that by sea, and then only *via* Mafeking to and from Rhodesia by railway. The following year this was extended to the railway border station of Komatipoort on the Union-Portuguese East Africa border.

(ii) *Returns under the Statistics Act* (1918 to 1923).—From the 1st January, 1918, statutory powers were given to the Director of Census to collect information in regard to all persons entering or leaving the Union *via* the sea and land borders. The method of collecting the statistical data was to enumerate all travellers by means of a special statistical form. In the case of seaports the immigration officers were responsible for the enumeration, while travellers *via* the land borders were enumerated either by railway officers or by the police stationed at or near drifts and other places of entry or exit. During the first four months of the year 1918, every person crossing the border by rail was enumerated, but, owing to the heavy traffic and consequent delay and inconvenience, it was decided by the Statistical Council that as from the 1st May only those persons who were travelling with single journey tickets should be enumerated. The figures for the year 1918 were somewhat affected by this change of procedure.

The regulations framed under the Act exclude the enumeration of aboriginal natives of the Bantu race. Therefore, the statistics account only for Europeans, Asiatics, and coloured persons of mixed race.

(iii) *Revised Scheme of Collection*, 1924.—From the 1st January, 1924, the method of collection was revised, and additional particulars became available. The most important feature of the revised method is the isolation and the separate tabulation in the statistics of the large number of persons "in transit" *via* the Union. The peculiar geographical situation and the development of the ports and railways of the Union have placed the country in a favourable

position in this respect, and there is a considerable amount of traffic *via* Union ports and railways of persons passing to and from Rhodesia, the Belgian Congo, South West Africa, and the Portuguese Province of Mozambique. At coastal ports there is also a certain amount of transhipment for East African ports, India, Australia, etc. Particulars of persons on holiday or business visits to the Union are also tabulated. All statistical particulars in respect of persons arriving by sea are extracted from the Passengers' Declaration Form (D.I. 10) required in terms of the *Immigration Act*, 1913, to be completed in respect of all passengers landing in the Union from overseas. This form is also required in respect of all entrants into the Union *via* the Portuguese port of Lourenco Marques.

The opening of the Beit Bridge over the Limpopo River created another land border "port" for purposes of migration statistics, and statistics have been collected at this point since the 1st January, 1930. The appointment of immigration officers at this port in November, 1935, has made possible the collection of information concerning all non-Union residents crossing the border. Subsequently the enumeration was extended to cover all travellers.

In October, 1935, immigration officers were stationed at Mafeking for the enumeration of the large number of railway travellers crossing the border at this point.

From the beginning of 1937, persons travelling between the Union and Portuguese East Africa via Stegi, near the Swaziland border, have been enumerated.

(iv) *Air Traffic.*—The development of air services also necessitated a further amendment to the regulations dealing with migration statistics, and on the 20th January, 1930, Government Notice No. 129 was issued, with effect from the 1st November, 1929, requiring every person arriving or departing by air to furnish the particulars required for statistical purposes. The customs officers at the declared customs aerodromes in the Union act as prescribed officers for the purpose of collecting statistics of all persons leaving by air, whilst the particulars of persons arriving are collected by the immigration officers as provided in Regulation 28 (2) of the *Air Navigation Regulations*.

(v) *Publication of Statistics.*—Detailed statistics of immigration and emigration are published annually by the Office of Census and Statistics under the title *Statistics of Migration* (obtainable from the Government Printer, Pretoria, price 2s. 6d.).

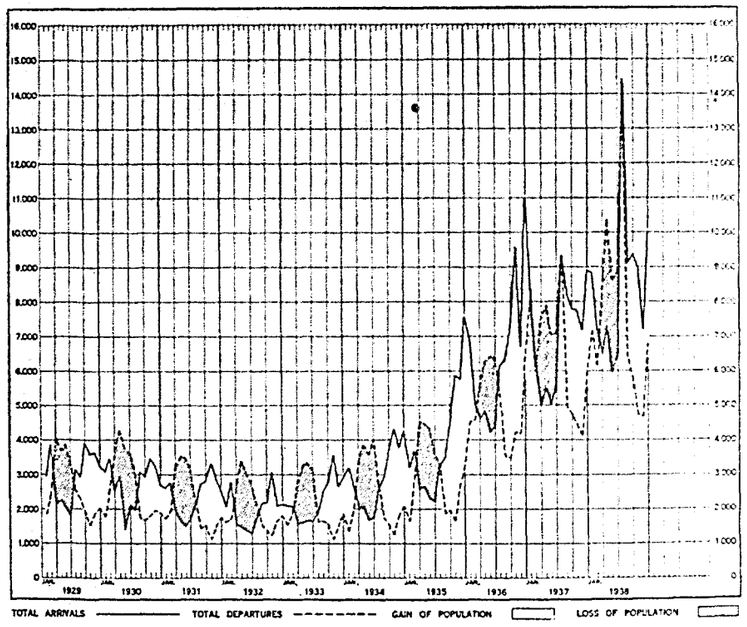
Monthly summaries are published in the *Monthly Bulletin of Statistics*.

(vi) *Statistics.*—The following table gives a summary of the statistics of migration for the last five years. The figures for earlier years will be found in previous editions of this *Year Book*.

ARRIVALS AND DEPARTURES, 1934 TO 1938.

Year.	European.			Non-European.			All Races.		
	Male.	Female.	Persons.	Male.	Female.	Persons.	Male.	Female.	Persons.
(*a*) ARRIVALS (EXCLUDING "IN TRANSIT").									
1934.....	17,045	17,979	35,024	2,568	938	3,506	19,613	18,917	38,530
1935.....	23,371	23,735	47,106	2,883	1,152	4,035	26,254	24,887	51,141
1936.....	38,928	38,105	77,033	3,200	1,331	4,531	42,128	39,436	81,564
1937.....	41,680	42,604	84,284	3,424	1,625	5,049	45,104	44,229	89,333
1938.....	50,960	50,316	101,276	3,199	1,408	4,607	54,159	51,724	105,883
(*b*) DEPARTURES (EXCLUDING "IN TRANSIT").									
1934.....	13,942	15,566	29,508	2,071	826	2,897	16,013	16,392	32,405
1935.....	17,032	19,067	36,099	1,900	698	2,598	18,932	19,765	38,697
1936.....	29,587	31,286	60,873	1,696	768	2,464	31,483	32,054	63,537
1937.....	38,069	39,213	77,282	2,130	764	2,894	40,199	39,977	80,176
1938.....	46,493	45,697	92,190	3,204	1,047	4,251	49,697	46,744	96,441
(*c*) ARRIVALS IN TRANSIT.									
1934.....	2,099	1,951	4,050	16	4	20	2,115	1,955	4,070
1935.....	2,551	2,320	4,871	17	11	28	2,568	2,331	4,899
1936.....	3,898	3,772	7,670	15	4	19	3,913	3,776	7,689
1937.....	4,155	3,947	8,102	43	5	48	4,198	3,952	8,150
1938.....	4,611	4,219	8,830	11	7	18	4,622	4,226	8,848
(*d*) DEPARTURES IN TRANSIT.									
1934.....	1,677	1,430	3,107	15	6	21	1,692	1,436	3,128
1935.....	1,966	1,877	3,843	10	6	16	1,976	1,883	3,859
1936.....	3,474	3,284	6,758	14	6	20	3,488	3,290	6,778
1937.....	4,310	3,925	8,235	20	8	28	4,330	3,933	8,263
1938.....	4,436	4,003	8,439	24	13	37	4,460	4,016	8,476

ARRIVALS AND DEPARTURES OF EUROPEANS, JANUARY, 1929, TO DECEMBER, 1938 (GROSS FIGURES, EXCLUDING "IN TRANSIT" PASSENGERS).



Note.—Prior to 1935 partial enumeration only was made at the Union-Bechuanaland and Union-Rhodesian borders.

The following tables record the arrivals and departures of persons by sea, by land, and by air, classified according to their stated intentions on entry or departure. The figures for migrants *via* the land borders show the number of persons actually enumerated, and the abnormal increase since 1935 is due chiefly to the improved system of enumeration mentioned above. Before the appointment of immigration officers at Mafeking and Beit Bridge towards the end of 1935, comparatively few of the temporary travellers between the Union and Rhodesia were enumerated. Except at Nakop, on the South West Africa border, where the system of enumerating only persons travelling on single journey railway tickets is still in force, the statistics of migration *via* the land borders may now be taken as reasonably complete.

Figures for migrants by air are available from November, 1929, but the number of air travellers was very small until January, 1932, when Imperial Airways inaugurated regular air services between Europe and South Africa. In June, 1937, Imperial Airways introduced its flying boat service terminating at Durban, and South African Airways took over the route from Germiston to Lusaka *via* Bulawayo. Most of the arrivals and departures by air are from and to Rhodesia by South African Airways.

The column headed "In transit through Union" shows the number of persons enumerated, who pass through the Union to and from countries or territories beyond its borders. These figures are excluded from the detailed tables for the Union.

(*a*) ARRIVALS BY SEA, LAND, AND AIR WITH REASONS FOR ENTRY, 1934 TO 1938.

Year.	Temporary Visitors.		Immigrants intending Permanent Residence.	Residents Returning.	In Transit through Union.	Total Persons Allowed Entry.	Number Refused Entry.
	Business and Education.	Holiday.					
(i) EUROPEANS. (*a*) BY SEA.							
1934	1,004	8,380	4,470	18,484	3,804	36,232	374
1935	1,302	9,949	6,075	20,240	4,172	41,738	495
1936	2,180	12,392	10,387	21,855	4,301	51,115	607
1937	1,914	11,059	7,650	27,023	5,395	53,041	993
1938	2,239	12,165	7,073	27,571	5,911	54,959	3,029
(*b*) BY LAND.							
1934	80	434	225	1,057	244	2,049	17
1935	192	5,515	408	2,436	699	9,280	12
1936	692	19,508	445	8,622	3,363	32,630	7
1937	1,415	19,284	273	14,341	2,694	38,037	7
1938	2,115	22,967	346	24,506	2,894	52,828	18
(*c*) BY AIR.							
1934	143	224	7	417	2	793	—
1935	150	262	17	530	—	959	—
1936	182	317	8	445	6	958	—
1937	282	312	4	697	13	1,308	—
1938	441	657	16	1,180	25	2,319	—
(ii) NON-EUROPEANS. (*a*) BY SEA.							
1934	30	120	380	1,376	20	1,926	345
1935	30	61	478	1,658	28	2,255	296
1936	47	101	475	1,517	15	2,155	231
1937	70	81	477	1,620	42	2,290	309
1938	79	101	512	1,502	17	2,211	204
(*b*) BY LAND.*							
1934	1	05	449	1,055	—	1,600	1,552
1935	4	28	506	1,269	—	1,807	983
1936	16	449	555	1,371	4	2,395	4,844
1937	48	487	656	1,610	6	2,807	690
1938	46	400	531	1,436	1	2,414	654

* Includes arrivals by air as follows:—Business visitors: 1 in 1934, 1 in 1935, and 1 in 1936; residents returning: 1 in 1934. In 1937 there were 4 arrivals by air and in 1938, 10.

(*b*) DEPARTURES BY SEA, LAND, AND AIR WITH REASONS FOR DEPARTURE, 1934 TO 1938.

Year.	Completion of Visit.		Residents Departing Permanently.	Residents Departing Temporarily.	In Transit through Union.	Total Departures.†
	Business and Education.	Holiday.				
(i) EUROPEANS. (*a*) BY SEA.						
1934	717	6,807	1,124	18,094	2,652	29,394
1935	941	8,833	1,168	20,197	2,811	33,950
1936	1,240	9,416	1,350	21,394	2,797	36,466
1937	1,623	10,433	1,291	27,123	3,891	44,695
1938	1,550	11,250	1,424	27,193	3,987	45,607
(*b*) BY LAND.						
1934	55	451	636	903	448	2,493
1935	115	1,586	688	1,611	1,029	5,029
1936	621	16,888	1,354	7,346	3,952	30,179
1937	1,469	18,502	2,404	12,928	4,294	39,535
1938	1,400	20,593	2,577	23,790	4,408	52,925
(*c*) BY AIR.						
1934	108	141	7	465	7	728
1935	124	209	9	618	3	963
1936	153	257	12	555	9	986
1937	178	275	21	760	50	1,287
1938	295	468	21	1,268	44	2,097

† Includes persons who failed to state their reason for departure.

(b) DEPARTURES BY SEA, LAND, AND AIR WITH REASONS FOR DEPARTURE, 1934 TO 1938—(*continued*).

Year.	Completion of Visit.		Residents Departing Permanently.	Residents Departing Temporarily.	In Transit through Union.	Total Departures.*
	Business and Education.	Holiday.				
(ii) NON-EUROPEANS. (a) BY SEA.						
1934	22	118	922	1,813	10	2,885
1935	15	77	626	1,843	15	2,576
1936	21	122	695	1,648	10	2,502
1937	51	58	411	1,762	18	2,327
1938	42	73	574	1,728	24	2,443
(b) BY LAND.*						
1934	4	4	6	8	11	33
1935	1	8	5	22	1	37
1936	4	113	4	44	10	175
1937	22	117	13	433	10	595
1938	11	122	15	1,684	13	1,845

* Includes departures by air as follows:—1 in 1935; 5 in 1936; 9 in 1937; and 10 in 1938.
† Includes persons who failed to state their reason for departure.

3. **Migration of Europeans.**—The tables following show the numbers of each sex of European migrants entering or leaving the Union. The preponderance of females among the holiday visitors is accounted for by the fact that many men coming to the country on business are accompanied by their wives and families, the latter falling within the classification of holiday visitors.

(a) EUROPEANS, ARRIVALS AND REASONS FOR ENTRY, 1934 TO 1938.

Year.	Temporary Visitors.		Immigrants Intending Permanent Residence.	Residents Returning.	All Arrivals.	"In Transit."
	Business and Education.	Holiday.				
MALE.						
1934	1,202	3,957	2,546	9,340	17,045	2,099
1935	1,526	7,160	3,794	10,891	23,371	2,551
1936	2,801	15,293	6,309	14,525	38,928	3,898
1937	3,109	14,325	4,005	20,241	41,680	4,155
1938	4,016	16,804	3,508	26,632	50,960	4,011
FEMALE.						
1934	124	5,081	2,156	10,618	17,979	1,951
1935	118	8,596	2,706	12,315	23,735	2,320
1936	253	16,024	4,531	16,397	38,105	3,772
1937	532	16,330	3,022	21,820	42,604	3,947
1938	779	18,985	3,927	26,625	50,316	4,219
PERSONS.						
1934	1,326	9,038	4,702	19,958	35,024	4,050
1935	1,644	15,756	6,500	23,206	47,106	4,871
1936	3,054	32,217	10,840	30,922	77,033	7,670
1937	3,641	30,655	7,927	42,061	84,284	8,102
1938	4,795	35,789	7,435	53,257	101,276	8,880

(b) EUROPEANS, DEPARTURES AND REASONS FOR DEPARTURE, 1934 TO 1938.

Year.	Completion of Visit.		Residents Departing Permanently.	Residents Departing Temporarily.	All Departures.*	"In Transit."
	Business and Education.	Holiday.				
MALE.						
1934	800	3,277	917	8,948	13,942	1,677
1935	1,058	4,735	924	10,315	17,032	1,966
1936	1,827	12,622	1,446	13,551	29,587	3,474
1937	2,636	13,757	1,963	19,531	38,069	4,310
1938	2,684	15,386	2,121	26,107	46,493	4,436
FEMALE.						
1934	80	4,122	850	10,514	15,566	1,430
1935	122	5,893	941	12,111	19,067	1,877
1936	187	13,939	1,270	15,744	31,286	3,294
1937	534	15,453	1,748	21,280	39,213	3,925
1938	561	16,925	1,901	26,144	45,697	4,003
PERSONS.						
1934	880	7,399	1,767	19,462	29,508	3,107
1935	1,180	10,628	1,865	22,426	36,099	3,843
1936	2,014	26,561	2,716	29,295	60,873	6,768
1937	3,170	29,210	3,716	40,811	77,282	8,235
1938	3,245	32,311	4,022	52,251	92,190	8,439

* Includes persons who failed to state their reason for departure.

The table which follows shows the birthplaces of European settlers and emigrants for the period 1934 to 1938.

COUNTRY OF BIRTH OF EUROPEAN IMMIGRANTS AND EMIGRANTS, 1934 TO 1938.

Country of Birth.	Immigrants Intending Permanent Residence.					Residents Departing Permanently.				
	1934.	1935.	1936.	1937.	1938.	1934.	1935.	1936.	1937.	1938.
Union of South Africa	—	13	33	28	12	842	847	1,338	2,155	2,243
South West Africa	109	171	98	33	70	18	17	19	28	43
Rhodesia	14	35	131	76	94	12	25	40	62	90
Nyasaland	1	2	3	5	3	1	2	4	2	—
Kenya	9	8	14	16	16	2	1	4	6	13
Tanganyika	1	3	2	12	5	—	—	—	—	3
Mauritius	6	13	10	24	24	9	5	3	4	8
St. Helena	4	8	6	11	3	2	—	2	1	2
Other British African	7	1	14	4	2	3	4	11	13	11
Madeira	108	124	162	46	29	6	4	9	12	17
Portuguese East Africa	1	13	12	4	6	3	5	3	6	6
Other Portuguese	7	2	11	14	—	—	—	1	1	2
Other Foreign African	11	19	13	9	16	2	6	3	3	6
England	1,329	2,083	1,922	2,602	2,653	401	416	637	720	731
Ireland	189	163	197	227	250	39	24	41	53	62
Scotland	332	461	539	719	897	80	107	134	173	195
Wales	55	60	61	99	132	20	13	15	28	23
United Kingdom	10	12	8	10	3	1	4	4	—	2
Gibraltar	2	—	1	2	3	1	—	—	—	1
Malta	7	3	7	2	5	—	—	2	—	1
All other British	—	—	—	18	13	—	—	—	2	1
Austria	47	73	159	109	67	1	4	3	9	4
Belgium	25	27	35	31	23	52	14	6	2	3
Czechoslovakia	9	9	27	14	25	1	2	1	3	2
Denmark	7	16	25	17	49	5	3	8	4	2
Estonia	2	1	4	2	2	—	—	—	—	—
Finland	1	3	9	22	4	2	—	1	1	1
France	26	21	50	32	26	5	7	6	12	8
Germany	1,026	996	3,468	1,114	662	75	80	91	91	108
Greece	39	79	85	33	51	2	12	12	11	11
Holland	106	610	1,976	1,302	752	30	59	62	41	8
Hungary	3	10	25	14	11	—	2	—	3	2
Italy	112	175	161	121	107	19	19	12	17	21
Jugoslavia	15	22	93	14	17	3	3	1	4	2
Latvia	97	91	74	57	43	4	7	3	5	3
Lithuania	301	259	269	147	91	9	21	18	14	33
Norway	30	61	54	26	37	2	12	38	3	16
Portugal	31	65	53	17	16	2	3	3	5	1
Roumania	2	3	10	7	1	—	—	3	2	2
Russia	15	32	48	27	21	6	14	14	19	13
Poland	173	133	155	110	70	6	19	9	12	13
Spain	2	2	8	1	5	—	—	—	3	—
Sweden	18	20	18	7	31	6	5	8	5	12
Switzerland	34	51	142	70	94	5	12	10	5	5
Turkey	5	6	14	5	3	—	1	1	—	1
Other Foreign European	2	4	1	1	1	—	—	2	1	1

COUNTRY OF BIRTH OF EUROPEAN IMMIGRANTS AND EMIGRANTS, 1934 TO 1938—(*continued*).

Country of Birth.	Immigrants Intending Permanent Residence.					Residents Departing Permanently.				
	1934.	1935.	1936.	1937.	1938.	1934.	1935.	1936.	1937.	1938.
India	31	61	46	57	74	8	9	13	24	17
Ceylon	6	3	3	10	7	—	—	1	1	—
Other British Asiatic	24	51	50	60	91	1	1	3	2	5
China	1	5	13	11	21	4	—	2	4	1
Japan	3	1	12	1	5	—	—	—	—	—
Palestine	3	6	12	12	9	3	7	4	1	1
Syria	2	19	5	1	18	—	—	—	1	—
Other Foreign Asiatic	8	17	62	23	14	2	3	2	4	3
Canada	72	57	83	87	134	3	10	10	7	13
Newfoundland	4	—	—	1	—	—	—	—	—	—
Other British American	6	—	3	5	9	2	1	2	2	1
United States of America	109	104	135	126	148	19	20	24	30	37
Argentine	8	4	5	48	179	—	1	—	1	3
Brazil	3	3	3	4	5	—	1	—	1	1
Other Foreign American	5	3	9	9	21	1	2	1	1	2
Australia	65	95	110	126	129	38	32	43	41	39
New Zealand	22	48	68	56	49	9	8	10	15	17
Other British Australasian	—	—	1	—	—	—	—	—	—	—
Foreign Australasian	—	—	—	1	2	—	—	—	—	—
At Sea	—	—	—	1	—	—	—	—	—	—
Unspecified	—	—	14	22	38	—	—	19	40	51
TOTAL	4,702	6,500	10,840	7,927	7,435	1,767	1,865	2,716	3,716	4,022

The following table shows the nationality of European immigrants and emigrants who entered and left the Union during the last five years. The table has been arranged to give a geographical grouping of the nationalities.

NATIONALITY OF EUROPEAN IMMIGRANTS AND EMIGRANTS, 1934 TO 1938.

Nationality.	Immigrants Intending Permanent Residence.					Residents Departing Permanently.				
	1934.	1935.	1936.	1937.	1938.	1934.	1935.	1936.	1937.	1938.
British—South African Born	—	13	33	28	12	842	847	1,338	2,155	2,213
British—Other	2,308	3,335	3,444	4,377	4,930	619	635	903	1,196	1,363
British—Naturalized	84	82	104	87	75	39	64	54	73	62
TOTAL	2,392	3,430	3,581	4,492	5,017	1,500	1,546	2,385	3,424	3,638
American—South	4	—	3	12	51	—	—	—	2	—
American—U.S.A.	100	146	126	92	133	18	23	32	27	42
American—Other North	—	—	1	—	—	—	—	—	—	—
Belgian	21	21	29	23	17	52	9	6	2	4
Danish	5	17	26	20	48	4	5	11	5	5
French	29	23	37	12	19	8	10	6	10	4
German	1,012	1,015	3,431	1,104	677	87	84	90	91	123
Netherlander	113	631	2,058	1,350	770	29	59	68	44	96
Norwegian	30	59	54	22	40	2	12	33	3	18
Swedish	16	18	19	10	30	7	5	7	3	18
Swiss	35	51	136	74	93	8	14	12	4	5
Finnish	1	3	9	22	4	2	—	1	1	—
Austrian	45	76	166	108	56	1	2	4	5	8
Czechoslovakian	13	11	23	16	24	1	4	—	5	4
Hungarian	7	12	30	18	13	—	1	—	—	1
Jugoslavian	11	26	91	14	12	5	3	1	3	3
Latvian	89	82	60	53	39	1	5	—	—	2
Lithuanian	300	270	268	143	86	5	8	12	6	11
Polish	170	124	172	110	67	2	11	4	3	13
Roumanian	1	4	9	2	3	—	—	1	1	1
Russian	12	15	18	3	8	1	4	7	7	3
Turkish	—	2	5	—	1	—	—	—	—	—
Greek	40	74	90	31	50	4	15	7	14	14
Italian	111	168	159	120	113	19	32	14	27	29
Portuguese	139	200	221	70	47	10	7	13	25	15
Spanish	1	—	2	—	9	—	—	1	3	1
Syrian	—	17	9	1	5	—	—	—	—	1
Palestinian	1	1	7	3	2	1	5	1	—	1
Other European	4	4	—	2	1	—	1	—	1	1
TOTAL FOREIGN	2,310	3,070	7,259	3,435	2,418	267	319	331	292	414
TOTAL	4,702	6,500	10,840	7,927	7,435	1,767	1,865	2,716	3,716	4,022

The table hereunder shows the movement of European male immigrants and emigrants according to usual occupation and country of previous permanent residence and of destination.

EUROPEAN MALES, IMMIGRANTS AND EMIGRANTS, COUNTRY AND OCCUPATION, 1938.

Country of (*a*) Previous Permanent Residence. (*b*) Destination.	Agricultural.	Mining.	Industrial.	Transport and Communication.	Commercial.	Professional.	Personal Service.	Independent.	Dependants.	Other and Unspecified.	Total.
(*a*) IMMIGRANTS INTENDING PERMANENT RESIDENCE.											
South West Africa	—	—	8	—	12	2	1	—	26	4	43
Rhodesia	4	3	20	1	13	11	1	5	40	1	99
Portuguese East Africa	1	1	1	—	2	3	—	1	1	—	10
Other African	4	2	12	1	14	4	11	—	33	8	89
United Kingdom and Eire	38	20	797	44	314	383	44	49	299	44	2,032
Belgium	—	—	1	1	2	3	1	—	5	—	13
Germany	4	—	21	—	34	52	1	23	40	7	182
Holland	7	—	121	2	26	22	3	6	107	15	309
Italy	1	3	13	—	2	4	4	1	22	7	57
Latvia	—	—	1	—	—	—	—	—	5	1	7
Lithuania	—	—	5	—	5	—	—	2	11	2	25
Poland	—	—	1	—	—	—	1	—	10	2	14
Switzerland	2	—	29	—	5	8	5	—	6	1	56
Other European	3	1	53	7	10	33	5	4	23	13	152
Palestine	—	—	—	—	—	—	—	—	4	—	4
Other Asiatic	4	—	19	—	33	5	4	3	27	6	101
Canada	3	4	11	—	8	20	—	1	12	1	60
United States of America	—	—	9	—	5	34	—	3	21	—	72
Other American	13	—	3	1	5	2	—	1	53	19	97
Australia	—	3	30	—	11	3	—	2	17	1	67
New Zealand	2	—	5	1	4	—	—	3	3	—	18
Other	—	—	—	—	—	—	—	—	1	—	1
TOTAL	86	37	1,160	58	495	589	81	104	766	132	3,508
(*b*) SOUTH AFRICAN RESIDENTS DEPARTING PERMANENTLY.											
South West Africa	13	4	32	46	28	33	1	—	54	4	215
Rhodesia	113	83	361	20	193	94	32	12	218	49	1,175
Kenya	4	—	5	1	6	4	—	1	4	—	25
Tanganyika	1	3	—	—	2	4	—	—	6	—	16
Portuguese East Africa	1	—	1	1	12	3	—	—	3	1	22
Other African	6	1	4	2	12	2	—	—	4	4	35
United Kingdom and Eire	6	3	77	15	86	68	4	43	73	28	403
Belgium	—	—	—	—	—	—	—	—	—	—	—
Germany	1	—	4	3	10	5	—	—	6	—	29
Holland	3	—	22	1	3	2	—	3	6	2	42
Italy	1	—	1	—	8	—	1	2	1	1	15
Other European	—	—	8	6	7	3	2	4	8	4	42
Asiatic	—	—	5	—	6	3	—	1	—	—	15
United States of America	—	—	5	1	3	4	—	—	1	3	17
Other American	1	—	3	—	2	3	2	—	3	—	14
Australia	2	—	13	1	11	2	3	3	11	2	48
New Zealand	—	—	2	—	1	2	—	—	3	—	8
TOTAL	152	94	543	97	392	232	45	68	402	98	2,121

The following table shows the ages and marital condition of Europeans who stated their intention of taking up permanent residence, and also of South African residents who left the Union with the intention of not returning.

AGE AND MARITAL CONDITION OF EUROPEAN IMMIGRANTS AND EMIGRANTS, 1938.

Ages.	Immigrants Intending Permanent Residence.				Residents Departing Permanently.			
	Single.	Married.	Widowed and Divorced.	Total.	Single.	Married.	Widowed and Divorced.	Total.
MALE.								
0–14	657	—	—	657	357	—	—	[illegible]
15–19	206	—	—	206	84	—	—	[illegible]
20–24	475	33	—	508	297	27	—	[illegible]
25–29	584	187	3	775	255	128	3	[illegible]
30–34	217	257	6	480	115	167	6	289
35–39	74	223	3	300	49	117	6	172
40–44	43	123	9	176	28	94	3	125
45–49	21	96	8	125	16	75	4	95
50+	29	218	31	278	52	169	28	253
Minors	923	—	—	923	498	—	—	498
Adults	1,385	1,137	60	2,585	771	780	50	1,622
TOTAL	2,308	1,137	60	3,508	1,269	780	50	2,121
FEMALE.								
0–14	628	—	—	628	337	—	—	[illegible]
15–19	197	13	—	210	69	11	—	80
20–24	325	117	3	445	133	123	1	257
25–29	538	315	4	857	121	192	11	324
30–34	309	319	10	639	80	155	9	246
35–39	153	188	14	355	54	117	10	181
40–44	58	157	14	229	22	81	11	114
45–49	33	88	14	136	15	48	19	83
50+	49	206	166	422	42	116	103	262
Minors	870	17	—	887	428	25	—	453
Adults	1,421	1,391	225	3,040	454	825	165	1,448
TOTAL	2,291	1,408	225	3,927	882	850	165	1,901

NOTE.—The totals include persons whose age or marital condition was unspecified.

The following table shows the number of Europeans of South African birth who left the Union permanently during the year 1938. A high proportion of the number was under 21 years of age, and 75 per cent. of minors were children under 16 years of age. Many of these, no doubt, were children of parents one or both of whom were not born in South Africa.

AGE AND MARITAL CONDITION OF SOUTH AFRICAN BORN EUROPEAN RESIDENTS DEPARTING PERMANENTLY, 1938.

Ages.	Male.				Female.			
	Single.	Married.	Widowed and Divorced.	Total.	Single.	Married.	Widowed and Divorced.	Total.
0–14	257	—	—	257	237	—	—	237
15–19	67	—	—	67	39	11	—	50
20–24	225	22	—	249	97	101	1	199
25–29	145	100	2	248	72	141	8	221
30–34	59	98	5	163	40	106	5	152
35–39	13	51	5	70	20	58	4	82
40–44	8	39	1	48	4	34	6	44
45–49	3	27	1	31	2	14	6	22
50+	8	30	3	41	3	26	25	55
Minors	362	—	—	363	290	23	—	313
Adults	425	368	17	814	225	470	56	753
TOTAL	787	368	17	1,177	515	493	56	1,066

NOTE.—The totals include persons whose age or marital condition was unspecified.

The following table gives information concerning the country of permanent residence of European business and holiday visitors to the Union:—

COUNTRY OF PREVIOUS PERMANENT RESIDENCE OF EUROPEAN BUSINESS AND HOLIDAY VISITORS, 1938.

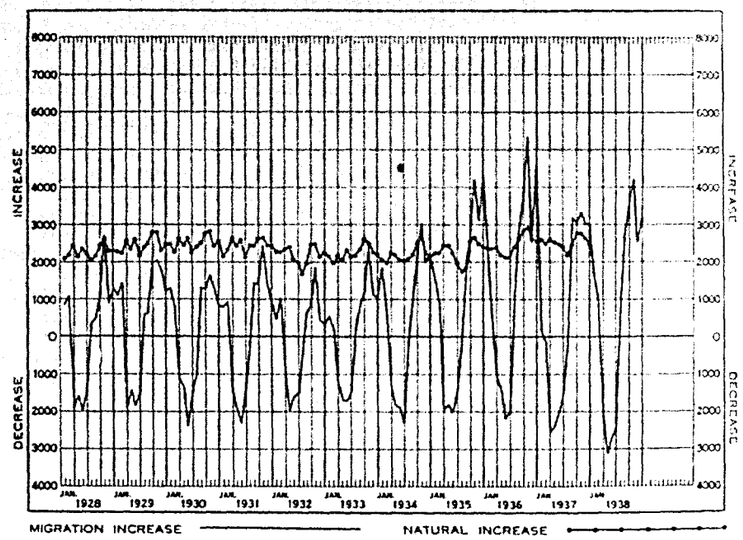
Country of Previous Abode.	Business Visitors.		Holiday Visitors.	
	Male.	Female.	Male.	Female.
South West Africa	47	16	171	168
Rhodesia	1,346	352	9,939	10,150
Nyasaland	11	2	122	116
Kenya	34	7	285	304
Tanganyika	12	9	114	96
Mauritius	15	1	88	87
Other British African	23	3	83	84
Portuguese East Africa	353	97	1,419	1,126
Other African	40	4	148	126
United Kingdom and Irish Free State	982	184	2,646	4,444
France	39	3	56	58
Germany	197	11	333	372
Holland	103	5	114	165
Italy	41	1	71	65
Norway	231	—	4	25
Other European	173	14	199	212
India	5	—	110	98
Other British Asiatic	11	—	95	82
Other Asiatic	31	3	145	112
United States of America	—	—	6	9
Other American	225	46	453	708
Australia	59	15	161	313
New Zealand	23	6	35	61
Other Australasian	—	—	4	2
Other	12	—	3	2
TOTAL	4,016	779	16,804	18,985

The following table shows the number of Europeans who stated that they were "in transit" through the Union. There is a considerable traffic over the South African railways of persons passing through the Union to and from Rhodesia. The extension of railways into the Congo, and the mineral development of that region, also increased the "in transit" traffic, but the opening of the Benguela Railway, which connects Central Africa with Lobito Bay on the west coast, diverted the greater portion of this traffic away from the Union. It must be understood that the figures for some of the land border ports do not represent the full traffic, for the reasons given in paragraph 2 of this section.

NUMBER OF EUROPEAN PASSENGERS "IN TRANSIT", 1938.

Country to and from which proceeding.	Arrivals.		Departures.	
	Male.	Female.	Male.	Female.
South West Africa	43	44	13	17
Portuguese East Africa	158	105	105	72
Rhodesia	2,283	2,186	1,336	1,282
Belgian Congo	184	103	70	47
Other Countries	1,943	1,781	2,912	2,585
TOTAL	4,611	4,219	4,436	4,003

MONTHLY NATURAL AND MIGRATION INCREASE OF THE EUROPEAN POPULATION, JANUARY, 1928, TO DECEMBER, 1938.



EXPLANATION OF GRAPH.—The space between vertical lines represents three calendar months, and between horizontal lines 1,000 persons. The graphical lines below the zero line indicate decreases of population. The migration increase is the difference between gross arrivals and departures (excluding "in transit" traffic), and the natural increase the excess of births over deaths.

1. Migration of Non-Europeans.—As mentioned in paragraph 2 above, Natives (Bantu) are excluded from the statistics of migration; as the number of Coloured persons crossing the borders of the Union is small, the great majority of non-European travellers enumerated are Asiatics.

In general, the arrangements for the enumeration of travellers given in paragraph 2 apply equally to Europeans and non-Europeans. At Komatipoort, however, only Asiatics entering the Union are enumerated by the immigration officers, particulars of Transvaal Asiatics departing being obtained from the Principal Immigration Officer, Pretoria, by whom the necessary permits are issued.

The following tables show the movement of non-Europeans:—

In 1937 the number of non-European immigrants exceeded that of emigrants by 709 (male immigrants outnumbered emigrants by 109, while female immigrants outnumbered emigrants by 600). In 1938, the number of non-European immigrants also showed a surplus over emigrants, the excess recorded being 454. During the fifteen years 1924 to 1938, the number of non-European emigrants exceeded that of immigrants by 11,878.

(i) NON-EUROPEANS—ARRIVALS AND REASONS FOR ENTRY, 1934 TO 1938.

Year.	Temporary Visitors.		Immigrants Intending Permanent Residence.	Residents Returning.	All Arrivals.	"In Transit."
	Business and Education.	Holiday.				
MALE.						
1934	31	144	339	2,054	2,568	16
1935	33	58	437	2,355	2,883	17
1936	63	375	410	2,352	3,200	15
1937	97	385	446	2,496	3,424	43
1938	110	343	422	2,324	3,199	11

(i) NON-EUROPEANS—ARRIVALS AND REASONS FOR ENTRY, 1934 TO 1938—(*continued*).

Year.	Temporary Visitors.		Immigrants Intending Permanent Residence.	Residents Returning.	All Arrivals.	"In Transit."
	Business and Education.	Holiday.				
FEMALE.						
1934	—	71	490	377	938	4
1935	2	31	547	572	1,152	11
1936	—	175	620	536	1,331	4
1937	21	183	687	734	1,625	5
1938	15	158	621	614	1,408	7
PERSONS.						
1934	31	215	829	2,431	3,506	20
1935	35	89	984	2,927	4,035	28
1936	63	550	1,030	2,888	4,531	19
1937	118	568	1,133	3,230	5,049	48
1938	125	501	1,043	2,938	4,607	18

(ii) NON-EUROPEANS—DEPARTURES AND REASONS FOR DEPARTURE, 1934 TO 1938.

Year.	Completion of Visit.		Residents Departing Permanently.	Residents Departing Temporarily.	All Departures.*	"In Transit."
	Business and Education.	Holiday.				
MALE.						
1934	26	78	619	1,353	2,071	15
1935	16	62	452	1,370	1,900	10
1936	25	135	527	1,203	1,896	14
1937	57	102	337	1,613	2,130	20
1938	43	112	464	2,584	3,204	24
FEMALE.						
1934	—	49	309	468	826	6
1935	—	23	179	496	698	6
1936	—	100	172	489	768	6
1937	16	73	87	552	764	8
1938	10	83	125	828	1,047	13
PERSONS.						
1934	26	122	928	1,821	2,897	21
1935	16	85	631	1,866	2,598	16
1936	25	235	699	1,692	2,664	20
1937	73	175	424	2,165	2,894	28
1938	53	195	589	3,412	4,251	37

* Includes persons whose reason for departure was not stated.

(iii) NATIONALITY OF NON-EUROPEAN IMMIGRANTS AND EMIGRANTS, 1934 TO 1938.

Nationality.	Immigrants Intending Permanent Residence.					Residents Departing Permanently.				
	1934.	1935.	1936.	1937.	1938.	1934.	1935.	1936.	1937.	1938.
British Born—	744	845	918	1,021	949	910	601	660	395	551
Indian	—	1	1	—	—	2	—	2	2	1
Chinese	6	26	17	22	27	8	10	4	13	16
Other Races	—	—	—	—	—	1	—	—	—	—
French	2	1	—	—	—	—	—	5	2	2
Portuguese	63	87	84	87	44	7	13	23	10	8
Chinese	6	12	7	1	23	—	2	2	1	3
Japanese	8	12	3	3	—	—	5	3	1	3
Other										
TOTAL	829	984	1,030	1,133	1,043	928	631	699	424	589

(iv) BIRTHPLACES OF NON-EUROPEAN IMMIGRANTS AND EMIGRANTS, 1938.

Birthplace.	Immigrants Intending Permanent Residence.			Residents Departing Permanently.		
	Male.	Female.	Persons.	Male.	Female.	Persons.
Cape of Good Hope	—	—	—	20	6	26
Natal	—	—	—	18	36	54
Transvaal	—	—	—	17	13	30
Orange Free State	—	—	—	—	—	—
Other African	14	18	32	9	1	10
India	375	567	942	386	59	445
China	21	23	44	8	1	9
Japan	11	10	21	3	5	8
Other and Unspecified	1	3	4	3	1	4
TOTAL	422	621	1,043	464	125	589

5. **Assistance to and Regulation of Immigration.**—(i) *General.*—Except in so far as provided in the *Aliens Act*, 1937 (*vide* § 6 of this chapter) no obstacle is, as a rule, placed in the way of the entry of European immigrants, provided that they are of good health and character, and are able themselves or through their friends or employers to show that they have means of support. Experience has shown the necessity for these requirements, as the circumstances of the country do not render it always easy for a new arrival to make his way, unless on the one hand he is a thoroughly competent tradesman, or on the other hand has work definitely assigned to him or friends who are able to introduce him to employment and in the meantime to assure him of support. It is particularly difficult for an immigrant, who is without a trade or who has indifferent trade qualifications or is not specially qualified in some other capacity, to procure employment. It is therefore essential that persons of such a type should be able to show on arrival that they have means of support until they may be able to secure work.

(ii) *Prohibited Immigrants.*—By the *Immigrants Regulation Act*, No. 22 of 1913, as amended, the Immigration Department of the Union is empowered to regulate the entry of immigrants, and certain classes of persons denominated prohibited immigrants may be excluded or even extruded from the country; or their residence may be circumscribed as to time and in other respects. See also § 6 below (*Aliens Act*, 1937). Amongst such classes are persons who have been convicted of serious crime; persons of ill-fame; persons who are insane, diseased, including those who suffer from tuberculosis, or are otherwise physically afflicted. Persons likely to become a public charge, and in some cases illiterate persons, are also regarded as prohibited immigrants: and by section 4 (1) (*a*) of the Act the Minister of the Interior is empowered to deem as prohibited immigrants persons, or classes of persons, whose presence for economic or certain other reasons is considered undesirable. For the operation of this clause as affecting Asiatic immigration reference may be made to § 3, 2, of this chapter.

Very full powers of restriction, arrest, and detention are given to immigration officers, who are stationed not only at the ports, but at a number of places within the territory or at the borders of the Union. Any person so arrested or restricted has, however, the opportunity of appearing before one of the *Appeal Boards*, of which three have been constituted, viz.: at Pretoria, Durban, and Capetown.

The Commissioner for Immigration and Asiatic Affairs with headquarters at Pretoria is the chief executive officer controlling immigration. He also acts as Principal Immigration Officer for the Province of the Transvaal. The Principal Immigration Officers for the Provinces of the Cape and Natal have headquarters at Capetown and Durban respectively. The Orange Free State Province comes under the jurisdiction of the Principal Immigration Officer, Durban.

(iii) *Immigration Laws.*—Control over the entry of undesirable immigrants was exercised in Natal from the year 1897; in the Transvaal and Orange Free State from the year 1902, when the *Peace Preservation Ordinance* was passed [following the period of the War (1899-1902), during which military rule had given the necessary powers]; and in the Cape Colony from the year 1903, when the *Immigration Act*, No. 47 of 1902, came into operation. The pre-Union laws governing immigration were repealed by the *Immigrants Regulation Act*, No. 22 of 1913. This Act has been amended by the *Immigration and Indian Relief (Further Provision) Act*, No. 37 of 1927, the *Immigration (Amendment) Act*, No. 15 of 1931, the *Immigration (Amendment) Act*, No. 19 of 1933, and the *Immigration (Amendment) Act*, No. 27 of 1937.

(iv) *Restrictive Effects of the Law.*—The table given below shows the number of persons seeking admission whose entry was prohibited or whose movements were restricted:—

RACE, NATIONALITY, AND PARTICULARS AS TO DISPOSAL OF PROHIBITED PERSONS, 1938.

Race and Nationality.	Removed from Union.	Allowed Temporary Residence under Permit.	Escaped.	Died.	Total.
EUROPEAN.					
British	92	45	—	—	137
British Naturalized	19	—	—	—	19
American (U.S.A.)	669	23	—	—	692
American (South)	1	45	—	—	46
Austrian	14	28	—	—	42
Belgian	5	12	—	—	17
Czechoslovakian	23	6	—	—	29
Danish	13	50	—	—	63
French	79	10	—	—	89
German	528	81	—	—	609
Greek	12	25	—	—	37
Hungarian	42	8	—	—	50
Italian	105	21	—	—	126
Jugoslavian	4	2	—	—	6
Latvian	1	9	—	—	10
Lithuanian	15	24	—	—	39
Netherlander	456	38	—	—	494
Norwegian	136	16	—	—	152
Polish	38	11	—	—	49
Portuguese	122	9	—	—	131
Russian	7	2	—	—	9
Spanish	4	2	—	—	6
Swedish	38	8	—	—	46
Swiss	68	10	—	—	78
Palestinian	31	4	—	—	35
Other	18	18	—	—	36
TOTAL	2,540	507	—	—	3,047
NON-EUROPEAN.					
African Natives from—					
British East Africa	91	1	—	—	92
Rhodesia	394	40	—	—	434
Portuguese East Africa	209	1	—	—	210
Other African	4	2	—	—	6
Chinese	10	4	—	—	14
Indian	57	4	—	—	61
Japanese	23	2	—	—	25
Other	12	4	—	—	16
TOTAL	800	58	—	—	858

(v) *Land Border Immigration.*—Immigration officers are stationed at the points of entry by rail into the Union from Mozambique (at Komatipoort) and from Rhodesia (at Mafeking and Beit Bridge). The authorities of the latter colony also render certain valuable assistance in checking illicit immigration. Under the *Immigrants Regulation Act* of 1913, passengers entering the Union at the land borders are examined in the same way as at the ports (see paragraph 2 *supra*). An additional immigration officer is stationed at the causeway across the Crocodile River at Komatipoort to deal with road transport.

6. **Re-admission.**—Under the *Immigrants Regulation Act* provision is made for the issue by an immigration officer of a *certificate of identity*, at the option of any person proving lawful residence in the Union, who, intending to leave the Union, desires some assurance as to his title to return to the Union without coming under the restrictive operation of the Act. The fee charged is 2s. 6d. Photographs and means of identification are required. The duration of such certificates is limited to three years, but may be extended, on the authority of the Minister, for a period not exceeding ten years in all. Holders of these documents, who do not return to the Union

within the currency of the certificates, may be required to undergo the tests imposed by law, and may ordinarily be taken to have abandoned any domicile they had previously acquired in the Union. Certificates are issued only to persons who are within the Union, and the possession of a certificate does not exempt the holder from carrying a passport as provided under section 24 of the Act.

7. **Passports demanded on Entry.**—Section 24 of the *Immigrants Regulation Act* includes provision that every person of the age of 16 years and over seeking to enter the Union must be in possession of a valid passport or other document of identity of a class recognized by the Minister, duly *visé* where necessary. This provision of the Act makes it necessary for all persons arriving in the Union to be in possession of passports or other recognized documents of identity; therefore persons from the Union visiting Rhodesia, Portuguese East Africa, and other neighbouring territories, with the intention of returning to the Union, are enjoined to take out a tourist passport issued by the Department of the Interior, for which a fee of 15s. is charged. These passports are valid for any number of temporary visits to those territories in a period of one year from the date of issue. Such passports, however, may be issued only to Union nationals. (See § 7.)

§ 5. Immigration under Quota.

During the period 1st May, 1930, to the 31st January, 1937, immigration from certain countries scheduled under the *Quota Act* was unrestricted, but from all non-scheduled countries immigration was regulated by quota. This Act was repealed by the *Aliens Act*, 1937, and the *Immigration Amendment Act*, 1937.

§ 6. Immigration under the Aliens Act of 1937.

The *Aliens Act*, No. 1 of 1937, came into force on the 1st February, 1937. Under its terms no alien may enter the Union unless he is in possession of a permit to enter for either permanent or temporary residence. By "alien" is meant a person who is not a natural-born British subject or a Union national. British subjects by naturalization are, therefore, aliens for the purposes of the Act, unless they are also Union nationals. The Act relates to admission to South West Africa, as well as to the Union.

In regard to permanent residence, a form of application must be completed in duplicate, to which must be attached eight recent photographs (four full-face and four in profile) of the applicant, together with medical and police reports, and documentary evidence of good character, employment during the past five years, and financial circumstances. The completed application with its supporting documents is to be sent to a Representative of the Union in the country in which the applicant resides, or where there is no such representative, to a British Consul, for transmission to the Department of the Interior, Pretoria. Applications must be sent through those channels and not direct to the Secretary for the Interior, except in cases where the applicant is temporarily resident in the Union.

An Immigrants Selection Board appointed for the purpose will examine each application and authorize or refuse the issue of a permit for permanent residence. The Act lays down that the Board shall not authorize the issue of a permit unless the applicant is of good character, likely to become readily assimilated with the European inhabitants within a reasonable time of his entry, is not likely to be harmful to the welfare of the Union, and does not or is not likely to pursue an occupation which, in the Board's opinion, is already overcrowded. The Board may also authorize the issue of permits to the wife and any minor children or the aged or destitute parents or grandparents of an alien permanently and lawfully resident.

The permit will be issued by the Department of the Interior and, together with an identification card also to be issued and one copy of the form of application, is to be handed to an immigration officer on the arrival of the entrant at an authorized port of entry. The authorized ports are Capetown, Durban, Port Elizabeth, East London, the Rand Air Port (Germiston), Komatipoort, Beit Bridge, Mafeking, Luderitz, and Walvis Bay. The last two are in South West Africa. On landing each entrant must pay a fee of £1 in Union currency.

An alien who desires to be admitted for such temporary purposes as a business, a health, or a touring visit, may be admitted on temporary permit for such period as he desires, but must furnish full reasons for the visit, produce such credentials as he possesses to support his request, hold a valid passport or other recognized travel document, the validity of which will not expire during the period of temporary residence, and, if necessary, provide a recent photograph. A temporary permit is issued gratis but the immigration officer may in his discretion demand a deposit up to £100 as security for compliance with the terms of the permit. To genuine visitors and tourists the deposit will not as a rule exceed £5.

The Minister has discretion to waive the requirements of the Act in regard to distinguished aliens desiring to visit the Union, provided they do not enter for permanent residence. The issue of permits for both permanent and temporary residence will not exempt the holders from complying with the provisions of the principal immigration law, the *Immigrants Regulation Act* of 1913, as amended from time to time.

The Act does not apply to an alien who is lawfully domiciled in the Union or who prior to the 1st February, 1937, lawfully entered for permanent residence, to diplomatic or consular officers and their households and staffs, or to the holder of a permit issued under the *Immigration Quota Act*, 1930 (now repealed), provided he entered while that permit was still valid.

Provision is made for the imposition of penalties in cases where (*a*) false information is given, (*b*) the permit holder engages within three years in any employment other than that stated in his application, or (*c*) any person endeavours to induce any member of the Immigrants Selection Board or any official whose duty involves dealing with applications to effect, or vote for, or recommend the issue of permits.

§ 7. Passports.

1. **Passports.**—Passports are issued to persons in the Union who are Union nationals and natural-born British subjects, to their wives (and widows), to persons who became British subjects by annexation, and to persons who have been naturalized in the United Kingdom or in the Union, or who hold an Imperial certificate of naturalization issued by any of the Dominions. Application is made on a prescribed form to the Department of the Interior, and photographs and evidence of identity and status are essential. Passports are issued in either English or Afrikaans or in both those languages at the request of the applicant. The initial availability of passports is five years, and they may thereafter be renewed for any period from one to five years, but in no case may the validity of a passport be extended beyond ten years from the original date of issue. The fee for a passport is £1, plus 1s. application fee, and a fee of 2s. is charged for each year for which a passport is renewed. Every person travelling abroad must be in possession of a passport.

Union passports, with a few exceptions, are valid for travel throughout the British Empire; consequently the holder of a Union passport may travel from one part of the British Empire to another without a fresh endorsement at the commencement of each journey, provided the validity of the passport has not expired.

2. **Tourist Passports.**—Union nationals who desire to travel to the neighbouring territories of Portuguese East Africa, the Rhodesias, Bechuanaland Protectorate, Basutoland, Swaziland, Nyasaland, Kenya, Uganda, Tanganyika, Zanzibar, and Mauritius, may obtain a tourist passport at a fee of 5s. in lieu of a proper passport. The passport is valid for one year, but may be renewed up to a period of 5 years in all.

§ 8. Union Nationality.

1. **Legislation.**—The *Union Nationality and Flags Act*, No. 40 of 1927, came into force on the 31st May, 1928. Chapter I defines who are nationals of the Union, and Chapter 2 provides for the flags of the Union.

2. **Union Nationality.**—Chapter 1 of the Act provides that the following persons shall be Union nationals:—

(*a*) A person born in any part of South Africa included in the Union, who is not an alien or a prohibited immigrant ("alien" means a person who is not a British subject);

(*b*) a British subject whose entry has not been prohibited under any immigration law in force in any part of South Africa now included in the Union, and who has been continuously domiciled in the Union for two years after entry, so long as he retains such domicile;

(*c*) a person domiciled in the Union, who is not a prohibited immigrant, who became a naturalized British subject under the laws in force in any part of South Africa now included in the Union, and who has been continuously domiciled in the Union for at least three years after entry, so long as he retains that domicile and does not become an alien;

(*d*) a person born outside any part of South Africa included in the Union, whose father was a Union national at the time of such person's birth, or would have been a Union national if the Act had at the time of such person's birth been in force, and was not in the service of an enemy state, provided such person is not a prohibited immigrant.

Other provisions relating to the status of married women, widows, and divorced women, and children, are mentioned hereunder.

The wife of a Union national is deemed to be a Union national, and conversely, if a person is not a Union national, his wife is not. Where a man ceases, during the continuance of his marriage, to be a Union national, his wife may make a declaration before a magistrate, a justice of the peace, or other person appointed by the Minister of the Interior, that she desires to retain Union nationality, if, under the provisions of the *British Nationality in the Union and Naturalization and Status of Aliens Act*, No. 18 of 1926, she has, in similar circumstances, made a declaration to retain British nationality.

A woman who was a Union national, and who ceases to be such on marriage, does not revert to Union nationality merely by the death of her husband, or by the dissolution of the marriage, and similarly a woman who becomes a Union national by marriage retains that status when she becomes a widow, or when the marriage is dissolved.

Children under the age of 21 of persons who cease to be Union nationals for any reason also cease to be Union nationals, but such children may, within one year after reaching the age of 21, declare that they desire to resume their status as Union nationals.

Where a widow who was a Union national marries a person who is not a Union national, the children by her former husband still retain their Union nationality.

Any person who, by reason of his having been born in any part of South Africa included in the Union, is a Union national, but who at his birth or during his minority became, under the law of the United Kingdom or of any possession of the British Empire, or of any self-governing dominion, a national also of that kingdom, possession, or dominion, and is still such a national, and any person who though born outside that part of South Africa constituting the Union is a Union national, may, if of full age and not a mentally disordered or defective person and not domiciled in the Union, make a declaration renouncing his status as a Union national. If, however, such person subsequently establishes a domicile in the Union, he resumes Union nationality under (*b*) above.

Declarations of renunciation must be made in a prescribed form before a magistrate, a justice of the peace, or other person authorized by the Minister of the Interior.

Act No. 14 of 1932 (the *Nationalization and Amnesty Act*) provides that nationals of the former Transvaal and Orange Free State Republics who, after the date those republics ceased to exist, did not become nationals of any other state, are deemed to have become British subjects, if they became resident in the Union after that date and before the commencement (31st May, 1928) of the *Union Nationality and Flags Act*, No. 40 of 1927, or are deemed to be Union nationals, if they became resident in the Union after the 31st May, 1928, but before the commencement of Act No. 14 of 1932 (19th May, 1932), or became Union nationals by becoming resident in the Union after the 19th May, 1932.

The Act was brought into force to provide British and Union nationality for those persons who, being burghers, may not have become British subjects by annexation, through absence from the territories in question at the time of annexation and for some years subsequently. Any doubts as to the acquisition of Union status in respect of those persons is now settled.

The amnesty clause has nothing to do with nationality.

§ 9. Naturalization of Aliens.

1. **Recent Legislation.**—*The British Nationality in the Union and Naturalization and Status of Aliens Act*, 1926, was promulgated on the 1st July, 1926, the Union of South Africa thereby falling into line with the other Dominions in adopting Part II of the *British Nationality and Status of Aliens Act*, 1914 (4 and 5 Geo. 5. Ch. 17) and 1918 (8 and 9 Geo. 5. Ch. 38). Aliens naturalized under this Act acquire British nationality throughout the Empire, except in those Dominions which have not adopted Part II.

2. **Qualifications Demanded of Aliens for Naturalization.**—(i) To be eligible for naturalization an alien must satisfy the following conditions:—

(*a*) He must have attained the age of twenty-one years.

(*b*) He must have resided in the Union or some other part of the British Empire for not less than five years during the eight years immediately preceding the date of his application. This period of five years must include actual residence in the Union for one year immediately preceding the date of application, with the remaining four either in the Union or some other part of the British Empire; or he must have been in the service of the Crown, e.g. in the Army, Navy, or Civil Service, for a period of five years during the eight years immediately preceding the date of application for naturalization.

(*c*) He must be of good character and repute.

(*d*) He must be able to read and write either of the official languages of the Union to the satisfaction of the Minister.

(*e*) He must intend, if naturalized, to continue to reside in the Union or in some other part of the British Empire, or to serve under the Crown.

(ii) Procedure to be followed:—

(*a*) An alien desiring to be naturalized must apply on a prescribed form. This form and the other forms necessary may be obtained free of charge on application to the Secretary for the Interior, Pretoria.

(*b*) The first step is for the applicant to publish in the *Government Gazette* in both official languages, and in one English and one Dutch or Afrikaans newspaper circulating in the magisterial district in which he resides, a notice of his intention to apply to the Minister for naturalization. Applicants must themselves arrange for advertising in the two newspapers and the notice in every case must be in the wording prescribed. Forms of notice for publication in the *Government Gazette* and newspapers may be obtained from the Department of the Interior, Pretoria.

The notices of intention in the *Gazette* and the newspapers must appear one clear month before the application for naturalization is made to the Minister.

The expenses of publication in the *Gazette* and the newspapers must be borne by the applicant.

(*c*) The next step is to obtain a certificate from a magistrate or a justice of the peace (but not from a commissioner of oaths) to the effect that the magistrate or justice of the peace has satisfied himself, from personal knowledge or inquiries made, that the applicant is of good character and repute and possesses the qualifications for naturalization. The justice of the peace must not be the agent or the attorney of the applicant.

(*d*) The applicant must then complete the application form in his own handwriting, and declare on oath the accuracy of the statements made thereon. The person before whom the oath is declared must not be the agent or the attorney of the applicant. The application form, properly completed, must then be sent to the Secretary

for the Interior together with the certificate of repute as above, and copies of the two newspapers and the *Gazette* advertisement in which the notice of intention appears.

(e) If the application is approved the applicant will be notified and furnished with a form of oath of allegiance to complete, which, on completion, must be returned to the Secretary for the Interior. If the oath of allegiance is not made within three months of the date of notification by the Secretary for the Interior, the whole application becomes null and void.

(f) On receipt of the oath of allegiance a certificate will be issued and forwarded to the magistrate of the district for delivery to the applicant. At the same time notice to the applicant will be sent asking him to call on the magistrate to receive the certificate.

(iii) *Expenses.*—The fees payable are as follows:—

	£	s.	d.
(a) Cost of publication in the *Gazette* ... ... (The amount must be remitted in cash to the Government Printer, Pretoria, with the notice of intention properly completed in both the official languages.)	0	13	0
(b) Revenue stamps on the form of application	0	1	0
(c) Fee for registration of application	1	0	0
(d) Fee for the issue of the certificate	5	0	0
TOTAL	£6	14	0

The cost of advertising in the two newspapers is additional to the above. Advertising must be arranged by the applicant himself.

(iv) A person naturalized under a prior law in the Union or any territory now included in the Union, or who became naturalized by virtue of a certificate issued under those laws to his father or mother, may apply for a certificate under the Act of 1926.

(a) *Procedure.*—A form of application may be obtained from the Department of the Interior. No advertisement is necessary either in the *Government Gazette* or in a newspaper.

(b) *Expenses*—

	£	s.	d.
Revenue stamps on the form of application	0	1	0
Fee for registration of application	1	0	0
Fee for issue of the certificate	0	10	0
TOTAL	£1	11	0

(v) Persons may be naturalized in the discretion of the Minister,

(1) in respect of whose nationality as British subjects a doubt exists;

(2) who, not having been British subjects or burghers of the late South African or the Orange Free State Republic, served with the British or Republican forces in the war of 1899-1902, and who after the 31st May, 1902, remained aliens under the existing laws, provided that they were domiciled in the Union for five years immediately prior to the 1st July, 1926.

(a) *Procedure.*—Application in the first place must be made to the Department of the Interior.

(b) *Expenses.*—There are none, except the statutory fee required on any sworn declaration that may be demanded.

3. Effect of Naturalization.—(a) A person naturalized under this Act becomes, unless the law provides otherwise (*vide* section 6 of the Act), entitled to all the rights, powers, and privileges, and subject to all the obligations of a natural-born British subject, throughout the British Empire, its Dominions and Dependencies, except in those Dominions which have not adopted Part II of the *British Nationality and Status of Aliens Act*, 1914-22.

(b) The wife of a person naturalized under this Act acquires the same status as a naturalized British subject as her husband.

(c) The minor children, who are aliens, of a person naturalized under this Act become naturalized, only if their names are specifically included in the parent's naturalization certificate. Such children must ordinarily be resident in the Union with their parent at the time of application. Children who are not minors cannot be included in a parent's certificate. If they desire to be naturalized, they must make application on their own behalf.

(d) Persons naturalized under laws in force in the Union prior to the passing of Act No. 18 of 1926, who do not apply for a certificate under the last mentioned Act, retain their existing rights and privileges.

4. **Naturalization Certificates Issued.**—The table given below enumerates the certificates of naturalization issued for a series of years:—

CERTIFICATES OF NATURALIZATION ISSUED, 1930 TO 1938.

Previous Nationality.	1930.	1931.	1932.	1933.	1934.	1935.	1936.	1937.	1938.
Naturalized under Act No. 18 of 1926.	12	13	6	8	11	23	11	6	11
American	—	—	—	—	—	1	—	1	—
Argentinian	12	6	5	15	10	8	10	4	3
Austrian	1	4	1	—	4	8	4	1	4
Belgian	—	1	—	—	—	—	—	—	—
Bulgarian	1	4	2	—	10	3	2	3	5
Czechoslovakian	6	—	2	3	1	6	—	2	4
Danish	—	—	—	—	2	—	—	1	3
Estonian	—	—	—	—	1	—	—	—	—
Finnish	7	1	1	2	1	—	1	1	—
French	53	82	32	83	215	115	168	127	188
German	41	23	11	19	27	35	11	11	14
Greek	7	—	1	1	3	3	4	1	1
Hungarian	36	15	17	22	15	43	33	7	9
Italian	3	2	5	13	8	9	4	2	1
Jugoslavian	42	28	23	42	87	69	55	39	33
Latvian	—	—	—	—	—	2	—	—	—
Lebanese	207	176	130	176	329	317	225	173	130
Lithuanian	80	36	28	34	59	48	40	41	73
Netherlander	14	6	5	4	11	2	7	8	12
Norwegian	1	3	7	8	11	15	7	12	14
Palestinian	29	41	51	58	137	109	75	91	58
Polish	3	3	3	—	38	3	—	1	2
Portuguese	3	6	—	1	1	2	—	2	4
Roumanian	231	184	82	62	94	16	50	27	34
Russian	—	—	—	—	—	1	—	—	—
Serbian	—	5	—	1	—	—	—	—	1
Spanish	—	2	2	3	5	4	3	1	3
Swedish	4	7	4	9	12	2	6	13	9
Swiss	5	1	3	5	5	4	—	1	—
Syrian	8	14	—	5	7	1	—	2	4
Turkish									
Doubtful (Angola Boers of Dutch South African Descent)	—	—	—	—	1,171	103	15	3	10
TOTAL	806	663	473	580	2,277	959	731	581	630
Naturalized under a prior law	—	—	—	474	228	116	147	233	257

Certificates of naturalization were issued to persons who had been naturalized under a prior law, but who desired to obtain the rights and privileges under the Act of 1926. The following is a summary of the number of certificates granted during the years 1933 to 1938, showing the original nationality of the applicants:—

CERTIFICATES OF NATURALIZATION ISSUED TO PERSONS NATURALIZED UNDER LAWS PRIOR TO ACT No. 18 OF 1926, 1933 TO 1938.

Nationality.	1933.	1934.	1935.	1936.	1937.	1938.
American	1	—	1	2	1	1
Argentinian	—	—	—	1	—	—
Austrian	1	6	—	—	4	4
Egyptian	1	—	—	—	—	—
German	8	9	6	19	23	30
Greek	3	2	1	—	2	1
Hungarian	—	—	—	1	1	1
Italian	1	1	1	1	—	1
Latvian	2	—	3	1	—	6
Lithuanian	2	4	3	2	13	9
Netherlander	2	2	2	—	1	2
Norwegian	—	—	—	1	—	—
Palestinian	—	—	—	—	—	—
Polish	6	1	1	3	2	1
Roumanian	433	199	97	116	185	198
Russian	—	—	—	—	—	1
Swedish	—	—	—	—	1	—
Swiss	—	2	—	—	—	2
Turkish	6	2	1			
TOTAL	474	228	116	147	233	257

§ 10. Change of Name.

The *Aliens Act*, No. 1 of 1937, contains a clause (section 9) which provides that if any person changes the name he bore or was known by or assumed before the 1st January, 1937, he shall be guilty of an offence, unless he has been authorized to change his name by the Governor-General, and such authority has been published in the *Gazette*. Persons excluded are women assuming husbands' names on marriage; married or divorced women or widows resuming names they bore at any prior time; a woman who lives or lived with a man as his putative wife and assumes his surname, or after having assumed that name, resumes a surname she bore at any prior time; adopted children taking the surnames of the persons adopting them; illegitimate children assuming the surnames of fathers after the marriage of the parents; and persons assuming a surname attaching to an inherited title, or one conferred by the King.

A person intending to apply for a change of surname is required to publish a notice of his intention once in each of four consecutive weeks in the *Gazette* and in each of two daily newspapers circulating in his district and designated for the purpose by the magistrate of that district. The notice must state in full his present christian names and surname, those by which he is or was at any time known, those he desires to assume, his business and residential address, and his reasons in full for desiring to change his name, and must invite any person who objects to the change to lodge such objection with the local magistrate.

The Governor-General must be satisfied from a statement submitted by the applicant, and from reports furnished by the Commissioner of Police and the local magistrate that the applicant is of good character, and that there are good and sufficient reasons for the assumption of another surname.

A conviction or an acquittal of a person guilty of an offence under this section shall not bar a further charge and conviction if he again assumes or describes himself under the same assumed name or any other surname.

The fee for an application is £6.

CHAPTER XXVI.

VITAL STATISTICS.

§ 1. Registration of Births and Deaths.

1. System of Registration.—Until the year 1924 a different series of laws elating to the registration of births and deaths was in force in each of the rovinces, making the co-ordination of registration difficult and greatly istricting the value of the vital statistics of the Union. In 1923 the *Births, eaths, and Marriages Registration Act* (No. 17), consolidating and amending ie laws in force in the various provinces, was passed and brought into operaon as from 1st January, 1924.

The main features of the Act are as follows:—

Provision is made for the appointment of a Registrar for each of the four rovinces and for a Registrar-General for the whole Union. District registrars e appointed for each magisterial district, and, where they are not specially ppointed, magistrates will *ex officio* be registrars for their respective districts.

A distinction is drawn between urban and rural areas. The former are efined as including areas under the jurisdiction of municipal councils, borough uncils, town councils, village councils, town boards, local boards, village anagement boards, and health committees, but may include other areas at e discretion of the Minister.

Registration is compulsory for all races of the population in urban areas. rural areas natives may register voluntarily; but for all other races regisation is compulsory. The Governor-General, however, may make special gulations applicable to natives and may by proclamation apply to aboriginal atives Chapter IV of the Act, which relates to registration in areas other than ban. The term *native* is defined as meaning a person both of whose parents long or belonged to an aboriginal race or tribe of Africa, including any rson of mixed race living as a member of any native community, tribe, kraal, location. Until such time as the Act is applied to Indian immigrants in atal, Law No. 25 of 1891 (Natal), which provides for birth, marriage, and ath registration of immigrant Indians in that province, remains in force.

In urban areas the time limit for reporting a birth is 7 days, and a death hours. Information concerning a birth or a death must be given by a alified informant, who must appear personally before the district registrar assistant district registrar of the district in which the event occurred. In ral areas the prescribed period in which to register a birth or a death is days.

All deaths in urban areas must be certified as to the cause by a qualified gistered medical practitioner. Without such certificate the district registrar assistant district registrar cannot authorize burial; he must report the cts to the magistrate, who will institute inquiries into the cause of death d, if necessary, hold an inquest.

A medical certificate is not ordinarily required in the event of a death in rural area; whenever a medical practitioner has attended a person during e last illness, he is required to furnish a certificate as to the cause of death, as to his inability to sign such a certificate.

Deaths occurring on shipboard in Union ports or waters or in transit to nion ports must be registered at the first Union port of call; but only births children whose parents reside or intend to reside in the Union are required be registered.

The Act empowers the Governor-General to promulgate regulations—

(1) for the management of registrars' offices or district registration offices;
(2) prescribing the duties or powers of registrars and district registrars;
(3) prescribing the nature and extent of information respecting births, deaths, and marriages;
(4) prescribing the necessary forms, certificates, and registers to be used;
(5) prescribing the fees payable for searches, for certificates issued, and for acts performed under the provisions of the Act.

On 1st July, 1928, the Secretary for the Interior was appointed Registrar-General for the Union. At the same time a Registrar for the four provinces was appointed with headquarters at Pretoria, and the records of births, marriages, and deaths of the Cape Province, heretofore conserved in Capetown, were thereafter transferred to the archives at Pretoria.

Full particulars of the systems of registration formerly in force in the various provinces of the Union were given in the fourth and previous issues of this *Year Book*.

The registration of births and deaths of Europeans may, for all practical purposes, be said to be complete throughout the Union. The provision in Act No. 17 of 1923 for voluntary registration of native births and deaths in rural areas has resulted in fewer registrations than formerly.

Section 133 (1) of the *Public Health Act*, No. 36 of 1919, provides that the Minister of Public Health may, when so requested by a local authority, make regulations requiring the father of any child, if he is residing with the mother when the child is born, or, in his absence, the person attending on the mother at the time of or within six hours after the birth, to report the birth forthwith to the local authority, with such details as may be prescribed by the regulations.

The *Births, Marriages and Deaths Registration Amendment Act*, No. 7 of 1934, provides for the alteration by a competent person of the name (not the surname) under which registration of a birth was originally made, and for the insertion of the name in cases where it was not entered at the time of registration. The re-registration of illegitimate births when the parents have subsequently married is also provided for in the Act.

2. **Publication of Statistics.**—Detailed statistics of births, deaths, and marriages are published annually by the Office of Census and Statistics under the title of *Report on the Vital Statistics of the Union of South Africa*. The report contains approximately 100 tables, with comparisons for previous years. It is obtainable from the Government Printer, Pretoria (price 4s. per copy).

3. **Periods of Tabulation.**—It has been the practice in the Union, in common with all other countries, to tabulate vital statistics for the *calendar year*. The records for past years in the Office of Census and Statistics all relate to the period 1st January to 31st December, and they have been built up for a series of years, thus making a useful comparative history of the vital events of the population. The tables given in this chapter are tabulated on this basis and thus afford a ready comparison with the vital statistics tabulated and published by other Dominions and countries. The Department of Health, however, adopted for the purposes of health reports a Union *health year*, which runs from 1st July in one year to the 30th June in the following year. This necessitates the tabulation of vital registrations half-yearly in order to obtain figures for the local health year, as well as for universal comparison. In addition to these two tabulation periods, the Office of Census and Statistics also collects and tabulates monthly preliminary figures for certain large towns, and quarterly figures for the Union and the provinces.

The estimates of population for the years 1932 to 1935 were revised when the final results of the 1936 Census became available. The birth, death, and marriage rates for those years have, therefore, been revised.

The following table shows the number of European births and deaths registered and the vital rates during the *health* years from 1933-34, and also the estimated European population at the 31st December of each year:—

VITAL REGISTRATIONS AND RATES PER 1,000, UNION HEALTH YEARS, 1933-34 TO 1937-38.

EUROPEAN POPULATION.

Health Year.	Estimated Population 31st Dec.	Births.		Deaths.		Infantile Mortality.	
		No.	Rate.	No.	Rate.	No.	Rate.
1933–34	1,908,100	45,205	23·69	18,531	9·71	2,420	53·55
1934–35	1,944,300	45,934	23·62	18,603	9·57	2,601	56·62
1935–36	1,986,300	47,927	24·13	20,842	10·49	3,132	65·35
1936–37	2,026,200	50,450	24·90	19,512	9·63	2,840	56·29
1937–38*	2,062,550	51,712	25·07	20,450	9·91	2,900	56·08

*Preliminary figures.

§ 2. Births.

1. **Births Registered.**—The total number of births registered from 1911 of Europeans and non-Europeans is shown in the following tables. Detailed figures prior to the year 1931 will be found in No. 16 and previous issues of the *Year Book*. The *Births and Deaths Registration Law* in the Orange Free State prior to 1924 applied to Europeans only.

The significance of the figures relating to non-European births is purely administrative, owing to the incompleteness of the registration of births of natives.

REGISTRATION OF BIRTHS, 1911 TO 1938.

Year.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Union.	
					Number.	Annual Rate.
TOTAL BIRTHS REGISTERED—EUROPEAN.						
1911–15	90,301	13,964	77,384	25,060	206,709	31·11
1916–20	87,803	14,619	79,579	24,668	206,669	28·56
1921–25	91,702	16,812	80,206	25,352	214,072	27·07
1926–30	93,720	17,828	88,638	26,603	226,789	25·89
1931	19,180	3,538	18,730	4,975	46,423	25·38
1932	18,284	3,373	18,376	4,911	44,944	24·17
1933	17,931	3,441	18,452	4,695	44,519	23·53
1934	17,642	3,310	19,327	4,599	44,878	23·32
1935	18,242	3,441	21,109	4,925	47,717	24·29
1936	18,162	3,606	22,192	4,670	48,630	24·21
1937	18,404	3,766	23,814	4,894	50,878	24·90
1938*	18,737	3,936	24,654	4,937	52,264	25·11
TOTAL BIRTHS REGISTERED—NON-EUROPEAN (PARTIAL REGISTRATION).						
1911–15	208,118	61,990	19,547	—	289,655	—
1916–20	184,314	147,857	20,133	—	352,304	—
1921–25	189,473	103,825	25,038	2,292†	320,628	—
1926–30	104,061	40,201	26,037	7,137	267,486	—
1931	42,076	8,630	5,613	1,852	58,171	—
1932	41,040	8,206	6,031	2,141	57,418	—
1933	41,815	8,517	6,013	2,277	58,622	—
1934	39,818	8,849	6,535	2,002	57,204	—
1935	41,998	9,242	6,395	2,200	59,835	—
1936	42,764	9,802	6,776	2,130	61,472	—
1937	45,612	10,238	7,874	2,374	66,098	—
1938*	43,850	10,478	7,949	2,441	64,718	—

* Preliminary figures. † 1924 and 1925 only.

2. **Births Registered, according to Sex.**—The following tables show the number of European births registered from 1911 and mixed and other coloured births registered for the years 1937 and 1938, classified according to sex.

BIRTHS REGISTERED—CLASSIFIED ACCORDING TO SEX, 1911 TO 1938.

Year.	Cape of Good Hope.		Natal.		Transvaal.		Orange Free State.		Union.	
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
EUROPEAN.										
1911–15	46,479	43,822	7,129	6,835	39,612	37,772	12,968	12,092	106,188	100,521
1916–20	45,722	42,081	7,536	7,083	41,065	38,514	12,888	11,780	107,211	99,458
1921–25	47,306	44,396	8,641	8,171	41,109	39,097	13,009	12,343	110,065	104,007
1926–30	48,009	45,711	9,246	8,582	45,706	42,932	13,682	12,921	116,643	110,146
1931	9,849	9,331	1,812	1,726	9,649	9,081	2,519	2,456	23,829	22,594
1932	9,412	8,872	1,723	1,650	9,445	8,931	2,526	2,385	23,106	21,838
1933	9,285	8,646	1,754	1,687	9,500	8,952	2,455	2,240	22,994	21,525
1934	8,961	8,681	1,634	1,676	9,947	9,380	2,382	2,217	22,924	21,954
1935	9,208	8,944	1,764	1,677	10,857	10,252	2,488	2,437	24,407	23,310
1936	9,338	8,824	1,833	1,773	11,446	10,746	2,373	2,297	24,990	23,640
1937	9,480	8,924	1,908	1,858	12,208	11,606	2,481	2,413	26,077	24,801
1938*	9,659	9,078	1,979	1,957	12,659	11,995	2,514	2,423	26,811	25,453
MIXED AND OTHER COLOURED.										
1937	17,402	16,887	348	345	913	849	164	173	18,827	18,254
1938*	16,429	16,150	372	351	785	709	105	103	17,691	17,313

* Preliminary figures.

3. Birth Rate and Proportion of the Sexes.—Table (i) shows the birth rate per 1,000 of the estimated mean population for Europeans and mixed and other coloured persons. From the year 1910, when the European birth rate was 32·52, there has been a gradual decline in the rate with slight fluctuations.

Table (ii) gives the proportion of each sex of European births registered. These figures, when compared with those for other Dominions and various European countries, show a slightly greater excess of male over female births.

Table (iii), which shows the crude birth rates of various countries, has been compiled from the latest available information. In No. 13 and earlier issues of this book, the rates for specified years were given, but owing to the difficulty in collating the information it was not possible to publish rates for all countries for the same year. The method of averaging for the last three years available was, therefore, adopted as giving a better comparison. It also obviates to some extent the fluctuations due to abnormal conditions such as epidemics, famines, extraordinary climatic changes, etc., in the different parts of the world represented in the table.

(i) BIRTH RATES, 1933 TO 1937.

Year.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Union.
European.					
1933	23·50	18·91	24·83	23·05	23·53
1934	22·90	17·94	25·19	22·71	23·32
1935	23·37	18·34	26·57	24·42	24·29
1936	22·91	18·87	26·94	23·23	24·21
1937	22·97	19·44	28·09	24·35	24·90
Mixed and Other Coloured.					
1937	19·18	36·47	34·35	19·04	17·22

(ii) MASCULINITY† OF BIRTHS, EUROPEANS, 1933 TO 1937.

Year.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Union.
1933	107·39	103·97	106·12	109·60	106·82
1934	103·23	97·49	106·04	107·44	104·42
1935	103·96	105·19	105·90	102·09	104·71
1936	105·83	103·38	106·51	103·31	105·71
1937	106·23	102·69	105·19	102·82	105·14

† Number of males to each 100 females born.

(iii) BIRTH RATES FOR CERTAIN COUNTRIES AVERAGED OVER THREE SUCCESSIVE YEARS.

Country.	Period.	Average Annual Rate.	Position.	Country.	Period.	Average Annual Rate.	Position.
Union of South Africa*	1935–37	24·4	11	India	1934–36	34·7	2
Australia	1935–37	17·0	23	Italy	1935–37	22·8	14
Belgium	1935–37	15·2	28	Japan	1934–36	30·5	5
Bulgaria	1935–37	25·2	10	Latvia	1935–37	17·8	26
Canada	1934–36	20·2	16	Lithuania	1935–37	23·2	12
Chile	1935–37	34·1	3	New Zealand	1935–37	16·7	25
Denmark	1935–37	17·8	22	Northern Ireland	1935–37	19·7	18
Eire	1934–36	19·3	20	Norway	1935–37	14·9	30
Egypt	1934–36	43·2	1	Poland	1935–37	25·6	9
England and Wales	1935–37	14·8	31	Portugal	1935–37	27·9	7
Estonia	1935–37	16·0	26	Roumania	1935–37	31·0	4
Finland	1934–36	18·6	21	Scotland	1935–37	17·8	22
France	1935–37	15·0	29	Southern Rhodesia	1935–37	22·9	13
Germany	1935–37	19·4	19	Spain	1933–35	20·3	8
Greece	1934–36	29·2	6	Sweden	1935–37	14·1	32
Holland	1935–37	20·0	17	Switzerland	1935–37	15·5	27
Hungary	1935–37	20·3	15	United States of America	1934–36	16·9	24

* Europeans only.

Birth Rates in the Principal Towns.—The registration of non-European vital events in the towns, though probably complete in so far as the actual number of events is concerned, is an entirely misleading index of the birth and death rates of the non-European community of the towns. Possible exceptions are the municipalities of Capetown, Port Elizabeth, and Kimberley, which have a large mixed non-European population of a stationary type, who live in the towns in a similar manner to Europeans. In the other towns this section of the population is a constantly changing one. There is frequently a predominance of one sex, and those persons in the community who are employed as domestic servants are generally unmarried, or if married are separated from their families. In Johannesburg and the other Witwatersrand towns there are large numbers of male natives of the population living in mine compounds. The non-European population of Pretoria is principally Bantu, and the ratio of males to females is 2 to 1. Of the female population less than one-third are married women. Moreover, it is customary for native women to leave the towns and return to their kraals for confinement. The number of births registered is, therefore, small in proportion to the population upon which vital rates would be computed. These factors would also influence the infantile mortality and general death rates. The following table shows the number of births and the birth rates of Europeans in the principal urban areas, and also the number of non-European births registered. The latter, however, must be taken as merely a record of registrations and should not be used for the purpose of calculating rates.

NUMBER OF BIRTHS AND BIRTH RATES PER 1,000 IN THE PRINCIPAL TOWNS*, 1933 TO 1937.

Year.	Towns. Capetown.	Port Elizabeth.	East London.	Kimberley.	Pietermaritzburg.	Durban.	Pretoria.	Johannesburg.	Bloemfontein.
European Births.									
1933	2,636	1,117	411	400	376	1,424	1,406	4,461	483
1934	2,462	1,067	453	328	373	1,348	1,445	4,721	445
1935	2,672	1,218	456	299	365	1,421	1,567	5,441	499
1936	2,680	1,209	430	336	369	1,480	1,669	6,025	461
1937	2,808	1,292	411	336	396	1,570	1,707	6,640	512
European Birth Rates.									
1933	18·59	25·39	19·57	24·24	18·43	16·99	23·47	20·06	20·73
1934	17·01	23·40	21·27	20·50	18·11	15·80	23·12	20·26	19·02
1935	18·10	25·81	21·21	19·29	17·72	16·37	24·03	22·34	21·32
1936	17·81	24·83	19·72	22·40	17·74	16·76	24·65	23·70	19·53
1937	18·31	25·74	18·60	22·40	18·86	17·48	24·32	25·08	21·51
Mixed and Other Coloured Births (included in Non-European Births).									
1933	6,359	1,125	184	448	95	341	126	834	80
1934	6,239	1,046	183	382	70	324	126	902	67
1935	6,498	1,168	179	384	100	345	140	882	74
1936	6,607	1,174	182	418	114	374	124	947	80
1937	6,732	1,304	225	429	94	381	140	846	82
Non-European Births.									
1933	6,774	2,306	821	915	631	4,452	446	2,131	814
1934	6,660	2,046	866	779	643	4,466	538	2,069	791
1935	6,867	2,352	908	799	703	4,804	558	2,102	791
1936	6,995	2,301	884	832	860	5,064	524	2,322	755
1937	7,231	2,777	982	953	952	5,486	568	2,421	792

* Statistics for the Witwatersrand towns will be found in the Report on Vital Statistics.

The following table shows the birth rates for certain cities averaged over three successive years:—

BIRTH RATES FOR CERTAIN CITIES AVERAGED OVER THREE SUCCESSIVE YEARS.

City.	Period.	Average Annual Rate.	Position.	City.	Period.	Average Annual Rate.	Position.
Alexandria	1934-36	40·5	2	Liverpool	1935-37	19·8	12
Amsterdam	1934-36	15·0	21	London	1935-37	13·4	25
Antwerp	1934-36	12·2	31	Melbourne	1935-37	13·7	23
Auckland	1934-36	13·0	30	Madrid	1933-35	21·9	4
Belfast (N. Ireland)	1934-36	21·8	9	New York	1934-36	13·5	27
Berlin	1934-36	13·6	26	Oslo	1934-36	8·0	34
Birmingham	1935-37	16·0	18	Paris	1934-36	11·7	32
Bombay	1934-36	29·8	3	Perth (W.A.)	1935-37	16·7	16
Brisbane	1934-36	14·5	22	Prague	1934-36	10·2	36
Brussels	1934-36	10·1	37	Quebec	1934-36	24·7	6
Budapest	1931-36	10·9	34	Riga	1934-36	12·0	29
Buenos Aires	1934-36	18·1	15	Rio de Janeiro	1934-36	20·4	7
Cairo	1934-36	41·4	1	Rome	1934-36	21·3	5
Calcutta	1934-36	22·8	7	Stockholm	1934-36	10·5	35
Chicago	1934-36	13·8	24	Sydney (N.S.W.)	1935-37	14·0	20
Christchurch (N.Z.)	1934-36	13·7	25	Tokio	1934-36	27·2	4
Copenhagen	1934-36	16·2	17	Venice	1934-36	18·7	11
Dublin	1934-36	25·7	5	Vienna	1934-36	5·7	39
Edinburgh	1934-36	15·6	19	Warsaw	1935-37	13·3	28
Glasgow	1934-36	19·8	12	Washington	1934-36	19·0	13
Hamburg	1934-36	15·2	20	Wellington	1934-36	14·5	19
Leningrad	1931	21·3	10				

4. Births in Regional Divisions.—The following table shows the number of births and the birth rates for Europeans and the number of births for mixed and other coloured persons in seven regional divisions. These divisions are non-administrative, but have been arranged as far as possible to accord with the variations in altitude and rainfall, and the different climatic conditions prevailing generally. Each division comprises a number of magisterial districts. A fuller description of the areas is given in Chapter XXV.

The *coastal* regions, which contain rather more than a quarter of the total European population, consistently show a lower birth rate than the general rate for the whole Union. The *highveld* region, in which more than half the Europeans reside, has a birth rate very similar to that of the whole Union. The *Transvaal bushveld* shows a high birth rate and a low infantile mortality rate.

BIRTHS IN REGIONAL DIVISIONS, 1933 TO 1937.

Year.	Union.	Regional Divisions.						
		South-Western Coastal.	South-Eastern Coastal.	Karroo—Cape Central.	High-veld.	Cape Thorn-veld.	Transvaal Bush-veld.	Cape North-West.
European Births Registered.								
1933...	44,519	8,822	3,552	3,182	22,374	1,301	3,168	2,120
1934...	44,878	8,632	3,610	3,144	23,033	1,268	3,199	1,992
1935...	47,717	9,123	3,610	3,250	24,915	1,276	3,442	2,101
1936...	48,650	9,107	3,632	3,142	26,229	1,270	3,153	2,097
1937...	50,878	9,359	3,783	3,167	28,057	1,216	3,182	2,114
European Birth Rates.								
1933...	23·53	22·71	18·29	24·03	23·51	22·05	30·79	29·04
1934...	23·32	21·91	18·42	23·71	23·81	21·82	30·97	27·14
1935...	24·29	22·63	18·10	24·47	25·09	22·10	32·94	28·35
1936...	24·21	22·03	17·88	23·50	25·70	22·24	29·80	27·06
1937...	24·90	22·21	18·36	23·62	26·90	21·45	29·82	27·93
Mixed and Other Coloured Births Registered.								
1937...	37,081	21,258	1,064	7,024	3,590	659	45	3,441

5. Natural Increase.—The number of births in excess of deaths, which showed a steady decline from 1911 to 1917 and from 1925 to 1928, moved in an upward direction during 1929 and 1930, but the figure fluctuated from the year 1931 onwards. The years 1918 and 1919 were highly abnormal and cannot be considered for comparative purposes in this connexion.

Although the males born are more numerous than the females, the actual increase in the population from the excess of births over deaths is in favour of the females, as the number of male deaths greatly exceeds that of female deaths. The masculinity of the population is, therefore, steadily declining. Table (ii) shows the comparative masculinity of the European population and of births and deaths for a period of years. Reference to the subjoined table (i) shows that for the provinces the natural increase of males is less than that of females.

The total excess of births over deaths of Europeans from the date of the constitution of the Union to the 31st December, 1937, was approximately 759,917.

(i) NATURAL INCREASE—EUROPEAN POPULATION, 1911 TO 1937.

Year.	Cape of Good Hope.		Natal.		Transvaal.		Orange Free State.		Union.		
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Persons.
1911–15*	29,204	29,542	4,100	4,744	25,442	28,318	9,001	8,789	67,747	71,393	139,140
1916–20*	23,433	24,349	3,415	4,370	22,588	25,743	7,304	7,277	56,740	61,739	118,479
1921–25*	28,890	29,067	4,342	5,219	24,947	27,742	8,420	8,525	66,599	70,553	137,152
1926–30*	27,817	29,388	4,821	5,374	26,876	29,670	9,076	9,200	68,590	73,632	142,222
1931....	5,837	6,011	842	1,031	5,820	6,421	1,534	1,732	14,033	15,195	29,278
1932....	5,167	5,503	681	908	5,127	5,867	1,526	1,623	12,501	13,901	26,402
1933....	5,325	5,418	748	1,000	5,332	6,037	1,480	1,513	12,885	13,968	26,853
1934....	4,729	5,286	645	917	5,668	6,273	1,406	1,415	12,448	13,893	26,341
1935....	4,886	5,332	696	887	5,632	6,632	1,420	1,602	12,634	14,453	27,087
1936....	5,190	5,412	760	1,046	6,640	7,422	1,397	1,539	13,987	15,419	29,406
1937....	5,100	5,225	778	1,046	7,084	8,015	1,491	1,533	14,453	15,819	30,272

* For annual figures, see previous issues of this *Year Book* (Nos. 6 to 16).

(ii) COMPARATIVE MASCULINITY* OF POPULATION, BIRTHS, AND DEATHS—EUROPEANS, 1911, 1921, 1926, 1931, AND 1933 TO 1937.

Heading.	1911 (Census).	1921 (Census).	1926 (Census).	1931 (Census).	1933.	1934.	1935.	1936 (Census).	1937.
Estimated mean population	115·4	106·0	104·5	103·7	103·4	103·3	103·2	103·3	103·2
Births	107·1	104·9	104·3	105·5	106·8	104·4	104·7	105·7	105·1
Deaths (crude ratio)	133·3	129·0	131·0	131·7	133·8	130·0	132·9	133·8	129·4
Relative male mortality†	115·1	121·7	125·2	127·1	129·4	125·9	128·6	129·6	125·4

* Number of males to each 100 females.
† Ratio of death rate of males to death rate of females.

6. Births in Urban and Rural Areas.—The distribution of births in the urban centres and rural districts is shown for a series of years in the following statement. Previous to the year 1924 births were tabulated according to the area of registration, with the result that the urban rates were increased by the inclusion of births to rural residents who had come into towns for accouchement. Under the laws in force prior to January, 1924, it was not possible to adjust the registrations according to the area of residence of the parents, but with the introduction of consolidating legislation in that year a system of transfers was instituted, and the following table shows the urban and rural births correctly allocated.

