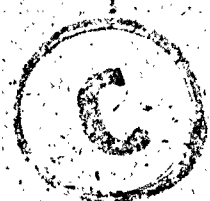


GOVERNMENT GENERAL HOSPITALS
MADRAS

ANNUAL REPORT AND STATISTICS
OF THE GOVERNMENT GENERAL
HOSPITAL MADRAS FOR THE YEAR-1923



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GOVERNMENT GENERAL HOSPITAL, MADRAS.

ANNUAL REPORT AND STATISTICS OF THE GOVERNMENT GENERAL HOSPITAL, MADRAS, FOR THE YEAR 1923.

ADMINISTRATION REPORT.

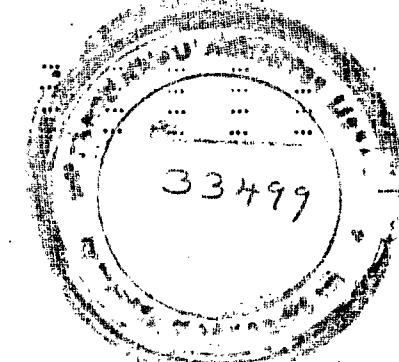
I. (a) Accommodation.—528 beds. The subjoined statement shows the distribution of beds available under each Medical Officer:—

Medical officer.	Wards.	Beds. No.	Medical officer.	Wards.	Beds. No.
1st Physician.	Margaret and Hope I.M. ...	16	1st Surgeon.	Munro and Elphinstone I.M. ...	23
	Pottinger E.M. ...	10		Hut I.I. & E.M. ...	10
	Lansdowne E.W. ...	16		Trevelyan I.M. ...	9
	A Shed I. & E.M. ...	2		Denison E.M. ...	6
	B Shed do. ...	4		Buckingham and Grant Duff, I. & E. ...	8
	Hobart and Argyle I. & E.Ch. ...	16		M. & F.Ch. ...	4
	Illington E.W. ...	4		Wenlock E.W. ...	10
	Maitland I.M. ...	6		Mary and Constance I.W. ...	4
		74		Illington E. & I.W. ...	79
2nd Physician.	Harris E.M. ...	10	2nd Surgeon.	Olive and Dalhousie I.M. ...	32
	Havelock I.M. ...	22		Hut II I. & E.M. ...	10
	A Shed I. & E.M. ...	2		Mary and Constance I.W. ...	10
	B Shed do. ...	2		Wenlock E.W. ...	4
	Hobart and Argyle I. & E. ...	9		Denison E.M. ...	5
	E Shed I. & E. ...	3		Illington I. & E.W. ...	4
	F Shed M. F. & Ch. ...	6		Buckingham and Grant Duff, I. & E. ...	7
	Illington I.W. ...	2		M. & F.Ch. ...	8
	Victoria I.W. ...	4		Trevelyan I. M. ...	80
		60			
3rd Physician.	Victoria and Alexandra I.W. ...	16			
4th Physician.	Pottinger E.M. ...	6	3rd Surgeon.	Canning and Elgin I.M. ...	20
	Harris E.M. ...	6		Denison E.M. ...	5
	Martha and Florence I.M. ...	32		Hut III I. & E.M. ...	10
	B Shed I.M. ...	4		Illington I. & E.W. ...	4
	A Shed do. ...	4		Buckingham and Grant Duff, I. & E. ...	7
	Hobart and Argyle I. & E. ...	7		M. & F.Ch. ...	4
	Illington I.W. ...	2		Wenlock E.W. ...	12
	Alexandra I.W. ...	2		Mary and Constance I.W. ...	8
Honorary Physician.		63		Trevelyan I. M. ...	6
	Maitland I.M. ...	10		C Shed I. & E. M. ...	8
	Havelock I.M. ...	10		D Shed do. ...	20
	A Shed I.M. ...	2		Isolation Hut I. & E. W. ...	
	Victoria I.W. ...	10			
	Total ...	32		Total ...	104
	Total Medical beds ...	245		Total Surgical beds ...	283

As will be seen from the above an innovation has on 3rd December 1923 been introduced during the year, viz., the appointment of an Honorary Physician to whom 32 beds have been allotted. These have been withdrawn from the other Physicians leaving the total number of beds unaltered—vide G.O. Ms. No. 1726-P.II., dated 17th October 1923.

The undermentioned wards, which accommodate 20 beds in all, are common to both Physicians and Surgeons:—

First-class paying wards ...	8 E. & I.M.
Do. do. ...	4 E. & I.W.
Second-class paying wards ...	6 I.M.
Cottages ...	2 Common.



2. Total treated—**(a) Out-patients—**

(1) Number treated	Non-Europeans	...	55,229
	Europeans	...	4,945
	Total	...	60,174
(2) Average daily sick	Non-Europeans	...	406.43
	Europeans	...	21.43
	Total	...	427.86

(b) In-patients—

(1) Remaining for the year 1923.	Non-Europeans	...	342
	Europeans	...	80
	Total	...	422
(2) Admissions	Non-Europeans	...	7,320
	Europeans	...	1,702
	Total	...	9,022

		Non-Europeans.	Europeans.	Total.
(3) Results—	Cured	3,942	1,039	4,981
	Relieved	1,418	328	1,746
	Otherwise discharged	1,322	232	1,554
	Died	607	93	700

Out-patients.—Though the total number of cases treated in this department among Non-Europeans is less than that of the previous year, yet the average daily attendance has not suffered but shows an increase over the previous year. A perceptible increase is noted under European admission as compared with the figures for 1922.