BIRTHS IN URBAN AND RURAL AREAS—EUROPEANS, 1933 TO 1937.

Year.	Urban Areas.				Rural Areas.				Total Persons.	General Birth Rate per 1,000.
	Male.	Female.	Persons.	Birth Rate per 1,000.	Male.	Female.	Persons.	Birth Rate per 1,000.		
1933.....	13,016	12,352	25,368	21·35	9,978	9,173	19,151	27·21	44,519	23·53
1934.....	13,244	12,771	26,015	21·27	9,680	9,183	18,863	26·80	44,878	23·32
1935.....	14,357	13,694	28,051	22·17	10,050	9,616	19,666	28·14	47,717	24·29
1936.....	15,156	14,475	29,631	22·58	9,834	9,105	18,939	27·29	48,630	24·21
1937.....	16,228	15,417	31,645	23·46	9,849	9,384	19,233	27·69	50,878	24·90

7. Plural Births.—The number of plural births recorded during the years 1933 to 1937 is given in the following table:—

PLURAL BIRTHS—EUROPEANS, 1933 TO 1937.

Year.	Twins—Number of Events.				Triplets—Number of Events.			
	Total.	Both Born Alive.	One Stillborn.	Both Stillborn.	Total.	All Born Alive.	One Stillborn.	All Stillborn.
1933.....	512	474	24	14	7	7	—	—
1934.....	486	456	21	9	5	4	1	—
1935.....	552	512	26	14	4	3	1	—
1936.....	523	466	44	13	7	7	—	—
1937.....	540	484	40	16	5	4	—	1

8. Illegitimate Births Registered.—The number of European illegitimate births registered during a series of years is shown in the following table. The Cape Province has consistently returned a higher percentage of illegitimate births than has any other province.

The percentages for the Union compare favourably with the rates as published by other Dominions and foreign countries. Of twenty countries for which recent particulars are available, a ratio of illegitimate to total births lower than that of the Union occurs only in Southern Rhodesia and Holland.

ILLEGITIMATE BIRTHS REGISTERED—EUROPEANS, 1933 TO 1937.

Year.	Number.					Per Cent. of Total Births.				
	Cape of Good Hope.	Natal.	Transvaal.	O.F.S.	Union.	Cape of Good Hope.	Natal.	Transvaal.	O.F.S.	Union.
1933.....	623	66	426	78	1,193	3·47	1·92	2·31	1·66	2·63
1934.....	585	75	416	82	1,158	3·32	2·27	2·15	1·78	2·55
1935.....	598	88	498	65	1,249	3·28	2·56	2·36	1·32	2·62
1936.....	591	72	399	58	1,120	3·25	2·00	1·80	1·21	2·30
1937.....	597	86	453	63	1,199	3·24	2·28	1·90	1·29	2·36

The usual method of stating the number of illegitimate births as a proportion of the total births is not entirely satisfactory. The subjoined table shows the illegitimate births in 1936 in relation to the total unmarried European female population of child-bearing age. There is, however, no method of arriving at a correct estimate of this group of the population for any period except that of the census. The figures below are based upon the census figures of 1936, and the rates for the censuses of 1921 and 1926 are inserted for comparison. The table also shows the legitimate birth rate in relation to the married European female population between the ages of 15 and 45 years. No tabulation of marital condition was undertaken at the Census of 1931.

ILLEGITIMATE AND LEGITIMATE BIRTHS PER 1,000 OF THE UNMARRIED AND MARRIED FEMALE POPULATION BETWEEN THE AGES OF 15 AND 45 YEARS—EUROPEANS, CENSUS, 1936.

Province.	Unmarried Female Population, 1936.	Illegitimate Births.				Married Female Population, 1936.	Legitimate Births.			
		Number 1936.	Rate per 1,000 Unmarried Females.				Number 1936.	Rate per 1,000 Married Females.		
			1936.	1926.	1921.			1936.	1926.	1921.
Cape of Good Hope.....	84,364	591	7·01	7·65	6·77	96,399	17,571	182·27	218·35	228·32
Natal.....	19,278	72	3·73	3·87	2·98	25,369	3,534	139·30	168·38	183·47
Transvaal.....	74,101	399	5·38	5·82	6·52	115,746	21,793	188·28	202·05	221·20
Orange Free State	18,786	58	3·09	3·20	2·94	26,978	4,612	170·95	199·41	221·45
UNION.....	196,529	1,120	5·70	6·17	5·91	264,492	47,510	179·63	201·80	219·25

§ 3. Deaths.

1. **Deaths Registered.**—The total number of deaths registered during the period 1st January, 1911, to 31st December, 1938, of Europeans and non-Europeans is shown in the subjoined tables. As is the case in regard to the number of births registered, the fluctuations in the figures for the Natal Province in respect of non-European deaths are caused by the inclusion of registrations of deaths of Indians in 1912, and native registrations also in 1913 and later years, neither of which events was previously recorded. The *Births and Deaths Registration Law* of the Orange Free State did not apply to natives and coloured persons.

In all the tables in this section the European figures for the Natal Province prior to the year 1914 include persons of "coloured" or mixed race, the number of coloured persons, however, being small.

DEATHS REGISTERED, 1911 TO 1938.

Year.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Union.	
					Number.	Annual Rate.
EUROPEANS.						
1911–15*.....	31,555	5,120	23,624	7,270	67,569	10·16
1916–20*.....	40,021	6,834	27,517	8,407	82,190	12·13
1921–25*.....	33,745	7,251	32,092	8,327	76,920	9·73
1926–30*.....	36,515	7,633	6,489	1,709	84,567	9·73
1931.....	7,282	1,665	7,382	1,762	17,145	9·37
1932.....	7,614	1,784	7,082	1,702	18,542	9·95
1933.....	7,188	1,693	7,384	1,773	17,666	9·34
1934.....	7,627	1,748	8,845	1,903	18,537	9·63
1935.....	8,024	1,858	8,130	1,734	20,630	10·50
1936.....	7,560	1,800	8,715	1,570	19,224	9·57
1937.....	8,079	1,942	8,027	1,689	20,606	10·08
1938†.....	7,754	2,051			19,521	9·38
NON-EUROPEANS (PARTIAL REGISTRATION).						
1911–15*.....	150,792	30,117	49,189	—	230,098	—
1916–20*.....	222,336	86,890	50,322	2	359,550	—
1921–25*.....	148,093	57,847	45,293	4,160	255,393	—
1926–30*.....	134,739	22,033	53,254	11,267	221,343	—
1931.....	28,266	5,574	12,233	3,048	49,121	—
1932.....	26,382	6,953	12,600	2,813	48,748	—
1933.....	26,363	5,616	13,253	3,164	48,396	—
1934.....	30,001	6,189	15,987	4,081	56,258	—
1935.....	29,085	6,602	15,836	3,058	54,641	—
1936.....	26,214	6,841	16,183	2,749	51,987	—
1937.....	28,965	6,803	17,567	3,011	55,346	—
1938†.....	28,804	6,707	16,806	2,853	55,230	—

* For annual figures, see previous issues of this *Year Book* (Nos. 6 to 16).
† Preliminary figures.

2. **Deaths Classified as to Sex.**—The subjoined tables give the numbers of deaths of Europeans and mixed and other coloured persons, male and female, registered for a period of years:—

DEATHS REGISTERED—SEXES, 1911 TO 1938.

Year.	Cape of Good Hope.		Natal.		Transvaal.		Orange Free State.		Union.	
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
EUROPEAN.										
1911–15*.....	17,275	14,280	3,029	2,091	14,170	9,454	3,967	3,303	38,441	29,128
1916–20*.....	22,289	17,732	4,121	2,713	15,477	12,771	5,584	4,503	50,471	37,719
1921–25*.....	18,416	15,329	4,299	2,952	16,102	11,355	4,589	3,818	43,466	33,454
1926–30*.....	20,192	16,323	4,425	3,208	18,830	13,262	4,006	3,721	48,053	36,514
1931.....	3,962	3,320	970	695	3,829	2,660	1,000	782	9,746	7,399
1932.....	4,245	3,369	1,042	742	4,318	3,064	1,000	724	10,605	7,937
1933.....	3,960	3,228	1,006	687	4,168	2,915	975	727	10,109	7,557
1934.....	4,232	3,395	989	759	5,225	3,620	976	802	10,476	8,061
1935.....	4,412	3,612	1,068	790	4,806	3,324	1,003	835	11,773	8,857
1936.....	4,148	3,412	1,073	727	4,806	3,591	930	758	11,003	8,221
1937.....	4,380	3,699	1,130	812	5,124	3,184	976	880	11,624	8,982
1938†.....	4,312	3,442	1,214	837	4,843	3,184		713	11,345	8,176
MIXED AND OTHER COLOURED.										
1937.....	8,567	7,983	163	133	692	585	155	146	9,577	8,847
1938†.....	9,003	8,207	183	149	638	506	110	84	9,994	8,946

* For annual figures, see previous issues of this *Year Book* (Nos. 6 to 16).
† Preliminary figures.

3. Crude Death Rate.—The simplest measure of mortality is obtained by computing the number of deaths per 1,000 of the population. This is known as the "crude" death rate, and furnishes a useful index to the healthiness or otherwise of the climate of the country and the condition of life of the community.

The records since the establishment of the Union show a fairly constant death rate for Europeans, and the fluctuation in the figures is small, being less than 1 per 1,000 from year to year. Since the year 1921, the rate has been consistently below 10 per 1,000 except for the years 1928, 1935, and 1937. The death rate for the whole population in the Orange Free State and the infantile mortality rate in Natal have been consistently lower than in the rest of the Union.

(i) CRUDE GENERAL DEATH RATES, 1933 TO 1937.

Year.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Union.
EUROPEAN.					
1933	9·42	9·30	9·53	8·36	9·34
1934	9·90	9·47	9·63	8·78	9·63
1935	10·28	9·90	11·13	9·43	10·50
1936	9·54	9·42	9·87	8·63	9·57
1937	10·08	10·03	10·28	9·30	10·08
MIXED AND OTHER COLOURED.					
1937	23·74	15·58	24·89	17·01	22·46

(ii) MALE AND FEMALE DEATH RATES, 1933 TO 1937.

Year.	Cape of Good Hope.		Natal.		Transvaal.		Orange Free State.		Union.	
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
EUROPEAN.										
1933	10·31	8·52	10·93	7·63	10·91	8·07	9·41	7·28	10·51	8·12
1934	10·93	8·86	10·63	8·30	10·85	8·33	9·48	8·06	10·71	8·51
1935	11·27	9·29	11·30	8·46	12·76	9·41	10·43	8·41	11·80	9·16
1936	10·45	8·62	11·24	7·60	11·28	8·36	9·58	7·65	10·78	8·32
1937	10·94	9·23	11·71	8·35	11·67	8·78	9·72	8·88	11·20	8·95
MIXED AND OTHER COLOURED.										
1937	24·45	23·02	16·98	14·15	26·72	23·03	16·85	17·18	24·24	22·68

4. Specific Death Rates.—The term Specific Death Rate used in the following table designates the rate of mortality per 1,000 of the population at specified ages. For intercensal periods estimates of population in age groups are based on proportional ratios between two censuses, and, for post-censal periods, estimates are adjusted according to the records of births, deaths, and migration. The rates have been calculated from the year 1912 and have been published in previous editions of this *Year Book*. The following table shows the rates for Europeans for five years from 1933:—

SPECIFIC DEATH RATES, EUROPEANS, 1933 TO 1937.

Year.	Deaths per 1,000 Living, in Age Groups.											
	All Ages.	0–4.	5–9.	10–14.	15–19.	20–24.	25–34.	35–44.	45–54.	55–64.	65–74.	75 and over.
MALE.												
1933	10·51	19·58	1·69	1·47	2·58	3·05	3·61	6·25	11·51	21·00	53·12	125·88
1934	10·71	20·02	2·18	1·55	2·68	3·18	3·89	6·55	11·90	24·37	48·19	120·11
1935	11·80	22·90	1·87	1·81	2·68	3·71	3·82	6·20	14·14	25·85	54·99	139·80
1936	10·78	19·87	1·83	1·56	2·31	3·68	3·59	5·97	12·18	24·12	51·71	125·79
1937	11·20	20·05	1·80	1·46	2·01	4·05	3·44	6·29	12·68	25·62	51·28	137·14
FEMALE.												
1933	8·12	16·94	1·49	1·24	1·67	2·18	3·22	4·76	8·18	16·81	39·72	113·20
1934	8·51	17·50	2·03	1·39	2·02	2·69	3·72	5·06	8·49	17·26	38·53	109·55
1935	9·16	17·08	1·85	1·30	1·85	2·71	3·61	5·30	9·58	18·24	42·84	131·30
1936	8·32	17·39	1·93	1·33	1·63	2·47	3·16	4·75	8·15	16·76	38·73	106·24
1937	8·93	17·03	1·58	1·56	1·86	2·55	2·97	5·02	9·27	17·87	42·73	121·69
PERSONS.												
1933	9·34	18·29	1·59	1·36	2·13	2·61	3·41	5·50	9·91	20·72	46·74	119·53
1934	9·63	19·28	2·11	1·48	2·35	2·94	3·80	5·80	10·25	21·12	43·60	114·82
1935	10·50	20·34	1·86	1·56	2·27	3·21	3·72	5·74	11·91	22·37	49·20	135·54
1936	9·57	18·65	1·88	1·44	1·98	3·07	3·38	5·35	10·20	20·74	45·53	115·94
1937	10·08	18·57	1·70	1·51	1·93	3·30	3·21	5·65	10·99	22·04	47·21	129·36

5. Specific Death Rates according to Marital Condition.—The following table, based upon the 1936 Census, shows the death rates per 1,000 persons, according to marital condition in certain age groups.

The table shows that from the age of twenty the death rates of married men were considerably lower than those of single men. On the other hand, the specific death rates of married and single females fluctuate from age to age. The rates of widowed and divorced persons are of interest, but are liable to considerable fluctuation, owing to the small numbers upon which the calculations are made.

The general death rates (all ages) according to marital condition depend largely on the age distribution of each group. Thus the rates for single persons are low, as this group contains the majority of young persons, while the widowed and divorced group, which contains a large proportion of old persons, has much higher death rates.

Owing to difficulties in estimating population in groups according to marital condition for intercensal years, computations showing the effect of marital condition on specific death rates cannot be made for periods other than a census year. The average mortality under each marital condition for three years—one year preceding and one year following a census year—will probably give a better index of the effect of marital condition on death rates, and will tend to eliminate any excess mortality in one group that may be due to some abnormal condition. The figures in the table have been calculated on this basis for the years 1935 to 1937.

DEATHS PER 1,000 IN SPECIFIC AGE GROUPS ACCORDING TO MARITAL CONDITION, EUROPEANS, AVERAGE, 1935 TO 1937.

Age Groups.	Male.			Female.		
	Single.	Married.	Widowed and Divorced.	Single.	Married.	Widowed and Divorced.
All Ages	7·17	14·23	58·12	5·69	8·05	37·02
15–19	2·33	3·38	—	1·62	3·72	12·35
20–24	3·95	2·94	7·19	2·19	3·10	3·43
25–29	3·80	2·87	5·94	2·82	3·01	3·19
30–34	5·28	3·51	3·61	3·33	3·65	5·40
35–39	7·52	4·60	7·78	4·73	4·39	4·38
40–44	10·94	6·71	8·89	6·14	5·48	6·27
45–49	13·25	10·58	14·83	7·94	7·41	9·55
50–54	22·84	14·03	22·32	9·89	10·25	12·41
55–59	28·41	19·80	28·89	15·08	13·84	16·28
60–64	39·66	27·42	40·41	20·96	20·54	24·11
65–69	60·65	40·48	53·68	28·84	32·99	36·66
70–74	78·73	61·08	79·42	47·07	49·65	56·46
75–79	114·24	92·57	121·85	69·46	75·86	88·15
80 Years and Over	146·55	161·43	220·28	146·99	113·53	182·77

6. Death Rates of Various Countries.—The subjoined table gives the crude death rates of various countries and the States of the British Commonwealth. Owing to the difficulty in obtaining information for the same year for each country, the method of averaging for the last three years available has been adopted. A more equitable comparison is thus obtained.

DEATH RATES FOR CERTAIN COUNTRIES AVERAGED OVER THREE SUCCESSIVE YEARS.

Country.	Period.	Average Annual Rate.	Position.	Country.	Period.	Average Annual Rate.	Position.
Union of South Africa*	1935–37	10·0	4	India	1934–36	23·7	28
Australia	1935–37	9·4	2	Italy	1935–37	13·9	16
Belgium	1935–37	12·6	11	Japan	1934–36	17·5	26
Bulgaria	1935–37	14·0	17	Latvia	1935–37	14·2	18
Canada	1934–36	9·6	3	Lithuania	1935–37	13·4	13
Chile	1935–37	24·7	29	New Zealand	1935–37	8·7	1
Denmark	1935–37	11·0	6	Northern Ireland	1935–37	14·6	20
Egypt	1934–36	28·1	30	Norway	1935–37	10·3	5
Eire	1934–36	13·7	15	Poland	1935–37	14·0	17
England and Wales	1935–37	12·1	10	Portugal	1935–37	16·5	25
Estonia	1935–37	15·1	22	Roumania	1935–37	20·1	27
Finland	1935–37	12·9	12	Scotland	1935–37	13·5	14
France	1935–37	15·3	23	Southern Rhodesia	1935–37	10·0	4
Germany	1935–37	12·6	11	Spain	1933–35	15·8	24
Greece	1934–36	15·0	21	Sweden	1935–37	11·9	9
Holland	1935–37	8·7	1	Switzerland	1935–37	11·6	8
Hungary	1935–37	14·1	19	United States of America	1934–36	11·1	7

* Europeans only.

7. Standardized Death Rate.—The usual and simplest method of calculating the death rate of a country is to express the number of deaths as a proportion of each thousand of the estimated mean population, i.e. the *crude* death rate. Any error that may occur in the computation is most likely to arise through an over or an under-estimate of the population; but in a country like the Union, where a census is taken quinquennially, the population may be estimated for intercensal years with a fair degree of accuracy. An error may also occur if the system of registration of deaths is imperfect. Errors due to these two causes, however, will probably be negligible. Notwithstanding the criticism that has been levelled at crude death rates, they are reliable and useful rates for most practical purposes. *Standardized* rates have a special and limited application.

A full explanation with examples of the different methods employed is published in the Reports on the Vital Statistics of the Union for 1933 and subsequent years.

The *standardized* death rates given in the following table are calculated on the *standard million* of England and Wales. For purposes of comparison the *crude* death rate has also been inserted.

CRUDE AND STANDARDIZED DEATH RATES PER 1,000—EUROPEANS, 1913 TO 1937.

Year.	Crude.	Standardized.*	Year.	Crude.	Standardized.*
1913	10·27	11·12	1926	9·59	10·17
1914	9·52	10·36	1927	9·73	10·23
1915	10·30	11·19	1928	10·15	10·57
1916	10·24	11·17	1929	9·51	9·88
1917	10·26	11·22	1930	9·69	9·98
1918	17·17	18·08	1931	9·37	9·47
1919	11·88	12·83	1932	9·95	9·98
1920	11·09	12·01	1933	9·34	9·27
1921	10·41	11·32	1934	9·63	9·55
1922	9·48	10·30	1935	10·50	10·28
1923	9·77	10·58	1936	9·57	9·50
1924	9·62	10·33	1937	10·08	9·66
1925	9·39	10·05			

* Standard population of England and Wales of undistinguished sex, Census 1901.

8. Standardized Death Rates for Towns and Sub-Divisions of the Union.—The standardized death rates given in this book are calculated on the *standard million* of the population of England and Wales, 1901, and thus afford a direct comparison with the death rates of that country and with other countries using the same standard. An international standard, while useful for comparing the rates of one country with another, is unsuitable when adjusted or standardized rates are required for local areas within a country. For this reason the population of the Union as enumerated at the Census has been chosen as the standard for computing standardized rates for the provinces, the largest towns, urban and rural areas, and the regional divisions into which the Union has been divided for the purposes of vital statistics. These rates enable the relative salubrity of each town or area to be compared on the same basis, each with the other or with the Union as a whole. In other words, the crude death rate of (say) Johannesburg is standardized for differences in age and sex constitution for comparison with the rate for (say) Capetown with a similar age and sex distribution of its population, any difference in the two standardized rates being thus due to causes other than a preponderance of one sex or of a particular age group.

The method followed is known as the *indirect* or *factorial* method of standardization and is identical with that used by the Registrar-General of England and Wales for many years. Briefly, the method of computation is as follows: The mean annual death rates at certain age groups for the whole Union are applied to the population at the corresponding age groups, as enumerated at the census of the town or area, for which the standardizing factor is required. The results give the number of deaths that would be expected in a year, if the rate of mortality of each age group were the same as that of the Union as a whole. From the sum of the products and the total population of the area or town in question is computed the *index death rate*. This index death rate indicates the degree to which the population of that particular area is favourably or unfavourably constituted. In the same manner an index death rate is computed for the Union, and the relation of this rate to the index death rate of any other area or town gives the required standardizing factor.

The following table gives the standardized death rates for each of the provinces during a period of years, on the basis of the Union population, distinguished for age and sex distribution. Figures for earlier years will be found in previous issues of this *Year Book*.

STANDARDIZED DEATH RATES*—EUROPEANS, 1933 TO 1937.

Year.	Cape of Good Hope.		Natal.		Transvaal.		Orange Free State.		Union.
	Standardized.	Crude.	Standardized.	Crude.	Standardized.	Crude.	Standardized.	Crude.	Crude.
1933	9·04	9·42	8·93	9·30	10·10	9·53	8·44	8·36	9·34
1934	9·50	9·90	9·09	9·47	10·21	9·63	8·87	8·78	9·63
1935	9·87	10·28	9·50	9·90	11·80	11·13	9·52	9·43	10·50
1936	9·06	9·54	8·67	9·42	10·66	9·87	8·54	8·63	9·57
1937	9·58	10·08	9·23	10·03	11·10	10·28	9·21	9·30	10·08

* Standardized for age and sex distribution to the standard population of the Union.

9. Deaths in Urban and Rural Areas.—The number of deaths of Europeans occurring in urban centres and rural districts during a period of years is shown in the table hereunder. The number of deaths registered in urban areas is largely in excess of the number registered in rural areas. This is mainly owing to the fact that the urban population represents 66 per cent. of the total population, and also that the deaths of many rural inhabitants occur in the larger towns, especially in hospitals and nursing institutions.

Prior to 1924 it was not possible to adjust the registrations according to area of residence. Under the consolidating legislation, Act No. 17 of 1923, a system of transfers was made possible, and from the 1st January, 1924, death statistics have been tabulated by area of residence. The columns giving the urban and rural death rates show that the urban rate is consistently higher than the rural rate, which may be attributed in part to the more hazardous occupations followed by the urban industrial population.

The results of the Censuses of 1931 and 1936 reveal the fact that the age and sex distribution of the population of urban areas is more favourable to a low crude death rate than that of the rural areas. Allowance for this divergence in population is, therefore, made by computing standardizing factors based on the age and sex distribution of the standard population of the Union, and applying these to the crude rates. [Para. 8 above.]

DEATHS IN URBAN AND RURAL AREAS—EUROPEANS, 1933 TO 1937.

Year.	Urban Areas.					Rural Areas.					General Death Rates per 1,000.
	Male.	Female.	Persons.	Death Rate per 1,000.		Male.	Female.	Persons.	Death Rate per 1,000.		
				Crude.	Stand.*				Crude.	Stand.*	
1933	6,771	5,057	11,828	9·96	10·06	3,338	2,500	5,838	8·27	8·10	9·34
1934	7,018	5,461	12,479	10·20	10·30	3,458	2,600	6,058	8·64	8·47	9·63
1935	8,131	6,120	14,251	11·26	11·37	3,642	2,737	6,379	9·13	8·95	10·50
1936	7,543	5,651	13,194	10·05	10·25	3,460	2,570	6,030	8·66	8·31	9·57
1937	8,071	6,262	14,333	10·62	10·83	3,553	2,720	6,273	9·03	8·67	10·08

* Standardized for age and sex distribution to the standard population of the Union.

Deaths in Large Urban Centres.—Since the beginning of the year 1921, monthly returns of births and deaths have been collected from the nine largest municipalities and the Witwatersrand towns. Statistics for each of the towns comprising the Witwatersrand urban areas from 1936 will be found in the Reports on the Vital Statistics of the Union. The yearly registrations and death rates from 1933 are given in the table hereunder.

Rates are not shown for the non-European population for several reasons, the chief of which are the migratory nature of the population, the unequal sex proportions, and the peculiar age distribution due to the absence of young children and old persons. The last-named cause is peculiar to the inland towns, whose non-European population is principally Bantu and not, as in the case of the Cape coastal towns, coloured persons of mixed blood who permanently reside in the towns. The particular effects of these population peculiarities are more fully explained in the section on births.

CRUDE AND STANDARDIZED* DEATH RATES PER 1,000 IN THE PRINCIPAL TOWNS†, 1933 TO 1937.

Year.	Towns.								
	Cape-town.	Port Eliza-beth.	East London.	Kim-berley.	Pieter-maritz-burg.	Durban.	Pretoria.	Johan-nesburg.	Bloem-fontein.
EUROPEAN DEATHS.									
1933.....	1,410	468	208	173	211	790	509	2,392	182
1934.....	1,510	478	218	207	176	842	539	2,576	181
1935.....	1,704	571	230	190	187	913	701	3,014	220
1936.....	1,593	478	210	164	209	850	602	2,841	205
1937.....	1,632	563	228	196	220	899	697	3,041	218
CRUDE EUROPEAN DEATH RATE.									
1933.....	9·94	10·64	9·90	10·48	10·34	9·43	8·50	10·76	7·81
1934.....	10·44	10·48	10·23	12·94	8·54	9·87	8·62	11·06	7·71
1935.....	11·54	12·12	11·12	12·26	9·03	10·52	10·75	12·37	9·36
1936.....	10·58	9·82	9·63	10·93	10·05	9·63	8·89	11·18	8·69
1937.....	10·64	11·22	10·32	13·07	10·48	10·01	9·93	11·48	9·16
STANDARDIZED EUROPEAN DEATH RATE.*									
1933.....	9·54	10·96	9·80	10·17	9·51	9·24	9·01	11·41	9·22
1934.....	10·02	10·79	10·12	12·55	7·86	9·67	9·14	11·72	9·13
1935.....	11·08	12·48	11·01	11·89	8·31	10·31	11·40	13·11	11·01
1936.....	10·05	10·51	9·24	9·73	8·84	8·96	9·87	12·07	10·25
1937.....	10·11	12·01	9·91	11·63	9·22	9·31	11·02	12·40	10·81
MIXED AND OTHER COLOURED DEATHS (INCLUDED IN NON-EUROPEAN DEATHS.									
1933.....	2,814	631	86	195	43	141	55	489	78
1934.....	3,115	706	123	214	49	163	78	591	85
1935.....	3,306	765	111	221	53	174	65	600	75
1936.....	2,767	695	136	198	41	201	59	577	73
1937.....	3,070	777	117	246	55	163	58	595	83
NON-EUROPEAN DEATHS.									
1933.....	3,133	1,631	968	708	619	3,171	578	3,881	1,222
1934.....	3,436	1,707	969	701	753	3,456	599	4,413	1,392
1935.....	3,613	1,900	1,025	748	676	3,693	730	4,350	955
1936.....	3,096	1,713	1,174	641	632	3,918	679	4,228	964
1937.....	3,403	2,155	1,192	735	717	3,917	702	4,571	917

* Standardized for age and sex distribution to the standard population of the Union.
† Statistics for the Witwatersrand towns from 1936 will be found in the Report on Vital Statistics

Death Rates in Various Cities.—The latest available death rates in various large cities throughout the world are given in the table hereunder.

DEATH RATES FOR CERTAIN CITIES AVERAGED OVER THREE SUCCESSIVE YEARS.

City.	Period.	Average Annual Rate.	Posi-tion.	City.	Period.	Average Annual Rate.	Posi-tion.
Alexandria.....	1934-36	24·3	32	London.....	1935-37	12·1	18
Amsterdam.....	1934-36	8·5	1	Melbourne.....	1934-36	10·7	11
Antwerp.....	1934-36	10·4	9	Madrid.....	1933-35	15·3	29
Auckland.....	1934-36	9·5	3	Montreal.....	1934-36	10·1	6
Belfast (N. Ireland)	1934-36	14·5	26	New York.....	1934-36	10·3	8
Berlin.....	1934-36	13·3	23	Oslo.....	1934-36	10·3	8
Birmingham.....	1935-37	11·5	15	Paris.....	1934-36	12·2	19
Bombay.....	1934-36	24·8	33	Perth (W.A.).....	1935-37	11·3	13
Brisbane.....	1934-36	10·2	7	Prague.....	1934-36	10·7	11
Brussels.....	1934-36	9·6	4	Quebec.....	1934-36	10·5	10
Budapest.....	1934-36	11·3	13	Riga.....	1934-36	12·5	20
Buenos Aires.....	1934-36	11·8	17	Rio de Janeiro.....	1934-36	15·9	30
Cairo.....	1934-36	20·4	34	Rome.....	1934-36	11·6	16
Calcutta.....	1934-36	10·0	31	San Francisco.....	1934-36	13·0	21
Chicago.....	1934-36	10·5	10	Stockholm.....	1934-36	10·7	11
Christchurch (N.Z.).	1934-36	9·7	5	Sydney (N.S.W.)...	1934-36	9·7	5
Copenhagen.....	1934-36	11·4	14	Tokio.....	1934-36	13·3	23
Dublin.....	1934-36	14·5	26	Venice.....	1934-36	11·8	17
Edinburgh.....	1934-36	13·1	22	Vienna.....	1934-36	12·5	20
Glasgow.....	1934-36	14·1	25	Warsaw.....	1935-37	11·0	12
Hamburg.....	1934-36	11·4	14	Washington.....	1934-36	15·1	28
Leningrad.....	1930	14·6	27	Wellington.....	1934-36	8·6	2
Liverpool.....	1935-37	13·9	24				

10. **Deaths in Regional Divisions.**—In this chapter, the majority of the figures are tabulated according to the four main administrative areas (provinces) of the Union. The reason for this is that each province until 1923 had its own *Births and Deaths Registration Law*, and tabulation has naturally followed according to the vital events registered under the respective laws. The boundaries of the provinces follow generally the principal inland rivers or mountain ranges. For the purposes of vital and population statistics the Union has now been sub-divided into seven regional divisions, arranged as nearly as possible according to climatic conditions. A description of these divisions will be found in Chapter XXV. The following table shows the crude death rates for the past five years in each of the divisions. The age and sex distributions of the several populations differ from each other, and from the distribution of the total Union population. To eliminate differences due to these two causes the rates for the period 1932 to 1935 have been standardized to the Union standard population as at the Census of 1931, and those for 1936 to the Union standard population as determined at the 1936 Census. For ease of comparison the crude rates for the European population of the Union have been inserted.

DEATH RATES PER 1,000 IN REGIONAL DIVISIONS—EUROPEANS, 1933 TO 1937.

Year.	Union.	Regional Divisions.						
		South-Western Coastal.	South-Eastern Coastal.	Karroo—Cape Central.	High-veld.	Cape Thorn-veld.	Transvaal Bush-veld.	Cape North-West.
CRUDE DEATH RATES.								
1933...	9·34	9·63	9·51	9·65	9·33	8·39	8·02	8·22
1934...	9·63	9·95	9·84	10·20	9·58	10·09	8·26	8·62
1935...	10·50	10·67	9·94	10·66	10·82	9·23	9·67	8·73
1936...	9·57	9·79	9·45	10·15	9·69	9·25	8·79	7·40
1937...	10·08	10·22	10·25	10·84	10·16	10·09	9·62	7·13
STANDARDIZED DEATH RATES.								
1933...	—	9·24	9·13	8·69	9·70	8·22	8·42	8·63
1934...	—	9·55	9·45	9·18	9·96	9·89	8·67	9·05
1935...	—	10·24	9·54	9·59	11·25	9·05	10·15	9·17
1936...	—	9·40	8·60	9·14	10·17	8·79	9·14	7·77
1937...	—	9·81	9·33	9·76	10·67	9·59	10·00	7·49

11. **Mortality of Each Sex.**—There are two methods of calculating the ratio of deaths of one sex to those of the other or of male to female deaths. One is to calculate the actual number of male deaths to each 100 of the actual female deaths registered. The result gives a *crude ratio*, because it does not take into account the sex constitution of the population or, in other words, the relative numbers of each sex exposed. The second method is to calculate the ratio of the death rate of males to the death rate of females. This calculation eliminates the unequal distribution of the sexes in the population and thus reduces the comparison of the mortality of each sex to a *standard*. The results are given in the following tables under the heading *Crude* and *Standardized Ratios*, or, as the ratios are calculated on the basis of males to females, *Relative Male Mortality*. The latter method shows at a glance at which ages the number of deaths of males exceeds that of females or *vice versa*. Tables (i) (*a*) and (ii) (*a*) record the actual number of deaths of males to each 100 deaths of females according to the number of registrations of deaths effected. Tables (i) (*b*) and (ii) (*b*) show the relative male mortality for each 100 female deaths on a basis of an equal number of each sex exposed to risk.

If we take the standardized figures as a truer index of sex mortality, it will be seen that with few exceptions the number of deaths of males regularly exceeds that of females, the average excess for the years 1933 to 1937 being 28 per cent. for all ages.

In table (i) (*b*) below, the excess in the mortality of males manifested itself at all ages throughout the period except at ages 30 to 34 in 1934, 5 to 9 in 1936, and 10 to 14 in 1937.

In table (ii) the masculinity of the deaths in each province is shown for the period 1933 to 1937. The first portion of the table gives the crude ratios based on the number of deaths of each sex. As explained above this calculation takes no cognizance of the fact that in the majority of age groups there were more males than females exposed to risk of death. Had the distribution of the sexes been constantly equal, the resulting standardized mortality of males to that of each 100 females would have been as shown in the second portion of the table under the heading *Relative Male Mortality*.

were caused by respiratory diseases, and 26 per cent. were from diarrhoea and enteritis. During the period under review the number of deaths from the last-named causes each month increased from October each year, reaching its peak during December, and falling away again during the month of March. The large numbers for the five months, October to February, which are the warmest months of the year, are therefore responsible for the high death rate from infantile diarrhoea.

INFANTILE MORTALITY, EUROPEANS—CAUSES OF DEATH, 1933 TO 1937.

Cause.	Year.				
	1933.	1934.	1935.	1936.	1937.
Measles	31	39	34	15	35
Scarlet Fever	4	1	1	4	2
Whooping Cough	99	106	80	178	101
Diphtheria	7	8	6	11	9
Influenza	29	22	95	24	46
Tuberculosis	7	11	14	12	14
Syphilis	22	18	20	15	17
Meningitis	21	15	29	29	21
Convulsions	190	183	150	173	148
Diseases of the Ear and Mastoid Process	20	18	14	11	19
Bronchitis	104	74	99	70	87
Pneumonia	387	335	568	436	462
Other Respiratory Diseases	29	29	29	28	24
Diarrhoea and Enteritis	760	781	687	667	736
Congenital Malformations	133	137	133	176	181
Congenital Debility	144	169	177	171	133
Premature Birth	340	326	402	459	410
Injury at Birth	59	82	110	104	116
Other Diseases of Early Infancy	122	151	138	126	135
Lack of Care	9	17	17	10	10
Accidental Mechanical Suffocation	3	2	4	3	3
Other Causes	187	204	176	179	172
TOTAL	2,716	2,728	2,997	2,872	2,878

16. **Infantile Mortality in Regional Divisions.**—The following table gives a comparison with the Union of the infantile mortality rate in seven *regional* or *climatic divisions*.

The fluctuations in the rates recorded in the Cape Thornveld, Transvaal Bushveld, and Cape North-West may be due to some extent to the small population of these areas, and therefore to the small numbers upon which the rates are calculated. A very small increase or decrease in the number of either births or infant deaths causes a marked variation in the mortality rate.

INFANTILE MORTALITY IN REGIONAL DIVISIONS—EUROPEANS, 1933 TO 1937.

Year.	Union.	Regional Divisions.						
		South-Western Coastal.	South-Eastern Coastal.	Karroo—Cape Central.	High-veld.	Cape Thorn-veld.	Transvaal Bush-veld.	Cape North-West.
DEATHS UNDER ONE YEAR OF AGE.								
1933...	2,716	476	160	195	1,547	60	132	146
1934...	2,728	483	177	217	1,512	66	144	129
1935...	2,997	513	156	196	1,777	67	170	118
1936...	2,872	485	172	198	1,693	56	162	106
1937...	2,878	523	163	210	1,653	73	186	70
INFANTILE MORTALITY RATE.								
1933...	61·01	53·96	45·05	61·28	69·14	46·12	41·67	68·87
1934...	60·79	55·95	49·03	69·02	65·64	52·05	45·01	64·70
1935...	62·81	56·23	43·21	60·31	71·32	52·51	49·39	56·16
1936...	59·06	53·26	47·36	63·02	64·55	44·09	51·38	50·55
1937...	56·57	55·88	43·09	66·31	58·92	60·03	58·45	33·11

17. **Infantile Deaths in Principal Urban Centres.**—Table (i) hereunder shows for the years 1933 to 1937 the infantile mortality in the principal urban areas. Unfortunately, the mode of living, age, and sex distribution of the non-European population of the towns are such as to preclude the computation of reliable infantile mortality rates for this section of the population. The nature of these peculiarities of population and their effect on vital statistics are more fully explained in a previous paragraph dealing with the non-European birth rates in these areas.

(i) INFANTILE MORTALITY IN THE PRINCIPAL TOWNS*, 1933 TO 1937.

Year.	Towns.								
	Cape-town.	Port Eliza-beth.	East London.	Kim-berley.	Pieter-maritz-burg.	Durban.	Pretoria.	Johan-nesburg.	Bloem-fontein.
EUROPEAN DEATHS UNDER ONE YEAR.									
1933	106	93	23	22	21	68	78	348	34
1934	106	79	21	28	15	87	84	372	18
1935	140	103	20	25	12	81	122	458	35
1936	124	63	23	22	12	84	88	442	28
1937	127	86	24	16	13	66	114	409	33
EUROPEAN INFANTILE MORTALITY RATE.									
1933	40·21	83·26	55·96	55·00	55·85	47·75	55·48	78·01	70·39
1934	43·05	74·04	46·36	85·37	40·21	61·54	58·13	78·80	40·45
1935	52·40	87·03	43·86	83·61	32·88	57·00	77·86	84·18	70·14
1936	46·27	56·24	53·49	65·48	32·52	56·76	52·73	73·36	60·74
1937	45·23	66·56	58·39	47·62	32·83	42·04	66·78	61·60	64·45
MIXED AND OTHER COLOURED DEATHS UNDER ONE YEAR (INCLUDED IN NON-EUROPEAN DEATHS).									
1933	835	196	30	70	10	36	17	166	18
1934	863	205	35	59	14	37	25	182	15
1935	938	227	34	63	15	42	18	204	24
1936	769	219	48	65	9	50	16	186	19
1937	839	225	42	73	8	49	16	169	22
NON-EUROPEAN DEATHS UNDER ONE YEAR.									
1933	924	563	363	270	112	824	194	1,212	370
1934	951	524	357	207	148	827	144	1,165	270
1935	1,020	593	402	240	158	958	189	1,224	299
1936	865	557	449	231	149	1,069	155	1,147	330
1937	915	702	465	235	180	1,100	157	1,256	274

* Statistics for the towns of the Witwatersrand from 1936 will be found in the report on Vital Statistics.

Infantile Mortality in Various Cities.—The following table is compiled from various sources and shows the infantile mortality rate in various large cities throughout the world for the latest available date.

(ii) INFANTILE DEATH RATES FOR CERTAIN CITIES AVERAGED OVER THREE SUCCESSIVE YEARS.

City.	Period.	Average Annual Rate.	Position.	City.	Period.	Average Annual Rate.	Position.
Alexandria	1934-36	206	38	London	1935-37	64	18
Amsterdam	1934-36	31	2	Melbourne	1935-37	41	9
Antwerp	1934-36	61	15	Madrid	1933-35	97	29
Auckland	1934-36	37	6	Montreal	1934-36	86	25
Belfast (N. Ireland)	1934-36	98	30	New York	1934-36	48	11
Berlin	1934-36	62	16	Oslo	1934-36	25	1
Birmingham	1935-37	63	17	Paris	1934-36	70	21
Bombay	1934-36	247	39	Perth (W.A.)	1934-36	39	8
Brisbane	1933-37	70	21	Prague	1934-36	88	26
Brussels	1934-36	78	23	Quebec	1934-36	109	33
Budapest	1934-36	112	34	Riga	1934-36	63	17
Buenos Aires	1934-36	57	14	Rio de Janeiro	1934-36	173	36
Cairo	1934-36	197	37	Rome	1934-36	74	22
Chicago	1934-36	42	10	San Francisco	1934-36	36	5
Christchurch (N.Z.)	1934-36	38	7	Stockholm	1934-36	35	4
Copenhagen	1934-36	50	12	Sydney (N.S.W.)	1935-37	39	8
Dublin	1934-36	96	28	Tokio	1934-36	94	27
Edinburgh	1934-36	67	19	Venice	1933-35	80	24
Glasgow	1934-36	102	31	Vienna	1934-36	69	20
Hamburg	1934-36	55	13	Warsaw	1935-37	107	32
Leningrad	1930	141	35	Washington	1934-36	70	21
Liverpool	1935-37	80	24	Wellington (N.Z.)	1934-36	32	3

18. **Certified and Uncertified Deaths.**—There has been a steady increase in the proportion of deaths certified by medical practitioners. In the year 1911 the percentage of certified deaths was 75·95. In 1914 nearly four-fifths of the total number of deaths registered were certified, and in 1937 the proportion of certified deaths was over 93 per cent.

The lowest percentage of uncertified events is in Natal, where, excluding Zululand, the density of the population is greater than in the other provinces. In the Cape Province the position is not satisfactory, 11·41 per cent. of the total deaths recorded in 1937 being uncertified. This is, however, a great improvement over 1911, when 34 per cent. of deaths were uncertified. When an inquest or magisterial inquiry has been held into the cause of death, the event is recorded as a certified registration.

The following tables give (i) the number of inquests held on Europeans, and (ii) the percentages of certified and uncertified deaths of Europeans during the years 1933 to 1937:—

(i) NUMBER OF INQUESTS, EUROPEANS, 1933 TO 1937.

Year.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Union.
1933	478	138	605	120	1,341
1934	489	127	626	117	1,359
1935	474	174	709	106	1,463
1936	528	159	718	109	1,514
1937	479	155	727	121	1,482

(ii) PERCENTAGES OF CERTIFIED AND UNCERTIFIED DEATHS—EUROPEANS, 1933 TO 1937.

PROPORTION PER 100 DEATHS.

Year.	Certified by Medical Practitioner.	Inquests and Inquiry Cases.	Uncertified Deaths.
1933	83·86	7·59	8·55
1934	84·58	7·33	8·09
1935	85·46	7·09	7·45
1936	85·00	7·88	7·12
1937	85·98	7·19	6·83

19. **Ages at Death.**—Considerations of space necessitate the omission from the *Year Book* of tables showing ages at death, but the subject is dealt with fully in the annual reports dealing with vital statistics. (See also § 5 below.)

20. **Classified Causes of Death.**—The Government of the Union is a party to the agreement executed in Paris on the 3rd July, 1909, by the International Commission which revised the *International Classification of the Causes of Sickness and Death*. From the 1st January, 1912, the second revision of the *International Nomenclature* was adopted for the tabulation of vital and morbidity statistics, so that from that date the vital statistics of the Union are comparable with those of other countries using the same classification.

The International Commission for the third revision of the nomenclature met in Paris in October, 1920; but, owing to unexpected occurrences, the issue of its report was considerably delayed. The change from the second to the third revision was therefore not effected until the 1st January, 1922. With a view to securing uniformity as regards the cause of death when preparing death certificates, all medical practitioners have been supplied with a pocket reference to the International List of Causes of Death and requested to aid the Statistical Department in the improvement of vital statistics by employing always the exact terms printed in the booklet, whenever these are applicable. The fourth revision (1929) of the International List was brought into use in 1932.

In 1925 a qualified medical practitioner was appointed as part-time Medical Assessor of Vital Statistics to assist the Census Office staff in the classification of causes of death. All death forms are examined by the Assessor, and, where the particulars do not enable the cause of death to be accurately classified, additional information is requested of the medical practitioner who issued the death certificate, or, in the case of inquests, of the magistrate who held the inquest.

On an average about 850 deaths are queried each year, and of these 95 per cent. can subsequently be allocated to a definite cause of death for statistical purposes.

The table hereunder shows the number of deaths registered for the years 1934 to 1937 classified in accordance with the *International Abridged List* and supplemented by the addition of certain causes of special interest to the Union, such as miners' phthisis, silicosis, and plague.

DEATHS—CERTIFIED AND UNCERTIFIED—CAUSES (ABRIDGED INTERNATIONAL LIST).

EUROPEANS—1934 TO 1937.

Cause of Death.	1934.		1935.		1936.		1937.	
	Certified Only.	Certified and Uncertified.	Certified Only.	Certified and Uncertified.	Certified Only.	Certified and Uncertified.	Certified Only.	Certified and Uncertified.
Enteric Fever	No. 417	No. 443	No. 174	No. 195	No. 226	No. 247	No. 161	No. 182
Typhus Fever	25	25	13	13	7	7	4	4
Smallpox	—	—	—	—	—	—	—	—
Measles	133	144	126	150	22	35	137	142
Scarlet Fever	9	10	34	34	27	28	15	16
Whooping Cough	144	161	129	147	227	264	148	169
Diphtheria	120	120	78	78	90	90	120	120
Influenza	267	293	1,076	1,192	329	356	460	512
Plague	1	1	15	15	12	12	—	—
Meningococcal C.S. Meningitis	41	41	86	86	58	58	47	47
Pulmonary Tuberculosis	535	578	546	587	489	517	521	553
Tuberculous Meningitis	40	40	53	53	34	34	43	43
Other Tubercular Diseases	50	52	69	70	55	57	67	69
Leprosy	10	10	7	7	8	8	16	16
Syphilis	113	113	121	123	94	96	129	131
Malaria	122	165	54	64	114	140	156	185
Cancer	1,683	1,769	1,816	1,890	1,874	1,954	2,067	2,178
Cerebral Haemorrhage	639	726	748	857	957	1,054	1,103	1,210
Cardiac Diseases	2,196	2,253	2,524	2,575	2,429	2,471	2,754	2,800
Bronchitis	321	368	421	471	341	370	404	439
Pneumonia	1,276	1,442	1,916	2,134	1,606	1,762	1,697	1,883
Miners' Phthisis without Tuberculosis	73	75	107	110	102	105	124	127
Miners' Phthisis with Tuberculosis	87	87	88	88	83	83	79	79
Other Respiratory Diseases	311	364	338	390	308	349	294	335
Ulcer of the Stomach	127	129	133	134	135	135	124	128
Diarrhoea (under 2 years)	908	989	761	817	753	820	811	870
Appendicitis	189	191	184	185	215	216	231	231
Cirrhosis of the Liver	90	90	79	79	98	98	97	98
Nephritis (Acute and Chronic)	590	614	630	641	603	615	669	684
Puerperal Sepsis	119	121	117	119	115	116	92	99
Other Accidents of Pregnancy	137	148	102	107	126	132	119	124
Congenital Malformations and Diseases of Early Infancy	824	898	924	995	949	1,033	940	1,004
Suicides	178	178	203	203	166	166	197	197
Other Violent Deaths	922	925	1,018	1,020	1,119	1,126	1,089	1,094
Other Defined Causes	3,930	4,312	4,074	4,501	3,819	4,241	4,058	4,479
Causes Ill-defined or Unknown	410	642	330	560	265	428	226	358
TOTAL.....No.	17,037	18,537	19,094	20,630	17,855	19,224	19,199	20,606

§ 4. Marriages.

1. **Marriages in the Cape of Good Hope.**—(i) *Persons who may not Marry.*—Persons who may not marry in the Cape of Good Hope are males under eighteen and females under sixteen years of age, except with the permission in writing of the Minister of the Interior; minors, i.e. persons under twenty-one years of age (not being widowers or widows), except with the consent of parents or guardians or of a judge; persons of unsound mind; impotent persons and blood relations in the direct line and collaterals within the third degree; persons previously married, while such marriages subsist. Widowers or widows with minor children may marry only on the production of a certificate from the Master of the Supreme Court that the inheritance of minors has been secured, or that the estate of the deceased spouse is valued at less than £100. A guardian may not marry his ward until his accounts as guardian have been closed and audited.

(ii) *Persons authorized to Solemnize Marriages.*—Magistrates and detached assistant magistrates are authorized to solemnize marriages, as are also persons (officers of the Public Service, ministers of religion, or persons holding responsible positions in any religious denomination or community) who may be specially designated as marriage officers by the Minister of the Interior and persons who were authorized to solemnize marriages in the Cape of Good Hope Province prior to the passing of Act No. 43 of 1916.

(iii) *Preliminaries to Marriage.*—In the case of marriages by magistrates or detached assistant magistrates, written notice must be posted in a conspicuous place in or near the courthouse for a period of twenty-one days and read out in court thrice in the district or sub-district in which each of the parties has resided for not less than fourteen days prior to such publication of notice. In the case of marriages by ministers of the Christian religion, banns must be published on three Sundays before the congregation to which each of the parties belongs. All other marriage officers must publish notices of marriage by affixing a copy of each notice for a period of not less than twenty-one days in a conspicuous place accessible to the public. When the parties reside in different places, whether within the province or elsewhere, banns or notices must be published in both places in accordance with the law of the country in which the places are situated.* A special licence is obtainable at the office of any magistrate or detached assistant magistrate at a cost of £5. Where a special licence has been obtained, publication of banns is not necessary.

(iv) *The Marriage Ceremony.*—Marriages may be solemnized by magistrates and detached assistant magistrates in the court-room or office between the hours of 9 a.m. and 12 noon, or in a private house at any convenient hour of the day; and by other marriage officers between the hours of 8 a.m. and 4 p.m.† There are no specified hours within which marriages by special licence must be performed.

(v) *Registration.*—After the ceremony the parties, at least two witnesses, and the officiating marriage officer are required to sign certain documents.

(vi) *Certificates, Searches, and Fees.*—Magistrates and detached assistant magistrates may not charge a fee for solemnizing marriages. Other marriage officers (except ministers of churches established in the province prior to the 7th September, 1838, who are entitled to the fees customarily paid to them at that date) may charge a fee of 4s. for solemnizing a marriage. The fees payable for searches and issue of certificates are prescribed by regulation framed under Act No. 17 of 1923 (*vide* paragraph 5 hereunder).

2. **Marriages in Natal.**—(i) *General.*—Ordinance No. 17 of 1846 provides for the solemnization of marriages after the publication of banns by ministers of the Christian religion. The Government may appoint marriage officers to perform marriage ceremonies. Before minors are married the consent of their legal guardians must be obtained, and, if that is not procurable, then the consent of the chief civil judge must be obtained. In terms of Act No. 8 of 1935 no boy under the age of 18 years and no girl under the age of 16 years is capable of contracting a valid marriage except with the permission in writing of the Minister of the Interior. After the marriage ceremony an entry of the marriage must be made in the register kept by the minister or marriage officer, such entry being signed by the parties in the presence of two witnesses and the minister or marriage officer.

* See Proclamation No. 209 of 1914 concerning mode of publication of banns.
† Amended by section 10 of Act No. 7 of 1934 (*vide* paragraph 5 hereunder).

Under Law No. 7 of 1889 magistrates of every district are authorized to issue licences to marry in place of the publication of banns. The foregoing requirements apply to white persons, to natives exempt from the operation of native law, and to Christian Indians.

(ii) *Indian Immigrants.*—All marriages of Indian immigrants must be registered with the Protector of Indian Immigrants under Natal Law No. 25 of 1891; and in the case of Christian Indians an additional copy of the marriage register is forwarded to the Registrar for registration. (See also paragraph 5 hereunder.)

(iii) *Natives.*—Under Natal Law No. 28 of 1865 natives exempted from the operation of native law who have once married are never allowed to marry according to native law. Law No. 46 of 1887 provides that natives not exempt from the operation of native law may be married by Christian rites, but ministers may not solemnize these marriages without the necessary licence from the magistrate. The children of natives thus married may not marry according to native law. Under Act No. 43 of 1916 a minister who solemnizes marriages of natives by Christian rites must be appointed a marriage officer by the Minister of the Interior.

3. **Marriages in the Transvaal.**—(i) *General.*—Act No. 13 of 1909 of the Transvaal, amending Law No. 3 of 1871, provides that marriages between white persons may be either by banns or by licence and may be solemnized by the magistrates of the various districts and all ministers of religion who have been appointed marriage officers by the Minister of the Interior. Banns must be published in public in the ordinary manner on three successive Sundays during divine service in a church or other building habitually used for public worship in the parish in which each of the parties or both of them reside, or by being posted up for a period covering three successive Sundays in a conspicuous place, to which the public have access, at the magistrate's office of the district in which each of the parties to the intended marriage resides, or in which both of them reside. The fee for a licence, which is valid for three months from the date of issue, is £5.

(ii) *Marriages of Coloured Persons.*—Law No. 3 of 1897 regulates the marriages of coloured persons. The term *coloured person* includes any person who is manifestly coloured, and whose marriage on that account may not be solemnized under the law for white persons. Before a marriage of coloured persons may be solemnized, the parties must appear before a civil marriage officer and submit a certificate from their parents or guardian, from their captain or chief or the minister of their church, or from any reputable citizen, preferably a person occupying an official position, to the effect that there is no impediment to the marriage according to law. Marriages of coloured persons contracted prior to the promulgation of Law No. 3 of 1897 are not legal, but may be legalized by registration under Ordinance No. 29 of 1903, provided that such marriages were solemnized by ministers of religion authorized to solemnize marriages under Law No. 3 of 1871.

(iii) *Prohibited Marriages.*—Sections 8 and 16 of Law No. 3 of 1871, as amended by Act No. 13 of 1909, provide that: If any person acknowledges himself or herself to be a minor, or if from any other information there are good grounds for considering him or her to be such, and he or she cannot produce the consent of father or guardian, or in case a widower or a widow wishes to remarry and minor heirs are left for whose father's or mother's portion of the inheritance proper security (bewys) shall not have been given according to law, according to certificate from the Orphan Master (now the Master of the Supreme Court) or other official authorized by law thereto, or if it shall be known, or if, by inquiry in the manner provided by Article 5, or in any other lawful manner, it might have been learned, that the persons who seek to be joined together in matrimony are related to one another within one of the prohibited degrees of blood relationship, or that they have come from beyond the borders of the Transvaal for the express purpose of being married there, because they would not have been able to effect a valid marriage in the place where they are domiciled, or the publication of banns shall not have taken place, or a special licence shall not have been granted as provided by law, it shall not be lawful to solemnize a marriage of such person.

If a minor cannot obtain the consent of parents or guardian to enter into a marriage owing to insurmountable difficulties, it shall be lawful for the magistrate of the district, in which the minor resides, to grant or refuse

consent after due inquiry into the case. In terms of Act No. 8 of 1935, no boy under the age of 18 years and no girl under the age of 16 years is capable of contracting a valid marriage except with the permission in writing of the Minister of the Interior.

4. **Marriages in the Orange Free State.**—The Law relating to the contracting of marriages in the Province of the Orange Free State is No. 26 of 1899, which came into operation on the 14th July of that year. This Law makes provision for marriages to be entered into either after publication of banns or by special marriage licence.

In the case of a marriage by banns, it is required by section 3 that the banns shall be publicly proclaimed on three consecutive Sundays during the holding of public divine service in some church building or other recognized institution for public divine worship within the parish wherein one or both of the parties reside; should the parties reside in different parishes, the banns must be published in each such parish. Section 7, however, allows of the publication of banns, under special circumstances, by means of a notice affixed to the outside door of the court-room of a magistrate's office during a period of three weeks.

The procedure to be followed by applicants for a special marriage licence is set forth in sections 9, 10, and 11 of the Law, and in accordance therewith the parties are required to appear together before a magistrate and there make and subscribe to affidavits containing answers to questions which it is necessary for him to put to them in order to satisfy himself that there are no legal impediments to the issue of the special marriage licence applied for. Thereafter the application must be forwarded to the Administrator of the province, by whom the licence is issued.

Section 13 prescribes the qualifications required in parties to marriages, and mentions the disqualifications on account of which marriages are prohibited. It is provided, *inter alia*, that minors must have attained the age* of eighteen years in the case of males and fifteen years in the case of females, and that they must produce evidence of the consent of their parents or guardians in respect of their contemplated marriage. Where a parent's consent is unobtainable, the magistrate may grant consent under the provisions of section 19. In the case of a widower three months, and in the case of a widow 180 days, must have elapsed since the death of the deceased spouse, before a further marriage may be contracted by him or her. The law relating to the prohibited degrees of consanguinity is Ordinance No. 31 of 1903.

Marriages may be solemnized, as provided by section 17, on any day of the week, including Sunday, but the ceremony must take place between the hours of eight in the morning and four in the afternoon† in some church or other public building devoted to divine service, public office, or private house with open doors and in the presence of at least two legally qualified witnesses.

5. **Union Legislation.**—Act No. 20 of 1913 authorizes the solemnization of marriages after the publication of banns in different places, whether one or both such places be in another province, or in a country, colony, or territory outside the Union.

Under section 56 of Act No. 24 of 1913 the remarriage of the surviving spouse before the portions of minor children are secured is prohibited, except with the consent of the Master of the Supreme Court.

Act No. 22 of 1914 provides that Indian marriages according to the tenets of an Indian religion may be legalized by registration, provided that a joint application is made to any magistrate or marriage officer, and that each of the parties is desirous that the marriage should be regarded as a valid and binding one in law. Such unions become by the fact of registration valid and binding marriages from the date when they were contracted, and all incidents follow therefrom, which follow from any other union recognized in law as a valid and binding marriage.

Act No. 43 of 1916 makes provision for the appointment of marriage officers to solemnize marriages under the laws in force in the several provinces of the Union.

* Under Act No. 8 of 1935 the minimum ages are 18 and 16 years respectively.
† Under Act No. 7 of 1934 marriages may be performed at any hour, *vide* paragraph 5.

In terms of the *Births, Marriages, and Deaths Registration Act* of 1923 the duplicate original register must be transmitted to the custody of the Registrar of the province in which the marriage was solemnized within seven days of the marriage, and the original register must be retained in the custody of the marriage officer who solemnized such marriage.

The following fees and charges prescribed by regulations framed under Act No. 17 of 1923 are payable in respect of searches and of the issue of certificates:—

	£	s.	d.
For a special licence	5	0	0
For a certificate of marriage	0	2	6
For a copy of any documentary proof	0	1	0
For each search made, per calendar year or part thereof	0	1	0

Marriage with a deceased wife's sister is legal in the Union, and Act No. 17 of 1921 permits the marriage of a widow with her deceased husband's brother.

Notwithstanding the provisions of any law requiring the solemnization of a marriage within certain prescribed hours, Act No. 7 of 1934 provides that a marriage officer may, but shall not be obliged to, solemnize a marriage at any other time, and such marriage shall be as valid as if solemnized within the prescribed hours.

Legislation was enacted under the provisions of the *Marriage Law Amendment Act*, No. 8 of 1935, prohibiting the marriage of boys under 18 and girls under 16, except with the permission in writing of the Minister of the Interior.

6. **Marriages Registered.**—The tables for European marriages in this section apply only to events where both the groom and the bride were of European descent. If one only of the contracting parties was of such descent, the marriages have been tabulated as *mixed* and are excluded from all the following tables relating to marriages of European persons.

MARRIAGES REGISTERED, 1911 TO 1937.

Year.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Union. Number.	Union. Annual Rate.
EUROPEAN.						
1911–15*	25,223	4,832	21,475	7,160	58,690	8·84
1916–20*	26,900	5,387	24,121	8,142	64,550	8·87
1921–25*	26,793	6,205	23,381	7,180	63,559	8·04
1926–30*	31,399	7,338	32,926	9,011	80,674	9·28
1931	6,035	1,448	6,647	1,558	15,688	8·58
1932	5,782	1,454	6,576	1,596	15,408	8·27
1933	6,234	1,494	7,359	1,622	16,709	8·83
1934	7,090	1,703	9,181	1,916	19,890	10·33
1935	7,147	1,801	9,677	1,974	20,599	10·49
1936	7,533	1,874	10,843	2,044	22,294	11·10
1937	7,669	1,887	11,538	2,027	23,121	11·31
NON-EUROPEAN.†						
1911–15*	33,390	10,004	11,035	5,373	59,802	—
1916–20*	36,847	11,434	13,181	6,923	68,385	—
1921–25*	41,978	12,718	13,063	7,323	75,082	—
1926–30*	46,940	15,089	16,838	9,508	88,375	—
1931	9,264	2,841	3,524	1,717	17,346	—
1932	9,048	2,308	3,347	1,747	16,450	—
1933	9,458	2,676	3,147	1,617	16,898	—
1934	10,062	2,753	4,284	1,761	18,860	—
1935	10,925	3,278	4,714	2,202	21,119	—
1936	11,768	3,672	4,899	2,300	22,639	—
1937	12,394	3,906	5,277	2,414	23,991	—

* For annual figures, see previous issues of this *Year Book* (Nos. 6 to 16).
† Including mixed marriages, for the details of which see the table in the following paragraph.

7. **Mixed Marriages.**—The term *mixed marriage* is used to denote a marriage contracted by parties, one of whom is of European and the other of aboriginal or other coloured descent. The following table gives the number of

such marriages solemnized in the Cape and Natal Provinces during a period of years:—

MIXED MARRIAGES—CAPE OF GOOD HOPE AND NATAL,* 1933 TO 1937.

Description.	1933.		1934.		1935.		1936.		1937.	
	Cape of Good Hope.	Natal.	Cape of Good Hope.	Natal.	Cape of Good Hope.	Natal.	Cape of Good Hope.	Natal.	Cape of Good Hope.	Natal.
European males to non-European females	50	16	48	8	55	20	46	5	66	11
Non-European males to European females	13	4	14	2	14	2	19	3	21	2
TOTAL	63	20	62	10	69	22	65	8	87	13

*In the Orange Free State one European male was married to a coloured female in 1937.

8. **Marriage Rate.**—The following table shows the number of marriages of Europeans contracted per 1,000 of the estimated mean European population. The records of marriage rates date back to the year 1911 for the whole Union, and for years prior to 1933 were published in previous issues of this *Year Book*. The rate of 11·31 for the year 1937 is the highest recorded. The lowest rate recorded was 7·41 in 1923.

MARRIAGE RATES OF EUROPEANS, 1933 TO 1937.

Year.	Cape of Good Hope.	Natal.	Transvaal.	Orange Free State.	Union.
1933	8·17	8·21	9·90	7·96	8·83
1934	9·20	9·23	11·97	9·46	10·33
1935	9·16	9·60	12·18	9·79	10·49
1936	9·50	9·81	13·16	10·17	11·10
1937	9·57	9·74	13·61	10·08	11·31

9. **Denominational and Civil Marriages.**—The following tables show the numbers of marriages solemnized by ministers of religion and by civil marriage officers (magistrates). Table (i) gives the actual number during a period of years, and Table (ii) the percentage of marriages solemnized by each of the chief denominations compared with the percentage of those solemnized by civil marriage officers during the same period.

(i) MARRIAGES IN EACH DENOMINATION—EUROPEANS, 1933 TO 1937.

Religious Denomination.	1933.	1934.	1935.	1936.	1937.
Nederduits-Gereformeerde Kerk	5,396	6,406	6,655	7,001	7,232
Gereformeerde Kerk van Suid-Afrika	345	510	462	499	568
Hervormde Kerk	308	448	621	661	642
English Church	1,669	2,023	2,095	2,239	2,317
Methodist	888	1,130	1,136	1,286	1,213
Presbyterian	510	698	715	820	842
Congregational	150	171	167	213	196
Baptist	124	140	153	168	188
Lutheran	120	167	134	188	182
Roman Catholic	567	703	752	843	853
Salvation Army	18	30	14	31	18
Jewish	362	491	526	651	756
Other	208	300	268	311	355
TOTAL	10,674	13,217	13,698	14,911	15,362
By Magistrates	6,035	6,673	6,901	7,383	7,759
TOTAL MARRIAGES	16,709	19,890	20,599	22,294	23,121

(ii) PROPORTION OF MARRIAGES IN PRINCIPAL DENOMINATIONS—EUROPEANS, 1933 TO 1937.

Religious Denomination.	Percentage of Marriages.				
	1933.	1934.	1935.	1936.	1937.
Nederduits-Gereformeerde Kerk	32·29	32·21	32·31	31·40	31·28
Gereformeerde Kerk van Suid-Afrika	2·07	2·56	2·24	2·24	2·46
Hervormde Kerk	1·84	2·25	3·02	2·96	2·78
English Church	9·99	10·17	10·17	10·03	10·02
Methodist	5·31	5·68	5·52	5·76	5·24
Presbyterian	3·05	3·51	3·47	3·68	3·64
Congregational	3·39	3·54	3·65	3·78	3·69
Baptist	2·17	2·47	2·55	2·92	3·27
Lutheran	2·77	4·06	3·57	4·11	4·06
Roman Catholic	3·39	3·54	3·65	3·78	3·69
Salvation Army	0·11	0·15	0·07	0·14	0·08
Jewish	2·17	2·47	2·55	2·92	3·27
Other	1·25	1·51	1·30	1·39	1·54
TOTAL	63·88	66·45	66·50	66·88	66·44
By Magistrates	36·12	33·55	33·50	33·12	33·56
GRAND TOTAL	100·00	100·00	100·00	100·00	100·00

In 1912, civil marriages represented 21·97 per cent. of the total marriages solemnized; in 1937 the proportion was 33·55 per cent. This high percentage for the Union is mainly due to the large proportion of civil marriages in the Transvaal, where 43·52 per cent. of the total marriages in the year 1937 were performed by magistrates; while only 22·8 per cent. of the total marriages in the Cape Province were civil marriages. The proportion of civil marriages to the total marriages registered in New Zealand during the year 1937 was 16·87 per cent.; and in the Commonwealth of Australia 8·21 per cent. in 1936.

10. **Marriages by Banns or Licence.**—The subjoined table gives particulars from 1933 of the number of persons who were married after the publication of banns or by licence.

NUMBER OF EUROPEANS MARRIED BY BANNS AND BY LICENCE, 1933 TO 1937.

Year.	Cape of Good Hope.		Natal.		Transvaal.		Orange Free State.		Union.			
									No.		Per cent.	
	Banns.	Licence.	Banns.	Licence.	Banns.	Licence.	Banns.	Licence.	Banns.	Licence.	Banns.	Licence.
1933.	5,078	1,156	1,168	326	6,149	1,210	1,504	118	13,899	2,810	83·18	16·82
1934.	5,807	1,283	1,360	343	7,504	1,677	1,734	182	16,405	3,485	82·48	17·52
1935.	5,792	1,355	1,424	377	7,759	1,918	1,800	174	16,775	3,824	81·44	18·56
1936.	6,010	1,523	1,479	395	8,743	2,100	1,859	185	18,091	4,203	81·15	18·85
1937.	6,069	1,600	1,488	399	9,063	2,475	1,835	192	18,455	4,666	79·82	20·18

11. **Marital Condition of Persons Married.**—The table hereunder gives for a period of years particulars as to the marital condition of Europeans and non-Europeans married:—

RELATIVE MARITAL CONDITION OF PERSONS MARRIED, 1933 TO 1937.

EUROPEANS.

Marital Condition.		1933.	1934.	1935.	1936.	1937.
Bachelors to	Spinsters	14,052	16,774	17,258	18,627	19,401
	Widows	375	455	467	492	493
	Divorced	346	386	499	542	592
Widowers to	Spinsters	785	842	815	896	820
	Widows	453	512	529	602	611
	Divorced	96	128	118	132	127
Divorced to	Spinsters	398	519	602	673	694
	Widows	93	112	120	127	158
	Divorced	111	162	191	198	225
TOTAL		16,709	19,890	20,599	22,294	23,121

RELATIVE MARITAL CONDITION OF PERSONS MARRIED, 1933 TO 1937—(*continued*).

NON-EUROPEANS.

Marital Condition.		1933.	1934.	1935.	1936	1937.
Bachelors to	Spinsters	14,633	16,304	18,185	19,533	20,818
	Widows	314	368	382	425	445
	Divorced	34	28	35	61	48
Widowers to	Spinsters	1,105	1,204	1,380	1,463	1,509
	Widows	316	356	447	464	394
	Divorced	11	14	24	33	30
Divorced to	Spinsters	70	98	93	119	139
	Widows	7	12	14	13	24
	Divorced	4	3	6	7	6
Previously married *de facto* or by Native Custom		374	473	553	521	578
TOTAL		16,898	18,860	21,119	22,639	23,991

12. **Ages and Marital Condition of Persons Married.**—Table (i) hereunder gives particulars as to the ages and marital condition of Europeans married in 1937; Table (ii) gives the same particulars with respect to non-Europeans; Table (iii) shows the relative ages of Europeans married in 1937; Table (iv) gives the numbers and percentages at each age period of European bridegrooms and brides married during a period of years. In the thirteenth issue of this *Year Book* comment was made upon the fact that the age at which men most commonly marry had changed from the group 25-29 years to the lower group 20-24 years during the period 1927 to 1930 inclusive. This feature in the marriage statistics was the result of a change in the age constitution of the male population, which showed a deviation from normal in the two age groups, the numbers in group 25-29 years being below normal, and in group 20-24 above normal. The shortage in the former group is explained by the fact that during the Anglo-Boer War there was a considerable falling off in the number of births, with a consequent deficiency in the number who would normally have reached the group in 1927 and subsequent years. The increase in group 20-24 years was the result of immigration following immediately after the Anglo-Boer War, together with the resumption by the pre-war population of normal life at the close of hostilities, which led to a great increase in the birth rate in subsequent years. The survivors of those persons born in that period reached the age of 23 or under in 1927, thus abnormally increasing the population in that group. It will be observed, however, that whereas the 20-24 age-group showed a decrease between 1929 and 1930, the 25-29 age-group showed a considerable rise, and in 1931 again became the age-group at which men most commonly marry.

The age groups 20-24 has remained undisturbed as the period at which women commonly marry. In 1937 over 41 per cent. of the females married were from 20 to 24 years of age. The optimum age of marriage of grooms in 1937 was 25 and of brides 21. The majority of marriages of men aged 45 years and over, and of women aged 40 years and over, were second marriages. In 1937 the proportions were 81 and 76 per cent. respectively.

(i) AGE AND MARITAL CONDITION OF EUROPEANS MARRIED, 1937.

Age.	Bridegrooms.				Brides.			
	Bachelors.	Widowers.	Divorced.	Total.	Spinsters.	Widows.	Divorced.	Total.
16 years and under	—	—	—	—	498	—	—	498
17 years	5	—	—	5	978	1	—	979
18 „	42	—	—	42	1,469	3	2	1,474
19 „	186	—	—	186	1,800	3	6	1,809
20 „	429	—	2	431	1,840	4	11	1,855
21 „	1,057	—	—	1,057	2,177	9	15	2,201
22 „	1,471	—	—	1,471	1,928	17	29	1,974
23 „	1,871	—	14	1,885	1,871	12	31	1,914
24 „	1,874	3	8	2,067	1,622	24	35	1,681
25 „	2,053	7	26	2,123	1,374	23	46	1,443
26 „	2,086	11	17	1,988	1,123	20	59	1,202
27 „	1,963	8	28	1,763	897	33	55	985
28 „	1,721	14	33	1,533	713	27	60	800
29 „	1,473	27	35	1,352	569	41	49	659
30–34 years	3,205	154	236	3,595	1,385	180	248	1,813
35–39 „	942	145	230	1,317	403	160	145	708
40–44 „	389	182	165	736	143	193	76	412
45–49 „	155	195	129	479	66	173	43	282
50–54 „	73	179	76	328	28	126	16	170
55–59 „	41	200	52	293	19	91	12	122
60–64 „	19	165	21	205	5	56	4	68
65–69 „	12	110	5	127	4	48	1	53
70–74 „	2	83	4	89	—	14	1	15
75 and over	—	46	3	49	—	4	—	4
TOTAL	20,486	1,558	1,077	23,121	20,915	1,262	944	23,121

(ii) AGE AND MARITAL CONDITION OF NON-EUROPEANS MARRIED, 1937.

Age.	Bridegrooms.					Brides.				
	Bachelors.	Widowers.	Divorced.	Previously Married *de facto*.	Total.	Spinsters.	Widows.	Divorced.	Previously Married *de facto*.	Total.
16 years and under	—	—	—	—	—	105	—	—	—	105
17 years	1	—	—	—	1	361	—	—	1	362
18 „	51	—	—	—	51	1,120	—	—	6	1,126
19 „	142	—	—	—	142	1,689	—	—	11	1,700
20 „	331	1	—	—	332	2,630	3	—	22	2,655
21 „	646	—	—	5	651	2,510	7	—	30	2,547
22 „	1,083	1	—	10	1,094	2,702	13	1	32	2,748
23 „	1,442	3	1	5	1,451	2,214	6	1	30	2,251
24 „	1,742	6	—	8	1,756	1,713	26	3	30	1,772
25 „	2,032	14	1	16	2,063	1,402	24	3	20	1,449
26 „	1,834	17	2	12	1,865	990	32	5	34	1,061
27 „	1,712	22	2	23	1,759	723	30	4	22	779
28 „	1,579	31	3	27	1,640	714	37	6	25	782
29 „	1,143	31	1	19	1,194	429	29	5	13	476
30–34 years	3,633	230	35	84	3,982	1,440	153	21	79	1,693
35–39 „	1,941	315	44	97	2,397	799	153	15	85	1,052
40–44 „	780	278	26	81	1,165	420	144	8	65	637
45–49 „	544	297	19	63	923	213	83	8	27	331
50–54 „	249	204	18	31	502	148	53	1	19	221
55–59 „	104	171	10	37	382	71	35	3	14	123
60–64 „	128	129	2	26	285	31	21	—	8	60
65–69 „	66	102	3	18	189	22	12	—	3	37
70–74 „	39	47	1	9	96	11	1	—	1	13
75 and over	29	34	1	7	71	9	1	—	1	11
TOTAL	21,311	1,933	169	578	23,991	22,466	863	84	578	23,991

(iii) RELATIVE AGES OF PERSONS MARRIED—EUROPEANS, 1937.

Age of Bridegroom.	Total.	Age of Bride.											
		Under 15.	15 to 19.	20.	21 to 24.	25 to 29.	30 to 34.	35 to 39.	40 to 44.	45 to 49.	50 to 54.	55 to 59.	60 and over.
Under 15 years..	—	—	—	—	—	—	—	—	—	—	—	—	—
15–19 years. ..	233	—	145	22	61	4	—	—	—	—	—	—	—
20 ,, ...	431	1	237	60	113	17	3	—	1	—	—	—	—
21–24 ,, ...	6,480	1	2,328	776	2,546	701	105	14	5	3	1	—	—
25–29 ,, ...	8,759	1	1,549	732	3,540	2,377	575	126	26	10	1	1	—
30–34 ,, ...	3,595	1	352	181	1,073	1,247	445	87	21	6	1	—	—
35–39 ,, ...	1,317	—	90	56	282	397	295	147	40	7	2	1	—
40–44 ,, ...	736	—	29	13	90	209	184	118	69	20	6	—	1
45–49 ,, ...	479	—	15	8	33	82	92	102	72	57	10	2	1
50–54 ,, ...	328	—	7	3	21	39	57	50	72	49	33	6	2
55–59 ,, ...	293	—	2	2	6	13	39	43	53	57	41	32	5
60–64 ,, ...	205	—	—	1	3	13	10	11	31	41	33	31	29
65–69 ,, ...	127	—	—	—	2	1	5	5	13	16	25	20	39
70–74 ,, ...	89	—	—	—	—	—	3	4	7	13	14	23	35
75 years and over	49	—	—	—	—	1	—	1	2	3	3	4	35
TOTAL.....	23,121	4	4,756	1,855	7,770	5,089	1,813	708	412	282	170	122	140

(iv) AGE AT MARRIAGE OF EUROPEANS—NUMBER AND PROPORTION PER CENT., 1935 TO 1937.

Age.	Bridegrooms.						Brides.					
	Number.			Percentage.			Number.			Percentage.		
	1935.	1936.	1937.	1935.	1936.	1937.	1935.	1936.	1937.	1935.	1936.	1937.
13 Years....	—	—	—	—	—	—	1	—	—	—	—	—
14 ,, ...	—	—	—	—	—	—	6	3	4	0·03	0·01	0·02
15 ,, ...	—	1	—	—	—	—	29	27	20	0·14	0·12	0·09
16 ,, ...	—	—	—	—	—	—	352	432	474	1·71	1·94	2·05
17 ,, ...	—	—	—	—	—	—	813	942	979	3·95	4·23	4·24
18 ,, ...	4	4	5	0·02	0·02	0·02	1,309	1,529	1,474	6·35	6·85	6·37
19 ,, ...	31	41	42	0·15	0·18	0·18	1,584	1,699	1,809	7·69	7·62	7·82
20 ,, ...	137	171	186	0·66	0·77	0·80	1,691	1,725	1,855	8·21	7·74	8·02
21–24 ,, ...	420	406	431	2·04	1·82	1·87	7,083	7,565	7,770	34·39	33·94	33·61
25–29 ,, ...	5,824	6,236	6,480	28·28	27·97	28·03	4,622	4,928	5,089	22·44	22·10	22·01
30–34 ,, ...	7,731	8,341	8,759	37·53	37·41	37·88	1,476	1,638	1,813	7·17	7·35	7·84
35–39 ,, ...	3,097	3,408	3,595	15·04	15·29	15·55	611	692	708	2·97	3·10	3·06
40–44 ,, ...	1,240	1,363	1,317	6·02	6·12	5·70	384	408	412	1·87	1·83	1·78
45–49 ,, ...	698	751	736	3·39	3·37	3·18	255	294	282	1·23	1·32	1·22
50–54 ,, ...	445	469	479	2·16	2·10	2·07	168	196	170	0·82	0·88	0·73
55–59 ,, ...	315	333	328	1·53	1·50	1·42	103	103	122	0·50	0·46	0·53
60–64 ,, ...	253	297	293	1·13	1·33	1·27	52	62	68	0·25	0·28	0·30
65–69 ,, ...	177	197	205	0·86	0·89	0·88	48	33	53	0·23	0·15	0·23
70–74 ,, ...	136	163	127	0·66	0·73	0·55	9	13	15	0·04	0·06	0·06
75 years and over.....	71	79	89	0·34	0·35	0·39						
	40	34	49	0·19	0·15	0·21	3	5	4	0·01	0·02	0·02
TOTAL.....	20,599	22,294	23,121	100·00	100·00	100·00	20,599	22,294	23,121	100·00	100·00	100·00

13. **Marriages of Minors.**—The number of marriages of minors during a series of years and the proportion per cent. of that number to the total number of marriages are given below. In comparison with figures for the United Kingdom and various British Dominions, the percentage of bridegrooms under twenty-one years is in most cases lower in the Union, but, on the other hand, the percentage of brides who marry under that age is higher. In England and Wales the percentages in 1937 were: Grooms 3·20, brides 14·83; in Scotland, 1936: Grooms 4·4, brides 17·1; in New Zealand, 1937: Grooms 2·76, brides 17·47; and in the Commonwealth of Australia, 1937: Grooms 4·37, brides 20·1.

MARRIAGES OF MINORS—EUROPEANS, 1933 TO 1937.

Year.	Bridegrooms.		Brides.		Percentage of Minors.	
	Adults.	Minors.	Adults.	Minors.	Bridegrooms.	Brides.
1933.....	16,175	534	11,760	4,949	3·20	29·62
1934.....	19,314	576	14,259	5,631	2·90	28·31
1935.....	20,007	592	14,814	5,785	2·87	28·08
1936.....	21,671	623	15,937	6,357	2·79	28·51
1937.....	22,457	664	16,506	6,615	2·87	28·61

14. **Marriage Contracts.**—Marriages in the Union are contracted either in community of property or by ante-nuptial contract. Briefly, in the former case the property of the contracting parties becomes the property in the joint estate; in the latter, a legal contract is drawn up and registered, under the terms of which each maintains individual control of his or her personal property brought into the marriage.

The number of marriages contracted by Europeans during the years 1933 to 1937 classified according to type of contract was as follows:—

Year.	Number.		Per cent.	
	In Community.	Ante-Nuptial.	In Community.	Ante-Nuptial.
1933.....	12,119	4,590	72·5	27·5
1934.....	14,275	5,615	71·8	28·2
1935.....	14,716	5,883	71·4	28·6
1936.....	15,778	6,516	70·8	29·2
1937.....	16,178	6,943	70·0	30·0

§ 5. South African Life Tables.

1. **General.**—Two South African life tables have been calculated and published by the Office of Census and Statistics. The first table was based on the European mortality for the years 1920-22, and was published in the *Final Report* of the 1921 Population Census; the second, derived from similar data for the years 1925-27, is published in S.P. 57-'30, and also appears in the *Final Report* of the 1926 Population Census. An account of all other life tables that have been published will be found in S.P. 57. Full details of the method employed in constructing the tables will be found in the reports. In addition monetary tables on single lives at 4, 4½, and 5 per cent. were calculated for South African Life Table No. 2.

2. **Comparative Rates of Mortality and Expectation of Life.**—The following table gives comparative figures from the two tables for rates of mortality and expectation of life for both sexes at quinquennial ages.

SOUTH AFRICAN LIFE TABLES—COMPARATIVE RATES OF MORTALITY AND EXPECTATION OF LIFE.

Age.	Rate of Mortality ($1{,}000\,q_x$) at each age.				Expectation of Life ($\mathring{e}_x$) at each age.			
	Male Lives.		Female Lives.		Male Lives.		Female Lives.	
	1920–22.	1925–27.	1920–22.	1925–27.	1920–22.	1925–27.	1920–22.	1925–27.
0	87·84	74·44	73·88	62·76	55·61	57·78	59·18	61·48
5	2·94	2·92	3·04	2·37	58·34	59·51	61·38	62·76
10	2·00	1·79	1·64	1·48	54·02	55·17	57·00	58·33
15	2·45	2·06	2·19	1·91	49·56	50·65	52·50	53·78
20	3·94	3·44	3·34	2·60	45·26	46·27	48·15	49·34
25	4·42	3·82	4·06	3·25	41·18	42·09	44·00	45·01
30	4·98	4·16	5·06	3·98	37·08	37·87	39·93	40·77
35	6·50	6·07	5·42	4·75	33·05	33·73	35·93	36·00
40	8·17	7·16	6·20	5·43	29·16	29·78	31·89	32·47
45	11·09	9·55	7·57	6·30	25·47	25·89	27·90	28·34
50	13·45	12·27	9·45	8·63	21·8	22·17	22·97	24·28
55	18·06	17·35	13·17	12·79	18·3	18·60	20·16	20·41
60	25·96	24·71	18·66	17·25	15·14	15·31	16·56	16·76
65	35·79	34·82	29·65	28·92	12·18	12·39	13·24	13·36
70	56·33	51·69	45·64	42·97	9·53	9·54	10·35	10·42
75	80·61	83·10	67·23	71·89	7·39	7·22	7·83	7·86
80	119·90	119·12	119·99	103·09	5·56	5·42	5·78	5·85
85	173·31	185·53	150·79	172·33	4·17	3·92	4·50	4·13
90	235·02	251·46	238·34	237·95	3·11	2·98	3·17	3·11

(iii) RELATIVE AGES OF PERSONS MARRIED—EUROPEANS, 1937.

Age of Bridegroom.	Total.	Age of Bride.											
		Under 15.	15 to 19.	20.	21 to 24.	25 to 29.	30 to 34.	35 to 39.	40 to 44.	45 to 49.	50 to 54.	55 to 59.	60 and over.
Under 15 years..	—	—	—	—	—	—	—	—	—	—	—	—	—
15–19 years. ..	233	—	145	22	61	4	—	—	1	—	—	—	—
20 ,, ...	431	1	237	60	113	17	3	—	—	—	—	—	—
21–24 ,, ...	6,480	1	2,328	776	2,546	701	105	14	5	3	—	—	—
25–29 ,, ...	8,759	1	1,549	732	3,540	2,377	445	87	21	3	1	—	—
30–34 ,, ...	3,595	1	352	181	1,073	1,247	575	126	26	6	1	—	—
35–39 ,, ...	1,317	—	90	56	282	397	295	147	40	10	1	3	—
40–44 ,, ...	736	—	29	13	90	206	184	118	69	7	2	—	1
45–49 ,, ...	479	—	15	8	33	82	92	102	72	20	6	—	1
50–54 ,, ...	328	—	7	3	21	30	57	50	72	57	10	6	2
55–59 ,, ...	293	—	2	2	6	13	39	43	53	49	33	3	3
60–64 ,, ...	205	—	2	1	3	13	10	11	31	57	41	32	5
65–69 ,, ...	127	—	—	1	2	1	5	5	13	41	33	31	20
70–74 ,, ...	89	—	—	—	—	—	3	4	7	16	25	20	30
75 years and over	49	—	—	—	—	1	—	1	2	13	14	23	25
										3	3	4	35
TOTAL.....	23,121	1	4,756	1,855	7,770	5,089	1,813	708	412	282	170	122	140

(iv) AGE AT MARRIAGE OF EUROPEANS—NUMBER AND PROPORTION PER CENT., 1935 TO 1937.

Age.	Bridegrooms.						Brides.					
	Number.			Percentage.			Number.			Percentage.		
	1935.	1936.	1937.	1935.	1936.	1937.	1935.	1936.	1937.	1935.	1936.	1937.
13 Years....	—	—	—	—	—	—	1	—	—	—	—	—
14 ,, ...	—	1	—	—	—	—	6	3	4	0·03	0·01	0·02
15 ,, ...	—	—	—	—	—	—	29	27	20	0·14	0·12	0·09
16 ,, ...	—	—	—	—	—	—	352	432	474	1·71	1·94	2·05
17 ,, ...	—	—	—	—	—	—	813	942	970	3·95	4·23	4·24
18 ,, ...	4	4	5	0·02	0·02	0·02	1,309	1,529	1,474	6·35	6·85	6·37
19 ,, ...	31	41	42	0·15	0·18	0·18	1,584	1,699	1,809	7·69	7·62	7·82
20 ,, ...	137	171	186	0·66	0·77	0·80	1,691	1,725	1,855	8·21	7·74	8·02
21–24 ,, ...	420	406	431	2·04	1·82	1·87	7,083	7,565	7,770	34·39	33·94	33·61
25–29 ,, ...	5,824	6,236	6,480	28·28	27·97	28·03	4,622	4,928	5,089	22·44	22·10	22·01
30–34 ,, ...	7,731	8,341	8,759	37·53	37·41	37·88	1,476	1,638	1,813	7·17	7·35	7·84
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55–59 ,, ...	315	333	328	1·53	1·50	1·42	103	103	122	0·50	0·46	0·53
60–64 ,, ...	233	297	293	1·13	1·33	1·27	52	62	68	0·25	0·28	0·30
65–69 ,, ...	177	197	205	0·86	0·89	0·88	48	33	53	0·23	0·15	0·23
70–74 ,, ...	136	163	127	0·66	0·73	0·55	9	13	15	0·04	0·06	0·06
75 years and over.....	71	79	89	0·34	0·35	0·39						
	40	34	49	0·19	0·15	0·21	3	5	4	0·01	0·02	0·02
TOTAL.....	20,599	22,294	23,121	100·00	100·00	100·00	20,599	22,294	23,121	100·00	100·00	100·00

13. **Marriages of Minors.**—The number of marriages of minors during a series of years and the proportion per cent. of that number to the total number of marriages are given below. In comparison with figures for the United Kingdom and various British Dominions, the percentage of bridegrooms under twenty-one years is in most cases lower in the Union, but, on the other hand, the percentage of brides who marry under that age is higher. In England and Wales the percentages in 1937 were: Grooms 3·20, brides 14·83; in Scotland, 1936: Grooms 4·4, brides 17·1; in New Zealand, 1937: Grooms 2·76, brides 17·47; and in the Commonwealth of Australia, 1937: Grooms 4·37, brides 20·1.

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	Adults.	Minors.	Adults.	Minors.	Bridegrooms.	Brides.
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2. **Comparative Rates of Mortality and Expectation of Life.**—The following table gives comparative figures from the two tables for rates of mortality and expectation of life for both sexes at quinquennial ages.

SOUTH AFRICAN LIFE TABLES—COMPARATIVE RATES OF MORTALITY AND EXPECTATION OF LIFE.

Age.	Rate of Mortality ($1{,}000q_x$) at each age.				Expectation of Life ($\mathring{e}_x$) at each age.			
	Male Lives.		Female Lives.		Male Lives.		Female Lives.	
	1920–22.	1925–27.	1920–22.	1925–27.	1920–22.	1925–27.	1920–22.	1925–27.
0	87·84	74·44	73·88	62·76	55·61	57·78	59·18	61·48
5	2·94	2·92	3·04	2·37	58·34	59·51	61·38	62·76
10	2·00	1·79	1·64	1·48	54·02	55·17	57·00	58·33
15	2·45	2·06	2·19	1·91	49·56	50·65	52·50	53·78
20	3·94	3·44	3·34	2·60	45·26	46·27	48·15	49·34
25	4·42	3·82	4·06	3·25	41·18	42·09	44·00	45·01
30	4·98	4·16	5·06	3·98	37·08	37·87	39·93	40·77
35	6·50	6·07	5·42	4·75	33·05	33·73	35·93	36·00
40	8·17	7·16	6·20	5·43	29·16	29·78	31·89	32·47
45	11·09	9·55	7·57	6·30	25·41	25·89	27·90	28·34
50	13·45	12·27	9·45	8·03	21·8	22·17	22·97	24·28
55	18·06	17·35	13·17	12·79	18·3	18·60	20·16	20·41
60	25·96	24·71	18·66	17·25	15·14	15·31	16·56	16·76
65	35·79	34·82	29·65	28·92	12·18	12·39	13·24	13·36
70	56·33	51·69	45·64	42·97	9·53	9·54	10·35	10·42
75	80·61	83·10	67·23	71·89	7·39	7·22	7·83	7·86
80	119·90	119·12	119·99	103·09	5·56	5·42	5·78	5·85
85	173·31	185·53	150·79	172·33	4·17	3·92	4·50	4·13
90	235·02	251·46	238·34	237·95	3·11	2·98	3·17	3·11

It will be seen that the improvement in the South African tables is very largely due to the marked decrease in the mortality rates of young children, which has been a conspicuous feature in recent years.

3. **Comparison with other Countries.**—The following table gives a comparison between the rates of mortality and expectation of life at decennial ages of New Zealand, Australia, England and Wales, and South Africa.

COMPARISON OF SOUTH AFRICAN LIFE TABLE No. 2, WITH THOSE OF OTHER COUNTRIES AT DECENNIAL AGES.

Age.	Male.				Female.			
	S.A. No. 2.	New Zealand.	Australia.	England and Wales No. 9.	S.A. No. 2.	New Zealand.	Australia.	England and Wales No. 9
	1925–27.	1921–22.	1920–22.	1920–22.	1925–27.	1921–22.	1920–22.	1920–22.
(a) RATE OF MORTALITY ($1{,}000q_x$).								
0	74·44	50·17	71·32	89·96	62·76	38·50	55·68	69·42
5	2·92	2·26	2·52	4·17	2·37	1·89	2·40	4·24
10	1·79	1·41	1·56	1·81	1·48	1·12	1·27	1·80
20	3·44	2·55	2·84	3·49	2·60	2·44	2·52	3·06
30	4·16	3·60	3·90	4·34	3·08	3·55	3·87	3·92
40	7·16	5·63	6·17	6·88	5·43	4·60	5·24	5·32
50	12·27	9·38	11·58	11·79	8·63	8·24	8·08	9·15
60	24·71	20·01	24·07	25·61	17·25	16·13	15·71	18·97
70	51·69	48·15	52·90	59·97	42·97	40·28	40·90	46·46
80	119·12	113·68	133·40	140·02	103·09	103·25	112·30	117·66
90	251·46	306·00	283·00	267·52	237·95	276·64	251·00	238·52
(b) COMPLETE EXPECTATION OF LIFE ($\mathring{e}_x$).								
0	57·78	62·76	59·15	55·62	61·48	65·43	63·31	59·58
5	59·51	62·17	60·43	58·81	62·76	64·05	63·64	61·67
10	55·17	57·73	56·01	54·64	58·33	59·50	59·20	57·53
20	46·27	48·66	46·99	45·78	49·34	50·36	50·03	48·73
30	37·87	39·98	38·44	37·40	40·77	41·76	41·48	40·26
40	29·78	31·56	30·05	29·19	32·47	33·23	33·14	31·86
50	22·17	23·51	22·20	21·36	24·28	24·91	24·90	23·69
60	15·31	16·03	15·08	14·36	16·76	17·29	17·17	16·22
70	9·54	9·91	9·26	8·75	10·42	10·57	10·41	9·95
80	5·42	5·33	5·00	4·93	5·85	5·78	5·61	5·56
90	2·98	2·31	2·60	2·82	3·11	2·52	2·91	3·13

It will be found in comparing the South African Life Table with those of other countries that it lies between that of Australia and that of England and Wales. At birth the expectation of life is about two years less than that of Australia and two years more than that of England and Wales. The table follows this intermediate course until about 60, when the expectation of life in South Africa is slightly more favourable than in Australia, and continues so for the older ages. New Zealand, which has probably the best expectation in the world, has an expectation at birth of about five years in the case of males and four years in the case of females greater than that for South Africa.

CHAPTER XXVII.

THE TERRITORY OF SOUTH WEST AFRICA.

§ 1. Introductory.

Prior to the twelfth century, the territory was inhabited by wandering bodies of Bushmen, who had, it is believed, been preceded by the negroid race known as the Haukoins or Berg Damaras. About the twelfth century the Hottentots gradually overspread the coastal regions. The Ovambos followed at a later date. About the beginning of the eighteenth century the Hereros arrived. This tribe enslaved the Berg Damaras and gradually forced the Hottentots southwards, until Oasib, the Chief of the Hottentots, sought assistance from Jonker Afrikaner, who lived on the Orange River. The latter, whose followers were armed with rifles, was able to reduce the Hereros to a state of bondage and in that state they remained until Jonker's death in 1860. Kamaherero, the Chief of the Hereros, then succeeded in combining the central tribes of Hereros and defeated the Hottentots under Jan Jonker Afrikaner, old Jonker's son. Eventually he not only freed his tribe from bondage, but imposed his will on the Hottentots living in the southern portion of Namaqualand.

The first recorded visit of a European to the territory is that of Bartholomew Diaz, who landed at Angra Pequena (now Luderitz) in 1486 and erected a monument. The first white man to cross the Orange River into the territory is said to have been Jacobus Coetzee, while on a hunting expedition in 1760. He reported that the Hereros possessed great herds of cattle. In 1792 W. van Reenen and Piet Brandt reached the Herero border. Their report also refers to the wealth in cattle of the Hereros.

In 1876, as a result of continued unrest among the native tribes, a Special Commissioner was dispatched to the territory by the Government of the then Cape Colony to obtain information in regard to the country and to ascertain whether the chiefs were desirous of coming under the Government of that Colony. The Commissioner received an offer of submission from Kamaherero and the Herero chiefs. Namaqua chiefs also requested the Cape Government to place amongst them Resident Commissioners to assist them in the management of their territory. Nothing was done as a result of this mission, however, and the state of unrest continued until 1883. In that year, the Luderitz Company of Bremen acquired 150 miles of territory from the Chief of South Namaqualand. German traders settled at places along the coast and German factories were established at Angra Pequena.

Correspondence took place in the years 1883 to 1885 between the Governments of Germany, Great Britain, and Cape Colony, and ultimately the territory was annexed by Germany from Cape Frio to the Orange River, with the exclusion of the Walvis Bay settlement (which had been annexed by the British Government in 1878) and the islands along the coast. A Charter was granted to the Deutsche Kolonial Gesellschaft, which was founded in 1885 and continued to exercise the Charter until 1892, when its responsibilities were taken over by the German Imperial Government. Landed property was similarly taken over in 1908, but the Gesellschaft retained its mining rights. In that year diamonds were discovered on the coast.

Railway construction commenced in 1897 with the narrow gauge line connecting Windhoek, the capital of the territory, with Swakopmund. Subsequent constructions include 3ft. 6in. gauge lines from the Union border at Nakop to Walvis Bay with branch lines from Seeheim to Luderitz and from Windhoek to Gobabis. Narrow gauge (2 ft.) lines run from Usakos to Tsumeb, with branches from Otavi to Grootfontein and from Otjiwarongo to Outjo. The total rail mileage at the end of March, 1938, was 1,462.

The best means of entering the territory is by sea at Walvis Bay or by rail from the Cape Province or by air from Johannesburg. The railway journey from Capetown to Windhoek, the seat of the Administration, the Legislature, and the High Court, is 1,383 miles and from Johannesburg 1,336 miles.

Shortly after the Great War broke out, Luderitz and Swakopmund were occupied by the Union Defence Forces and later, in April, 1915, a general converging movement from these points, as well as from the Union border, commenced. On the 9th July the German army surrendered, and the administration of the country was taken over by the Union of South Africa, which established a military régime.

In terms of Article 22 of the Treaty of Versailles those Colonies and Territories which, as a consequence of the Great War, ceased to be under the sovereignty of the States which formerly governed them, and which were inhabited by peoples not yet able to stand by themselves under the strenuous conditions of the modern world, were placed under the tutelage of advanced nations, who could best undertake the responsibility attached to the well-being and development of such peoples, the tutelage to be exercised by such advanced nations as Mandatories on behalf of the League of Nations. Certain territories, owing to the sparseness of their population or their geographical contiguity to the territory of the Mandatory, were to be administered under the laws of the Mandatory as integral portions of its territory, subject to certain safeguards in the interests of the indigenous population. In pursuance of these terms of the Treaty, the Government of the Union of South Africa was entrusted with the Mandate in respect of the territory formerly known as German South West Africa. On 12th September, 1919, the Union House of Assembly formally accepted this mandate and the Governor-General was given power to make appointments, establish offices, and issue proclamations and regulations; to repeal, alter, amend, or modify any laws in force within the territory; to make new laws applicable to the territory; to delegate his authority in respect of these actions to such officers in the territory as he may designate to act under his instructions.

Martial law rule continued until 1st January, 1921, when the powers vested in the Governor-General, referred to above, were delegated to the Administrator of the territory. By Proclamation No. 1 of 1921, dated the 13th January, 1921, the Administrator proclaimed the establishment of an Advisory Council. This Council consisted of nine members representative of farming, commercial, mining, wage-earning, and native interests. The duties and functions of the Council were to advise the Administrator generally in regard to matters affecting the territory, more especially those relating to the raising of revenue, the appropriation of moneys for public services, and the allocation of expenditure, and matters of general policy in relation to legislation and administration.

By Union Act No. 42 of 1925, which came into operation on the 5th August, 1925, provision was made for the constitution of an Executive Committee, an Advisory Council, and a Legislative Assembly for the territory.

§ 2. Physical Characteristics.

1. **Area and Boundaries.**—The territory of South West Africa embraces an area of 317,725 square miles (82,290,860 hectares). It lies between latitudes 17° 23′ south and 28° 57′ south, the Atlantic Ocean, and longitude 21° east; so that, from practically the centre of the Rehoboth district northwards, it falls within the tropics, and from there southwards within the South Temperate Zone. Walvis Bay, which is 374 square miles (96,867 hectares) in extent, is administered by the Administration of South West Africa, but the area remains nevertheless an integral part of the Province of the Cape of Good Hope.

The boundaries of the territory are—

North.....Angola, which for a considerable distance is separated from South West Africa by the Kunene and Okavango Rivers.

North East...Northern Rhodesia.

East.....The Protectorate of British Bechuanaland and the Province of the Cape of Good Hope of the Union of South Africa.

South.....The Orange River, which is also the boundary of the Province of the Cape of Good Hope of the Union of South Africa.

West... .....The Atlantic Ocean.

2. **Physical Features.**—(i) *Formation.*—South West Africa is practically one large plateau, which forms a portion of the main South African plateau. It has a mean average height of approximately 3,600 feet above sea level, and slopes gradually, especially on the eastern portion of the territory, from 2,500 feet in the south to 4,800 feet in the north, while it is interspersed with small mountain ranges, of which the Moltkeblick rises up as high as 8,146 feet above sea level. The Brandberg, which is near the coast and is the highest of these, has an elevation of 8,550 feet. The plateau or interior upland is separated from the sea by a practically rainless desert commonly called the Namib, which rises rapidly, but evenly, from the sea to the plateau, has an average width of 100 kilometres (62 miles), and attains its greatest width towards the south, and its narrowest towards the north, the annual rainfall there being less than one inch. A good deal of the plateau in the south may be classed as semi-desert, as the average annual rainfall is less than 10 inches, but in the north there is a marked improvement, the average rainfall in parts being over 20 inches.

The edge of the South African Plateau is well defined in the north and south of South West Africa by broken ranges of mountains like the Kaokofeld and Aus-Kubub Mountains (Huib Hochebene), but in the centre there is no defined escarpment. The plateau attains its greatest average elevation around Windhoek, which lies between the Khomas Hochlands and the Auas Mountains. From there, isolated eminences and ranges superimposed on the main plateau extend in a northerly direction to the Kaokofeld Mountains. To the south, the Highlands are succeeded at some little distance by the plateau and the table-topped mountains of Great Namaqualand; eastward and north-east of these elevated tracts, the upland assumes a very level character, composed mostly of sand dune formation merging eventually everywhere into the sandveld of the Kalahari.

(ii) *Mountains.*—The most mountainous section is the Windhoek district, in which are—

(1) The Khomas Hochland, a very rugged lofty tableland, with a mean altitude of 6,000 feet, rising up in places to 6,700 feet above sea level;

(2) Rugged ranges north-east of Windhoek, of which the principal are the Onjati Mountains (6,457 feet); and

(3) To the south and south-east, the Auas Mountains, having a mean average elevation of approximately 6,700 feet, and attaining their greatest altitude in the Moltkeblick Peak (8,146 feet). In this section, the Kuiseb, the Fish, the Elephant, the Nosop, and the Swakop rivers have their source, and this may practically be termed the watershed of South West Africa.

With the exception of the Kaokofeld Mountains, which form the edge of the plateau, the rest of the mountains are broken ranges and isolated eminences rising out of the Great Plateau. Among these are the Omatako (7,510 feet), Erongo (7,277 feet), Chuos (4,446 feet), Naukluft (6,477 feet), Weissrand (3,800 feet), Zaris (5,922 feet), Schwarzrand (5,889 feet), Tiras (6,126 feet), Huib Hochebene (Aus-Kubub) (5,490 feet), Klein Karras (4,885 feet), and Gross Karras (5,907 feet).

(iii) *Rivers.*—With the exception of the boundary rivers, the Kunene, Okavango, Orange, Zambezi, and Chobe (Linyanti) Rivers, and the Kwando (or Mashi) in the Caprivi Zipfel, there are no perennial streams. There are, however, dry sandy river beds, which flow after heavy rains, but except in very wet seasons, few of these flow for any considerable distance; such are the Swakop, the Kuiseb, and the Omaruru. These river beds have the appearance of having been blocked up by loose sand, under which the water percolates and eventually reaches the sea. By sinking shallow wells in them plentiful supplies of fresh water are obtained; a good illustration of this is at Rooibank, near the mouth of the Kuiseb, and at Goanikontes, near the mouth of the Swakop.

The principal of these sandy rivers are: The White Nosop and the Elephant, both of which flow east and south-east; the Fish, which flows south; and the Kuiseb, the Swakop, the Omaruru, and the Ugab, which flow west.

(iv) *Ocean Currents.*—The coast is swept by the cold Benguella current, which originates in the Antarctic Ocean and flows along the western coast of South Africa as far as the mouth of the Congo. There can be no doubt that the arid character of the Namib is due primarily to the influence of this current.

(v) *Pans.*—Characteristic of the northern and eastern section of the territory are the peculiar shallow depressions without any outlet, commonly known as *pans*, which range in diameter up to a couple of miles. They may be classified according to the water contained in them as freshwater pans, brack pans, and salt pans. The surface of the salt pans, such as those at Aminuis and west of the Etosha Pan, becomes covered during the dry season with a dazzling white crust composed chiefly of common salt. The Etosha Pan can hardly be classified amongst these occurrences, as it covers an area of approximately 1,404 square miles (363,600 hectares). In the winter it is dry, but during the summer months or wet season it is covered by a shallow sheet of water, which varies according to the rainfall and the amount of water flowing into it by way of the Ekuma and Omulonga Omurambas from the north and the Ovambo Omuramba from the east.

3. **Vegetation.**—(i) *Namib.*—Along the sea coast there is no vegetation whatsoever; from about twenty-five miles inland the landscape is characterized by such plants as the milk bush (*Euphorbia*) and cacti; towards the east, in years of abundant rainfall, it is fairly well grassed. In the river beds which traverse it, trees of rich verdure are found, such as various acacias, the principal of which are the Kameeldoring (*Acacia giraffae*) and the Ana (*Acacia albida*).

(ii) *South.*—In the extreme south for a considerable distance semi-desert conditions prevail, consisting of an arid, stony plateau and plains supporting edible shrubs and a sparse growth of grass; in heavy rainy seasons, however, nutritious grasses and flowers spring up everywhere. The river courses, as in the Namib, are clothed with trees. The most widely distributed plants are the milk bush and the Ganna bush (*Salsola aphylla*), the three thorn bush (*Rhigozum trichotomum*), and the Noonie bush (*Boscia foetida*), the trees being the Kameeldoring (*Acacia giraffae*) and the Koker-boom (*Aloe dichotoma*).

(iii) *Centre.*—From the southern portion northwards the veld assumes the characteristics of the Karroo until Rehoboth is reached, when it changes into a park-like grass country studded with large thorn trees, being especially well timbered along the water courses. From the mountainous portion of the Windhoek district northwards towards Omaruru, the country is covered with level bush with an undergrowth of very nutritious grass, the valleys and water courses being well timbered, mostly with acacia trees, especially the Kameeldoring (*Acacia giraffae*).

(iv) *North.*—Towards the north the bush becomes denser; the country becomes fairly well timbered all over, and is traversed in its most northern section by belts of open Mopane forests; towards the Okavango it is covered by fertile tropical vegetation.

(v) *East.*—In the southern portion of the eastern section the vegetation is karroo bush intermixed with grass, the valleys being covered with thorn bush. This changes towards the centre, where trees become more numerous. The dunes themselves are covered with thorn bush, large acacia trees, and good grass. From Rehoboth northwards the whole is well timbered and merges into thick tropical vegetation.

4. **Rainfall and Climate.**—A rainfall of about an inch along the coastal belt and up to 6 inches in the south, 12 inches in the centre, and 22 inches in the north can be regarded as normal. The territory is, however, subject to periods of drought, and at varying intervals as much as three or more times the normal rainfall may be precipitated.

The climate is hot and dry and on the whole healthy. Malaria is met with in the northern districts during the autumn, and after a good rainy season it becomes more prevalent and may even assume serious proportions.

§ 3. Administration.

1. **Central Administration.**—(i) *Mandate.*—The administration of the country is vested in the Government of the Union of South Africa, under the following Mandate:—

THE MANDATE FOR SOUTH WEST AFRICA.

The Council of the League of Nations,

WHEREAS by Article 119 of the Treaty of Peace with Germany, signed at Versailles on 28th June, 1919, Germany renounced in favour of the Principal Allied and Associated Powers all her rights over her oversea possessions, including therein German South West Africa; and

WHEREAS the Principal Allied and Associated Powers agreed that, in accordance with Article 22, Part I (Covenant of the League of Nations) of the said Treaty, a Mandate should be conferred upon his Britannic Majesty to be exercised on his behalf by the Government of the Union of South Africa to administer the territory aforementioned and have proposed that the Mandate should be formulated in the following terms; and

WHEREAS His Britannic Majesty, for and on behalf of the Government of the Union of South Africa, has agreed to accept the Mandate in respect of the said territory and has undertaken to exercise it on behalf of the League of Nations in accordance with the following provisions; and

WHEREAS, by the aforementioned Article 22, paragraph 8, it is provided that the degree of authority, control, or administration to be exercised by the Mandatory, not having been previously agreed upon by the members of the League, shall be explicitly defined by the Council of the League of Nations,

Confirming the said Mandate, defines its terms as follows:—

Article 1.

The territory over which a Mandate is conferred upon His Britannic Majesty for and on behalf of the Government of the Union of South Africa (hereinafter called the Mandatory) comprises the territory which formerly constituted the German Protectorate of South West Africa.

Article 2.

The Mandatory shall have full power of administration and legislation over the territory subject to the present Mandate as an integral portion of the Union of South Africa, and may apply the laws of the Union of South Africa to the territory, subject to such local modifications as circumstances may require.

The Mandatory shall promote to the utmost the material and moral well-being and the social progress of the inhabitants of the territory, subject to the present Mandate.

Article 3.

The Mandatory shall see that the slave trade is prohibited, and that no forced labour is permitted except for essential public works and services, and then only for adequate remuneration.

The Mandatory shall also see that the traffic in arms and ammunition is controlled in accordance with principles analogous to those laid down in the Convention relating to the control of the arms traffic, signed on 10th September, 1919, or in any convention amending the same.

The supply of intoxicating spirits and beverages to the natives shall be prohibited.

Article 4.

The military training of the natives, otherwise than for purposes of internal police and the local defence of the territory, shall be prohibited. Furthermore, no military or naval bases shall be established or fortifications erected in the territory.

Article 5.

Subject to the provisions of any local law for the maintenance of public order and public morals the Mandatory shall ensure in the territory freedom of conscience and the free exercise of all forms of worship and shall allow all missionaries, nationals of any state, member of the League of Nations, to enter into, travel, and reside in the territory for the purpose of prosecuting their calling.

Article 6.

The Mandatory shall make to the Council of the League of Nations an annual report to the satisfaction of the Council, containing full information with regard to the territory, and indicating the measures taken to carry out the obligations assumed under Articles 2, 3, 4 and 5.

Article 7.

The consent of the Council of the League of Nations is required for any modifications of the terms of the present Mandate.

The Mandatory agrees that, if any dispute whatever should arise between the Mandatory and another Member of the League of Nations relating to the interpretation of the application of the provisions of the Mandate, such dispute, if it cannot be settled by negotiation, shall be submitted to the Permanent Court of International Justice, provided for by Article 14 of the Covenant of the League of Nations.

The present Declaration shall be deposited in the archives of the League of Nations. Certified copies shall be forwarded by the Secretary-General of the League of Nations to all Powers Signatories of the Treaty of Peace with Germany.

Made at Geneva, the 17th day of December, 1920.

(ii) *Principal Officers.*—The following is a list of the principal officers of the Administration in South West Africa. Judicial and police officers are shown in § 8 below:—

Administrator	Dr. the Hon. D. G. Conradie, B.A., LL.D.
Secretary for South West Africa	D. D. Forsyth.
Assistant Secretary for South West Africa	J. Neser.
System Manager, South African Railways and Harbours	G. H. Dawson.
Accountant	R. W. Patterson.
Medical Officer to the Administration	Dr. B. Vivier, B.A., M.B., Ch.B., B.A.O., D.P.H.
Surveyor-General	A. C. Parry.
Director of Posts and Telegraphs	W. W. Williams.
Director of Works	D. Holtzhausen, B.A., B.Sc.
Director of Education	W. Orban, M.A.
Registrar of Deeds	H. W. S. Birch, B.A.
Senior Veterinary Surgeon	J. W. Williams, B.V.Sc.
Manager of the Land and Agricultural Bank of South West Africa	J. G. von Backström.

2. **District Administration.**—The territory, exclusive of Ovamboland, is divided into seventeen magisterial districts, wherein the various magistrates exercise certain administrative as well as judicial functions. They are charged with the functions of receivers of revenue, and, except in the districts of Windhoek and Luderitz, with the control of district native affairs.

3. **Local Government.**—Town and district councils were established in 1909 by a decree of the German Imperial Chancellor. The district councils lapsed on the occupation of the country by the Union Forces, but the town councils were allowed to continue in office until the end of 1918, when their powers were taken away and exercised by the magistrates. In July, 1920, a Proclamation re-establishing municipal councils was issued, under which the councillors were nominated by the Administrator for a period of one year, and certain powers of intervention were reserved. In every case half the number of councillors appointed were Germans. In other respects the Proclamation followed Union lines, and a rating system was established in lieu of the municipal income tax, which formed the chief feature of municipal finance under the German régime. A *Municipal Amendment Proclamation* was promulgated in 1922, providing for the election of half of the members of municipal councils. In January, 1925, a Proclamation (No. 2 of 1925) was issued, under which it is competent for the Administrator to establish a village management board in any village not being a municipality, and in any other area of residence of any community. Such board, of which the magistrate of the district is *ex officio* chairman and treasurer, shall consist of not fewer than two and not more than four members, appointed by the Administrator during pleasure from amongst the residents in the area for which it has been constituted, and shall possess certain powers of local government defined by the Proclamation. In December, 1935, the *Municipal Ordinance*, 1935, consolidating the *Municipal Proclamation*, 1920, and its amendments, was passed.

Hospital boards have been established at five centres—Windhoek, Luderitz, Grootfontein, Keetmanshoop, and Walvis Bay—at all of which hospitals have been opened. Assistance is given to these boards on lines similar to those laid down in the Cape *Hospital Ordinance* of 1912, under the *Hospitals and Charitable Institutions Ordinance*, No. 16 of 1930, which provides for the election of hospital boards.

There are also private hospitals or nursing homes at Swakopmund, Gobabis, Warmbad, Omaruru, and Otjiwarongo for Europeans, and government native hospitals at Windhoek, Keetmanshoop, and Omaruru. (See also § 6, para. 6.)

4. **Capital.**—Windhoek, with a population of 4,812 Europeans and 5,839 natives is the capital town and occupies a central position in the territory. It has an elevation of 5,600 ft. and is finely situated within an amphitheatre of hills. The town has undergone considerable municipal development since 1920 and enjoys all modern municipal services, such as water-borne sewerage system, electric light and power services, municipal abattoirs, cold storage works, etc. The amenities of the town have likewise been improved, and there are large public gardens, parks, swimming baths, general sports grounds, show grounds, etc. The water supply was formerly derived from hot water springs, which were sufficient to meet the requirements of the town, but in 1932 a large dam holding approximately eight hundred million cubic feet of water, which is used exclusively for domestic purposes, was completed at Avis by the municipality.

There are three hospitals, two for Europeans and one for natives, as well as three maternity homes. There are large schools with hostels attached for both the old and the new population, and the English Church also maintains a school. In the suburb, Klein Windhoek, there are large vineyards and market gardens, which provide the town with fruit and vegetables.

Windhoek is 253 miles distant by rail from Walvis Bay, 539 from Luderitz, 1,383 from Capetown, and 1,336 from Johannesburg.

§ 4. Constitutional Development.

1. **Constitution.**—Under Union Act No. 49 of 1919 the exercise of the Mandate was vested in the Governor-General who, by Proclamation (Union) No. 1 of 1921, delegated his powers to the Administrator appointed by the Union Government.

It was decided later to confer a limited measure of self-government upon the inhabitants of South West Africa, and the constitution granted is embodied in Union Act No. 42 of 1925. This provides for the creation of an Executive Committee, an Advisory Council, and a Legislative Assembly. The Act came into operation on 5th August, 1925, and by Proclamation No. 57, dated the 19th March, 1926, the Governor-General of the Union declared that the Executive Committee, the Advisory Council, and the Legislative Assembly should be constituted. The first elections for the members of the Legislative Assembly took place on the 25th May following, the second on the 3rd July, 1929, and the third on the 31st October, 1934.

2. **Executive Committee.**—This body consists of five members, one of whom shall be the Administrator (who shall be chairman). The remaining four persons shall be chosen by the Assembly from among its own members or otherwise at its first meeting after any general election. The election of members shall, whenever such an election is contested, be according to the principle of proportional representation, each voter having one transferable vote. All members other than the Administrator hold office for the duration of the Assembly and until their successors are chosen. The Administrator in Executive Committee carries on the administration of those matters in respect of which it is competent for the Assembly to make Ordinances.

All matters are determined by a majority of votes of the members present, and in case of equality the Administrator has a casting vote. Three members of the Committee (of whom the Administrator or the person appointed by the Governor-General to act as Administrator or to be the Deputy-Administrator shall be one) constitute a quorum at any meeting of the Committee. The remuneration of members of the Committee, other than the Administrator, is determined by the Governor-General.

The present members of the Executive Committee are: Mr. D. W. F. E. Ballot, Lt.-Col. J. L. Hamman, D.S.O., Dr. H. B. K. Hirsekorn, and Cdt. C. H. B. Oberholzer.

3. **Advisory Council.**—This body consists of eight members, viz., the Administrator (who shall be chairman), the other members of the Executive Committee, and three members appointed by the Administrator, subject to the approval of the Governor-General. One member so appointed by the Administrator must be an official selected mainly on the ground of his thorough acquaintance, by reason of his official experience or otherwise, with the reasonable wants and wishes of the non-European races in the territory.

The Council meets at such times and places as may from time to time be determined by the Administrator, and four members form a quorum.

The duties and functions of the Council are to advise the Administrator in regard to—

(*a*) those matters in respect of which the Assembly is not competent to make Ordinances, including matters of general policy and administration apart from routine matters of administration;

(*b*) his assent to an Ordinance passed by the Assembly or its reservation for the signification of the pleasure of the Governor-General; and

(*c*) any other matter upon which its advice may be requested by the Administrator.

Members of the Council hold their seats thereon for the duration of the Assembly and continue to hold their seats until the constitution of a new Council after a general election of the Assembly. Every member of the Council, except the Administrator, receives such remuneration as the Governor-General may prescribe.

The members of the Advisory Council are Mr. D. W. F. E. Ballot, Lt.-Col. J. L. Hamman, D.S.O., Dr. H. B. K. Hirsekorn, Cdt. C. H. B. Oberholzer, Mr. H. Hörlein, Mr. E. F. Oettle, and Cdt. L. J. F. von Maltitz, M.C. The last three mentioned are the members appointed by the Administrator.

4. **Legislative Assembly.**—The Assembly consists of eighteen members, twelve of whom are elected by the voters of the territory and six appointed by the Administrator, subject to the approval of the Governor-General. The duration of the Assembly shall be five years from the date of its first meeting after each general election. Any person who is for the time being enrolled

as a voter, and who is not subject to the disqualifications prescribed by the Act, is eligible for election or for appointment as a nominated member. Any person shall be disqualified who—

(*a*) has at any time been convicted of a crime or offence for which he has been sentenced to death or to imprisonment without the option of a fine, unless he has received a grant of amnesty or a free pardon or unless the imprisonment has expired at least five years before the date of nomination or election;

(*b*) is an unrehabilitated insolvent;

(*c*) has been declared by a competent court to be of unsound mind;

(*d*) holds any office of profit under the Administration of the Territory or of the Government of the Union;

(*e*) ceases for any other reason to be qualified to be enrolled as a voter.

There shall be a session of the Assembly at Windhoek at least once in every financial year, the interval between the last sitting in one session and the first sitting in the next session being not more than twelve months.

Every member of the Assembly must take an oath or affirmation of allegiance. The Assembly must choose a chairman, who will have no deliberative vote, but only a casting vote in the event of equality of votes on any question to be determined by the Assembly. The Administrator or any member of the Executive Committee who is not a member of the Assembly has the right to take part in the proceedings of the Assembly, but may not vote. The presence of nine members of the Assembly is necessary to constitute a sitting thereof.

The official languages are English and Dutch*, but any member may address the Assembly in the German language.

The remuneration of members of the Assembly is fixed by the Governor-General.

The first sitting of the first session of the Legislative Assembly took place at Windhoek on the 15th of June, 1926. The names of the persons who are at present members of the third Assembly, together with the names of the electoral divisions which each represents, are given hereunder:—

Gibeon	Comdt. J. C. Jooste.
Gobabis	L. C. F. Taljaard.
Grootfontein	W. B. Volkmann.
Keetmanshoop	M. E. Oliff.
Luderitz	Dr. H. B. K. Hirsekorn.
Okahandja	L. J. B. van Aardt.
Otjiwarongo	Comdt. L. J. F. von Maltitz, M.C.
Stampriet	H. P. van der Westhuizen.
Swakopmund	J. D. Lardner Burke.
Warmbad	Comdt. C. H. B. Oberholzer.
Windhoek Central	N. C. Fraser.
Windhoek District	Lt.-Col. J. L. Hamman, D.S.O.

The life of the second Assembly, which was due to expire on the 18th July, 1932, was extended by Governor-General's Proclamation, No. 107 of 1932, for a further period of one year. An extension for a period of another year was proclaimed under a similar proclamation, No. 144 of 1933.

At the 31st December, 1938, the following persons held appointments as nominated members of the Legislative Assembly:—

D. W. F. E. Ballot.	H. Hörlein.
Comdt. J. C. Balt.	J. C. T. Meinert.
C. P. Bond.	T. F. L. Woker.

5. **Reservations of Legislative Powers.**—The Assembly has power to legislate by Ordinance upon all matters except those which have been expressly reserved. The reservations are contained in sections 26, 27, and 28 of the Act, and read as follows:—

Section 26.—Except with the consent of the Governor-General previously obtained on any particular occasion and communicated to the Assembly by message from the Administrator, it shall not be competent for the Assembly to make an ordinance in relation to any subject falling within the following classes of matters, i.e. to say—

* Including Afrikaans—*vide* Union Act No. 8 of 1925.

(*a*) native affairs or any matters specially affecting natives, including the imposition of taxation upon the persons, land, habitations, or earnings of natives. Whenever any Ordinance of the Assembly imposes taxation upon persons, lands, habitations, or incomes or earnings generally, natives and their lands, habitations, and earnings shall be exempt from its provisions;

(*b*) mines, minerals, mineral oils, and precious stones, or the moneys derivable therefrom or payable to the Administration in respect of licences for prospecting or winning the same or as share of the produce thereof or any taxation in connexion therewith;

(*c*) the acquisition, construction, management, regulation, control, and working of railways and harbours in the territory; and the organization, discipline, and conditions of employment of and the payment of pensions, retiring allowances, and financial benefits to persons in the employment of the Railways and Harbours Administration;

(*d*) the organization of and discipline and conditions of employment of persons in the public service who are serving in the territory, and the payment of pensions, retiring allowances, and financial benefits to such persons;

(*e*) the constitution and jurisdiction of courts of justice, whether superior or inferior, and the practice or procedure to be observed therein;

(*f*) the administration, management, and working of the postal, telegraph, and telephone services;

(*g*) the establishment or control of any military organization in the territory;

(*h*) the movements or operations of any unit of the South African Defence Forces within the territory;

(*i*) the entry of immigrants into the territory or of other persons;

(*j*) tariffs of customs and excise duties and the control and management of customs and excise;

(*k*) currency and banking and the control of banking institutions.

Section 27.—(i) Except with the consent of the Governor-General previously obtained on any particular occasion, and communicated to the Assembly by message from the Administrator, the Assembly shall not, until the expiration of a period of at least three years from the date of the first sitting of the first session of the Assembly, be competent to make Ordinances in relation to any of the following subject-matters:—

(*a*) The establishment or control of any police force in the territory.

(*b*) Civil aviation.

(*c*) Primary or secondary education in schools supported or aided from the revenues of the territory.

(*d*) The establishment, management, or control of any land or agricultural bank in the territory.

(*e*) The allotment, sale, lease, or disposal of government lands in the territory.

(ii) At any time after the expiry of the said period of three years, if power has not been so conferred by the Governor-General upon the Assembly to make Ordinances in relation to any particular subject-matter specified in sub-section (1), then the Governor-General may, on a recommendation made by the Assembly and embodied in a resolution for which it is certified by the chairman thereof that not less than two-thirds of the members thereof voted, declare by proclamation in the *Gazette* and in the *Official Gazette* of the territory, the full competency of the Assembly to make Ordinances in respect of that subject-matter.

(iii) Save as is specially provided in this section, the provisions thereof shall remain in operation after the said period of three years.

Section 28.—It shall not be lawful for the Assembly—

(*a*) to originate or pass any Ordinance, Vote, or Resolution which has the effect of appropriating any part of the Territory Revenue Fund formed as hereinafter provided; or

(*b*) to originate or pass any Ordinance, Vote, or Resolution imposing any tax, duty, due, or charge or burden on the people,

unless such Ordinance, Vote, or Resolution is introduced or moved by the Administrator in person or has first been recommended to the Assembly by written message of the Administrator during the session in which it is proposed.

Every Ordinance passed by the Assembly must be presented to the Administrator for his assent.

The Administrator may then—

(*a*) refer the Ordinance back to the Assembly, with such amendments as he may suggest for its consideration;

(*b*) assent to the Ordinance;

(*c*) reserve the Ordinance for the signification of the Governor-General.

In the last-mentioned event the Administrator must transmit the Ordinance, together with such explanatory observations as may be necessary, to the Governor-General, who may declare within six months after receipt thereof by him that he allows or disallows the Ordinance, or that he reserves it for further consideration. An Ordinance so reserved shall have no force or effect, unless and until the Governor-General, within a further period of six months from the date of his reservation, declares that he does not exercise his power of disallowance.

Copies of all Ordinances assented to and a return indicating the Ordinances which have been reserved for further consideration by the Governor-General or disallowed and the reasons for reservation or disallowance must be laid upon the Tables of both Houses of Parliament.

Unless a particular date is fixed, every Ordinance shall come into operation as from the date of its first publication in the *Gazette*.

Although not competent to make Ordinances in respect of the matters reserved by sections 26 and 27 of the Act, the Assembly may, by resolution, recommend to the Governor-General or to the Administrator the issue of a proclamation enacting a law or the amending or repealing of any law relating to such matters.

As regards finance, the Act provides for the formation of a fund known as the Territory Revenue Fund, which may be drawn upon only under the authority of an Appropriation Ordinance passed by the Assembly and in pursuance of a warrant under the hand of the Administrator directed to an officer serving under the Administration of the territory; provided that until such appropriation has been made and for a period not exceeding two months after the end of a financial year, the Administrator may withdraw from the Fund moneys to meet expenditure on services, in respect of which there has been an appropriation up to the end of that financial year.

The Administrator may, by special warrant under his hand, authorize the issue of moneys from the Territory Revenue Fund—

(*a*) to defray unforeseen expenditure of a special character, which is not provided for in an Appropriation Ordinance or in an Appropriation Proclamation issued under section *thirty-eight* of the Act, as amended by Act No. 38 of 1931, and which cannot without serious injury to the public interest be postponed until adequate provision can be made therefor by the Assembly; or

(*b*) to meet an excess on any head of expenditure in an Appropriation Ordinance or Appropriation Proclamation.

The total sum which the Administrator may authorize shall not at any time exceed £25,000, and the relative expenditure shall be submitted to the Assembly for appropriation not later than its next ensuing session.

The annual estimates of expenditure for the territory shall be prepared by the Administrator in consultation with the Advisory Council, and thereafter submitted to the Assembly.

If the Assembly rejects or fails to pass—

(*a*) an Ordinance appropriating in any financial year moneys from the Territory Revenue Fund sufficient, in the opinion of the Administrator, to pay during that year the salaries and allowances of the Administrator, of the Judge of the High Court, and of officers

serving under the Administration, and to carry on the public administration of the territory, and any other services which the Administrator certifies to be necessary in the interests of the territory or to meet any liabilities which have been incurred in or in respect of the territory or of any railway or harbour works therein; or

(*b*) an Ordinance imposing any tax to raise in any year revenue which the Administrator certifies to be, with other revenues, necessary for the purposes described in paragraph (*a*);

or, though passing the Ordinance, passes it with amendments to which the Administrator personally is unable to agree, regard being had by him to the purposes aforesaid, the Administrator may transmit a full report in relation to the whole matter to the Governor-General, and the Governor-General may, after consideration of that report and of any further report or recommendation on the matter, passed and transmitted by the Assembly by message, make a law, by proclamation under the powers reserved to the Governor-General under this Act, providing for such appropriation or such tax (as the case may be) as may, in the opinion of the Governor-General, be sufficient for the purposes mentioned in paragraph (*a*) or paragraph (*b*) of this section (as the case may be).

Section 44 of the Act contains the following important reservation:—

(i) Nothing in this Act contained shall be construed as in any manner abolishing, diminishing, or derogating from those full powers of administration and legislation over the territory as an integral portion of the Union which are conferred by the mandate hereinbefore recited and have been confirmed by the *Treaty of Peace and South West Africa Mandate Act*, 1919 (Act No. 49 of 1919), or as modifying any provision of that Act. Those full powers of administration and legislation are hereby expressly reserved to the Governor-General and may be exercised or delegated by him in accordance with that Act to the intent that by proclamation new laws may be made for the territory, existing proclamations may be repealed, amended, or modified, or any Ordinance made by the Assembly and in force under this Act may be repealed, amended, or modified. Every such proclamation of the Governor-General or of the Administrator shall, before it has the force of law in the territory, be published in the *Official Gazette* thereof.

(ii) A Proclamation of the Administrator or an Ordinance made by the Assembly shall, though promulgated, have effect in and for the territory so long and as far only as it is not repugnant to or inconsistent with a Proclamation of the Governor-General, or an Act of the Union Parliament, applicable to the territory.

6. **Franchise.***—(i) Every European person who—

(*a*) has been resident in the territory for twelve months immediately prior to the date fixed for the commencement of any provisional list of voters; and

(*b*) is twenty-one years of age or upwards at that date; and

(*c*) is a British subject,

as well as every person who, under section 2 of Act No. 30 of 1924, became a British subject naturalized under Act No. 4 of 1910, shall be entitled to be registered as a voter, unless in either case he is disentitled for any reason mentioned in paragraph 2 of the Schedule to the Act. But no person shall be entitled to be registered on more than one list or, if registered on more than one list, to vote in more than one electoral division.

(ii) No person shall be entitled to be so registered if he has been—

(*a*) convicted at any time of murder unless he has obtained a free pardon therefor;

(*b*) convicted at any time of any offence and sentenced to imprisonment without the option of a fine, which imprisonment has not expired at least three years before the date of the commencement of registration, unless he has obtained a free pardon for that offence.

For the purposes of the Act the port and settlement of Walvis Bay is deemed to form part of the territory, but the territory known as Caprivi Zipfel is excluded.

* Under the provisions of the *South West Africa Constitution Amendment Proclamation* (No. 103 of 1939) the franchise has been extended to European women.

Section 45 of the Act provides as follows:—

After the expiration of a period of three years* from the date of the first sitting of the first session of the Assembly, the Governor-General may, on a recommendation made by the Assembly and embodied in a resolution for which it is certified by the chairman thereof that not less than two-thirds of the members thereof voted, repeal or alter any provision of this Act, except sections *twenty-six* and *forty-four* and this section; provided that the Governor-General shall not act upon such a recommendation, unless the proposals contained therein have lain upon the Tables of both Houses of Parliament for a period of one month and during that period neither House has expressed its disapproval of the proposals.

7. **Ordinances.**—The following list shows the number and short title of the Ordinances passed by the Legislative Assembly of the territory in 1938:—

ORDINANCES PASSED BY THE LEGISLATIVE ASSEMBLY, SOUTH WEST AFRICA, 1938.

No.	Short Title.
1	Brewers and Distillers Licences Duty Amendment Ordinance.
2	Additional Appropriation (1937–'38) Ordinance.
3	Unauthorised Expenditure (1936–'37) Ordinance.
4	Appropriation (1938–'39) Ordinance.
5	Licensing of Totalisators Ordinance.
6	Village Management Boards Amendment Ordinance.
7	Trespass of Animals Amendment Ordinance.
8	Adoption of Children Amendment Ordinance.
9	Agricultural Pests Amendment Ordinance.
10	Hospitals and Charitable Institutions Amendment Ordinance.
11	Karakul Sheep-farming Industry Protection Amendment Ordinance.
12	Apprenticeship Ordinance.

§ 5. Population.

1. **General.**—Table (*a*) gives the final results of the Censuses† taken in the territory on 3rd May, 1921, on 4th May, 1926 (Europeans only), and on 5th May, 1936. The population of Walvis Bay is excluded from the census figures given below. At the Census of 1936 the population of Walvis Bay numbered 2,035 persons, of whom 523 were Europeans and 1,512 non-Europeans.

Table (*b*) shows the estimated mean European population for each year from 1935.

(*a*) POPULATION CENSUSES, 1921, 1926, AND 1936.

Race.	Male.	Female.	Persons.
Census, 1936—			
European.§	16,564	14,113	30,677
Asiatic	13	1	14
Coloured‡	32,405	32,967	65,372
Native‡	128,481	133,243	261,724
TOTAL	177,463	180,324	357,787
Census, 1926—			
European	13,266	10,187	23,453
Census, 1921—			
European	11,242	8,190	19,432
Asiatic	4	7	11
Coloured	15,390	15,444	30,834
Native	92,627	84,835	177,462
TOTAL	119,263	108,476	227,739

* Proclamation No. 103 of 1939 extended the franchise to European females on the same conditions as are applicable to males.

† The Population Census designed to take place in 1931 was abandoned for reasons of economy.

‡ Includes 24,465 coloured persons and 191,984 natives (estimated) outside the police zone.

(*b*) ESTIMATED MEAN POPULATION—EUROPEAN, 1935 TO 1939.

Year.	Male.	Female.	Persons.
1935	17,700	14,100	31,800
1936	16,600	14,100	30,700
1937	16,600	14,100	30,700
1938	16,700	14,200	30,900
1939	17,200	14,700	31,900

2. **Population of Towns.**—According to the Censuses of 1921, 1926, and 1936, the population of the principal towns was as follows:—

Town.	1936.		1926.	1921.	
	European.	Other.	European.	European.	Other.
Windhoek	4,812	5,839	3,809	3,469	4,399
Luderitz	846	1,714	1,234	1,003	1,014
Keetmanshoop	1,043	1,673	1,159	1,026	1,659
Swakopmund	1,149	828	1,125	1,078	694

3. **Births, Deaths, and Marriages.**—The registration of births and deaths became compulsory with the adoption in the territory of Union Act No. 17 of 1923, with effect from 1st January, 1924. A Proclamation was issued during 1920, under which the celebration of marriages was brought into line with Union procedure.

VITAL STATISTICS—REGISTRATIONS, 1934 TO 1938.

Year.	European.			Non-European.*			All Races.		
	Births.	Deaths.	Marriages.	Births.	Deaths.	Marriages.	Births.	Deaths.	Marriages.
1934	804	394	258	467	643	429	1,271	1,037	687
1935	808	206	289	472	406	510	1,280	612	799
1936	863	226	326	485	404	620	1,348	630	946
1937	842	203	334	545	438	700	1,387	641	1,034
1938	924	233	408	566	451	711	1,490	684	1,119

* Registration incomplete.

The following tables show under different classifications the number of vital events registered in the years 1934 to 1938:—

(i) VITAL STATISTICS—REGISTRATIONS AND RATES—EUROPEANS—1934 TO 1938.

Note: M. = Male; F. = Female; P. = Persons.

Year.	Births.			Deaths.			Infantile Deaths.			Marriages.
	M.	F.	P.	M.	F.	P.	M.	F.	P.	
NUMBER.										
1934	404	400	804	218	176	394	32	38	70	258
1935	412	396	808	130	76	206	21	16	37	289
1936	446	417	863	144	82	226	19	9	28	326
1937	429	413	842	130	73	203	16	9	25	334
1938	467	457	924	140	93	233	22	12	34	408
RATES.										
1934	—	—	25·44	12·39	12·57	12·47	79·21	95·00	87·06	8·16
1935	—	—	25·41	7·34	5·31	6·48	50·97	40·40	45·79	9·09
1936	—	—	28·11	8·67	5·81	7·36	42·00	21·58	32·44	10·62
1937	—	—	27·43	7·83	5·18	6·61	37·30	21·79	29·69	10·88
1938	—	—	29·90	8·38	6·55	7·54	47·11	26·26	36·80	13·20

(ii) VITAL STATISTICS—REGISTRATIONS, URBAN AND RURAL—EUROPEANS—1938.

Area.	Births.			Deaths.			Infantile Deaths.			Marriages.
	M.	F.	P.	M.	F.	P.	M.	F.	P.	
NUMBER.										
Urban	141	137	278	63	43	106	7	6	13	*
Rural	326	320	646	77	56	127	15	6	21	*
TOTAL	467	457	924	140	93	233	22	12	34	408
RATES.										
Urban	—	—	23·56	10·33	7·54	8·98	49·65	43·80	47·76	*
Rural	—	—	33·82	7·26	5·88	6·65	46·01	18·75	32·51	*
TOTAL	—	—	29·90	8·38	6·55	7·54	47·11	26·26	36·80	13·20

* Not available.

(iii) DEATHS ACCORDING TO AGE AND MARITAL CONDITION—EUROPEANS—1934 TOT 1938.*

Age Groups in Years.	Male.					Female.				
	1934.	1935.	1936.	1937.	1938.	1934.	1935.	1936.	1937.	1938.
NEVER MARRIED.										
Under 15	94	41	36	26	41	86	27	24	24	21
15–19	4	6	4	3	3	8	3	1	2	3
20–24	6	1	9	3	4	5	1	—	—	3
25–29	—	1	3	4	1	1	1	1	1	1
30–34	1	3	2	3	1	1	—	—	—	—
35–39	2	—	2	—	—	1	—	—	—	—
40–44	1	—	1	1	1	—	—	—	1	—
45–49	3	—	2	1	3	—	1	—	1	—
50–54	7	3	5	2	—	1	1	—	—	—
55–59	3	3	2	8	5	—	—	1	—	—
60–64	2	2	1	6	3	—	—	—	—	—
65–69	3	1	3	2	2	1	—	—	1	—
70–74	—	—	—	2	4	—	—	—	—	—
75 and over	1	1	—	1	—	—	—	1	—	—
ALL AGES	127	62	70	62	68	104	34	28	30	28
MARRIED.										
Under 15	—	—	—	—	—	—	—	—	—	—
15–19	—	—	—	—	—	—	—	—	—	—
20–24	2	—	—	—	1	6	—	2	5	3
25–29	4	2	—	1	1	9	2	8	3	6
30–34	3	4	4	—	6	2	—	4	6	4
35–39	4	2	1	2	5	6	6	6	1	5
40–44	7	3	7	4	1	6	3	8	2	3
45–49	8	7	2	4	4	3	2	5	—	6
50–54	8	12	6	10	10	7	5	4	7	7
55–59	8	9	11	10	12	3	4	4	4	5
60–64	12	7	8	13	6	5	5	1	2	2
65–69	9	5	10	8	11	5	3	1	3	2
70–74	1	1	5	2	5	1	1	—	1	1
75 and over	7	4	3	4	3	2	1	—	—	2
ALL AGES	73	56	57	58	65	55	30	43	34	46

* Excludes those whose marital condition was not stated.

(iii) DEATHS ACCORDING TO AGE AND MARITAL CONDITION—EUROPEANS—1934 TO 1938*—(*continued*).

Age Groups in Years.	Male.					Female.				
	1934.	1935.	1936.	1937.	1938.	1934.	1935.	1936.	1937.	1938.
WIDOWED AND DIVORCED.										
Under 15	—	—	—	—	—	—	—	—	—	—
15–19	—	—	—	—	—	—	—	—	—	—
20–24	—	—	—	—	—	—	—	1	—	—
25–29	—	—	1	—	—	—	—	1	—	—
30–34	—	—	—	—	—	—	1	—	—	—
35–39	—	—	—	—	1	—	1	1	—	—
40–44	—	—	—	—	—	2	1	1	—	—
45–49	—	—	2	—	—	1	—	—	—	1
50–54	1	1	2	—	1	1	1	1	—	—
55–59	2	4	2	3	2	2	—	—	2	4
60–64	3	2	2	—	1	1	2	—	1	1
65–69	2	—	2	2	—	1	2	1	1	4
70–74	3	1	1	3	—	3	1	1	—	6
75 and over	6	4	5	2	1	6	3	4	5	4
ALL AGES	17	12	16	10	6	17	12	11	9	19

* Excludes those whose marital condition was not stated.

(iv) CAUSES OF DEATH (ABRIDGED INTERNATIONAL LIST)—EUROPEANS—1934 TO 1937.

Cause of Death.	1935.		1936.		1937.		1938.	
	Certified Only.	Certified and Uncertified.	Certified Only.	Certified and Uncertified.	Certified Only.	Certified and Uncertified.	Certified Only.	Certified and Uncertified.
Enteric Fever	—	—	—	—	1	1	2	2
Typhus	—	—	—	—	—	—	—	—
Smallpox	—	—	—	—	—	—	—	—
Measles	2	6	—	—	—	—	5	6
Scarlet Fever	—	—	—	—	—	—	—	—
Whooping Cough	—	—	3	9	1	4	—	—
Diphtheria	3	8	—	—	1	1	1	1
Influenza	15	18	4	9	6	8	4	5
Plague	—	—	—	—	—	—	—	—
Meningococcal C.S. Meningitis	—	—	1	1	—	—	—	—
Tuberculosis of the Respiratory System	7	7	4	5	2	3	6	6
Tuberculous Meningitis	1	1	—	—	2	2	—	—
Other Tubercular Diseases	1	1	2	2	—	—	—	—
Leprosy	—	—	—	—	—	—	—	—
Syphilis (all forms)	—	—	—	—	3	3	1	1
Malaria	10	19	13	17	—	2	2	4
Cancer (all forms)	13	13	13	14	17	18	16	20
Cerebral Haemorrhage, etc.	8	10	6	8	9	12	8	9
Cardiac Diseases	9	9	17	17	17	19	20	22
Bronchitis	1	4	1	4	1	1	3	4
Pneumonia (all forms)	14	24	18	22	12	19	17	21
Miners' Phthisis (Silicosis) without Tuberculosis	—	—	—	—	—	—	—	—
Miners' Phthisis (Silicosis) with Tuberculosis	—	—	—	—	—	—	—	—
Other Respiratory Diseases	—	2	1	2	2	4	5	6
Ulcer of Stomach and Duodenum	1	1	—	—	—	—	2	2
Diarrhoea and Enteritis (under two years)	1	2	1	1	1	1	4	5
Appendicitis	3	3	10	10	—	—	5	6
Cirrhosis of Liver	—	—	3	3	2	2	2	2
Nephritis	—	—	2	2	4	4	9	9
Puerperal Sepsis	2	2	3	4	1	1	1	1
Other Accidents and Diseases of Pregnancy and Parturition	—	—	2	3	4	5	2	2
Congenital Malformations and Diseases of Early Infancy	8	10	11	14	5	7	15	15
Suicides	5	5	4	4	4	4	5	5
Other Violent Deaths	10	10	12	13	22	24	16	16
Other Defined Causes	28	38	33	47	35	43	59	50
Causes Ill-defined or Unknown	3	13	6	15	6	15	4	13
TOTAL DEATHS	145	206	170	226	158	203	194	233

(v) PERCENTAGES OF CERTIFIED AND UNCERTIFIED DEATHS—EUROPEANS—1934 TO 1938.

Year.	Male.		Female.		Persons.	
	Certified.	Uncertified.	Certified.	Uncertified.	Certified.	Uncertified.
URBAN.						
1934	% 97·06	% 2·94	% 90·00	% 10·00	% 94·07	% 5·93
1935	98·36	1·64	78·57	21·43	92·13	7·87
1936	91·38	8·62	100·00	—	94·44	5·56
1937	96·55	3·45	91·30	8·70	95·06	4·94
1938	95·24	4·76	97·67	2·23	96·23	3·77
RURAL.						
1934	% 40·00	% 60·00	% 37·30	% 62·70	% 38·77	% 61·23
1935	52·17	47·83	56·25	43·75	53·85	46·15
1936	60·46	39·54	66·00	34·00	62·50	37·50
1937	72·22	27·78	58·00	42·00	66·39	33·61
1938	77·92	22·08	64·00	36·00	72·44	27·56
TOTAL.						
1934	% 57·80	% 42·20	% 52·27	% 47·73	% 55·33	% 44·67
1935	73·85	26·15	64·47	35·53	70·39	29·61
1936	72·92	27·08	79·27	20·73	75·22	24·78
1937	83·08	16·92	68·49	31·51	77·83	22·17
1938	85·71	14·29	79·57	20·43	83·26	16·74

(vi) MARRIAGES REGISTERED—1934 TO 1938.

Year.	European.	Non-European.	Total.	Mixed Marriages (included with Non-European).
1934	258	429	687	1
1935	289	510	799	3
1936	326	620	946	1
1937	334	700	1,034	1
1938	408	711	1,119	—

(vii) MARRIAGES IN EACH DENOMINATION—EUROPEANS—1934 TO 1938.

Religious Denomination.	Number.					Per Cent.				
	1934.	1935.	1936.	1937.	1938.	1934.	1935.	1936.	1937.	1938.
Dutch Churches	69	71	84	62	94	26·74	24·57	25·77	18·56	23·04
English Church	5	7	5	9	8	1·94	2·42	1·53	2·69	1·96
Methodist	5	2	1	2	2	1·94	0·69	0·31	0·60	0·49
Roman Catholic	6	9	6	7	14	2·32	3·11	1·84	2·10	3·43
Lutheran	60	59	78	63	61	23·26	20·42	23·93	18·86	14·95
Jewish	—	3	2	3	2	—	1·04	0·61	0·90	0·49
Other	2	3	5	3	2	0·78	1·04	1·53	0·90	0·49
TOTAL	147	154	181	149	183	56·98	53·29	55·52	44·61	44·85
By Magistrates	111	135	145	185	225	43·02	46·71	44·48	55·39	55·15
GRAND TOTAL	258	289	326	334	408	100·00	100·00	100·00	100·00	100·00

(viii) RELATIVE CONJUGAL CONDITION OF PERSONS MARRIED—1934 TO 1938.

Conjugal Condition.	European.					Non-European.				
	1934.	1935.	1936.	1937.	1938.	1934.	1935.	1936.	1937.	1938.
Bachelors to—										
Spinsters	211	233	258	267	324	368	429	503	557	559
Widows	12	11	10	14	11	16	14	12	19	23
Divorcees	6	8	14	10	11	1	1	3	—	6
Widowers to—										
Spinsters	17	11	13	14	26	22	27	42	39	44
Widows	1	6	9	5	10	8	7	16	20	12
Divorcees	1	4	3	—	1	—	—	1	—	—
Divorcees to—										
Spinsters	5	12	15	14	19	1	—	2	2	5
Widows	2	1	1	4	2	—	1	1	—	2
Divorcees	3	3	3	6	4	—	1	—	—	—
Previously married *de facto*	—	—	—	—	—	13	30	40	63	60
TOTAL	258	289	326	334	408	429	510	620	700	711

(ix) AGE AT MARRIAGE—NUMBER AND PROPORTION PER CENT.—EUROPEANS—1935 TO 1938.

Age (years)	Bridegrooms.								Brides.							
	Number.				Per Cent.				Number.				Per Cent.			
	1935	1936	1937	1938	1935.	1936.	1937.	1938.	1935	1936	1937	1938	1935.	1936.	1937.	1938.
15	—	—	—	—	—	—	—	—	3	—	1	—	1·04	—	0·30	—
16	—	—	—	—	—	—	—	—	7	8	6	12	2·42	2·45	1·80	2·94
17	—	—	—	—	—	—	—	—	16	9	18	15	5·54	2·76	5·39	3·68
18	1	—	—	—	0·35	—	—	—	25	16	33	33	8·65	4·91	9·88	8·00
19	—	1	2	1	—	0·31	0·60	0·25	19	32	28	26	6·57	9·82	8·38	6·37
20	3	2	2	5	1·04	0·61	0·60	1·23	22	24	30	44	7·61	7·37	8·98	10·78
21-24	54	64	77	86	18·68	19·63	23·05	21·08	91	112	105	123	31·49	34·36	31·44	30·15
25-29	116	128	123	148	40·13	39·26	36·83	36·27	69	69	63	84	23·87	21·17	18·86	20·59
30-34	53	61	60	79	18·34	18·71	17·96	19·36	13	21	17	27	4·50	6·44	5·09	6·62
35-39	20	20	22	31	6·92	6·14	6·59	7·60	6	10	13	21	2·08	3·07	3·89	5·15
40-44	19	12	14	14	6·57	3·68	4·19	3·43	7	8	11	8	2·42	2·45	3·29	1·96
45-49	6	10	12	20	2·08	3·07	3·59	4·90	4	11	7	7	1·38	3·37	2·10	1·72
50-54	8	16	13	6	2·77	4·91	3·89	1·47	3	2	1	3	1·04	0·61	0·30	0·73
55-59	3	8	3	8	1·04	2·45	0·90	1·97	3	2	1	—	1·04	0·61	0·30	—
60-64	2	2	4	5	0·69	0·61	1·20	1·22	—	2	—	3	—	0·61	—	0·73
65-69	3	—	2	3	1·04	—	0·60	0·73	1	—	—	2	0·35	—	—	0·49
70-74	1	1	—	2	0·35	0·31	—	0·49	—	—	—	—	—	—	—	—
75 +	—	1	—	—	—	0·31	—	—	—	—	—	—	—	—	—	—
TOTAL	289	326	334	408	100·00	100·00	100·00	100·00	289	326	334	408	100·00	100·00	100·00	100·00

A short reference to the native customs which are observed by the aborigines in regard to marriages, births, and deaths was published in *Year Books* Nos. 3 to 9.

4. **Immigration and Emigration.**—The following series of tables gives a summary of the statistics of migration into and from South West Africa. Table (i) summarizes the arrivals and departures according to race from 1934. Tables (ii) and (iii) record the reasons for arrival and departure via seaports from the year 1934. This information is not available in respect of persons entering or leaving the country via the land borders. Table (iv) gives the numbers of persons travelling into or from South West Africa by rail on single journey tickets only.

(i) ARRIVALS INTO AND DEPARTURES FROM SOUTH WEST AFRICA, 1934 TO 1938.

Year.	European.			Non-European.			All Races.			In Transit.	
	M.	F.	P.	M.	F.	P.	M.	F.	P.	European.	Non-European.
(a) ARRIVALS.											
1934.....	590	500	1,090	18	3	21	608	503	1,111	—	—
1935.....	736	679	1,415	9	5	14	745	684	1,429	1	—
1936.....	942	841	1,783	2	1	3	944	842	1,786	3	—
1937.....	1,331	1,096	2,427	2	1	3	1,333	1,097	2,430	2	—
1938.....	1,021	1,062	2,083	10	3	13	1,031	1,065	2,096	1	—
(b) DEPARTURES.											
1934.....	875	757	1,632	4	5	9	879	762	1,641	—	—
1935.....	1,030	820	1,850	21	5	26	1,051	825	1,876	—	—
1936.....	940	843	1,783	17	8	25	957	851	1,808	—	—
1937.....	868	722	1,590	5	1	6	873	723	1,596	—	—
1938.....	1,004	871	1,875	4	1	5	1,008	872	1,880	—	—

(ii) ARRIVALS BY SEA,† 1934 TO 1938.

Year.	Visitors.		Immigrants Intending Permanent Residence.	S.W.A. Residents Returning.	Total.	In Transit through S.W.A.
	Business.	Holiday.				
EUROPEANS.						
1934.....	25	96	112	362	595	—
1935.....	46	127	149	546	868	1
1936.....	58	151	196	769	1,174	3
1937.....	224	261	253	893	1,631	2
1938.....	97	237	157	751	1,242	1

† The number of non-European arrivals by sea during each of the years 1934 to 1938 was negligible.

(iii) DEPARTURES BY SEA, 1934 TO 1938.

Year.	Visitors.		Persons Relinquishing Domicile.	Residents Leaving Temporarily.	Total.*	In Transit through S.W.A.
	Business.	Holiday.				
(a) EUROPEANS.						
1934.....	5	32	188	672	897	—
1935.....	12	15	128	782	937	—
1936.....	2	43	118	939	1,102	—
1937.....	119	72	126	854	1,175	—
1938.....	20	119	83	994	1,216	—
(b) NON-EUROPEANS.						
1934.....	—	—	3	1	4	—
1935.....	—	—	—	—	—	—
1936.....	—	—	—	—	—	—
1937.....	1	—	3	1	5	—
1938.....	—	—	—	—	—	—

* Includes those who failed to state the reason for their departure.

(iv) ARRIVALS AND DEPARTURES BY RAIL,*† 1934 TO 1938.

Year.	Europeans.			Non-Europeans.		
	M.	F.	P.	M.	F.	P.
(a) ARRIVALS.						
1934.....	293	202	495	18	3	21
1935.....	305	242	547	9	5	14
1936.....	351	258	609	1	1	2
1937.....	480	316	796	—	—	—
1938.....	455	386	841	9	3	12
(b) DEPARTURES.						
1934.....	434	301	735	1	4	5
1935.....	536	377	913	21	5	26
1936.....	394	287	681	17	8	25
1937.....	236	179	415	1	—	1
1938.....	378	281	659	4	1	5

* Includes travellers by air. † Single journey tickets only by rail.

5. **Angola Boers.**—The term "Angola Boers" is used in reference to a considerable number of one-time Transvaal Republican nationals who at intervals, commencing in 1874, turned their backs on the Transvaal, crossed the Kalahari desert and settled in Angola, where until a few years ago they hunted and tilled the soil apparently undisturbed. However, for various reasons they expressed a wish to return to South Africa, and a deputation from them met the Administrator of South West Africa and the Minister of Lands of the Union, and in 1928 arrangements were made for their conveyance from Angola to South West Africa, the Union Government providing an amount of £500,000 towards defraying the cost of transport and settlement.

Altogether about 350 families, comprising close on 1,900 individuals, emigrated out of Angola into South West Africa, and 53 families remained behind. Practically all the immigrants have been accommodated in four different settlements in the districts of Gibeon, Gobabis, Otjiwarongo, and Grootfontein. The settlement at Gobabis contains the largest number of members, followed by Otjiwarongo, Gibeon, and Grootfontein. More than 200 farms have been allotted to the immigrants, where approximately 310 families have made their homes. In order to meet their needs in cattle, buildings, and agricultural and dairy material, the Administration of South West Africa is accommodating them with advances. After a test of nine years it has been proved that the majority of the farms in the Osire Block, District Otjiwarongo, allotted to the Angola farmers, are not suitable for stock farming. On the recommendation of the Land Board, a block of 33 farms situated north of the Kamanjab area in the district of Outjo has been surveyed, and in due course some 33 settlers will be transferred to the Outjo district, where, under healthy veld and climatic conditions, it is hoped they will be able to farm successfully.

Like other settlers, the Angola farmers have had a hard struggle against adverse climatic conditions and stock diseases. The severe drought of 1933 was undoubtedly a test of their farming abilities. In general they have made good progress and proved to be hardworking. A small percentage have fully paid their stock advances and have applied to exercise option of purchase in respect of their holdings. By the end of 1937, loans made out of the Land Settlement Fund had been repaid in many cases, with the result that funds have been made available for additional grants to deserving settlers for improvements.

As a result of good rains during 1934-35 and normal rainfall since then, cattle diseases (Gallamsiekte in particular) have diminished considerably, and consequently the increase of stock has been very promising. Sheep farmers settled in the Gibeon district and the southern portion of Gobabis district have made good progress with Karakul sheep.

Up to the end of 1935, 8 per cent. of the settlers had proved to be unsuccessful as stock farmers. The majority of these trekked to the Union (Rustenburg, Transvaal, and Vryheid, Natal), where they received assistance from their relations living there. Those who remained are working on road construction, riding transport, or doing smithy work.

Educationally the settlements are on a sound basis. There are now 11 permanent schools with hostel accommodation for from 40 to 80 scholars. The total number of pupils attending these schools at the close of the year 1938 was 626. A small percentage attend the Windhoek High School.

During 1934, the Angola settlers with a few exceptions became naturalized British subjects.

6. **Naturalization.**—The *Naturalization of Aliens Act*, No. 4 of 1910, was repealed by the *British Nationality in the Union and Naturalization and Status of Aliens Act*, No. 18 of 1926. The latter Act is also in force in South West Africa, the expression "the Union" being defined by the Act to include South West Africa. In the same way, the Union *Nationality and Flags Act*, No. 40 of 1927, is in force in South West Africa. The *South West Africa Naturalization of Aliens Act*, No. 30 of 1924, passed by the Union Parliament, made the *Naturalization of Aliens Act*, No. 4 of 1910, effective in the territory, which for the purposes of the Act was considered to form part of the Union. Act No. 30 of 1924 provided that every adult European, who, being a subject of any of the late enemy powers, was on the 1st January, 1924, or at any time thereafter before the commencement of the Act (15th September, 1924) domiciled in the territory, should, at the expiration of six months after the latter date, be deemed to have become a naturalized British subject, unless within that period he signed a declaration that he was not desirous of being naturalized. The final lists of persons naturalized in this way show that, out of a total of 3,489 persons who were eligible, 3,261 accepted British nationality. The *South West Africa Naturalization of Aliens Act*, No. 27 of 1928, provided for the naturalization of children of persons naturalized under Act No. 30 of 1924. The final lists show that 2,472 persons were naturalized under the aforementioned Act.

§ 6. Public Health and Hospitals.

1. **Medical Services.**—The health and medical services are performed by the Medical Officer to the Administration, who is stationed at Windhoek, by one whole-time district surgeon, stationed in Ovamboland, and by fourteen part-time district surgeons, whose appointments are made on the same basis as in the Union of South Africa. There are also seventeen registered medical practitioners, the majority of whom are in private practice, the others being attached to mines.

There are eight municipalities: Windhoek, Swakopmund, Okahandja, Karibib, Walvis Bay, Omaruru, Keetmanshoop, and Luderitz; nine village management boards: Gibeon, Mariental, Aus, Warmbad, Usakos, Otjiwarongo, Outjo, Grootfontein, and Gobabis. For the remaining districts the magistrate is the rural local authority.

2. **Water Supply and Sanitation.**—The population is almost entirely dependent on underground water for its water supply, which is generally obtained from springs or from wells and boreholes. The Avis Dam at Windhoek was completed towards the end of 1932, and for 3 years it supplied the town with water. Towards the close of 1937, however, this supply became exhausted, and although good rains fell there was not a sufficient fall in the catchment area to replenish the supply. The municipal authorities, therefore, were compelled to fall back on water from boreholes. At Luderitz there are no adequate supplies of fresh water, and the water used is distilled sea water. Except in the case of Windhoek the water available is rather hard.

The municipality of Windhoek has a water-borne sewerage system; a large portion of the town has already been linked up, but some time will have to elapse before the entire town is served in this manner. In the remainder of the territory, owing to the inadequacy of the water supply and the sparseness of the population, conservative methods of nightsoil removal are in use.

3. **General Health Conditions.**—The climate, generally speaking, is healthy. Malaria is met with in the territory north of Windhoek, in the Gobabis district, and along the banks of the Nosop. It is usually of a mild type, but serious outbreaks may occur after exceptionally wet seasons, when isolated cases of blackwater fever may be met with. Sporadic cases of Malta fever are met with amongst the European population, and there has been an increase in the number of cases of this disease during the last two years. Long residence in the interior is liable to lead to functional disturbances of the nervous and circulatory systems, which, however, can be obviated by periodical visits to the bracing climate of the coast. Acute rheumatism is rarely met with, and acute respiratory diseases are not very prevalent. Affections of the eye are rife amongst the natives in the north; Europeans are not as a rule affected, but the intense glare has a deleterious effect on the eyesight. Ear, nose, and throat infections are fairly common owing to the irritating effect of mica dust combined with the dryness of the air.

A comprehensive survey of the principal diseases found in the territory appeared in *Year Books* Nos. 6, 7, and 8; to these must now be added plague and typhus fever. The relative importance of many of the other diseases does not warrant their inclusion in this issue. The following are the more important:—

(i) *Anthrax* is met with, especially amongst the natives in Ovamboland, owing to the practice of eating the meat of animals that have died from this disease. Occasionally a European is found suffering from the disease.

(ii) *Diphtheria.*—Only sporadic cases are met with.

(iii) *Enteric Fever.*—According to Missionary Irle, "Die Herero," typhoid fever was unknown prior to the year 1898. During the Herero war the disease became widely disseminated throughout the country and was accompanied by a considerable mortality. Subsequently annual epidemic outbreaks occurred in the urban areas, generally towards the end of the rainy season. For some years there were no serious outbreaks, but, following on the phenomenal rains which fell at the commencement of 1934, severe outbreaks of enteric fever occurred at Keetmanshoop, Swakopmund, and Windhoek. Since then, except for a few sporadic cases, the territory has been singularly free from typhoid and paratyphoid fevers.

(iv) *Epidemic Cerebro-spinal Meningitis.*—Only a few sporadic cases of this disease occurred during 1936.

(v) *Leprosy.*—The existence of leprosy among natives in South West Africa was first discovered in 1918, and recent investigations in Ovamboland have revealed quite a number of cases. The disease, however, appears to have been imported from Angola, as it is amongst natives from that territory that most of the cases occur. The greatest incidence is met with amongst the natives in the Okavango region and the eastern portion of the Caprivi Zipfel. Except in the areas mentioned it is foreign to the territory.

(vi) *Malaria* has a seasonal occurrence over the greater portion of South West Africa. During recent years, owing to a number of exceptionally dry seasons, the incidence of this disease has been low, but in 1934, after the heavy rains at the commencement of the year, malaria assumed epidemic proportions in some districts, particularly the Gobabis district, and it was prevalent throughout the length and breadth of the territory with the exception of Luderitz district. The incidence of malaria has been normal since 1935.

(vii) *Malta Fever.*—This disease is apparently on the increase. It cannot as yet be assigned to any particular part, but appears to be mostly met with in the south, both Europeans and natives being victims. The view has been expressed that the Karakul industry may have something to do with its increase.

(viii) *Plague.*—The disease occurred for the first time in the history of the country at the commencement of 1932. Human cases have as yet been almost entirely confined to Ovamboland, and the disease has for the most part manifested itself as bubonic plague. It was introduced by veld rodents, amongst which the disease is now enzootic. Thus epizootics will probably occur from time to time with resultant danger to the human population.

There was a decline in the incidence of the disease in 1934; only 37 cases came to notice, and no deaths were reported. During 1935 there were 207 cases with 29 deaths in Ovamboland; in 1936, 56 cases with 3 deaths; in 1937, 51 cases with two deaths; and in 1938, 59 cases with 7 deaths.

(ix) *Scarlet Fever.*—No cases were reported during 1936. In the previous five years only sporadic cases occurred, whereas in 1930 Windhoek experienced an epidemic lasting several months. An outbreak assuming epidemic proportions occurred in Omaruru in 1937, while several cases were reported from Windhoek and Swakopmund. In 1938 only sporadic cases were reported, mainly from the midlands.

(x) *Smallpox.*—It is stated that smallpox was unknown to the Herero until the year 1864, when it was introduced into Hereroland by the Nama (Hottentots). There is no record of any other epidemic outbreak in the country prior to the German occupation. In 1897 and 1898 an epidemic, with a considerable mortality amongst the Hereros and Damaras, was prevalent in the north-western portion of Damaraland and in the Kaokofeld. This epidemic may quite possibly have been chicken-pox, as the native has this disease in a very bad form. Amaas or Kaffir-pox is stated to have been endemic amongst the Hottentots in the south, but since 1915 only two sporadic cases have come under observation. It can safely be stated that the disease is seldom met with in the territory except in the extreme north, on the borders of Angola and in the Caprivi Zipfel, which borders on Northern

Rhodesia, where the disease is endemic. In view of the incidence of smallpox in the Union all European school children, as well as children of pre-school age, were vaccinated during 1938.

(xi) *Tuberculosis.*—Up to the beginning of this century this disease was unknown to the natives of South West Africa, with the exception of the Hottentot, but a rapid and widespread dissemination took place during and subsequent to the Herero war. The highest incidence of this disease is met with amongst the Hottentots living in the south of the territory. All the local tribes, especially the Ovambo and Bushmen, are susceptible to pulmonary affections when removed from their natural environment, and a proportion of those who contract pneumonia subsequently succumb to pulmonary tuberculosis. The disease once implanted on virgin soil runs a very rapid and acute course in the majority of cases. As a result of improved conditions there has been a distinct improvement in regard to the spread of tuberculosis amongst the Hottentots in the south, malnutrition being no longer of common occurrence. The disease is not prevalent amongst the European population.

(xii) *Typhus Fever.*—A sharp outbreak of this disease occurred for the first time in the history of this territory in July, 1934. It was confined almost entirely to Keetmanshoop and district, and was fortunately short lived. A small outbreak occurred in the Warmbad district during 1935, and an outbreak occurred in the Windhoek location in 1936. There was again a small outbreak in 1937. The cases were, however, of a mild nature and there were no fatalities. During 1938 no cases occurred.

4. Registration of Medical Practitioners, Dentists, and Chemists and Druggists.—The *Medical, Dental and Pharmacy Act*, No. 13 of 1928 (Union), has been extended to South West Africa, and all registrations of medical practitioners, dentists, and chemists and druggists are effected by the Medical Council and the Pharmacy Board.

5. Mentally Disordered and Defective Persons.—There are no institutions for the reception of mentally disordered or defective persons, but Union Act No. 38 of 1916 makes provision for the removal of mental patients, as soon as they are certified, to institutions in the Union. Native patients who are not a danger to themselves or to others are handed over to the care and control of their relatives or temporarily cared for in one or other of the native hospitals. The number of patients removed to institutions in the Union during the last five years is as follows:—

	1934.	1935.	1936.	1937.	1938.
European.....	2	8	4	4	6
Native.....	—	—	3	1	5

6. **Hospitals.**—(i) *State-aided Hospitals.*—(a) *Areas and Boards.*—In July, 1930, the *Hospitals and Charitable Institutions Ordinance*, No. 16 of 1930, came into force, Proclamation No. 5 of 1922 and Amendments being repealed. Regulations which are not inconsistent with or repugnant to the Ordinance are, however, retained.

Hospital areas already constituted remain such for the purposes of this Ordinance. The Administrator may by notice in the *Gazette* either constitute any one or more magisterial districts, or any portion or portions of any one or more of such magisterial districts (including any municipality therein), an area under this Ordinance, or from time to time include in any area any land adjoining such area, or sub-divide any area into two or more areas. In every such area a board consisting of six members shall be appointed. One member is appointed by the council of the municipality in the area (if there is more than one municipality the member is to be elected jointly by the councils of the municipalities), two by the contributors (a contributor being a person who subscribes, collects, or raises by any means not less than £1 during the preceding financial year or who has subscribed not less than £20 in one donation at any time), one by the honorary visiting medical staff, and two by the Adminstrator. If any persons or body entitled to elect members fails to appoint a member, the Administrator shall appoint such member. Should there be no municipality or honorary visiting medical officers in an area, the Administrator shall appoint such members.

(b) *Government Subsidy.*—If during any financial year the Administrator is satisfied that a board has not sufficient funds to carry out the administration of this Ordinance during the year, he may, by way of subsidy, pay to the board out of the Territory Revenue Fund an amount not exceeding three-fifths of the total amount which the board has been authorized to

expend on maintenance for the year: Provided that, where an institution or institutions under the control of the board have endowments for maintenance purposes, the income of such endowments for that year shall be first deducted from the total authorized expenditure of the board on maintenance for the year and the balance remaining met on the above basis.

(c) *Deficits.*—If in any year there is a deficit, the Administrator shall, if he is satisfied that the board has reasonably endeavoured to collect voluntary contributions from the public and to recover fees from patients, and that, having regard to the circumstances of the area and the class of patients most furnished with relief by the board, a reasonable amount has been received by the board from such sources of revenue, order the payment of such deficit, in whole or in part as he may deem desirable, out of the Territory Revenue Fund and out of the funds of the municipality or municipalities, if any, in such area. The Administrator shall not order more than three-fifths of the deficit to be paid out of the Territory Revenue Fund, or more than two-fifths out of the funds of such municipality or municipalities. If there is no such municipality or municipalities, the whole of the deficit, or such part thereof as the Administrator may deem advisable, shall be paid out of the Territory Revenue Fund: Provided that, where there is more than one municipality in such area, the amount which each municipality is ordered to pay shall be in proportion to the value of its rateable property. The pound for pound scheme formerly in vogue has been abolished.

State-aided hospitals are established at Windhoek, Grootfontein, Luderitz, Keetmanshoop, and Walvis Bay. No new hospital areas have been constituted since the coming into force of the 1930 Ordinance.

While the hospital boards are required to furnish relief to all sections of the community, both European and native, accommodation for natives is provided only at Luderitz and Walvis Bay, as the requirements of the natives in other hospital districts are met by the existing government native hospitals.

(ii) *Mission and Other Hospitals.*—Hospitals with accommodation for both Europeans and natives are maintained by the Roman Catholic Mission at Swakopmund and at Gobabis, and for Europeans only at Windhoek. This mission also maintains a nursing home at Otjiwarongo and a maternity home at Warmbad.

There are also three institutions established under the auspices of a German Red Cross Society (Frauenverein vom Roten Kreuz für Deutsche über See), viz.: Elizabethhaus (maternity), Windhoek; Prinzessin Rupprecht Heim, Swakopmund; Krankenhaus, Omaruru; a private clinic at Windhoek; and a private nursing home at Omaruru. Hospitals for the treatment of their European and native employees are provided by the various mining concerns at Tsumeb and Abenab, in the Grootfontein district, and at Kolmanskop and Orange River Mouth, in the Luderitz district.

(iii) *Medical Care of Natives.*—Three state-owned native hospitals are directly controlled and maintained by the Administration, namely, at Windhoek, Keetmanshoop, and Omaruru. The number of beds in the various native hospitals is as follows:—Windhoek, 75; Keetmanshoop, 20; and Omaruru, 8. In Windhoek additional accommodation in the form of two wards to take 20 beds each is nearing completion. The trained staff of the Windhoek native hospital consists of a superintendent, two European orderlies, and four fully-qualified native nurses. With the exception of a small revenue from patients' fees, the whole cost of maintenance of these institutions is borne by the Administration. There is also a dispensary maintained in the native location at Windhoek, which is in charge of two trained nurses, and there are four venereal compounds, viz., at Grootfontein, Otjiwarongo, Karibib, and Mariental.

In Ovamboland there is a whole time district surgeon, who renders free services and makes periodical visits to the various tribes and to the Finnish, Anglican, and Roman Catholic Missions. His headquarters are at Ondongua. The Finnish Mission has hospitals at Onandjokue, Engela, and Eenana in Ovamboland, which can accommodate respectively 80, 50, and 10 in-patients. The hospitals at the first two places are in charge of qualified medical practitioners. The Anglican Mission has a hospital of 22 beds at St. Mary's, Ukuanyama area, Ovamboland. There are numerous mission stations throughout Ovamboland, the Okavango, and the Caprivi Zipfel, which are either subsidized or receive drugs free of charge.

Apart from the facilities for the treatment offered by the State-owned native hospitals, the terms of appointment of district surgeons provide for free medical attendance on indigent natives and, in districts in which there

are no such institutions, patients of this description requiring hospital treatment are either admitted into the local hospital, if any, or transferred elsewhere at the expense of the State. The South African Railways and the mining industry provide free medical treatment for their native employees. Arsenical and mercurial preparations and iodide of potassium for the treatment of syphilis and quinine for the treatment of malaria are supplied free of charge to district surgeons for the treatment of patients dealt with by them in their official capacity.

(iv) *Statistics.*—The following tables summarize certain available statistics in regard to hospitals and nursing homes in South West Africa.

HOSPITALS—1934 TO 1938.

Heading.	1934.	1935.	1936.	1937.	1938.
(*a*) EUROPEAN STATE-AIDED HOSPITALS.					
Patients Treated	No. 753	No. 769	No. 927	No. 1,086	No. 1,090
" Discharged	703	728	886	1,055	1,029
" Died	32	21	26	14	38
Average No. of Patients.....Per day	22·04	20·32	22·26	26·93	28·62
Average Stay in Hospital.....Days	10·68	9·64	8·76	9·01	10·30
Out-patients Treated	157	110	203	267	271
Attendances	353	466	*	319†	152
(*b*) STATE-OWNED NATIVE HOSPITALS.					
Patients Treated	No. 1,617	No. 1,294	No. 1,606	No. 1,674	No. 1,668
" Discharged	1,378	1,104	1,436	1,469	1,448
" Died	127	80	71	106	68
Average No. of Patients.....Per day	143·97	119·27	147·95	169·26	170·76
Average Stay in Hospital.....Days	32·50	33·64	33·63	36·47	37·37
Out-patients Treated	5,893	3,982	5,631	4,657	4,507
Attendances	13,356	9,042	11,826	9,779	17,490
(*c*) MISSION HOSPITALS.					
EUROPEANS—					
Patients Treated	No. 1,143	No. 1,014	No. 1,094	No. 1,000	No. 1,557
Deaths	48	36	44	37	51
Average No. of Patients.....Per day	35·83	40·47	36·75	43·90	57·41
Average Stay in Hospital.....Days	11·44	14·57	12·26	16·03	13·46
NATIVES—					
Patients Treated	435	407	460	374	534
Deaths	38	20	15	18	19
Average No. of Patients.....Per day	44·33	*	32·26	23·21	31·92
Average Stay in Hospital.....Days	37·20	*	25·59	22·65	21·82
(*d*) NURSING HOMES.					
Patients Treated	No. 444	No. 858	No. 1,043	No. 1,021	No. 1,089
" Died	6	3	16	18	8

* Not available.
† Returns received from four hospitals.

§ 7. Education.

1. **General.**—Education in South West Africa is controlled according to the provisions of the *Education Proclamation*, 1926, which superseded the *Education Proclamation* of 1921 and came into force on 1st October, 1926. It provides for the compulsory attendance up to Standard VI (8th school year) of all European children who have completed their seventh but not their sixteenth year.

As a result of negotiations with the German population in 1921, thirteen out of eighteen private schools were transferred to the Administration on the 1st January, 1922. The general principle of the Concordat is that the transferred schools are financed by the Administration, and adopt the Union

curriculum and system, retaining German as medium of instruction to the end of the elementary course. All scholars above Standard I receive a daily lesson in a Union official language, as chosen by the parents. The *Education Proclamation*, 1926, makes provision for children whose home language is German to use German as the chief medium of instruction in all standards above Standard VI.

On the 1st January, 1930, the Volks- und Realschule at Swakopmund came under the control of the Administration and was organized as a high school with German as the medium of instruction. Students are able to take both the Matriculation examination, which admits to the South African and English universities, and the Abiturienten Examination, which admits to the German universities. On 1st October, 1931, the private German school at Tsumeb also came under the control of the Administration.

2. **Administration.**—All financial and technical matters are controlled by the Administration of the country. Local committees are appointed to represent the parents; their functions are mainly advisory.

3. **Government Schools.**—Provision is made for both primary and secondary education, and the code is that of the Cape Province. Primary education is free, but fees are charged for secondary instruction. Pupils pay for books and stationery. There are boarding hostels maintained by the Administration.

GOVERNMENT SCHOOLS, 1934 TO 1938.

Description.	Staff.	Pupils.	Boarders in Schools with Hostels.
	No.	No.	No.
Swakop High School (German Medium)	13	335	110
Windhoek High School	11	173	155
Leutwein Street Primary School, Windhoek	15	416	
Windhoek Schulstrasse Primary School (German Medium)	6	164	68
Keetmanshoop Secondary School	15	415	145
Swakopmund Secondary School	7	141	108
Gobabis Secondary School	8	177	93
Stampriet Burgerschool	5	138	92
Other Primary Schools (51 in number)	129	3,283	1,789
Farm Schools (1 in number)	1	16	—
TOTAL.....1938	210	5,258	2,560*
TOTAL.....1937	203	5,162	2,347*
TOTAL.....1936	190	4,890	1,441
TOTAL.....1935	181	4,699	1,282
TOTAL.....1934	169	4,600	1,112

* Including subsidized hostels.

4. **Coloured and Native Education.**—The education of the coloured people and the natives is under the supervision of the various missions. The Administration pays the salaries of the teachers and supplies furniture and equipment free of charge, but the missions have to supply the buildings and pay 50 per cent. of the cost of books.

There are thirteen coloured schools in the country with an enrolment of 965 pupils. The Administration has one at Windhoek, the Anglican Church of Damaraland has one at Luderitz, the Rhenish Mission has six, the Roman Catholic Mission one, and the Wesleyan Church two in the Rehoboth area. The Rhenish Mission also has one at Aroab, and the Wesleyan Church one at Mariental. The education of the natives is mainly in the hands of the Finnish Mission in Ovamboland, and of the Rhenish and Roman Catholic Missions in Damaraland and Namaland. The Anglican Church and the Roman Catholic Mission have also begun to do educational work in Ovamboland. The Education Department has registered seventy-seven mission schools for natives, all of which have qualified for government aid. In addition, there are two training schools for native teachers; the one at Okahandja is conducted by the Rhenish Mission, and the other at Doebra is conducted by the Roman Catholic Mission. The total number of scholars in all the native mission schools is 4,225.

5. **Cost and Statistics of Education.**—In 1937-38 the total expenditure on education amounted to £142,859. Of this amount £126,464 was spent on the education (including hostel expenses) of European pupils, and £16,395 on that of native and coloured pupils. The following tables contain data relative to education over a series of years:—

(i) NUMBER OF SCHOOLS AND SCHOLARS. EXPENDITURE ON EDUCATION, AND AVERAGE EXPENDITURE PER SCHOLAR, 1933-34 TO 1937-38.

Heading.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
(a) TOTAL EXPENDITURE.					
Administration	£ 1,921	£ 2,003	£ 1,675	£ 2,103	£ 2,936
Inspection	2,283	2,473	2,600	2,681	2,756
European Schools	67,891	73,090	80,431	83,982	85,216
European Hostels	21,126	22,212	29,180	43,962	37,453
Coloured and Native Education	11,393	11,862	13,805	13,480	14,498
TOTAL £	104,614	111,640	127,691	146,208	142,859
(b) GOVERNMENT SCHOOLS—EUROPEANS (EXCLUDING HOSTEL EXPENSES).					
Expenditure £	66,240	72,083	78,512	82,646	87,784
Schools No.	63	63	61	60	58
Scholars No.	4,291	4,600	4,885	4,890	5,162
Average cost per Scholar	£15 8 9	£15 13 5	£16 1 5	£16 18 0	£17 0 1
(c) PRIVATE SCHOOLS—EUROPEANS.					
Expenditure (Grants) £	4,475	3,992	5,420	4,525	1,227
Schools No.	57	59	36	26	27
Scholars No.	944	943	866	833	790
Average cost per Scholar	£4 14 9	£4 4 8	£6 5 2	£5 8 8	£1 11 1
(d) COLOURED AND NATIVE SCHOOLS.					
Expenditure—					
Coloured	£ 3,031	£ 4,451	£ 5,650	£ 5,025	£ 5,465
Native	9,103	8,944	11,300	10,050	10,930
TOTAL £	12,134	13,395	16,950	15,075	16,395
Schools—					
Coloured	No. 10	No. 12	No. 13	No. 12	No. 13
Native	95	107	71*	71	77
TOTAL No.	105	119	84*	83	90
Scholars—					
Coloured	No. 565	No. 642	No. 1,138	No. 801	No. 821
Native	3,778	3,611	4,029	,116	4,036
TOTAL No.	4,343	4,253	5,167	4,917	4,857
Average cost per Scholar—					
Coloured	£ s. d. 5 7 3	£ s. d. 6 18 8	£ s. d. 4 19 3	£ s. d. 6 5 6	£ s. d. 6 14 4
Native	2 8 2	2 9 4	2 13 7	2 8 10	2 14 2
Coloured and Native	2 15 11	3 2 10	3 5 7	3 1 4	3 7 6

* Unaided mission schools not included.

(ii) NUMBER OF EUROPEAN CHILDREN OF SCHOOL-GOING AGE, NUMBER AT SCHOOL, AND NUMBER OF TEACHERS IN GOVERNMENT AND PRIVATE SCHOOLS, 1934 TO 1938.

Year.	No. of Children of School-going Age.	No. of Children in Government Schools.	No. of Children in Private Schools.	No. of Teachers in Government Schools.	No. of Teachers in Private Schools.
1934	5,969	4,600	950	169	85
1935	5,898	4,609	876	181	89
1936	5,986	4,590	833	190	74
1937	6,265	5,162	790	203	59
1938	*	5,258	867	210	65

* Not available.

§ 8. Administration of Justice.

1. **Legal System.**—Article 2 of the Mandate, under which the territory is administered by the Government of the Union of South Africa, gave to the Mandatory full power of administration and legislation over the territory as an integral portion of the Union, and authorized the Mandatory to apply the laws of the Union to the territory, subject to such local modifications as circumstances might require. By the *Administration of Justice Proclamation*, 1919, the Roman-Dutch law as existing and applied in the Province of the Cape of Good Hope on the 1st January, 1920, was introduced as the common law of the territory, and all existing laws in conflict therewith were to the extent of such conflict repealed, except proclamations issued during the military occupation and in force on the said date, which continued to remain in force. Rights already accrued and liabilities already incurred were preserved. The effect of this proclamation was considered by the High Court in the cases of *Tittel* v. *The Master* (12th July, 1921) and *Collisons (S.W.), Ltd.*, v. *Kruger and others* (2nd July, 1923), which laid down that Roman-Dutch Law had been introduced into South West Africa, together with all the modifications which it had undergone in the Cape Province by desuetude, custom, judicial decision, and statute, whether abrogating or enacting. It was accordingly held, in the former case that the statutory law of the Cape Province relating to the execution of wills, so far as that particular will was concerned, was the law of the territory, and in the latter case that the Cape law of prescription as contained in Act No. 6 of 1861 was also part of the law of the territory. Much of the statute law of the Union has been specifically extended to the territory by Act of the Union Parliament, by proclamation or ordinance, subject to amendments required by local circumstances. Amongst such statutes may be mentioned those relating to interpretation of laws, solemnization of marriages, insolvency, arbitration, administration of estates, mental disorders, deeds registration, companies, bills of exchange, stamp duties, prisons, public health, immigration, land settlement, pounds, liquor licensing, inquests, concealment of birth, protection of girls and mentally defective women, children's protection, prevention of cruelty to animals, stock theft, diseases of stock, agricultural pests, vagrancy, masters and servants, workmen's compensation, police offences, preservation of game, railways and harbours, and usury. Certain portions of the German law (for example, that portion relating to mining) have been kept alive by express provisions in proclamations issued by the Administrator. A few Acts of Parliament of the Union apply directly to the territory; for instance, Acts Nos. 20 and 24 of 1922, 16 and 27 of 1923, 30 of 1924, 42 of 1925, 13, 18, and 22 of 1926, 22 and 40 of 1927, 27 of 1928, and 1 of 1937.

The law in force in South West Africa includes, therefore, (i) Roman-Dutch Law, with the modifications it has undergone in the Cape Province as explained above; (ii) certain Union Acts of Parliament which apply directly to the territory; (iii) proclamations issued by the Governor-General or the Administrator, some of which specifically introduce Union statutes; (iv) Ordinances by the Legislative Assembly; (v) those portions of the German law which have been expressly preserved; and (vi) those fragments of the German law which have survived by reason of the fact that they do not conflict with any of the laws already mentioned.

2. **Superior Courts.**—On the 1st January, 1920, military courts were abolished and civil courts established. A superior court, entitled the High Court of South West Africa, was created, consisting of a single judge. It has its seat at Windhoek, but may be held at other places appointed by the judge. In civil cases the judge sits alone, but in criminal cases the court is composed of the judge, who is president, and two other members, who must be either advocates or magistrates. There is no jury. Questions of law are decided by the judge, except questions of law governing the punishment, which are decided by a majority of the members of the court. Questions of fact are determined by a majority of the members, which also fixes the sentence to be passed.

An officer, styled the Attorney-General, has been appointed, who, in regard to the prosecution of crimes and offences, possesses the powers of an attorney-general in a province of the Union under section 139 of the *South Africa Act*, as originally passed, and before amendment in terms of section 1 of Act No. 39 of 1926. There are also a Registrar, Master, and Sheriff of the High Court and a Registrar of Deeds.

By Proclamation No. 38 of 1920, circuit courts were established, with a similar constitution to that of the High Court. The territory is divided from time to time into two or more circuit districts, in each of which a circuit court is held at least twice a year.

An appeal from the High Court or from a circuit court, whether in the exercise of civil or criminal jurisdiction, lies to the Appellate Division of the Supreme Court of South Africa under the same circumstances and subject to the same conditions as an appeal lies from a Provincial Division of the Supreme Court of South Africa. In cases of an appeal from orders or judgments of the High Court or a circuit court upon application by way of motion or petition, or on summons for provisional sentence, or judgments as to costs only, or on civil appeals from a magistrate's court, special leave to appeal must first be obtained from the Appellate Division.

The law of procedure and evidence in the High Court and in circuit courts in civil cases is that of the Cape Provincial Division of the Supreme Court of South Africa, and in criminal cases that prescribed by the Union *Criminal Procedure and Evidence Act*, 1917, which has been extended and applied to the territory with certain amendments. In 1935 a substantive provision was passed (Proclamation No. 30 of 1935), embodying substantially all the provisions of Act No. 31 of 1917, with the necessary modifications.

Rules for the conduct of proceedings in the High Court and circuit courts are framed by the judge of the High Court, subject to the approval of the Administrator.

3. **Inferior Courts.**—Magistrates' courts were also established on the 1st January, 1920, and have the same jurisdiction and observe the same procedure as the magistrates' courts in the Union. An appeal lies to the High Court of South West Africa from a judgment of a magistrate's court in the same circumstances and on like terms and conditions as an appeal may be had to a Provincial Division of the Supreme Court of South Africa from a magistrate's court in the Union. All sentences imposed by a magistrate's court of whipping or of fines exceeding £25 or of imprisonment exceeding three months are reviewed by the High Court. The country is divided into eighteen magisterial districts, and courts are held at the following places:—Aroab, Bethanie, Mariental, Gobabis, Grootfontein, Karibib, Keetmanshoop, Luderitz, Maltahöhe, Okahandja, Omaruru, Ondongua, Otjiwarongo, Outjo, Rehoboth, Swakopmund, Warmbad, and Windhoek. At present there are no magistrates at Aroab and Bethanie. The magistrate of Keetmanshoop is also magistrate of these districts. There is also no magistrate at Maltahöhe; the magistrate of Gibeon (at Mariental) is magistrate of this district. There is furthermore no magistrate at Ondongua. A special magistrate is appointed *ad hoc* whenever necessary. Periodical courts are also held by magistrates at other places at regular intervals. Any magistrate's court may be held at any place or places, within the local limits within which it has jurisdiction, appointed by the magistrate. There is no Rules Board as in the Union, but by Proclamation No. 31 of 1935 the judge of the High Court has been empowered to frame new rules and repeal and amend existing rules of magistrates' courts, subject to the approval of the Administrator.

Special justices of the peace have been appointed under Proclamation No. 25 of 1921 at Hochfeld and Walvis Bay, and also certain seats of magistracy. Special justices of the peace have jurisdiction in criminal cases to impose a sentence of fine not exceeding £10 and imprisonment not exceeding one month but, except in the case of juvenile offenders, they may not impose a sentence of whipping. All sentences imposed by special justices of the peace are reviewed by the magistrates of the respective districts. Special justices of the peace have no jurisdiction in civil cases.

4. **General.**—The power to remit sentences is vested in the Administrator, except as regards death sentences, in which case the prerogative of mercy may be exercised by the Governor-General-in-Council of the Union. The languages which may be used in the Courts are English and Dutch,* but German may be used in addressing the High Court. In criminal cases interpreters are provided in all languages free of charge.

By Act No. 24 of 1922 of the Union Parliament provision was made for the reciprocal service and enforcement in the Union and the territory of civil and criminal summonses, orders, warrants, and other processes of magistrates' courts and superior courts. Provision was also made for the removal of proceedings, whether criminal or civil, from a superior court in the Union to the High Court of South West Africa, and *vice versa*. The same Act provided that for all judicial purposes the port and settlement of Walvis Bay should be regarded as a part of the territory of South West Africa. That port and settlement has been included in the magisterial district of Swakopmund.

By Act No. 13 of 1926 of the Union Parliament, provision was made for the arrest and surrender of fugitive offenders from British colonies and protectorates in Africa south of the equator, in which the Governor-General by Proclamation declares that there exists a law providing reciprocally for the arrest and surrender of fugitive offenders from South West Africa. The same Act provided for the application to South West Africa of the Imperial *Extradition Acts*, 1870 to 1906, as regards the extradition of fugitive criminals between South West Africa and any foreign State, between the Government of which and His Majesty an extradition treaty has been entered into, if the treaty provides for its extension to South West Africa. By Proclamation No. 26 of 1920, provision was made to enforce the attendance before the courts of certain adjoining territories of persons resident or being within South West Africa and required as witnesses in civil or criminal proceedings.

5. **Principal Judicial and Police Officers.**—The following is a list of the principal judicial and police officers in the territory:—

Judge of the High Court of South West Africa	O. H. Hoexter, B.A., LL.B.
Registrar of the High Court, Taxing Officer, Sheriff, and Master of the High Court	J. M. M. Commaille.
Attorney-General	R. E. G. Rosenow, B.A., LL.B.
Professional Assistant to Attorney-General	J. P. de M. Niehaus, B.A., LL.M.
Commandant, South West Africa Police	Lt.-Col. C. A. B. van Coller, M.B.E.

6. **Admission of Legal Practitioners.**—Provision has been made for the admission of advocates, attorneys, notaries public, and conveyancers. The High Court may admit to practise as an advocate any person entitled to practise or to be admitted to practise as an advocate in any division of the Supreme Court of South Africa. The admission of attorneys is governed by the provisions of the *Law Society Proclamation*, 1921 (Proclamation No. 32 of 1921) as amended by Proclamation No. 4 of 1936.

The amending Proclamation embodies all the principal provisions of Act No. 23 of 1934, with necessary modifications. Union practitioners with three years' experience may be admitted to practise, subject to certain conditions. No person may be admitted to practise both as an advocate and as an attorney. Certain practitioners of the former courts of German South West Africa may also be admitted to practise as advocates or as attorneys. Any person admitted to practise as an advocate or an attorney by the High Court may also appear in any proceedings before a magistrate's court. The High Court exercises jurisdiction in respect of advocates, attorneys, notaries public, and

* And Afrikaans.

conveyancers similar to that exercised by the Cape Provincial Division of the Supreme Court in respect of practitioners in the Cape Province. By Proclamation No. 32 of 1921, the Law Society of South West Africa was established.

7. **Prisons.**—Gaols and lock-ups are administered in accordance with the Union *Prisons Act* (No. 13 of 1911) and regulations framed thereunder; there are at present seven gaols under the prison branch of the Administration and twenty-one lock-ups and twenty police cells controlled by the police under the supervision of the various magistrates. The gaols are classed as follows:—

1st Class—Windhoek.
4th Class—Luderitz, Keetmanshoop, Grootfontein, Omaruru, Gobabis, and Swakopmund.

The daily average of prisoners in the whole of the territory for 1938 was 326·68; only a small percentage were Europeans. Of this number 247·98 were at the Windhoek gaol, where all long-sentence prisoners are concentrated and the usual prison industries carried out. Female prisoners serving long sentences are, however, detained at Swakopmund, owing to lack of suitable accommodation at Windhoek. The local natives dislike sentences of imprisonment, and if possible pay a fine in preference.

The number of convictions for breach of gaol regulations is very low, and the convictions are only for minor offences such as being in possession of unauthorized articles, i.e. tobacco, matches, etc.

8. **Crime Statistics.**—The following tables show for a series of years the number of persons of each race and sex convicted (i) by the High Court and circuit courts and (ii) by inferior courts.

(i) CONVICTIONS—HIGH COURT AND CIRCUIT COURTS—1934 TO 1938.

Year.	Persons Convicted.				
	Europeans.		Natives and Coloured.		Total.
	Male.	Female.	Male.	Female.	Persons.
	No.	No.	No.	No.	No.
1934	12	—	62	—	74
1935	11	—	40	1	52
1936	19	—	29	2	50
1937	9	—	35	2	46
1938	16	—	40	3	59

(ii) CASES DISPOSED OF BY INFERIOR COURTS, 1934 TO 1938.

Year.	Cases.	Persons Prosecuted.	Persons Convicted.				
			Europeans.		Natives and Coloured.		Total.
			Male.	Female.	Male.	Female.	Persons.
	No.	No.	No.	No.	No.	No.	No.
1934	6,468	6,714	823	41	4,305	600	5,769
1935	6,974	6,916	890	39	4,556	497	5,982
1936	7,709	7,803	1,213	47	4,944	830	7,034
1937	8,826	8,979	1,339	61	5,869	981	8,250
1938	10,187	10,314	1,287	87	6,503	992	8,869

§ 9. Native Administration.

1. **Native Population.**—A census was taken in 1936, when the native population, which was partly enumerated and partly estimated, was returned as 69,740 in the Police Zone, and 191,984 outside the Police Zone, including those living in Ovamboland, the Kaokofeld, the Okavango, and the Caprivi Zipfel. The total number of natives is 261,724. These figures exclude all persons classified as "Coloured" for Census purposes, for particulars of which see § 5 of this chapter.

2. **Native Labour.**—The increased activity in mining operations generally has created a great demand for mine labourers, and, as the wages offered are higher and the conditions of employment more attractive than those which the farmer is able to provide, this activity has resulted in a marked shortage of labour available for pastoral and agricultural pursuits.

The labour supply for the diamond mines is drawn from Ovamboland, whilst the labour for the tin, copper, vanadium, and gold mines inland is drawn from recruits obtained within the police zone, and from the Okavango area in the northern portion of this territory. In the past the recruitment of natives in Ovamboland and the Okavango was carried out by the Administration through the native affairs officers stationed in those territories. Recruiting organizations have now been formed to carry on this work.

The chief employers of labour in the territory are the Railway Department, the Chamber of Mines at Luderitz, the Otavi Copper Mining Company in Tsumeb, the South West Company, and the various tin mining companies in the districts of Omaruru and Karibib. They employ principally unskilled labourers, derived to some extent from local sources, but for the most part from Ovamboland and the Okavango area.

In Ovamboland, the Okavango, Windhoek, and Luderitz, officers have been specially appointed for the purpose of native administration, whilst in the country districts the control is vested in the magistrates.

3. **Native Law.**—In areas which have been opened up for the settlement of Europeans, the main provisions of the law affecting natives, apart from those dealing with masters and servants, which is practically the law as it exists in the Cape Province, are embodied in the following enactments:—

(*a*) The *Native Administration Proclamation*, 1922, which supersedes many of the old German laws and constitutes the principal pass law, regulating as it does the movements of natives within the territory and of those desirous of leaving or entering it. This proclamation also provides for the exemption of natives under certain conditions from the carrying of passes, and contains provisions for the establishment of reserves and the control of natives therein and on farms. The pass laws are not applicable in purely native areas such as Ovamboland. The *Native Labour Proclamation*, 1917, applies more particularly to the control and welfare of natives working within mining areas.

(*b*) The *Vagrancy Proclamation*, which provides for the suppression of idleness and trespass. Natives are allowed to select their own masters, and strict instructions have been issued against forcing natives to take service with particular masters against their will. When a native is dilatory in finding employment, an employer may be indicated, and if he refuses to engage himself, he may be prosecuted under the *Vagrancy Act*. Before sentencing natives under the Vagrancy Laws, magistrates are required to give the offender an opportunity of taking employment in preference to undergoing imprisonment. Certificates of exemption from labour may be granted to natives having visible means of support, such as possession of stock. Persons unfitted for labour by reason of old age or physical infirmity are *ipso facto* exempted persons.

(*c*) The *Municipal Proclamation*, which empowers municipalities, *inter alia*, to make regulations, subject to Government sanction, for the control and management of native locations within their respective areas.

(*d*) The *Natives' Stock Brands Proclamation*, which provides for the branding and registration of their large stock and frees natives from the liability of having to purchase branding irons. Under this Proclamation these irons are supplied by the Administration and are in the custody of prescribed officials under whose supervision the stock is branded.

(*e*) The *Native Reserve Trust Fund Proclamation*, which provides for revenue collected in reserves being spent entirely in the interests of the natives resident in the reserves concerned.

(*f*) The *Urban Areas Proclamation*, which adopts the main provisions of the Union *Natives (Urban Areas) Act* of 1923, and omits only those which are not applicable to the conditions obtaining in the territory. This proclamation has been applied to the towns of Windhoek, Swakopmund, Tsumeb, Otjiwarongo, Luderitz, Mariental, Usakos, Keetmanshoop, Omaruru, Karibib, Okahandja, Grootfontein, and the port of Walvis Bay.

(*g*) The *Native Reserves Fencing Proclamation*, which provides that the Fencing Law be applied to natives in respect of areas proclaimed as native reserves.

(*h*) The "*Wheel Tax*" (*Application to Natives*) *Proclamation*, which provides that natives shall pay wheel tax at the same rate as Europeans.

(*i*) The *Prohibition of Credit to Natives Proclamation*, 1927, which prohibits the granting of credit to natives.

(*j*) The *Dog Tax* (*Applicable to Natives*) *Proclamation*, 1928, which provides that every native who resides in a reserve and is registered as the owner of stock running in that reserve may apply for the exemption from payment of tax in respect of one dog.

(*k*) The *Native Administration Proclamation*, 1928, which provides for the appointment of a Chief Native Commissioner, Native Commissioners, and Assistant Native Commissioners, establishes courts for the hearing of native cases, and deals with tribal organization and the control of natives generally.

(*l*) The *Ovamboland Affairs Proclamation*, 1929, which provides for the establishment of trust funds for the tribes in Ovamboland.

(*m*) The *Caprivi Zipfel Affairs Proclamation*, 1930, which provides for the establishment of trust funds for the tribes in the Caprivi Zipfel.

(*n*) The *Native Labour Regulation Amendment Proclamation*, 1931, which makes provision for the return of native labourers to the places where they were recruited.

(*o*) The *Control of Sites Proclamation*, 1932, which regulates the granting of sites in native areas for church, school, or mission purposes.

(*p*) The *Witchcraft Suppression Proclamation*, 1933, which provides for the suppression of the imputation or practice of pretended witchcraft.

(*q*) The *Immorality Proclamation*, 1934, which prohibits illicit carnal intercourse between Europeans and natives and other acts in relation thereto.

(*r*) The *Extra-territorial and Northern Natives Control Proclamation*, 1935, which provides for the control of natives recruited beyond the boundaries of the territory, or beyond the limits of the police zone, for labour within the said zone, and for the control of such natives as aforesaid who have voluntarily entered the said zone.

(*s*) The *Support of Dependants* (*Natives*) *Proclamation*, 1936, under which provision exists for compelling relatives to support indigent natives for whose maintenance they are liable.

4. Expenditure on Natives.—The following statement shows for a series of years the direct expenditure on natives:—

EXPENDITURE ON NATIVES, 1933-34 TO 1937-38.

Year.	Education.	Native Affairs.	Public Health.	Total.
	£	£	£	£
1933-34	12,134	14,359	9,852	36,345
1934-35	13,395	18,835	11,788	44,018
1935-36	15,440	28,163	11,847	55,450
1936-37	16,120	22,390	12,720	51,230
1937-38	16,395	33,459	14,335	64,189

5. Liquor Prohibition.—In order to secure the advancement of the native and to prevent as far as possible his lapsing into crime, it is forbidden to place in the care of, or to give, sell, or deliver to, any coloured person any intoxicating liquor, except for medicinal purposes on the production of a prescription from a qualified medical practitioner. It is further unlawful for a master to give his servant "tots" of liquor; it is also unlawful to brew kaffir beer without permission.

6. Native Reserves.—With a view to the reconstruction, as far as practicable, of tribal organization and the provision of areas in which the natives may live under healthy and natural conditions with their stock, reserves have been established in various districts. These are generally controlled by the hereditary chief, if any, or an elected or appointed headman, who is responsible to the magistrate of the district for the preservation of law and order in and about the reserve. In some instances, European welfare officers have been appointed for the purpose of closer supervision of the reserves. This system of native administration may be said to serve a double purpose, in that it ensures a settled, contented population, and creates a potential labour-recruiting field for the future. All the areas selected for native reserves have existing water

supplies, but, as these are not conveniently distributed and are in some cases insufficient, dam-building operations upon a considerable scale are being undertaken. It is the policy of the Administration to provide adequate supplies in all reserves.

Purely native areas such as Ovamboland and those secured by old treaties have not been disturbed, whilst various additional reserves have been provided.

The following native reserves have been proclaimed:—

NATIVE RESERVES IN SOUTH WEST AFRICA.

District.	Name.	Extent.	By Whom Occupied.
(*a*) LAND OCCUPIED BY NATIVES UNDER GERMAN TREATIES.			
		Hectares.†	
Keetmanshoop	Berseba Hottentot Territory.	575,000*	Berseba Hottentots.
Warmbad	Bondels Reserve	174,505	Bondelzwarts.
Omaruru	Okombahe	172,780	Bergdamaras.
Outjo	Zessfontein	31,416	Topnaar and Swartbooi Hottentots.
Outjo	Franzfontein	36,188	Swartbooi Hottentots.
Bethanie	Soromas	16,830	Bethanie Hottentots.
(*b*) RESERVES ESTABLISHED BY THE SOUTH WEST AFRICA ADMINISTRATION.			
		Hectares.†	
Maltahöhe	Neuhof	20,500	Various Tribes.
Keetmanshoop	Tses	254,587	Hottentots, Hereros, and Damaras.
Okahandja	Ovitoto	61,193	Hereros.
Grootfontein	Otjituo	372,024	Chiefly Hereros.
Gobabis	Aminuis	554,800	Bechuanas and Hottentots.
Gobabis	Epukiro	1,027,000	Chiefly Hereros.
Otjiwarongo	Waterberg East	343,000	Hereros and Damaras.
Gibeon	Gibeon Reserve	39,192	Witbooi Hottentots.
Omaruru	Otjihorongo	330,000*	Hereros.
Karibib	Otjimbingwe	91,021	Hottentots, Damaras, and Hereros.
Windhoek	Aukeigas	13,837	Damaras.
Grootfontein	Okavango Native Territory	3,200,000*	Kuangari, Bunja, Sambio, Diriko, and Mbukushu.
Outjo (Kaokoveld)	Kasupi	114,500*	Ovatjimba, Ovahimba.
Outjo (Kaokoveld)	Oorlog	99,100*	Hereros, Oorlams, Ovatjimba, and Ovahimba.
Outjo (Kaokoveld)	Karuapa	165,600*	Ovatjimba and Ovahimba.
Ovamboland	Ovamboland	4,200,000*	Ondonga, Ukuanyama, Ukuambi, Ongandjera, Ombalantu, Ukualuki, and Okolonkathi (mixed).
Outjo	Franzfontein (ext.)	21,000*	Swartbooi Hottentots.
	TOTAL	11,914,073	

* Approximate.
† A hectare = 2·4711 acres (approx.) = 1·1675 morgen (approx.).

NOTE.—
(*a*) Areas approximately 4,255,800 hectares in extent are reserved for the future extension of native reserves.
(*b*) In the eastern Caprivi Zipfel three tribes are provided for and Trust Funds are established.
(*c*) The Rehoboth Gebiet (in extent 1,356,200 hectares) in the Rehoboth District is reserved for the Rehoboth Coloured community.

In 1938 the estimated population in the Proclaimed Reserves was as follows:—

Reserve.	Men.	Women.	Children.	Total.
Soromas	63	102	100	265
Gibeon	104	162	153	419
Aminuis	980	960	943	2,883
Epukiro	756	1,072	937	2,765
Otjituo	744	781	408	1,933
Otjimbingwe	331	546	545	1,422
Berseba	689	624	717	2,030
Tses	417	421	311	1,149
Neuhof	10	9	15	34
Ovitoto	489	743	436	1,668
Okombahe	381	471	416	1,268
Otjihorongo	678	854	524	2,056
Waterberg East	1,389	1,524	1,482	4,395
Franzfontein	67	93	137	297
Bondels	80	161	195	436
Aukeigas	147	299	240	686
Zessfontein	218	199	252	669
Hochanas (temporary)	34	67	95	196
TOTAL	7,577	9,088	7,906	24,571

§ 10. Land and Irrigation.

1. **Land Settlement.**—The following statement furnishes information relative to the ownership of land in the territory (exclusive of Ovamboland and the Caprivi Zipfel):—

LAND OWNERSHIP IN SOUTH WEST AFRICA, 1938.

Description.	Area.
	Hectares.
Area of Territory—	
(*a*) Outside Police Zone	30,101,000
(*b*) Inside Police Zone: Namib land	7,164,860
Other lands	45,025,000
	82,290,860
Non-European (Natives and Coloured) Lands—	
(*a*) Proclaimed Native Reserves (inside and outside Police Zone)	11,914,073
(*b*) Areas reserved for extension of Native Reserves (inside and outside Police Zone)	4,255,800
(*c*) Rehoboth Gebiet	1,356,200
	17,526,073
European Farm Lands—	
(*a*) Farms in Private Ownership	14,708,692
(*b*) Farms leased to settlers; 1,735 farms	8,828,187
(*c*) Land held by Companies	2,077,331
	25,614,210
Urban Areas	437,100
Game Reserves (inside and outside Police Zone)	9,593,600
Area of unalienated Crown Lands—	
(*a*) Inside Police Zone	11,578,226
(*b*) Outside Police Zone	9,500,000
	21,078,226

1 square mile = 258·994 hectares.

A land tax is leviable on all landed property, rural and urban, and yields about £12,000 per annum. The land tax is collected from owners of land in the territory in accordance with the following Ordinances:—

(i) Taxation of Landed Property Consolidation and Amendment Ordinance, 1935 (Ordinance No. 5 of 1935).
(ii) Taxation of Landed Property Amendment Proclamation, 1935 (Proclamation No. 9 of 1935).
(iii) Taxation of Landed Property Further Amendment Ordinance, 1935 (Ordinance No. 22 of 1935).

Crown lands in the territory are disposed of under Proclamation (Union) No. 310 of 1927. Under this proclamation land is from time to time advertised as available for settlement purposes by notice in the official *Gazette* and in newspapers circulating in the territory and in the Union. The farms are advertised for eight weeks; after the expiry of this period all applications are considered by the Land Board.

Remission of rent for the first five years of the lease period of a settler's operations may be granted, where a settler has effected improvements of a permanent nature to the value of 10 per cent. of the prairie value of the holding allotted to him. Crown land values range from 1s. to 5s. per hectare (2½ acres) according to quality and locality.

It is advisable that intending settlers should be possessed of capital of from £1,000 to £2,000. Inquiries should be addressed to the Senior Officer, Lands Branch, Windhoek, S.W.A.

2. **Water Supplies.**—The chief methods of obtaining water supplies in the territory are—

(*a*) by tapping the underground water by means of boreholes and wells;
(*b*) by the construction of surface dams and weirs;
(*c*) by the construction of underground weirs or *grundschwelle* across sandy river beds.

The first method is extensively employed by stock farmers owing to the prevalence of underground supplies, but, where the topography of the ground is favourable, conservation of water is accomplished by means of dams. Strong artesian supplies occur in regions along the Oup and Nosop Rivers. The water occurs in layers of sandstone between shale strata of the Karroo formation. The depths of the artesian boreholes vary from 250 to 730 feet, and the yield from 20,000 to 1,000,000 gallons per 24 hours. These boreholes are under control, and water can be shut off when not required. With the exceptions mentioned below, the rivers of the territory are all intermittent. It is, however, only during the rainy season, which is in summer, that these intermittent rivers flow at all; in the winter the river beds are dry. The following rivers are perennial:—

The *Orange River*, which forms the southern boundary of the territory and discharges into the Atlantic Ocean.

The *Kunene River*, which forms part of the northern boundary and discharges into the Atlantic Ocean.

The *Okavango River*, on the north-east, which discharges into the Okavango marshes in Bechuanaland.

The *Kwando* or *Mashi River*, which crosses the Caprivi Zipfel and discharges into the Zambezi River.

The *Zambezi River*, which forms the boundary between the Caprivi Zipfel and Northern Rhodesia and discharges into the Indian Ocean.

Subterranean water in South West Africa is generally found at considerably greater depths than in the Union, and the supplies are fairly reliable and constant throughout the dry season. Government boring operations have been much curtailed, but numbers of private boring contractors now drill for farmers.

The following table gives the total footage drilled by government machines in recent years and the yields obtained.

WATER-BORING OPERATIONS, 1934 TO 1938.

Year.	Boreholes Completed.	Boreholes in Progress at End of Year.	Aggregate Depth.	Yield per Diem.
			Feet.	Gallons.
1934	5	2	1,402	84,280
1935	10	1	3,098	482,660
1936	4	2	1,448	115,600
1937	6	1	1,972	49,680
1938	9	3	2,255	108,600

3. **Rainfall.**—The rainfall of the various districts in the territory does not, owing to its uncertainty, form a reliable water supply. Generally speaking, the rainfall increases from south to north and from west to east. The maximum amount of rain falls accordingly in the north-eastern area, and the minimum rainfall is found in the south-west. The heaviest precipitation takes place during the summer months from December to March over the northern area. In the south, on the other hand, winter rains have been experienced. The rainfall statistics for the various districts are given hereunder:—

(i) RAINFALL STATISTICS, 1933-34 TO 1937-38 (in Inches).

Locality.	1933–34.	1934–35.	1935–36.	1936–37.	1937–38.
Warmbad	4·05	2·39	1·09	3·56	3·64
Aroab	12·72	6·24	8·02	5·62	7·12
Keetmanshoop	13·04	4·80	3·35	5·39	5·39
Bethanie	11·65	4·87	3·22	10·15	6·64
Gibeon	18·47	6·85	5·57	11·67	8·85
Maltahöhe	17·92	8·53	5·35	9·92	8·06
Rehoboth	26·57	8·80	6·93	10·20	6·63
Gobabis	40·94	13·77	11·57	11·02	12·88
Windhoek	30·23	11·74	10·92	18·03	21·07
Swakopmund	5·76	0·20	0·36	1·41	0·21
Okahandja	43·68	12·34	13·99	15·10	17·83
Karibib	30·23	9·77	4·49	10·64	7·24
Omaruru	33·79	10·06	7·09	11·46	14·67
Otjiwarongo	26·50	17·56	23·77	18·50	10·67
Outjo	40·08	11·30	13·46	17·58	26·04
Grootfontein	35·16	15·48	30·64	15·76	19·00
Tsumeb	38·56	17·74	19·56	15·62	23·29

(ii) NORMAL RAINFALL (in Inches).

Warmbad	3·27	Maltahöhe	6·18	Karibib	7·24
Luderitz	0·79	Rehoboth	8·75	Omaruru	10·55
Aroab	6·38	Gobabis	14·76	Otjiwarongo	16·54
Keetmanshoop	4·88	Windhoek	13·62	Outjo	15·20
Bethanie	4·21	Swakopmund	0·71	Grootfontein	22·44
Gibeon	6·30	Okahandja	13·78	Tsumeb	21·22

§ 11. Agriculture, Live Stock, and Fisheries.

1. **General Conditions.**—Owing to the generally low rainfall prevailing in the territory, it is not possible to carry out agriculture on any considerable scale. However, in the Grootfontein district, which is situated in the northern portion of the territory, where the rainfall approximates 24 inches, crops of maize, potatoes, beans, etc., can be produced in some years, although the distribution of the rainfall tends to be erratic and cannot always be relied on. As a rule the maize crop, even though not brought to maturity, can be developed sufficiently for the production of silage, a matter of considerable importance to such farmers as are engaged in the dairy industry, for which this district is on the whole suitable. There is a good supply of artesian water along the Oup River, and here a certain amount of wheat is grown, while further east on the Nosop River this crop is also produced under a system of floodwater irrigation.

The agricultural statistics for the years 1934 to 1938 are as follows:—

Item.	1934.	1935.	1936.	1937.	1938.
Area cultivated.....hectares*	22,230	19,699	21,297	15,837	27,636
Wheat.....lb.	1,083,400	1,306,200	1,730,600	1,628,200	950,000
Maize.....lb.	9,369,600	6,461,600	13,171,400	10,577,000	15,205,000
Kaffir-corn.....lb.	406,400	375,600	249,600	228,780	94,000
Potatoes.....lb.	312,150	851,000	472,320	761,280	440,700
Beans.....lb.	59,800	92,000	6,220	—	—
Tobacco.....lb.	67,625	46,000	96,630	351,980	151,200

* A hectare = 2·4711 acres (approx.) = 1·1675 morgen (approx.).

2. **Pastoral Conditions.**—With the exception of the areas previously mentioned, practically the whole of the territory is farmed under pastoral conditions. Normally the territory, in addition to meeting its own requirements as regards beef and mutton, exports considerable numbers of large and small stock on the hoof to the Union for slaughter purposes. In the south farming is confined mainly to sheep and goats, while in the middle and north dairy ranching is carried on as well. The sheep industry is confined almost entirely to Karakul breeding. The cattle maintained are of the dual purpose type, the idea being the production of a medium amount of milk, which provides ready cash, and the production of a useful carcass of beef.

Neudam is the chief experimental farm, but during 1936 there was a further extension of the Administration's activities in connexion with the breeding of pure-bred Karakul sheep. Portion of the pure-bred flock was transferred from Neudam experimental farm to Omatjenne, near Otjiwarongo, so that there is now a breeding station in the north. In addition to Karakul sheep, three herds of pure-bred cattle are maintained at Neudam, viz., Red Poll, Shorthorn, and Aberdeen Angus. Auction sales of pure-bred Karakul rams are held twice during the year at Windhoek, at Omatjenne, and at Keetmanshoop, and one sale of pure-bred bulls is held at Windhoek.

The Karakul industry makes continued progress and farmers had a good year in 1938, the prices obtained for pelts being very satisfactory. Pure-bred animals fetched high prices, e.g. at the sales of the Administration's stock, 165 rams were sold at an average price of £19. 12s. 10d. and 93 culled ewes at an average price of £8. 9s. To show what strides the Karakul industry has made during a period of twelve years, it may be stated that in 1926 approximately 10,000 pelts were exported while in 1938 more than 1,290,000 were exported.

3. **Stock Disease.**—The territory remains comparatively free from serious stock diseases. It has remained free from foot and mouth disease since the end of 1934. Anthrax and black-quarter in cattle do occur, but outbreaks are promptly dealt with by means of prophylactic inoculation coupled with quarantine measures, and thus cause no heavy losses. During 1938 gallamsiekte was not at all severe; but horse-sickness was fairly prevalent in some areas, where the mortality amongst uninoculated animals was high. Anaplasmosis seems to be spreading, but preventive inoculation is being practised to a considerable extent. Amongst small stock the prevalent complaints are scab, verminosis, and, to a less extent, vegetable poisoning.

4. **Live Stock Census and Export of Live Stock.**—The following tables give the number of animals returned at livestock censuses and the export of live stock during a series of years.

(i) NUMBER OF ANIMALS RETURNED AT LIVE STOCK CENSUSES, 1934 TO 1938.

Live Stock.	1934.	1935.	1936.	1937.	1938.
	No.	No.	No.	No.	No.
Cattle	622,426	665,919	706,708	806,669	908,071
Horses	17,985	20,919	23,521	25,447	28,164
Mules	1,160	1,251	943	1,050	1,627
Donkeys	70,221	77,066	83,346	88,051	99,301
Pigs	5,856	8,117	11,791	11,541	9,690
Woolled Sheep	126,635	123,271	123,334	111,824	94,373
Karakuls (pure-bred)	26,497	33,067	22,422	25,074	26,465
Karakuls (grade)	774,127	1,092,839	1,448,900	1,880,932	2,119,924
Other Sheep	709,629	814,375	812,602	797,190	769,323
Angora Goats	11,865	20,450	14,300	17,216	19,676
Other Goats	700,754	895,316	812,602	1,212,788	1,400,646
Blackhead Persian Sheep	92,317	86,786	58,696	82,771	64,172

(ii) ESTIMATED NUMBER OF NATIVE-OWNED LIVE STOCK, 1934 TO 1938.

Area.	Large Stock.					Small Stock.				
	1934.	1935.	1936.	1937.	1938.	1934.	1935.	1936.	1937.	1938.
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
Within Police Zone*	119,400	144,300	142,689	158,512	149,840	410,200	530,300	509,441	713,244	794,460
Ovamboland	143,200	143,200	143,226	143,226	149,000	181,000	181,000	181,000	182,000	166,140
Kaokofeld	20,400	20,400	20,378	20,378	26,150	39,000	39,000	38,876	38,876	45,000
Okavango	7,200	7,500	7,690	8,000	23,774	—	800	1,000	1,770	2,000
Caprivi Zipfel (Eastern Portion)	21,600	22,000	23,242	21,361	23,852	2,000	2,000	1,786	1,289	2,578
Caprivi Zipfel (Western Portion)	200	200	231	240	300	—	—	30	30	981
										59
TOTAL	312,000	337,600	337,456	351,717	372,916	633,000	753,300	732,903	937,439	1,009,218

* Included in Table (i) above.

(iii) EXPORT OF LIVE STOCK OVERSEAS, 1934 TO 1938.

Description.	1934.	1935.	1936.	1937.	1938.
	No.	No.	No.	No.	No.
Imperial Cold Storage—	—	—	—	—	—
Cattle (Live)	4,258	9,336	11,310	—	—
Cattle (Carcases)					
Liebig's Meat Extract Works—	—	—	1,806	—	—
Cattle					
Verster Bros	—	129	174	—	—

(iv) EXPORT OF LIVE STOCK TO THE UNION OF SOUTH AFRICA, 1934 TO 1938.

Description.	1934.	1935.	1936.	1937.	1938.
	No.	No.	No.	No.	No.
Cattle	29,523	120,269	95,700	48,257	67,209
Small Stock	99,521	119,619	112,652	140,444	154,209

v) EXPORT OF KARAKUL PELTS, DAIRY PRODUCE OVERSEAS, AND DAIRY PRODUCE TO THE UNION OF SOUTH AFRICA, 1934 TO 1938.

			1934.	1935.	1936.	1937.	1938.
arakul Pelts		No.	354,884	514,193	814,561	1,190,212	1,292,053
utter	Overseas	lb.	443,602	4,643,796	4,431,944	2,704,620	4,040,512
heese	Overseas	lb.	1,733	34,925	7,890	4,146	117,549
utter	To Union	lb.	1,813,947	1,790,776	2,691,138	4,040,187	3,880,066
heese	To Union	lb.	128,415	144,055	187,201	172,521	232,247

5. **Fisheries.**—The only fishing on a commercial basis is carried on at Walvis ay by snoek cutters from Capetown. Figures showing the quantity and alue of snoek exported from Walvis Bay during the fishing seasons from)33-34 are given below. A small private concern is operating at Sandfish arbour with seine nets (trek nets) and supplies fresh and smoked fish to land consumers and to the Walvis Bay community. Crawfish canning has een established at Luderitz and three factories are in operation.

SNOEK EXPORTED FROM WALVIS BAY, 1933-34 TO 1937-38.

Season.	Quantity.	Value.
	No.	£
33–34	252,600	7,578
34–35	593,565	17,806
35–36	664,470	19,934
36–37	170,216	5,561
37–38	414,180	12,137

6. **Guano.**—The following table furnishes information in regard to the xport of guano for the years 1935 to 1938.

EXPORT OF GUANO, 1935 TO 1938.

Year.	Quantity.	Value.
	Long Tons.	£
1935	489	1,422
1936	543	2,960
1937	223	1,196
1938	1,118	8,944

§ 12. Mines.

1. **Copper.**—In the Journal of Francis Galton, written in 1851, the first mention is made of the occurrence of copper ores—at Tsumeb—in what is now the Mandated Territory of South West Africa, but the only company which has ever produced copper on a considerable scale is the Otavi Minen und Eisenbahn Gesellschaft, which owns and works the Tsumeb Mine in the Grootfontein district. At present the Tsumeb Mine is the only mine producing copper ore and copper matte in the territory.

The deposits consist of lenses of ore in grey Otavi dolomite, the shapes of the bodies varying considerably from level to level. The ore at Tsumeb is a massive coarsely crystalline aggregate, composed in variable proportions of argentiferous galena and chalcocite, with zincblende, pyrite, enargite, stibioluzonite, and chalcopyrite. The chalcocite is of secondary origin. Less important deposits of copper-lead and copper ore of the same nature occur at other places in the Otavi mountain area.

Up to 1918 the Khan mine on the Khan River, a tributary of the Swakop River, exploited an inclined vein of coarse copperbearing pegmatite in gneiss. Copper deposits of the same nature are known at a number of places within the territory; but the future of copper mining at all these places depends very largely on the price of the metal and the stability of the copper market. At present there is no production from any of these old mines.

The ores and by-products from the Tsumeb smelter hoisted and exported during the years 1927 to 1938 are shown below.

PRODUCTION AND EXPORT OF COPPER-LEAD ORE, COPPER-LEAD MATTE, PIG-LEAD, AND CADMIUM, 1927 TO 1938.

Year.	Ore Hoisted.	Exports.					
		Copper-lead Ore.	Copper-lead Matte.	Pig-lead.	Cadmium.	Zinc Ore.	Value.
	Tons.	Long Tons.	Long Tons.	Long Tons.	Long Tons.	Long Tons.	£
1927	144,370	37,638	8,355	3,710	—	—	569,000
1928	104,331	44,670	11,811	4,580	—	—	764,000
1929	164,961	53,816	11,229	3,779	—	—	900,000
1930	210,743	46,806	8,278	2,830	—	—	462,600
1931	135,605	23,387	9,058	3,662	—	—	210,100
1932	42,996	24,631	—	1,061	—	—	19,700
1933	—	—	—	—	—	—	—
1934*	—	—	—	—	200	—	‡
1935*	—	—	4,933	—	513·20	—	96,279
1936*	—	—	—	609	315·00	—	51,903
1937	13,049	25,985	2,338	1,478	424·72	19·69	225,053
1938	169,213	43,241	7,261	3,318	661	—	428,580†

* Exported from stocks on hand. † Estimated value. ‡ Unrecorded.

2. **Diamonds.**—The discovery of diamonds in the neighbouring states during the latter part of the last and the early years of the present century, followed by a wave of prosperity, drew attention to the possibilities of finding diamonds in South West Africa.

Numerous occurrences (42 pipes and fissures) of blue-ground in the Gibeon and surrounding districts were tested during the period 1903-1910. Although in all other respects the blue-ground was found to be almost identical, mineralogically and petrographically, with that in the Kimberley pipes, no diamonds were found.

Alluvial diamonds occur along the coast of South West Africa from the mouth of the Orange River northwards to Conception Bay, a distance of over 300 miles. There are four principal areas, Kolmanskuppe east of Luderitz, and Pomona, Bogenfels, and Oranjemund to the south. The first three are situated in country characterized by north-south troughs bounded by bare rocky ridges with their floors filled with deposits of gravel and sand.

The diamonds occur for the most part in the upper layers of loose detritus, along the floors of the troughs and in other depressions. This layer, usually only a few inches thick, may in places be up to 25 feet thick, and is composed of from 20 to 80 per cent. of yellow sand and 20 to 40 per cent. of coarse material from 1 to 10 mm. in diameter. The diamonds are concentrated in the coarse material, which is composed of milky quartz, white feldspar, yellow chalcedony, banded agate, red jasper, red garnet, epidote, magnetite, and specular iron.

The immediate concentration of the diamonds is brought about by the action of a wind which blows strongly from the south for many months of the year and takes the fine material out of the upper layers. Previous to this recent concentration, some of the diamonds had been deposited as gravels in old river beds of Tertiary age. Their ultimate source is thought to be pipes of kimberlite. As has been already stated, such pipes occur inland, but up to the present no diamonds have been found in them.

As a result of the discoveries of diamonds in the marine terraces of Alexander Bay, prospecting was actively undertaken at Oranjemund, north of the Orange River mouth, where similar diamondiferous raised terraces standing from 12 to 60 feet above sea level were found and developed like those across the Orange River at the State Diggings in the Union of South Africa. From them has been recovered the largest diamond yet discovered along the coast, one of 246 carats.

The yearly output and value of diamonds from South West Africa have varied considerably with the demands of the market.

The following table gives particulars of the production of diamonds in the years 1934 to 1938.

PRODUCTION AND VALUE OF DIAMONDS, 1934 TO 1938.

Year.	Diamonds Produced (Carats).	Number of Diamonds per Carat.	Diamonds Sold (Carats).	Price Realized per Carat.	Total Value Sold.
				s.	£
1934	4,126	0·7	257,813	34·84	449,167
1935	128,463	0·93	126,306	85·09	537,408
1936	184,916	1·25	184,426	90·30	915,695
1937	196,802	1·25	184,863	119·05	1,100,492
1938	154,856	1·32	37,258	152·20	283,754

3. **Tin.**—Tin ore (cassiterite) was first discovered in South West Africa in 1908. The mineral is found within a large area stretching south and south-west of the Erongo Mountains between Otjimbojo and Spitzkop, in another area lying to the east and west of Okambahe, north of the Erongo, and in a third area south, east, and west of the Brandberg.

The most important primary source of the ore is an enormous number of pneumatolytically altered pegmatites either situated within the parent granite or intruded within the adjoining schists. Cassiterite also occurs as a mineral deposited from aqueous solution and not associated with pegmatites. Erosion of these primary sources has given rise, at certain points, to the concentration of alluvial and eluvial ore. Production of both shed tin and ore takes place from the primary sources.

As a general rule the cassiterite within the pegmatites is patchy; many of the occurrences are low grade and unpayable under the primitive methods of mining in vogue, but others have for years been sources of profit to a number of small concerns. It is hoped that when the nature of the occurrences is fully understood by those engaged in production, the fields will be the scene of a permanent tin industry.

The annual export of tin concentrates from the year 1929 is given hereunder:—

EXPORT OF TIN CONCENTRATES, 1929 TO 1938.

Year.	Quantity.	Value.	Year.	Quantity.	Value.
	Tons.	£		Tons.	£
1929	227·6	32,000	1934	203·2	32,400
1930	172·6	20,200	1935	239·2	37,842
1931	106·4	8,500	1936	233·0	30,173
1932	111·8	10,000	1937	214·6	32,496
1933	203·5	28,800	1938	250·0	30,006*

* Estimated value.

4. **Marble.**—Between Swakopmund and Karibib extensive occurrences of marble are known. White and coloured marble of excellent quality was quarried at Karibib for several years, but no production is taking place at the present time. White greenish onyx-marble is recorded from the Otavi valley; and the marble series of the Damara system probably contains enormous quantities of architectural and decorative stone.

5. **Gold.**—During the past few years much interest has been displayed in the occurrence of auriferous veins in the Rehoboth district; but the optimism with which the fields were prospected has proved to be only partially justified.

Mineralized quartz veins, veinlets, stringers, and lenses are of common occurrence in the schists and mixed rocks of the Fundamental Complex in this district. The gold values in these have proved to be very patchy and on the whole low, except in the zone of secondary enrichment near the surface. In most cases, too, the quartz masses have proved too narrow and too impersistent to repay mining on any large scale; and the area seems to be one in which profits can only be made by working certain of the richer reefs on a small scale. At present the Rehoboth goldfield is neglected, the output having dropped to roughly 300 ounces for the year 1938.

Gold is also being produced from auriferous reefs at Ondondu Otjiwapa in the Omaruru district, and from alluvial deposits at the same place.

Attempts have been made from time to time to extract gold from alluvium in the various stream beds; but no extensive or rich patches have as yet rewarded the prospector, except in the early days of the Ondondu Otjiwapa field in the Omaruru district, where some 6,091 ounces of alluvial gold were recovered from a limited area during the years 1924 to 1933.

In the following table the gold recovered from the beginning of 1924, when alluvial gold was first discovered at Ondondu Otjiwapa, to the end of 1938 is shown:—

Year.	Ondondu-Otjiwapa (Omaruru).	Rehoboth.	Total.	Value.
	Unrefined Gold Oz.			£
1924	147·17*	—	147·17	†
1925	1,780·08*	—	1,780·08	†
1926	1,701·13*	—	1,701·13	†
1927	982·56*	1·80	984·36	†
1928	541·50*	—	541·50	†
1929	435·70*	—	435·70	†
1930	222·00*	—	222·00	†
1931	416·00*	—	416·00	†
1932	772·00	118·00	890·00	†
1933	919·55	36·00	955·55	†
1934	1,239·17	23·00	1,262·17	†
	Standard Oz.			
1935	2,062·56	1,434·58	3,497·14	23,134
1936	2,203·18	2,230·83	4,434·01	28,210
1937	1,977·20	1,082·25	3,059·45	19,510
1938	1,649·46	309·68	1,959·14	12,633

* Chiefly alluvial gold.
† Unrecorded.

6. **Iron.**—Extensive iron deposits are found in various parts of the country. A deposit of iron ore at Kalkfeld, in the Otjiwarongo district, is mined by the Otavi Minen und Eisenbahn Gesellschaft. The ore is used by them in their smelter at Tsumeb for fluxing their lead-copper ores. The output for 1938 was 23,861 metric tons.

High grade iron ores, low in phosphorus, are known to occur near the valley of the Schaf River, in the south of the Windhoek district. Here, intercalated in the marble series of the Damara system, are numerous bands of iron ore varying in thickness from a few metres to 45 metres. Two analyses showed 55 per cent. and 60.8 per cent. Fe. respectively.

Itabirite has been recorded from the hinterland of Walvis Bay. Large deposits of haematite are interbedded with rocks of the Nama system in the Kaokoveld, and iron ore has also been recorded from Garub Mountain, near the Luderitzbucht railway line.

7. **Vanadium.**—Ores of this metal have been opened up at Abenab and other places in the concession areas of the South West Africa Co., Ltd., and the Otavi Minen und Eisenbahn Gesellschaft in the Grootfontein district. With the exception of the Abenab, Bobos, Baltika, and Nageib deposits, none of them proved to be extensive.

During 1938 the South West Africa Co., Ltd., and the Otavi Minen und Eisenbahn Gesellschaft exported vanadium concentrates averaging 19 to 20 per cent. of V_2O_5, to the value of £171,369.

The export of vanadium concentrates during the years 1929 to 1938 were as follows:—

EXPORT OF VANADIUM CONCENTRATES, 1929 TO 1938.

Year.	Quantity.	Value.	Year.	Quantity.	Value.
	Tons.	£		Tons.	£
1929	5,287	222,000	1934	1,645	51,575
1930	3,817	150,700	1935	3,288	128,232
1931	3,938	130,700	1936	5,263	213,151
1932	1,378	52,200	1937	5,096	197,867
1933	1,170	44,312	1938	4,522	171,369*

* Estimated value.

8. **Salt.**—The chief reserves of salt within the territory lie along the coastal strip from Swakopmund northwards to Cape Cross. The mineral occurs both as stratified rock-salt interbedded with youthful deposits, and as rock-salt and brine associated with coastal pans. The rock-salt is high grade and can easily be excavated. The Panther-Beacon pan and the Cape Cross pan are two of the most important. The former is close to Swakopmund and is a source of high-grade brine, which will give a salt of excellent quality. The latter, which is some 80 miles from the railway, contains enormous quantities of salt and high-grade brine. The reserves of rock-salt alone run into millions of tons giving 90 per cent. NaCl. when dry, and the high-grade brine is unlimited.

The salt produced is at present sold locally to stock-farmers, fishermen, and others, but a company has recently been formed with the object of erecting refineries and, if possible, establishing an export trade.

The following table shows the quantities of salt produced and sold in the territory since 1935:—

PRODUCTION OF SALT, 1935 TO 1938.

Classification.	1935.		1936.		1937.		1938.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	S. Tons.	£	S. Tons.	£	S. Tons.	£	S. Tons.	£
Rock Salt	5,535	6,645	592	1,350	738	2,020	706	1,957
Coarse Salt			3,501	4,545	3,758	6,505	4,871	8,024
Fine Salt			121	264	37	230	13	85
TOTAL	5,535	6,645	4,214	6,159	4,533	8,755	5,590	10,066

9. **Semi-Precious Stones.**—South West Africa possesses valuable deposits of semi-precious stones including beryl (aquamarine and heliodore), beautiful green and red tourmalines, crystal clear topazes, and transparent purplish red almandine garnets, all of which cut and polish with pleasing effect, as well as deposits of rose-quartz associated with beryl-bearing pegmatites.

Owing to the large stocks of unsold semi-precious stones previously exported and held by cutters in Germany, production for the time being has been curtailed.

The production in 1937 was:—Aquamarines: 4,970 grammes, value £160; tourmalines: 37,795 grammes, value £321; and topaz: 4,000 grammes, value £67.

Sales effected in Germany since 1935 from stocks on hand are given below:—

SALE OF SEMI-PRECIOUS STONES (FROM STOCKS HELD OVERSEAS), 1935 TO 1938.

Class.	1935.		1936.		1937.		1938.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	Grammes.	£	Grammes.	£	Grammes.	£	Grammes.	£
Aquamarines	110	20	300	26	4,350	140	200	5
Tourmalines	13,203	2,730	51,684	3,961	507,851	4,314	59,503	2,259
Rose-quartz	53,000	13	36,000	5	54,786	9	9,720	3
Chalcedony	—	—	43,000	21	119,000	66	70,000	12
Topaz	—	—	—	—	3,000	50	1,000	16
TOTAL	66,313	2,763	130,984	4,013	688,987	4,579	140,428	2,295

10. **Other Metals and Minerals.**—Besides the ores already mentioned, a variety of other minerals has been located throughout the territory, some of which are mined and exported in small quantities. In the majority of cases, however, the discovery is merely reported and nothing further is done to prove the value. Some of the minerals under this heading and their location are as follows:—

Asbestos (Tremolite).—In the Pforte mountains, Swakopmund district, and at Alberta and Nuams in the Rehoboth district.

Asbestos (Chrysotile).—Near Km. 15 on the Swakopmund-Windhoek railway line, and at Kuchanas and Kochena in Karras Mountains, Keetmanshoop district, where bodies of pyroxenitic serpentine occur.

The fibre is short and the proved tonnage small. The large area of old rocks in this portion of the Great Karras range of mountains is imperfectly known geologically, and further exploration might well result in the discovery of workable deposits of chrysotile.

Beryl.—Pegmatites in the southern and eastern portions of the Warmbad district, in the hinterland of Swakopmund, at Rössing, Arandis, Leewater, Goas, and Pforte, and several places between the Omaruru and Kuiseb Rivers, have been found to contain beryl similar to that occurring in the pegmatite area of Namaqualand in the Union of South Africa. Although a few tons of the mineral have been exposed, no large quantity has yet been proved to exist.

Corundum.—Corundum has been recorded from pegmatites in parts of the Warmbad district, a few miles north of the Orange River and also from the Khomas Mountains.

Fluorspar.—On the farm Garub No. 83 in the Keetmanshoop district, 60 miles from Kalkfontein railway station, and on the adjoining farm Stinkdorn No. 28 in the Warmbad district, fluorspar of exceptional purity has been prospected and, to a certain extent, mined. The Garub deposit is in the form of a funnel-shaped body in medium-grained porphyritic granite. An attempt was made during 1938 to exploit the spar, but owing to the distance from and bad roads to the nearest station and the distance from the nearest port, the attempt proved unsuccessful and the mine was again closed down at the end of the year.

An extensive deposit of massive low-grade fluorspar on the farm Marburg No. 1 in the Otjiwarongo district has been partially opened up by adits. The spar averages from 85 to 90 per cent. CaF_2. Owing to its situation and the grade of ore it is not being worked.

Garnet.—At Husab, about 38 miles from Swakopmund on the Swakop River, brown garnet occurs as lenses in a well-defined band of marble. The lenses have been traced over a strike of 3 miles, and attain a width in places of 50 to 60 metres. Well over a million tons of the mineral seem to be present.

Enormous tonnages of float and massive garnet (both grossularite and andradite) occur north of Spitzkop and at Arandis in the Swakopmund district.

Graphite.—This mineral occurs as a constituent of many of the limestones of the Marble series.

During the last few years a certain amount of development has taken place sporadically on a deposit at Aukam No. 104 in the Bethanie district, about 30 miles south of Kuibis station on the Luderitzbucht-Keetmanshoop railway line. Graphite occurs here in lenses and pockets in the granite of the Basement complex. The best flake graphite is found as veins and stringers in less pure amorphous material, and it can only be separated by hand sorting. There is a considerable tonnage available. If a market could be found for this material, the discovery of yet further bodies in this comparatively unknown area might result.

Iceland spar.—Deposits of Iceland spar of optical quality have been known to occur in the vicinity of Mariental, in the Gibeon district, for the last decade, and for some years there have been spasmodic attempts at the exploitation of what appears to be a very promising field if properly treated. The spar occurs in nests, varying in size from a few inches to 15 feet across, in the amygdaloidal basalts of the Stormberg series, which outcrops over a considerable area in the Gibeon and Rehoboth districts. The deposits are scattered and only systematic search can reveal the total quantity of the mineral that is available.

To bring this mineral under proper control, a special grant to mine Iceland spar throughout South West Africa was issued during 1937, with the result that the mining, handling, and packing operations are now carried out under expert supervision, and an important industry is slowly being established.

During 1938 high grade optical spar to the value of £230 was exported to America, and 1 ton of pure calcite, containing 99·8 per cent. $CaCO_3$, was shipped to Germany and realized £120.

Lead.—Veins containing argentiferous galena were worked between 1912 and 1930 in the country near Aiais, which lies in the western part of the Warmbad district a few miles east of the Fish River, and attempts were made to work similar veins on Ysterbank, some 20 miles to the north.

The silver-lead ores occur in veins, which at Aiais are closely associated with a set of basic dykes. The veins are narrow, almost vertical, and for the most part short; the largest do not extend for more than a few hundred yards.

Carbonate lodes with galena and apatite occur to the east of Bokkiesbank Ost and Blydeverwacht. Lead is also a constituent of the copper ores of Otavi, from where the whole of the output of pig-lead is at present obtained (see paragraph 1 of this section).

Lithium.—Deposits of lithia mica, lepidolite, occur over a large stretch of country surrounding the Erongo mountains, but the most important deposits are confined to a few farms south-east of Karibib. There are two main types of occurrences:—Syngenetic deposits in which the mica is found in nests and books associated with blows of quartz in pegmatites, and epigenetic deposits in which the ore is in the form of massive aggregates of scales and crystals mixed with some quartz, to which the name lepidolite greissen was given.

In the best of these deposits, a grade of ore of well over 4 per cent. LiO_2 can be maintained by hand picking. Within a restricted area to the south-east of Karibib, an estimated reserve of over 60,000 tons is stated to be present, of which 50,000 tons are of high grade ore.

Fairly extensive beds of amblygonite, averaging 7·5 per cent. of lithium oxide, have recently been discovered, associated with the lepidolite deposits, in the Karibib district. During 1938 some 315 tons, which realized £3,060, were shipped to various countries overseas from the deposits at present being worked at Johann Albrechts Höhe and Okongava, near Albrechts Siding, on the main railway line to Swakopmund.

Mica.—Apart from those of lepidolite no workable deposits of mica have hitherto been discovered in the territory, although the pegmatites of the Erongo and the Swakopmund hinterland carry the mineral as a constant constituent.

Rutile.—A deposit of pure rutile has been opened up on the farms Erongo Ost No. 82 and Kakona Ost No. 81 in the Omaruru district. The rutile occurs in an extensive body of pegmatite cutting through an aplitic granite outcrop.

The concentrate, which is recovered in a very primitive fashion by native women, contains over 98 per cent. of TiO_2. Some 53 long tons of rutile have been recovered from this deposit since September, 1936, and realized £1,198.

Tantalite.—Tantalite-columbite occurs sporadically in the altered pegmatites throughout nearly the whole of the Erongo tin fields. It has also been recorded from Donkerhoek in the Karibib district, Brandberg in the Omaruru district, and various other parts.

Tungsten.—Like tantalite, wolframite occurs in association with cassiterite in altered pegmatites of the Erongo tin fields. A promising deposit has recently been developed at Kranzberg, south of Omaruru.

At Nakais, in the Warmbad district, development work was done on wolframite in pegmatite veins cutting granite, but little of the mineral was actually produced. It has also been recorded from various other parts of the territory.

Other Minerals.—Occurrences of various other minerals, such as cobalt, corundum, molybdenite, nickel, scheelite, uranium, and zinc, have been reported from time to time, but so far the occurrences are merely of academic interest.

Exports.—Such of the above-mentioned minerals as have been produced and exported from the territory are shown in the following table:—

MINERALS EXPORTED, 1935 TO 1938.

Description.	1935.		1936.		1937.		1938.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.*	Quantity.	Value.*
	Tons.	£	Tons.	£	Tons.	£	Tons.	£
Tungsten, (Wolfram and Scheelite) Concentrates.	44·50	4,950	40·35	4,721	29·55	7,523	47·65	7,890
Tantalium Oxide (Tantalite) Concentrates.....	6·10	1,530	3·00	1,045	3·70	1,028	2·00	345
Lithium (Lepidolite and Amblygonite).....	489·00	1,656	616·00	1,701	891	2,962	315·50	3,060
Rutile (Titanium Oxide) Concentrates.....	—	—	0·50	12	52·40	1,186	—	—
Iceland Spar.....	—	—	—	—	140†	155	2,750†	125

* Estimated value. † lb.

11. **Mineral Laws of the Territory.***—The mining law in force in the territory is the German Imperial *Mining Ordinance* of the 8th August, 1905, as amended by Proclamation No. 24 of 1919 and various subsequent proclamations up to Proclamation No. 17 of 1936. The *Mining Ordinance* brought into force in 1905 was largely designed to encourage prospecting; but of late years many defects have become apparent, and amendments of considerable importance were introduced during 1934.

The Ordinance applies to the following:—

Gold, silver, and platinum, both in their native state and as ores;
Precious stones (diamonds, rubies, emeralds, and sapphires);
All metals not mentioned above, in their native state and as ores;
Mica, semi-precious stones, asbestos, fluorspar, and Iceland or optical spar;
Coal, salts, and valuable earths, for example:
- (*a*) Coal, brown coal, and graphite;
- (*b*) Bituminous substances in solid, liquid, or gaseous state, especially petroleum and asphalt;
- (*c*) Rock salt, including other salts found in deposits of this nature, and the brine springs;
- (*d*) Earths which can be made use of on account of their sulphur contents and for the production of alum, sulphates, and saltpetre;
- (*e*) Phosphates (organic and inorganic) and guano.

(i) *Prospecting Claims.*—Prospecting is permitted over practically the whole country where the Ordinance is in force, with the exception of the following places: public roads, public places, railways, burial places, and on all properties where, in the opinion of the Mines Department, it is not in the public interest to allow prospecting. The Mines Department also decides the distances from springs and other sources of water, within which prospecting is not allowed. No prospecting is permitted under buildings and within 50 metres of these, nor in gardens and enclosed yards, unless both owner and user of the property give their sanction. The size of a precious mineral prospecting claim is 100×200 metres, and of a base metal claim 300×600 metres, the claims being rectangular in shape.

No person may prospect in any district unless he is in possession of a prospecting licence issued by the mining authority or the magistrate of such district. Before a prospecting licence is issued the applicant must deposit a minimum amount of £10 in cash or in the form of a bank guarantee as security for the restoration of the surface (fencing or filling in of shafts, etc.) and for any damage suffered by the landowner through such prospecting or mining operations. The charge for the licence is 2s. 6d. for each month or part of a month for any one magisterial district, or 5s. per month or part of a month for the whole territory. When a claim has been pegged, notice must be given as soon as possible to the Mines Department, the maximum time allowed between the pegging and the notification being four weeks. At the same time, prospecting fees, fixed at 5s. per month for each precious mineral and 2s. 6d. for each base mineral claim, must be paid for six months in advance; similar payments continue to be paid in advance for corresponding periods, as long as the claims are held.

The owner of a prospecting claim may be called upon at any time by the mining authority to carry out prospecting and development work appropriate to the nature of the deposit.

(ii) *Mining Claims.*—Mining is permitted only in mining areas. The mining authority may, however, in his discretion, issue permits to allow any minerals recovered during prospecting to be sold or exported. Every prospecting claim may be converted into a mining area upon application, after being properly surveyed and beaconed off, but must, in any case, be so converted two years after a claim has been pegged. The mining claim must have the shape of a rectangle, and must fall within the boundaries of the prospecting claim, the length not exceeding five times the width of the claim. After certain formalities have been gone through (such as due publication, etc.), the conversion of a prospecting claim into a mining area takes place. Mining must be commenced within two years of the granting of the title.

The Administrator may also confer special titles for the sole right to prospect for or mine certain minerals in specified areas on such conditions as he may decide, should it be in the public interest to do so.

(iii) *Taxes.*—The taxes on a mining claim consist of licence moneys and a royalty. The licence money for a precious metal claim is forty shillings per hectare per annum, and for a base metal claim 2s. 6d. per hectare per

* Information regarding the mineral laws of the territory or production and sales of minerals may be obtained from the Mines Department, Windhoek.

annum, with a minimum of forty shillings per annum. The mining tax or royalty is from 1 to 10 per cent. of the gross proceeds according to the mineral.

The diamond tax is regulated by the *Diamond Taxation Proclamation*, 1931, under which an export duty of 10 per cent. and a diamond profit tax amounting to 60 per cent. of the value of the diamonds, less 70 per cent. of the working expenses, is levied.

(iv) *Compensation.*—When mining on private land, the mine owner may be compelled to purchase the ground in case it is deteriorating in value owing to the mining operations. In any case he has to make good any damage caused. The landowner receives one-quarter of the royalty mentioned above.

§ 13. Manufacturing Industries.

The last available particulars with regard to manufacturing establishments in South West Africa were for the year 1925-26. These were published in *Year Books* Nos. 4 to 13, and reference should be made to them for data on the subject.

§ 14. Commerce.

1. **Imports and Exports.**—The following tables give, under the principal headings, the value of (i) imports into, and (ii) exports from, the territory of South West Africa during the five years 1934 to 1938. The figures include the value of merchandise passing between the Union and the territory.

IMPORTS AND EXPORTS, 1934 TO 1938.

(i) IMPORTS.

Item.	1934.	1935.	1936.	1937.	1938.
	£	£	£	£	£
Animals (Living)	1,752	2,837	6,766	26,675	1,810
Foodstuffs	335,528	321,729	361,240	420,606	438,930
Other Farm Products	9,011	15,349	21,814	36,020	41,042
Potable Liquors	33,816	35,078	35,480	43,829	44,391
Non-Potable Liquors	3,003	3,674	3,531	4,416	5,016
Tobacco	52,941	54,760	66,701	77,601	84,475
Textiles and Fibres	232,659	287,657	359,509	433,070	411,928
Metals and Manufactures	115,675	178,019	307,211	403,303†	396,910
Vehicles	84,741	123,031	186,428	249,458†	176,540
Minerals and Manufactures	17,283	23,064	31,972	41,515	63,336
Oils, Waxes, and Paints	89,251	118,749	154,557	179,355	141,498
Drugs and Chemicals	40,857	49,835	50,965	73,947	66,352
Leather and Rubber Goods	75,608	79,836	102,975	125,969	131,208
Wood and Manufactures	27,641	34,619	60,764	98,183	85,114
Books and Paper	21,202	24,776	30,962	39,734	43,617
Other Merchandise	62,738	74,468	91,279	111,458†	115,539
Government Stores	52,528	58,138	68,492	94,262†	175,071
Specie (Face Value)	5,631	12,513	19,180	23,920	13,821
GRAND TOTAL.....£	1,261,865	1,498,732	1,959,826	2,483,321*†	2,430,628

* Includes imports to the value of £47 from Northern Rhodesia. † Amended figure.

(ii) EXPORTS.

Item.	1934.	1935.	1936.	1937.	1938.
	£	£	£	£	£
South African Produce—					
Animals (Living)	239,513	548,233	354,227	242,961†	335,222
Hides and Skins	373,193	490,091	794,976	1,285,761	1,931,426
Wool	43,686	77,869	122,849	148,274	168,256
Butter	166,759	309,896	337,195	344,215	423,468
Fish	81,628	79,010	111,121	90,604	66,269
Meats, Fresh (chiefly beef)	7,337	40,418	45,985	491	883
Other Foodstuffs	7,128	12,954	16,833	12,557	27,719
Other Agricultural and Pastoral Products	5,356	7,344	13,605	9,610†	9,467
Copper Ore	—	53,386	5	189,007	229,453
Tin Ore	35,627	42,097	39,544	38,270	43,837
Vanadium Ore	51,712	132,943	210,575	202,286	170,363
Other Ores	4,261	15,679	19,439	52,873	56,484
Diamonds	24,873	587,857	895,510	916,968	816,331
Gold Bullion	4,723	19,106*	28,254*	20,216*	12,993*
Other S.A. Produce	37,734	37,835	54,528	74,459	96,272
Government Stores	3,669	6,084	7,169	14,455	9,584
Ships' Stores	11,530	12,416	13,767	14,802	16,098
Specie (Face Value)	1,533	1,298	2,776	842	316
Re-exports	53,188	58,497	52,325	46,837	62,146
GRAND TOTAL.....£	1,153,650	2,533,013	3,120,683	3,705,488	3,576,587

* Valued at price ruling on day of export. † Amended figure.

The following table gives particulars regarding the trade between South West Africa and the Union for specific years:—

VALUE OF MERCHANDISE AND GOVERNMENT STORES IMPORTED FROM AND EXPORTED TO THE UNION, 1910 TO 1938.

YEAR.	IMPORTS INTO SOUTH WEST AFRICA FROM UNION.			EXPORTS FROM SOUTH WEST AFRICA TO UNION (excluding diamonds).
	South African Produce.	Imported Goods Re-exported.	Total.	
	£	£	£	£
1910	118,626	93,386	212,012	4,855
1915	190,606	244,877	435,483	12,158
1920	645,084	1,144,280	1,789,364	428,946
1925	538,883	696,969	1,235,852	396,996
1930	690,084	402,093	1,092,177	376,523
1934	564,207	395,104	959,311	554,774
1935	610,154	477,579	1,087,733	815,221
1936	748,344	569,573	1,317,917	662,067
1937	970,105	687,931	1,658,036	662,984
1938	985,182	681,962	1,667,144	760,609

The value of diamonds exported from South West Africa has fluctuated considerably, as will be seen from the table given earlier in this section.

Another export of note is live stock. Until the latter part of 1918 the border was closed, and the export of cattle to the Union was prohibited. This enabled the flocks and herds to recover from losses sustained during the war. For details of the exports of live stock, see § 11 above.

The extent of the export trade in copper ore is indicated by the particulars given in § 12 above.

2. **Customs and Excise.**—Under the provisions of Act No. 36 of 1925 (Union of South Africa), the mandated territory of South West Africa is regarded for purposes of the collection of customs and excise duties as part of the Union, and all customs and excise laws of the Union are applicable to the territory. The duties collected are paid into the Consolidated Revenue Fund of the Union, and out of this fund is to be paid annually towards the cost of the administration of the territory a sum, which shall approximate to the customs and excise duties paid on goods consumed in the territory, after deducting therefrom a sum equivalent to the duties on goods removed from the territory for consumption in the Union.

3. **Registration of Companies.**—Particulars regarding the registration of companies are given for a series of years in the following table.

REGISTRATION OF COMPANIES, 1934 TO 1938.

Heading.	1934.	1935.	1936.	1937.	1938.
Companies Registered at 31st December—					
Local.....No.	86	81	102	113	119
Nominal Capital.....£	1,730,429	1,670,153	1,593,953	1,537,403	1,645,703
Foreign.....No.	47	48	48	48	48
New Companies Registered during Year—					
Local.....No.	11	5	12	20	12
Nominal Capital.....£	85,752	34,100	94,800	85,330	120,000
Foreign.....No.	4	1	2	6	5
Increases of Capital—					
Number	1	2	1	3	2
Amount.....£	9,000	8,500	4,000	16,350	17,000
Reductions of Capital—					
Number	—	1	—	—	—
Amount.....£	—	4,875	—	—	—
Companies Struck off Register—					
Number	12	10	7	5	4
Nominal Capital.....£	48,800	56,500	175,000	158,250	28,700
Fees of Office.....£	166	117	143	257	189

4. **Insolvencies.**—The following tables give information in regard to insolvencies in South West Africa:—

(i) INSOLVENCIES, 1934 TO 1938.

Year.	Voluntary Surrenders.	Compulsory Sequestrations.	Assignments.	Total.
	No.	No.	No.	No.
1934	2	3	—	5
1935	3	1	1	5
1936	4	—	1	5
1937	1	2	1	4
1938	7	1	—	8

(ii) INSOLVENCIES, 1934 TO 1938—OCCUPATIONS OF INSOLVENTS.

Year.	Professional.	Commercial.	Manufacturing.	Agricultural.	Wage Earners.	Miscellaneous.	Total.
1934	—	2	—	3	—	—	5
1935	—	2	—	1	—	2	5
1936	—	1	—	3	1	—	5
1937	—	4	—	—	—	—	4
1938	2	5	—	1	—	—	8

§ 15. Harbours and Shipping.

1. **Luderitz.**—This port is situated 485 miles by sea to the north of Capetown. There is a well sheltered harbour, with good anchorage, and the port possesses the usual facilities for dealing with traffic. It owes its prosperity as a seaport to the discovery of diamonds in 1908 in the adjacent Kolmanskop and Pomona districts. The trade of the port suffered considerably owing to the temporary closing down of the local diamond fields, but these are operating again. A reinforced concrete jetty, 493 feet long, has been constructed, and a slipway for lifting tugs, lighters, and small craft has been provided.

2. **Walvis Bay.**—This port is situated in the small enclave of British territory retained when Germany annexed South West Africa, and is 735 miles distant by sea from Capetown and 21 miles south of Swakopmund. Walvis Bay was never developed, and served only as a detached magistracy and police post for the protection of British interests.

The port has a natural and well-sheltered harbour, and during the Great War its advantages over the port of Swakopmund for the handling of troops and stores brought it into prominence as the northern base of operations. Swakopmund has since been closed as a port, and the whole of the landing and shipping work has been transferred to Walvis Bay, which is regularly visited by German and Union-Castle mail steamers. British and Canadian cargo boats occasionally call to disembark general cargo and Italian ships call regularly.

Considerable development has taken place here, and warehouses, engine sheds, dwelling-houses, etc., have been erected; a new slipway has been constructed, and improved and extended goods and station yards have been provided. A cold storage and refrigerating plant has been erected, capable of handling 150 cattle and 200 to 300 sheep per day. A concrete wharf, 1,500 feet long, has been constructed with a suitable approach channel, 29 feet deep, thus enabling vessels to come alongside for discharge and to take on board passengers and cargo. The wharf is equipped with electric cranes. A sea-going tug, the "Sir Charles Elliot", and a smaller tug, the "J. W. Herbert", are attached to the port.

A whaling station was erected at Walvis Bay in 1916 and was used as a factory until 1930, when, owing to the migration of the whales, whaling operations ceased. The station is now being maintained by the Interessentskapet, Walvis Bay, a concern of Norwegian Whaling Companies, as a repair depot. For seven months in each year employment is found for 75 Europeans and 130 natives in repairing the whale catchers after their expedition to the Antarctic. Thirty to forty ships are overhauled each year.

The Rooibank water scheme has been completed, and provides a sufficient supply of water for the requirements of the port and the new township which has been laid out. A wireless station is established near the port.

Four petrol companies have established depots at the port, and petrol is distributed in tins and metal containers. One company has erected five bulk storage tanks and, in addition, manufactures tins and cases at its depot.

3. **Shipping.**—The following table shows the number and tonnage of vessels entered at South West Africa harbours from 1934.

NUMBER AND TONNAGE OF VESSELS ENTERED AT SOUTH WEST AFRICA HARBOURS, 1934 TO 1938.

Year.	Steam.*				Sailing, Coastwise and Overseas.		Total.	
	Coastwise.†		Overseas.					
	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.
1934...	133	403,687	25	120,220	2	18	160	523,925
1935...	144	448,139	50	238,504	—	—	194	686,643
1936...	151	514,611	55	238,028	—	—	206	752,639
1937...	179	520,211	73	360,260	—	—	252	880,471
1938...	287	628,190	98	346,519	—	—	385	974,709

* Includes motor vessels.

† Includes shipping from Union ports.

4. **Cargo.**—Particulars are given in the following table of cargo handled at South West Africa harbours from the year 1934.

CARGO DEALT WITH AT SOUTH WEST AFRICA HARBOURS, 1934 TO 1938.

Year	Walvis Bay.		Luderitz.		Total.	
	Cargo Landed.	Cargo Shipped.	Cargo Landed.	Cargo Shipped.	Cargo Landed.	Cargo Shipped.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1934	30,983	10,170	6,920	4,491	37,903	14,661
1935	32,868	22,227	10,894	6,049	43,762	28,276
1936	44,802	24,209	16,589	8,503	61,391	32,712
1937	62,006	49,952	18,941	9,318	80,947	59,270
1938	67,682	78,505	14,354	10,049	82,036	88,554

§ 16. Railways, Roads, and Transport.

1. **German Railway System.**—Immediately prior to the outbreak of hostilities in 1914, the railway system in the territory then known as German South West Africa comprised the following:—

	Miles.	Chains.
State Railways—		
(*a*) 3 ft. 6 in. Gauge	770	19
(*b*) 2 ft. Gauge	566	12
TOTAL	1,336	31
Private Lines—		
2 ft. Gauge	98	—
GRAND TOTAL	1,434	31

These railways were constructed at varying intervals between 1903 and 1915.

2. **Railway Extension.**—With a view to expediting the advance of the Union forces during the Great War and securing direct lines of communication, the work of connecting the Union railway system with the German terminus at

Kalkfontein (South) was rapidly pushed forward, and the whole of the line from Prieska to Kalkfontein—a distance of 315½ miles—was completed between September, 1914, and June, 1915. During this time there was a delay of about four months owing to floods, which prevented the construction of the Orange River bridge.

A short line was also run from Walvis Bay to Swakopmund—21 miles 2 chains—and the Otavi Company's line from Swakopmund was converted from 2′ gauge to 3′ 6″ to Karibib by the Railway Engineers Corps, thus ensuring a standard gauge from Walvis Bay throughout the territory to the Union. The remainder of the 2′ gauge German State Railway from Rössing to Karibib was uplifted by the Union railway authorities shortly after the cessation of hostilities.

3. Organization under Union Railway Management.—In terms of Act No. 20 of 1922 the railways in South West Africa were incorporated in the Union system from the 1st April, 1922, and are under the administration of a System Manager with headquarters at Windhoek. In addition, the control of the System Manager extends over the Union sections, Walvis Bay to Swakopmund (border) and De Aar (exclusive) to Nakop (border). The total mileage of the South West Africa railway system is shown hereunder:—

	Miles.	Chains.
Union Lines—		
3 ft. 6 in. Gauge:		
Walvis Bay to Swakop River (Border)	22	43
De Aar to South West Africa Border	343	39
2 ft. Gauge:		
Upington to Kakamas	54	74
TOTAL	420	76
South West Africa Territory Lines—		
3 ft. 6 in. Gauge:		
South West Africa Border to Mid-Swakop River Bridge*	772	68
Seeheim Junction to Luderitz	197	69
Gammams Junction to Gobabis	139	80
2 ft. Gauge:		
Usakos to Tsumeb*	257	60
Otavi to Grootfontein	56	73
Otjiwarongo to Outjo	45	37
TOTAL	1,470	67
GRAND TOTAL	1,891	63

* Includes 6 miles 73 chains of tri-rail (Usakos-Kranzberg).

No actual development of the railways in regard to construction of feeder lines, etc., could be undertaken until the destiny of the country was finally decided. Moreover, until the known mineral resources of the territory are properly exploited and developed, no definite steps can be taken in this direction. A branch line, extending from a point near Windhoek Station to Ondekaremba, was however completed towards the end of 1924, and an extension from Ondekaremba to Witvley in December, 1929. A further extension from Witvley to Gobabis was later sanctioned and completed on the 5th November, 1930.

The Railway Administration operates the following road motor services in the territory:—

Windhoek—Koanus—Dorbabis	74 miles.
Omitara to Okavarumendu	100 ,,
Omitara to Hodgsonspost	105 ,,
Mariental to Gumuchab	109 ,,
Mariental to Eirup	54 ,,
Mariental to Maltahöhe	81 ,,
Mariental to Beenbreck	124 ,,
Mariental to Osterode	54 ,,
Keetmanshoop to Aroab	108 ,,
Keetmanshoop to Koes	98 ,,
Tsumeb to Oshikango	222 ,,
Aus to Maltahöhe	176 ,,

4. Railway Traffic: Passengers, Goods, and Live Stock carried.—The following table gives particulars of the number of passengers, the tonnage of goods, and the number of live stock carried during the last five years:—

RAILWAY TRAFFIC, 1934 TO 1938.

Year ending 31st March.	Passengers.	Tonnage of Goods.			Live Stock carried.	
		Forwarded.	Received.	Total.	Large.	Small.
	No.	Tons.	Tons.	Tons.	No.	No.
1934	35,183	55,301	81,028	136,329	33,033	138,946
1935	43,927	67,277	98,162	165,439	106,930	126,355
1936	49,992	90,219	121,265	211,484	84,306	208,566
1937	55,302	94,363	127,428	221,791	53,397	168,101
1938	93,536	209,339	276,738	486,077	54,764	178,713

5. Railways and Harbours: Revenue and Expenditure.—Information regarding the total revenue and expenditure of the South West Africa Railways and Harbours is given in the following table.

RAILWAYS AND HARBOURS—REVENUE AND EXPENDITURE: 1934 TO 1938.

Year ending 31st March.	Revenue.	Expenditure.	Surplus.	Deficit.
	£	£	£	£
1934	237,835	424,562	—	186,727
1935	258,542	476,230	—	217,688
1936	367,395	547,173	—	179,778
1937	371,399	515,614	—	144,215
1938	486,925	671,726	—	184,801

6. Motor Vehicles.—A return of motor vehicles registered in the territory of South West Africa as at 31st December, 1938, is given below:—

MOTOR VEHICLES: REGISTRATIONS AS AT 31st DECEMBER, 1938.

District.	Cars.	Lorries.	Cycles.	Tractors.
Aroab	38	27	—	—
Bethanie	40	68	1	—
Gobabis	242	107	3	—
Grootfontein	229	77	11	—
Gibeon	218	127	6	—
Karibib	139	74	4	—
Keetmanshoop	222	71	9	—
Luderitz	140	65	4	—
Maltahöhe	55	52	4	—
Okahandja	177	74	4	—
Omaruru	113	108	18	—
Otjiwarongo	385	8	9	—
Outjo	132	101	2	—
Rehoboth	163	105	4	—
Swakopmund	87	69	61	—
Warmbad	131	45	5	—
Windhoek	842	419	60	1
TOTAL	3,353	1,597	205	1

7. Roads.—The *Roads and Outspans Ordinance*, No. 7 of 1937, marked a complete change in the road policy of the territory. Briefly stated, this Ordinance has abolished all local roads boards, and placed the construction, maintenance, and control of all public roads under the authority of the Administrator.

It has created a Roads Fund to be utilized for the construction, maintenance, control, and repair of roads and outspans. The revenue derived from wheel tax, motor licence duty, and any tax on the sale of petrol is paid into the fund. The Ordinance also provides that the Legislative Assembly may further appropriate to the Roads Fund from the Territory Revenue Fund such moneys as may, from time to time, be required.

A Central Roads Board has been appointed consisting of three persons with the Director of Works as chairman of the Board. This officer is also in charge of road construction and maintenance. The Board's function is to advise the Administrator on all matters relating to the carrying out of the provisions of the Ordinance.

Over 20,000 miles of public roads have been proclaimed in the territory.

The construction and maintenance programme for the financial year 1939-40 will entail an expenditure of £60,000. This sum includes the provision for the construction of low-level bridges, causeways, culverts, motor grids, and sign posts.

The *Motor Carrier Transportation Act* (Union), No. 39 of 1930, and the amending legislation, Act No. 31 of 1932, have been extended to the mandated territory of South West Africa, with effect from the 1st August, 1933. Under Union Proclamation No. 134 of 1933, a transportation area was established, with the headquarters of its local board at Windhoek, and, under the control of the Central Road Transportation Board, Pretoria, a transportation route was defined.

§ 17. Posts, Telegraphs, and Telephones.

1. **Organization and Finance.**—The number of post and telegraph offices open at 31st December, 1938, was 102; private bag services numbered 628. There were 31 money order and savings bank offices.

Post, telegraph, and telephone facilities are identical with those prevailing within the Union, as are also the postage, telegraph, and cable rates.

Inland parcel post charges are 6d. per lb.; and domestic parcel post charges 9d. for 3 lb., 1s. 6d. for 7 lb., and 2s. for 11 lb.

The financial progress of the Department may be deduced from the statement of expenditure and revenue set forth hereunder:—

POSTS, TELEGRAPHS, AND TELEPHONES—REVENUE AND EXPENDITURE, 1934 TO 1938.

Year ending 31st March.	Expenditure.	Total Revenue.	Customs Collections on Parcels and Sale of Revenue Stamps.
	£	£	£
1934	50,670	64,996	19,893
1935	54,464	63,201	22,425
1936	54,123	72,668	25,183
1937	52,010	78,577	29,603
1938	59,084	89,297	35,472

2. **Postal Traffic.**—The traffic under the various classes of postal business may be gauged from the subjoined table:—

POSTAL STATISTICS, 1934 TO 1938.

Year ending 31st March.	Articles Posted.	Articles Received.
	No.	No.
1934	3,400,852	4,402,788
1935	4,230,980	5,087,650
1936	3,838,664	5,829,356
1937	4,390,308	5,077,256
1938	4,589,710	5,948,528

3. **Savings Banks.**—South West Africa Proclamation No. 15 of 1931 made provision for Post Office savings bank business, with transfers at par between South West Africa and the Union of South Africa, the United Kingdom, Southern Rhodesia, India, and the Province of Mozambique.

The interest on savings bank deposits is 2½ per cent. per annum. The maximum sum which a depositor may bank is £1,000 in any one year with no aggregate limit. From the 1st November, 1918, facilities were introduced, whereby the territory and the Union arranged to accept deposits and withdrawals on behalf of each Administration, and to encash circular warrants.

Savings bank certificates of face value of £50 each are issued and bear interest at 3 per cent. per annum. The maximum sum which may be held in certificates is £2,000.

(i) SAVINGS BANK ACCOUNTS, 1934 TO 1938.

Year ending 31st March.	Opened.	Closed.	Remaining Open at End of Year.	Deposits.	Withdrawals during Year.	Amount due to Depositors.
				£	£	£
1934	1,127	458	7,086	173,734	103,378	197,853
1935	1,970	451	8,605	172,845	143,953	226,745
1936	1,099	725	8,979	214,960	172,161	269,544
1937	1,904	564	10,319	278,696	212,477	335,763
1938	1,733	642	11,410	341,082	318,261	358,584

(ii) SAVINGS BANK CERTIFICATES, 1934 TO 1938.

Year ending 31st March.	Issued.		Repaid.		Due to Holders.	
	No.	Value.	No.	Value.	No.	Value.
		£		£		£
1934	535	26,750	112	5,600	770	38,500
1935	267	13,350	235	11,750	802	40,100
1936	728	36,400	231	11,550	1,299	64,950
1937	680	34,000	289	14,450	1,690	84,500
1938	780	39,000	496	24,800	1,974	98,700

4. **Money and Postal Orders.**—Money order facilities were introduced on the 1st January, 1917, and extended to all countries embraced in the Universal Postal Union.

The rates of commission are:—

For South West Africa, 6d. per unit of £4. Maximum for one order £40.

For Union of South Africa, 6d. per unit of £4. Maximum for one order £40.

For Rhodesia and Province of Mozambique, 9d. per unit of £4.

For payment elsewhere, 1s. per unit of £4.

The following tables give the issues and payments of money orders and postal orders for five years:—

(i) MONEY ORDER ISSUES AND PAYMENTS, 1934 TO 1938.

Year ending 31st March.	Issues.		Payments.	
	Number.	Amount.	Number.	Amount.
		£		£
1934	37,560	142,066	16,223	94,998
1935	38,145	143,878	18,121	99,375
1936	39,646	164,607	21,051	129,699
1937	41,213	178,752	21,450	137,716
1938	43,793	193,686	23,750	146,572

(ii) POSTAL ORDER SALES AND PAYMENTS, 1934 TO 1938.

Year ending 31st March.	Issues.		Payments.	
	Number.	Amount.	Number.	Amount.
		£		£
1934	76,927	31,076	32,062	13,180
1935	79,678	34,368	33,821	15,225
1936	89,564	40,521	41,185	18,176
1937	105,077	46,515	46,133	20,625
1938	114,088	50,898	56,578	25,497

5. **Telegraphs.**—The mileage of telegraph lines and routes is as follows:—

Telegraph	380	miles wire.
Telegraph-telephone	6,375	„ „
Rural telegraphs and telephones	585	„ „
Farm telephone lines	2,278	„ „
Telegraph, superimposed	2,850	„ circuit.
Total length of telegraph and telephone wire	9,618	„

The telegraph and the cable traffic are shown hereunder:—

(i) TELEGRAPH TRAFFIC, 1934 TO 1938.

Year ending 31st March.	Total Forward.	Transmitted.	Received.	Total Dealt With.
1934	110,170	215,303	90,042	415,515
1935	114,587	227,260	95,558	437,405
1936	120,984	249,490	99,583	470,057
1937	136,648	274,832	114,248	525,728
1938	154,745	311,506	129,492	595,743

(ii) TELEGRAPH AND CABLE TRAFFIC, 1934 TO 1938.

Year ending 31st March.	Telegraph.				Cable.	
	Paid Value.	Railway Traffic.	Government Traffic.	Total.	Number of Messages.	Paid Value.
	£	£	£	£		£
1934	8,314	3	718	9,035	4,327	2,620
1935	7,948	2	622	8,572	4,875	2,975
1936	8,131	4	556	8,691	5,599	3,232
1937	8,705	6	547	9,258	6,575	3,581
1938	9,803	9	677	10,489	7,320	4,457

6. **Telephones.**—There are 41 exchanges and 37 call offices in existence. Long-distance telephone communication is available between all points in the territory. Inter-territorial communication exists between certain exchanges and call offices and all larger centres in the Union, the Rhodesias, Lourenço Marques, and the British Isles. Trunk calls to or from Union Post Office trunking centres are charged at Union trunk tariff.

The following are the rates for telephone connexions:—

RATES FOR TELEPHONE CONNEXIONS.

(*a*) URBAN.

Type of Connexion.	Class of Exchange.		
	1. (Radius 2 Miles).	2. (Radius 1 Mile).	3. (Radius ½ Mile).
	£ s. d.	£ s. d.	£ s. d.
Business	10 0 0	7 10 0	6 0 0
Residence	6 0 0	5 0 0	4 0 0

The Windhoek automatic exchange has a 2-mile radius; business and residential connexions cost £2. 10s. per annum, plus 1d. per originating call, or alternatively 2s. 6d. per month plus 1½d. per originating call, if so desired by the subscriber.

Extras.—

Extra mileage from exchanges, £1 per 440 yards or £4 per mile.

Telephone extensions, £4 per annum (indoor); outdoor, £4 per annum, plus £1 per 440 yards.

Table telephones, 5s. extra.

(*b*) FARM TELEPHONES.

Approximately £4 per mile.

(*c*) PRIVATE WIRES.

On existing routes, £2 per mile of circuit.

On new pole routes, 10 per cent. on cost of construction.

(*d*) TRUNK CALLS.

For first 25 miles, 6d., and for each 25 miles thereafter, 3d. These charges are assessed on radial distances from exchanges.

TELEPHONES, 1929-30 TO 1938.

Year.	Exchange Connexions.	Extensions.	Year.	Exchange Connexions.	Extensions.
1929-30	1,214	313	1934	1,323	155
1930-31	1,363	162	1935	1,401	170
1931	1,260	141	1936	1,473	179
1932	1,194	112	1937	1,750	150
1933	1,220	87	1938	1,762*	236

* Includes 138 farm line stations.

7. **Wireless Telegraphs.**—The Walvis Bay Radio Station maintains two-way communication with shipping on the west coast route between South Africa and Europe. The station is equipped with the latest continuous wave transmission and receiving gear for long and short wave transmission and reception. A Ship Letter Telegram Service was introduced in August, 1934.

The following figures show the radio traffic from 1934:—

	Messages.	*Words.*	*Value.*
1934	9,099	126,624	£2,508
1935	10,659	170,431	£2,846
1936	11,038	174,906	£2,880
1937	11,421	180,129	£3,339
1938	11,607	185,032	£3,394

§ 18. Finance.

1. **Public Revenue.**—Formerly the principal source of revenue in the territory was that derived from the tax on the diamond mines at Luderitz. Until 1929-30 the assessment of this tax was completed in the terms of the German law, which provided broadly that the Government received 66 per cent. of the gross proceeds realized by the sale of diamonds, less 70 per cent. of the working costs. For the present tax see § 12, 11 (iii). Now the largest item of revenue is that collected under the head of customs and excise.

Particulars are given hereunder of revenue received during a series of years:—

REVENUE, 1933-34 TO 1937-38.

Description.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
	£	£	£	£	£
Customs and Excise	108,283	145,412	148,366	197,512	222,347
Posts and Telegraphs	64,996	63,201	72,668	78,577	80,861
Mining	44,761	32,522	32,370	77,476	105,368
Licences	43,074	45,736	51,695	72,497	77,826
Stamp Duties and Fees	11,103	13,091	14,423	17,523	22,508
Estate and Transfer Duties	6,458	9,214	10,148	14,432	23,697
Land Revenue	17,794	20,979	20,757	18,892	18,124
Rents of Government Property	14,116	14,278	13,994	13,938	14,439
Departmental Receipts	34,146	35,129	50,368	53,276	49,434
Fines and Forfeitures	3,534	3,701	4,017	6,863	8,002
Miscellaneous	12,192	7,432	32,922	16,914	27,271
Interest on Loans, etc	56,935	59,398	62,950	64,007	64,582
Native Passes and Contract Fees	2,467	2,544	2,661	3,192	4,201
Wheel Tax	7,097	7,857	8,400	9,488	11,050
Entertainment Tax	1,197	1,590	1,594	2,141	2,771
Cigarettes Sales Tax	7,854	8,608	10,056	11,984	14,255
Extraordinary Revenue*	34,229	43,910	90,422	198,976	146,642
Native Reserve Fund Fees	3,757	5,573	13,767	10,428	14,563
Coronation Stamps	—	—	—	—	112,541
Motor Spirit Tax	—	—	—	—	23,983
TOTAL £	473,993	520,175	641,578	868,116	1,044,475

* Made up as follows:—

	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
	£	£	£	£	£
Sale of Crown Lands	14,449	16,549	60,791	20,528	29,242
Advances refunded by Settlers	4,823	6,993	9,458	17,413	27,788
Loans, late Administration	1,093	896	794	767	1,075
Boring Recoveries	3,257	1,226	1,941	439	483
Loans, Local Authorities	6,148	3,265	8,997	7,181	9,386
Refund from Co-operative Societies	376	2,060	2,606	3,857	5,604
Other	4,083	12,921	5,835	148,791†	73,064†

† Includes loan repaid by Land Bank £140,000 in 1936-37 and £65,000 in 1937-38.

2. **Public Expenditure.**—The main item of expenditure to 31st March, 1920, was that on the garrison, which included the police force, and amounted to £2,421,617 from August, 1915, to March, 1920. All other heads of administrative expenditure for the same period together amounted to £618,197, making a combined total of £3,039,814. The total expenditure to 31st March, 1938, was £19,970,691.

Particulars are given hereunder as to expenditure during a series of years:—

EXPENDITURE, 1933-34 TO 1937-38.

Description.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
	£	£	£	£	£
Administration	32,371	37,610	36,007	51,510	48,306
Native Affairs	14,359	17,724	28,163	25,593	43,366
Education	104,514	111,642	127,691	146,692	142,860
Mines	1,599	1,685	1,532	3,291	8,958
Justice	31,073	36,723	35,947	36,021	38,206
Prisons	15,059	13,653	12,359	12,053	13,674
Customs and Excise	4,993	5,520	5,341	5,957	6,230
Posts and Telegraphs	50,670	54,464	54,123	52,010	59,084
Public Works	32,790	41,055	51,854	76,949	112,349
Agriculture	18,599	37,072	37,809	26,835	34,027
Audit	2,272	2,307	2,485	2,397	2,716
Lands, Deeds, and Surveys	5,880	7,375	10,650	11,406	13,426
Public Health	21,302	23,320	23,831	24,312	26,409
S.W.A. Police	86,236	91,128	95,663	98,258	100,706
Defence	13	1	103	103	395
Interest and Redemption Charges	164,360	173,541	178,591	183,253	—
Pensions and Gratuities	18,220	23,981	22,784	27,709	39,168
Legislative Assembly, etc	6,167	6,400	6,869	6,321	7,687
Bounties	2,337	—	—	—	—
Refund 1932-33 Salary Reductions	—	—	—	13,516	80
Ordinary Expenditure	613,414	685,201	731,802	804,186	697,647
Capital Expenditure	54,593	65,256	74,704	187,806	56,958
TOTAL £	668,007	750,457	806,506	991,992	754,605

3. **Capital Expenditure.**—The following table contains particulars of capital or extraordinary expenditure incurred by the territory of South West Africa over a series of years:—

CAPITAL EXPENDITURE, 1933-34 TO 1937-38.

Service.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
	£	£	£	£	£
Capital for Miscellaneous Advances	—	500	2,000	—	—
Relief, Drought and Depression	36,158	41,217	35,635	1,605	607
Land Settlement	14,054	7,483	14,158	6,362	6,604
Loans to Local Authorities	1,650	3,340	5,750	8,900	275
Telegraph and Telephone Extension	998	3,769	7,500	6,792	10,995
Major Works costing over £1,000	1,425	6,917	8,575	21,630	33,239
Water Boring	307	30	12	—	1,370
Government Surveys	—	—	978	970	561
Farm Schools Advances	—	2,000	—	—	—
Walvis Bay Protection Scheme	—	—	96	1,547	2,038
Swakopmund Protection Scheme	—	—	—	—	1,269
Repayment to Union Government of Land Bank Loan redeemed	—	—	—	140,000	—
TOTAL £	54,592	65,256	74,704	187,806	56,958

4. **Financial Organization.**—The territory under the German Government had not reached the independent stage of British self-governing colonies. The Landesrath was merely an advisory body, and all fiscal edicts were issued by the Governor. The estimates of revenue and expenditure prepared in the territory required the sanction of the Imperial Reichstag. The supervision of the Imperial Government was held to be justified on the grounds that Imperial grants were made annually to the Protectorate, although these grants merely approximated the cost of the military establishment. The Imperial Government guaranteed the loans issued for the purpose of building railways. The control of all revenue and expenditure, including that of the railways, but excluding post and telegraph revenue, was exercised by the *Finanz Referent* under the Governor. The Post and Telegraph Department

was a branch of the Imperial Department, and quite distinct from the Protectorate Administration. Certain revenues were assigned by the Governor to municipal and district councils. These included dog tax, liquor, bar, hotel, and trade licences. The local authorities were also empowered to raise funds for local purposes by means of an income tax.

After the British occupation, changes were made to bring the administration into line with the administration of the Union, but no fundamental changes were made in the taxation laws. The Administration was financed by grants from the Union War Loan Vote to March, 1920. Since that date the Administration has been financed from revenue raised in the territory and from loans raised from the Union Government. The railways were taken over and financed by the Railways and Harbours Department of the Union; but the German tariff of charges was retained. Union Act No. 20 of 1922 enacts that the government railways and harbours in the territory, as they existed on the 10th January, 1920, should become from that date vested in the Railway Administration of the Union as part of the Union system. The loss arising from the working of the railways from 1st August, 1915, to 31st March, 1922, was made chargeable to the Union Railways and Harbours Capital Account, while future receipts and expenditure were to be charged to the Union Railways and Harbours Fund. The territory was thus relieved of the burden of financing the railways and maintaining the high rates levied under the German laws. Considerable reductions have been made in the through passenger fares to the Union and in goods traffic rates.

The district councils were abolished, but municipal councils were continued. The municipal income tax was withdrawn, and the councils are now empowered to levy property rates, taxes on vehicles, and charges for municipal services. The German system of assigned revenues was carried on, but after 1929 modifications were made, with the result that except for dog tax proceeds, which have always been paid over, the municipal councils now only receive the trading licences revenues allotted to them by the *Licences Consolidation Ordinance* of 1935. The levy of rates and the expenditure incurred by the councils are subject to the approval of the Administrator.

Generally, the revenues payable under the German laws have been collected and utilized in part payment of the cost of administration. The customs revenues have been collected and retained in the Union; but from the 1st April, 1919, these have been credited to the territory. The Union Treasury was authorized to exercise financial control in the territory.

The provisions of the *Exchequer and Audit Act*, 1911, of the Union of South Africa were applied to South West Africa as from the 1st April, 1921. The financial regulations framed under the Act were also applied as far as they could be made applicable, and financial regulations to meet local requirements were also issued.

An Ordinance to regulate the receipt, custody, and issue of public moneys and to provide for the audit of accounts thereof was passed by the Legislative Assembly for the territory at its first session and brought into operation in September, 1926.

5. **Banking Facilities.**—Immediately after the occupation of the territory by the Union forces in 1915 the National Bank (later merged in Barclays Bank) and the Standard Bank of South Africa both established branches in the territory. These institutions have branches in all the larger towns. The German banks continued to carry on their business, but these have all since been liquidated.

§ 19. The Land and Agricultural Bank of South West Africa.

1. **Establishment.**—The Land and Agricultural Bank of South West Africa is a body corporate; it was established on 1st April, 1922, under proclamation by the Administration of South West Africa, and was administered and managed under the provisions of the *Land Bank Act* of the Union of South Africa (Act No. 18 of 1912) as amended and applied to South West Africa by Proclamation No. 10 of 1922 and subsequent amendments thereof.

Provision was made in the proclamation for the bank to take over all assets and liabilities of the branch of the Land and Agricultural Bank of South Africa at Windhoek, in respect of its operations in South West Africa,

and, further, to take over from the liquidator of the late Landwirtschaftsbank such unrealized assets as remained at the close of the liquidation. Moneys recovered in respect of these assets were decreed to form part of the funds loaned by the Administration to the Land and Agricultural Bank of South West Africa. This provision was modified by Proclamation No. 1 of 1927. The bank was empowered to carry out and complete the contract included in the bonds and other securities thus taken over.

On the 26th October, 1935, all the laws relating to the Land and Agricultural Bank of South West Africa were repealed, and a consolidated Proclamation (Proclamation No. 22 of 1935) was promulgated.

2. **Capital.**—The funds of the Land and Agricultural Bank of South West Africa consist of—

(i) such moneys as are appropriated by the Administration from time to time from the public funds of South West Africa;

(ii) such moneys as are recovered in respect of the unrealized assets of the late Landwirtschaftsbank;

(iii) such moneys as are recovered from time to time in respect of amortization of loans granted by the Bank, on capital funds not in excess of £1,000,000.

The Land and Agricultural Bank of South West Africa started its operations with a capital fund of £350,000. Since then the capital has been increased by annual grants provided out of public funds by the Administration. During 1935 the Administration transferred to the Bank approximately £600,000, which it previously held free of interest, provided the board undertook to maintain its rate of interest charged to debtors at 4 per cent. for those people who were debtors of the Bank on the 31st December, 1931, and 5 per cent. on all advances made after this date and subject to the condition that if the Bank, at any time, went into liquidation or lost its identity the Administration would be free to raise a claim for the repayment of this capital sum. During the years 1936 and 1937 the Bank repaid £205,000 to the Administration and a further £85,000 during 1938. At 31st December, 1938, its capital account stood at the following figures:—

Capital and other Funds.		£
Moneys received from Administration, 1921 to 1938 inclusive		932,694
Less Amount transferred to Contingent Liability Capital		527,000
TOTAL	£	405,694
Less Amount repaid during 1936	£140,000	
Less Amount repaid during 1937	65,000	
Less Amount repaid during 1938	85,000	
		290,000
		115,694
Moneys collected in respect of Landwirtshaftsbank assets during 1938		8,064
Contingent Liability Capital		620,347
Redeemable Capital		183,543
Reserves (on which no interest is paid)		208,575
TOTAL	£	1,136,223

In accordance with section 3 (i) of Proclamation No. 13 of 1930 and Proclamation No. 22 of 1935, as soon as the capital of the Land Bank, provided out of funds received from the Administration of South West Africa or voted by Parliament, has reached the sum of £1,000,000, the Land Bank is obliged to redeem, by annual instalments extending over a period of forty years, any amount it receives in excess of this £1,000,000.

On moneys provided by the Administration as loan funds, the Bank pays interest at such rates as the Administration may from time to time direct. At present the undermentioned rates of interest are paid:—

£115,694 and £21,913 at 5·019 per cent., £161,629 at 4·9464 per cent.

Out of the funds of the Bank are paid—

(i) the various kinds of advances granted by the Bank;

(ii) the fees and allowances of members of the board of management;

(iii) the salaries and allowances of the staff and of persons employed by the Bank;

(iv) all other expenditure incurred by the Bank.

The rate at which money is advanced to farmers is at present 5 per cent. on all types of advances.

3. **Administration.**—The operations of the bank are controlled at present by a board of management consisting of four members, who are nominated by the Administrator. The Managing Director holds office at the pleasure of the Administrator. The remaining members were originally appointed for a period of three years; but their period of office was extended for another two years by the Administrator. The Managing Director is the chief executive officer of the Bank; he attends all board meetings and has a vote. The head office of the bank is at Windhoek.

Inclusive of the manager, the staff now consists of seven officials, all of whom are on the permanent staff. Officials of the Bank are not members of the public service, unless they are officers seconded from that service. The staff contributes to the Bank's own pension scheme, to which the Bank itself contributes on the £1 for £1 principle.

During the year 1938, the cost of administration in proportion to the Bank's capital funds was 0·6506 per cent.

Every magistrate, civil servant, and police officer, and the Director of Posts and Telegraphs and any officer under him, must, when required by the board of management of the Bank, report on any case submitted to him and, in general, must be prepared to act as agent for the Bank at all times.

4. **Activities.**—The following kinds of advances are granted by the Land Bank:—

(i) Advances on first mortgage of farm land. No individual farmer may obtain more than £3,000 from the Land Bank, and no advance against the security of farms may exceed 60 per cent. of the agricultural or pastoral value of the land determined by the board of management.

(ii) Advances to settlers on Crown land held under lease or agreement to purchase. The Administration guarantees repayment of such loans.

(iii) Advances to duly registered co-operative agricultural societies or companies.

(iv) Advances to registered owners of farms, for constructing dipping tanks and silos, for erecting fencing on boundary lines, for developing additional water supplies (not exceeding £500), for acquiring breeding stock (not exceeding £250), for the construction of water conservation schemes.

(v) Advances to registered owners are also granted for the construction of dams for periods to be determined by the board

5. **Co-operation.**—There are at present nine co-operative agricultural societies registered for the acquisition of breeding stock, whose capital indebtedness to the bank amounts to £16,422, and 6 co-operative relief organizations, whose aggregate debt is £4,116.

6. **General.**—Like the Land Bank of the Union of South Africa, the institution does not aim at making large profits; it is striving to amass substantial reserves which will enable it effectively to carry out its objects and to extend its usefulness and ultimately to become independent of State aid.

In July, 1932, a proclamation was promulgated granting further relief to debtors of the Bank. The rate of interest on all existing loans was reduced to 4 per cent., and all arrears as at the 31st December, 1931, were capitalized. In addition, debtors were granted exemption from the payment of instalments for a period of 12 months, expiring on 1st July, 1933.

PROFITS AND PROPORTION OF INTEREST EARNINGS TO CAPITAL.

Year.	*Net Profits.* £	*Interest Earnings per cent. of Capital.*	*Year.*	*Net Profits.* £	*Interest Earnings per cent. of Capital.*
1922–23	1,930	6·38	1931	13,074	6·03
1924	2,468	6·17	1932	13,896	4·54
1925	2,994	5·95	1933	13,536	4·05
1926	4,192	5·69	1934	14,505	4·29
1927	6,666	5·57	1935	*	—
1928	10,419	6·92	1936	17,317	4·41
1929	13,306	6·23	1937–38	17,383	4·20
1930	12,665	6·15	1938–39	24,876	4·50

* Owing to an adjustment of the accounts affecting interest accruing to and payable by the Bank, for which purpose the net profit for the year 1935 was utilized, the result is an apparent loss of £1,359 on the year's working. Had the previous method of showing the accounts been followed the profit and loss account for the year would have reflected a net profit of approximately £15,000.

7. **Landwirtschaftsbank.**—The following figures represent the value of the unrealized assets of the late Landwirtschaftsbank when taken over from the liquidator, and at the 31st December, 1938:—

	At 1st *April*, 1922.	*At* 31st *Dec.*, 1938.
	£	£
Mortgage Bonds	152,363	24,793
Past Due Interest	10,747	920
Bills Receivable	11,256	—
Sundry other Bonds	4,921	—
Properties bought in and overdue interest thereon	—	8,343
	£179,287	34,056
Less Credit Balance	38	253
TOTAL	£179,249	33,803

8. **Statistics of Operations.**—The following statement shows the number of applications for advances of all kinds received and granted, and the amounts thereof, from 1934 to 1938, inclusive:—

APPLICATIONS FOR ALL KINDS OF ADVANCES, 1934 TO 1938.

Year.	Applications Received.		Applications Granted.		Paid Out.
	Number.	Amount.	Number.	Amount.	Amount.
		£1,000.		£1,000.	£1,000.
1934	30	31	23	22	14
1935	83	83	61	62	38
1936	113	102	89	88	49
1937	180	160	137	111	80
1938	234	183	157	116	67

The following table indicates the liabilities and assets of the Land and Agricultural Bank of South West Africa for the years 1934 to 1938 inclusive.

LIABILITIES, 1934 TO 1938.

Year.	Capital.	Reserve.	Landwirtschaftsbank Contra.	Other Liabilities.	Total.
	£1,000.	£1,000.	£1,000.	£1,000.	£1,000.
1934	1,207	103	62	93	1,465
1935	1,210	110	56	39	1,415
1936	1,076	124	48	37	1,285
1937*	1,009	137	40	47	1,233
1938*	927	209	34	129	1,299

ASSETS, 1934 TO 1938.

Year.	Advances.	Landwirtschaftsbank Securities.	Book Debts.	Other Assets, including Cash on Hand.	Total.
	£1,000.	£1,000.	£1,000.	£1,000.	£1,000.
1934	1,301	62	88	14	1,465
1935	1,264	56	57	38	1,415
1936	1,157	48	18	62	1,285
1937*	1,066	40	13	114	1,233
1938*	1,060	34	14	191	1,299

* As the end of the Bank's financial year has been altered from 31st December to 31st March these figures are approximate.

The total extent of land pledged to the Bank at the 31st December, 1938, as security for ordinary mortgage loans was 5,822,555 hectares. The value that the bank was prepared to advance was £982,039.

The following are the purposes for which ordinary mortgage loans were granted:—

	£
(i) To effect improvements	55,973
(ii) To purchase live stock	36,013
(iii) To redeem old and onerous bonds (largely for improvements in previous years)	624,270
(iv) To discharge debts	119,187
(v) To purchase land	113,912
(vi) To pay Lands Branch purchase price and advances to ex-settlers	32,684
TOTAL £	982,039

The total amount of investments controlled by the Land and Agricultural Bank of South West Africa, as at 31st December, 1938, was:—

	£
(i) Investments (with past due interest) of the Land and Agricultural Bank of South West Africa	1,073,484
(ii) Investments (with past due interest) of the late Landwirtschaftsbank	33,803
TOTAL £	1,107,287

§ 20. Retail Prices and Rents.

1. **Retail Prices.**—The collection of retail price data is undertaken by the Union Census and Statistics Office. Quotations for food were obtained monthly from retail merchants in the principal towns of the territory from 1920 to 1931. Since the beginning of 1932 these quotations have been obtained from Windhoek only.

A departmental committee on local and other allowances made investigations into the cost of living in South West Africa in February and March, 1931, and decided to accept the prices collected by the Census Office for food and rent, to substitute wood for coal in the fuel and light group, and to add 10 per cent. to the Union figure for "sundries". An investigation into the quantity of wood consumed in Windhoek disclosed the fact that the average consumption was approximately seven bags a month per family.

Price index numbers for food in the principal towns and in Windhoek separately have been calculated quarterly from 1920 and monthly for the latter from December, 1930. Price index numbers based on the recommendations of the departmental committee referred to above have been calculated for Windhoek monthly from December, 1930, for food, fuel, light, and rent, and for food, fuel, light, rent, and sundries.

In the absence of pre-war price data for the territory, the weighted average for the nine principal towns in the Union has been taken as the base for each index, and, subject to the above explanations, the index numbers in the following table are directly comparable with those of the Union.

PRICE INDEX NUMBERS FOR FOOD, 1920 TO 1938, AND FOR FOOD, FUEL, LIGHT, AND RENT, AND FOOD, FUEL, LIGHT, RENT, AND SUNDRIES, FROM 1931 TO 1938.

Basis: Weighted Average for nine principal towns in the Union, 1910=1000.

Year.	Food.		Food, Fuel, Light, and Rent.	Food, Fuel, Light, Rent and Sundries.
	Principal Towns (S.W.A.).	Windhoek.	Windhoek.	Windhoek.
1920	2027	1989	—	—
1922	1437	1453	—	—
1925	1412	1435	—	—
1930	1423	1452	—	—
1931	1335	1369	1560	1590
1932	—	1199	1434	1481
1933	—	1165	1139	1270
1934	—	1202	1117	1261
1935	—	1149	1101	1253
1936	—	1165	1132	1274
1937	—	1206	1165	1314
1938—				
1st Quarter	—	1183	1175	1341
2nd Quarter	—	1237	1207	1362
3rd Quarter	—	1207	1216	1369
4th Quarter	—	1191	1220	1372
Year	—	1205	1205	1361

2. **Rents.**—Although particulars of rent were collected at the Census of 1926 and again in December, 1930, the number of non-privileged rented houses in any of the towns in South West Africa except Windhoek was too small for the purpose of computation.

The following table gives the average rentals of non-privileged houses in Windhoek containing three, four, five, and six rooms, respectively, as resulting from the May, 1926, December, 1930, March and November, 1933, October, 1934 and 1935, May, 1936, 1937 and 1938, Rent Censuses; and also the index numbers for the weighted average rents, compared with the weighted average rent of the nine towns in the Union in 1910.

AVERAGE RENTALS OF NON-PRIVILEGED HOUSES, WINDHOEK, MAY, 1926, TO MAY, 1938.

Year.	Three Rooms.	Four Rooms.	Five Rooms.	Six Rooms.	Index. [Weighted Average for Union-Nine Towns in 1910=1000.]
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	
1926, May	6 3 2	8 2 1	9 7 4	12 12 0	1594
1930, December	8 0 0	9 2 7	9 15 5	10 18 11	1763
1933, March	3 18 2	5 7 2	6 0 6	7 18 10	1029
1933, November	3 11 8	4 11 9	5 3 4	6 19 2	899
1934, October	3 14 3	4 15 6	5 14 9	6 15 0	939
1935, October	3 15 8	5 0 1	6 8 1	7 10 0	1002
1936, May	3 17 7	4 18 6	5 18 6	6 7 6	960
1937, May	4 8 5	5 4 3	6 11 7	7 14 3	1068
1938, May	5 1 7	5 18 6	7 1 0	7 5 11	1170

CHAPTER XXVIII.

PERSONS AND EVENTS.

§ 1. Executive and Parliamentary Representation.

1. The following lists contain the names of the various persons concerned in the government of the country. The figures in parenthesis following the names of members of the Judicature and public officials appertain to the date of appointment to the post. For information on the subject of the Constitutional Development, Parliamentary Institutions, and Public Administration, reference should be made to Chapter II.

2. **The Governor-General.**—The following have been successively Governors-General of the Union:—

Name.	Date of Royal Commission.	Date of Assumption of Office.
Right Hon. Viscount Gladstone, P.C., G.C.B., G.C.M.G., G.B.E.	30th March, 1910.....	31st May, 1910.
Right Hon. Earl Buxton, P.C., G.C.M.G	14th May, 1914.....	8th September, 1914.
H.R.H. Prince Arthur of Connaught, K.G., K.T., G.C.M.G., G.C.V.O., C.B., A.D.C.	5th August, 1920.....	20th November, 1920.
Major-General the Right Hon. the Earl of Athlone, G.C.B., G.C.M.G., G.C.V.O., D.S.O.	21st November, 1923.	21st January, 1924.
Lt.-Col. the Rt. Hon. the Earl of Clarendon, P.C., G.C.M.G.	3rd December, 1930..	26th January, 1931.
Right Hon. Sir Patrick Duncan, P.C., G.C.M.G., K.C., LL.D.	22nd March, 1937....	5th April, 1937.

The personal staff of His Excellency the Rt. Hon. Sir Patrick Duncan is as follows:—

Secretary: G. W. Klerck.
Administrative Secretary: J. H. Davis.
Comptroller: Major H. C. Juta.
Aides-de-Camp: Captain F. G. T. Radloff; Captain R. A. St. G. Martin; Lieutenant G. R. G. Watkins, R.N.

3. **The Executive Council.**—The Governor-General, together with the Ministers named in the following list, constitute the Executive Council:—

General the Right Hon. J. C. Smuts, P.C., C.H., K.C., D.T.D.: Prime Minister and Minister of External Affairs and of Defence.
Colonel the Hon. Deneys Reitz: Minister of Native Affairs.
Hon. J. H. Hofmeyr, M.A., D.Sc.: Minister of Finance and of Education.
Hon. R. Stuttaford: Minister of Commerce and Industries.
Col. the Hon. W. R. Collins, D.T.D., D.S.O.: Minister of Agriculture and Forestry.
Hon. H. G. Lawrence, K.C.: Minister of Interior and of Public Health.
Hon. F. C. Sturrock, M.I.Mech.E.: Minister of Railways and Harbours.
Hon. C. F. Clarkson: Minister of Posts and Telegraphs and of Public Works.
Hon. W. B. Madeley: Minister of Labour and of Social Welfare.
Col. the Hon. C. F. Stallard, K.C., D.S.O., M.C.: Minister of Mines.
Senator the Hon. A. M. Conroy: Minister of Lands.
Dr. the Hon. C. F. Steyn, K.C.: Minister of Justice.
Maj. the Hon. P. V. G. van der Byl, M.C., M.A.: Minister without Portfolio.

4. **Members of the Senate.**—The following is a list of the members of the Senate:—

NOMINATED SENATORS.

Senator Col. the Hon. F. B. Adler.
Senator the Hon. T. Boydell.
Senator the Hon. W. A. Hofmeyr.
†Senator Rev. the Hon. C. J. van R. Smit.
†Senator the Hon. A. T. Spies.
†Senator the Hon. A. P. J. Fourie.
†Senator the Hon. P. W. le Roux van Niekerk.
Senator the Hon. J. C. van Rooy.

† Selected on the ground mainly of his thorough acquaintance, by reason of his official experience or otherwise, with the reasonable wants and wishes of the coloured races.

ELECTED SENATORS.

CAPE OF GOOD HOPE.	NATAL.
Senator the Hon. A. M. Conroy.*	Senator Col. the Hon. J. H. Blaney.
Senator the Right Hon. F. S. Malan.	Senator the Hon. S. S. Brisker.
Senator the Hon. J. P. Malan.	Senator the Hon. J. Dyson.
Senator the Hon. C. P. Mathewson.	Senator the Hon. A. J. McGibbon.
Senator the Hon. P. A. Myburgh.	Senator the Hon. W. J. O'Brien.
Senator the Hon. O. A. Oosthuisen.	Senator the Hon. P. J. Wessels.
Senator the Hon. D. Retief.	Senator the Hon. C. Whytock.
Senator the Hon. G. F. Zondagh.	One vacancy.
TRANSVAAL.	**ORANGE FREE STATE.**
Senator the Hon. S. F. Alberts.	Senator the Hon. W. J. C. Brebner.
Senator the Hon. G. Hartog.	Senator the Hon. B. Cilliers.
Senator the Hon. P. G. W. Grobler.	Senator the Hon. C. F. H. Meintjes.
Senator the Hon. R. A. Kerr.	Senator the Hon. H. Potgieter.
Senator the Hon. B. D. Pienaar.	Senator the Hon. C. A. van Niekerk (*President*).
Senator the Hon. J. S. F. Pretorius.	Senator the Hon. J. J. van Rensburg.
Senator the Hon. F. W. R. Robertson.	Senator the Hon. M. J. Vermeulen.
Senator Dr. the Hon. T. C. Visser (*Chairman of Committees and Deputy President*).	One vacancy.

* Minister of Lands.

MEMBERS OF THE SENATE ELECTED UNDER THE PROVISIONS OF THE REPRESENTATION OF NATIVES ACT, No. 12 OF 1936.

Electoral Area.	*Name of Member.*
Cape Province (excluding the Transkeian Territories)	Senator the Hon. C. H. Malcomess.
The Transkeian Territories	Senator the Hon. W. T. Welsh.
Natal Province	Senator Dr. the Hon. E. H. Brookes.
Transvaal and Orange Free State Provinces	Senator the Hon. J. D. R. Jones.

5. **Members of the House of Assembly.**—The following is a list of the Members of the House of Assembly (designated M.P.) returned unopposed on the 26th April or elected at the general election on the 18th May, 1938, and at subsequent by-elections.

MEMBERS OF THE HOUSE OF ASSEMBLY.

Cape of Good Hope (59 *Members*).

Electoral Division.	Name of Member.	Electoral Division.	Name of Member.
Albany	T. B. Bowker.	Malmesbury	S. M. Loubser.
Albert-Colesberg	F. H. Boltman.	Moorreesburg	F. C. Erasmus.
Aliwal	Capt. G. H. F. Strydom.	Mossel Bay	Dr. P. J. van Klerop.
Beaufort West	E. H. Louw.	Mowbray	Capt. W. D. Hare.
Bredasdorp	Maj. the Hon. P. V. G. van der Byl, M.C.	Namaqualand	Lt.-Col. W. A. Booysen.
Caledon	H. C. de Wet.	Oudtshoorn	S.P. le Roux.
Calvinia	Dr. W. P. Steenkamp.	Paarl	P. J. Hugo.
Cape Flats	R. J. du Toit.	Piquetberg	Dr. the Hon. D. F. Malan.
Capetown—		Port Elizabeth—	
Castle	M. Alexander, K.C.	Central	Col. A. P. J. Wares, V.D.
Central	R. W. Bowen.	District	G. N. Hayward.
Gardens	B. K. Long.	North	H. A. Johnson.
Ceres	J. J. M. van Zyl.	South	J. G. Hirsch.
Claremont	Hon. R. Stuttaford.	Prieska	C. H. Geldenhuys.
Cradock	G. Bekker.	Queenstown	C. M. van Coller.
East Griqualand	L. D. Gilson.	Riversdale	A. L. Badenhorst.
East London—		Rondebosch	Dr. A. M. Moll.
City	J. A. Bowie.	Sea Point	Maj. G. B. van Zyl.
North	R. M. Christopher.	Somerset East	L. J. Vosloo.
Fort Beaufort	V. G. F. Solomon.	South Peninsula	M. Sonnenberg.
George	A. J. Werth.	Stellenbosch	Hon. H. A. Fagan K.C.
Gordonia	J. H. Conradie.	Swellendam	S. E. Warren.
Graaff-Reinet	Dr. K. Bremer.	Tembuland	A. O. B. Payn.
Hopetown	P. Theron.	Uitenhage	G. Dolley.
Hottentots Holland	P. A. B. Faure.	Victoria West	D. T. du P. Viljoen.
Humansdorp	P. O. Sauer.	Vryburg	P. J. du Plessis.
Kimberley—		Willowmore	G. P. Steyn.
City	W. B. Humphreys.	Wodehouse	S. Bekker.
District	L. J. Steytler.	Woodstock	Hon. H. G. Lawrence, K.C.
Kingwilliamstown	A. C. V. Baines.	Worcester	G. van Z. Wolfaard.
Kuruman	I. van W. Raubenheimer.	Wynberg	A. Friedlander.
Maitland	J. W. Mushet.		

MEMBERS OF THE HOUSE OF ASSEMBLY—(*continued*).

Natal (16 *Members*).

Electoral Division.	Name of Member.	Electoral Division.	Name of Member.
Durban—		Newcastle	O. R. Nel.
Berea	E. C. Hooper.	Pietermaritzburg—	
Greyville	J. G. Derbyshire.	City	Hon. W. A. Deane.
North	Rev. C. F. M. Cadman, O.B.E.	District	Col. the Hon. C. F. Stallard, K.C., D.S.O., M.C.
Point	Dr. V. L. Shearer.	South Coast	C. Neate.
Stamford Hill	F. H. Acutt.	Vryheid	Dr. the Hon. E. G. Jansen.
Umbilo	D. C. Burnside.	Weenen	H. Abrahamson.
Umlazi	A. Goldberg.	Zululand	G. H. Nicholls.
Illovo	J. S. Marwick.		
Klip River	G. A. Friend.		

Transvaal (60 *Members*).

Electoral Division.	Name of Member.	Electoral Division.	Name of Member.
Barberton	Col. the Hon. D. Reitz.	Orange Grove	C. Bain-Marais.
Benoni	Hon. W. B. Madeley.	Parktown	L. A. B. Reitz (Mrs.).
Bethal	C. J. van den Berg.	Pietersburg	J. F. T. Naudé.
Bezuidenhout	H. A. Tothill.	Potchefstroom	H. van der Merwe.
Boksburg	L. B. Klopper.	Potgietersrust	Rev. S. W. Naudé.
Brakpan	A. E. Trollip.	Pretoria—	
Brits	J. H. Grobler.	Central	P. V. Pocock.
Carolina	J. P. Fourie.	City	A. Davis, K.C.
Christiana	J. J. Wentzel.	District	H. Oost.
Delarey	J. S. Labuschagne.	East	C. W. Clark.
Ermelo	D. Jackson.	West	I. Wallach.
Fordsburg	B. J. Schoeman.	Roodepoort	F. B. Allen.
Germiston—		Rosettenville	F. T. Howarth.
North	S. C. Quinlan.	Rustenburg	J. M. Conradie.
South	J. G. N. Strauss.	Springs	G. J. Sutter.
Gezina	Hon. O. Pirow, K.C.	Standerton	Gen. the Rt. Hon. J. C. Smuts, P.C., C.H., K.C., D.T.D.
Heidelberg	D. A. S. de Bruyn.	Troyeville	M. Kentridge.
Hospital	Hon. R. H. Henderson.	Turffontein	Hon. F. C. Sturrock.
Jeppes	B. Solomon (Mrs.).	Ventersdorp	Col. Jacob Wilkens.
Johannesburg—		Vereeniging	Lt.-Col. K. Rood.
North	Hon. J. H. Hofmeyr.	Von Brandis	J. W. Higgerty.
West	B. H. Lindhorst.	Vrededorp	C. C. E. Badenhorst (Mrs.).
Kensington	L. Blackwell, K.C., M.C.	Wakkerstroom	Col.-Cdt. the Hon. W. R. Collins, D.T.D., D.S.O.
Klerksdorp	Jan Wilkens.	Waterberg	J. G. Strydom.
Krugersdorp	M. J. van den Berg.	Witbank	J. T. Bezuidenhout.
Langlagte	W. Bawden.	Wolmaransstad	Gen. the Hon. J. C. G. Kemp.
Lichtenburg	A. P. Swart.	Wonderboom	J. A. P. Venter.
Losberg	G. P. Brits.	Yeoville	Dr. H. Gluckman.
Lydenburg	N. J. Schoeman.	Zoutpansberg	E. A. Rooth.
Marico	Rev. C. W. M. du Toit.	Zwartruggens	J. D. H. Verster, D.T.D., M.C.
Middelburg	P. J. Bosman.		
North East Rand	G. C. S. Heyns.		
North Rand	A. S. De Kock.		

Orange Free State (15 *Members*).

Electoral Division.	Name of Member.	Electoral Division.	Name of Member.
Bethlehem	R. A. T. van der Merwe.	Heilbron	J. L. V. Liebenberg.
Bloemfontein—		Hoopstad	J. H. Viljoen.
City	Dr. the Hon. C. F. Steyn, K.C.	Kroonstad	G. J. Fullard.
District	J. J. Haywood.	Ladybrand	J. C. de Wet.
Boshof	J. J. Serfontein.	Senekal	Maj. P. W. A. Pieterse.
Fauresmith	Hon. N. C. Havenga.	Smithfield	Gen. the Hon. J. B. M. Hertzog.
Frankfort	Brig.-Gen. H. N. W. Botha, C.M.G. D.T.D.	Vredefort	E. A. Conroy.
Harrismith	E. R. Strauss.	Winburg	Dr. N. J. van der Merwe.

MEMBERS OF THE HOUSE OF ASSEMBLY ELECTED UNDER THE PROVISIONS OF THE REPRESENTATION OF NATIVES ACT, No. 12 OF 1936.

Electoral Circle.	Name of Member.
Cape Eastern	V. M. L. Ballinger (Mrs.).
Cape Western	D. B. Molteno.
Transkei	G. K. Hemming.

6. **Government Commissions of Inquiry.**—The following table gives particulars of the commissions of inquiry which were appointed by the Government in recent years and which were functioning or on which expenditure was incurred during the financial year 1937-38. References to commissions which had completed their work before the year mentioned will be found in earlier issues of this *Year Book*. The figures shown in the last column in (*a*) below relate to the total expenditure incurred by the particular commission from its inception up to the 31st March, 1938. A summary table giving the total cost of commissions each year since the date of Union will be found below.

(*a*) PARTICULARS OF UNION GOVERNMENT COMMISSIONS WHICH WERE FUNCTIONING OR ON WHICH EXPENDITURE WAS INCURRED DURING 1937-38.

Description.	Date of Appointment.	Date of Report.	Expenditure to 31.3.38. £
Transvaal Asiatic Land Tenure Act Commission *Chairman:* Hon. Richard Feetham.	October, 1932..	Parts I & II—July, 1934; III—June, '35; IV—March, '36; V—May, '36; VI—July, '36; VII—Dec., '36. VIII (Final)—March '38.	18,804
Enquiry regarding Cape Coloured Population of Union *Chairman:* Johannes du Plessis*.	July, 1934.....	August, 1937...	7,868
Viticultural Industry Commission *Chairman:* H. W. Drew.	July, 1935.....	Feb., 1937.....	3,390
South African Police Commission of Inquiry *Chairman:* Hon. Justice C. W. H. Lansdown.	Sept., 1936....	June, 1937.....	7,568
Seventh Delimitation Commission *Chairman:* Hon. Justice C. W. H. Lansdown.	May, 1937.....	Nov., 1937.....	3,325
Vereeniging Native Riots Commission *Chairman:* D. L. Smit	Sept., 1937....	—	168
Rural Industries Commission *Chairman:* J. J. M. Hendry	August, 1937...	—	991
Mixed Marriages Commission *Chairman:* C. W. de Villiers, K.C.	February, 1938.	April, 1939....	21
Asiatic Land Laws Commission *Chairman:* Hon. Justice J. M. Murray.	February, 1938.	December, 1938	—

* Deceased. Prof. Raymond W. Wilcocks appointed in his stead.

(*b*) **Expenses of Commissions.**—The following expenditure has been incurred in connexion with commissions (not including departmental committees) during the years 1910-11 to 1937-38. During this period the total cost of commissions was £330,883.

	£		£
1910–15	63,248	1932–33	11,557
1916–20	61,674	1933–34	14,534
1921–25	71,903	1934–35	22,956
1926–30	28,551	1935–36	17,759
1930–31	9,378	1936–37	12,004
1931–32	7,123	1937–38	10,196

7. **Officers of Parliamentary Establishment.**—The following list gives the principal officers of the parliamentary establishment of the Union for the Senate, the House of Assembly, and the Joint Parliamentary Establishment:—

THE SENATE.

President	Senator the Hon. C. A. van Niekerk (17.1.30).
Deputy President and Chairman of Committees	Senator Dr. the Hon. T. C. Visser (20.1.30).
Clerk of the House	Maurice Green, V.D. (1.1.30).
Clerk-Assistant, Accountant, and Committee Clerk	S. F. du Toit, LL.B. (1.1.30).
Gentleman Usher of the Black Rod and Translator	M. Smuts, B.A. (1.1.34).

JOINT ESTABLISHMENT.

Librarian of Parliament	P. Ribbink (1.11.21).
Parliamentary Draughtsman	A. J. Pienaar K.C. (17.2.36).

THE HOUSE OF ASSEMBLY.

Speaker	Dr. the Hon. E. G. Jansen (22.7.38).
Chairman of Committees and Deputy-Speaker	Maj. G. B. van Zyl (25.7.38).
Deputy-Chairman	P. J. du Plessis (9.3.39).
Clerk of the House and Taxing Officer	D. H. Visser (1.10.20).
Clerk-Assistant and Accountant	R. Kilpin (1.10.20).
Second Clerk-Assistant	J. F. Knoll (1.10.34).
Sergeant-at-Arms	H. L. Dempers (1.1.37).

§ 2. Superior Courts and Judiciary of the Union.

Judges and Staff of the Supreme Court.—The names of the Judges and Registrars of the several divisions of the Supreme Court of the Union are given below:—

Supreme Court of South Africa, Appellate Division:—

Chief Justice	Hon. N. J. de Wet (19.7.39).
Judges of Appeal	Hon. E. F. Watermeyer (15.10.37).
	Hon. B. A. Tindall (1.3.38).
	Hon. A. v. d. S. Centlivres (1.3.39).
	Hon. R. Feetham (19.7.39).

Provincial and Local Divisions:—

Judge-President (Cape of Good Hope)	Hon. H. S. van Zyl (8.10.35).
,, (Transvaal)	Hon. L. Greenberg (1.3.38).
,, (Natal)	Hon. A. A. R. Hathorn (19.7.39).
,, (Orange Free State)	Hon. P. U. Fischer (21.9.39).
,, (Eastern Districts)	Hon. C. W. H. Lansdown (1.8.37).
Puisne Judge (Cape of Good Hope)	Hon. P. S. T. Jones (3.8.26).
,, ,,	Hon. G. G. Sutton (15.2.29).
,, ,,	Hon. R. P. B. Davis (23.10.35).
,, ,,	Hon. R. R. R. B. Howes (1.11.37).
,, ,,	Hon. J. E. de Villiers (1.3.39).
,, (Griqualand West)	Hon. W. E. Bok (1.2.33).
,, (Eastern Districts)	Hon. W. Pittman (22.4.25).
,, ,,	Hon. C. Gutsche (1.2.30).
,, ,,	Hon. P. C. Gane (23.6.34).
,, (Transvaal)	Hon. C. E. Barry (1.3.27).
,, ,,	Hon. S. Solomon (1.9.27).
,, ,,	Hon. G. J. Maritz (1.5.30).
,, ,,	Hon. I. Grindley-Ferris (15.2.33).
,, ,,	Hon. J. M. Murray (15.2.37).
,, ,,	Hon. O. D. Schreiner (1.8.37).
,, ,,	Hon. P. Millin (4.9.37).
,, ,,	Hon. W. H. Ramsbottom (15.9.38).
,, ,,	Hon. A. C. Malan (15.2.39).
,, (Natal)	Hon. A. E. Carlisle (1.8.37).
,, ,,	Hon. E. A. Selke (1.4.38).
,, ,,	Hon. F. N. Broome (19.7.39).
,, (Orange Free State)	Hon. F. P. van den Heever (2.8.38).
,, ,,	Hon. E. M. de Beer (21.9.39).

Native High Court, Natal:—	
Judge-President	Lennox Ward (15.2.33).
Judge	S. A. McCormick (10.4.31).
„	F. A. Shepstone (16.3.34).
„	W. E. Thrash (15.12.38).

MASTERS OF SUPREME COURTS.

Capetown	H. G. Reid (1.1.37).
Kimberley (Assistant Master)	P. Roux, B.Com., LL.B. (1.10.38).
Pretoria	S. H. du Plessis (1.10.38).
Pietermaritzburg	H. E. H. Welch (1.3.39).
Bloemfontein	H. O. de Villiers (1.10.38).

REGISTRARS OF SUPREME COURTS.

Appellate Court	M. W. Human (1.4.35).
Cape of Good Hope:—	
Capetown	A. M. Black (1.2.28).
Grahamstown (Eastern Districts)	F. St. C. Fearon, B.A. (1.8.30).
Kimberley (Griqualand West)	W. H. Trehoeven (12.8.38).
Transvaal:—	
Pretoria	T. O'Hagan (1.9.31).
Witwatersrand (Local Division)	P. J. Erasmus (3.1.39).
Natal	J. G. Hartzenberg (3.1.39).
Orange Free State	E. H. Hickman (2.2.35).
Native High Court (Natal)	L. N. Wolhuter (1.9.31).

§ 3. King's Counsel.

King's Counsel.—Below are given the names of King's Counsel in the Union:—

KING'S COUNSEL.

Alexander, Morris.
Barry, James Tilson.
Beardmore, Ernest.
Beck, Charles Arthur.
Bisset, Murray.
Blackwell, Leslie.
Blakeway, Cyril Tennant.
Brebner, George Gustav Radloff.
Brink, John Voltelin.
Brink, Clarence Pieter.
Broeksma, Albertonie Herman.
Buchanan, Douglas Mudie.
Buchanan, William Porter.
Burke, Henry Lardner.
Burne, William.
Close, Ralph William.
Davis, Adolph.
De Jager, Samuel Jacobus.
De Villiers, Charles William.
De Villiers, Hans Heinrich Wicht.
De Wet, Johannes Christiaan.
Dickenson, Albert Victor.
Douglas, Edward Wingfield.
Duncan, the Rt. Hon. Sir Patrick, G.C.M.G.
Duxbury, William Samuel.
Fagan, Henry Allan.
Franks, Maurice.
Gardner, Charles James.
Giddy, Richard William Shepstone.
*Goldblatt, Israel.
Greene, Col. Edward Mackenzie, C.M.G.
Gregorowski, Reinhold Henry.
Hoal, William Garner.
Hodge, Donald Grant.
Honey, Reginald.
Horwitz, Israel Louis.
Ingram, Charles James.
Jarvis, Cyril Chester.
Jeppe, C.
Jones, Howel.
Kitchin, Shepherd Braithwaite.
Laughton, Frederick Augustus.
Lawrence, Harry Gordon.
Lewis, Henry Godfrey.
Lewis, Percy Tyson.
Lucas, Frank Archibald William.
Mackeurtan, Harold Graham.
Mars, Walter Herbert.
McCausland, Dominick Eckley.
Morris, Henry Harris.
Murray, Menzies.
Nathan, Manfred.
Neser, Vivian Herbert.
Pienaar, Andries Jacobus.
Pirow, Oswald.
Price, Norman.
Reid, Frank.
Reynolds, Frederick George.
Roper, E.R., D.S.O., M.C.
Rosenberg, Norman Ellis.
Rosenow, Jacobus Daniel Malan.
Schoch, August Arnold.
Shaw, Frank Routledge.
Sisson, James Joseph Lawson.
Smuts, General the Right. Hon. Jan Christiaan, P.C., C.H., D.T.D.
Stallard, Colonel Charles Frampton, D.S.O., M.C.
Steyn, Colin Fraser.
Stratford, Robin.
Taylor, Stanley Shelbourne, C.M.G., D.S.O.
Thompson, Cyril Newton.
Turner, Edward.
Van Soelen, Johannes Gerhardus Verstolck.
Voss, George du Toit.
Welsh, Alexander Simpson.
Wille, George.
Wylie, James Scott.

* South West Africa.

§ 4. Central Administration.

Chief Officers of the Public Service.*—The following is a list of the chief administrative and professional officers of the Public Service:—

OFFICE OF H.E. THE GOVERNOR-GENERAL.

Secretary to the Governor-General	G. W. Klerck.

DEPARTMENT OF THE PRIME MINISTER AND EXTERNAL AFFAIRS.

Secretary to the Prime Minister and Secretary for External Affairs	Prof. H. D. J. Bodenstein, LL.D. (1.6.27).
Under-Secretary to the Prime Minister, Under Secretary for External Affairs	Dr. P. R. Botha (21.3.34).

DEPARTMENT OF JUSTICE.

Secretary for Justice	W. G. Hoal, K.C., B.A., LL.B., (18.9.39).
Government Attorney	H. J. van den Heever, B.A., LL.B. (26.1.33).
Under-Secretary	J. G. Jeffery (1.12.36).
Senior Law Adviser	A. A. Schoch, K.C., LL.D. (1.10.31).
Law Adviser	G. du T. Voss, K.C., B.A., LL.B. (1.11.31).
Law Adviser	G. G. R. Brebner, K.C., M.A., LL.B. (1.1.27).
Law Adviser	L. C. Steyn, B.A., LL.D. (1.5.33).
Law Adviser	C. C. Jarvis, K.C., B.A., LL.B. (15.3.37).
Law Adviser	A. A. Roberts, B.A., LL.B. (Cantab.) (9.12.35).
Attorney-General (Cape of Good Hope)	A. H. Broeksma, K.C., B.A., LL.B., (18.9.39).
Attorney-General (Natal)	E. Beardmore, K.C., B.A., LL.B., (15.3.37).
Attorney-General (Transvaal)	A. S. Welsh, K.C., B.A., LL.B. (14 19.27).
Attorney-General (Orange Free State)	F. P. van Gass, B.A., LL.B. (1.9.39).
Crown Prosecutor (Johannesburg)	A. V. Dickinson, K.C., B.A., LL.B. (1.2.35).
Solicitor-General (Grahamstown)	J. D. M. Rosenow, K.C., B.A., LL.B. (1.4.33).
Registrar of Patents	M. Murray, K.C., B.A., LL.B. (7.7.32).

DEPARTMENT OF PRISONS.

Director of Prisons	Brig.-Gen. L. Beyers (1.9.32).
Assistant Director	P. B. Blanckenberg (25.2.39).

DEPARTMENT OF POLICE.

Commissioner of Police	Col. I. P. de Villiers, M.C. (1.12.28).
Chief Deputy-Commissioner	Lt.-Col. G. R. C. Baston (6.11.36).

DEPARTMENT OF FINANCE.

Secretary for Finance	J. E. Holloway, D. Sc. (30.9.37).
Under-Secretary	E. Williamson (15.7.31).
Chief Accountant	P. T. Jones (1.11.37).
Commissioner for Inland Revenue	R. W. Wamsley, B.A., LL.B. (19.4.39).
Assistant Commissioner for Inland Revenue	A. D. Wiggett (19.4.39).
Controller and Auditor-General	H. P. Smit (13.11.35).
Assistant Controller and Auditor-General	W. M. S. Hope (20.11.35).
Secretary to High Commissioner (London)	F. J. du Toit (1.5.38).
Chairman of the Central Board, Land and Agricultural Bank	A. C. Wilmot (1.4.30).
General Manager, Land and Agricultural Bank	R. Brugman (20.9.35).
Commissioner of Customs and Excise	J. D. Heddon, B.A. (26.2.30).
Deputy-Commissioner	G. E. Saunders (1.3.38).
Commissioner of Pensions	S. B. Godbolt (1.7.32).
Deputy Commissioner of Pensions	D. A. Piric (1.1.36).
Secretary, Public Debt Commissioners	D. L. Bornman (29.5.39).
Chairman, Union Tender and Supplies Board	A. G. E. Pienaar (1.1.34).
Secretary, State Advances Recoveries Office	J. C. v. W. Steytler (19.9.35).
Assistant Secretary, State Advances Recoveries Office	J. W. G. Fincham (19.9.35).
Registrar of Building Societies	A. A. Smit, M.Sc. (19.9.35).

* The names of the chief officers in the Provincial Administrations are given in § 8 of this chapter.

DEPARTMENT OF NATIVE AFFAIRS.

Secretary for Native Affairs	D. L. Smit (2.7.34.).
Under-Secretary	J. S. Allison (1.11.29).
Director of Native Labour and Chief Native Commissioner, Witwatersrand	B. W. Martin (26.9.36).
Chief Magistrate and Chief Native Commissioner (Transkeian Territories)	R. F. King (28.10.35).
Chief Native Commissioner (Cape of Good Hope)	A. L. Barrett (16.11.35).
Chief Native Commissioner (Natal)	H. C. Lugg (13.5.33).
Chief Native Commissioner (Northern Areas)	E. W. Lowe (1.8.36).
Controller of Native Settlements	H. Rogers (1.8.36).

DEPARTMENT OF DEFENCE.

Secretary for Defence	C. H. Blaine (18.9.39).
Assistant Secretary (Administration)	T. A. Sheldon. M.B.E.
Accountant	D. Sloan, M.B.E.
Chief of the General Staff	Maj.-Gen. Sir Pierre Van Ryneveld, K.B.E., D.S.O., M.C. (1.5.33).
Deputy Chief of the General Staff	Brig.-Gen. G. E. Brink, D.S.O. (11.9.39).
Military Secretary to the Minister of Defence	Brig.-Gen. J. J. Collyer, C.B., C.M.G., D.S.O. (11.9.39).
Director-General of Defence Rifle Associations	Brig.-Gen. L. Beyers (—.9.39).
Director-General of Operations	Col. P. de Waal (—.9.39).
Adjutant-General	Col. B. F. Armstrong (3.7.39).
Director-General of Reserves	Brig-Gen. H. S. Wakefield, O.B.E., (11.9.39).
Quartermaster-General	Col. F. H. Theron (24.4.37).
Director-General of Technical Services	Brig.-Gen. F. R. G. Hoare, C.B.E. (15.9.39).
Director-General of Air Services	Col. J. Holthouse, O.B.E. (13.9.39).
Director-General of Medical, Hygiene, and Dental Services	Col. E. H. Cluver (11.10.39).
Director of Medical Services	Col. A. J. van der Spuy, V.D. (11.10.39).

Burger Commandos.

Commandant-in-Chief	Lieut.-Gen. A. J. Brink, D.T.D., D.S.O. (1.4.37).

DEPARTMENT OF LANDS.

Secretary for Lands	V. H. T. H. Rudd (13.11.35).
Under-Secretary	F. Neser (1.9.37).
Provincial Representative (Cape)	H. M. Hudd (11.11.38).
Provincial Representative (Orange Free State)	R. v. B. Pritchard (1.7.37).
Provincial Representative (Natal)	A. R. Linscott (11.11.38).

DEEDS.

Chief Registrar of the Union and Registrar of Deeds (Transvaal)	M. A. Cross (19.2.34).
Assistant Registrar of Deeds (Pretoria)	C. J. H. van Wyk (1.7.37).
Assistant Registrar of Deeds (Pretoria)	F. C. Rorke (22.4.38).
Registrar of Deeds (Capetown)	E. Banwell (11.6.38).
Assistant Registrar of Deeds (Capetown)	S. M. Tatham (13.7.38).
Registrar of Deeds (Bloemfontein)	F. P. van Coppenhagen (11.6.38).
Assistant Registrar of Deeds (Bloemfontein)	C. J. Krohn (18. 9. 37).
Registrar of Deeds (Pietermaritzburg)	P. S. Lambrechts (11.6.38).
Assistant Registrar of Deeds (Pietermaritzburg)	H. F. Dowling (8.10.38).
Registrar of Deeds (Kingwilliamstown)	D. M. M. de Kock (18.9.37).
Assistant Registrar of Deeds (Kimberley)	S. S. Kirsten (2.1.37).
Assistant Registrar of Deeds (Vryburg)	A. C. Weddell (18.9.37).

SURVEYS.

Chairman, Board of Survey and Surveyor-General (Transvaal)	N. Snyman (17.12.37).
Assistant Surveyor-General (Transvaal)	E. P. Eitzen (1.11.35).
Surveyor-General (Cape)	M. L. van der Spuy (17.12.37).
Assistant Surveyor-General (Cape)	L. M. Walton (17.12.37).
Surveyor-General (Orange Free State)	T. de Smidt (17.12.37).
Surveyor-General (Natal)	C. S. Douglas (17.12.37).
Director of Trigonometrical Survey	W. Whittingdale (19.5.33).

DEPARTMENT OF COMMERCE AND INDUSTRIES.

Secretary	E. P. Smith (15.3.37).
Under-Secretary	A. J. Bosman (7.10.37).
Superintendent of Assize	J. L. Meyer (24.6.38).
Director, Fisheries and Marine Biological Survey	C. von Bonde, M.A., Ph.D. (1.5.28).
Chief Inspector of Explosives	W. B. Jackson (1.6.26).

DEPARTMENT OF AGRICULTURE AND FORESTRY.

Secretary for Agriculture and Forestry	P. R. Viljoen, Dr. Med. Vet. (Berne), M.R.C.V.S. (1.5.33).
Under-Secretary	M. J. A. Joubert, B.S.A. (19.5.33).
Under-Secretary	G. A. W. Schneider (1.4.35).
Director of Veterinary Services	P. J. du Toit, B.A., Dr. Phil., Dr. Med. Vet., D.Sc., F.R.S.S.A. (1.4.27).
Chief, Division of Plant Industry	Vacant.
Chief, Division of Chemical Services	J. P. van Zyl, B.A., Ph.D. (28.12.35).
Chief, Division of Agricultural Education and Extension	A. M. Bosman, B.Sc. (Agric.) (14.9.34).
Chief, Division of Economics and Markets	J. F. W. Grosskopf, M.A., Jur. Dr. (Leiden) (15.1.35).
Director of Forestry	J. D. Keet, Dip. For., M.Sc. (1.10.34).
Superintendent, Government Guano Islands	J. H. C. Hewitt (13.10.36).
Principal, Stellenbosch-Elsenburg College of Agriculture of the University of Stellenbosch	J. S. Marais, B.A., Ph.D. (25.9.39).
Superintendent of Dairying	E. G. Hardy, N.D.D., N.D.A. (13.9.28).

DEPARTMENT OF IRRIGATION.

Director of Irrigation	A. D. Lewis, M.A., M.Inst.C.E., M.I.M.E. (7.6.20).
Assistant Director of Irrigation	K. R. Shand, A.M.I.C.E. (1.12.37).
Chief Engineer of Construction	L. A. Mackenzie, B.Sc. Eng., A.M.I.C.E. (1.12.37).
Superintending Engineer	T. Hopwood, A.M.I.C.E. (29.3.36).
Mechanical Engineer	J. Meidlinger, B.Sc.Eng., A.M.I.C.E., A.M.I.M.E. (1.3.33).
Chief Meteorologist	T. E. W. Schumann, Ph.D., M.Sc., B.A. (15.9.33).
Hydrographic Surveyor	L. Levinkind, B.Sc.Eng. (11.3.34).

DEPARTMENT OF MINES.

Secretary for Mines and Commissioner of Mines, Natal	L. P. van Zyl Ham (1.9.28).
Under-Secretary	J. F. Muller (24.10.34).
Registrar of Mining Titles and Rand Townships Registrar	A. D. McGregor (16.11.36).
Government Mining Engineer	H. E. Barrett, B.Sc. (Eng.) (1.6.37).
Deputy Government Mining Engineer	H. S. H. Donald (1.6.37).
Deputy Government Mining Engineer	E. H. A. Joseph (28.8.38).
Director of Geological Survey	Dr. S. H. Haughton (2.1.34).

DEPARTMENT OF LABOUR.

Secretary for Labour	I. L. Walker (4.5.32).
Under-Secretary	W. D. Norval (1.4.33).
Commissioner for Workmen's Compensation	J. F. Malherbe (15.10.34).
Chief Inspector of Factories	F. W. Joubert (10.2.39).
Industrial Registrar and Inspector of Apprenticeship	M. S. Tobias (24.1.38).

DEPARTMENT OF SOCIAL WELFARE.

Secretary for Social Welfare	G. A. C. Kuschke, M.A. (1.10.37).
Under-Secretary	A. C. van der Horst (13.7.39).
Superintendent of Welfare and Probation Services	L. van Schalkwyk, Ph.D. (1.10.37).

DEPARTMENT OF UNION EDUCATION.

Secretary for Education	M. C. Botha, M.A. (24.7.34).
Under-Secretary	J. E. van Zyl, (1.7.34).
Professional Assistant	G. W. Eybers, M.A., D.Litt. (1.7.34).

DEPARTMENT OF POSTS AND TELEGRAPHS.

Postmaster-General	H. J. Lenton (23.4.26).
Under-Secretary, Posts	J. N. Redelinghuys (1.9.27).
Under-Secretary, Staff	L. C. Burke, B. Econ. (11.10.37).
Under-Secretary, Telegraphs	F. Collins, M.C., O.B.E. (1.8.36).
Chief Engineer	C. Griffith, A.M.I.E.E., M.(S.A.)I.E.E. (30.10.33).

DEPARTMENT OF PUBLIC WORKS.

Secretary for Public Works	C. A. Cilliers, B.A. (23.2.39).
Under-Secretary	D. G. Roux (1.3.39).
Chief Quantity Surveyor	R. J. C. Prentice, F.S.I., M.R.San.I., M.C.Q.S. (6.7.35).
Structural Engineer	E. W. F. F. Dohse, B.Sc., A.M.I.C.E., A.M.I.Struct.E. (1.4.35).
Chief Architect	W. Mollison, A.R.I.B.A., M.I.A. (20.2.36).
Electrical and Mechanical Engineer	W. H. Bottomley, A.M.I.E.E., A.M.I.Mech.E. (23.8.32).
Drainage Engineer	E. E. Morgan, M.I.C.E., F.I.S.E., M.R.S.I. (25.7.19).

DEPARTMENT OF THE INTERIOR.

Secretary for the Interior	J. H. de Wet, B.A. (1.8.37).
Under-Secretary	J. S. Hurter (28.6.39).
Director of Census and Statistics	E. G. Malherbe, M.A., Ph.D. (15.9.39).
Union Astronomer	H. E. Wood, M.Sc., F.R.A.S. (1.1.28).
Commissioner for Mental Hygiene	W. Russell, M.C., M.D., Ch.B. (1.5.32).
Commissioner for Immigration and Asiatic Affairs	P. F. Kincaid (9.3.33).
Government Printer	J. J. Kruger (3.2.27).
Chief Archivist of the Union	C. Graham Botha (29.10.19).
Government Translator	J. D. Louw, B.A. (1.6.30).
Director, Archaeological Bureau	C. van Riet Lowe, D.Sc., F.R.S. (S.A.), F.R.A.I. (1.4.35).
Senior Electoral Officer	H. E. Owens (12.10.39).

DEPARTMENT OF PUBLIC HEALTH.

Chief Health Officer and Secretary for Public Health	E. H. Cluver, M.D., B.Ch., D.P.H. (10.6.38).
Under-Secretary	A. Stuart (22.8.39).
Deputy Chief Health Officers	P. Allan, M.D., Ch.B., D.P.H., R.C.P.S., R.F.P.S. (8.9.37).
	F. W. P. Cluver, M.B., Ch.B., D.P.H. (19.1.39).
	H. S. Gear, B.Sc., M.B., Ch.B., M.D., D.P.H., D.T.M. & H., F.S.S. (19.1.39).
Deputy Chief Health Officer and Director of Medical Services, Defence	A. J. van der Spuy, M.B., Ch.B., D.P.H. (19.1.39).
Senior Assistant Health Officer	B. M. Clark, M.R.C.P., M.R.C.S., D.P.H. (5.12.38).
Assistant Health Officers	J. H. Loots, M.B., Ch.B., M.D., M.R.C.P., D.T.M. & H., D.P.H. (1.9.38).
	J. J. du Pré le Roux, L.R.C.P. & S., L.R.F.P. & S., D.P.H. (17.1.39).
	A. L. Ferguson, M.B., Ch.B., D.T.M. & H., D.P.H. (19.1.39).
Pathologists	W. F. Rhodes, M.R.C.S., L.R.C.P., D.P.H. (5.6.28).
	B. Sampson, M.R.C.S., L.R.C.P., M.B., B.S. (6.2.31).
Senior Malaria Officer	D. H. S. Annecke, M.R.C.S., L.R.C.P., D.P.H. (1.10.38).
Medical Inspector (Maternity and Child Welfare)	E. Drennan, M.B., Ch.B., D.P.H. (3.6.35).
Medical Inspector (Natal)	N. L. Murray, M.B., B.Ch., D.P.H. (1.3.38).
Medical Inspector (Native Territories, Cape Province)	R. J. Smit, M.B., Ch.B., D.P.H. (20.1.39).
Medical Inspector (2 years' contract)	G. W. Gale, M.Sc., M.B., Ch.B., D.T.M. & H., D.P.H. (1.12.38).
Dental Health Officer (3 years' contract)	T. Ockerse, D.D.M. (1.9.38).

DEPARTMENT OF PUBLIC HEALTH—*(continued)*.

Medical Superintendents	J. Daneel, M.B., Ch.B., F.R.C.S. (1.10.27) (Infectious and Venereal Diseases Hospital, Rietfontein, Johannesburg).
	B. A. Dorner, M.D., M.B., B.S., D.P.H. (1.11.37) (King George V. Hospital for Tuberculosis, Durban).
	A. R. Davison, M.R.C.S., L.R.C.P. (1.4.39), (Pretoria Leper Institution).
	H. R. Ackermann, M.B., Ch.B., (1.11.37) (Tuberculosis Sanatorium, Nelspoort, Beaufort West District, Cape Province).
Medico-Legal Pathologist (Transvaal and O.F.S.)	R. H. Mackintosh, L.R.C.S., L.R.C.P., L.R.F.P. & S. (1.1.34)
Specialist Serologist (Capetown)	M. H. Finlayson, M.B., Ch.B. (1.5.34).

PUBLIC SERVICE COMMISSION.

Chairman	Graham Cross (1.1.34).
Commissioner	H. Pring (17.10.31).
Commissioner	P. M. van der Lingen (1.2.34).
Secretary	J. G. Hallifax (9.10.35).
Chief Inspector	H. Thomas (1.4.39).

§ 5. Principal Officers of the Railway Administration.

The following are the principal officers of the Railways and Harbours Administration:—

General Manager	T. H. Watermeyer, M.Inst.C.E. (14.8.33).
Assistant General Managers—	
Commercial	C. M. Hoffe, M.Inst.T. (1.4.39).
Technical	W. A. J. Day, Assoc. M.Inst.M.E., M. Inst. L.E. (4.2.39).
Controller of Disbursements and Financial Adviser	J. A. C. Jones, M.Inst.T. (1.6.38).
System Managers—	
Johannesburg	P. D. Troskie (13.9.38).
Capetown	J. S. de V. von Willich, A.M.Inst.C.E. (10.3.38).
Durban	E. X. Brain (12.3.38).
Port Elizabeth	P. T. Steyn (1.12.36).
Windhoek	G. H. Dawson, A.M.Inst.T. (9.7.37).
Pretoria	W. Heckroodt, M.Inst. T. (1.12.36).
East London	R. S. V. Parsons, A.M.Inst.C.E. (6.7.37).
Bloemfontein	J. G. K. Agnew (23.4.38).
Kimberley	C. H. Hamilton, M.Inst.T. (23.4.38).
Chief Traffic Manager	J. D. White, M.Inst.T. (1.8.38).
Assistant Chief Traffic Manager	R. G. Forbes, M.Inst.T. (13.9.38).
Chief Mechanical Engineer	M. M. Loubser, M. Inst.L.E., M.V.D.I. (23.2.39).
Chief Civil Engineer	J. M. Greathead, A.M.I.C.E., A.S.A.S.C.E. (1.7.38).
Chief Accountant	J. Williams (~.9.39).
Chief Store Superintendent	D. Leibbrandt (24.9.35).
Catering Manager	G. E. Chittenden (24.1.36).
Manager, Publicity and Travel Department	D. M. Robbertze (29.1.38).
Chief Electrical Engineer	G. A. Dalton (15.4.39).
Chief Superintendent (Motive Power)	E. A. Bambury, A.M.I.M.E., A.M.Inst. Loco. E. (20.5.39).
Chief Superintendent (Staff)	J. H. Stewart (16.9.38).
Manager, Road Motor Services	J. P. McMagh (1.12.36).
Chief Rates Officer	J. J. M. Hendry (15.8.36).
Chief of Police and Investigation	Lt.-Col. A. A. Stanford (1.10.38).
Railways and Harbours Service Commission—	
Chairman	Graham Cross (1.1.35).
Member	C. J. C. Rocher, A.M.Inst. C.E. (1.1.35).
"	H. Cheadle, M.Inst.T. (1.7.37).

§ 6. Diplomatic, Consular, and Commercial Representatives.

1.—REPRESENTATION OF THE UNION GOVERNMENT ABROAD.

(i) *The High Commissioner in London and Principal Subsidiary Officers.*—The Office of High Commissioner for the Union of South Africa in the United Kingdom was created by Act No. 3 of 1911. The successive occupants of the post were:—

Sir Richard Solomon, K.C.B., K.C.M.G., K.C.V.O. (1911-14).
Rt. Hon. W. P. Schreiner, P.C., C.M.G., K.C. (1914-19).
Sir Reginald Blankenberg (Acting) (1919-21).
Sir Edgar Harris Walton, K.C.M.G. (1921-25).
Mr. J. S. Smit (1925-29).
Mr. E. H. Louw (1929).
Mr. C. T. te Water (1929-1939).

The present incumbent is Mr. S. F. Waterson, who was appointed in September, 1939.

The principal sub-officers attached to the High Commissioner's office are: The Secretary; the Trade Commissioner; the Advisory Engineer; and the Publicity Agent.

OFFICE OF HIGH COMMISSIONER IN LONDON—CHIEF OFFICERS.

Secretary	F. J. du Toit, B.A.
Trade Commissioner	A. P. van der Post, B.A., B.Sc. (24.8.39).
Director, Publicity and Travel Bureau	P. G. B. Reyneke (1.7.37).
Advisory Engineer	T. C. Swallow (21.11.32).

The offices of the High Commissioner are at South Africa House, Trafalgar Square, London, W.C. 2.

(ii) *Publicity and Travel Branch.*—This branch was established by the South African Railways and Harbours Administration, through its Publicity and Travel Department, for the purpose of advertising the travel, residential, and other attractions and potentialities of South Africa. For this purpose it compiles, issues, and maintains comprehensive supplies of publicity literature, photographs, films, and lantern slides, and arranges for the insertion of articles, pictorial matter, and advertisements in the overseas press. The extensive use of sound films plays a notable part in the publicity propaganda programme, and a thoroughly modern cinema theatre is a feature of South Africa House in London. The office is in a position to furnish information on most matters concerning South Africa, to quote railway rates and fares, and to prepare itineraries for intending travellers; it will also quote inclusive costs for tours, embodying steamship, airways, hotel, motor transport, collection and delivery of luggage, and other incidental services.

(iii) *Diplomatic, Consular, and Commercial Representatives.*—The following is a complete list of Union diplomatic, consular, and commercial representatives abroad:—

London.—	
S. F. Waterson	The High Commissioner for the Union of South Africa.
A. P. van der Post	Trade Commissioner.
W. G. W. Parminter	Political Secretary.
CONTINENT OF EUROPE.	
The Hague and Brussels.—	
Dr. H. D. van Broekhuizen	The Envoy Extraordinary and Minister Plenipotentiary.
G. P. Jooste (Brussels)	The Secretary, South African Legation.
Stockholm.—	
Dr. S. F. N. Gie	The Envoy Extraordinary and Minister Plenipotentiary.
Dr. A. H. H. Mertsch	The Secretary, South African Legation.
Paris.—	
Vacant	The Envoy Extraordinary and Minister Plenipotentiary.
B. J. Jarvie	Legation Secretary.
W. A. Horrocks	Commercial Secretary.
Lisbon.—	
Lt.-Col. F. F. Pienaar	The Envoy Extraordinary and Minister Plenipotentiary.

CONTINENT OF EUROPE—(*continued*).

Rome.—	
Dr. G. M. A. Heymans	The Envoy Extraordinary and Minister Plenipotentiary.
Dr. F. E. Geldenhuys	Commercial Counsellor for Southern Europe.
Geneva.—	
H. T. Andrews	The Accredited Representative of the Union of South Africa to the League of Nations.
Göthenburg.—	
G. Carlsson	Hon. Consul.
Genoa.—	
Signor M. C. Viezzoli	Hon. Trade Commissioner.
Rotterdam.—	
J. Schilthuis	Hon. Trade Commissioner.
Oslo.—	
O. Thorstad	Hon. Consul.

CANADA AND THE UNITED STATES OF AMERICA.

Washington.—	
R. W. Close	The Envoy Extraordinary and Minister Plenipotentiary.
Ottawa.—	
D. de Waal Meyer	Accredited Representative of the Union of South Africa.
New York—	
E. Horn	Consul of the Union of South Africa.
San Francisco.—	
V. H. Pinckney	Hon. Trade Commissioner.
Vancouver.—	
Col. R. D. Williams	Hon. Trade Commissioner.

SOUTH AMERICA.

Buenos Aires, Montevideo, Rio de Janeiro.—	
A. Zoutendyk	Consul-General of the Union of South Africa.

NETHERLANDS INDIES, EAST AFRICA, AND FAR EAST.

Lourenco Marques.—	
E. K. Scallan	Consul-General of the Union of South Africa.
Batavia.—	
A. H. Handford	Trade Commissioner of the Union of South Africa.
Nairobi.—	
T. H. Eustace	Acting Commissioner of the Union of South Africa.
Shanghai.—	
P. D. G. Gain	Hon. Trade Commissioner.

2.—REPRESENTATIVES OF THE UNITED KINGDOM IN THE UNION.

* Sir William Clark, G.C.M.G., K.C.S.I.	The High Commissioner in the Union of His Majesty's Government in the United Kingdom.
P. A. Clutterbuck, M.C.	Deputy High Commissioner.
B. Cockram	Political Secretary.
D. L. Busk	Assistant Political Secretary.
W. Peters, C.M.G., Capetown	His Majesty's Senior Trade Commissioner in South Africa.
J. W. Brigden, O.B.E., Johannesburg	His Majesty's Trade Commissioner.
C. Kemp, Capetown	His Majesty's Trade Commissioner.

* It has been announced that Sir William Clark is to be succeeded by Sir Edward Harding, G.C.M.G., K.C.B.

3.—REPRESENTATIVES OF CANADA IN THE UNION.

Capetown.—
J. C. Macgillivray..... Trade Commissioner.

Johannesburg.—
J. H. English..... Trade Commissioner.

4.—DIPLOMATIC REPRESENTATIVES OF FOREIGN COUNTRIES IN THE UNION.

Belgium.—
Albert Moulaert..... Envoy Extraordinary and Minister Plenipotentiary.
J. Jennen..... First Secretary of Legation.

France.—
E. M. de Simonin..... Envoy Extraordinary and Minister Plenipotentiary.
P. Henry..... Secretary of Legation.

Italy.—
Comm. Paolo Cortese..... Chargé d'Affaires.

Japan.—
Kanekazu Okada..... Envoy Extraordinary and Minister Plenipotentiary.
T. Kinosita..... First Secretary of Legation.

Netherlands—
Jonkheer W. F. van Lennep..... Envoy Extraordinary and Minister Plenipotentiary.
Dr. E. Star Busmann..... First Secretary of Legation.
Jonkheer G. R. G. van Swinderen.... Secretary of Legation.

Portugal.—
Dr. J. de B. Ferreira da Fonseca..... Envoy Extraordinary and Minister Plenipotentiary.

United States of America.—
Leo J. Keena..... Envoy Extraordinary and Minister Plenipotentiary.
H. Earle Russell..... First Secretary of Legation.
Francis B. Stevens..... Third Secretary of Legation.

5.—COMMERCIAL REPRESENTATIVES OF FOREIGN COUNTRIES IN THE UNION.

Belgium.—
Capt. J. Nassel..... Commercial Counsellor to the Belgian Legation.

France—
Yves Lederlin..... Commercial Attaché to the French Legation.

Italy.—
Dr. Aldo Bordoni..... Trade Commissioner at Johannesburg.

Netherlands India.—
F. Heckman..... Trade Commissioner at Durban.

United States of America.—
Clayton Lane..... Commercial Attaché to the American Legation.
F. J. Cunningham..... Assistant Trade Commissioner at Johannesburg.

6.—CONSULAR REPRESENTATIVES OF FOREIGN COUNTRIES IN THE UNION AND SOUTH WEST AFRICA.

The following list contains the names of Consuls of foreign countries in the Union as at April, 1939:—

Country.	Rank.	Name.	Station.
Argentine Republic...	Consul-General.....	Don J. B. de Lemoine.....	Capetown.
	Hon. Vice-Consul.....	A. Dey.....	Durban.
Belgium.....	Consul-General.....	Vacant (Legation Secretary in Charge)	Capetown.
	Consul.....	Capt. J. Nassel.....	Johannesburg.
	Hon. Consul.....	H. Monmal.....	Durban.
	Hon. Vice-Consul.....	G. Cornesse.....	Port Elizabeth.
	Hon. Vice-Consul.....	J. Hofman.....	East London.
Bolivia.....	Hon. Consul.....	M. M. Bravo.....	Johannesburg.
Brazil.....	Consul-General.....	Edgardo Barbedo.....	Capetown.
	Vice-Consul.....	W. E. Hehl.....	Capetown.
China.....	Consul-General.....	Fartsan T. Sung.....	Johannesburg.
	Consul.....	Dalton T. Djang.....	Johannesburg.
Colombia.....	Hon. Consular Agent....	P. V. Gawith.....	Pretoria.
Denmark.....	Hon. Consul-General....	Sir George Albu.....	Johannesburg.
	Consul.....	T. Schultz.....	Johannesburg.
	Hon. Consul.....	A. H. Werge.....	Capetown.
	Hon. Consul.....	O. Rasmussen.....	Durban.
	Hon. Vice-Consul.....	O. Kastrup.....	Port Elizabeth
	Hon. Vice-Consul.....	J. S. A. Andersen.....	East London.
	Hon. Vice-Consul.....	H. Callesen.....	Windhoek.
Estonia.....	Hon. Consul.....	H. L. Mueller.....	Capetown.
	Hon. Vice-Consul.....	Elmar Tammist.....	Johannesburg.
Finland.....	Consul-General.....	Vacant.....	Capetown.
	Hon. Consul.....	Lt.-Col. Sir Charles Llewellyn Anderssen	Johannesburg.
	Hon. Consul.....	A. E. Larsen.....	Durban.
	Hon. Consul.....	G. Dahl.....	Capetown.
	Hon. Consul.....	W. B. Riesle.....	Walvis Bay.
	Hon. Consul.....	W. B Clapham.....	Pretoria.
	Hon. Vice-Consul.....	W. H. Hardie.....	Port Elizabeth.
	Hon. Vice-Consul.....	Vacant.....	Johannesburg.
France.....	Consul-General.....	E. M. de Simonin.....	Pretoria.
	Consul.....	J. Vacher-Corbière.....	Durban.
	Consul.....	H. F. Batezat.....	Capetown.
	Vice-Consul.....	E. Ratton.....	Johannesburg.
	Consular Agent.....	J. Searle.....	Port Elizabeth.
	Consular Agent.....	J. Carrington.....	East London.
Greece.....	Consul-General.....	A. Machairas.....	Johannesburg.
	Hon. Consul-General...	V. v.d. Byl.....	Cape Town.
	Hon. Deputy Consul-General	Stanley Y. de Villiers.....	Capetown.
	Hon. Consul.....	H. Philip.....	Johannesburg.
	Hon. Deputy Consul....	J. Scott Brown.....	Johannesburg.
Hungary.....	Hon. Consul.....	F. W. Müller.....	Johannesburg.
Iran (Persia).....	(Belgian Consul-General at at Johannesburg in charge of Iranian interests.)	Capetown and the Belgian Consul	
Italy.....	Consul.....	Cav. Giacomo Ungarelli	Capetown.
	Vice-Consul.....	Don Mario Caracciolo dei Duchi di Melito	Johannesburg.
	Acting Vice-Consul.....	R. Redondi.....	Durban.
	Consular Agent.....	Cav. A. Castignani.....	Port Elizabeth.
Japan.....	Consul.....	T. Kinosita.....	Capetown.
	Consul.....	H. Nakagawa.....	Capetown.
Jugo-Slavia.....	Hon. Consul.....	G. Sinovic.....	Pretoria.
Latvia.....	Consul-General.....	C. Zarine.....	London.
	Hon. Consul-General....	S. M. Wale.....	Capetown.
	Hon. Consul.....	W. E. Dalrymple.....	Johannesburg.

CONSULAR REPRESENTATIVES OF FOREIGN COUNTRIES—(*continued*).

Country.	Rank.	Name.	Station.
Lichtenstein	(Consuls for Switzerland	are in charge of interests of.)	
Lithuania	Hon. Consul	C. R. MacGillivray	Johannesburg.
	Consular Agent	Axel Lindstrom	Capetown.
Luxembourg	(Belgian Consular Officers	are in charge of non-political matters concerning.)	
Mexico	Consul-General	Senor Don G. L. de Negri	London.
	Hon. Consul	G. W. Lyon	Capetown.
Netherlands	Legation Secretary in Charge of Consultate	Jonkheer G. R. G. van Swinderen	Capetown.
	Hon. Consul	A. Goudswaard	Durban.
	Hon. Consul	J. M. Donker	Johannesburg.
	Hon. Consul	W. J. Geerling	Pretoria.
	Hon. Consul	H. H. van Rooyen	Bloemfontein.
	Hon. Consul	D. W. F. E. Ballot	Windhoek.
	Hon. Consul	H. G. Buisman	Port Elizabeth.
	Hon. Vice-Consul	R. van der Vlugt	East London.
	Hon. Vice-Consul	W. B. Riesle	Swakopmund.
Norway	Consul-General	T. L. Seippel	Capetown.
	Consul	T. M. Hansson	Capetown.
	Hon. Consul	F. Holtung	Johannesburg.
	Hon. Consul	J. J. Egeland	Durban.
	Hon. Vice-Consul	A. J. Hazell	Port Elizabeth.
	Hon. Vice-Consul	Vacant	East London.
	Hon. Vice-Consul	E. O. Bull	Walvis Bay.
	Hon. Vice-Consul	L. Egeland	Durban.
	Hon. Vice-Consul	H. Rambech	Pretoria.
Panama	Hon. Consul	Otto Schiffmann	Johannesburg.
	Hon. Consul	Capt. M. A. Meny-Gilbert	Capetown.
Peru	Hon. Consul	J. J. Kemsley	Port Elizabeth.
Poland	Consul-General	Dr. K. Poznanski	London.
	Consul	J. Majewski	Capetown.
	Consular Agent	S. Lisiecki	Johannesburg.
Portugal	Acting Consul	A. L. Franco	Johannesburg.
	Consul	C. S. M. de Barros	Capetown.
	Consul	Vacant	Durban.
	Consul	F. P. de Sande e Castro	Windhoek.
	Hon. Vice-Consul	C. M. Knight	Capetown.
	Hon. Vice-Consul	J. F. Ferreira	Johannesburg.
	Hon. Vice-Consul	Capt. V. L. L. de Waegenaere	Pretoria.
	Hon. Vice-Consul	E. M. Royce	Durban.
	Hon. Vice-Consul	J. Cleghorn	Port Elizabeth.
	Hon. Vice-Consul	L. D. D. Miller	Simonstown.
	Hon. Vice-Consul	A. W. Barnes	East London.
	Hon. Vice-Consul	H. N. Vintcent	Mossel Bay.
Roumania	Hon. Consul-General	S. M. Wale	Capetown.
Sweden	Consul-General	Capt. F. T. E. Fevrell	Pretoria.
	Hon. Consul	E. W. Mauritzi	Johannesburg.
	Hon. Consul	A. J. Lindholm	Durban.
	Hon. Consul	Nils Hegardt	Capetown.
	Hon. Vice-Consul	E. G. C. Wadner	Mossel Bay.
	Hon. Vice-Consul	J. J. G. Wiggins	East London.
	Hon. Vice-Consul	O. J. Oosthuizen	Port Elizabeth.
Switzerland	Hon. Consul-General	Charles Diethelm	Johannesburg.
	Hon. Consul	C. Bothner	Capetown.
United States of America	Consul-General	H. Earle Russell	Johannesburg.
	Consul	J. Corrigan	Durban.
	Consul	James Orr Denby	Capetown.
	Consul	Russel M. Brooks	Johannesburg.
	Consul	John S. Richardson	Port Elizabeth.
	Consul	Robert A. Acly	Johannesburg.
	Vice-Consul	L. Berry	Durban.
	Vice-Consul	Henry V. Poor	Johannesburg.
	Vice-Consul	Arthur L. Richards	Capetown.
Uruguay	Hon. Consul	Eduardo R. Teysera	Capetown.

§ 7. Public Bodies.

The membership of certain of the more important public bodies is given hereunder:—

DEPARTMENT OF FINANCE.

Farmers' Assistance Board.

Chairman ..... A. C. Wilmot.
Members ..... W. J. M. Visser; J. C. van Wyk Steytler; J. G. Hubball.

Brandy Classification Board.

Chairman ..... J. Muller.
Members ..... M. L. Louw; P. P. du Toit.

DEPARTMENT OF NATIVE AFFAIRS.

Native Affairs Commission.

Members ..... G. H. Nicholls, M.P.; J. M. Young; E. A. Conroy, M.P.; A. O. B. Payn, M.P.; J. F. T. Naudé, M.P.

DEPARTMENT OF DEFENCE.

Council of Defence.

President ..... Minister of Defence.
Members ..... Brig.-Gen. J. J. Collyer, C.B., C.M.G., D.S.O.
E. A. Conroy, M.P.
Col. G. M. J. Molyneux, D.S.O., V.D.
Lt.-Col. K. Rood, M.P.
Secretary ..... Secretary for Defence.

Civil Air Board.

Chairman ..... Major D. Cloete, M.C., A.F.C.
Members ..... Major J. G. Davis, V.D.; Col. J. Holthouse, O.B.E.; Dr. E. L. Mackenzie, M.C., M.B., Ch.B., F.R.C.S.E.; A. H. V. Kent; D. T. Guild.
Secretary ..... Capt. P. L. Lindup.

DEPARTMENT OF LANDS.

Central Land Board.

Chairman ..... L. M. Wentzel.
Members ..... F. P. S. le Roux; T. A. Warner; N. B. Mentz; P. L. Erasmus; D. O. van Velden; M. J. Grobler.

National Parks Board of Trustees.

Chairman ..... Hon. N. J. de Wet.
Vice-Chairman ..... J. F. Ludorf.
Members ..... D. F. Gilfillan; Dr. G. S. Preller; Hon. O. Pirow, K.C.; W. A. Campbell; Hon. J. H. Conradie; Brig.-Gen. F. R. G. Hoare; W. H. Rood; R. A. Hockly.

DEPARTMENT OF COMMERCE AND INDUSTRIES.

Assize Board.

Chairman ..... J. L. Meyer, Superintendent of Assize.
Members ..... Prof. John Orr, O.B.E., M.I.M.E., A.M.I.E.E., A.Am.S.C.E., N.Am.S.M.E.; W. A. Martin; S. M. Herbert.
Secretary ..... D. R. Munro.

Board of Trade and Industries.

Chairman ..... F. J. Fahey.
Members ..... A. J. Stals, B.A., M.D., LL.D.; A. T. Brennan; A. J. Norval, D.Com.

Electricity Control Board.

Chairman ..... J. S. v. d. Lingen, B.A., Ph.D., M.D.P.G., F.P.S., F.Inst.P., F.R.S. (S.A.).
Members ..... C. Mullins, M.I.Min.E., A.M.I.E.E. (S.A.); S. C. A. Cosser; J. L. Hill, M.I.E.E. (S.A.); A. A. Roberts, B.A., LL.B. (Cantab.).

Electricity Supply Commission.

Chairman ..... Dr. H. J. van der Bijl.
Members ..... A. M. Jacobs; W. P. M. Henderson; R. B. Waterston.

DEPARTMENT OF AGRICULTURE AND FORESTRY.

Perishable Products Export Control Board.

Chairman	J. C. le Roux.
Members	R. Dyason; H. A. Pare; W. Lawson Brown (representing the citrus industry); H. Curtis (representing the egg and poultry industry); A. C. V. Baines (representing the dairy industry); A. C. Buller (representing the deciduous fruit industry); E. S. Pugh (representing the meat industry).

National Marketing Council.

Chairman	Dr. P. R. Viljoen.
Deputy Chairman	Dr. C. H. Neveling.
Members	P. C. de Villiers; C. H. Olivier; Prof. H. D. Leppan.

Producers' Advisory Committee.

Chairman	Major E. W. Hunt.
Members	G. F. H. Bekker, M.P.; S. J. Burger; W. Elliot; A. Op't Hof; G. V. Thomas; D. P. van der Merwe; H. A. Wium.
Secretary	Dr. F. J. van Biljon.

Consumers' Advisory Committee.

Chairman	Maldwyn Edmund.
Members	W. Freestone; T. Gillooly; Mrs. M. Jenkins; H. H. Kemp; H. J. Laite; A. A. Moore; Mrs. E. O'Connor.
Secretary	Dr. F. J. van Biljon.

REGULATORY BOARDS UNDER JURISDICTION OF NATIONAL MARKETING COUNCIL.

Dairy Industry Control Board.

Chairman	E. G. Hardy, Superintendent of Dairying.
Members	B. H. Ryder (Transvaal), P. F. Hugo (Cape Province), M. van der Merwe (Orange Free State), and A. V. Allan (Natal) (representing creamery producers in their respective provinces); J. D. T. Prinsloo (Orange Free State) and L. D. Gilson, M.P. (Cape Province) (representing milk producers); C. Harper (Cape Province), B. S. Wood (Orange Free State), T. Russel (Natal), and N. Spoel (Transvaal) (representing butter manufacturers in their respective provinces); C. W. Whysall and A. C. V. Baines, M.P. (representing farm dairy butter makers); S. Michelsen, Senior (representing distributors); Senator P. A. Myburgh (representing cheese manufacturers); R. S. Jacobs (South West Africa), R. England (Bechuanaland Protectorate) (representing adjoining territories).

Tobacco Industry Control Board.

Chairman	Dr. J. F. W. Grosskopf, Chief of Division of Economics an Markets.
Members	N. J. J. Combrinck, S. P. le Roux, M.P., R. F. Camphor, F. W. Neethling, W. Harlow, N. Prak, P. W. du Preez, and E. H. Nellmapius (representing tobacco growers who are members of co-operative organizations); E. J. Kay (representing tobacco growers who are not members of any co-operative organization); M. E. Risien (representing large scale manufacturers); L. te Groen (representing small scale manufacturers); J. Domisse (representing trade).

DEPARTMENT OF AGRICULTURE AND FORESTRY—(*continued*).

Mealie Industry Control Board.

Chairman	P. F. Hugo.
Members	H. Evans, H. P. Hancke, B. J. J. de Wet, and C. P. van Rensburg (representing producers of mealies who are members of co-operative organizations); Maj. R. D. Doyle, W. Elliot, and J. J. C. Wessels (representing producers of mealies who are not members of any co-operative organization); O. Walpole (representing mealie merchants); B. Kahn (representing brokers); H. C. Morrison (representing mealie exporters); M. Ross (representing millers); E. S. Pugh representing stock feeders); K. van Rooyen (representing consumers of mealies); Dr. J. F. W. Grosskopf, Chief of Division of Economics and Markets, Department of Agriculture and Forestry.

Wheat Industry Control Board.

Chairman	P. P. J. Minnaar.
Members	L. J. Steytler, M.P. (Cape Province) (interested in grinding wheat); Capt. G. H. F. Strydom, M.P. (Cape Province), B. W. Mylung (Cape Province), J. F. W. Pistorius (Transvaal), P. P. J. Minnaar (Orange Free State) (co-operative producers); D. P. S. Brink (Cape Province), C. W. A. Penzhorn (Transvaal), A. E. von Maltitz (Orange Free State) (non-cooperative producers); N. S. Geldenhuys (millers); A. J. Connolly (bakers); A. W. Warder (big millers in three northern provinces); A. A. Moore (consumers); R. C. A. Mills (big millers in Cape Province); M. J. A. Joubert, Department of Agriculture and Forestry.

Dried Fruit Board.

Members	Senator the Hon. D. Retief (acting chairman), J. F. le Roux, J. W. Butler (representing producers of dried fruit who are members of co-operative societies or companies); C. J. Rossouw (representing producers of dried fruit who are not members of a co-operative society or company handling dried fruit); J. P. M. Stoffberg (representing producers of dried fruit); H. F. Theron (representing members of the Ko-operatieve Wijnbouwers Vereniging van Zuid-Afrika Beperkt); N. C. Krone (representing persons dealing with dried fruit in the course of trade); Dr. W. P. Steenkamp, M.P. (representing consumers of dried fruit).

Livestock and Meat Industries Control Board.

Chairman	Professor A. M. Bosman, Chief of Division of Agricultural Education and Extension.
Members	Major E. W. Hunt (representing the livestock farmers of the Transvaal); S. J. van Schalkwyk (representing the livestock farmers of the Cape Province); F. J. Carless (representing livestock farmers of Natal); H. A. J. Wium (representing the livestock farmers of the Orange Free State); E. S. Pugh (representing the exporters); I. J. D. Wentzel (representing the combined wholesale and retail butchers' trade); Dr. H. J. Orford (representing the breeders of pedigree stock); C. V. Botha (representing the larger local authorities); W. Smythe (representing the Chamber of Commerce); J. Hanna (representing livestock auctioneers); J. Hobday (representing adjoining territories) (High Commission Territories).
Ex Officio Members	The Chief, Division of Economics and Markets; The Director of Native Agriculture; Dr. D. J. Schutte, Division of Agricultural Education and Extension.

DEPARTMENT OF AGRICULTURE AND FORESTRY—(*continued*).

Wool Council.

Chairman	M. J. A. Joubert, Under-Secretary for Agriculture and Forestry.
Vice-Chairman	C. E. Orpen.
Members	G. F. H. Bekker, M.P. and D. P. van den Heever (Cape Province); D. Klopper (Transvaal); G. Lotz (Orange Free State); C. M. Vermaak (Natal and East Griqualand); G. Kolbe and H. A. J. Wium (representing unorganized wool-farmers).

Wool Marketing Committee.

Chairman	M. J. A. Joubert, Under-Secretary for Agriculture and Forestry.

The Wool Marketing Committee consists of the eight members of the Wool Council and two members of the Executive Committee of the National Wool-growers' Association, representing the producers, and the following members, representing the trade:—

Wool Brokers.

Members	J. McHardy, C. A. Gingell, L. Bagshawe Smith, W. Wedd E. H. Green, J. Masters, and Lt.-Col. V. van der By (elected by the South African Wool and Mohair Brokers Association).

Wool Buyers.

Members	H. O. Frielinghaus, H. Nash, W. L. Young, and P. Hespel (elected by the Council of South African Wool and Mohair Buyers).

Hides and Skins Advisory Board.

Chairman	Dr. H. W. Turpin, Assistant Chief of Division of Agricultural Education and Extension.
Members	G. A. Kolbe (representing Agricultural Union, Orange Free State); W. Adam (representing Agricultural Union, Natal); R. C. Bristow (representing Agricultural Union, Transvaal); E. S. Pugh (representing Agricultural Union, Cape Province); A. J. Pogson (representing southern tanners); E. Holden (representing northern tanners); R. Lurie (representing shippers, Johannesburg); P. Glueck (representing shippers, Port Elizabeth); W. D. Erskine (representing shippers, Capetown); W. O'Brien (representing shippers, East London); G. F. Nicholls (representing brokers, Durban); A. C. Ball (representing brokers, Port Elizabeth); C. S. Thomas (representing brokers, East London); W. L. Young (representing brokers, Capetown); S. Stein (representing butchers, Transvaal); N. H. Ferguson (representing butchers, Natal).

Egg Levy Advisory Board.

Chairman	M. J. A. Joubert, Under-Secretary for Agriculture and Forestry.
Members	G. A. Hibbert (representing the South African Poultry Association); G. H. Human (representing the Algoa Poultry Exchange Co-operative, Limited); H. Curtis (representing the Cape Egg Circle, Limited); A. C. Lucas and E. M. Tidmarsh [representing organized poultry bodies (Transvaal and Orange Free State)]; C. Campbell (representing the East London and Border Co-operative Poultry Products, Limited); L. F. Forsythe (representing the Natal Co-operative Egg Circle, Limited); Mrs. E. O'Connor (representing northern unorganized egg producers); Mrs. J. Ackerman (representing southern unorganized egg exporters); A. Arniel (representing Cape Egg Exporters' and Merchants' Assn.); P. Bronks [representing Merchants Egg Exporters' Assn. (North)]; Mrs. F. L. Ferguson (representing Private Exporters).

DEPARTMENT OF AGRICULTURE AND FORESTRY—(*continued*).

Veterinary Board.

Chairman	Dr. P. J. du Toit, Department of Agriculture and Forestry.
Members	Dr. H. Graf (representing the Faculty of Veterinary Science of the University of Pretoria); Dr. H. H. Curson, F. J. Carless, and A. C. Kirkpatrick (representing the South African Veterinary Medical Association).

DEPARTMENT OF IRRIGATION.

Irrigation Commission.

Chairman	P. H. Nel.
Members	J. de V. van Ryneveld; I. J. P. Kleyn, Dip. Engr. (Delft); W. H. Rood.

DEPARTMENT OF MINES.

Miners' Phthisis Board.

Chairman	G. G. Southgate.
Deputy Chairman	C. J. Williams.
Members	G. E. Barry (alternate L. S. Raymond); W. Becker; H. Britten.
Secretary	N. P. Dale.

DEPARTMENT OF LABOUR.

Wage Board.

Chairman	F. McGregor.
Members	Dr. J. H. Botha; W. H. Windsor.

DEPARTMENT OF UNION EDUCATION.

South African Council for Education and Social Research.

Chairman	The Hon. J. H. Hofmeyr (Minister of Education).
Members	Prof. M. C. Botha (Secretary for Education); Dr. R. W. Wilcocks; Prof. R. F. A. Hoernlé; Dr. W. de V. Malan; Dr. E. G. Malherbe.

National Advisory Council for Physical Education.

Chairman	Prof. M. C. Botha (Secretary for Education).
Members	Dr. E. H. Cluver (Secretary for Public Health); C. H. Blaine (Secretary for Defence); G. A. C. Kuschke (Secretary for Social Welfare); F. D. Hugo [Superintendent of Education, Natal (representing Natal Provincial Administration)]; Dr. W. de Vos Malan [Superintendent-General of Education, Cape (representing Cape Provincial Administration)]; H. H. G. Kreft [Director of Education, Transvaal (representing Transvaal Provincial Administration)]; S. M. Pellisier [Director of Education, Orange Free State (representing Orange Free State Provincial Administration)]; Major Troskie Marais, D.S.O., M.P.C. (representing United Municipal Executive of South Africa); R. Honey (representing South African Olympic and British Empire Games Association); Miss E. Percival Hart (a woman teacher of physical education).

DEPARTMENT OF POSTS AND TELEGRAPHS.

South African Broadcasting Corporation Board of Governors.

Chairman	Professor M. C. Botha.
Vice-Chairman	H. R. Solomon.
Members	Mrs. C. M. Edeling; Sir J. Carruthers Beattie; Professor C. M. van den Heever; Col. G. M. J. Molyneux; Lt. Col. L. W. Deane; J. F. Briggs; H. Gerdener.

DEPARTMENT OF INTERIOR.

Archives Commission.

Chairman	Dr. A. L. Geyer, M.A., Ph.D.
Members	Senator the Hon. C. A. van Niekerk; Prof. M. C. Botha; Prof. L. Fouche; Dr. H. M. Robertson, ; Mrs. M. Jansen; Prof. S. P. Engelbrecht; Prof. H. B. Thom; Hon. Justice R. R. R. B. Howes; Rev. D. K. Clinton; C. Graham Botha (Chief Archivist, *ex officio*. Assessor Member).

Immigrants' Selection Board.

Chairman	P. I. Hoogenhout.
Members	I. L. Walker; P. F. Kincaid; E. P. Smith; Col. I. P. de Villiers, M.C.

National Road Board.

Chairman	P. I. Hoogenhout.
Members	C. V. Botha; J. A. Harris; A. A. K. de Waal, J.P.; G. P. C. Kotzé, H. J. Raubenheimer.
Chief Technical Adviser	S. B. Shannon, B.Sc., A.M.I.C.E.

Commission for the Preservation of Natural and Historical Monuments, Relics and Antiques.

Chairman	Senator the Hon. F. S. Malan.
Members	C. Graham Botha; J. S. Cleland; Prof. M. R. Drennan; Dr. P. J. du Toit; Dr. S. H. Haughton; J. M. N. A. Hershenssohn; Major W. Jardine; Prof. L. F. Maingard; C. A. Celliers; Prof. C. van Riet Lowe (*Member and Secretary*).

Statistical Council.

Statutory Members.	
Chairman	E. G. Malherbe, M.A., Ph.D. (Director of Census and Statistics).
Members	Dr. J. G. v. d. Horst; Dr. A. J. Orenstein, C.M.G.; Professor A. E. du Toit; G. Rood; D. M. Ollemans; Major C. C. Frye, O.B.E.; one vacancy.
Assessor Members	Dr. P. R. Viljoen (Agriculture); Dr. J. F. W. Grosskopf (Economics and Markets, Agriculture); P. H. Allport (Government Mining Engineer's Office); L. P. van Z. Ham (Mines); Dr. H. S. Gear (Public Health); I. L. Walker (Labour); Dr. J. E. Holloway (Treasury); H. Harper (Customs and Excise); J. Williams (S.A.R. & H.).
Secretary	H. Savage.

DEPARTMENT OF PUBLIC HEALTH.

Council of Public Health.

Chairman	Minister for Public Health.
Deputy Chairman	Secretary for Public Health and Chief Health Officer.
Members	Director of Veterinary Services; Mrs. S. B. Broers; Senator the Hon. W. J. O'Brien; L. C. Serrurier; Drs. K. Bremer, M.P., A. J. Orenstein, C. P. Theron.

Leprosy Advisory Committee.

Chairman	Chief Health Officer and Secretary for Public Health.
Members	Professors W. H. Craib and W. F. Rhodes; Drs. A. Pyper, F. C. Willmot, G. W. Robertson, A. J. Orenstein, and K. Bremer, M.P.

Central Housing Board.

Chairman	Sir. E. N. Thornton, K.B.E., M.R.C.S., L.R.C.P., D.P.H.
Deputy Chairman	R. S. Gordon.
Members	F. Walton-Jameson, M.I.C.E.; J. Lockwood-Hall, F.R.I.B.A.; G. R. Savage.
Assessor Member	E. Williamson.
Secretary	J. Sanders.

DEPARTMENT OF RAILWAYS AND HARBOURS.

Central Road Transportation Board.

Chairman	Dr. H. Reitz.
Members	Lt.-Col. L. Strickland; R. B. Waterston.

Railways and Harbours Board.

Chairman	Hon. F. C. Sturrock.
Railway Commissioners	A. Kuit (Chief); F. T. Bates; M. L. Malan.

South African Shipping Board.

Chairman	Vacant.
Members	Major C. C. Frye, O.B.E.; Major E. W. Hunt. D.S.O., M.C., J.P.; G. A. Fichardt; P. V. Gawith; F. K. Dixon; F. J. Fahey; J. D. Heddon; A. F. Hayes.

Tourist Development Corporation Board of Control.

Chairman	D. M. Robbertze.
Members	C. P. Newton; A. McC. Campbell; Dr. A. J. Norval; H. J. Crocker; H. O. B. Grant.

§ 8. Provincial Administration.

1. **Administrators of the Provinces.**—The *South Africa Act* provides that in each of the four provinces there shall be a chief executive officer appointed by the Governor-General-in-Council, and styled the Administrator of the province. All executive acts relating to provincial affairs are done in the name of this officer. In the appointment of an Administrator preference is, as far as possible, given to a person resident in the province. Administrators are appointed for five years, and their salaries are provided by Parliament. The present Administrators of the several provinces are:—

ADMINISTRATORS.

Cape of Good Hope	Capt. the Hon. F. A. JOUBERT.
Natal	Hon. H. GORDON WATSON, I.S.O.
Transvaal	Gen. the Hon. J. J. PIENAAR.
Orange Free State	Hon. J. F. JANSE VAN RENSBURG.

2.—**Executive Committees of the Provinces.**—Each Provincial Council elects at its first meeting, from among its members, or otherwise, four persons to form with the Administrator an Executive Committee for the province, the Administrator acting as chairman. A member of a Provincial Executive Committee, who is not also a member of the Provincial Council, is entitled to take part in the proceedings of the council, but has not the right to vote. The function of Executive Committees is to carry on the administration of provincial affairs on behalf of the Provincial Council. Executive Committees have the power, subject to certain considerations, to appoint officers to the provincial services. The Provincial Executives at the 31st May, 1939, were composed as under.

EXECUTIVE COMMITTEES OF THE PROVINCES.

Cape of Good Hope.		*Natal.*	
G. M. H. Barrell.	B. Muller.	F. C. Hollander, J. P.	W. M. Power.
S. F. Malan.	M. J. van Breda.	J. Macaulay.	Lt.-Col. T. H. Blew, D.S.O.
Transvaal.		*Orange Free State.*	
W. B. Barnard.	E. Goodman.	C. T. van Schalkwyk.	J. C. Buys.
J. M. van H. Brink.	W. K. A. Knauer.	J. O. D. du Toit.	W. J. Pretorius.

3. **Members of the Provincial Councils.**—The following list gives the names of the representatives and the electoral divisions for which they were returned in respect of each of the provinces of the Union.

MEMBERS OF THE PROVINCIAL COUNCILS.

(i) *Cape of Good Hope.**

Electoral Division.	Name of Member.	Electoral Division.	Name of Member.
Albany	J. C. Rae.	Cathcart	C. M. Warren.
Albert	H. T. v. G. Bekker.	Ceres	B. Muller, M.E.C.
Aliwal	J. H. Pansegrouw.	Claremont	J. N. Henshilwood.
Beaconsfield	T. Ericsen.	Colesberg	A. J. Herholdt (Chairman).
Beaufort West	J. C. C. Minnie.		
Bechuanaland	M. S. Grobler.	Cradock	W. J. Michau.
Bellville	P. J. H. Hofmeyr.	East London—	
Bredasdorp	M. J. van Breda, M.E.C.	City	P. J. Goldwyn.
Caledon	L. H. Metcalf.	North	T. H. McClelland.
Calvinia	A. E. Erlank.	Fort Beaufort	G. K. Moorcroft.
Capetown—		George	S. G. Zondagh.
Castle	A. Bloomberg.	Gordonia	H. C. Olivier (Miss).
Central	J. R. Finch.	Graaff-Reinet	J. P. Hurter.
Gardens	Dr. L. P. Bosman.	Griqualand	R. M. Fawcett.

* Elections held on 21st October, 1936.

MEMBERS OF THE PROVINCIAL COUNCILS—(*continued*).

(i) *Cape of Good Hope**—(continued).

Electoral Division.	Name of Member.	Electoral Division.	Name of Member.
Hopetown	D. H. van Zyl.	Prieska	M. M. Louw.
Hottentots Holland	H. J. H. Claassens.	Queenstown	J. L. Bisset.
Humansdorp	H. D. van Huyssteen.	Riversdale	J. J. v. Z. Bruwer.
Kimberley	G. M. H. Barrell, M.E.C.	Rondebosch	N. B. Spilhaus (Mrs.).
Kingwilliamstown	H. F. T. Malcomess.	Salt River	C. J. Abrahams.
Kuruman	C. H. Badenhorst.	Sea Point	C. E. Z. Watermeyer (Deputy Chairman).
Maitland	E. G. Nyman.	Somerset	P. S. Hayward.
Malmesbury	S. F. Malan, M.E.C.	South Peninsula	H. S. Walker.
Moorreesburg	H. K. J. van der Spuy.	Stellenbosch	A. P. Venter.
Mossel Bay	L. P. Fourie.	Swellendam	J. H. Coetzee.
Mowbray	J. T. Thompson.	Tembuland	J. J. Nepgen.
Namaqualand	J. D. J. Scholtz.	Uitenhage	D. Hay.
Oudtshoorn	J. E. Terblanche.	Victoria West	K. A. Sinclair.
Paarl	A. J. Lambrechts.	Willowmore	H. H. v.d. Spuy.
Piquetberg	J. J. Kellerman.	Wodehouse	J. P. J. Wagenaar.
Port Elizabeth—		Woodstock	A. Abdurahman (Dr.).
Central	J. S. Young.	Worcester	M. P. R. de Villiers.
North	A. Linton.	Wynberg	W. D. Taylor.
South	H. O. Frielinghaus.		

* Elections held on 21st October, 1936.

Members elected under the Provisions of the Representation of Natives Act, No. 12 of 1936.

Electoral Division.	*Name of Member.*
Cape Eastern.	H. Burman.
Cape Western.	J. G. F. Moult.

(ii) *Natal.**

Electoral Division.	Name of Member.	Electoral Division.	Name of Member.
Dundee	H. Hosking.	Ixopo	J. A. Lidgett.
Durban—		Ladysmith	J. Macaulay, M.E.C.
Berea	T. H. Blew (Lt.-Col.), M.E.C.	Newcastle	P. Ryley.
Central	P. Osborn.	North Coast	J. W. H. Morris.
Congella	S. J. Smith.	Pietermaritzburg—	
County	L. Byron.	North	A. T. Allison.
Essenwood	F. C. Hollander, M.E.C.	South	P. H. Taylor.
Gardens	W. S. Payne.	Suburbs	W. M. Power, M.E.C.
Greyville	A. T. Wanless.	Umvoti	G. I. van Rooyen.
North West	J. Lewis.	Umzimkulu	D. E. Mitchell.
Point	E. C. L. Bizzell.	Victoria County	G. D. H. Wallace (Dr.).
Toll Gate	C. H. Stott.	Vryheid	G. M. Botha (Capt.).
Umlazi	L. Whiteley.	Weenen	W. P. Bawden.
		Zululand	A. F. W. Springorum.

* Elections held on 20th October, 1936.

(iii) *Transvaal.**

Electoral Division.	Name of Member.	Electoral Division.	Name of Member.
Barberton	L. J. Raubenheimer.	Kensington	T. P. Gray.
Benoni	M. Nestadt.	Klerksdorp	E. P. Snyman.
Bethal	J. G. W. van Niekerk, Jr.	Krugersdorp	F. Shaw.
Bezuidenhout	T. T. Bielski.	Langlaagte	M. J. Green.
Boksburg	E. Goodman, M.E.C.	Lichtenburg	P. H. du Preez.
Boksburg North	A. E. Carlisle.	Losberg	C. H. Mostert.
Brakpan	Vacant.	Lydenburg	J. H. H. Jansen.
Brits	W. R. F. Teichmann.	Magaliesberg	D. J. Opperman.
Carolina	B. J. Smit.	Marico	P. W. Joynt.
Christiana	P. J. van Duyn.	Middelburg	S. H. Coetzee.
Delarey	H. A. Nieuwoudt.	North Rand	F. J. Durr.
Ermelo	L. P. J. Badenhorst.	Parktown	F. H. Thompson.
Fordsburg	J. F. Vercueil (Dr.).	Pietersburg	F. van Z. Slabbert.
Germiston	R. Strachan (Dr.).	Potchefstroom	W.B.Barnard, M.E.C.
Gezina	J. M. van H. Brink, M.E.C.	Potgietersrust	W. A. de Klerk.
Heidelberg	M. P. A. Ackermann.	Pretoria—	
Hospital	G. W. Nelson.	Central	I. I. Solomon.
Jeppe	J. Duthie.	District	W. B. J. Prinsloo.
Johannesburg North	A. H. Swartz.	East	R. Hicks.
		West	J. Lievaart.

* Elections held on 2nd September, 1936.

MEMBERS OF THE PROVINCIAL COUNCILS—(*continued*).

(iii) *Transvaal**—(continued).

Electoral Division.	Name of Member.	Electoral Division.	Name of Member.
Roodepoort	A. H. Howgrave Graham.	Vrededorp	J. L. Brill.
Rosettenville	C. F. Beckett.	Wakkerstroom	W. K. A. Knauer, M.E.C.
Rustenburg	J. Vorster.	Waterberg	G. Bakker.
Springs	T. C. Davies.	Witbank	W. C. Bouwer.
Standerton	I. Steyn.	Wolmaransstad	D. J. Theunissen.
Troyeville	D. H. Epstein.	Wonderboom	M. D. C. de W. Nel.
Turffontein	T. Boylan.	Yeoville	M. Freeman.
Ventersdorp	P. A. Rossouw.	Zoutpansberg	S. A. Cilliers.
Vereeniging	B. J. Pretorius.	Zwartruggens	A. D. Swart.
Von Brandis	E. B. Woolf (Dr.).		

* Elections held on 2nd September, 1936.

(iv) *Orange Free State.**

Electoral Division.	Name of Member.	Electoral Division.	Name of Member.
Bethlehem	C. J. O. Wessels.	Kroonstad	G. J. Serfontein.
Bloemfontein East	Vacant.	Ladybrand	J. N. le Roux.
Bloemfontein West	J. H. B. Reitz.	Lindley	J. J. Schoeman.
Bloemfontein District	F. D. du Toit.	Parys	T. Maré.
Boshof	Z. A. Thuynsma.	Reitz	A. J. Papenfus.
Edenburg	J. O. D. du Toit, M.E.C.	Rouxville	J. G. Pansegrouw.
Fauresmith	D. W. Schoeman.	Senekal	N. J. Grobbelaar.
Ficksburg	D. P. v. d. Merwe.	Thaba 'Nchu	J. J. Vermaak.
Frankfort	J. C. Kriek.	Vrede	J. P. de Jager.
Harrismith	D. J. de Jager.	Vredefort	S. I. Senekal.
Heilbron	J. S. Els.	Wepener	D. G. J. v. Rensburg.
Hoopstad	H. J. J. van Rensburg	Winburg	C. T. van Schalkwyk, M.E.C.
Jacobsdal	W. J. Pretorius, M.E.C.		

* Elections held on 9th September, 1936.

4. **Chief Officers of the Provincial Administrations.**—The following is a list of the chief administrative officers of the several provinces:—

CAPE OF GOOD HOPE.

Provincial Secretary, Accounting Officer, Chief Local Government Inspector, Controller of Educational Finance and Director of Valuations	J. D. DE VILLIERS, L.L.
Assistant Provincial Secretary	W. F. LAMBRECHTS.
Superintendent-General of Education	W. DE V. MALAN, B.A., Ph.D.
Secretary, Education Department	H. Z. VAN DER MERWE, B.A.
Local Government Inspector	R. TRUTER, B.A., B.Sc. (ENG.), A.M.I.C.E.
Provincial Accountant	J. H. REELER, F.I.A. (S.A.).
Provincial Auditor	T. W. KOLLER, M.S.I.A.A., M.T.S.A
Provincial Roads Engineer	W. P. F. McLAREN, B.Sc. (Eng.) M.I.C.E.

NATAL.

Provincial Secretary	T. A. F. RHODES, B.A., M. Econ.
Director of Education	F. D. HUGO, B.A.
Provincial Roads Engineer	W. J. CAIRNS.
Provincial Accountant	H. C. LAKE.
Provincial Auditor	J. F. WILLIAMS.

TRANSVAAL.

Provincial Secretary	H. F. PENTZ.
Assistant Provincial Secretary	S. A. LOMBARD.
Director of Education	H. H. G. KREFT, B.A.
Secretary, Education Department	J. C. PAUW.
Provincial Roads Engineer	H. R. R. BRUNE.
Provincial Accountant	D. M. LOUBSER.
Provincial Auditor	H. B. GEORGE.

ORANGE FREE STATE.

Provincial Secretary	H. E. IRVING.
Director of Education	S. H. PELLISSIER, B.A.
Provincial Roads Engineer	J. H. VAN BELKUM.
Provincial Accountant	E. T. IRONS.
Provincial Auditor	J. THATCHER.

§ 9. Table of Notable Events.

The following table gives in chronological order the chief events in South Africa from the date of discovery:—

1486 Discovery of the Cape of Good Hope by Bartholomew Diaz.
1497 Landing of Vasco da Gama at St. Helena Bay and at Mossel Bay. Discovery of Natal.
1503 Discovery of Table Bay by Saldanha.
1510 D'Almeida, Viceroy of Portuguese East Indies, killed in skirmish with Hottentots near Table Bay.
1602 Netherlands East India Company formed.
1652 Landing of Van Riebeeck. First Settlement.
1654 Introduction of Asiatic convicts.
1657 First free Burghers at Rondebosch.
1658 First importation of about 400 West African slaves.
1666 Building of the Castle at Capetown commenced.
1678 Settlement of Hottentots Holland.
1670 Stellenbosch founded under Simon v. d. Stel. Completion of the Castle at Capetown.
1685 Visit of H. A. van Rheede to Drakenstein. Beginnings of local government. Discovery of copper in Namaqualand.
1687 Settlements along Berg River (Drakenstein, Paarl).
1688 Arrival of Huguenot settlers. Settlement of French Hoek.
1698 Settlement of Wagenmaker's Vallei (Wellington).
1699 Retirement of Simon v. d. Stel. Willem Adriaan v. d. Stel made Governor.
1700 Settlement in "'t Land van Waveren" (Tulbagh).
1706 Popular movement against the Governor.
1707 Recall of Governor W. A. v. d. Stel.
1713 Devastation by smallpox outbreak introduced from India, resulting in annihilation of Hottentot tribal system.
1717 Reports by members of the Council of Policy on the introduction of white labourers.
1737 First Moravian Mission (abandoned 1744).
1746 Swellendam founded.
1751 Ryk Tulbagh, Governor.
1755 Foundation Stone of Old Town House, Capetown, laid.
1760 Orange River crossed by Coetzee.
1778 Fish River made the eastern boundary by Governor van Plettenberg.
1779 First Kaffir War.
1780 Birth of Piet Retief.
1781 An English Fleet sent to seize the Cape; disabled at Porto Praya by French, who, as allies of Dutch, sent a garrison to the Cape.
1782 First issue of paper rixdollars.
1786 Foundation of Graaff-Reinet.
1789 Second Kaffir War.
1792 Foundation of Moravian Mission at Genadendal. Arrival of Commissioners-General Nederburg and Frijkenius; new taxation. Birth of A. H. Potgieter.
1793 Sluysken appointed Commissioner-General. Establishment of the "Bank van Leening" (Lombard Bank).
1795 Revolt at Swellendam and Graaff-Reinet. British occupation. General Craig, Governor.

1796 Surrender of Admiral Lucas's fleet to Admiral Elphinstone in Saldanha Bay. Constitution of Burgher Senate in Capetown.
1797 Earl Macartney, Governor.
1798 First Post Office. Liquidation of Dutch East India Company.
1799 Rebellion on eastern frontier. Third Kaffir War. Beginnings of London Missionary Society in South Africa. Sir George Yonge, Governor. Birth of A. W. J. Pretorius.
1800 First Printing Press at Capetown. *Government Gazette* started.
1803 Cape handed over to the Batavian Republic. J. A. de Mist, Commissioner. General Janssens, Governor.
1804 Uitenhage founded.
1806 First regular inland postal service. Battle of Blaauwberg and surrender of Cape to Sir David Baird. British Parliament passes Act prohibiting slave importation in conquered colonies.
1807 Lord Caledon, Governor.
1808 Clanwilliam founded.
1811-15 Large increase in paper-money issues. Depreciation of the rixdollar.
1811 Caledon and George founded. First circuit court. Sir John Cradock, Governor.
1812 Fourth Kaffir War. Campaign to drive Kaffirs across Fish River. Grahamstown and Cradock founded. The Black Circuit.
1814 The Cape ceded in perpetuity to England. Lord Charles Somerset, Governor. Mail packet service started between Britain and the Cape.
1815 Slachter's Nek incident.
1816 Wesleyan Missionary Society's first work in South Africa.
1818 Fifth Kaffir War. Occupation by settlers of land beyond the Orange River. Foundation of Beaufort West. Foundation of South African Public Library. Formation of Vicariate of the Cape of Good Hope by Pope Pius VII.
1819 Cape boundary extended to Keiskama River.
1820 Arrival of 5,000 British immigrants at Port Elizabeth, the "1820 Settlers," who settled chiefly in Albany and Bathurst. Foundation of Worcester.
1822 South African Public Library opened. Government teachers appointed to Stellenbosch, Caledon, Graaff-Reinet, Tulbagh, Uitenhage, George, etc.
1824 Publication of *Commercial Advertiser*, the first newspaper. Construction of road through French Hoek Pass. First Synod of Dutch Reformed Church. Mission Station at Lovedale. British traders at Port Natal. First lighthouse opened.
1825 Birth of S. J. P. Kruger. First steamship in Table Bay. Depreciated rixdollar converted into British sterling at 1s. 6d.
1826 Retirement of Lord Charles Somerset.
1828 Death of Tshaka, who had been responsible for internecine wars amongst the Bantu tribes. Accession of Dingaan as Chief of the Zulus. Sir Lowry Cole, Governor. Administrative changes. Old High Court superseded by Supreme Court, independent of Governor. Landdrosts and Heemraden replaced by Civil Commissioners and Resident Magistrates. English becomes official language Ordinance No. 50: All free coloured people in the Cape Colony placed on a political level with Europeans, and laws against Hottentot vagrancy abrogated. Ordinance issued securing freedom of the Press.
1829 Foundation of South African College, Capetown.
1830 Colesberg founded. Road over Sir Lowry's Pass opened. Kaffraria opened to traders. Treaty recognizing Andries Waterboer as Chief of Griquas.
1831 First publication of *De Zuid Afrikaan* (*Ons Land*). First issue of *Grahamstown Journal*.

1834 Kingwilliamstown founded. Sir Benjamin D'Urban, Governor. Creation of Executive and Legislative Councils, latter including nominated colonists. Second Charter of Justice. Liberation of the slaves. Kaffir unrest culminates in serious invasion of Eastern Province (December). Sixth Kaffir War.

1835 Province of Queen Adelaide formed, but later abandoned by order of British Government. Durban founded. Beginning of Trichardt's Trek.

1836 Great Boer Trek from Cape under Potgieter, Maritz, Uys, and Piet Retief. First Volksraad at Vet River. Ordinance permitting formation of municipalities (Cape).

1837 First "Grondwet" adopted. Piet Rétief elected as leader. Battle of Vegkop. Winburg founded. Matabele under Moselekatze driven north of Limpopo. Retief treks to Natal. Separate administrative districts for Port Elizabeth, Cradock, and Colesberg. Sir B. D'Urban dismissed. Accession of Queen Victoria.

1838 Sir George Napier, Governor. Retief's Treaty with Dingaan. Massacres of Boers under Retief by Dingaan (February). Massacres round "Weenen." Overthrow of Dingaan by Andries Pretorius at Blood River (16th December—Voortrekker's Day). Boers founded the Republic of Natal. Pietermaritzburg founded.

1839 Potchefstroom founded and Council, subject to Natal Volksraad, established. Temporary British occupation of Durban. Reorganization of education system in Cape Colony; J. Rose-Innes, Superintendent-General. Local school boards established.

1840 Constitution of Capetown Municipality by special ordinance. Dingaan driven out of Natal. Panda becomes chief as vassal of Republic of Natal.

1840-5 Establishment of churches and villages at Piquetberg, Riversdale, Bredasdorp, Wellington, Prince Albert, Riebeek East.

1842 British forces besieged in Durban. Dick King's ride from Port Natal to Grahamstown to seek assistance for the British.

1843 Extension of British sovereignty over Natal. Recognition by treaties of Moshesh as head of Basutos and Adam Kok of Griquas. Ordinance for "spiritual" self-government of Dutch Reformed Church. Ordinance establishing Board of Commissioners of public roads and divisional road boards (elective) with rating powers.

1844 Sir Peregrine Maitland, Governor. Incorporation of Natal in Cape Colony decided upon. Majority of emigrant Boers retire across the Drakensberg. Pondoland a treaty state. Potchefstroom Volksraad adopts the Thirty-three Articles.

1845 Natal separated from Cape Colony. Trek to and formation of Volksraad at Ohrigstad.

1846 Bloemfontein founded. Postal improvements. Institution of bi-weekly postal service between principal seats of magistracy. Seventh Kaffir War.

1847 Sir H. Pottinger, Governor and High Commissioner, followed by Sir Harry Smith. Opening of Montagu Pass. Creation of Province of British Kaffraria as result of "War of the Axe." Commencement of sugar plantations in Natal. East London founded.

1848 British sovereignty proclaimed between Orange and Vaal Rivers. Battle of Boomplaats. Mitchell's Pass opened. First Anglican Bishop (of Cape, Natal, and St. Helena). Introduction of a nominated Legislative Council in Natal.

1849 Arrival of ship "Neptune" at Simon's Bay with convicts. Successful agitation against plans of Earl Grey for making Cape a penal settlement. Livingstone discovered Lake Ngami. Establishment of Diocesan College at Rondebosch. Lydenburg founded. Agreement at Derdepoort (Verenigde Bond) between the Transvaal emigrants, except those of Zoutspansberg.

1850 Outbreak of Great Kaffir Rebellion. Eighth Kaffir War. Rustenburg founded. *The Friend*, Bloemfontein, first issue published.

1851 Trouble with Basuto. Fight at Viervoet and defeat of Major Donovan.

1852 Sir George Cathcart, Governor in succession to Sir Harry Smith. Copper mining begun at Springbokfontein. First export of copper. Sand River Convention, recognizing independence of Transvaal

Boers. Further fighting with the Basuto. Defeat of Sir George Cathcart by Moshesh at the Battle of Berea. Wreck of the "Birkenhead." Zoutpansberg burghers join the Verenigde Bond. Trekkers settle in Utrecht. Death oof A. H. Potgieter.

1853 End of Eighth Kaffir War. Order established in Amatolas (made a "Crown Reserve"). Europeans settled at Queenstown and Seymour. Death of Andries Pretorius. "Verenigde Bond" becomes "South African Republic." Union Steamship Line founded.

1854 Sir George Grey, Governor. Convention of Bloemfontein. Orange Free State becomes independent with Josias P. Hoffman as President. Representative government at the Cape with elected Legislative Council and House of Assembly. First Cape Parliament. Appointment of British magistrates for Kaffraria. State subsidies to native industrial schools.

1855 Act establishing elective Divisional Councils in Cape Colony (replacing older road and school boards). Pretoria founded. M. W. Pretorius, provisional President of South African Republic. J. N. Boshoff, President of Orange Free State. South African Museum founded. Grey College founded.

1856 Natal made a separate colony. Self-destruction of Xosa tribes by slaughter of all cattle. Secession of Lydenburg from South African Republic.

1857 First publication of *Cape Argus*. First Legislative Council in Natal. First mail contract with Union Steamship Company for regular mail service between England and South Africa. First *Government Gazette* of South African Republic.

1858 Settlement of "German Legion" round Kingwilliamstown. Grey Hospital opened at Kingwilliamstown. Orange Free State war with the Basuto under Moshesh. Creation of Board of Public Examiners (precursor of University). Constitution, Flag, and Coat of Arms of South African Republic finally adopted. Union of Lydenberg and Utrecht Republics.

1859 Union of the Republic of Lydenburg with the South African Republic. Pretorius elected President of both South African Republic and Orange Free State. First railway in South Africa commenced in Cape Colony. Sir George Grey's abortive scheme of South African federation. First Transvaal newspaper, *De Oude Emigrant* (Potchefstroom).

1860 First telegraph (Capetown to Simonstown). Initiation of a penny post in Capetown. Work begun on Table Bay Docks. Pretoria established as the seat of government in Transvaal. First importation of labourers from India into Natal. Local steam railway track of 2 miles between Point and Durban opened.

1861 Sir Philip Wodehouse, Governor, Cape. Purchase of Griqua territory by Orange Free State and migration of Adam Kok and his people to Griqualand East.

1863 Railway opened to Wellington. Pretorius retires from Presidency of the Orange Free State.

1864 J. H. Brand, President of Orange Free State. M. W. Pretorius, President, and Paul Kruger, Commandant-General, of the South African Republic. Establishment of Eastern Districts Court (Cape). Completion of telegraph line between Capetown and East London.

1865 Kaffraria annexed to Cape. Census of population in Cape Colony.

1865-6 War between Orange Free State and Basuto.

1867 New Orange Free State war with Basuto. First diamond discovered near Hope Town.

1868 Basutoland adopted as British territory. Report of gold near Oliphants River. President Pretorius defines boundaries of South African Republic, including Delagoa Bay. England and Portugal protest.

1869 British intervention in Basutoland. Under Convention of Aliwal conquered territory ceded to Orange Free State. Opening of Suez Canal. Treaty between South African Republic and Portugal in regard to Delagoa Bay.

1870 Sir Henry Barkly, Governor, Cape. Opening of Capetown Docks. Gold discovered in Murchison Range. Death of Moshesh. First consideration of railway construction in the Transvaal.

1871 Diamond fields annexed to Cape. First mail from Capetown to the diamond fields. The Keate Award in favour of Waterboer and Griquas as to boundary with Transvaal; Republic protest. Annexation of Basutoland. T. F. Burgers elected President of the South African Republic.

1872 Responsible government introduced in the Cape. Sir J. Molteno, first Prime Minister. Treaty and rectification of boundaries between the two Republics. Castle Steamship Line founded.

1873 Act incorporating University of Cape of Good Hope. Rising of Langalibaleli, resulting in mission of Sir Garnet Wolseley (1875). Establishment of Griqualand West as a Crown Colony. Acquisition by Cape Government of existing railways and telegraphs (1873-74). Gold discovered in Lydenburg District of Transvaal.

1874 College founded at Stellenbosch (later Victoria College). Railway opened from Port Elizabeth to Uitenhage. Convention between Great Britian and Orange Free State.

1875 Act abolishing grants in aid of salary of clergy of any denomination. Mission of Sir Garnet Wolseley. Lord Carnarvon's Scheme of South African federation put forward. Reorganization of Natal administration. Census of population in Cape Colony. Delagoa Bay awarded to Portugal by MacMahon's award. Treaty between South African Republic and Swazis.

1876 Failure of J. A. Froude's mission in support of scheme of South African federation. First railway commenced in Natal. Outbreak of war between Boers and Sekukuni.

1877 Sir Bartle Frere, Governor, Cape. Permissive South Africa Act in British Parliament. Peace with Sekukuni. Transvaal proclaimed British territory by Sir Theophilus Shepstone; protest of President Burgers. Visit of Paul Kruger with Jorissen to England. Rising of Kaffirs under Kreli. Ninth Kaffir War.

1878 Walvis Bay proclaimed British territory. Telegraph between Natal and Transvaal. First Sprigg Ministry (Cape). Visit of second deputation (Paul Kruger and P. Joubert) to England. First tea plantation laid out in Natal. Second war with Sekukuni.

1879 Zulu rebellion under Cetewayo. Isandhlwana and Rorke's Drift battles. Defeat of Zulus at battle of Ulundi. Capture of Cetewayo. General Sir Garnet Wolseley, Governor of Natal. Transvaal deputation to High Commissioner.

1880 Legislative Council in Transvaal. Sir George Colley, Governor of Natal. War with Basuto. Griqualand West annexed to the Cape Colony. Formation of De Beers Company. Opening of submarine cable to Capetown. Final rejection by Cape Parliament of Lord Carnarvon's scheme of South African federation. Formation of the Afrikaner Bond. Meeting of Burghers at Paardekraal. Outbreak of first Anglo-Boer War. Bronkhorstspruit. Triumvirate (Kruger, Joubert, Pretorius) in command.

1881 Laing's Nek (28th January). Majuba (27th February). Death of Sir George Colley. Convention of Pretoria. Recognition of Transvaal independence.

1882 Small Kaffir wars in Transvaal. Use of Dutch language recognized in Cape Parliament.

1883 Republics Stellaland and Goshen founded. Postal Conventions between South African States. German trader, Luderitz, at Angra Pequena. Kruger, President of South African Republic. MacMurdo concession. Machado surveys railway line Delagoa Bay-Pretoria.

1884 Consolidation of the Afrikaner Bond. Barberton goldfields opened. Basutoland a Crown Protectorate. Convention of London with South African Republic. Warren's expedition to Bechuanaland. Concession to Netherlands South African Railway Company. German Protectorate of South West Africa. New Republic at Vryheid. British at St. Lucia Bay.

1885 Cape railway opened to Kimberley. Abolition of Republics of Stellaland and Goshen and creation of Province of British Bechuanaland.

1886 Opening of goldfields on Witwatersrand. Johannesburg founded. Telegraph convention, Cape, Natal, and Orange Free State.

1887 Zululand finally proclaimed British territory. Sir T. Upington, Mr. J. H. Hofmeyr, and Sir J. Robinson (Natal) at first Imperial Conference. Coal first opened up in Transvaal (near Boksburg). Establishment of State Library at Pretoria. Formation of Chamber of Mines. Grobler's Treaty between South African Republic and Lobengula.

1888 Death of President Brand. F. W. Reitz elected President, Orange Free State. First mining concession granted by Lobengula. British South Africa Company founded. Murder of Grobler by Khama's subjects.

1889 Customs Union between Cape and Orange Free State Governments.

1890 Railway from Capetown reaches Bloemfontein. First Swaziland Convention. Failure of Cape of Good Hope Bank. First Rhodes Ministry (Cape). Census of white population in Transvaal and census of population in Orange Free State. First railway in Transvaal (Johannesburg to Boksburg) opened (17th March). Second Volksraad (Transvaal) established. Occupation of Mashonaland by British troops. Customs Union between Cape, Orange Free State, and British Bechuanaland. Anglo-German Convention defining boundaries of Cape Colony with those of German South West Africa.

1891 Census of population in Cape Colony and Natal. Selati railway concession.

1892 Railway to Johannesburg completed with connexions from Capetown, Port Elizabeth, and East London.

1893 Responsible government granted to Natal. Robinson Ministry (Natal). Second Rhodes Ministry (Cape). Matabele War. Death of Major Allan Wilson. Record voyage from England to Capetown (R.M.S. "Scot", 14 days 18 hours 57 mins.). Second Swaziland Convention.

1894 Railway opened between Lourenco Marques and Johannesburg (2nd November). Railway Conventions between South African Republic and Cape and Natal. Pondoland annexed to Cape Colony. Glen Grey Act for separate administration of Transkei. Third Swaziland Convention.

1895 Railway opened between Durban and Johannesburg (16th December). Closing of the drifts. Annexation of British Bechuanaland to Cape Colony. Entry of Cape Colony into Universal Postal Union. Jameson raid.

1896 Surrender of Jameson. Arrest of members of the Reform Committee in Transvaal. Trial of Dr. Jameson. Death of General N. J. Smit. P. J. Joubert, Commandant-General. M. T. Steyn elected President of Orange Free State on retirement of President Reitz owing to ill-health. Third Sprigg Ministry (Cape). Rising of Matabele in Rhodesia. Meeting of Cecil Rhodes with Matabele Chiefs. Heavy loss of cattle by rinderpest.

1897 Sir Alfred Milner, Governor, Cape. Railway opened from Capetown to Bulawayo. Natal joins Customs Union. Zululand annexed to Natal. British annexation of Amatongaland. Native rebellion in Griqualand West. South African Postal Union: Cape, Natal, Orange Free State, South African Republic.

1898 Schreiner Ministry (Cape). Fourth election of Kruger as President.

1899 Conference at Bloemfontein between Sir A. Milner and President Kruger. Second Anglo-Boer War declared (11th October). Sieges of Ladysmith and Kimberley. Battles of Dundee, Elandslaagte, Colenso, and Magersfontein. Imperial Penny Postage adopted by Cape Colony.

1900 Surrender of General Cronje at Paardekraal. Occupation of Bloemfontein, Johannesburg, and Pretoria. Retirement of President Kruger to Holland. Fourth Sprigg Ministry (Cape). Amalgamation of Union and Castle Steamship Lines.

1901 Death of Queen Victoria. Lord Milner, Governor of the Transvaal and High Commissioner. Bubonic plague in Capetown.

1902 Peace of Vereeniging (31st May). Death of C. J. Rhodes. Discovery of Premier Diamond Mine in Transvaal.

1903 Vryheid and Utrecht annexed to Natal.

1904 Death of ex-President Kruger. Jameson Ministry (Cape). Introduction of Chinese labour for the Transvaal mines. Census of population in Cape Colony, Natal, Transvaal, and Orange Free State.

1905 Lord Selborne, High Commissioner for South Africa and Governor of Transvaal on retirement of Lord Milner. British Association meetings in South Africa. Opening of Victoria Falls Bridge. Passing of School Board Act (Cape).

1906 Constitutions given to Transvaal and Orange Free State. Botha Ministry (Transvaal). Rising under Bambata in Natal.

1907 Congo Free State annexed to Belgium. Passing of Asiatic Registration Act in Transvaal: opposition of Asiatics to the measure. Fischer Ministry (Orange River Colony). Memorandum by Lord Selborne (High Commissioner) on Closer Union of South African Colonies. Resolution of Mr. F. S. Malan in Cape House of Assembly as to advisability of promoting a Union of South Africa. Conference of Colonial Premiers in England.

1908 Merriman Ministry (Cape). Meeting of Inter-Colonial Conference in Pretoria. Resolutions moved by General J. C. Smuts as to calling of the **National Convention.** Meeting of the **National Convention** at Durban under the Presidency of the Right Hon. Sir J. H. (Lord) de Villiers, P.C. Passive resistance movement amongst Indians and passing of Second Asiatic Registration Act in Transvaal.

1909 Meetings of the **National Convention** in Capetown and Bloemfontein. Passing of the South Africa Act by Imperial Parliament. Death of Hon. J. H. Hofmeyr. Loss of the s.s. "Waratah" between Durban and Capetown.

1910 Death of King Edward VII. **Constitution of the Union of South Africa** (31st May). Lord Gladstone, Governor-General. General Louis Botha, Prime Minister of the Union. Laying of foundation stone of Union Buildings, Pretoria, by H.R.H. the Duke of Connaught. Donation of £500,000 towards a *Teaching University of South Africa* announced by Trustees of the Beit Fund and Sir Julius Wernher. Wireless telegraphy station established at Durban. Sir Richard Solomon appointed High Commissioner for the Union in London.

1911 Census of population (7th May). Wireless telegraph station opened at Slangkop (Cape Peninsula). General Botha, Sir David Graaff, and Hon. F. S. Malan visited England to attend Imperial Conference.

1912 Reorganization of Union Public Service. Defence system of Union laid down in Defence Act. Resignation of General Botha and formation by him of new Ministry. Establishment of Union Land and Agricultural Bank.

1913 Miners' strikes and riots on the Witwatersrand. Establishment of National Botanical Gardens at Kirstenbosch (Cape Peninsula). Indian riots and disturbances in Natal, and march of Natal Indians into Transvaal.

1914 Grave industrial disturbances on Witwatersrand and elsewhere, and proclamation of martial law. Right Hon. W. P. Schreiner appointed High Commissioner for the Union of South Africa in London. Outbreak of European War. Defence of South Africa undertaken by Union Government, and Imperial troops released for service in Europe. Viscount Buxton assumed office as Governor-General. *Governor-General's Fund* inaugurated for purposes connected with the War. Outbreak of rebellion. Martial law proclaimed. Capture of General de Wet, and suppression of rebellion. Military expedition to German South West Africa by Union Forces. Luderitzbucht (South West Africa) occupied by Union Forces.

1915 Surrender of German Forces in South West Africa to General Botha (9th July). South West Africa Protectorate and the Union linked up by rail. First public function held in amphitheatre of Union Government Buildings, Pretoria, celebrating General Botha's conquest. Union Government raises a volunteer contingent for service in Europe. Second Parliament of the Union.

1916 Union Expeditionary Force in command of General Smuts dispatched to German East Africa. Death of ex-President Steyn.

1917 Return of General Smuts from East Africa. Departure of General Smuts for England to attend sittings of Imperial War Cabinet. Death of Sir Starr Jameson.

1918 Census of European population (5th May). Constitution of Universities of South Africa, Capetown, and Stellenbosch. General Smuts and the Hon. H. Burton attend Imperial Conference in England. Signature of Armistice with Germany (11th November). Epidemic of influenza (with pneumonia); estimated mortality, 11,726 whites, 127,745 coloured.

1919 Native disturbances at Bloemfontein, Johannesburg, and Pretoria. Ministry of Health created in the Union. The Union granted the mandate for the government of the South West Africa Protectorate. Conclusion of Peace with Germany (Treaty of Versailles, 28th June), Generals Botha and Smuts signatories on behalf of the Union. Death of General Botha. General the Right Hon. J. C. Smuts appointed Prime Minister. Treaty of Peace and South West Africa Mandate passed in Special Session of Parliament.

1920 Signing of Final Peace Treaty. Native strike on the Rand. General Parliamentary Election. 10th March; reconstitution of Ministry under General Smuts. Flight from Cairo to Cape successfully accomplished by Colonel (now Sir) Pierre van Ryneveld and Major (now Sir) Quinton Brand. Gift by Mr. Davis, of Durban, of £20,000 for training ship to train boys for mercantile marine. The *Grahamstown Journal*, founded 1831, pioneer journal of South Africa, ceased publication. First conference of Empire Statisticans in London. Lord Buxton, Governor-General of the Union, retires. H.R.H. Prince Arthur of Connaught appointed Governor-General.

1921 Amalgamation of South African and Unionist Parties and General Election (February); Cabinet formed by General Smuts. Board of Trade and Industries established. Second complete census of the Union (3rd May). Imperial Conference held in London; General Smuts, Colonel Mentz, and Sir Thomas Smartt, South African representatives. South African Reserve Bank brought into operation (30th June). Defence of South Africa completely taken over by the Union Government; Capetown Castle handed over to the South African nation and Imperial command withdrawn. Diamond mines completely closed down in Kimberley; economic depression accentuated. Union Trade Commissioner appointed on the continent of Europe.

1922 Prolonged industrial struggle in the Transvaal—strike on coal mines, in steel industry, and at the Victoria Falls Power works on the Witwatersrand, followed by acts of violence in different parts of the Reef area; declaration of general strike followed by widespread revolutionary movement in the mining districts; martial law proclaimed (10th March) and Government forces mobilized. Commencement made with erection of grain elevators in the Union and electrification of Glencoe-Maritzburg railway. University of the Witwatersrand established (1st March). Mozambique Convention denounced by Union Government (1st April). Rebellion of Bondelzwart Hottentots in South West Africa. Inauguration of the Witwatersrand University (4th October). Referendum taken in Rhodesia on question of entry into the Union (27th October); Union Government's terms rejected (8,774 votes against, 5,989 for).

1923 Incorporation of Southern Rhodesia as part of His Majesty's Dominions (12th September); establishment of responsible government (1st October). British Empire Conference sessions commenced in London (1st October); South Africa represented by General the Right Hon. J. C. Smuts, Senator the Hon. N. J. de Wet, and the Hon. H. Burton. Reported discoveries of platinum in Waterberg District, Transvaal. Termination of office of Prince Arthur of Connaught; appointment of the Earl of Athlone as Governor-General of the Union.

1924 One-day flight by military aeroplane from Capetown to Pretoria. Assumption of office by the Governor-General, the Earl of Athlone (21st January). General Election (17th June). Formation of Ministry by General the Hon. J. B. M. Hertzog. New portfolio of Labour created (August). Customs agreement between Union and Rhodesia negotiated.

1925 Prince of Wales visits South Africa. Union reverts to gold standard. Afrikaans constituted an official language. Reserve Bank opens branches at Johannesburg, Capetown, Durban, Port Elizabeth, and East London. President Kruger's centenary. Appellate Court decides native women exempt from Transvaal Native Pass Ordinance, No. 43 of 1902. Appointment of Trade Commissioner in United States of America.

1926 Alan (now Sir Alan) Cobham completes round flight by aeroplane England to Cape via Egypt. Joint sitting both Houses of Parliament to consider Colour Bar Bill. Royal Air Force with three aeroplanes fly from Egypt to Cape and return to England. "Carnarvon Castle", first motor-driven regular mail liner trading with South Africa, arrives. Government delegation proceeds to India. General Hertzog, Prime Minister, attends Imperial Conference. Census of European Population (4th May).

1927 Beam radio-telegraphic communication opened with Great Britain. "Groot Constantia", destroyed by fire in 1925, restored. "Moth" aeroplane piloted by Lieut. R. Bently, flown from England to Johannesburg in 26 days. Carnegie Corporation of New York donates £100,000 in aid of scientific research and other projects in South and East Africa. Diamond discoveries in Little Namaqualand. Eleventh Congress of the Federation of Chambers of Commerce of the British Empire meets in Capetown.

1928 Diamond cutting industry established at Kimberley. Suburban railways in Cape Peninsula operated by electricity. German Reichstag ratifies Trade Treaty with South Africa. Angola Boers repatriated to South West Africa. Union-Mozambique Trade and Customs Convention signed.

1929 Opening of Alfred Beit Road and Rail Bridge over Limpopo connecting Union with Southern Rhodesia. Inauguration of air mail service. Native riots in Durban. Visit of British Association for the Advancement of Science to the Union. The Four Gospels and Psalms published in Afrikaans. General Election (12th June). Union Ministers Plenipotentiary appointed to Holland, Italy, and the United States of America.

1930 Amended Customs Agreement arrived at between the Union and Southern and Northern Rhodesia. Enfranchisement of European women. General Hertzog attends Imperial Conference. Formation Diamond Corporation, Ltd., capital £2,500,000 increased to £5,000,000. Importation of wheat prohibited except under permit. Quota Act, restricting immigration from certain countries, passed.

1931 Pretoria proclaimed a city. Great Britain abandons gold standard (September). October output of gold from Union mines passes £4,000,000 mark. Statute of Westminster passed by Imperial Parliament. Durban to Capetown air mail crashed at Sir Lowry Pass; three deaths. Fire at Witwatersrand University, valuable library collections destroyed. Census of European Population (5th May).

1932 Air mail between Union and Great Britain inaugurated (January). Wireless telephone communication established with Great Britain (February). Diamond mining industry temporarily closed down owing to depression. Solo flight in "Puss Moth" between England and Capetown accomplished in 4¾ days. Imperial Conference, Ottawa (August), Union representatives the Hons. N. C. Havenga, A. P. J. Fourie, and P. G. W. Grobler. Explosion of 260 tons of dynamite on rail at Leeuwdoornsstad, five persons killed, many injured. Union suspends gold payments (December), boom in gold mining shares begins.

1933 Circulation of British silver withdrawn. Record non-stop flight, R.A.F. machine, Cranwell, England, to Walvis Bay, 5,340 miles in 57½ hours. Political Coalition of South African and Nationalist Parties formed under General Hertzog as Prime Minister. Sixth Parliament dissolved (April): Seventh Parliament met (May). United States and Canada abandon gold standard (April). World Economic Conference, London (June), Union representatives—Hons. J. C. Smuts, N. C. Havenga, and O. Pirow. South Africa House, London, opened by H.M. the King. Drought broken, floods in Orange Free State and South West Africa. Afrikaans Bible issued. Coke oven fired at S.A. Iron and Steel Works, Pretoria (December).

1934 South African (Union) Navy ceased to function. Union Airways acquired by Union Government. Jonker diamond, weighing 726 carats, found on Elandsfontein alluvial diggings and sold for £70,000. Official visit to Union of H.R.H. Prince George. Port Elizabeth harbour officially opened. S.A. Iron and Steel Works, Pretoria:—Blast furnaces blown in March; Official Opening by the Governor-General, the Earl of Clarendon (11.8.34). Prime Minister launches M.V. "Bloemfontein" at Amsterdam by wireless from Pretoria. General Smuts installed as Rector of St. Andrews University, Scotland.

1935 Prime Minister and Minister of Mines attend King's Silver Jubilee in London. The Union of South Africa celebrates its twenty-fifth anniversary. World Press Conference held in Union. Public Service Entrance Examinations instituted. Record price of gold 149s. 4d. on London market (6.3.35). King George V Silver Jubilee Fund for combating tuberculosis inaugurated. Meeting of Empire Forestry Conference in Union. Pan African Postal Conference held at Pretoria.

1936 Death of King George V (20/1/36). Accession of King Edward VIII. Abdication of King Edward VIII (10/12/36). Accession of King George VI. Passing of *Representation of Natives Act* at a joint sitting of both Houses of Parliament. Third complete Census of Union (5th May). Fire at Medical School, Capetown University, damage estimated at £60,000. South African Broadcasting Corporation established (1st August). Record for voyage England to Capetown held by R.M.S. Scot since 1893 broken by R.M.M.V. Stirling Castle (13 days, 6 hours, 30 mins.). Parliamentary delegation visited India (September). Union inland postal rates extended to Angola, Belgian Congo, Nyasaland, Kenya, Uganda, and Tanganyika Territory (1/7/36).

1937 Sir Patrick Duncan Governor-General (5/4/37). Transvaal Chamber of Mines adopted principle of "closed shop" (8/4/37). Coronation of King George VI (12/5/37). Imperial Conference, London, attended by Prime Minister and Minister of Finance (May-June). Imperial Airways Flying Boat Service inaugurated (June). Introduction of conveyance by air mail of all first class mail matter within the Union, S.W.A., the Protectorates, and other countries in the African Postal Union, and certain overseas countries. Postage rates amended—Union, S.W.A., and Protectorates: 1d.; other participating countries, 1½d. per half ounce. Previous letter rate of 1d. per ounce abolished (1/7/37). Inauguration of Empire Air Mail Scheme (1/7/37). Southern Africa Transport Conference (7-14/9/37). Surface mail rate, 1d. per ounce, for letters addressed to destinations within the Union and South West Africa only, introduced (1/10/37).

1938 Empire Air Mail Scheme extended to include India, Malaya, Canada and Newfoundland (20/2/38). Seventh Parliament dissolved (11/4/38). General Election (18/5/38). Eighth Parliament met (22/7/38). Inauguration South African Press Association providing general news service within Union (1/7/38). Electrification of railway on Witwatersrand-Randfontein to Springs- and from Germiston to Pretoria. Limpopo air crash, four members Royal Air Force Boxing Team and two South African Air Force Officers killed (6/6/38). Voortrekker Centenary celebrations: Trek wagons left Capetown (8/8/38); Laying of foundation stone Voortrekker Memorial, Pretoria (16/12/38).

1939 Record solo flight, England-Cape-England, accomplished by A. Henshaw in 4 days 10 hours 16 minutes (5-9/2/39). State visit of President Carmona of Portugal (August). Inauguration of Union-Loanda Air Service (21/8/39). Institution for the Union of the King's Medal for Bravery (25/8/39). Outbreak of War between Germany and Poland (1/9/39). Declaration of war against Germany by Great Britain and France (3/9/39). State of war with Germany proclaimed by Union of South Africa (6/9/39). Resignation of General the Honourable J. B. M. Hertzog; General the Right Honourable J. C. Smuts appointed Prime Minister (6/9/39). Life of Third Senate extended from 5/9/39 to 5/3/40.

§ 10. Obituary.

1935 Brigadier-General J. J. Byron, C.M.G., D.S.O. Hon. Tielman Roos, ex-Minister of Justice and ex-Judge of the Court of Appeal. George Arthur Hyde Villiers, Captain the Lord Hyde. Senator the Hon. G. G. Munnik (Transvaal). H. Mackenzie, formerly General Manager, Standard Bank. Sir George Cory, historian, author of "The Rise of South Africa". H. A. Oliver, C.M.G., ex-Member of Cape and Union Parliaments (1908-1924), "Siege Mayor" of Kimberley. Senator the Hon. A. H. M. Lamprecht (Orange Free State). Hon. F. G. Gardiner, Judge President of the Cape Provincial Division of the Supreme Court. Hon. H. F. Blaine, Supreme Court (Orange Free State). Dr. Samuel Evans, Chairman and Managing Director of Crown Mines, Limited, Public Debt Commissioner. J. A. E. Euvrard, Chairman of the Central Road Transportation Board. J. S. de Villiers, Chairman of the Provincial Council of the Orange Free State. Reenen J. van Reenen, Chairman of the Irrigation Commission. C. F. Kayser, M.P. (Port Elizabeth North). Dr. J. G. Gubbins, founder of the Gubbins Library of Africana. J. B. ("Pen") Wessels, M.P. (Frankfort), Member of Native Affairs Commission. Mr. Justice Britter, Native High Court, Natal. Col. A. Herschell, O.B.E., M.C., V.D., Member of the South African Railways and Harbours Service Commission. Rt. Hon. H. Burton, P.C., K.C., ex-Minister of Railways. Sir John Dove-Wilson, former Judge President, Natal. Sir George Albu, financier and pioneer of the Rand Goldfields. T. Ainsworth Dickson, C.M.G., M.C., Resident Commissioner, Swaziland.

1936 Count Labia, Minister Plenipotentiary for Italy. Monsignor Kolbe, O.M.I. J. E. A. Volschenk, artist. Sir Thomas Keir Murray, one-time Minister of Lands and Works and Colonial Secretary.

Natal. R. H. Struben, O.B.E., M.P. (Albany). Dr. E. P. Baumann, M.P. (Rosettenville). Sir Lionel Phillips, pioneer of diamond and gold mining. Brigadier-General Sir C. P. Crewe, K.C.M.G., C.B., V.D., ex-M.P. (East London), ex-Minister, Cape of Good Hope. Sir Arnold Theiler, veterinary scientist and founder of Onderstepoort Laboratory. Rt. Hon. Sir J. W. Wessels, Chief Justice of the Union. Sir Thomas Cullinan, D.S.O., discoverer of Premier Mine (23/8/36). Sir James T. Molteno, K.C., Speaker of last Cape House of Assembly and of first Union Parliament (16/9/36). Senator the Hon. F. Ginsberg (23/9/36). Hon. C. T. M. Wilcocks, Administrator of the Orange Free State (14/11/36). S. D. de Wet, M.P. (Heidelberg, Transvaal) (21/12/36).

1937 Duncan M. Eadie, General Secretary, South African Sugar Association and Member, Union Statistical Council (24/4/37). Thos. Orr, C.M.G., former Minister of Finance (11/5/37). H. J. Hofmeyr, Vice-Chancellor, Witwatersrand University (2/6/37). Senator the Hon. T. C. Stoffberg (12/6/37). Sir Johannes van Boeschoten (14/7/37). Senator the Hon W. Lategan (28/7/37). Hon E. R. Grobler, formerly Administrator of the Orange Free State Province and President of Orange River Colony Legislative Council (1/9/37). Prof. J. E. Duerden, formerly of Rhodes University College and Director of Wool Research in the Union. Sir Herbert C. Sloley, K.C.M.G., ex-Resident Commissioner of Basutoland—1900 to 1916 (22/9/37). H. B. Papenfus, K.C., Member National Parks Board of Trustees (23/9/37). J. J. Scholtz, M.P. (Mossel Bay) (—/10/37). C. Maggs, industrialist and financier (17/10/37). J. H. H. de Waal, M.P. (Piquetberg), former Speaker of the House of Assembly (30/10/37).

1938 Dr. A. W. Roberts, former Senator and Member of Native Affairs Commission (27/1/38). Hon. D. de Waal, former Judge-President, Transvaal (19/2/38). Hon. J. Schofield, former Senator (3/3/38). John Jack, founder of Germiston and Simmer and Jack Mine; introduced cyanide process and percussive pneumatic stope drill (jack-hammer) to the Rand (9/3/38). Senator the Hon. D. J. J. Malan (2/6/38). Col. H. Mentz, former Minister of Defence (3/6/38). Most Rev. F. R. Phelps, D.D., former Archbishop of Capetown (27/6/38). Hon. Melius de Villiers, formerly Chief Justice, Orange Free State—1888 to 1899 (6/7/38). D. Hugo, member of Railway Board (8/7/38). Mr. Justice I. Curlewis (16/7/38). Hon. S. P. Bekker, Administrator of the Transvaal (29/7/38). H. W. Sampson, O.B.E., former Minister of Posts and Telegraphs and of Public Works. H.R.H. Prince Arthur of Connaught, former Governor-General of the Union of South Africa—1920-1923 (12/9/38). Sir H. Graumann, K.B.E., pioneer of Rand Goldfields, former mayor of Johannesburg and member of Union Parliament—1915 to 1924 (19/9/39). C. P. Robinson, member of Natal House of Assembly, 1906-1909, and of Union Parliament, 1910-1938 (8/10/38). Rt. Hon. Lord Stanley, Secretary of State for the Dominions (16/10/38). Prof. A. Moorrees, Chancellor of Stellenbosch University (17/11/38). Rev. James Gray, first Presbyterian minister on Rand, founder of St. George's Presbyterian Church, Johannesburg, 1887 (18/11/38). Mr. Justice T. B. Horwood, Natal Native High Court (19/11/38). Hon. A. S. Naude, Senator (30/11/38). A. E. Campbell, M.P. (Pretoria Central) (26/12/38). Rev. Dr. A. Dreyer, Archivist, Dutch Reformed Church. F. W. Beyers, ex-Minister of Mines and ex-Judge of Appeal. Rev. P. G. J. Meiring, Editor of "Die Kerkbode".

1939 A. J. Swanepoel, M.P. (Lichtenburg) (4.2.39). P. P. du Toit, M.P. (Paarl) (26.2.39). R. Gwelo Goodman, Artist (11.3.39). Sir Matthew Nathan, former Governor of Natal (19.4.39). T. S. McEwen, one of first Commissioners of S.A. Railways and Harbours (8.8.39). Sir Willem van Hulsteyn, formerly member of Transvaal Legislative Assembly and of Union Parliament (14.8.39). Sir Spencer Lister, Director of S.A. Institute for Medical Research, originator of the pneumonia vaccine (6.9.39).

The obituary of prominent South Africans from the date of Union up to and including the year 1924 appeared in *Year Book* No. 7, and for the years 1925 to 1934 in *Year Book* No. 19.

PART II.

HIS MAJESTY'S HIGH COMMISSION

FOR THE TERRITORIES OF

BASUTOLAND,

BECHUANALAND PROTECTORATE,

AND

SWAZILAND.

INTRODUCTORY.

HIS MAJESTY'S HIGH COMMISSION FOR THE TERRITORIES OF BASUTOLAND, BECHUANALAND PROTECTORATE, AND SWAZILAND.

1. **The Office of High Commissioner.**—The Office of High Commissioner originated in the Commission of 1846, which appointed the Governor of Cape Colony "High Commissioner for the settling and adjustment of the affairs of the territories in Southern Africa adjacent or contiguous to the eastern and north-eastern frontier of the said Colony". The title of the post, after some modification, subsequently became "High Commissioner for South Africa". The High Commissioner was until 1899 charged with the conduct of British relations with the South African Republic (Transvaal) and the Orange Free State, as well as with native States and tribes outside the Colonies of the Cape and Natal, and also with Swaziland, which was administered by the Government of the South African Republic, under the Convention of 1894. He administers Basutoland, the Bechuanaland Protectorate, and Swaziland.

Prior to the 1st October, 1923, Southern Rhodesia was administered by the British South Africa Company, and the High Commissioner exercised certain powers of control under the Southern Rhodesia Order-in-Council, 1898. Upon the establishment of responsible Government the Order-in-Council of 1898 lapsed, but under the Southern Rhodesia Constitution Letters Patent certain of the High Commissioner's previous powers and functions in regard to native administration were reserved to him. In 1937 the High Commissioner's powers in regard to Southern Rhodesia were terminated by the Southern Rhodesia Constitution (Amendment) Letters Patent.

On the 1st April, 1924, Northern Rhodesia, which had previously been administered by the British South Africa Company, and over which the High Commissioner had exercised certain powers of control under the Northern Rhodesia Order-in-Council of 1911, came under the direct administration of the Crown. The new Government was constituted under the Northern Rhodesia Order-in-Council, 1924, which revoked the Order-in-Council of 1911, and provision for the establishment of a Legislative Council was made by the Northern Rhodesia (Legislative Council) Order-in-Council, 1924. Mr. H. J. Stanley, C.M.G. (now Sir H. J. Stanley, G.C.M.G.), assumed office as the first Governor and Commander-in-Chief on the 1st April, 1924.

The office of High Commissioner, which was formerly held by the Governor of Cape Colony, was, by a Commission dated the 6th October, 1900, vested in Lord Milner, and by a similar commission dated the 15th March, 1905, in Lord Selborne.

During the years 1910 to 1930 the office was vested, by separate commission, in the successive Governors-General of the Union of South Africa. This arrangement ceased upon the termination of the period of office of Major-General the Earl of Athlone, K.G., when Sir Herbert J. Stanley, G.C.M.G., was appointed to be High Commissioner for South Africa, and the office was separated entirely from that of the Governor-General.

The title of High Commissioner for South Africa was changed upon the appointment of Sir William H. Clark, G.C.M.G., K.C.S.I. (January, 1935), to His Majesty's High Commissioner for Basutoland, the Bechuanaland Protectorate, and Swaziland.

2. **Principal Officers.**—The following list gives the names of the High Commissioner and the principal officers on his staff:—

*High Commissioner.**—Sir William H. Clark, G.C.M.G., K.C.S.I.
Judge of the High Courts.—Sir Walter Huggard, K.C.
Attorney-General.—E. R. Roper, D.S.O., K.C.
Administrative Secretary.—H. E. Priestman, C.M.G.
Assistant Administrative Secretary.—H. L. Smith, O.B.E.
Auditor.—R. E. Goodman, C.B.E.

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3. Standing Joint Advisory Conference.—By arrangement between His Majesty's Government in the United Kingdom and His Majesty's Government in the Union of South Africa, a Standing Joint Advisory Conference was constituted in 1938, consisting of the Resident Commissioners of Basutoland, the Bechuanaland Protectorate, and Swaziland, and the Union Secretaries for Native Affairs, Agriculture and Forestry, and Finance, whose function it is to study openings for co-operation between the Union Government and the Administrations of the three High Commission Territories in matters affecting the development of the High Commission Territories, and to consider any matters of joint concern to the Union and the High Commission Territories, such as prevention and control of animal diseases, marketing of produce, prevention of bubonic plague, etc.

BASUTOLAND.

CHAPTER I.

BASUTOLAND.

§ 1. History.

1. **Origin.**—The Basuto of Basutoland appear to have been composed of the remnants of several tribes which were broken up in the wars waged by the Matabele and the Zulus. Between 1815 and 1830 these tribes, realizing the paramount necessity of co-operation for self-defence, were gradually united under Moshesh, a chief of great ability. The Great Trek of 1835-37 brought the emigrant Boer farmers into contact with the Basuto and led to continual friction on boundary questions, aggravated by cattle raids and counter raids. In 1852 Sir George Cathcart in an attempt to restore order advanced with British troops towards Thaba Bosiu, Moshesh's headquarters, demanding a fine for compensation for Basuto raids; part of the fine was paid, but the advance continued until it was checked at the Battle of Berea, after which Moshesh diplomatically entreated for peace, promising to exercise more control over his people, and hostilities ceased. A few years later, in 1856, disputes arose between Moshesh and the Orange Free State respecting boundary questions, and hostilities resulted which lasted from 1856 to 1858, with indecisive results, and were concluded by the *Treaty of Aliwal*, 1858. Collisions nevertheless frequently recurred.

In 1865 the war broke out afresh, and Moshesh again claimed the protection of the Governor, Sir Philip Wodehouse. He declined to interpose actively, but dispatched a British Commissioner to Thaba Bosiu, to settle the difficulties. This measure met with little success, and in the end the Boers were successful, and Moshesh sued for peace. At the Treaty of Thaba Bosiu, April 1866, he recognized the permanent cession of a portion of his district and acknowledged himself a subject of the Orange Free State.

The peace was of short duration, the war was renewed, and the Basuto, pressed by the Boers, were on the brink of total defeat, when they again appealed to be taken under the authority of the Queen. In January, 1868, Sir Philip Wodehouse received authority for the recognition of Moshesh and his tribe as British subjects, and for the incorporation of their territory. This was carried into effect by a proclamation dated 12th March, 1868, and the event is now commemorated by observing this date as a public holiday, known as *Moshoeshoe's Day*.

2. **Annexation to the Cape Colony.**—The country remained in a very unsettled condition until it was annexed to the Cape Colony by an Act of the Cape Legislature, No. 12 of 1871. The Act expressly declared that Basutoland was not to be subject to the general law of the Colony, and gave the Governor power to legislate for it by proclamation, and to extend to it by proclamation any Cape Act not otherwise in force therein.

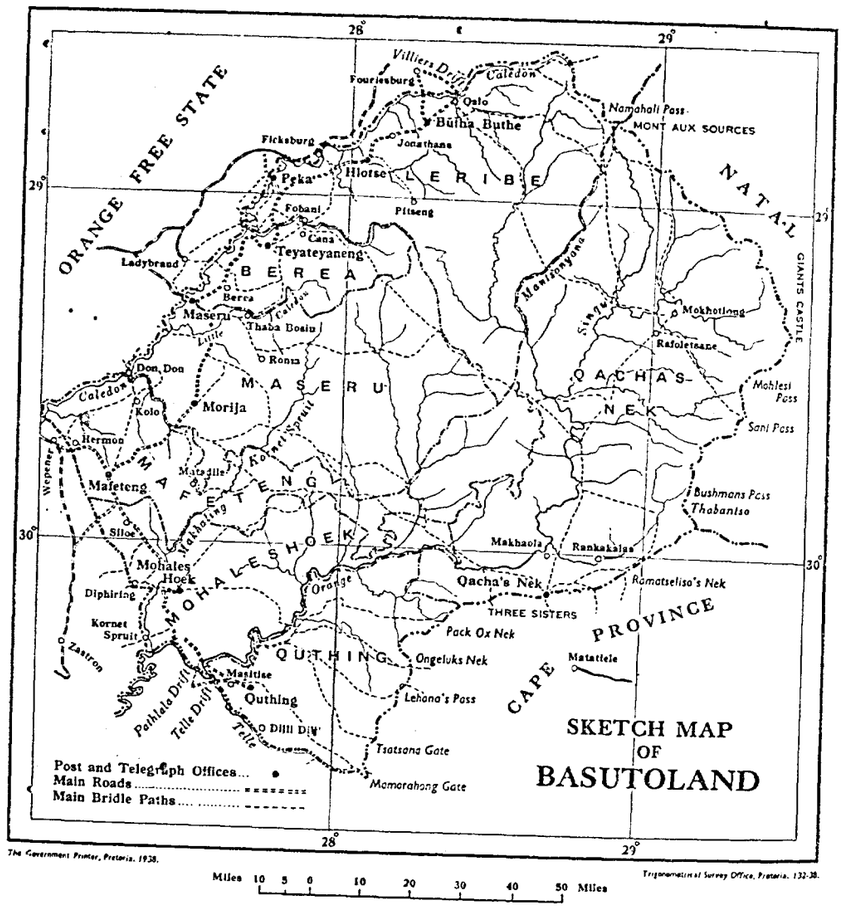
In 1884 the territory was disannexed from the Cape Colony and the Government was carried on under the direct control of the Imperial Government, *vide* Order-in-Council of 2nd February, 1884, which was proclaimed and brought into force by Proclamation 75A of 18th March, 1884.

§ 2. Description.

1. **Physical Features.**—The territory of Basutoland lies between latitude 28° 35′ and 30° 40′ S. and between longitude 27° and 29° 30′ E. It is bounded on the west and north by the Orange Free State, on the east by Natal and East Griqualand, and on the south by the Cape Province.

Geographically, the territory may be divided into two regions running roughly from south-west to north-east, the eastern region comprising about two-thirds of the total area. The western region, a continuation of the Free State plateau, with an average altitude of some 5,000 feet, merges into the eastern area, which comprises the mountains known as the Maluti, an offshoot of the Drakensberg Range. The latter forms the eastern boundary, and includes peaks rising to 11,000 feet and dropping sharply down to Natal.

BASUTOLAND.



The Government Printer, Pretoria, 1938.
Trigonometrical Survey Office, Pretoria, 132-38.

The area of the territory is 11,716 square miles, and it is entirely a native reserve.

2. **Meteorology.**—The climate is dry and bracing, with extremes of heat and cold, both seasonal and diurnal. High altitude, electric tension in the air, and long periods of strong sunshine without clouds or rain necessitate for European residents periodic changes to the coast level, where the air is more humid. The temperature varies from a maximum of 93° F. to a minimum of 11° F. The rainfall is capricious; the average is approximately 30 inches, but it fluctuates much above and below that figure. The total annual rainfall in 1938 recorded at the different stations varied from 23 inches to 36 inches.

3. **Bibliography.**—The following is a list of annual reports and other publications relating to Basutoland:—

An Ecological Survey of the Mountain Area of Basutoland (1938).
Annual Report on the Social and Economic Progress of the People of Basutoland.
Annual Sanitary and Medical Report.
Annual Report on Education.
Report on the Financial and Economic Position of Basutoland.
"The Basutos" by Sir Godfrey Lagden, K.C.M.G., 2 vols.—Hutchinson.
"History of the Basuto" by D. F. Ellenberger and J. C. Macgregor.
"The Basuto of Basutoland" by E. A. T. Dutton.—Jonathan Cape.

§ 3. Administration.

1. **Central and District Administration.**—The territory is now governed by a Resident Commissioner under the direction of the High Commissioner for Basutoland, the Bechuanaland Protectorate, and Swaziland, the latter possessing the legislative authority, which is exercised by proclamation.

The chiefs adjudicate on cases between natives, who have a right of appeal to the district commissioners' courts, where all cases between natives and Europeans are brought.

For fiscal and other purposes the country is divided into seven districts and two sub-districts. Each of these is sub-divided into wards, presided over by hereditary chiefs allied to the Moshesh family.

2. **Basutoland Council.**—There is an annual session of the Basutoland Council, which consists of a hundred members, all natives, ninety-five being nominated by the chiefs and five by the Government. The council is consultative and advisory and deals chiefly with the domestic affairs of the nation. It has no executive powers.

3. **Principal Officers.**—The following list gives particulars of the principal officers on the establishment:—

Resident Commissioner: E. C. Richards, C.M.G.
Deputy Resident Commissioner and Government Secretary: D. W. How.
First Assistant Secretary: T. B. Kennan, M.C.
Financial Secretary: L. G. Luscombe, O.B.E.
Commissioner of Police and Prisons: Major R. W. Booth, O.B.E.
Principal Medical Officer: H. W. Dyke, C.B.E.
Superintendent, Leper Asylum: Sir Walter Johnston, C.M.G.
Director of Agriculture: R. W. Thornton, C.B.E.
Principal Veterinary Officer: G. T. Henderson.
Director of Public Works: J. K. Gerrand.
Director of Education: O. B. Bull.
Master, High Court: W. G. S. Driver.
Registrar, High Court: G. B. Gray.

4. **Capital.**—The capital town is Maseru, which is the headquarters of the Government. It is situated on the Caledon River 86 miles by rail east of Bloemfontein. The population in 1936 was 329 Europeans, 3,300 natives, and 83 other cofoured persons.

§ 4. Population.

Censuses of the population of Basutoland were taken in 1904, 1911, 1921, and 1936, simultaneously with censuses taken in other parts of South Africa. No census was, however, taken in 1918, 1926, or 1931. The following tables give particulars of the population at the censuses mentioned:—

(i) POPULATION, 1904, 1911, 1921, AND 1936.

Year.	European.	Native and Coloured.				Grand Total.
		Bantu.	Asiatic.	Coloured.	Total.	
1904—						
Male	520	163,216	137		163,353	163,873
Female	375	184,515	85		184,600	184,975
Total	895	347,731	222		347,953	348,848
1911—						
Male	799	182,583	720*		183,303	184,102
Female	597	219,224	584*		219,808	220,405
Total	1,396	401,807	1,304*		403,111	404,507
1921—						
Male	866	222,342	121	506	222,969	223,835
Female	737	273,595	51	563	274,209	274,946
Total	1,603	495,937	172	1,069	497,178	498,781
1936—						
Male	750	238,705	202	608	239,515	240,265
Female	684	320,568	139	655	321,362	322,046
Total	1,434	559,273	341	1,263	560,877	562,311

* Including 8 males and 3 females, race not specified.

(ii) POPULATION IN DISTRICTS, 1936.

District.	European.			Native and Coloured.						Grand Total.
				Bantu.			Asiatic and Coloured.			
	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	
Leribe	102	102	204	54,858	77,387	132,245	263	259	522	132,971
Berea	56	38	94	22,531	32,991	55,522	70	49	119	55,735
Maseru	304	279	583	46,872	61,365	108,237	163	168	331	109,151
Mafeteng	98	91	189	30,394	40,470	70,864	110	138	248	71,301
Mohale's Hoek	71	79	150	27,628	37,681	65,309	124	109	233	65,692
Quthing	57	49	106	19,242	25,310	44,552	32	38	70	44,728
Qacha's Nek	62	46	108	37,180	45,364	82,544	48	33	81	82,733
Total	750	684	1,434	238,705	320,568	559,273	810	794	1,604	562,311

(iii) DENSITY, ETC., OF POPULATION (OTHER THAN EUROPEAN), 1904, 1911, 1921, AND 1936.

Description.	1904.	1911.	1921.	1936.
Number of persons to the square mile	29·70	34·41	42·44	47·99
Number of acres per head of the population	21·55	18·60	15·08	13·33
Number of occupied huts to the square mile	7·40	10·86	16·99	20·42
Number of persons to an occupied hut	4·01	3·61	2·84	2·35

(iv) RELIGIONS OF POPULATION, 1936.

Religion.	European.	Bantu.	Other.	All Races.
Christian—				
French Protestant Church and Paris Evangelical Mission	29	82,946	328	83,303
Church of Rome	240	112,446	128	112,814
Anglican Communion	629	36,623	328	37,580
African Methodist Episcopal (including Ethiopian)	—	8,642	—	8,642
Primitive Methodist / Wesleyan Methodist	122	3,704	159	3,985
Dutch Reformed	166	79	36	281
Presbyterian	130	—	—	130
Other	109	10,071	320	10,500
TOTAL	1,425	254,511	1,299	257,235
Non-Christian	—	70	42	112
No Religion	—	304,045	—	304,045
Unknown, unspecified, and indefinite	9	647	263	919
GRAND TOTAL	1,434	559,273	1,604	562,311

§ 5. Vital Statistics and Migration.

1. **Births, Deaths, and Marriages.**—The registration of births is not compulsory. Registers are kept in district offices, but are only made use of by Europeans. The registration of deaths is also not compulsory, and no statistics can be given under these two heads.

All Christian and civil marriages are registered in the office of the Government Secretary, Maseru. The following figures represent the number of marriages so registered during the years specified:—

MARRIAGES REGISTERED.

Year	1934.	1935.	1936.	1937.	1938.
Number	776	1,052	1,040	1,345	1,289

Most of the marriages amongst the natives are contracted according to native custom, the usual dowry of cattle being paid.

2. **Migration.**—The *Immigration and Prevention of Trespass Proclamation*, No. 1 of 1933, provides for the exclusion or removal from Basutoland of persons who, in the Resident Commissioner's opinion, are likely to be prejudicial to peace, order, or good government, or to the interests of the natives, or who have no visible means of support, or who have been convicted of certain crimes.

The *Aliens Proclamation*, No. 47 of 1937, provides machinery, similar to that set up by the Union *Aliens Act*, for the admission of foreigners to Basutoland. For permanent residence, prescribed official forms made out in duplicate, with medical and other certificates, must be sent to the Government Secretary either direct or through a British Consul. Such applications are then scrutinized by the Immigration Selection Board, and, if approved, permits and identification cards are issued to the applicant. Temporary permits to enter Basutoland may be obtained by non-British subjects from immigration officers in the territory, who may demand a deposit of up to £100. The duties of immigration officers are performed by the Superintendent or Assistant Superintendent of Police in each of the "ports of entry".

The fee for a permit for permanent residence is £1. For a temporary permit 5s. is charged.

Every native entering or leaving the territory must be in possession of an official pass. A statement of the number of passes issued during 1938 is given in § 8.

§ 6. Public Health and Sanitation.

1. **Medical Service.**—(i) *General.*—The Basutoland Medical Service, which supervises the public health and sanitation of the territory, is organized on a departmental basis. Administration is in the hands of the Principal Medical Officer, who is responsible for all expenditure under the Medical Vote. The leper asylum is a separate department with a special Vote, but is subordinate to the Principal Medical Officer. There is a government medical officer for each district.

The following table gives particulars of the revenue and expenditure in connexion with the Medical Service:—

MEDICAL SERVICE: REVENUE AND EXPENDITURE, 1933-34 TO 1937-38.

Description.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
	£	£	£	£	£
Revenue	2,539	2,292	2,840	3,502	5,215
Expenditure	25,712	26,605	29,311	29,614	30,078

(ii) *Hospitals.*—In addition to public health and sanitation, the Medical Department administers the government hospitals and dispensaries, and provides free medical attendance, excepting specialized treatment, for all government officials and their families.

Beginning in 1885 with one medical officer and a so-called native hospital, which was little more than a couple of rooms, without nurses or proper furniture and appliances, the system has gradually developed, until now there are eight government hospitals, five equipped on modern lines, staffed by one or more trained nurses and a partially trained native staff, and three cottage hospitals staffed by trained and partially trained native nurses. The Maseru hospital is ranked as a Class I hospital by the Cape Medical Council. Each hospital has an out-patient department and a dispensary, at which all Basutoland natives are treated at a fee of 1s. for each attendance. Native in-patients and patients suffering from venereal diseases pay nothing. A few beds are reserved for Europeans. Officials and their wives, when admitted to hospital, pay maintenance fees, which are based on a sliding scale; other European patients pay 15s. per diem.

All fees collected are paid into revenue and the cost of administration is borne by the Government.

The following table furnishes information for a series of years in regard to hospitals, staff, and patients.

HOSPITALS: INSTITUTIONS, STAFF, AND PATIENTS, 1934 TO 1938.

Description.	1934.	1935.	1936.	1937.	1938.
Institutions.					
Hospitals	6	6	8	8	11‡
Beds	160	160	160	204	233
Staff.					
Medical Officers*	9	9	11	11	11
Nursing—					
European	16	15	15	15	16
Native †	12	12	12	15	15
Other Native	38	42	42	41	41
TOTAL	75	78	80	82	83
Patients.					
In-patients	3,117	3,251	3,298	3,550	4,434
Out-patients	64,998	67,316	82,723	109,807	102,686

* All non-resident.
† Trained and partially trained.
‡ Including 3 medical mission hospitals.

2. **Leper Settlement.**—The leper settlement, which was started in 1914 and occupies 1,700 acres at Botsabelo, near Maseru, comes under the direction of the Principal Medical Officer. The cost of maintenance is met by the Government, and no charge is made to the lepers.

The tables which follow give particulars of the staff employed, the number of patients, and the expenditure on the leper settlement for a series of years.

LEPER SETTLEMENT.

(i) STAFF AND PATIENTS, 1934 TO 1938.

Description.	1934.	1935.	1936.	1937.	1938.
Staff.					
Medical	2	2	2	2	2
Nursing—					
European	4	4	3	3	3
Other—					
European	6	4	6	4	4
Native	18	18	22	22	23
TOTAL	30	28	33	31	37
Patients.					
Native—					
Male	347	330	316	308	331
Female	381	377	368	361	373
TOTAL	728	707	684	669	704

(ii) EXPENDITURE, 1933-34 TO 1937-38.

	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
	£	£	£	£	£
Expenditure	19,071	19,138	18,200	17,933	17,484

3. **Medical and Dental Registration.**—Proclamation No. 17 of the 29th April, 1921, provides for the registration of medical practitioners, dentists, and chemists in Basutoland. No person may be registered to practise in the territory unless he possesses diplomas and certificates similar to those required as a qualification for registration in the Transvaal.

Applications for registration must be made in writing to the Principal Medical Officer. The Resident Commissioner, without assigning any reasons, may withhold his approval, in which case the applicant may appeal to the High Commissioner. The fee for registration is £5. The Resident Commissioner, on the advice of the Principal Medical Officer, may recommend to the High Commissioner the removal of names from the register.

Amending Proclamation No. 28 of 1934 allows permission to be granted, after examination by a medical officer, to missionaries to prescribe simple drugs and afford medical and surgical aid at a fee not to exceed 1s.

4. **Control of Public Health and Sanitation.**—Proclamation No. 18 of the 29th April, 1921, contains regulations for preventing the introduction into the territory, and the spreading therein, of contagious and infectious diseases. It also provides for the enforcement of regulations to control sanitation and water supplies and the sale of goods and for other public health measures.

§ 7. Education.

1. **Native Education.**—Education is mainly in the hands of the Paris Evangelical, Roman Catholic, and English Church Missions, each of which receives a grant-in-aid from the Government. The mission schools are scattered over the country fairly equally in proportion to the density of the population, and there are very few children who are not within reach of a school.

The educational system is designed mainly to meet the interests of the vast majority of children who have only a short school life of three or four years. Tuition in the lower classes is, therefore, almost entirely in the vernacular, so that a child becomes literate in his own language and is not taken out of his own environment. The country unfortunately is not well suited to the teaching of indigenous arts and crafts, owing to the lack of available material, but wherever possible sewing and housecraft are encouraged among the girls and gardening and other manual work among the boys.

No fees are charged in elementary or intermediate schools, nor is attendance compulsory; home duties and pastoral or agricultural work interfere with the regularity of school attendance, but on the whole Basuto children show wonderful keenness in being present as regularly as possible. A written examination for Standard VI is open to pupils from all parts of the territory, and twelve bursaries are awarded at this stage each year, which, with six awarded at the Junior Certificate stage, enable children of exceptional ability to continue their education at one of the institutions or at the new Basutoland High School which was opened in 1939. University education is provided at the South African Native College at Fort Hare, Cape Province, to which Basutoland contributes £300 per annum, besides providing two annual bursaries for promising Basuto students. Thus it is possible for even the poorest child to proceed from his village school to the University.

Although the missions are chiefly concerned with mission and school work, there is no doubt that indirectly they effect a great deal towards promoting public welfare. Each central mission station is a centre of civilization with its various branches radiating from it, so that there are very few parts of the territory which do not feel their influence. At certain missions sports meetings are held and arouse much enthusiasm. In the camps, the older inhabitants have formed sports clubs. The Pathfinder-scout and Wayfarer-guide movements are developing in an encouraging fashion and cannot fail to exert a profound and beneficial influence on the life of the people.

2. **European Education.**—There are six small schools which provide elementary education for the children in the camps: for further education children are sent to schools in the Union. The Government provides one annual bursary of £25 (for two years) for children under 13 years of age, and through the generosity of Messrs. Frasers, Ltd., a similar bursary of £50 per annum has also been provided.

3. **Education Statistics.**—The following tables contain statistics relative to education for a series of years:—

EDUCATION STATISTICS, 1933-34 TO 1937-38.

Heading.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
(i) TOTAL EXPENDITURE.					
	£	£	£	£	£
Administration	3,823	3,664	3,383	3,490	3,766
European Education*	3,167	2,910	2,790	2,533	2,513
Non-European Education	46,203	41,614	42,156	47,087	54,345
TOTAL £	53,193	48,188	48,329	53,110	60,624
(ii) GOVERNMENT SCHOOLS.†					
European—					
Expenditure £	1,722	1,710	1,590	1,415	1,415
Number of Schools	7	7	6	6	6
Number of Scholars M.	31	37	42	39	36
" F.	44	43	37	25	33
Number of Teachers F.	9	9	8	8	8
Non-European—					
Expenditure £	46,203	41,614	42,156	47,087	54,345
Number of Schools	578	583	573	576	581
Number of Scholars M.	21,379	22,507	26,111	27,043	26,475
" F.	39,522	39,065	41,198	42,621	41,868
Number of Teachers—					
European M.	‡	17	18	23	27
" F.	‡	52	54	67	79
Non-European	‡	1,051	1,080	1,136	1,193

* Includes grants to European officials for education of children outside the territory.
† The figures given include recognized mission schools where attendance is counted for grant-earning purposes.
‡ Not available.

EDUCATION STATISTICS, 1933-34 TO 1937-38—(*continued*).

Heading.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
(iii) PRIVATE SCHOOLS (NON-EUROPEAN ONLY).					
Number of Schools.....	261	267	268	303	292
Number of Scholars.....M.	4,378	4,400	4,822	5,069	5,128
" .....F.	8,334	8,301	8,851	9,423	9,337
Number of Teachers.....	*	*	233	321	274

(iv) CLASSIFICATION OF SCHOOLS.	1933-34.		1934-35.		1935-36.		1936-37.		1937-38.	
	E.	*O.*	*E.*	*O.*	*E.*	*O.*	*E.*	*O.*	*E.*	*O.*
Elementary.....	7	792	7	799	6	787	6	825	6	814
Intermediate.....	—	38	—	40	—	43	—	43	—	48
Other†	—	9	—	11	—	11	—	11	—	11
TOTAL.....	7	839	7	850	6	841	6	879	6	873

E. = European; *O.* = Other.

* Not available.

† Includes from 1934-35 3 teacher training institutions for males, 3 infant-teacher training institutions for females, 2 technical schools for males, and 3 industrial schools for females.

§ 8. Labour and Wages.

The following are the statistics for the years 1934 to 1938 of passes issued to Basutoland natives to proceed to the Union for purposes of labour or visiting:—

PASSES ISSUED TO NATIVES, 1934 TO 1938.

Year.	Labour.				Visiting.	Grand Total.
	Mines.	Agriculture.	Miscellaneous Labour.	Total Labour.		
1934.....	23,370	6,712	8,360	38,442	38,097	76,539
1935.....	30,057	5,584	9,797	45,438	38,988	84,426
1936.....	36,038	6,964	13,878	56,880	53,061	109,941
1937.....	33,130	3,782	14,811	51,723	43,597	95,320
1938.....	50,233	3,872	13,859	67,964	44,215	112,179

All visiting permits are given to natives for a period of from three days up to one month for the purpose of visiting relatives in the Union, or of proceeding to border towns to make purchases, etc. The vast majority of labourers who leave the territory do not stay in the Union for more than six to nine months. There is very little scope for labour in the territory. Wages for road-making and general unskilled labour range from 9d. to 1s. 6d. per diem. The conditions governing the cost of living approximate to those existing in the contiguous portions of the Orange Free State and the Cape Province.

§ 9. Administration of Justice.

1. **Courts of Law.**—The Basutoland courts of law consist of:—

(*a*) The High Court, which constitutes the Supreme Court of Basutoland, and from which an appeal lies to the Privy Council. A Judge is assigned to the High Court and not more than two administrative officers and one or more native assessors may be appointed to assist the court, but the decision of the court is vested exclusively in the judge.

(*b*) Subordinate Courts, namely—

(i) Courts of a District Commissioner or any Assistant District Commissioner in charge of a district or sub-district, called Subordinate Courts of the First Class.

(ii) Courts of an Assistant District Commissioner, called Subordinate Courts of the Second Class.

(iii) Courts of a Cadet, called Subordinate Courts of the Third Class.

Subordinate Courts of the First Class have civil jurisdiction where neither party is a European and in all other actions where the claim or value of the matter in dispute does not exceed five hundred pounds.

Subordinate Courts of the Second Class have civil jurisdiction in all actions where neither party is a European and in all other actions where the claim or value of the matter in dispute does not exceed two hundred and fifty pounds.

Subordinate Courts of the Third Class have no civil jurisdiction.

Subordinate Courts of the First, Second and Third Classes have criminal jurisdiction over all offences except treason, murder, sedition, offences relating to coinage or currency, and rape, except that Subordinate Courts of the First Class have jurisdiction to try any case of rape which has been remitted for trial by the Attorney-General.

(*c*) Native Courts, established by warrants under the hand of the Resident Commissioner, have certain limited jurisdiction as set out in the warrants and subject to restrictions imposed by law. There is a right of appeal to a native court of appeal, and thence to a subordinate court. All holders of subordinate courts have certain rights of their own motion of revision of the proceedings of all native courts.

The laws in force are the same as were in force in the Cape of Good Hope up to March 18th, 1884, except where repealed or altered by Proclamation of the High Commissioner, who is also empowered to make by proclamation such laws as may be necessary for the peace, order, and good government of the territory. The Law of Criminal Procedure and Evidence was revised and consolidated by Proclamation No. 59 of 1938.

2. **Police and Prisons.**—The Police and Prisons Service is under the control of the Commissioner of Police and Prisons.

Police.—The Police establishment consists of 13 European officers and 290 native non-commissioned officers and privates.

Prisons.—There are 9 gaols in the territory and a prisons staff of 67 officials, all but 2 of whom are Basuto.

3. **Crime Statistics.**—The following table shows the number of convictions for various crimes and offences during the last five years:—

NUMBER OF CONVICTIONS FOR VARIOUS CRIMES, 1934 TO 1938.

Offences.	1934.		1935.		1936.		1937.		1938.	
	E.	O.	E.	O.	E.	O.	E.	O.	E.	O.
In District Commissioners' Courts—										
Offences against the Person	—	147	—	137	—	171	—	245	—	203
Offences against Property.	—	594	—	338	—	366	—	300	—	213
Offences against the Liquor Laws.....	—	12	—	19	—	20	—	31	8	28
Other Crimes.....	2	1,325	—	1,356	2	2,045	—	1,164	19	1,062
In the Resident Commissioner's Court—										
Murder.....	—	11	—	2	—	12	—	7	—	7
Culpable Homicide.....	—	145	—	124	—	67	—	7	—	25
Attempted Murder.....	—	3	—	3	—	3	—	1	—	2
Rape.....	—	1	—	7	—	3	—	3	—	4
Other Offences against the Person.....	—	8	—	3	—	15	—	—	—	1
Offences against Property with Violence to the Person.....	—	56	—	—	—	10	—	—	—	1
Other Offences against Property.....	—	62	—	32	—	34	—	12	—	7
Public Violence.....	—	—	—	76	—	20	—	—	—	29
Other Crimes.....	—	1	—	1	—	1	—	—	—	1

E. = European. O. = Other.

§ 10. Land and Agriculture.

1. **Land Settlement.**—There is no individual ownership or tenure of land in the territory. Land is held under the communal system, and is apportioned to the people by the chiefs. There are no farmers in the country other than natives, the European population consisting mainly of government officials, missionaries, traders, and labour agents.

2. **Agriculture.**—Maize is the staple food of the Basuto, and it is estimated that one-half of the total acreage in cultivation is planted under this cereal. The figures for 1938 are: acreage, 375,000; yield, 873,750 bags. The harvest was a good one.

The next most important cereal, both from the point of view of the acreage sown and the yield obtained, is wheat. In 1938, 264,375 acres were planted and 257,812 bags harvested. It is estimated that in a normal year about two-thirds of the wheat in the Territory is grown in the mountains. Basutoland wheat possesses excellent milling and baking qualities due to its high glutin content and it is in demand in the Union for blending purposes. Although wheat is taking an ever greater place in the diet of the Basuto, a large proportion of the annual yield is exported to the Union of South Africa. In 1938 152,776 bags were thus disposed of.

The estimated acreage sown with kaffir-corn in 1938 was 93,750 and the yield 197,812 bags.

The following tables give a list of imports and exports of the three principal crops during the past five years:—

IMPORT AND EXPORT OF MAIZE AND MAIZE MEAL, KAFFIR-CORN, AND WHEAT AND WHEAT MEAL, 1934 TO 1938.

Year.	Maize and Maize Meal.		Kaffir-corn.		Wheat and Wheat Meal.	
	Quantity. Bags.	Value. £	Quantity. Bags.	Value. £	Quantity. Bags.	Value. £
(*a*) IMPORTS.						
1934	138,779	97,105	78,051	47,956	10,051	14,770
1935	101,531	51,476	50,229	26,696	5,900	8,311
1936	207,735	145,728	23,518	22,868	6,580	8,446
1937	55,515	37,049	10,663	8,651	6,378	9,282
1938	33,017	18,988	2,272	1,820	8,087	12,852
(*b*) EXPORTS.						
1934	1,675	1,048	73	54	89,545	88,919
1935	8,105	2,574	184	109	181,090	152,315
1936	395	284	656	589	90,250	65,796
1937	4,858	1,864	2,518	1,215	171,441	132,386
1938	26,196	11,514	52,770	35,614	152,776	155,807

Other crops of importance are barley, oats, peas, and beans, and there has been a noticeable increase in their production for local consumption during recent years. Since the famine in 1933-34 there has also been a considerable increase in the production of such vegetables as potatoes, cabbages, pumpkins, and carrots. The addition of these to the diet of the people is most beneficial.

Anti-soil-erosion work on a small scale was started in 1935, and was pushed forward steadily, though still on a small scale, during the first nine months of 1936. The work is now being rapidly extended as a result of a loan of £160,233 received for this purpose from the Colonial Development Fund.

The following table shows the progress that had been made up to the end of 1938.

ANTI-SOIL-EROSION WORKS.

Measure.	Previous to 1938.	During 1938.	Total to end of 1938.
Area reclaimed.....Acres.	8,316	19,240	27,556
Length of contour banks constructed.....Yards.	858,831	2,078,746	2,937,577*
Dams constructed.....No.	29	20	49
Trees planted.....No.	43,296	128,662	171,958
Area fenced.....Acres.	268	386	654

* Does not include the many thousands of yards of partially completed work cut by plant but still to be finished by manual labour.

The pasture in the areas treated shows a wonderful improvement.

The testing of a great variety of grasses, particularly stoloniferous varieties, for use in anti-soil erosion work is being done at the Maseru Experimental Station, which has been in existence since 1935.

Of recent years the Agricultural Department has pressed forward a scheme to induce the natives to construct gardens and to plant trees in the vicinity of their villages. The object of this is two-fold: first to provide vegetables, fruit, and firewood for local use, and secondly as a further preventive measure against soil erosion.

3. **Animal Husbandry.**—(i) *Sheep and Goats.*—Natural advantages permit the production in Basutoland of wool of the first class. Great importance is, therefore, attached to the production of good wool and the breeding of a better class merino sheep. The Administration has realized that for the attainment of these objectives both the health and the quality of the sheep must be closely studied. The eradication of sheep scab has thrown open the doors to progress in this direction, and in 1936 two further steps were taken, viz. the elimination of undesirable rams and legislation for compulsory dosing to combat internal parasites.

The emasculation of all bastard and Persian rams was, under an instruction issued by the Paramount Chief, largely carried out by the people and Basutoland has now been almost cleared of the type of ram which was doing great harm to the production of true merino wool. To replace these rams 1,748 good merino rams have been imported, and further numbers will be brought in from time to time. These rams are sold to the natives at cost price.

Compulsory dosing to combat internal parasites commenced in April, 1936. All sheep and goats are dosed once a month, and the cost is paid by the farmers. The co-operation accorded by native sheep farmers to the veterinary staff in carrying out this difficult task is an outstanding instance, amongst many, of the support given to difficult undertakings by the Paramount Chief and his people. It is gratifying that an improvement in the condition of the sheep is apparent. Free voluntary dipping for redwater is being introduced.

Owing to the lack of stability of the mohair market, the production of mohair is not encouraged.

(ii) *Cattle.*—The condition of cattle, in the past rather poor owing to overstocking, has improved, mainly owing to the toll taken by the 1933 drought, the survival of the fittest, and more favourable seasons. A cattle census taken in 1938 revealed a population of 434,990 units. The Basuto trek-ox is much sought after by Union farmers, but, owing to the internal demand for oxen for draught and pack purposes, the natives are reluctant to part with their animals.

In addition to the regulations prohibiting the entry of undesirable bulls, the following steps are being taken to improve the cattle in the territory:—

(1) A campaign for the emasculation of "scrub" bulls;

(2) the introduction from the Union of pure-bred Afrikander, Sussex, and Devon bulls;

(3) the establishment of "bull camps" in selected areas.

As a result of a considerable decrease in the incidence of anthrax in the territory, it is now considered sufficient to confine compulsory inoculation to actually infected areas only: cattle in such areas are inoculated twice a year. In addition, all cattle leaving the territory are inoculated immediately prior to removal.

(iii) *Horses.*—The famous Basuto pony has, owing to various causes, lost to a great extent many of the good features this breed at one time possessed. An attempt to rehabilitate horse stock is being made by means of the introduction of stallions of thoroughbred or Arab extraction. These stallions are distributed over the country and placed under the care of approved native horse masters. The scheme is very popular with the natives and promises to produce good results.

(iv) *Number of Live Stock at Censuses.*—The following table gives the number of live stock at certain periods:—

NUMBER OF LIVE STOCK AT CENSUSES, 1911 TO 1938.

Year.	Cattle.	Horses.	Mules.	Donkeys.	Sheep.	Goats.
1911*	437,411	87,997	1,415		1,368,999	988,668
1921*	580,666	153,733	6,584		1,859,712	895,358
1935	352,331	75,356	1,129	15,100	1,285,596	432,220
1936	414,572	84,650	1,275	22,361	1,264,344	410,620
1937	418,921	85,017	1,068	22,766	1,695,325	
1938	434,990	87,788	1,076	25,314	1,470,361	489,574

* Approximations only.

(v) *Exports.*—Exports by traders during the years 1934 to 1938 were as follows:—

EXPORTS OF CATTLE, WOOL, MOHAIR, AND HIDES AND SKINS, 1934 TO 1938.

Year.	Cattle.		Wool.		Mohair.		Hides and Skins.	
	No.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
		£	lb.	£	lb.	£	lb.	£
1934...	17,173	53,574	5,093,858	118,744	702,018	12,602	533,281	6,605
1935...	3,189	14,943	6,410,589	131,198	830,245	22,513	154,349	1,921
1936...	6,613	34,305	5,986,871	154,329	817,849	42,124	155,897	2,526
1937...	4,954	25,885	4,662,779	142,899	782,221	57,615	195,306	4,533
1938...	3,243	21,358	6,461,852	125,241	870,651	41,584	124,761	2,451

4. **Forests.**—There are no forests, and there is very little indigenous wood.

§ 11. Commerce and Industries.

1. **Trade.**—There are 199 licensed trading stations in the territory, which purchase produce from the natives and do a fairly large trade in blankets, clothing, prints, foodstuffs, etc. Under Proclamation No. 76 of 1936, restricted trading licences may be granted to natives, who pay a lower licence fee, and are prohibited from trading in wool, mohair, and live stock.

2. **Imports and Exports.**—The following table shows the imports and exports for a series of years. The returns of imports and exports are compiled from statistics furnished by the traders themselves. The former give the invoice cost of merchandise at the coast or wherever purchased.

VALUE OF IMPORTS AND EXPORTS, 1934 TO 1938.

Description.	1934.	1935.	1936.	1937.	1938.
	£	£	£	£	£
Imports—					
Total value	629,317	621,426	712,125	760,736	805,126
Government imports (included in above)	62,550	33,095	38,236	45,000	56,000
Exports—					
Total value	284,522	331,145	302,193	368,629	401,512

3. **Mining and Industrial Activities.**—There are no mines in the territory and no industrial activity has yet taken place.

§ 12. Railways, Roads, and Posts.

1. **Railways and Roads.**—There are no railways in Basutoland, with the exception of one mile of the South African Railways, which enters Basutoland at Maseru from the Orange Free State.

A good main road runs from Butha Buthe in northern Basutoland to Quthing in the south. It connects all the government stations with the exception of Qacha's Nek and Mokhotlong. Qacha's Nek is situated on the Drakensberg on the south-eastern border and is accessible to wheel traffic from East Griqualand only. No wheel traffic can reach Mokhotlong, which is two days' journey by pack transport from Himeville in Natal. All the government stations in the western part of the territory lie near the border and are connected by road with the nearest Union town or railway station.

The principal district stations after Maseru, which is twelve miles from the Orange Free State border town of Ladybrand, are: Leribe, about twelve miles from Ficksburg; Mafeteng, about sixteen miles from Wepener; and Mohale's Hoek, about thirty miles from Zastron.

Excepting the Orange River, at which there is a pont, all rivers of any size on the main road are bridged. The bridge over the Phuthiatsana or Little Caledon River, nine miles from Maseru, deserves notice as it is entirely of stone and has one 80-ft. and two 40-ft. arches. The Caledon River, which forms the western and north-western borders, is bridged at Caledon's Poort, near Butha Buthe, Ficksburg near Leribe, Peka, and Maseru, the last-named being a combined railway and road bridge. Bridges have been constructed over the Telle River, which forms the boundary between the Quthing and Herschel districts, and over the Makhaleng River, thus connecting Mohale's Hoek with Zastron.

2. **Posts, Telegraphs, and Telephones.**—There are 11 money order offices, and 36 postal agencies. The postal service is administered by the Postmaster-General of the Union, and deposits and withdrawals may be made with the Union Post Office Savings Bank at these offices. All the district offices, with the exception of Qacha's Nek, are connected from north to south by telephone, which is used very extensively by the general public. Through telephone line connexions between Maseru and Ladybrand, Leribe and Ficksburg, Mafeteng and Wepener, and Quthing and Lady Grey, are in operation. During the year 1938 a new issue of Basutoland postage and revenue stamps came into use.

The following table furnishes particulars of postal transactions for a series of years:—

POSTAL STATISTICS, 1933-34 TO 1937-38.

Heading.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Post Offices and Agencies.....No.	37	38	38	41	47
Postal Orders—					
Issued.....No.	25,863	26,561	27,490	28,631	32,129
£	9,561	10,343	10,429	11,121	12,009
Paid.....No.	36,483	37,796	43,763	50,182	43,325
£	23,479	24,373	28,254	34,155	25,855
Money Orders—					
Issued.....No.	3,395	3,482	3,646	3,665	3,771
£	11,993	13,337	13,784	14,297	14,409
Paid.....No.	1,877	1,929	2,708	3,576	4,778
£	7,841	7,472	8,782	13,570	15,294
Savings Bank—					
Deposits.....No.	3,241	4,579	5,686	5,516	7,801
£	22,716	26,633	30,545	29,230	30,740
Withdrawals.....No.	3,706	3,121	4,414	5,384	6,242
£	17,042	19,847	22,395	26,284	31,769
Telegrams—					
Forwarded.....No.	18,886	19,737	20,758	23,012	25,801
Received.....No.	15,869	15,993	17,184	20,031	22,180

§ 13. Finance.

1. **Revenue.**—The territory is financially self-supporting, the principal sources of revenue being the native tax, customs, income tax, and wool export duty. The following table shows the revenue collected under the different heads during a series of years.

PUBLIC REVENUE, 1933-34 TO 1937-38.

Description.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
	£	£	£	£	£
Ordinary—					
Native Tax	90,017	129,312	140,910	153,237	170,117
Customs and Excise	90,040	104,442	111,633	121,604	127,775
Posts and Telegraphs	12,906	11,437	14,187	15,123	24,504
Licences	8,466	8,615	9,181	9,634	10,444
Fees of Court or Office	773	361	346	401	391
Judicial Fines	423	739	431	815	800
Income Tax	4,115	5,608	4,036	5,307	9,749
Poll Tax	1,265	1,345	1,334	1,346	1,354
Fees for Services Rendered	1,023	1,017	1,270	1,216	1,498
Interest	1,963	1,403	1,303	1,689	3,110
Wool and Mohair Export Duty	8,107	6,786	7,375	8,078	6,998
Miscellaneous	11,700	12,421	11,294	14,113	15,564
Education Levy	10,340	14,766	16,241	17,777	19,733
Civil Servants' Salary Deductions	4,550	2,689	2,148	—	—
TOTAL.....£	245,688	300,946	321,689	350,331	392,007
Extraordinary—					
Colonial Development Fund	—	1,543	207	18,668	26,910
GRAND TOTAL.....£	245,688	302,489	321,896	368,998	418,917

2. **Expenditure.**—The principal items of expenditure are in respect of police, public works, medical services, education, agriculture, and the leper settlement. The following is a statement of the expenditure in detail during a series of years:—

EXPENDITURE FROM PUBLIC FUNDS, 1933-34 TO 1937-38.

Description.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
	£	£	£	£	£
Ordinary—					
Resident Commissioner	13,163	13,018	13,600	13,933	15,457
District Administration	16,157	16,874	17,325	18,452	21,501
Police	33,386	34,189	33,603	32,801	—
Police and Prisons	—	—	—	—	44,602
Posts and Telegraphs	10,949	10,600	11,000	12,511	13,691
Administration of Justice	13,923	13,676	13,246	13,691	—
Judicial and Legal	—	—	—	—	2,702
Public Works Department	5,308	5,476	5,621	5,374	5,129
Public Works Recurrent	20,644	25,493	28,338	21,483	24,392
Public Works Extraordinary	493	986	1,597	4,958	18,550
Medical	25,712	26,605	29,311	29,614	30,078
Education	39,352	53,357	57,854	62,055	68,814
Lerotholi Technical School	5,515	6,504	6,205	5,948	7,120
Agriculture—					
Veterinary	} 19,949	21,608	21,789	{ 18,331	19,364
Agricultural				7,089	9,388
Allowances to Chiefs	11,145	9,413	11,207	12,993	13,617
Basutoland Council	735	1,697	1,715	1,719	1,755
Leper Settlement	19,671	19,138	18,201	17,927	17,484
Pensions	14,562	13,962	16,862	15,349	15,186
Miscellaneous	40,910	15,399	6,419	6,114	8,144
Census	—	—	196	3,464	855
TOTAL ORDINARY EXPENDITURE	291,574	287,995	295,079	303,806	337,739
Capital Expenditure	538	5,440	3,522	5,528	—
Extraordinary Expenditure—					
Financial and Economic Commission	—	1,543	207	—	—
Colonial Development Fund	—	—	—	18,669	26,910
GRAND TOTAL.....£	292,112	294,978	298,808	328,003	364,649

3. **Native Tax.**—Hut tax was imposed when the country was first taken over by the British Government. It was, however, changed by the Basutoland *Native Tax Proclamation*, 1911 (since amended), to a personal tax payable by every adult male native domiciled in Basutoland. The present rate is twenty-five shillings per annum, and, in addition, if such native has more than one wife according to native custom, a further sum of twenty-five shillings for every such additional wife. No native, however, is liable to pay, in respect of himself and his wives, more than £3. 15s. in any one year. Further, an education levy of 3s. per annum is made on every adult male native. This levy is credited to a Native Education Fund, but for purposes of convenience it is collected with the tax.

The District Commissioners are in charge of the collection of the tax in their districts, a duty they carry out through the chiefs and headmen, who are nominally responsible to them for the collection in their respective wards. Paid native collectors operate in each district under the supervision of the district commissioners and in conjunction with the chiefs to whose wards they are appointed.

An office has been established in Johannesburg for the purpose of collecting tax from the Basuto, Bechuana, and Swazi employed on the gold mines. During the financial year 1937-38, £61,856 was collected by this office, which also deals with the domestic affairs of the Basuto, Bechuana, and Swazi labourers on the Rand.

4. **Licences.**—The following scale of licence fees operates in Basutoland:—

I.—*Trading Licences.*

	£	s.	d.	
(1) General trader	25	0	0	per annum
(2) Restricted native trader on a government reserve	5	0	0	,,
(3) Restricted native trader not on a government reserve	2	10	0	,,
(4) Commercial traveller—retail	15	0	0	,,
(5) Commercial traveller—wholesale	25	0	0	,,
(6) Agent of firm outside Basutoland purchasing produce for use or consumption outside Basutoland	15	0	0	,,
(7) Miller—Grinding capacity not exceeding 20 bags per day	3	0	0	,,
(8) Miller—Grinding capacity exceeding 20 bags day	10	0	0	,,
(9) Taxi	2	0	0	,,
(10) Baker	5	0	0	,,
(11) Butcher	5	0	0	,,
(12) Fruiterer	5	0	0	,,
(13) Refreshment rooms excluding native eating-houses conducted by natives	5	0	0	,,
(14) Motor garage	10	0	0	,,
(15) Commission agent	10	0	0	,,
(16) Insurance agent	10	0	0	,,
(17) Debt collector	10	0	0	,,
(18) Hawker not using vehicle or pack animals	1	0	0	per month
(19) Hawker using vehicles or pack animals per vehicle or 8 pack animals	2	0	0	,,
(20) Dealer in live stock	2	0	0	,,
(21) Apothecary	5	0	0	per annum
(22) Native sub-agent engaged under a licensed insurance agent	1	0	0	,,

Where any of the licences Nos. (1) to (17), (21), and (22) above is taken out after the 30th June in any year, the fee payable is one-half of that specified above.

For the transfer of a general trader's licence, ½ per cent. on the whole purchase consideration, subject to certain abatements, is charged. For the transfer of a commercial traveller's licence £1 is charged.

II.—*Motor Vehicle Licences.*

	Annual Licence Fee. £ s. d.
(*a*) For every motor cycle without side-car	15 0
(*b*) For every side-car or similar attachment	7 6
For every motor car—	
(*c*) not exceeding 1,500 lb. in weight	2 5 0
(*d*) weighing over 1,500 lb. and not exceeding 2,500 lb.	3 0 0
(*e*) weighing over 2,500 lb. and not exceeding 4,000 lb.	4 10 0
(*f*) weighing over 4,000 lb. and not exceeding 6,000 lb.	7 10 0
(*g*) weighing over 6,000 lb.	15 0 0
(*h*) for every motor car trailer or similar attachment	2 0 0

Note.—The above motor registration fees are reduced by one-half if paid after the 30th June in any year.

	s. d.
Transfer of motor car licence	5 0
Transfer of motor cycle licence	2 6
Motor car driver's licence	10 0
Motor cycle driver's licence	5 0

III.—*Other Licences.*

	Per Annum.
Labour agent	£15
Auctioneer	10

IV.—*Stamp Duties.*

Courts of Law.—The tariff of fees applicable to the Court of the Resident Commissioner and the Courts of the District Commissioners is laid down in Proclamation No. 24 of 1935.

Rates of estate and of succession duty are laid down in Proclamation No. 20 of 1935. The tariff of fees of the estates of deceased persons is laid down in Proclamation No. 19 of 1935.

The following fees are also payable:—

	£ s. d.
For registration of a marriage	2 6
For copy of marriage certificate	2 6
Passport	15 0
Renewal of passport, for every year renewed	2 0
For registration of patent—	
Filing application for registration of patent	10 0
Registration of patent	1 0 0
Renewal fees—	
Before the expiration of the third year of patent	2 0 0
Before the expiration of the seventh year of patent	3 0 0
Before the expiration of the tenth year of patent	5 0 0
(*Note.*—Any or all of the payments for renewals may be made in one sum.)	
On registration of any assignment, amendment, extension, or licence	10 0

5. **Currency.**—Under the provisions of Proclamations Nos. 53 of 1932 and 2 of 1933, notes of the South African Reserve Bank and silver and copper coin of the Union circulate, and are accepted as legal tender in Basutoland in the same manner as in the Union. Silver coin of H.M. Royal Mint in England was withdrawn from circulation within the territory as from the 16th January, 1933.

6. **Banking.**—There is a branch of the Standard Bank at Maseru.

BECHUANALAND PROTECTORATE.

CHAPTER II.

BECHUANALAND PROTECTORATE.

§ 1. History.

1. **Proclamation of British Protectorate.**—During the year 1885 Sir Charles Warren, who was in command of an expedition dispatched from England to pacify Southern Bechuanaland, where for some time previously hostilities had been proceeding between the Bechuana and the Boers from the South African Republic, visited the principal chiefs in Northern Bechuanaland (known as the *Bechuanaland Protectorate*), namely, Khama, Gaseitsiwe, and Sebele, and as a result a British Protectorate was proclaimed over their territories. No further steps were taken until the year 1891, when, by an Order-in-Council dated 9th May, the limits of the Bechuanaland Protectorate were more clearly defined, and the High Commissioner for South Africa was authorized to appoint such officers as might appear to him to be necessary to provide for the administration of justice, the raising of revenue, and generally for the peace, order, and good government of all persons within the limits of the Order. Sir Sidney Shippard, the Administrator of Bechuanaland, was appointed Resident Commissioner. An Assistant Commissioner was also appointed for the Southern Protectorate and another for the Northern Protectorate, the laws in force in the Colony of the Cape of Good Hope on the 10th day of June, 1891, being declared in force in the territory, *mutatis mutandis* and so far as not inapplicable. Subsequent legislation has been effected by Proclamation of the High Commissioner.

2. **Relations with the British South Africa Company.**—For fiscal and other purposes the Protectorate was treated as a portion of the Crown Colony of British Bechuanaland until the 15th of November, 1895, when the latter was annexed to the Cape Colony. In the autumn of that year arrangements were made for the transfer of the administration of the Bechuanaland Protectorate, with the exception of certain reserves for native chiefs, to the *British South Africa Company*. In 1896 the administration of the two areas above referred to was retransferred to the Imperial Government, by whom the Protectorate, in its entirety, is still governed under the name of the Bechuanaland Protectorate. It includes the Tati District, which is a portion of old Matabeleland, conceded in 1887 by Lobengula to Mr. S. H. Edwards.

3. **Proclamation of Crown Lands.**—In 1895 the Chiefs Khama, Sebele, and Bathoen visited England, and each of them abandoned all rights and jurisdiction in and over certain portion of his former territory. The lands thus abandoned by them were, by Order-in-Council dated the 16th day of May, 1904, declared Crown Lands, and all rights of His Majesty in or in relation thereto were vested in the High Commissioner for South Africa, who was empowered to make grants or leases of such lands on such terms and conditions as he might think fit, subject to any directions received from one of His Majesty's Principal Secretaries of State. Title to these lands was subsequently granted to the *British South Africa Company, Limited*, subject to certain reservations, and these lands are now known as the Tuli, Gaberones, and Lobatsi Blocks of farms.

By virtue of the Order-in-Council dated the 10th January, 1910, all other land situate within the limits of the Bechuanaland Protectorate, elsewhere than in the Tati district, was, and still is, vested in His Majesty's High Commissioner for South Africa, subject to all the provisions of the Order-in-Council of the 16th May, 1904, and to the following exceptions:—

(1) Such land as is either—

(*a*) included in any native reserve duly set apart by proclamation; or

(*b*) the subject of any grant duly made by or on behalf of His Majesty; and

(2) the forty-one farms known as "the Barolong Farms," held by members of the Barolong tribe by virtue of certificates of occupation issued by the Chief Montsioa on the 28th day of March, 1895.

4. **Later Developments.**—During the period 1896-97 the existing railway line connecting the Union of South Africa with Rhodesia was constructed by the Bechuanaland Railway Company, authorized thereto by High Commissioner's Proclamations.

In 1898 a limited number of farms were allotted at and in the neighbourhood of Ghanzi, in what was then the Ngamiland district of the territory, to settlers, some of whom had trekked thereto as prospectors in 1894.

In 1899 the boundaries of the Bamangwato, Batawana, Bakgatla, and Bangwaketse native tribes were established and defined by proclamation, and in 1909 the boundaries of the Bamalete native reserve were similarly fixed.

In 1911 the *Tati Concessions, Limited*, and its successors and assigns were confirmed by Proclamation No. 2 of 1911 in the full, free, and undisturbed possession as owners of all the land within the Tati district, subject to all the terms and conditions of the said proclamation, certain lands being assigned as a reserve for the occupation of natives. This reserve is under the control of the Government, and the natives residing within it hold and occupy the land included therein, subject to such rules and regulations as are from time to time proclaimed by the High Commissioner; and, subject to certain conditions safeguarding the interests of the natives, the company (now the *Tati Company, Limited*) retains the mining rights (including precious stones) over this native reserve.

In 1920 a European Advisory Council and a Native Advisory Council were established to advise the Resident Commissioner in matters affecting the Europeans and the natives respectively.

In 1933 an area of land, in extent 20,213 morgen 3 square roods, was set aside as a native reserve for the Batlokwa tribe. This land originally formed portion of the Gaberones Block.

§ 2. Boundaries, Area, and Physical Characteristics.

1. **Boundaries.**—The territory of the Bechuanaland Protectorate is bounded on the south and east by the Union of South Africa, on the north-east by Southern Rhodesia, on the north by the Zambezi and Chobe (Linyanti) Rivers, and on the west by the territory of South West Africa.

It has not been surveyed as a whole, but its area is estimated at 275,000 square miles. Its mean altitude is about 3,300 feet.

2. **Meteorology and Physical Features.**—The winter climate (May to August) is delightful. The heat during the other months is great, but there are occasional short, sudden and therefore treacherous changes from extreme heat to cold. Malarial fever is prevalent, being particularly severe in the neighbourhood of water-courses and other low-lying places, where, during and immediately after the season of the heavy rains (December to end of April), the dense bush, thick undergrowth, and rank vegetation afford excellent shelter to mosquitoes. The rainfall varies considerably over the territory from year to year; in an average year for most areas it lies between 18 and 25 inches, though heavier falls have been recorded.

The eastern portion of the territory has some fine hill scenery in comparatively close proximity to the Transvaal border. The remainder of the Protectorate, which at first sight appears to be perfectly flat, is in reality undulating, rich in grasses, shrubs, and trees, with occasional outcrops of limestone, but mostly of a sandy and waterless character. Old and well-defined river-courses indicate, however, that at one time the country was well watered, as indeed is still the case north and north-east of Lake Ngami.

§ 3. Protection of Game.

1. **Game Reserves.**—Two game reserves have been established in the territory. The Kalahari Game Reserve extends over the whole area of the Protectorate lying west and north of the Molopo River up to the 24th parallel of Latitude S, and continues northwards along the border of South West Africa

to Latitude S 22° 30′, this strip being bounded on the east by the 21st meridian of Longitude west. The Chobe Game Reserve occupies that part of the Protectorate lying north of Latitude S 19° 45′ and east of Longitude 23·8 east. In addition, a bird sanctuary has been proclaimed within a radius of four miles from Mogobane Dam in the Bamalete Reserve. Shooting is strictly prohibited in all these areas, and offenders are severely dealt with by the Courts.

2. **Species of Game.**—The following species of game are found in the territory:—

Royal Game.

Elephant	Eland
Giraffe	Rhino

Large Game.

Hippotamus	Setutunga	Springbok
Quagga	Hartebeest	Ostrich
Koodoo	Waterbuck	Crowned Crane or Mahem
Bushbuck	Oribi	Wattled Crane or Belkraan
Impala	Tsessebe	Giant Bustard or Compou
Rietbok	Zebra	Gemsbok
Puku	Wildebeest	Ground Hornbill
Buffalo	Nyala	
Sable Antelope	Ludwig's Bustard or Paauw	
Lechwi	Secretary Bird	
Stanley Bustard or Paauw		

Small Game.

Rhebok	Vaal Korhaan	Klipspringer
Bush Korhaan	Duiker	Dikkop
Steenbok	Guinea Fowl	Hare
Pheasant	Wild Goose	Partridge
Wild Duck	Grouse	Snipe
Plover	Black Korhaan	

3. **Hunting of Game.**—The hunting of Royal game without a special licence issued by the authority of the Resident Commissioner is prohibited, and persons found guilty of hunting Royal game are liable to a fine not exceeding £150 or to imprisonment up to 12 months.

Applications for shooting licences should be made to the District Commissioner of the area in which it is proposed to hunt. Before hunting in a native reserve it is necessary to obtain the Chief's permission in addition to the usual licences. Licences to shoot large game are usually endorsed with the number of head allowed; the number allowed depends mainly on the period of the licence. Permits for the introduction of all arms, ammunition, and intoxicating liquor must be obtained from the District Commissioner of the district for which licences have been issued.

Licences to shoot large game are issued at the following rates per person:—

Period.	*Residents.* £	*Non-Residents.* £
14 days	4	6
1 month	8	12
2 months	12	18
3 months	16	24
Exceeding 3 months	25	30

In addition, a gun licence (£2) must be taken out. This further entitles the holder to shoot small game, which consists of all game mentioned under the heading Small Game in paragraph 2 above and not included in the schedules of Royal and large game.

No licences are issued to shoot game in areas south of Latitude 24. The shooting of large game without licences is allowed in a tsetse fly area of some 80 miles by 20 miles round Maun.

The period commencing the 1st September and ending on the last day of February in the succeeding year is the close season for game.

The export of game trophies, game hides, and biltong is at present governed by the laws of the Union of South Africa.

§ 4. Administration.

The form of government is very similar to that which obtains in Basutoland. The territory is administered by a Resident Commissioner under the direction of the High Commissioner for Basutoland, the Bechuanaland Protectorate, and Swaziland, the latter possessing the legislative authority, which is exercised by proclamation. There is also an Assistant Resident Commissioner.

The territory is, for administrative purposes, divided into eleven districts, each with a district commissioner, who is assisted in the maintenance of law and order by a force of police.

The headquarters of the Administration, which is attached to the Colonial Service and is eventually responsible to the Dominions Office, are at Mafeking, in the Cape Province.

PRINCIPAL OFFICERS OF THE ADMINISTRATION.

Resident Commissioner and Commandant of Police	C. N. Arden Clarke.
Assistant Resident Commissioner	A. D. Forsyth Thompson.
Government Secretary and Director of Customs	
Financial Secretary, Master of the Resident Commissioner's Court, Chief Mining Commissioner	W. H. Russell.
First Assistant Secretary and Registrar	G. E. Nettelton, O.B.E.
Director of Education	H. J. R. Dumbrell, O.B.E., B.A.
Deputy Commandant of Police	Major R. K. F. Hurndall.
Principal Medical Officer	J. W. Stirling, M.B., Ch.B.
Chief Veterinary Officer	J. H. N. Hobday, B.Sc., M.R.C.V.S.
Chief Agricultural Officer	R. England, M.B.E.
Director of Public Works	W. G. Brind, O.B.E.

§ 5. Population.

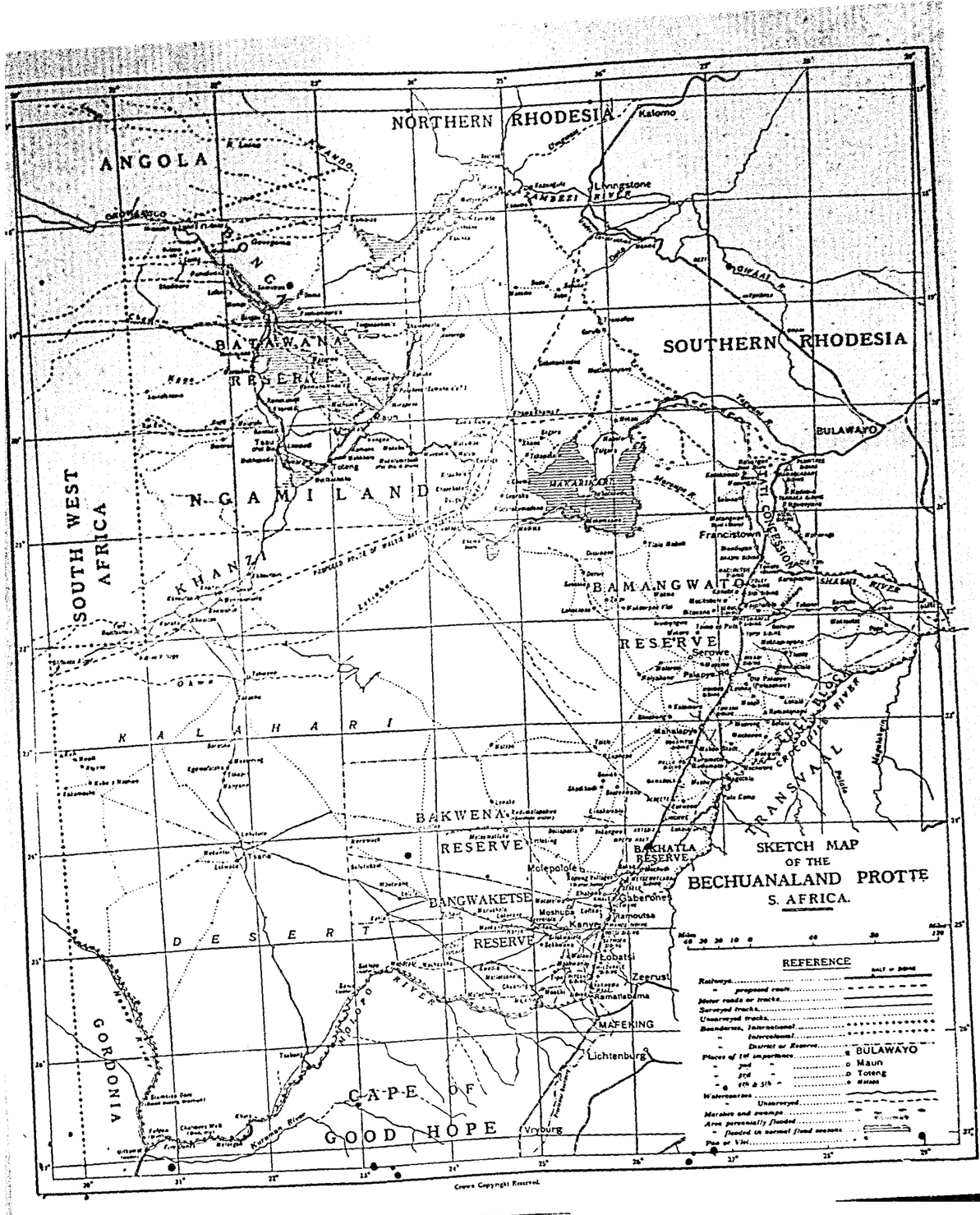
The following tables give particulars regarding the population of the Protectorate according to the censuses taken in 1911, 1921, and 1936. No European population censuses corresponding to those taken in the Union in 1918, 1926, and 1931 were taken in the Protectorate.

(i) POPULATION—CENSUSES 1911, 1921, AND 1936.

Year.	European.		Bantu.		Asiatic.		Other Coloured.		Total.	
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
1911.	1,692		123,803		355				125,350	
1921.	1,010	733	77,857	72,328	47	5	500	503	79,414	73,569
1936.	1,064	835	129,259	130,805	55	11	1,904	1,823	132,282	133,474

(ii) POPULATION BY DISTRICTS, CENSUS, 1936.

District.	European.		Bantu.		Asiatic.		Other Coloured.	
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female
Chobe	17	14	1,691	1,165	—	—	3	—
Francistown	192	142	8,183	7,766	2	—	47	42
Gaberones	127	105	10,127	11,958	23	3	19	21
Ghanzi	83	74	7,607	3,557	—	—	1,038	905
Kgalagadi	8	—	2,685	2,746	8	2	490	565
Kweneng	48	40	12,779	13,660	10	—	58	55
Lobatsi	241	214	3,950	4,170	1	—	26	18
Ngamiland	60	32	19,514	22,644	—	—	5	3
Ngwaketse	84	29	11,708	11,876	11	6	83	76
Ngwato	215	161	50,566	50,915	—	—	133	137
Tuli Block	39	24	449	348	—	—	2	1
TOTAL	1,064	835	129,259	130,805	55	11	1,904	1,823



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(i)

Year.	Euro	
	Male.	
1911.	1,69	
1921.	1,010	
1936.	1,064	

(ii

District.		
Chobe.....		
Francistown.....		
Gaberones.....		
Ghanzi.....		
Kgalagadi.....		
Kweneng.....		
Lobatsi.....		
Ngamiland.....		
Ngwaketse.....		
Ngwato.....		
Tuli Block.....		

§ 6. Vital Statistics and Migration.

1. **Registration of Births, Deaths, and Marriages.**—The registration of births is voluntary and is governed by Act No. 20 of 1880 of the Colony of the Cape of Good Hope, which is applicable to the Bechuanaland Protectorate. Only details of non-natives are registered.

The solemnization of marriages is governed by Proclamation No. 1 of 1917, as amended by Proclamations Nos. 14 of 1917 and 72 of 1922. Most natives secure their brides by the payment of "bogadi" cattle to the parents of the bride.

2. **Migration Regulations (Europeans).**—Under the provisions of Proclamation No. 8 of 1929 the Resident Commissioner may, by written notice or by written or telegraphic authority to the district commissioner of any district, prohibit any person from entering or remaining in such district, if, in his opinion, the presence of such person therein is likely to be prejudicial to the peace and good government of the Protectorate, or to the interests of the natives living therein. These provisions do not apply to any native ordinarily resident in the Protectorate, nor to any person living therein in the exercise of any rights held by him under any law. The penalties for contravening the provisions of the proclamation are a fine not exceeding £10 or imprisonment with or without hard labour for a period not exceeding one month. Proclamation No. 34 of 1932, as amended, regulates the entry of immigrants, other than native immigrants, and prohibits the entry of undesirables into the Bechuanaland Protectorate.

§ 7. Public Health.

1. **Public Health Laws.**—The provisions of the *Public Health Acts* of the Colony of the Cape of Good Hope passed previously to 10th June, 1891, are, *mutatis mutandis*, in force within the territory, and new regulations are introduced by proclamation. The provisions of Part I of the *Police Offences Act*, No. 27 of 1882, have been applied by proclamation to the areas of Gaberones, Francistown, Lobatsi, and Palapye.

By Proclamation No. 12 of 1924, as amended by Proclamation No. 51 of 1934, the Resident Commissioner is empowered, subject to the approval of the High Commissioner, to make regulations for the purpose of preventing the introduction into or dissemination within the territory of any infectious or contagious disease, and to make local public health regulations. Special provision for the preservation of health and the regulation of sanitation in matters connected with prospecting and mining is promulgated under Proclamation No. 54 of 1934.

No one may practise within the territory as a medical practitioner, dentist, chemist, nurse, or midwife without being registered in accordance with the provisions of Proclamation No. 62 of 1934, as amended by Proclamation No. 7 of 1937. Any person desiring to be registered shall make application in writing to the Principal Medical Officer, shall provide such proof as may be required that he possesses the qualifications prescribed by the proclamation, and shall make a sworn declaration in support thereof. The approval of the Resident Commissioner is required before registration takes place.

The Principal Medical Officer may, if satisfied that the interests of the public necessitate medical, dental, or pharmaceutical services additional to those supplied, approve that other persons may practise in these capacities, by permission of the Resident Commissioner.

2. **Hospitals and Medical Service.**—The Principal Medical Officer is stationed at Mafeking. There are Government Medical Officers at Lobatsi, Gaberones, Serowe, Mahalapye, and Francistown, and in charge of two travelling dispensaries. The Railway Section through the Protectorate is attended by the Principal Medical Officer and the Medical Officers at Lobatsi, Gaberones, and Francistown, in addition to their other duties. Subsidized missionary doctors are stationed at Kanye, Mochudi, Maun, Sofala, and Khale.

There are government hospitals at Lobatsi, Serowe, and Francistown, mission hospitals at Kanye, Mochudi, Molepolole, Maun, and Sofala. The al, Mafeking, deals with cases among the staff at headquarters. government travelling dispensary units, each comprising two ing in the Kalahari and north of Francistown respectively.

In the Tati district regular visits are made by ministers of the Wesleyan Church and the Church of the Province of South Africa, who also have congregations in the southern portion of the territory on the Barolong farms and in the Bakwena Reserve, respectively.

Dr. Livingstone, the famous missionary and explorer, spent several years working at a mission station at Kolobeng in the Bakwena Reserve; the site of the mission station has now been proclaimed a historic monument.

At Molepolole there is the Livingstone Memorial Hospital, which was built some time ago by the Free Church of Scotland Mission.

The leading missions assist considerably with school work, and in most instances the secretaries of the Tribal School Committees are missionaries who do voluntary work in that capacity.

§ 9. Labour and Wages.

1. **Labour in the Protectorate.**—The European population of the Protectorate being small, and there being no industries of any magnitude in the territory, apart from the Tati gold mines, the demand for native labour within its borders is consequently restricted and confined chiefly to work in farming operations within the comparatively small areas open to white settlers in the Francistown and Ghanzi districts and in the Tuli, Gaberones, and Lobatsi blocks of farms.

2. **Labour Recruiting.**—The Protectorate offers a large field of operations for recruiters of native labour for work on the mines and elsewhere outside the territory, but the general financial depression which prevailed during 1932, and the resultant closing of many mines, greatly reduced the volume of recruiting. No person may act as a labour agent within the Protectorate, unless he is the holder of a current, non-transferable licence for that purpose, issued to him by the Resident Commissioner or by some officer duly authorized by the Resident Commissioner to issue such licences.

Any person applying for a labour agent's licence is required to deposit £100 or to find security to the like amount to the satisfaction of the Resident Commissioner or other authorized officer, and must also fix a *domicilium citandi et executandi* within the territory, where all civil process in respect of any breach of contract or recovery of wages may be served. Every application for such licence must be accompanied by a statement in writing, signed by the proposed employer, giving his name and address, the nature of the proposed employment, the rate of wages at which the native labourers are to be engaged, and any further particulars as to the proposed terms of service which the officer issuing the licence may demand. No concession or contract, by which any native chief or headman purports to bind himself or his people to provide labourers, is valid.

The native tribes of the territory are well behaved as a whole, ready to act on the advice of the Resident Commissioner and of his officers, and the Administration is therefore in the happy position of being free from labour problems which affect other countries.

The following table furnishes information for the years 1933 to 1938 of the number of passes issued to Bechuanaland natives to proceed to the Union of South Africa for purposes of labour or visiting:—

PASSES ISSUED TO BECHUANALAND NATIVES TO PROCEED TO THE UNION FOR PURPOSES OF LABOUR OR VISITING, 1933 TO 1938.

YEAR.	LABOUR.				Visiting.	Grand Total.
	Mines.	Agri-culture.	Mis-cellaneous.	Total.		
1933	4,716	730	2,367	7,813	5,809	13,622
1934		Comp	lete figures	not availab	le.	
1935	6,198	98	1,890	8,186	2,729	10,915
1936	6,639	30	690	7,359	2,186	9,545
1937	9,401	2	1,224	10,627	1,982	12,609
1938	11,183	—	1,242	12,425	2,196	14,621

3. **Wages and Cost of Living.**—The conditions as to wages and the increase caused by the war in the cost of foodstuffs and other necessaries of life are, to all intents and purposes, similar to those at present existing in the Union of South Africa.

4. **Sale of Intoxicating Liquor.**—No intoxicating liquor may be introduced into the territory without the permission in writing of the Resident Commissioner, a district commissioner, or a commissioned officer of police. The sale or gift of liquor to any native is strictly prohibited. The word "native" is understood to mean "any aboriginal native belonging to any native tribe, including half-castes and all persons of mixed race living as members of any native community, tribe, kraal, or location."

Apart from the licence issued to the Rhodesia Railways, Limited, for the sale of refreshments on passenger trains running through the Bechuanaland Protectorate, there are only seven licences for the sale of liquor in the territory. These are granted in respect of premises along the railway line at places where accommodation is necessarily provided for travellers, and there is also one at Maun in Ngamiland.

§ 10. Administration of Justice.

1. **High Court.**—Proclamation No. 50 of 1938 abolished the Special Court which had functioned since 1912 and established a High Court (presided over by a judge), which posesses and exercises, in respect of civil and criminal proceedings arising in the territory, all the jurisdiction, power, and authorities vested in the Supreme Court of South Africa.

The High Court is the Court of Review and Appeal within the territory. The right of appeal to the Privy Council, provided for in section *three* of Proclamation No. 2 of 1896, lies against any final judgment, decree, sentence, or order of the High Court.

There must be at least two sessions of the High Court a year, and the judge may direct that any trial may be held and any appeal heard with the aid of not more than two administrative officers, who are to be appointed for that purpose by the Resident Commissioner. The Court may also call to its assistance one or more native assessors, who shall be chosen by the Resident Commissioner from Chiefs, sub-Chiefs, headmen, or other natives suitably qualified to aid the court. The opinion of each officer and native assessor so associated with the court shall be given and shall be considered by the court, but the decision is vested exclusively in the judge.

The jurisdiction of the High Court is exercisable, so far, as regards procedure, practice, and evidence in criminal cases, in the manner provided by the *Bechuanaland Protectorate Criminal Procedure and Evidence Proclamation*, 1938 (No. 52 of 1938).

The court may at any time make rules of court for regulating the proceedings of the High Court and subordinate courts.

At any time when the High Court is not in session the Assistant Resident Commissioner has power and authority to exercise the civil and criminal jurisdiction of the Court in all countries and applications (including applications for arrests and interdicts of persons and things), in all actions for provisional sentence, and in all other causes in which either the plaintiff or the defendant is in default or in which consent to judgment is filed by the defendant.

By section *two* of Proclamation No. 2 of 1896 the Resident Commissioner has all the powers of the Supreme Court of South Africa in civil matters but no original jurisdiction.

2. **Subordinate Courts.**—Proclamation No. 51 of 1938 establishes three classes of subordinate courts with jurisdiction in the districts within which such courts are situated. The jurisdiction of these courts is limited in civil and criminal matters by the terms of that Proclamation, and in every case an appeal lies to the High Court.

Under High Commissioner's Notice No. 151 of 1925 (published in the *Official Gazette* of the 9th October, 1925), a Rule of the Court of the Resident Commissioner provided scales of fees and charges to be taken and made by attorneys of the courts of the Bechuanaland Protectorate in civil cases, where the cause of action exceeds £50, and in applications for compulsory sequestration and voluntary surrender of estates as insolvent.

The following table shows the number of convictions for criminal offences during the last five years. For the years 1934 to 1936 and for 1938 the statistics for Superior Courts include cases where sentences beyond the limit of an Assistant District Commissioner's jurisdiction were passed by district commissioners. The 1937 figures reflect only cases coming before the Special Court.

CONVICTIONS FOR CRIMINAL OFFENCES, 1934 TO 1938.

Description.	1934.	1935.	1936.	1937.	1938.
(i) INFERIOR COURTS.					
Offences against the Person	100	117	141	204	159
Offences against Property	258	200	321	272	259
Tax and Pass Laws, etc.	251	679	523	493	611
Other Offences	795	758	599	565	812
TOTAL	1,404	1,754	1,584	1,534	1,841
(ii) SUPERIOR COURTS.					
Homicides	9	12	12	2	5
Other Offences against the Person	19	6	17	5	12
Offences against Property	96	15	28	1	66
Other Offences	16	10	77	—	21
TOTAL	140	43	134	8	104

These figures do not include cases tried by native tribunals in accordance with Proclamation No. 75 of 1934.

3. **Witnesses' Expenses.**—Tariffs of allowances payable to witnesses in any criminal proceedings in the Bechuanaland Protectorate are framed under the provisions of Proclamation No. 13 of 1898 as amended and No. 7 of 1914, and are published under High Commissioner's Notices No. 34 of 1906 and No. 15 of 1914. The former contains the reciprocal tariff approved as regards neighbouring colonies, and the latter contains the tariff for witnesses residing within the Bechuanaland Protectorate. Witnesses from neighbouring colonies are paid allowances at the rate of from 10s. to £2. 10s. per diem, and allowances ranging from 2s. to £1 per diem, according to the status of the person, are paid to those residing within the territory.

4. **Prisons.**—There is a prison at Francistown and another at Gaberones. At other centres there are lock-ups. The prison regulations framed under and by virtue of Proclamation No. 10 of 1939 were published under Government Notice No. 45 of 1939.

§ 11. Defence and Police Organization.

1. **General.**—There are no military forces in the Protectorate. For the maintenance of law and order, however, there is a force of police known as the Bechuanaland Protectorate Police. The force is under the direct control of the Resident Commissioner, who is also Commandant. The Deputy Commandant is the executive officer in command, with headquarters at Mafeking.

Proclamation No. 41 of 1927 provided for the establishment and maintenance of the Bechuanaland Protectorate Police Force. This proclamation repealed Proclamation No. 22 of 1896, which applied the provisions of Part 2 of the *Cape Mounted Riflemen Act* (Cape of Good Hope), No. 9 of 1878, to which the force was formerly subject as regards discipline. High Commissioner's Notice No. 99 of 1927, as amended by Notice No. 129 of 1928, published under the aforesaid proclamation, contained the disciplinary regulations to which the members of the force are subject. On December 17th, 1937, the new *Bechuanaland Protectorate Police Proclamation* and Regulations came into force under Proclamation No. 69 of 1937 and High Commissioner's Notice No. 212 of 1937. Proclamations Nos. 41 of 1927, 39 of 1935, and 8 of 1936 were

repealed except in so far as those members of the police force are concerned who, at the commencement of this proclamation, were serving in the force, and who have not exercised their power of election to serve under the new proclamation and regulations.

The European personnel comprises 7 officers, 4 warrant officers, and 41 other ranks. There are 232 native non-commissioned officers and men.

A training depot is maintained at Gaberones, where there is also a Criminal and Finger-print Bureau. The force is distributed in small detachments at various places in the Protectorate.

2. **Arms and Ammunition.**—No arms or ammunition may be brought into the territory or delivered to anyone within its boundaries, without the permission in writing of the Resident Commissioner or of an assistant commissioner or a district commissioner duly authorized by the Resident Commissioner to grant such permission.

§ 12. Land Tenure and Water Supply.

1. **Land Tenure.**—The amount of transfer duty payable in the territory is two pounds per centum.

No policy has yet been disclosed as regards the Crown lands defined by the Order-in-Council of the 10th January, 1910, and no occupation or ownership, or claims of right to occupation or ownership, by any person of European birth or descent in respect of any land within the limits of the territory, and no concession or grant of any right, title, or privilege to deal with or authorize the occupation or ownership of any such land, may be recognized as valid or legal, unless or until approved in such mode as has been or may hereafter be appointed by the High Commissioner.

Outside the native reserves no tribal claims to land in the Protectorate may be acknowledged by His Majesty's Government, unless such claims are based upon an occupation commencing at a date prior to the Proclamation of the High Commissioner constituting such land a protectorate or incorporating such land in the Protectorate, or unless such land has been subsequently occupied with the express consent of the High Commissioner.

No concession by any native chief, whether or not accompanied or supported by any power of attorney or instrument or document of procuration, and no power of attorney or instrument or document of procuration granted by any such chief coupled with an interest in favour of some other person, whether such interest be apparent or not in the face of such power, instrument, or document, can be recognized by any court of law unless and until sanctioned and approved by His Majesty's Secretary of State.

The native reserves are held under tribal tenure and are inalienable. No person of European birth or descent may carry on business of any description therein, without having first obtained the consent of the chief and his councillors.

2. **Water Supply.**—Apart from the rivers Marico, Limpopo, Zambezi, and Chobe, and apart from the Okavango marshes and their outlets, there are practically no surface waters in the territory, except in the rainy season. In the dry season, when the rain-pools disappear, water can, however, usually be obtained at no great depth by sinking in the sandy beds of the larger rivers. Water-boring and well-sinking operations, in comparatively close proximity to the eastern border of the territory, have given good results.

A four year grant made from the Colonial Development Fund has enabled considerable progress to be made in the development of water supplies. Under this grant 86 boreholes have been completed since the beginning of the scheme, of which 58 have been successful. Native well-sinking parties have been busy deepening existing wells and increasing storage capacities.

A dam to conserve 360,000,000 gallons of water has been completed in the Bangwaketse Reserve. Seven dams have been constructed in the Bakgatla Reserve, and three in the Batlokwa Reserve. Work has started on a dam near Kanye, in the Bangwaketse Reserve. When completed this dam will hold 243,000,000 gallons of water.

§ 13. Agriculture and Pastoral Production.

1. **Agriculture.**—Although maize, kaffir-corn, beans, pumpkins, and melons are reaped in large quantities by the natives when the season is favourable, the rainfall is insufficient, or too uneven and uncertain in its distribution, to render agriculture anything but a hazardous pursuit. Tobacco for private consumption only is grown in small quantities in the northern part of the territory.

2. **Witwatersrand Agricultural Show.**—In 1931, 1932, and 1935 very successful and attractive displays indicating the potentialities of the Bechuanaland Protectorate, including karosses, cheese, etc., were exhibited at the Witwatersrand Agricultural Show. The exhibits by reason of the variety and merit of the individual items, together with their arrangement and general *ensemble*, constituted in each case one of the outstanding features of the show, and in 1931 and 1932 won a special prize, the "Connock" Perpetual Challenge Trophy, for the best low veld district exhibit, as well as a 1st prize of £100, and in 1935, the gold medal.

3. **Live Stock.**—On 30th November, 1938, the cattle population of the territory was 649,424, and the small stock population 438,683.

4. **Export of Cattle.**—Owing to the cattle surplus in the Union, the export of Protectorate cattle to the open markets of the Union was stopped in February, 1923, when the quarantine camp was closed. In addition and for a similar reason, restrictions as to weight and condition were imposed on Protectorate slaughter cattle on 1st March, 1924. All exported animals, except those intended for overseas, had to scale a minimum of 800 lb. live weight, and the carcass to dress 50 per cent. of the estimated live weight.

In January, 1926, this live weight standard was increased to 1,050 lb. for oxen (bulls and bull stags being absolutely excluded), but was fixed at 790 lb. for cows, dead meat to conform to these standards. With the outbreak of foot and mouth disease in Rhodesia in the early part of 1931, all cattle markets in the Union were closed to the Bechuanaland Protectorate north of Palapye Road.

A veterinary inspection fee of 2s. 6d. was imposed in 1938 on all cattle leaving the territory. Since 1st December, 1930, Bechuanaland Protectorate cattle have been allowed to be reconsigned from the quarantine section of the Johannesburg abattoir to the surrounding Reef abattoirs. (See also § 15.)

The exports of cattle, sheep and goats, pigs, wool, and hides and skins for a period of five years were as follows:—

EXPORT OF CATTLE, SHEEP AND GOATS, PIGS, WOOL, AND HIDES AND SKINS, 1934 TO 1938.

Year.	Cattle.		Sheep and Goats.		Pigs.		Wool.		Hides and Skins.
	No.	Value.	No.	Value.	No.	Value.	Quantity.	Value.	Value.
		£		£		£	lb.	£	£
1934.....	1,600	450	4,711	2,626	31	69	587	250	20,370*
1935.....	12,466	62,330	19,638	14,729	1,433	1,748	1,608	39	17,043*
1936.....	13,134	105,072	10,967	9,452	472	944	664	9	23,777*
1937.....	5,098	45,000	945	900	798	1,250	—	—	20,000*†
1938.....	21,570	172,730	15,515	9,678	1,941	3,882	443	7	18,313*

* Includes skins of wild animals and karosses.
† Approximately.

5. **Licensed Sale of Stock.**—Persons, other than those licensed as general traders or butchers within the territory, who desire to purchase, or acquire by exchange or barter, live stock within the Protectorate, for export therefrom, are required to obtain a licence to do so. Applicants for such licences deposit £100, or find security to that amount to the satisfaction of the Resident Commissioner or other authorized officer, and are required also to fix a *domicilium citandi et executandi* within the territory. Such deposit or security may be taken in execution in whole or in part for the purpose of satisfying judgments of any competent court within the Bechuanaland Protectorate, whereby the person who made such deposit or found such security is required to pay any sum, whether by way of damages, costs, or otherwise, to any person domiciled within the Protectorate. An applicant is further required to have been duly registered as the proprietor of a brand within the Protectorate. Purchase for export licences cost £5 per quarter, but the High Commissioner may order that they shall be issued for any calendar year or portion thereof without payment of any fee therefor. They are not transferable, and are issued subject to such conditions as to the local limits within which cattle may be purchased or acquired as the Resident Commissioner may impose, and the issue or renewal thereof may be refused without any reason being given.

The term "live stock" includes any horse, mare, gelding, colt, filly, mule, or ass; any bull, cow, ox, heifer, or calf; and any sheep, goat, or pig.

6. **Restrictions on Imports.**—As a precautionary measure against the introduction of contagious animal diseases—especially East Coast fever, the spread of which to the territory the Administration has so far succeeded in preventing—no cattle, sheep, pigs, goats, horses, mules, and donkeys, and no hay, horns, and skins, and no vehicle (except railway vehicles and motor cars) or wagon-gear, cart-gear, or harness may be introduced into the Bechuanaland Protectorate without the written permission of the Resident Commissioner or other duly authorized officer; and no horned cattle may be removed from one district to another within the territory without the permission in writing of the Chief Veterinary Officer, or, within a district, without permission in writing from the district commissioner or some other official authorized by the Resident Commissioner. The Resident Commissioner has power to order, in case of emergency, that all movement of cattle from any place to any other place within the territory be forthwith stopped.

7. **Equines.**—Horses and mules are very liable to contract the disease of horse-sickness in the territory. Consequently there are comparatively speaking few of these animals in the Protectorate.

8. **Forest Resources.**—Certain northern districts of the territory are well wooded, and smaller timber is plentiful in the south, whence a large quantity of dead wood for fuel is exported to the diamond diggings in the Transvaal. Timber suitable for mining props is also sent out of the country.

9. **Co-operative Societies.**—The formation, registration, and management of co-operative agricultural societies within the territory are governed by Proclamation No. 2 of 1910.

10. **Bush Fires.**—Useful legislation was passed in 1927 (Proclamation No. 27) enabling the Administration and settlers in any declared area of the Francistown district to co-operate in combating bush and grass fires.

§ 14. Mines.

1. **Gold and Silver.**—The only portion of the territory in which gold mining has so far been carried on is the Tati district. This has been done on a small scale for years.

The output of gold and silver for the last five years has been as follows:—

PRODUCTION OF GOLD AND SILVER, 1934 TO 1938.

Year.	Gold.		Silver.	
	Quantity.	Value.	Quantity.	Value.
	Fine oz.	£	Fine oz.	£
1934.....	9,485	65,578	978	90
1935.....	11,419	73,324	1,758	176
1936.....	16,723	117,061	1,350	79
1937.....	17,577	122,184	1,499	89
1938.....	19,111	133,139	1,127	122

2. **Mining Proclamation, 1932.**—*The Mines and Minerals Proclamation* (No. 33 of 1932), promulgated on the 12th August, 1932, for the first time introduced legislation providing for prospecting and mining within the territory, with the exception of the land known as the Tati district, which is specially excluded.

Under the proclamation land is divided into:—

(*a*) Crown land and land not held under mineral concession.

(*b*) Land held under mineral concession, i.e., land situate in a native reserve granted by the chief and the tribe with the approval of the Secretary of State for the purpose of prospecting and mining.

(*c*) Private land.

On Crown land, in respect of which the proclamation has been applied, prospecting is allowed either—

(*a*) Under an exclusive right conferred by means of a Crown grant.

(*b*) Under prospecting permit, provided the land has been declared open to prospecting.

On private land or land held under mineral concession, to which the proclamation has been applied, public prospecting may take place only with the consent of the owner as defined by the proclamation, or of the holder of the mineral concession, as the case may be. Before an owner of private land or the holder of a mineral concession may himself prospect, he is required to obtain a prospecting permit. On native reserves, to which the proclamation has been applied, prospecting may be carried out:—

(*a*) Under mineral concession obtained from the chief and the tribe, provided the consent of the Secretary of State has been obtained.

(*b*) Under a Crown grant issued with the consent of the owner, as defined in the proclamation.

(*c*) In the case of public or general prospecting on native reserves under the authority of a prospecting permit, provided the land has first been declared open to such prospecting.

The holder of a prospecting permit may peg a maximum of 500 claims, but no restriction as to the number of claims which may be pegged is imposed on the holder of a mineral concession in respect of the area he holds under such concession, or on the owner of private land in respect of the land owned. The extent of a claim is fixed at 400 by 150 feet, or 60,000 square feet, and the rate of licence payable thereon varies according to the period for which the claim is held.

In the regulations published by the High Commissioner under the provisions of the Proclamation, "Mining Title" is defined as:—

(*a*) Claims for which a certificate of registration has been issued by the Registrar of Deeds.

(*b*) Mineral concession (whether granted previously or subsequently to the proclamation).

(*c*) Crown grants duly registered as required by the proclamation.

A special chapter of the proclamation is devoted to prospecting and mining for diamonds. Prospecting for or winning diamonds may not take place on any private land, unless it has first been declared open for such purpose, and prospecting for or winning diamonds on Crown land or native reserves may take place only under the authority of a Crown grant.

For purposes of administration, provision is made for dividing the territory into mining districts, each district being under the control of a mining commissioner, with authority to issue prospecting permits and claim licences, and generally to supervise and administer his district in accordance with the provisions of the Proclamation.

The Crown lands comprising the districts of Ghanzi, Kgalagadi, and Chobe, excluding that portion of the game area defined by High Commissioner's Notice No. 139 of 1933 and falling within the Chobe district, were made available for public prospecting for minerals, except diamonds, as from the 5th January, 1934.

§ 15. Trade.

Imports consist chiefly of cotton blankets, articles of clothing, ploughs, iron and tin ware, and groceries. Exports consist mainly of horned cattle, small stock, hides, skins, dairy products, and wood, and, in seasons of abundant harvest, maize and kaffir-corn.

The total value of imports and exports during the years 1934 to 1938 was as follows:—

VALUE OF IMPORTS AND EXPORTS, 1934 TO 1938.

Heading.	1934.	1935.	1936.	1937.	1938.
	£	£	£	£	£
Imports—Total Value	178,674	310,562	363,270	341,536	361,316
Exports—Total Value	139,138	260,204	347,858	243,187	375,719

The Bechuanaland Protectorate is a native territory, the inhabitants of which are engaged mainly in cattle rearing. The distribution among the various tribes of improved bulls bred in camps situated in the reserves, and the restriction of cattle exportations to the Union to a certain weight of animal, contribute in different ways to the improvement of native stock. For veterinary reasons, the export of cattle to the Union is further restricted to consignments intended for approved abattoirs, and (without restriction as to weight) for export overseas, while to South West Africa and Southern Rhodesia it is absolutely prohibited. Export through Northern Rhodesia to the Belgian Congo has not been resumed since 1932, and the indications are that this market has been lost.

The sheep, goats, and pigs exported to the Union of South Africa and to the Rhodesias up to the end of 1932 commanded a fair market, but veterinary restrictions on account of foot and mouth disease caused practically a "close down" of the territory until the latter end of 1934, when certain concessions of export were again granted. Since April, 1935, when cattle export to Johannesburg was resumed, together with other cattle export to Durban for slaughter and export overseas and the export of frozen beef from the Lobatsi abattoir, the cattle export trade has resumed fairly normal conditions.

The export of hides and skins was permitted only under strict government supervision of disinfecting and storage. The same conditions applied to furs, wild animal skins, karosses, curios, etc., with the exception that these could be exported for disposal in the Union after having been in sealed containers and under government supervision for three months. In September, 1935, normal conditions were resumed. (See also § 13, para. 4, of this chapter.)

The trade in dairy products by the European settlers is promising. The exports during the last five years have been as follows:—

EXPORTS OF DAIRY PRODUCTS, 1934 TO 1938.

Year.	Butter.		Butter-fat and Cream.		Cheese.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	lb.	£	lb.	£	lb.	£
1934	423,127	31,786	*	*	11,204	628
1935	139,497	9,750	1,175	411	2,985	110
1936	214,135	11,457	9,315†	3,493	1,815	99
1937	354,120	19,859	—	—	1,080	54
1938	390,534	26,630	75	4	—	—

* Owing to foot and mouth disease position, no butter-fat or cream was exported.
† Gallons.

The opening of the Lobatsi Creamery by the Bechuanaland Cold Storage Company, Ltd., has been of much assistance to the Protectorate's dairy industry. This butter factory is rapidly going ahead and is an asset to both the operating company and the Protectorate. A second creamery was erected at Francistown during 1932 and serves the needs of the northern part of the territory.

The following table shows the quantity and value of maize, maize meal, and kaffir-corn imported and exported for a series of years:—

IMPORT AND EXPORT OF MAIZE, MAIZE MEAL, AND KAFFIR-CORN, 1934 TO 1938.

Year.	Maize.		Maize Meal.		Kaffir-corn.	
	Quantity. Bags (200 lb).	Value. £	Quantity. Bags (180 lb).	Value. £	Quantity. Bags (200 lb).	Value. £
(a) Import.						
1934	2,369	1,528	15,563	9,311	1,641	1,237
1935	2,592	1,267	30,472	14,330	3,436	1,673
1936	7,785	5,927	24,565	15,627	5,059	2,966
1937	2,089	1,389	23,922	14,645	7,002	3,507
1938	7,918	4,589	34,958	22,122	20,554	13,979
(b) Export.						
1934	283	139	—	—	150	64
1935	4,070	1,682	6,710	3,641	18,145	8,004
1936	3,289	1,547	10	10	32,672	21,853
1937	356	118	—	—	25,825	11,391
1938	500	125	174	126	3,530	1,981

The manufacture of what are known as "native curios" is an industry that in South Africa might be said to be peculiar to the Bechuanaland Protectorate. Animals, birds, etc., of the country are carved by the natives in a soft wood (the Monyelemycle tree) and decorated by burning with a hot iron. These are much sought after by travellers passing through the territory, the natives swarming around the trains at any stopping place for the purpose of selling them. This native trade, so attractive to railway passengers and lucrative to the natives, is allowed to continue, subject, however, to the good behaviour of the sellers on the railway lines.

For customs purposes the territory is dealt with, by agreement, as a part of the Union of South Africa, the Treasury of the Union paying out quarterly to the Bechuanaland Protectorate a sum bearing to the total customs revenue of the Union in each year the same proportion as the average amount of the customs revenue of the territory for the three completed financial years last preceding the taking effect of the *South Africa Act*, 1909, bore to the average amount of the whole customs revenue for all the colonies and territories included in the Union received during the same period. That proportion is 0·27622 per cent. of the total customs revenue of the Union. The territory collects its own customs duties on spirits and beer manufactured in the Union of South Africa, or in any British protectorate or possession in South Africa, the Government of which has entered into a customs agreement with the Union. An agreement on the same lines has been entered into with the Government of Southern Rhodesia.

§ 16. Railways and Roads.

1. **Railway Construction.**—On 3rd August, 1894, an agreement was entered into between the High Commissioner for South Africa as Governor of British Bechuanaland, the British South Africa Company, and the Bechuanaland Railway Company (now Rhodesia Railways, Ltd.), for the construction and working of a railway by the railway company, from Vryburg in British Bechuanaland to Palapye in the Bechuanaland Protectorate. This agreement was later supplemented by an amending agreement between the same parties. These two documents form the schedule to Proclamation No. 227 of British Bechuanaland.

The railway line from Vryburg to Ramathlabama—upon the southern boundary of the Bechuanaland Protectorate—having been constructed under the provisions of the abovementioned proclamation, the Bechuanaland Railway Company was authorized and empowered by a proclamation dated the 23rd November, 1896, to construct, equip, maintain, and work, subject to the provisions thereof and to the terms of the two agreements alluded to, a line of railway from the southern boundary of the territory to a point at or near Palapye, and, for that purpose, to enter upon and take possession of land of a uniform width throughout of one hundred yards, and such land in addition as might be required for all junctions, sidings, and stations, and for all other works and approaches.

The extension of this line by the Bechuanaland Railway Company to the northern boundary of the Bechuanaland Protectorate was authorized by a subsequent proclamation; and in view of the Matabele and Mashona rebellion in 1896, and the fact that in that year all ox traffic from the Cape to the north was dislocated by rinderpest, the construction was pushed on with great rapidity by the contractors, the line reaching Bulawayo on the 19th October, 1897.

2. **Railway through Tati District.**—In 1910, as the result of negotiations extending over some years, the Tati Concessions, Limited (now the Tati Company, Limited), and the Bechuanaland Railway Company (now Rhodesia Railways, Limited) entered into an agreement (see Schedule 3 to the Bechuanaland Protectorate Proclamation No. 2 of 1911), whereby the former conveyed to the latter, in addition to certain land at Francistown and subject to certain conditions, a strip of land—along the line of railway they constructed—of a uniform width of one hundred yards throughout the Tati district (now merged into the Francistown district).

3. **Length of Railway.**—The length of the railway line running through the Bechuanaland Protectorate is 394 miles, including about 70 miles through the Francistown district. The line enters the Protectorate at Ramathlabama Spruit, sixteen miles north of Mafeking and 886 miles north of Capetown, and leaves it at mileage 1,289 (about half-way between Ramaquabane Siding and Plumtree).

The Rhodesia Railways, Limited, has constructed several dams in connexion with the working of the line, viz.:—

	Capacity in Gallons.
Lobatsi	15,000,000
Metsimasuane (Notwani Siding)	45,000,000
Palapye	15,000,000
Tsessebe (Inchwe River)	12,000,000

There is no other line of railway in the Bechuanaland Protectorate.

4. **Railway Commission.**—By Proclamation No. 8 of 1927, a commission was set up to ensure that the inhabitants of the Bechuanaland Protectorate, as well as those of Southern and Northern Rhodesia, should in future enjoy the lowest possible railway rates which can be secured without impairing the economic position of the railway companies whose lines traverse those territories or disregarding reasonable obligations to the shareholders. Each of the three territories is represented on the commission.

5. **Walvis Bay Railway Survey.**—A conference of representatives of Southern Rhodesia, South West Africa, and the Bechuanaland Protectorate was held in Pretoria during September, 1930, and decided on the general route of the survey from Dett to Gobabis, with provision for the survey of a branch route from Plumtree if funds permitted. It was agreed that the three Administrations should contribute equally to the cost of the survey. In the case of the Bechuanaland Protectorate a grant of £2,000 for this purpose was obtained from the Colonial Development Fund. The survey along the line of route selected was completed in June, 1931. An economic survey of the main route was afterwards undertaken in 1931 by an agriculturist, and a geologist kindly lent by the Government of Southern Rhodesia. The reports of the surveyor in charge, the agriculturist, and the geologist were circulated to the three Administrations in October, and in general are favourable to the main project.

6. **Roads.**—The roads from railway stations and sidings to the principal villages serve for motor transport, but about fifty miles west of the railway line the tracks are very sandy and generally unsuitable for motor traffic except on a few routes, which motor lorries and the more high-powered cars are able to negotiate. The Administration, however, has set about improving the motor tracks and remedying, as far as possible, the existing primitive conditions. An all-through north to south motor road is in being, and causeways have been built over certain of the river drifts. Useful motor tracks now exist, which connect Ngamiland with the railway at Livingstone and Palapye Road, Ghanzi with Gobabis, South West Africa, and Lehututu with Lobatsi. Motor lorry transport is found to be a paying proposition on these routes.

Work was commenced during 1936 in an endeavour to make the main roads passable all the year round. With this object in view a programme of low level bridge construction was embarked upon. Bridges have been built over the Taungs River at Ramoutsa, the Metsimasuane River at Notwani, the Tshwaneng Spruit near Khale, the Metsimaclaba River near Pilane, the Metsimaclaba River on the Molepolole Road, the Mahalapye River, the Tati River, the Shashi River, the Macloutsi River near Foley, and the Bathoen Spruit 10 miles north of Lobatsi, and one has been built near Gaberones. The bridge building programme has now been completed.

A grant has been received from the Colonial Development Fund to cover a five-year programme for reconstructing the main south to north road through the territory. The class of roads to be provided under the scheme are earth roads fully drained, with gravelled construction only in places where soil conditions will not suit wet weather conditions. Up to March, 1939, 125 miles of road had been reconstructed. This figure includes work on the Serowe-Maun road.

§ 17. Posts, Telegraphs, and Telephones.

1. **Postal System.**—The administration and control of the postal department in the Protectorate is, subject to the authority of the Resident Commissioner, vested in the Postmaster-General of the Union of South Africa, and, by Proclamation No. 28 of 1916, Act No. 10 of 1911 (*The Post Office Administration and Shipping Combinations Discouragement Act*, 1911) of the Union of South Africa, was with certain exceptions, *mutatis mutandis*, applied to the Protectorate.

2. **Telegraphs and Telephones.**—The telegraph and telephone lines erected in the Protectorate, connecting the Union of South Africa with Rhodesia, are owned and worked by the Southern Rhodesia Government. They run parallel to the railway line. The only telegraph and telephone branches are from Palapye Road to Serowe, a distance of approximately 35 miles, and from Palapye Road to Macloutsie and Fort Tuli. Certain farm telephone lines are being installed in the Tati district. There is a telephone line from Pilane Siding to Mochudi Village, a distance of approximately 9 miles, and Lobatsi has recently been connected by telephone with the telephone system of the Union. Many of the surrounding farms have been connected, as well as business places and private houses in and near Lobatsi. The Mochudi-Pilane and Lobatsi telephone lines are controlled by the Postmaster-General of the Union, at Pretoria. During the year 1935, a telephone line between Gaberones Station and Gaberones village was completed.

The rate for telegrams exchanged between the Bechuanaland Proteetorate and other parts of South Africa is 2d. per word; to Northern Rhodesia it is 3d. per word. Within the territory the rate is one shilling for the first twelve words and a penny for every additional word.

The *Electric Telegraph Acts* of the Cape of Good Hope, Nos. 20 of 1861, 5 of 1862, 4 of 1877, and 41 of 1882, are still in force in the Bechuanaland Protectorate, *mutatis mutandis*. Sections 80 to 92 of Act No. 10 of 1911, which refer to telegraphs and telephones, expressly excluded when that Act was put into force, were applied by Proclamation No. 23 of 1928.

3. **Wireless.**—No person may establish or use any apparatus or installation for the transmission or reception of messages or other communications by means of electrical energy without the aid of wires, without having previously obtained a licence for these purposes, *vide* Proclamation No. 10 of 1927, as amended.

In 1936 two Government wireless stations were erected in the Protectorate, one being at Mafeking and the other at Maun. The Mafeking station operates on a wave-length of 50·84 metres, and a frequency of 5,900 kilocycles, with an output of 200 watts. The Maun station operates on approximately the same wavelength and frequency, but has an output of only 40 watts. During 1937 additional wireless stations were erected at Ghanzi, Tsabon, and Gaberones.

In 1938, two private wireless stations were erected in the Protectorate for the Witwatersrand Native Labour Association, one being at Francistown, and the other at Kazungula. Both these stations are of 40-watt output.

Telegrams are relayed by wireless, and at present no additional charge is made for this service.

4. **Statistics.**—The following table gives particulars of postal transactions for a series of years:—

POSTAL STATISTICS, 1933-34 TO 1937-38.

Heading.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Post Offices and Agencies..No.	24	24	24	23	24
Postal Orders—					
Issued.....No.	13,992	14,515	16,903	19,665	20,303
£	4,875	4,992	6,027	7,562	8,089
Paid.....No.	3,878	4,860	5,255	5,236	6,970
£	1,968	2,470	2,231	2,580	3,082
Money Orders—					
Issued.....No.	1,106	1,392	1,589	1,154	1,187
£	8,536	8,644	9,783	6,736	7,429
Paid.....No.	137	247	321	217	245
£	821	1,348	1,733	1,701	1,617
Savings Bank—					
Deposits.....No.	757	927	1,234	1,572	1,786
£	4,033	4,950	7,028	9,355	9,836
Withdrawals.....No.	396	469	563	675	925
£	2,061	2,312	3,210	4,693	5,887
Telegrams—					
Forwarded.....No.	12,676	13,071	18,537	22,129	21,614
Received.....No.	10,505	11,385	15,901	17,929	18,741

5. **Agricultural Parcel Post Service.**—This service was inaugurated between the Bechuanaland Protectorate (with the exception of Maun, Kasane, and Ghanzi) and the Union of South Africa in 1925, and with Southern Rhodesia in 1927, at rates very similar to those obtaining in both the latter countries.

§ 18. Finance.

1. **Revenue and Expenditure.**—There is no public debt in the Bechuanaland Protectorate. The excess of expenditure over revenue is met by Imperial grants-in-aid.

The revenue receipts under the various heads are given below for six financial years.

REVENUE, 1932-33 TO 1937-38.

Description.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
	£	£	£	£	£	£
Customs and Excise.....	27,899	29,100	33,752	36,295	38,772	40,859
Native Tax.....	26,027	9,624	22,703	33,693	30,181	38,902
Licences.....	6,244	5,102	5,942	7,878	9,017	9,660
Revenue Stamps.....	670	646	700	887	1,203	1,168
Posts and Telegraphs.....	18,470	18,031	18,630	19,255	15,316	30,451
Rentals and Transfer Duty.....	551	628	550	751	782	608
Judicial Fines.....	687	474	334	735	982	804
Miscellaneous.....	2,958	1,995	2,642	4,716	6,031	8,738
B.P. Native Fund Contributions	1,000	—	—	—	—	—
Income Tax.....	2,245	2,432	17,462	24,904	34,140	40,352
Poll Tax.....	1,996	1,234	1,510	1,467	1,405	1,690
Interest.....	1,157	1,028	146	—	—	—
Extraordinary Revenue.....	4,630	1,902	—	400	—	—
Deductions from Salaries and Allowances.....	3,322	3,326	2,138	1,744	—	—
Fees for Veterinary Services....	1,945	220	—	—	—	—
Mining Revenue.....	2,502	2,529	2,764	15	6	1,506
Gold Premium Tax.....	—	—	—	173	2,887	2,582
Timber Royalties.....	—	—	—	—	2,212	1,402
TOTAL.....£	102,303	78,271	109,273	132,913	142,934	178,722

The subjoined table gives the expenditure under the various heads for six financial years.

EXPENDITURE, 1932-33 TO 1937-38.

Description.	1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
	£	£	£	£	£	£
Pensions	11,019	12,321	12,141	17,397	15,944	15,282
Resident Commissioner	12,634	13,072	13,994	13,207	13,645	13,804
Administration of Justice	5,461	5,358	5,802	6,591	6,644	7,144
District Administration	12,551	12,258	13,794	15,350	16,877	17,074
Posts and Telegraphs	5,810	5,769	5,486	5,736	5,712	7,428
Police	29,263	31,963	29,782	29,922	30,608	29,957
Miscellaneous	8,701	32,599	10,410	7,612	6,906	10,462
Public Works Recurrent	5,838	6,699	8,335	10,823	11,329	13,505
Public Works Extraordinary	6,067	—	—	—	—	—
Medical	12,186	12,898	14,215	16,321	20,122	22,752
Education	4,443	7,572	4,669	5,668	6,006	7,253
Veterinary	23,065	14,134	16,175	21,928	15,978	19,046
Native Tax Commission, etc.	—	—	—	—	—	—
Capital Works	—	—	—	—	—	—
Allowances to Chiefs	2,920	1,863	3,195	3,664	4,468	3,569
Public Works Department	2,872	3,070	3,628	4,694	5,145	6,575
Extraordinary Expenditure	—	27,683	42,081	51,099	42,280	29,008
Air Service	—	—	—	11	—	338
Agriculture	—	—	—	—	6,607	7,504
Wireless Communications	—	—	—	—	1,450	—
Refund of Revenue	—	—	—	—	—	96
TOTAL.....£	142,830	187,264	183,707	210,113	209,721	210,797

2. **Native Tax.**—The Native Tax, the amount of which is determined each year, was £1 for 1937-38 and 1938-39, but was raised to £1. 2s. for 1939-40, the tax year runs from 1st April to 31st March.

Tax is payable by every male native, who on the 1st July in any year is of the apparent age of eighteen. If the native has more than one wife, £1 is payable in respect of each additional wife, provided always that a native shall not be liable to pay more than £3 in any one year in respect of himself and his wives. There is also in operation in each reserve a tribal levy payable annually for the benefit of the Tribal Treasuries. A new Native Treasury scheme, conferring greater responsibilities on the Tribal Treasuries, came into operation in 1938. The Resident Commissioner may appoint any chief as collector of tax within any area. An amount equal to ten per cent. of the value of tax collected in respect of the current year, five per cent. in respect of arrear tax paid in before the 31st October, and five per cent. of all tax paid thereafter, whether in respect of current or arrear tax, may be paid to such chiefs in consideration of the services rendered in the collection of the tax. Outside the native reserves the tax is collected by officers appointed for that purpose by the Resident Commissioner.

3. **Stamp and Licence Duties and Fees.**—By Proclamation No. 14 of 1897, dated 30th September, 1897, as amended by Proclamation No. 23 of 1914, the undermentioned Acts of the Cape Colony, with regard to stamp and licence duties, were specially declared in force in the Protectorate, with certain modifications, in so far as they were at that date in force within the said Colony, and in so far as they were not inconsistent with or repugnant to any laws in force in the territory, namely:—

Act No. 3 of 1864.	Act No. 20 of 1884.
Act No. 13 of 1870.	Act No. 13 of 1886.
Act No. 15 of 1877.	Act No. 38 of 1887.

The following tariffs of fees have been applied to the Protectorate by proclamation:—

In the office of the Master of the Resident Commissioner's Court, see Fourth Schedule to Proclamation No. 33 of 1934 as amended by Proclamation No. 36 of 1934.

In the court of the Resident Commissioner and in courts of District Commissioners, see High Commissioner's Notice No. 105 of 1934.

The following fees are also payable:—

	£	s.	d.
For registration of a brand		10	0
For registration of a co-operative society	1	0	0
For registration of a marriage		2	6
For copy of a marriage certificate		2	6

	£	s.	d.
For registration of a patent—			
On filing application for registration of patent		10	0
On registration of patent	1	0	0
Renewal fees—			
Before the expiration of three years, reckoned from the date of registration of patent in the Bechuanaland Protectorate	2	0	0
Before the expiration of seven years, similarly reckoned	3	0	0
Before the expiration of ten years, similarly reckoned	5	0	0
(*Note.*—Any or all of the payments for renewals may be made in one sum.)			
On registration of any assignment, amendment, extension, or licence		10	0
On enlargement of time for payment of renewal fees—			
Not exceeding one month	1	0	0
Not exceeding two months	2	0	0
Not exceeding three months	3	0	0
For registration of a trade mark—			
On filing application for registration of trade mark		10	0
On registration of trade mark	1	0	0
Renewal fees—			
As and when and as often as renewal of registration is necessary in the Union of South Africa	1	0	0
On registration of any assignment, amendment, addition, or alteration		10	0
For a passport		15	0
For renewal of a passport, for each year renewed		2	0
For endorsement of a passport (except for British Empire journeys)		2	0
For visa of a passport		varies.	

The following is the scale of licences in operation in the Protectorate. These licences are issued for calendar years, unless otherwise stated.

BECHUANALAND PROTECTORATE LICENCES.

(i) TRADING LICENCES.

Description of Licence.	Whole Year. £ s. d.	Half-Year. £ s. d.	Remarks.
Agent of a foreign firm	10 0 0	5 0 0	—
Assurance company, society, or association (fire, accident, or life)	—	—	£5 first year, 3d. per £1 of premium received in the territory for second and subsequent years; minimum, £5; maximum, £30.
Auctioneer	10 0 0	5 0 0	—
Baker	5 0 0	2 10 0	—
Bank	—	—	For every £100 of its paid-up capital, ¼d.
Broker	5 0 0	2 10 0	—
Butcher	5 0 0	2 10 0	—
Cigarettes (manufactured or for sale)	1 0 0	—	1st April in one year to 31st March in the next.
Commercial traveller	5 0 0	—	—
Dealer (non-importer)	3 0 0	—	—
Dealer (importer)	10 0 0	5 0 0	—
Dealer in aerated waters, cigars, and tobacco	1 10 0	0 15 0	—
Dealer in unwrought precious metal	25 0 0	—	£8 per quarter.
Dealer in diamonds	30 0 0	—	—
Dealer in explosives (dynamite, gelatine, detonators, and fuse)	2 0 0	—	—
Game (to sell or export for sale)	2 0 0	1 0 0	—
Gunpowder	5 0 0	2 10 0	—
Hawker	—	—	£5 for three months or less, for each vehicle.
Importer	12 0 0	—	—
Insurance agent	5 0 0	—	—
Labour agent	25 0 0	12 10 0	See § 9 above.

(i) TRADING LICENCES—(*continued*).

Description of Licence.	Whole Year.	Half-Year.	Remarks.
	£ s. d.	£ s. d.	
Joint stock company	—	—	1s. on every £100 of the subscribed capital.
Manufacturer	10 0 0	5 0 0	—
Ostrich feather buyer	5 0 0	2 10 0	—
Pawnbroker	10 0 0	5 0 0	—
Railway administration or company (refreshment cars)	60 0 0	—	—
Restaurant, refreshment room, and tea-room keeper	5 0 0	2 10 0	—
Trader (from fixed stand)	Minimum, 15 0 0 Maximum, 50 0 0	Minimum, 7 10 0 Maximum, 25 0 0	On aggregate amount of sales during preceding year. As to trading in native reserves, see first paragraph of § 12.
Stock Buyer—			
Including purchase for export	25 0 0	12 10 0	See § 13.
Excluding purchase for export	20 0 0	10 0 0	—
Wine and spirits :—			
Wholesale	30 0 0	15 0 0	—
Retail	35 0 0	17 10 0	—
Midnight privilege	5 0 0	2 10 0	—
Temporary	—	—	10s. per diem.

(ii) MOTOR VEHICLE LICENCES.

	£ s. d.
For a motor cycle without side-car	15 0
For a motor cycle with side-car	1 2 6
For a motor vehicle other than a motor cycle—	
weighing 1,500 lb. or under	2 5 0
weighing over 1,500 lb. and not exceeding 2,500 lb.	3 0 0
weighing over 2,500 lb. and not exceeding 4,000 lb.	4 10 0
weighing over 4,000 lb. and not exceeding 6,000 lb.	7 10 0
weighing over 6,000 lb. and not exceeding 8,000 lb.	15 0 0
weighing over 8,000 lb. and not exceeding 9,000 lb.	22 10 0
weighing over 9,000 lb.	27 10 0

N.B.—The above motor vehicle taxes are reduced by one-quarter if paid between 1st April and 30th June, by one-half if paid between 1st July and 30th September, and by three-quarters if paid between 1st October and 31st December.

	£ s. d.
Transfer of motor car licence	10 0
Transfer of motor cycle licence	2 6
Transfer of licence, where car has been destroyed, to new motor car	10 0
Duplicate of registration certificate or of motor vehicle licence	2 6
Driver's licence—	
Motor car	1 0 0
Motor cycle	10 0
Temporary learner's licence (available for 1 month)—	
Motor car	5 0
Motor cycle	2 6
Fee payable to examiner for competency certificate, deducted from licence fees—	
Motor car	5 0
Motor cycle	2 6

NOTE.—The owner of any motor vehicle, who holds an unexpired licence or licences entitling him to drive such vehicle within any province of the Union, the Mandated Territory of South West Africa, or any part of Southern or Northern Rhodesia, Basutoland, or Swaziland, may drive such vehicle (otherwise than for hire) in the Bechuanaland Protectorate for a continuous period not exceeding three months, if on public business for 6 months, in any calendar year without registering the same or obtaining a motor vehicle or a driver's licence in the Bechuanaland Protectorate, but he must submit such licence or licences to the first district commissioner of the Bechuanaland Protectorate on his route for endorsement.

(iii) OTHER LICENCES.

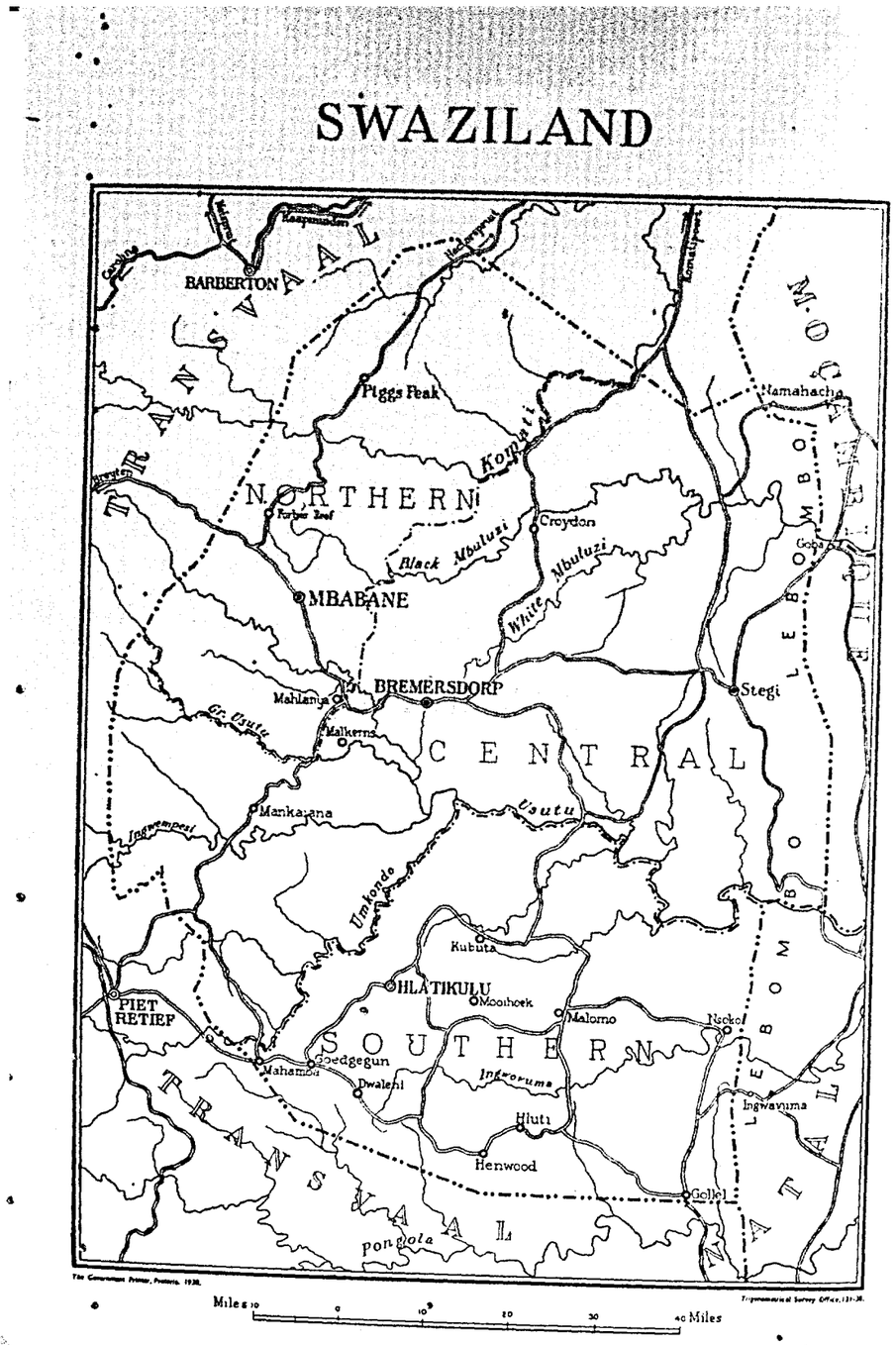
	£ s. d.
Certificate of Admission to Practice—	
As an advocate	20 0 0
As an attorney	20 0 0
As a notary public	12 10 0
As a conveyancer	12 10 0
As a medical practitioner	5 0 0
As an apothecary, chemist, and druggist	2 10 0
As a dentist	2 10 0
As a nurse or midwife	1 0 0
Game (to carry or use a gun)—	
Residents	1 0 0
Non-residents	2 0 0
Marriage, special	5 0 0

Radio Licences:	£ s. d.	
1. For a licence to deal with radio telegrams	5 0 0	per annum
2. For a radio experimenter's licence	1 0 0	,,
3. For a broadcasting licence	5 0 0	,,
4. For a listener's licence the charges vary in accordance with the distance from the broadcasting station and the class of listening-in licence, e.g.:		
Private residence and boarding establishment	£1 to £3. 5s.	per annum
Cafés and restaurants	£2. 15s. to £4. 5s.	per annum
Hotels and licensed clubs	£3. 15s. to £5. 5s.	per annum
Public entertainments	£3. 15s. per annum to £5. 5s.	per mensem

4. **Currency.**—Under the provisions of Proclamations Nos. 54 of 1932 and 3 of 1933, notes of the South African Reserve Bank and silver and copper coin of the Union circulate and are accepted as legal tender in the Bechuanaland Protectorate in the same manner as in the Union. Silver coin of H.M. Royal Mint in England was withdrawn from circulation within the territory as from the 16th January, 1933.

5. **Banking.**—There is no bank in the territory.

SWAZILAND.



CHAPTER III.

SWAZILAND.

§ 1. History.*

The Swazis are akin to the Zulu and other tribes of the south-eastern littoral. Up to about 100 years ago they occupied the country just north of the Pongolo River, but a hostile chief in their vicinity forced them farther **north, and,** under their Chief Sobhuza, they then occupied the territory now **known as** Swaziland. This chief, who died in 1839, was succeeded by Mswazi **II. The further** order of succession has been: Ludonga, Mbandini, and **Bhunu,** whose son, Sobhuza II., was installed as Paramount Chief in 1921, **after a** long minority, during which his grandmother, Labotsibeni, acted as **regent.**

The many concessions granted by Mbandini necessitated some form of **European** control, notwithstanding the fact that the independence of the Swazis **had been** guaranteed in the Conventions of 1881 and 1884, entered into between **the Government** of Her late Majesty, Queen Victoria, and the Government **of the** late South African Republic. In 1890, soon after the death of Mbandini, a provisional government was established representative of the Swazis, **the** British, and the South African Republican Governments. In 1894, under **convention** between the two European Governments, the South African Republic was given powers of protection and administration, without incorporation, and Swaziland continued to be governed under this form of control **until** the outbreak of the Boer War in 1899.

In 1902, after the conclusion of hostilities in the Transvaal, a Special Commissioner took charge, and under an Order-in-Council in 1903 the Governor of the Transvaal administered the territory, through the Special Commissioner, until the year 1907, when under an Order-in-Council (1906) the High Commissioner assumed control and established the present form of administration. Previously to this, steps had been taken for the settlement of the concessions question by the definition of the boundaries of the land concessions and their partition between the concessionaires and the natives. The boundaries of the mineral concessions were also defined, and all monopoly concessions were expropriated. Title to property is therefore now clear.

In 1912, a special court was established with an advocate of the provincial division of the Transvaal as president. The other members of the court consist of the Resident Commissioner, the Deputy Resident Commissioner, and the assistant commissioners of the various districts. The court holds sessions twice a year. All cases are dealt with by three members sitting without a jury. The court has jurisdiction in civil and criminal cases.

An elected advisory council, representative of the Europeans, was established in 1921 to advise the Administration on purely European affairs.

§ 2. Boundaries, Area, and Physical Characteristics.

1. **Boundaries and Area.**—Swaziland is bounded on the north, west, and south by the Transvaal Province, and on the east by Portuguese territory and Zululand. The area of Swaziland is 6,704·6 square miles.

2. **Physical Characteristics, Climate, etc.**—The territory is divided geographically into three longitudinal regions of roughly equal breadth, running from north to south, and known locally as the high, middle, and low or bush veld. The mountainous region on the west rises to an altitude of over 4,000 feet. The middle veld is about 2,000 feet lower, while the low veld, bounded on the east by the Lebombo Mountains, has an average height of not more than 1,000 feet.

The mountainous region, or high veld, is free from malaria, which is present in the low veld, and in a slight degree in the middle veld during some of the summer months. The first two regions are remarkably well watered. Innumerable small streams unite with the large rivers which traverse the country from west to east. Except for these the low veld is not very well watered. The climate is ideal except for a few months in

* A full history will be found in previous issues of this *Year Book* (Nos. 3 to 6).

summer, when the heat is somewhat excessive in parts. The high veld portion, however, seldom experiences any excessive heat, a spell of hot weather being almost invariably followed by cooling mists.

3. **Meteorology.**—Both the rainfall and the temperature vary considerably with the altitude of the stations. The average rainfall to the end of 1938 at two stations was:—

Mbabane (3,800 feet)	53·24	inches over 36 years.
Bremersdorp (2,175 feet)	34·41	" " 35 "

The following return shows the temperature recorded at Mbabane:—

RECORDED TEMPERATURE, MBABANE.

Year.	Mbabane.		
	Mean Max.	Mean Min.	Mean Temp.
1934	73·1	51·2	62·2
1935	72·4	49·8	61·1
1936	71·5	51·4	61·4
1937	71·8	51·8	61·8
1938	71·4	52·2	61·8

4. **Bibliography.**—The following reports relating to Swaziland are issued annually:—

Report on the Social and Economic Progress of the People of Swaziland.
Report on Education.
Medical and Sanitary Report.

§ 3. Administration.

1. **Central Administration.**—By an Order-in-Council, dated the 1st December, 1906, Swaziland was placed directly under the control of the High Commissioner for South Africa, and a Proclamation was issued in March, 1907, providing for the appointment of a Resident Commissioner, a Government Secretary, and assistant commissioners, and the establishment of a police force. In 1921 the establishment of an advisory council to advise the Administration in purely European matters was approved. A council of nine members was elected, five for the southern portion of Swaziland, and four for the northern portion. Subsequent elections took place in 1923, 1926, 1928, 1932, 1935, and 1938.

The headquarters of the Administration are at Mbabane, a small village, picturesquely situated on the hills overlooking the middle veld, at an altitude of 4,000 feet. It is reached by good roads from Ermelo, Breyten, and Carolina in the Transvaal, the last-named town being distant about ninety miles. The journey by mail-car from Breyten takes about five hours. Mbabane can also be reached from the Portuguese railhead at Goba by road through Bremersdorp, the former capital, and the journey by motor car, over a fair road, usually takes between eight and nine hours. The Railways and Harbours Administration of the Union of South Africa now runs a road motor service on the main routes in the territory, and the Portuguese East Africa Railways run a similar service from Goba to Stegi.

2. **Principal Officers of Administration.**—

Resident Commissioner: C. L. Bruton, O.B.E., B.A. (Oxon.).
Deputy Resident Commissioner: H. B. A. McCarter, O.B.E.
Government and Financial Secretary: J. R. Armstrong, O.B.E.
Assistant Government Secretary and Inspector of Mining Beacons: L. J. Puttick.
Master and Registrar of the High Court, Sheriff, Registrar of Births, Marriages, Deaths and Companies, W. W. Usher.
Principal Medical Officer: D. Drew, B.A. (Trinity, Dublin), M.B., B.Ch., B.A.O. (Dublin).
Principal Veterinary and Agricultural Officer: W. A. Elder, O.B.E., F.R.C.V.S.
Director of Public Works: J. H. Gardner, O.B.E., B.Sc., A.M.I.C.E.
Superintendent of Education: E. M. D. Glynn, M.A.
Chief of Police: Major E. D. Fenn.

3. **Local Administration.**—A proclamation was issued in 1912, constituting the township of Mbabane and empowering the High Commissioner to make general regulations for the government of townships. There is a town advisory committee, but the streets are kept in repair by the Government and no rates are charged. The sanitary organization of Mbabane is under government supervision, and householders pay a nominal amount per month for this service; the town is provided with electric light and an ample supply of water.

§ 4. Population and Vital Statistics.

1. **Population.**—The following table gives the population of Swaziland in 1911, 1921, and 1936. No censuses corresponding to the European population censuses in the Union of 1918, 1926, and 1931 were taken in Swaziland.

POPULATION, 1911, 1921, AND 1936.

Race.	1911.			1921.			1936.		
	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
European	623	460	1,083	1,239	966	2,205	1,476	1,264	2,740
Native (Bantu)	44,098	54,635	98,733	52,761	57,534	110,295	74,130*	79,140*	153,270*
Asiatic	84	59	143	7	—	7	4	—	4
Other Coloured				254	190	444	375	326	701
TOTAL	44,805	55,154	99,959	54,261	58,690	112,951	75,985	80,730	156,715

* Includes 9,561 Bantu (9,451 males and 110 females) absent at labour centres outside Swaziland.

A small percentage of the natives in southern Swaziland consists of Zulus. There are five European villages in Swaziland—Mbabane, with a European population of 220, Bremersdorp with a European population of 230, and villages which have been established in the southern district, at Hlatikulu and Goedgegun, and in the central district at Stegi. Other European centres are the government stations at Mankaiana and Pigg's Peak.

2. **Vital Statistics.**—(i) *Registration of Births, Deaths, and Marriages.*—The registration of births and deaths is provided for under Proclamation No. 22 of 1927, and the solemnization of European and native marriages is regulated by Law (Transvaal) No. 3 of 1871 and Law (Transvaal) No. 3 of 1897, which are in force in Swaziland by virtue of the *Swaziland Administration Proclamations* of 1904 and 1907. The registration of native births, deaths, and marriages (other than marriages under European law) is not yet enforced.

(ii) *Births, Deaths, and Marriages Registered.*—The total number of births, deaths, and marriages registered during a period of years is shown in the following table:—

BIRTHS, DEATHS, AND MARRIAGES REGISTERED, 1934 TO 1938.

Year.	Europeans.		Marriages.	
	Births.	Deaths.	European.	Non-European.
1934	78	20	26	176
1935	55	19	18	174
1936	55	26	21	217
1937	42	25	19	193
1938	54	21	17	216

3. **Health.**—Swaziland varies in altitude from about 4,000 feet on its western border to about 400 feet near the eastern border, and consequently all kinds of climate are represented, from that of the Transvaal high veld to almost tropical low veld. While the former is one of the healthiest portions of South Africa, in the low veld on the eastern side there is a good deal of malaria in the hot season, and some dysentery. Both, however, are easily avoided by taking the precautions ordinarily considered necessary in any sub-tropical country, and quite a number of white men lead healthy lives in the very middle of the low veld. The natives, on the whole, are of good physique and suffer little from epidemic diseases. The medical service consists of four government doctors, with three hospital assistants and three mission doctors.

Statistics of government hospitals for the years 1934 to 1938 are as follows:—

HOSPITALS, 1934 TO 1938.

Heading.	1934.	1935.	1936.	1937.	1938.
Institutions.					
Hospitals	2	2	2	2	2
No. of Beds	59	61	65*	75	75
Staff.					
Medical	2	2	3	3	3
Dispensers	3	3	3	3	3
Nursing—					
European	3	4	6	7	7
Other	12	12	20	21	22
Other—					
Non-European	7	7	13	21	21
Patients.					
Natives only—					
In-patients	1,028	1,260	1,635	1,865	1,604
Out-patients	15,520	16,828	18,392	19,943	12,703

* Amended figure.

§ 5. Educational Organization and Social Condition.

1. **Education.**—(i) *Native Education.*—Education is mainly in the hands of the different mission societies, which in 1938 had 278 schools under their supervision. Of these schools 104 were in receipt of government assistance and 174 were entirely supported and controlled by the missions. The aided schools are visited by native supervisors, of whom there were four on the staff of the Education Department during 1938. In almost all these schools the teaching does not proceed further than the second or third standard. In a few schools the teaching extends as far as the sixth standard.

In addition there are three government schools for natives, which are under the supervision of a European principal. These schools are under the control of a school board, through which the principal is directly responsible to the Resident Commissioner in all matters concerning the general administration of the schools. The National schools are financed out of the Swazi National Fund, which was created with the concurrence of the Swazi chiefs for purposes of direct benefit to the natives. Each native taxpayer is required by law to pay 2s. per annum to the fund, the expenditure from which is under the control of the Government. The closest association exists between these schools and the Paramount Chief and Mnukwazi the Chieftainess, in the immediate neighbourhood of whose kraals the schools are situated. At the largest of the three schools facilities exist for industrial and agricultural training, as well as for the ordinary academic course up to the Junior Certificate examination.

As yet schools have no great hold on the communities they serve, and the attendance of children is generally both irregular and difficult to secure. It is, however, reassuring to note a growing interest in education.

(ii) *European Education.*—Education for European children is compulsory up to Standard V or the age of 15 years. Primary education is free and is provided by nine schools, eight government and one government-aided. These schools are situated in the towns and more thickly populated rural areas of the country. A full secondary education is provided at St. Mark's School, Mbabane, and the government school at Goedgegun takes children as far as the Junior Certificate examination. An agricultural section has been developed at Goedgegun, where there are excellent opportunities for this type of work. Boarding bursaries at the rate of 4s. per child per week are paid by the Government for all white pupils whose parents are in poor circumstances, and who reside three miles or more from school.

The following tables give the available statistical information regarding schools for Europeans and natives for the years 1934 to 1938:—

EDUCATION, 1934 TO 1938.

Heading.	1934.	1935.	1936.	1937.	1938.
(*a*) TOTAL EXPENDITURE.					
Administration and Inspection	£ *	£ *	£ *	£ *	£ 1,570
Schools for Europeans	6,894	5,740	6,046	6,887	6,093
Schools for Coloured	386	342	390	557	496
Schools for Natives—					
(*a*) General Revenue	3,367	3,520	4,070	4,543	3,828
(*b*) Swazi National Fund	2,288	2,637	2,993	2,976	3,319
TOTAL EXPENDITURE £	12,935	12,239	13,499	14,963	15,306
(*b*) GOVERNMENT AND GOVERNMENT-AIDED SCHOOLS FOR EUROPEANS.					
Schools—					
Primary†	10	10	8	9	9
Scholars	506	436	399	354	371
Teachers—					
Male	13	13	12	12	13
Female	14	12	11	12	10
(*c*) GOVERNMENT SCHOOLS FOR NATIVES.					
Schools	3	3	3	3	3
Scholars	213	210	323	447	412
Teachers—					
European, Male	1	2	2	2	2
Non-European—					
Male	6	6	6	9	9
Female	5	5	5	5	5
(*d*) GOVERNMENT-AIDED MISSION SCHOOLS FOR NATIVES.					
Schools	104	107	104	104	104
Scholars	4,444	4,265	4,673	4,628	4,787
Teachers, Male and Female	138	142	138	136	141
(*e*) MISSION SCHOOLS FOR NATIVES.					
Schools	147	195	183	171	171
Scholars	3,289	3,903	4,646	3,745	3,577
Teachers—					
Male	*	*	*	20	23
Female	*	*	*	188	187

* Not available.
† Two with secondary departments.

2. **Churches and Missionary Activities.**—There are twenty-three religious bodies carrying on work in Swaziland, as follows:—

Church of England.
Wesleyan Methodist.
Dutch Reformed Church.
S.A. Reformed Church.
Gereformeerde Kerk.
South African General Mission.
Roman Catholic.
Church of the Nazarene.
International Holiness Union.
Pilgrim's Holiness.
Berlin Lutheran.
Lebombo Pentecostal.
Evangelic Lutheran.
African Methodist Episcopalian.
Independent Methodist.
Full Gospel Mission of Norway.
Christian Catholic Apostolic Church of Zion.
Scandinavian Alliance Mission.
Swedish Mission.
Norway's Free Evangelical Mission to the Heathen.
Seventh Day Adventist.
African Congregational.
Apostolic Faith.

As far as possible, the native missions avoid encroaching on each other's spheres of work. Religious instruction is given by the different bodies at about 416 different centres, where the average attendance during 1937 was 36,270. The Church of England and the Roman Catholic Church also have churches at Mbabane and Bremersdorp.

3. **Labour.**—There is a fair local demand for native agricultural and mine labourers, and about 750 natives are employed by the tin mining companies working in Swaziland. In 1938 the Havelock Asbestos Mine employed 1,555 natives. The country has not, however, advanced sufficiently to absorb all the native labour available, and consequently the Swazis go out freely to work on the Transvaal mines, where the demand for their labour increases every year. There are about 7,000 Swazis in constant employment on the mines in the Transvaal. The recruiting of labour is under the control of the Native Recruiting Corporation, which has agents in the various districts. Many of the natives, however, go out to seek work of their own accord.

The following are the statistics for the years 1934 to 1938 of passes issued to Swaziland natives to proceed to the Union for the purposes of labour or visiting:—

PASSES ISSUED TO NATIVES, 1934 TO 1938.

Year.	Recruited for Witwatersrand Mines.	Seeking work.	Visiting.	Total.
1934	6,907	6,752		13,659
1935	8,459	4,504	3,582	16,545
1936	9,984	5,769	4,266	20,019
1937	6,840	3,325	3,244	13,409
1938	8,030	2,515	3,401	13,946

§ 6. Administration of Justice.

1. **Superior Courts.**—By the *Swaziland Administration Proclamation*, 1907, a Court of Resident Commissioner with all the powers of a superior court was established. The laws of the Transvaal then in force in Swaziland were re-enacted, *mutatis mutandis*, and the Roman-Dutch Common Law was declared to be in force. In 1912 this Proclamation was amended, and a Special Court was substituted for the Resident Commissioner's Court, with an advocate of the provincial division of the Transvaal as president. The other members of this court consist of the Resident Commissioner, the Deputy Resident Commissioner, and the assistant commissioners of the various districts. The court holds sessions at least twice a year and all cases which come before it are dealt with by three members, sitting without a jury. It has jurisdiction in all civil and criminal cases arising, or which shall have arisen, in Swaziland, including the right of reviewing the proceedings of and hearing appeals from any inferior court of justice in Swaziland. When the court is not in session—

(*a*) the president of the special court has power to review the criminal proceedings of the courts of assistant commissioner when the sentence exceeds three months' imprisonment, or a fine of £25, or any sentence of whipping, and to hear appeals in all civil and criminal cases against any judgment, sentence, or final order of the courts of assistant commissioner;

(*b*) the Resident Commissioner or the Deputy Resident Commissioner, as a member of the Special Court, is competent to exercise the civil jurisdiction of the Special Court in all motions and applications and in all actions for provisional sentence, and in all cases in which all parties apply to have the case tried before the Resident Commissioner. In any case, other than a review of criminal proceedings, there is a right of appeal to the full court.

Death sentences may be carried out only upon the special warrant of the High Commissioner. There is a right of appeal to the Privy Council against any final judgment of the Special Court, where the matter in dispute is of the value of £500 or upwards.

2. **Lower Courts.**—Under the *Swaziland Administration Proclamation*, 1907, the High Commissioner appointed courts of assistant commissioners with jurisdiction in all civil proceedings in which neither party is a white person, and in criminal proceedings in which the accused is not a white person. These courts have no jurisdiction to try, summarily any persons charged with treason, murder, attempt to murder, culpable homicide, rape, attempt to commit rape, or sedition; and in these cases and in other serious cases, preparatory

examinations are taken under the *Criminal Procedure Code*, 1903, of the Transvaal, which is in force in Swaziland. The jurisdiction of courts of assistant commissioners as regards white persons, in both civil and criminal matters, is the same as was conferred on courts of magistrates in the Transvaal at that time.

3. **Native Courts.**—Under the above-mentioned Proclamation, the Paramount Chief and other native chiefs of Swaziland are authorized to continue to exercise jurisdiction according to native law and custom in all civil disputes in which natives only are concerned. An appeal lies from the decision of any such chief to the Resident Commissioner, whose decision is final.

4. **Police.**—A police force, known as the Swaziland Police, has been established under the command of a Chief of Police. In 1938 the strength of the force was:—European: 1 officer, 24 non-commissioned officers and men; Native: 109 non-commissioned officers and men.

5. **Prisons.**—The Swaziland Prisons Department in 1938 consisted of 3 European gaolers, 37 native warders, and 1 native wardress.

6. **Crime Statistics.**—The following tables show the number of convictions for criminal offences during a series of years:—

CONVICTIONS FOR CRIMINAL OFFENCES, 1934 TO 1938.

Description.	1934.	1935.	1936.	1937.	1938.
(*a*) INFERIOR COURTS.					
Offences against the Person	622	752	782	927	1,368
Offences against Property	410	659	591	654	691
Tax and Pass Laws, etc.	1,829	2,331	1,761	1,494	1,655
Other Offences	1,001	1,100	653	1,198	1,767
TOTAL	3,862	4,842	3,787	4,273	5,481
(*b*) SUPERIOR COURTS.					
Homicide	16	8	12	12*	21
Other Offences against the Person	4	3	3	7*	8
Offences against Property	9	3	3	2*	—
Other Offences	5	1	—	1*	—
TOTAL	34	15	18	22*	29

* Amended figure.

§ 7. Organization for Defence or War.

In addition to the police force constituted as stated previously, in each of the four districts of Swaziland there is a rifle club, every member of which holds a government rifle and ammunition. An undertaking is signed by the members: "in case of emergency to respond in person . . . to any call in defence of life or property in Swaziland, or the preservation of order therein, when called upon by the Resident Commissioner or his lawful deputy." There are about 350 members belonging to these rifle clubs, and most of them could be mobilized as a mounted force.

§ 8. Land Settlement.

For information relating to the grant of land, mineral, grazing, and other concessions reference should be made to *Official Year Book* No. 6. The present owners of land derive their titles from the original concessions granted by the Swazi kings, and provision exists whereby these titles, if granted in respect of periods of ninety-nine years or over, may be converted into freehold grants. As a result of the conversion into freehold of long term concessions and the expiry of short term concessions, Swaziland title is gradually being reduced to freehold tenure, though the holders of Perpetual Land Concessions show no tendency to avail themselves of the provisions for conversion. The original titles were inquired into by the Chief Court of Swaziland in 1890, and most of the concessions were confirmed. These concessions were duly registered in the books of the Swazi nation by their agent and adviser,

the late Mr. T. Shepstone, C.M.G., and registration has been continued in the Swaziland Deeds Office, which is under the charge of the Registrar of Deeds for the Transvaal at Pretoria.

The boundaries of concessions were determined, in terms of the *Swaziland Administration Proclamation* of 1904, by the Swaziland Concessions Commission, which also determined how far any concession is registrable as a servitude or lease against another concession. Land survey and tenure and occupation and registration of land are based on the same principles as those in the Transvaal. The Surveyor-General of the Transvaal acts in a similar capacity for Swaziland. The relative statutes governing Swaziland title and survey are, however, not Union statutes, but the *Transvaal Deeds Office Proclamation* of 1902, as amended, the Z.A.R. *Survey Law* of 1891, as amended, and various Proclamations issued by the High Commissioner for South Africa.

The following tables give particulars of deeds registrations in Swaziland during a period of years:—

(i) SWAZILAND DEEDS REGISTRY, PRETORIA.—DEEDS REGISTERED, 1934 TO 1938.

Description.	1934.	1935.	1936.	1937.	1938.
(*a*) NUMBER.					
Deeds of Transfer	155	91	73	147	96
Crown Grants	45	50	26	21	47
Bonds passed	46	32	30	30	43
Bonds cancelled and part payments	49	36	9	38	41
Cessions of Bonds	7*	6*	6*	3*	3*
Releases from Bonds	4	2	1	4	—
Cessions of Concession Title	39	30	17	28	22
Antenuptial Contracts	12	4	4	9	2
Leases	2	—	—	7	4
Powers of Attorney	10	—	—	8	13
Substitution of Liability under Bonds	—	—	—	1	1
Agricultural Loans under Section 12, Proclamation No. 34 of 1929	4	1	3	—	2
Cancellations under Section 12, Proclamation No. 34 of 1929	2	3	3	—	—
Part Payment under Section 12, Proclamation No. 34 of 1929	—	1	—	—	—
Releases under Section 12, Proclamation No. 34 of 1929	—	1	1	—	—
Substitution of Bonds	—	7	—	—	—
(*b*) VALUE.					
Deeds of Transfer—	£	£	£	£	£
Urban Property	4,287	4,301	1,561	7,554	2,772
Rural Property	39,421	17,143	34,478	34,803	70,357
Crown Grants—					
Urban Property	330	206	146	60	193
Rural Property	5,776	1,095	538	933	2,060
Bonds passed	45,131	22,426	14,319	47,315	40,920
Bonds cancelled and part payments	47,205	20,824	6,096	23,814	41,445
Cessions of Bonds	16,800*	3,047*	6,632*	4,000*	1,689*
Releases from Bonds	8,208	915	5,700	—	—
Cessions of Concession Title	11,098	5,365	5,395	10,402	13,395
Leases	2,500	—	—	3,016	4,235
Substitution of Liability under Bonds	—	—	—	800	550
Agricultural Loans under Section 12, Proclamation No. 34 of 1929	430	60	398	—	—
Cancellations under Section 12, Proclamation No. 34 of 1929	380	60	510	—	785
Part Payment under Section 12, Proclamation No. 34 of 1929	—	60	—	—	—
Substitution of Bonds	—	13,658	—	—	—

* Including cancellation of cessions of bonds.

The area of Crown land (both unencumbered and encumbered) which has so far been alienated amounts to 438,733 morgen; while there are 74,123 morgen (unencumbered) and 24,157 morgen (encumbered) of Crown land not yet alienated.

(ii) SWAZILAND DEEDS REGISTRY, PRETORIA.—WORK PERFORMED, TRANSFER DUTY AND STAMP DUTY, AND OTHER FEES COLLECTED, 1938.

Nature of Deeds Registered.	Number Registered.	Value.	Transfer Duty.	Stamp Duty.	Fees of Office.
		£	£	£	£ s. d.
Crown Grants	47	2,253	147	—	47 0 0
Transfers	96	73,129	1,533	191	144 0 0
Mortgage Bonds (including Notarial)	43	40,920	—	63	64 10 0
Cessions of Bonds*	3	1,689	—	2	1 2 6
Cancellation of Bonds and part payments	41	41,445	—	—	15 7 6
Releases from Bonds	—	—	—	—	—
Cessions of Concessions	22	13,394	323	—	5 10 0
Antenuptial Contracts	2	—	—	—	0 10 0
General Powers of Attorney	13	—	—	5	3 5 0
Substitution of Liability under Bonds	1	550	—	—	1 0 0
Servitudes, Leases, etc.	4	4,235	127	—	1 0 0
Miscellaneous Fees	—	—	—	—	4 13 6
Loans in terms of Land and Agricultural Loan Fund (Swaziland) Proclamation, No. 34 of 1929, Section 12 (1)	—	—	—	—	—
Cancellation of above Loans	2	785	—	—	0 15 0
Part Payment of above Loans	—	—	—	—	—
Release of above Loans	—	—	—	—	—
Substitution of Bonds	—	—	—	—	—
TOTAL	274	178,431	2,130	261	288 13 6

* Including cancellations of Cessions of Bonds.

NOTE.—By Proclamation No. 38 of 1931 the laws relating to stamp duty and fees in Swaziland were amended with effect from 1st October, 1932.

§ 9. Agriculture, Game, and Fish.

1. **Live Stock and Pastoral Production.**—(i) *Horses and Mules.*—Owing to the prevalence of horse-sickness, Swaziland is not a horse or mule breeding country, but both classes of animal are used extensively.

(ii) *Asses.*—A small number of asses is bred in the territory.

(iii) *Cattle.*—The export of cattle from Swaziland into the Union is prohibited, except in respect of cattle for slaughter purposes.

NUMBER OF CATTLE, HORSES, MULES, ASSES, AND PIGS, CENSUS, 1930, AND ESTIMATES, 1933 TO 1938.

Year.	Cattle.	Horses.	Asses.	Mules.	Pigs.
1930 (Census)	332,296	2,751	10,473	472	9,328
1933 (estimated)	309,754	2,399	13,543	522	6,153
1934 (estimated)	420,000	2,404	13,134	679	6,677
1935 (estimated)	406,227	2,205	14,150	550	6,843
1936 (estimated)	398,384	2,300	14,300	600	6,900
1937 (estimated)	402,970	2,400	15,000	540	6,900
1938 (estimated)	407,460	1,419	14,074	212	7,000

(iv) *Sheep and Goats.*—Approximately 250,000 sheep come into Swaziland from the Union annually for the purpose of winter grazing. The general farming of woolled sheep the year round has not been generally tried, but a few flocks kept on the hills have done well. The goats of Swaziland are of the common South African goat breed. There are no Angora goats in the country.

The estimated numbers of native-owned sheep and goats are as follows:—

1930 (Census).....	171,029	1936 (estimated).....	145,000
1933 (estimated).....	149,710	1937 (estimated).....	145,500
1934 (estimated).....	138,600	1938 (estimated).....	140,000
1935 (estimated).....	143,000		

(v) *Dairy Produce.*—A creamery was opened at Bremersdorp in October, 1937, and 26,673 lb. of butter were manufactured up to the 31st December, 1937. In 1938, the quantity of butter fat was 224,565 lb. (Europeans 100,935 lb. and Natives 123,630 lb.) valued at £11,763.

2. **Agricultural Production.**—(i) *Cultivation of Cereals.*—The summer rains begin in September and continue until March or April. The principal crop raised in the country is maize, which is grown in all parts. The chief varieties grown are: Hickory King, Iowa Silver Mine, Potchefstroom Pearl, Natal Horsetooth, Sahara, and Boesman.

Kaffir-corn is extensively grown by the natives, and wheat, oats, rye, and barley are grown to a limited extent by European farmers with facilities for irrigation.

(ii) *Fruit Cultivation.*—All classes of fruit grow well. Citrus fruits, apples, pears, peaches, apricots, plums, and strawberries grow in the high parts, citrus and all sub-tropical and tropical fruits in the middle and low parts. The government horticulturist of the Transvaal has reported very favourably on the prospects of fruit-growing, and he was especially impressed with the suitability of the climate and soil for citrus fruits and mangoes. All fruit at present produced is consumed in the territory, with the exception of small quantities of citrus which are exported overseas. Pending the construction of a railway, production will be limited for want of a market.

A few orchards of Tung trees have been planted and the prospects are very encouraging.

(iii) *Cotton.*—The cotton industry is progressing favourably. Experiments with many varieties have been carried out, and jassid-resistant cotton bred by the Empire Cotton Corporation at Barberton gives the best results.

Swaziland is believed to be essentially a cotton-producing country of the future. The rainfall, averaging from 30 to 40 inches, the absence of frosts, excepting along some of the streams, the abundance of sunshine, and the fertility of the soil supply the requisites for successful cotton production. The production of cotton in Swaziland in 1938 was practically nil.

(iv) *Tobacco.*—For the production of bright or yellow leaf, the soil, on the whole, is not suitable, though there are restricted areas which are suitable for the production of this type of leaf. The dark or heavy types of leaf are believed to be best suited to the soil conditions. In the Lebombo flats and on the Lebombo there are considerable areas which will produce good bright tobacco. A co-operative tobacco company has been formed in the Hlatikulu district, and co-operation has been declared compulsory.

The amount of tobacco produced in Swaziland during a series of years is as follows:—

PRODUCTION OF TOBACCO, 1929 TO 1938.

Year.	Quantity.	Year.	Quantity.
	lb.		lb.
1929.....	1,068,400	1934.....	374,952
1930.....	580,000	1935.....	261,794
1931.....	312,180	1936.....	187,776
1932.....	341,055	1937.....	264,000
1933.....	377,906	1938.....	322,020

(v) *Other crops.*—The growing of sugar-cane, coffee, and tea is in the experimental stage only.

3. **Forest Resources.**—The whole of the low veld is heavily bushed, and isolated forests or "bushes" exist in kloofs in the Drakensberg Range. There are no indigenous timbers in sufficient quantities to repay exploitation commercially, except for rough purposes, such as timbering mines. Gums and wattles thrive well in the mountainous parts of the west.

4. **Diseases of Animals.**—The diseases most prevalent are tick-borne diseases, i.e. East Coast fever, ordinary redwater, anaplasmosis, and heartwater. Owing to the dipping facilities in the country, none of these diseases constitutes a deterrent to ranching. There were at the end of 1938, 251 cattle dipping tanks in the territory, of which 145 are Government-owned and 106 privately owned.

(i) *East Coast Fever.*—The outbreaks of and deaths from this disease over a series of years are shown in the following table:—

OUTBREAKS OF AND DEATHS AS A RESULT OF EAST COAST FEVER, 1929 TO 1938.

Year.	Outbreaks.	Deaths.	Year.	Outbreaks.	Deaths.
1929.....	2	72	1934.....	4	174
1930.....	1	1	1935.....	14	489
1931.....	—	—	1936.....	1	383
1932.....	—	—	1937.....	4	283
1933.....	1	3	1938.....	—	73

(ii) *Ordinary Redwater, Anaplasmosis, and Heartwater.*—These diseases are also controlled by the regular dipping insisted upon.

(iii) *Blackquarter.*—This disease is on the decrease. General preventive inoculation is being introduced, and where it has already been carried out the results are excellent.

(iv) *Horse-sickness.*—The virulency of this disease depends upon the rainy season and the altitude. All horses and mules are now being immunized with vaccine prepared at the Onderstepoort Laboratory, Pretoria, Transvaal.

(v) *Anthrax.*—Outbreaks of this disease have become frequent in recent years, and all infected herds are regularly vaccinated.

5. **Game.**—The following antelope are represented in Swaziland, viz.:—

Kudu.	Reedbuck.	Red duiker.
Inyala.	Bushbuck.	Blue duiker or piti.
Roan antelope.	Mountain reedbuck.	Klipspringer.
Blue wildebeest.	Vaal rhebuck.	Steenbuck.
Waterbuck.	Oribi.	Sharpe's steenbuck.
Impala.	Duiker.	Rooi rhebuck.

From time to time a few elephant, rhinoceros, hippo, and zebra come into Swaziland from adjoining territories. Game birds are well represented and comprise a large number of species of *Francolin*, partridges and pheasants, and guinea-fowl.

6. **Fish.**—There are several varieties of freshwater fish in the rivers of Swaziland, and tiger fish are found in the Usutu, Black Mbuluzi, and Komati Rivers. In 1932 black bass were liberated in rivers near Mbabane, and are showing good results.

§ 10. Mining and Industrial Activities.

1. **General.**—Mining in Swaziland is carried out under the authority of concessions granted by the late Swazi king Mbandini. These concessions are subject to the payment of certain royalties and a profits tax.

There is a small amount of mining for alluvial tin in the vicinity of Mbabane, where it is found in payable quantities. The Crown owns several mineral areas, and a considerable portion is open for prospecting and mining. Gold mining was carried on for some years at the Pigg's Peak and other mines, and considerable quantities of gold have been recovered from the Forbes Reef and Pigg's Peak Mines on the west. Large deposits of coal exist in the low veld; but beyond prospecting operations nothing has been done to exploit these. In the north-western part of the territories a very valuable deposit of asbestos was discovered and the right was acquired by the New Amianthus Mines, Ltd. Development operations took place in 1938 and production is expected to commence in April, 1939.

2. **Mineral Production.**—The following table shows the output of tin and gold during the last five years:—

MINERAL PRODUCTION, 1934 TO 1938.

Year.	Cassiterite Tin.		Fine Gold.	
	Quantity.	Value.	Quantity.	Value.
	Long Tons.	£	Oz.	£
1934	162	37,356	379	2,608
1935	182	39,628	314	2,132
1936	183	36,351	276	1,938
1937	154	37,158	2,410	16,873
1938	174	33,129	1,246	9,035

§ 11. Trade.

1. **Regulation of Customs.**—By an agreement with the Government of the Union of South Africa, dated 29th June, 1910, Swaziland is dealt with for customs purposes as part of the Union. Payments due to Swaziland are assessed upon the basis of the average of the collections for the three years ended 31st March, 1910, calculated in relation to the total customs collections of the states now forming the Union during the same period. No statistics of imports and exports are now kept. The imports consist principally of maize, flour, groceries, wearing apparel, hardware, spirits, tobacco, and kaffir truck, while the principal export is cassiterite tin.

The revenue received by Swaziland from this source during the last five years is shown hereunder:—

	£
1933-34 (31st March, 1934)	16,175
1934-35 (31st March, 1935)	18,656
1935-36 (31st March, 1936)	19,822
1936-37 (31st March, 1937)	20,167
1937-38 (31st March, 1938)	20,598

2. **Trade and Cost of Living.**—There has been little variation in imports, owing to the small European population and to the elementary requirements of the natives. The volume of trade is small.

The cost of living and prices generally are high, largely owing to the cost of transport of goods from distant railheads. The following were the average prices of foodstuffs and live stock obtaining throughout the year 1938:—

	£	s.	d.		£	s.	d.
Flour.....per bag 196 lb.	1	9	0	Beef.....per lb.	0	0	6
Maize.....per bag 200 lb.	0	15	0	Mutton.....per lb.	0	0	9
Kaffir-corn.....per bag 200 lb.	1	0	0	Cheese.....per lb.	0	1	9
Potatoes.....per bag 150 lb.	1	0	0	Eggs.....per doz.	0	1	6
Butter.....per lb.	0	1	9	Cattle.....per 100 lb. dead-weight	1	0	0
Milk.....per quart	0	0	7	Horses.....per head	12	10	0
Rice.....per lb.	0	0	4	Sheep.....per head	0	17	6
Sugar.....per lb.	0	0	4	Goats.....per head	0	10	0
Bread.....per lb.	0	0	4				

§ 12. Roads and Principal Routes of Communication.

There are no railways in the territory, and the lack of them has hindered the development of the country. Since January, 1928, the Railways and Harbours Administration of the Union of South Africa have established the following road motor services in Swaziland: Breyten via Mbabane to Bremersdorp, 117 miles, daily; Bremersdorp to Stegi, 43 miles, tri-weekly; Bremersdorp to Gollel, 112 miles, bi-weekly; Piet Retief via Dwaleni to Hlatikulu, 57 miles, four days a week; Dwaleni to Hluti, 31 miles, bi-weekly. The Portuguese East African Administration runs a daily motor service from Goba railhead to Stegi.

The main roads in the territory are kept in as good repair as possible, but a good deal remains to be done in improving and extending means of communication generally.

There are good roads to Mbabane from Ermelo, Breyten, and Carolina, and there is a good road from Mbabane to Delagoa Bay. It is possible to motor through Swaziland from the Transvaal to Delagoa Bay, and, with the improvements now taking place to the through road, both in the Transvaal and in Swaziland, this route will no doubt be largely made use of in the winter months. The main port of entry for the southern portion of Swaziland is from Piet Retief, whence roads extend to Mankaiana, Hlatikulu, and elsewhere in the southern districts. There is also a port of entry at Gollel, the terminus of the railway from Durban.

§ 13. Posts, Telegraphs, Telephones, and Savings Bank.

1. **General.**—By Proclamation No. 5 of 1907, the High Commissioner was empowered from time to time to enter into agreements with the Government of the Transvaal, for the carrying out by the said Government of postal and telegraph services and for the carrying on of a post office savings bank. These services are now, by agreement, under the control of the Postmaster-General of the Union, but are paid for from Swaziland funds.

2. **Post Offices.**—At the end of the financial year (31st March, 1938) there were the following:—

Post, Telegraph, and Telephone Agencies	2
Postal Order Agencies	1
Postal Order, Telegraph, and Telephone Agencies	7
Telephone Offices only	3
Money Order, Savings Bank, Post, Telegraph, and Telephone Offices	6
Telegraph and Telephone Offices only	5

3. **Mail Services.**—The following is a list of the mail services in operation at 31st March, 1938:—

Route.		Times Weekly.	Conveyance.	Time (Hours).	Cost per Annum.
					£
Bremersdorp	Stegi	3	Motor	3½	129
Piet Retief	Hlatikulu	4	"	4	75
Hlatikulu	Mooihoek	2	Foot	4	24
Hluti	Dwaleni	2	Motor	4	93
Mankaiana	Piet Retief	2	"	4	143
Bremersdorp	Breyten via Mbabane	6	"	8½	202
Mbabane	Forbes Reef-Pigg's Peak	6	Donkeys	—	144
Malkerns	Mahlanya	2	Foot	3	12
Goedgegun	Dwaleni	4	Motor	¼	18
Hlatikulu	Kubuta	2	Foot	6	18
Mankalana	Mahlanya	2	"	8	36

4. **Statistics.**—The following table gives particulars of postal transactions for a series of years:—

POSTAL STATISTICS, 1933-34 TO 1937-38.

Heading.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
Post Offices and Agencies...No.	27	26	23	23	24
Postal Orders—					
Issued.....No.	14,877	14,713	15,346	15,731	17,532
£	5,374	5,677	5,878	6,027	6,646
Paid.....No.	4,416	4,635	6,869	5,521	8,653
£	1,981	2,165	2,926	2,557	3,082
Money Orders—					
Issued.....No.	1,776	1,712	1,904	1,847	2,176
£	6,257	6,393	6,276	5,706	7,619
Paid.....No.	649	811	859	727	820
£	4,675	4,430	3,757	3,533	3,473
Savings Bank—					
Deposits.....No.	935	1,531	1,979	2,247	2,196
£	5,536	8,463	6,990	8,240	11,708
Withdrawals.....No.	547	782	1,152	1,214	1,546
£	1,508	3,342	6,717	6,666	6,168
Telegrams—					
Forwarded.....No.	13,195	14,566	16,760	17,156	17,504
Received.....No.	9,929	10,826	11,604	12,049	11,788

§ 14. Public and Private Finance.

1. **Public Finance.**—The following statements show the revenue and expenditure for the years 1932-33 to 1937-38 and the public debt of Swaziland:—

Head.	Financial Year. 1932-33.	1933-34.	1934-35.	1935-36.	1936-37.	1937-38.
(i) REVENUE.						
Ordinary.	£	£	£	£	£	£
Native Tax	35,225	44,098	45,019	41,586	43,584	46,323
Customs and Excise	15,499	16,175	18,657	19,822	21,530	22,533
Posts and Telegraphs	7,284	5,486	5,605	9,406	8,222	17,366
Licences	6,000	6,955	8,182	9,523	9,495	10,806
Revenue Stamps	1,442	1,309	1,151	981	1,367	1,117
Judicial Fines	1,419	1,521	1,985	1,870	2,148	2,192
Poll Tax	1,722	1,719	1,661	1,584	1,755	1,591
Income Tax	1,396	1,744	3,186	3,763	2,684	3,140
Native Passes	856	924	1,029	1,045	1,001	957
Dog Tax	2,655	2,764	2,765	2,567	2,788	3,027
Transfer Duty	841	1,520	2,158	1,328	1,319	1,317
Base Metal Royalty	234	248	319	918	591	523
Concession Rents	2,414	1,758	1,765	1,653	1,882	1,662
Cattle Dipping Charges	1,344	1,085	884	764	883	563
Miscellaneous	2,890	3,145	3,884	5,026	5,987	6,739
Levy on Salaries	2,080	1,874	1,192	916	—	—
TOTAL.....£	83,301	92,325	99,442	102,752	105,236	119,856
Extraordinary.						
Parliamentary Grant-in-aid	27,900	28,500	60,000	48,000	32,500	43,000
Crown Land Sales	584	1,125	1,359	389	1,179	1,087
Colonial Development Fund	1,858	6,406	12,795	7,338	13,896	30,167
Sale of Government Building	1,045	—	—	—	—	—
Contribution Mbabane Hospital	—	—	—	—	—	—
Steward Memorial Fund	—	—	—	—	—	—
TOTAL.....£	31,387	36,031	74,154	55,727	47,575	74,254
GRAND TOTAL....£	114,688	128,356	173,596	158,479	152,811	194,110
(ii) EXPENDITURE.						
Ordinary.	£	£	£	£	£	£
Resident Commissioner	8,152	7,295	7,588	7,473	8,372	9,062
District Administration	8,876	8,315	9,250	9,133	8,637	9,314
Police	16,491	14,457	14,780	15,373	15,583	15,783
Posts and Telegraphs	4,764	4,667	4,194	5,849	6,066	7,396
Administration of Justice	5,975	7,984	8,467	8,428	8,380	9,993
Public Works Department	2,364	2,415	3,067	2,445	2,795	3,399
Public Works—Recurrent	10,044	10,192	14,471	14,574	15,714	21,758
Medical	11,973	11,969	13,827	14,545	16,557	18,837
Education	10,281	10,412	10,658	9,603	10,507	11,958
Veterinary and Agriculture	13,928	17,797	22,013	19,017	23,672	23,947
Allowances, etc.—Native chiefs	1,595	1,599	1,557	1,583	1,570	1,618
Pensions and gratuities	6,308	6,458	4,889	7,506	4,992	7,843
Interest	4,855	3,881	2,205	2,276	2,212	2,795
Miscellaneous	3,433	3,335	3,165	4,107	4,823	5,326
Sinking Fund	1,264	1,264	1,264	1,264	1,264	1,264
Deeds Registry and Survey services	1,250	750	750	750	750	750
East Coast Fever	—	—	—	—	—	—
Surveys	2	7	37	54	54	43
Public Works Extraordinary	—	424	2,893	—	—	—
Repayment of Colonial Development Fund Loans	—	—	—	—	61	176
TOTAL.....£	111,555	113,221	125,075	123,980	132,009	151,262
Extraordinary.						
Public Works—Extraordinary	—	—	—	3,938	4,528	14,769
Colonial Development Fund	1,850	9,006	13,251	7,337	15,725	28,343
Purchase of House for Police	—	660	—	—	—	—
TOTAL.....£	1,850	9,666	13,251	11,275	20,253	43,112
GRAND TOTAL....£	113,405	122,887	138,326	135,255	152,262	194,374

(iii) PUBLIC DEBT.

Swaziland Consolidated Loan ... ... Interest 4 per cent. per annum; repayable in nineteen years from 1st April, 1924; Proclamation No. 6 of 1924.	£35,000
Swazi National Trust Fund ... ... Interest 4 per cent. per annum; Proclamation No. 9 of 1906.	£20,000

2. **Native Tax.**—A tax of £1. 15s. per annum is paid by each adult male native who is unmarried or who has one wife. Natives with more than one wife pay £1. 10s. per annum in respect of each wife, with a maximum of £4. 10s. Out of each unit of tax, i.e., £1. 10s. or £1. 15s. as the case may be, the sum of 2s. is credited to the Swazi National Fund, and is spent on objects of direct benefit to the natives.

3. **Currency.**—Under the provisions of Proclamations Nos. 55 of 1932 and 4 of 1933, notes of the South African Reserve Bank and silver and copper coin of the Union circulate and are accepted as legal tender in Swaziland in the same manner as in the Union.

4. **Banking Facilities.**—Barclay's Bank (D.C. & O.) has branches at Mbabane and Bremersdorp; the Standard Bank, at Bremersdorp. The banknote issues, etc., are carried out under Union laws.

5. **Stamp and Licence Duties and Fees.**—(i) *Stamp Duties and Fees.*—The following stamp duties and fees apply in the territory:—

Administration of Estates—Deceased Persons.	Transvaal Law No. 15 of 1899 as applied to Swaziland.
Administration of Estates—Deceased Persons.	Transvaal Proclamation No. 28 of 1902, Schedule E of Proclamation as applied to Swaziland.
Administration of Estates—Insolvent Persons	Transvaal Ordinance No. 5 of 1905, Schedule to Ordinance as applied to Swaziland.
Affidavit or solemn or attested Declaration	Swaziland Proclamation No. 38 of 1931, 2nd Schedule.
Agreement of Contract	Swaziland Proclamation No. 38 of 1931, 2nd Schedule.
Antenuptial or Postnuptial Contract	Swaziland Proclamation No. 38 of 1931, 2nd Schedule.
Arbitration of Award	Swaziland Proclamation No. 38 of 1931, 2nd Schedule.
Authentication Certificate	Swaziland Proclamation No. 38 of 1931, 2nd Schedule.
Bicycles, registration of	Swaziland Proclamation No. 35 of 1937.
Bill of Exchange or Promissory Note	Swaziland Proclamation No. 38 of 1931, 2nd Schedule.
Bond	Swaziland Proclamation No. 38 of 1931, 2nd Schedule.
Brands Great Stock, registration of	Swaziland Proclamation No. 64 of 1937.
Broker's Note	Swaziland Proclamation No. 38 of 1931, 2nd Schedule.
Certificate	Swaziland Proclamation No. 38 of 1931, 2nd Schedule.
Company Capital Duty	Swaziland Proclamation No. 38 of 1931, 2nd Schedule.
Coronation Stamps	Swaziland Proclamation No. 68 of 1937.
Customs Documents	Swaziland Proclamation No. 38 of 1931, 2nd Schedule.
Deeds Office	Transvaal Government Notice No. 80 of 1902, Schedule.
Duplicate Original of any Instrument	Swaziland Proclamation No. 38 of 1931, 2nd Schedule.
Duplicate Motor Certificate	Swaziland Proclamation No. 26 of 1916, Sec. 2 (4).
Land and Agricultural Loan Fund	Swaziland Proclamation P. 34/1929 (amended by 13/1930, 7/1931, 1/1937).
Lease or Agreement of Lease	Swaziland Proclamation No. 38 of 1931, 2nd Schedule.
Marketable Security	Swaziland Proclamation No. 38 of 1931, 2nd Schedule.
Notarial Act or Instrument	Swaziland Proclamation No. 38 of 1931, 2nd Schedule.
Partnership	Swaziland Proclamation No. 38 of 1931, 2nd Schedule.
Patent Office	Transvaal Proclamation No. 22 of 1902 Schedule H as applied to Swaziland.
Patent Office—Additional fees	Transvaal Government Notice No. 179 of 1902 as applied to Swaziland.
Patent Office—Registration of Trade Marks	Transvaal Government Notice No. 180 of 1902, 1st Schedule as applied to Swaziland.
Petty Debts—Recovery of	Transvaal Law No. 10 of 1897 as applied to Swaziland.
Postal Rates	High Commissioner's Notices Nos. 122, 171 of 1937, 28 and 122 of 1938.
Power of Attorney or any Instrument of like kind	Swaziland Proclamation No. 38 of 1931, 2nd Schedule.
Receipt	Swaziland Proclamation No. 38 of 1931, 2nd Schedule.
Registrar of Mining Rights	Transvaal Government Notice No. 55 of 1903, Schedule A.
Sheriff's Office	Transvaal Proclamation No. 17 of 1902, Schedule as in force in Swaziland.
Surveyor-General's Office	Swaziland Proclamation No. 18 of 1910 as amended by No. 43 of 1922.
Security or Suretyship	Swaziland Proclamation No. 38 of 1931, 2nd Schedule.
Tariff Higher Court	Art. 10, Transvaal Law No. 14 of 1895.
Tariff Lower Court	Art. 13, Transvaal Law No. 12 of 1899.
Telephone Charges	High Commissioner's Notice No. 129 of 1937.
Transfer Deed	Swaziland Proclamation No. 38 of 1931, 2nd Schedule

(ii) *Licence Duties and Fees.*—The General Licensing Proclamation is No. 53 of 1931 as amended by Proclamation No. 62 of 1932, Proclamation No. 13 of 1934, and Proclamation No. 1 of 1936, and in addition there are the following Proclamations and High Commissioner's Notices dealing with:—

Arms and Ammunition	Proclamation No. 21 of 1908 as amended by Proclamation No. 37 of 1910 and Proclamation No. 12 of 1912.
Game Licences	Swaziland Government Notice No. 4 of 1906 as amended by High Commissioner's Notices Nos. 24 of 1910 and 34 of 1934.
Labour Agents and Runners	Proclamation No. 19 of 1912 as amended by Proclamation No. 30 of 1917, Proclamation No. 22 of 1922, Proclamation No. 9 of 1928, and Proclamation No. 12 of 1930.
Liquor Licences	Proclamation No. 42 of 1936, as amended by Proclamation No. 6 of 1937.
Motor Cycles and Motor Cars	Proclamation No. 26 of 1916 as amended by Proclamation No. 33 of 1926, Proclamation No. 14 of 1930, Proclamation No. 50 of 1931.
Prospecting Licences	Section 17 of Proclamation No. 25 of 1911.
Public Ferries	High Commissioner's Notice No. 121 of 1931 as amended by High Commissioner's Notices No. 81 of 1936 and No. 153 of 1938.
Radio Licences	High Commissioner's Notice No. 16 of 1927 as amended by High Commissioner's Notice No. 60 of 1935.
Wildebeest Permits	Proclamation No. 17 of 1929.

The schedule below gives the amounts of the licences.

SCHEDULE.

	ANNUAL. £	s.	d.	
Aerated or Mineral Water Manufacture	5	0	0	
Agent of a Foreign Firm	10	0	0	£3 for ¼-year.
Auctioneer	5	0	0	£3 for ¼-year.
Arms and Ammunition, Dealer in	10	0	0	£5 for ¼-year.
Baker	5	0	0	
Banker or Banking Institution	50	0	0	£25 for each Branch.
Barber	3	0	0	
Billiard Table	12	0	0	£5 not on Licensed Property.
Blacksmith	3	0	0	
Broker or Agent	5	0	0	
Butcher, retail	5	0	0	
Canvasser for Sale of Shares or Land	20	0	0	
Driver, Motor cycle				5s. 0d.
Driver, Motor car				10s. 0d.
Dealer or Speculator in Live Stock or Produce	5	0	0	
Dog	0	5	0	
Eating House Keeper	5	0	0	
Ferries Public—				
Wagons, including Animals in Span				2s. 0d.
Carts or other Vehicles, including Animals drawing same				1s. 0d.
Motor Vehicles, other than Motor Cycles				1s. 0d.
Cattle, Horses, Mules, and Donkeys (p.h.)				0s. 3d.
Sheep, Goats, and Pigs, per 100 or part of 100				1s. 0d.
Motor cycle				1s. 0d.
Season Tickets—				
Wagons and Motor Vehicles (other than Motor Cycles)	2	0	0	
Carts or other Vehicles and Motor Cycles	1	0	0	
Firearms—				
Shot Gun				5s. 0d.
Rifle				10s. 0d.
Game—				
For non-resident				£2. 0s. 0d. One month.
For resident				£1. 0s. 0d. One month.
For non-resident				£4. 0s. 0d. Season.
For resident				£2. 0s. 0d. Season.
Big				£3.
Sale licence	3	0	0	
Capture Young Game, etc.				£3. 0s. 0d.
Course Game with Dogs				£3. 0s. 0d.
Wildebeest (Vermin)				£0 2s. 6d.
General Dealer	15	0	0	
Grain Dealer	5	0	0	£3 per ½ year.
Hawker	5	0	0	£3 per ½ year.
Liquor—				
Urban Hotel	75	0	0	
Rural Hotel	45	0	0	
Club	50	0	0	
Regimental Canteen	—			
Temporary Liquor				£1 per diem.
Labour Agent	25	0	0	
Motor Car and Motor Cycle—				
(a) For every Motor Cycle without Side-car	1	0	0	
(b) For every Side-car or similar Attachment	0	10	0	
(c) (1) For every Motor Car, a basic charge of	2	0	0	
(2) For every Unit of Horse Power or portion thereof	0	1	0	
(3) For every 100 lb. of Weight to the nearest 100 lb.	0	2	0	
Motor Garage	3	0	0	

SCHEDULE—(*continued*).

	ANNUAL. £	s.	d.	
Pedlar	3	0	0	£2 for ½ year.
Prospecting Licences, per Claim, Precious Metals				2s. 6d. per month.
Prospecting Licences, per Claim, Base Metals, 1st year				1d. per month.
Prospecting Licences, per Claim, Base Metals, after 1st year				6d. per month.
Radio Listener's Licence	1	15	0	within 100 miles.
	1	5	0	within 250 miles.
	1	0	0	beyond 250 miles.
Loudspeaker Extension	0	17	6	Any distance.
Restaurant, Refreshment, or Tearoom-keeper	5	0	0	
Runners	1	0	0	
Temporary or Special Licence				15s. 0d. per day.

APPENDIX.

CHAPTER II, § 3, 4.

Ministries of the Union.—On the 6th September, 1939, General the Hon. J. B. M. Hertzog resigned the Premiership and His Excellency the Governor-General called upon General the Rt. Hon. J. C. Smuts to form a Ministry. The personnel of the second Smuts Ministry is as follows:—

SECOND SMUTS MINISTRY.

Department.	*Minister.*
Prime Minister and Minister of External Affairs and of Defence	Gen. the Rt. Hon. J. C. Smuts, P.C., C.H., K.C., D.T.D.
Native Affairs	Col. the Hon. Deneys Reitz.
Finance and Education	Hon. J. H. Hofmeyr, M.A., D.Sc.
Commerce and Industries	Hon. R. Stuttaford.
Agriculture and Forestry	Col.-Cmdt. the Hon. W. R. Collins, D.T.D., D.S.O.
Interior and Public Health	Hon. H. G. Lawrence, K.C.
Railways and Harbours	Hon. F. C. Sturrock, M.I.Mech.E.
Posts and Telegraphs, and Public Works	Hon. C. F. Clarkson.
Labour and Social Welfare	Hon. W. B. Madeley.
Mines	Col. the Hon. C. F. Stallard, K.C., D.S.O., M.C.
Lands	Senator the Hon. A. M. Conroy.
Justice	Dr. the Hon. C. F. Steyn, K.C.
Without Portfolio	Maj. the Hon. P. V. G. van der Byl, M.C., M.A.

CHAPTER II, § 10, 5.

Parliamentary By-elections.—The following are the results of recent by-elections for Parliamentary representation.

Electoral Division.	Date of Election.	No. of Voters on Register.	No. of Candidates.	No. of Votes cast.*	Percentage of Votes Cast to Voters on Register.	Successful Candidate.	
						Votes Cast for.	Percentage of Votes Cast.
Cape—							
Mowbray	10/10/39	—	1	—	—	Unopposed.	
Natal—							
Pietermaritzburg District	12/9/39	5,802	2	3,077	53·03	2,893	94·02

* Including spoilt papers and rejected votes.

CHAPTER II, § 10, 11.

Provincial Council By-elections.—The following are the results of recent by-elections for Provincial Council representation.

Electoral Division.	Date of Election.	No. of Voters on Register.	No. of Candidates.	No. of Votes cast.*	Percentage of Votes Cast to Voters on Register.	Successful Candidate.	
						Votes Cast for.	Percentage of Votes Cast.
Cape—							
Mowbray	17/10/39	—	1	—	—	Unopposed.	
Transvaal—							
Lichtenburg	21/6/39	3,502	2	2,702	77·73	1,462	52·36

* Including spoilt papers and rejected votes.

CHAPTER VI, § 7, 2.

Workmen's Compensation Act Statistics, 1936.—The following tables give information regarding accidents which occurred during the period 1st January to 31st December, 1936, and were reported in terms of the *Workmen's Compensation Act*.

Employers are not liable for compensation to natives who are disabled for less than 6 weeks, provided food, quarters, and medical aid are supplied by the employer. Such cases are not reported to the Commissioner and are not included in the statistics.

The figures given refer to all cases reported to the Commissioner by general assurance companies, the Rand Mutual Assurance Co., government departments, the South African Railways and Harbours Administration, and exempted employers.

(i) PERSONS INJURED, ACCORDING TO AREA, RACE, SEX AND DEGREE OF INJURY, 1936.

Area.	Sex.		Race.				Degree of Injury.			
	Male.	Female.	European.	Native.	Asiatic.	Coloured.	Temporary.	Permanent.	Fatal.	Total.
Cape Peninsula...	4,895	428	2,249	571	81	2,422	5,150	138	35	5,323
Port Elizabeth...	2,880	100	1,424	1,043	8	505	2,908	62	10	2,980
Rest Cape Province	5,430	193	2,378	1,397	37	1,811	5,311	246	66	5,622
Durban.....	3,927	169	1,387	1,853	749	127	3,896	175	25	4,096
Rest Natal.....	1,929	28	711	1,011	188	47	1,538	373	46	1,957
Witwatersrand...	11,070	703	7,060	4,416	32	265	10,966	700	107	11,773
Pretoria.....	2,125	27	1,300	823	7	22	2,040	93	19	2,152
Rest Transvaal...	1,747	15	845	884	6	27	1,467	239	56	1,762
Orange Free State	1,055	37	587	472	—	33	1,008	70	14	1,092
Rand Mutual*...	12,449	5	4,943	7,465	8	38	5,034	6,689	731	12,454
UNION.....	47,507	1,705	22,884	19,935	1,096	5,297	39,318	8,785	1,109	49,212

* Almost exclusively gold mining cases on the Witwatersrand.

(ii) PERSONS INJURED, ACCORDING TO CAUSE, DEGREE OF INJURY, AND RACE OF CASUALTY, 1936.

Cause.	Temporary.		Permanent.		Fatal.		All Injuries.		
	European.	Non-European.	European.	Non-European.	European.	Non-European.	European.	Non-European.	Total.
Prime Movers.....	32	24	2	—	1	2	35	26	61
Transmission Apparatus...	229	172	28	328	3	16	260	516	776
Working Machinery—									
Metal Working*.....	1,444	306	42	41	1	1	1,487	348	1,835
Engineering.....	70	92	7	18	—	2	77	112	189
Wood Working.....	348	169	48	82	—	3	396	254	650
Textile Working.....	399	131	3	6	—	—	402	137	539
Leather Working.....	137	35	22	9	—	—	159	44	203
Other.....	510	363	114	410	3	19	627	792	1,419
TOTAL.....	2,908	1,096	236	566	4	25	3,148	1,687	4,835
Non-Working Power Machines.....	25	21	1	18	—	—	26	39	65
Hoisting Apparatus—									
Cranes.....	30	116	1	16	—	6	31	138	169
Other.....	125	104	13	160	6	78	144	342	486
TOTAL.....	155	220	14	176	6	84	175	480	655
Conveyors.....	20	21	2	10	1	3	23	34	57
Vehicles—									
Mine/Quarry Cars.....	281	361	39	1,590	5	84	325	2,035	2,360
Automobiles.....	998	1,000	39	102	26	57	1,063	1,179	2,242
Animal-drawn.....	32	201	4	17	—	8	36	226	262
Other.....	417	653	29	84	26	37	472	774	1,246
TOTAL.....	1,728	2,235	111	1,793	57	186	1,896	4,214	6,110
Explosions, etc.—									
Explosions (Blasting)...	35	23	9	116	13	59	57	198	255
Explosions (Other).....	222	206	12	32	—	9	234	247	481
Electricity.....	144	48	5	9	5	9	154	66	220
Hot Water, etc.....	230	343	3	10	—	4	233	357	590
Other.....	370	204	4	8	4	8	378	220	598
TOTAL.....	1,001	824	33	175	22	89	1,056	1,088	2,144
Poisonous Substances.....	383	272	12	21	1	13	396	306	702
Falls of Persons—									
From Elevations.....	1,107	708	56	66	15	41	1,178	815	1,993
On Level.....	2,210	818	68	261	1	5	2,279	1,084	3,363
Other.....	142	91	4	52	7	58	153	201	354
TOTAL.....	3,459	1,617	128	379	23	104	3,610	2,100	5,710

* Mainly [illegible]

(ii) PERSONS INJURED, ACCORDING TO CAUSE, DEGREE OF INJURY, AND RACE OF CASUALTY, 1936—*(continued)*.

Cause.	Temporary.		Permanent.		Fatal.		All Injuries.		
	European.	Non-European.	European.	Non-European.	European.	Non-European.	European.	Non-European.	Total.
Stepping on Objects.....	328	605	2	2	—	2	330	609	939
Striking against Objects...	1,195	812	27	158	5	5	1,227	975	2,202
Falling Objects—									
Collapse of Buildings...	88	91	9	5	—	6	97	102	199
Falls from Elevations...	466	544	18	85	2	36	486	665	1,151
Ground Fall in Mines...	1,006	352	119	2,131	14	312	1,130	2,795	3,925
Other.....	62	135	6	21	2	14	70	170	240
TOTAL.....	1,622	1,122	143	2,242	18	368	1,783	3,732	5,515
Handling Objects—									
Heavy.....	3,066	4,708	131	918	6	11	3,203	5,637	8,840
Sharp and Rough.....	1,025	1,180	37	190	—	3	1,062	1,373	2,435
Other.....	35	95	1	2	—	2	36	99	135
TOTAL.....	4,126	5,983	169	1,110	6	16	4,301	7,109	11,410
Hand Tools—									
In Worker's Hands.....	3,540	1,943	131	655	2	—	3,673	2,598	6,271
Other.....	20	15	3	1	—	—	23	16	39
TOTAL.....	3,560	1,958	134	656	2	—	3,696	2,614	6,310
Animals—									
Draught Animals.....	99	214	1	10	1	4	101	228	329
Other.....	99	81	—	—	—	—	99	81	180
TOTAL.....	198	295	1	10	1	4	200	309	509
Miscellaneous.....	688	382	18	78	12	29	718	489	1,207
Unknown.....	1	1	2	—	1	—	4	1	5
GRAND TOTAL.....	21,658	17,660	1,063	7,722	163	946	22,884	26,328	49,212

(iii) TOTAL PERSONS INJURED, ACCORDING TO INDUSTRY, RACE, AND DEGREE OF INJURY, AND CASES REPORTED TO AND COST INCURRED BY GENERAL ASSURANCE COMPANIES ONLY, ACCORDING TO INDUSTRY, 1936.

Industry.	Race of Casualty.				Degree of Injury.				General Assurance Companies only.	
	European.	Native.	Asiatic.	Coloured.	Temporary.	Permanent.	Fatal.	Total.	Number of Cases.	Total Cost.* £
Agriculture.....	211	112	2	96	382	27	12	421	265	5,135
Mining and Metallurgy—										
Gold Mining...	5,044	7,369	3	41	5,377	6,566	719	12,662	524	10,635
Coal Mining....	69	787	16	1	291	524	58	873	575	6,349
Other.....	349	652	20	70	975	97	19	1,091	833	6,436
TOTAL.....	5,462	9,008	44	112	6,643	7,187	796	14,626	1,932	23,420
Raw Materials Refining.....	36	68	18	7	116	11	2	129	129	661
Earth and Mineral Works.....	266	420	6	90	678	85	19	782	779	7,537
Woodworking—										
Sawmills.....	275	235	7	99	539	73	4	616	615	4,588
Other.....	141	67	12	51	250	20	1	271	268	2,084
TOTAL.....	416	302	19	150	789	93	5	887	883	6,672

* Excluding pensions and lump sums paid on account of commuted pensions. [See tables

(iii) TOTAL PERSONS INJURED, ACCORDING TO INDUSTRY—(*continued*).

Industry.	Race of Casualty.				Degree of Injury.				General Assurance Companies only.	
	European.	Native.	Asiatic.	Coloured.	Temporary.	Permanent.	Fatal.	Total.	Number of Cases.	Total Cost.* £
Furniture Manufacturing.....	522	93	54	133	760	38	4	802	802	6,000
Metal Working, Engineering—										
Blast Furnaces.	536	173	—	5	677	31	6	714	714	5,459
Mechanical Engineering..	1,297	617	6	88	1,018	78	12	2,008	1,986	17,031
Other.....	1,487	575	68	247	2,286	85	6	2,377	2,187	14,896
TOTAL.....	3,320	1,365	74	340	4,881	194	24	5,099	4,887	37,386
Food, Drink, & Tobacco.....	787	548	130	492	1,820	122	15	1,957	1,849	17,174
Clothing & Textiles—										
Clothing Manufacturing.....	394	19	26	104	540	2	1	543	543	1,961
Other.....	288	99	57	51	477	16	2	495	494	2,264
TOTAL.....	682	118	83	155	1,017	18	3	1,038	1,037	4,225
Books, Paper & Printing—										
Printing.....	219	32	12	42	287	18	—	305	257	3,203
Other.....	28	26	3	38	89	6	—	95	95	493
TOTAL.....	247	58	15	80	376	24	—	400	352	3,696
Vehicle Manufacturing—										
Motor Garages.	1,668	244	7	131	2,008	39	3	2,050	2,022	14,742
Other.....	146	53	3	26	208	20	—	228	227	3,163
TOTAL.....	1,814	297	10	157	2,216	59	3	2,278	2,249	17,905
Shipbuilding.....	19	2	4	6	31	—	—	31	29	113
Chemicals Manufacturing.....	152	400	9	56	596	20	1	617	228	1,472
Surgical Apparatus	6	1	—	2	9	—	—	9	9	11
Jewellery.....	24	7	3	3	35	2	—	37	37	138
Heat, Light, & Power—										
Electricity Supply.....	167	21	1	5	183	7	4	194	194	4,137
Other.....	96	55	4	20	169	5	1	175	174	900
TOTAL.....	263	76	5	25	352	12	5	369	368	5,037
Leatherworking—										
Footwear Manufacturing...f.	289	13	7	64	347	26	—	373	373	2,216
Other.....	85	33	2	56	164	12	—	176	174	1,421
TOTAL.....	374	46	9	120	511	38	—	549	547	3,637
Building and Construction—										
Erection.....	2,172	1,588	35	562	4,089	220	48	4,357	4,304	55,911
Not erection...	550	360	11	99	891	101	28	1,020	482	4,225
TOTAL.....	2,722	1,948	46	661	4,980	321	76	5,377	4,786	60,136
Miscellaneous Manufacturing .	86	27	9	12	126	7	1	134	132	1,324
Transportation—										
Motor Transport	229	220	8	82	500	31	8	539	489	5,507
Other.....	1,628	1,403	30	846	3,716	128	63	3,907	1,009	9,482
TOTAL.....	1,857	1,623	38	928	4,216	159	71	4,446	1,498	14,989

* Excluding pensions and lump sums paid on account of commuted pensions. [See tables (iv) and (v).]

(iii) TOTAL PERSONS INJURED ACCORDING TO INDUSTRY—(*continued*).

Industry.	Race of Casualty.				Degree of Injury.				General Assurance Companies only.	
	European.	Native.	Asiatic.	Coloured.	Temporary.	Permanent.	Fatal.	Total.	Number of Cases.	Total Cost.* £
Water Supply....	44	61	1	1	102	5	—	107	107	553
Trade, Commerce, and Finance...	1,867	1,856	106	943	4,503	230	39	4,772	4,044	36,329
Public Administration.....	1,112	1,223	342	503	3,056	97	27	3,180	2,967	21,714
Professional Service.....	108	40	1	29	171	5	2	178	170	1,382
Domestic Service	269	183	60	159	646	23	2	671	655	5,275
Personal Service..	48	2	1	4	55	—	—	55	53	342
Sport and Amusement.....	132	45	6	24	197	8	2	207	204	3,283
Miscellaneous.....	38	6	1	9	54	—	—	54	54	408
GRAND TOTAL	22,884	19,935	1,096	5,297	39,318	8,785	1,109	49,212	31,652	285,954

* Excluding pensions and lump sums paid on account of commuted pensions. [See tables (iv) and (v).]

Table (iv) excludes pension payments and also lump sums paid on account of commuted pensions [see Table (v)]. It also excludes medical cost of cases which occurred on gold mines insured with the Rand Mutual Assurance Co., and on the S.A. Railways & Harbours. It has been estimated that the gross cost of medical aid to the S.A. Railways and Harbours Administration during 1936 was £27,000 and to the Rand Mutual Assurance Co., £58,724 on account of Europeans, and £19,575 on account of natives. An amount of £743 should be added to medical cost under licensed assurance companies; this represents retaining fees paid by certain mechanical engineering firms to doctors for attending to minor injuries to a large number of workmen.

The large amount shown against "Sundries" under the Rand Mutual Assurance Co. consists almost entirely of *ex gratia* periodical payments and not transportation costs as in other cases.

(iv) COST OF COMPENSATION, ACCORDING TO RACE OF CASUALTY, DEGREE OF INJURY, AND NATURE OF PAYMENT, 1936.

Race of Casualty.	Temporary.		Permanent.		Fatal.		Payments.				
	Number.	Cost. £	Number.	Cost. £	Number.	Cost. £	Periodical. £	Lump Sums. £	Medical. £	Sundries. £	Total. £
(*a*) GENERAL ASSURANCE COMPANIES.*											
European.....	14,903	103,856	484	68,225	61	17,854	66,337	55,578	66,772	1,248	189,935
Native.....	9,329	27,597	1,221	22,750	198	9,361	10,258	21,096	28,080	274	59,708
Asiatic.....	1,030	3,699	28	1,462	6	422	1,961	1,103	2,464	55	5,583
Coloured.....	4,225	19,904	143	7,908	24	2,916	9,878	6,410	14,272	168	30,728
TOTAL.....	29,487	155,056	1,876	100,345	289	30,553	88,434	84,187	111,588	1,745	285,954
(*b*) RAND MUTUAL ASSURANCE COMPANIES.											
European.....	4,426	52,477	465	59,363	52	18,303	61,364	58,188	—	10,591	130,143
Native.....	582	228	6,205	43,969	678	29,409	2,827	70,689	—	90	73,606
Asiatic.....	—	—	7	57	1	50	2	105	—	—	107
Coloured.....	26	83	12	364	—	—	143	295	—	9	447
TOTAL.....	5,034	52,788	6,689	103,753	731	47,762	64,336	129,277	—	10,690	204,303

(iv) COST OF COMPENSATION—(*continued*).

Race of Casualty.	Temporary.		Permanent.		Fatal.		Payments.				
	Number.	Cost. £	Number.	Cost. £	Number.	Cost. £	Periodical. £	Lump Sums. £	Medical. £	Sundries. £	Total. £
(c) S.A. RAILWAYS AND HARBOURS.											
European	968	3,201	44	5,251	33	9,752	5,032	13,172	—	—	18,204
Native	892	1,337	37	891	17	842	1,405	1,665	—	—	3,070
Asiatic	9	21	—	—	1	60	21	60	—	—	81
Coloured	534	954	8	336	4	308	1,018	580	—	—	1,598
TOTAL	2,403	5,513	89	6,478	55	10,962	7,476	15,477	—	—	22,953
(d) UNION AND PROVINCIAL GOVERNMENTS.											
European	967	7,577	56	4,139	14	1,995	5,022	4,117	4,504	68	13,711
Native	201	700	27	403	13	549	163	782	696	11	1,652
Asiatic	10	23	—	—	—	—	13	—	10	—	23
Coloured	82	319	9	325	2	112	216	257	273	10	756
TOTAL	1,260	8,619	92	4,867	29	2,656	5,414	5,156	5,483	89	16,142
(e) EXEMPT EMPLOYERS.											
European	394	2,673	14	2,250	3	1,447	2,066	2,625	1,653	26	6,370
Native	514	792	19	286	2	80	333	236	560	29	1,158
Asiatic	4	19	—	—	—	—	11	—	8	—	19
Coloured	222	867	6	300	—	—	524	178	456	9	1,167
TOTAL	1,134	4,351	39	2,836	5	1,527	2,934	3,039	2,677	64	8,714
(f) ALL ASSURANCE COMPANIES, S.A. RAILWAYS AND HARBOURS, GOVERNMENT DEPARTMENTS, ETC.											
European	21,658	169,784	1,063	139,228	163	49,351	139,821	133,680	72,929	11,933	358,363
Native	11,518	30,654	7,509	68,299	908	40,241	14,986	94,468	29,336	404	139,194
Asiatic	1,053	3,762	35	1,519	8	532	2,008	1,268	2,482	55	5,813
Coloured	5,089	22,127	178	9,233	30	3,336	11,779	7,720	15,001	196	34,696
TOTAL	39,318	226,327	8,785	218,279	1,109	93,460	168,594	237,136	119,748	12,588	538,066

In Table (v) the number of dependent children includes only those children to whom pensions are actually payable. The capital value is the total value of all pensions payable including those commuted in whole or in part.

(v) CASUALTIES WHICH RESULTED FROM ALL ACCIDENTS AND INVOLVED THE PAYMENT OF PENSIONS, JANUARY TO DECEMBER, 1936.

Race.	Cases.	Dependent Children.	Monthly Pension Bill. £ s. d.	Capital Value. £
(a) WORKMEN PERMANENTLY INJURED.				
European	54*	—	269 6 9	56,643
Asiatic	1	—	0 9 1	112
Coloured	11	—	22 6 5	3,376
TOTAL	66	—	292 2 3	60,131
(b) WORKMEN FATALLY INJURED.				
European	88	210	327 7 4	31,133
Asiatic	1	7	1 6 3	159
Coloured	9	25	12 11 0	1,175
TOTAL	98	242	341 4 7	32,467

* Excluding 3 individuals who were entitled to pensions but accepted lump sums in full settlement of claims (Section 15 of the Act).

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