In-patients.—A comparison of the above figures with those of the previous year shows an increase in the number of cases treated among non-Europeans, while the number of cases treated among Europeans showed a slight decrease.

The following statement shows a comparison of cases treated among Europeans and non-Europeans during 1923 with those of the past ten years with an average for the same period.

Years.	In-patients.				Out-patients.			
	Total treated.		Average daily sick.		Total treated.		Average daily sick.	
	Non-Europeans.	Europeans.	Non-Europeans.	Europeans.	Non-Europeans.	Europeans.	Non-Europeans.	Europeans.
1918	5,579	2,057	332.63	123.03	47,000	6,229	349.11	55.24
1919	6,179	2,127	318.99	120.18	55,807	7,047	421.25	58.86
1920	5,740	1,823	291.99	107.33	50,958	5,900	409.77	27.24
1921	6,178	1,743	284.76	94.47	53,177	5,160	427.30	27.77
1922	5,673	1,358	278.70	88.90	55,183	4,690	459.57	25.79
1923	6,491	1,831	311.12	93.25	57,032	4,689	383.60	25.82
1918-23	6,551	1,861	326.03	95.08	55,460	4,639	363.45	23.58
1920-23	6,718	1,802	328.00	100.12	57,006	4,830	356.53	25.03
1921-23	6,472	1,886	349.68	109.60	55,505	5,143	365.07	23.21
1922-23	7,498	1,800	393.11	103.38	56,746	4,782	360.93	24.09
1923	7,662	1,782	385.96	106.95	55,229	4,945	406.43	21.43

In-patients.—Admission under non-Europeans are steadily increasing from 1918 with an exception in 1921 while a slow decrease is observed among Europeans from 1920. The average daily sick treated in both cases is over the averages for the past ten years.

Out-patients.—The number of cases treated under non-Europeans is less than that of the previous years from 1918 but is higher than the average for the previous ten years. The number of cases treated under Europeans shows an increase over 1922 but is under the general average of the last ten years.

The daily average shows an increase compared with last year in the case of non-Europeans and a decrease in the case of Europeans.

The following statements show the number of European and non-European admission during each month of the past ten years:—

Non-Europeans.

Number of years.	Remaining for the year.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
1913	305	468	421	414	435	473	399	421	437	394	422	492	493	5,579
1914	293	479	431	504	512	530	487	554	471	479	503	456	480	6,179
1915	266	441	388	439	430	465	536	493	451	480	479	435	437	5,740
1916	248	437	461	471	506	581	469	547	585	493	447	518	452	6,178
1917	229	485	424	539	448	407	427	490	415	458	409	429	453	5,673
1918	267	456	460	487	521	522	516	579	482	491	684	497	529	6,491
1919	311	507	423	464	489	485	467	613	600	550	559	551	532	6,551
1920	276	504	507	537	530	569	805	534	536	541	508	510	501	6,718
1921	291	450	505	551	517	561	509	525	550	508	482	497	526	6,472
1922	342	580	507	628	507	644	640	645	602	642	629	632	548	7,498
1923	342	551	552	615	543	693	577	621	645	591	613	674	645	7,662

Europeans.

Number of years.	Remaining for the year.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
1913	81	194	134	150	171	168	172	146	160	162	186	173	160	2,057
1914	108	195	153	175	181	178	185	172	191	175	176	137	151	2,127
1915	85	174	135	140	154	136	162	164	169	141	125	137	101	1,823
1916	65	135	125	144	119	158	113	171	169	149	130	145	120	1,743
1917	79	165	135	150	123	145	120	150	148	136	117	123	97	1,688
1918	71	128	120	126	155	148	118	155	117	172	250	189	132	1,681
1919	83	162	121	115	125	120	127	148	176	183	196	166	149	1,861
1920	92	147	126	151	128	160	175	123	148	168	175	159	140	1,892
1921	88	160	192	136	149	162	133	119	156	158	162	141	130	1,836
1922	99	160	188	154	128	139	148	131	137	144	138	164	122	1,800
1923	80	152	137	136	132	132	132	143	151	145	156	168	128	1,782

3. Mortality.—The following table shows the number of deaths during 1922 and 1923 for each disease together with the percentage:—

Diseases.	Non-Europeans.				Europeans.			
	1922.		1923.		1922.		1923.	
	Deaths.	Percentage of deaths to total treated.	Deaths.	Percentage of deaths to total treated.	Deaths.	Percentage of deaths to total treated.	Deaths.	Percentage of deaths to total treated.
1. Cholera, Asiatic	28	13.53	19	8.83	1	1.47	3	5.00
2. Dysentery	17	19.32	10	13.89	5	12.20	7	14.00
3. Enteric fever	1	1.41	8	3.22	...	...	...	...
4. Gonococcal infection	3	0.83	14	4.94	...	...	1	2.94
5. Syphilis (primary and secondary)	2	9.09	19	12.58	...	...	4	8.51
6. Kala-Azar	...	...	...	...	...	...	...	...
7. Leprosy	...	...	...	...	...	...	...	...
8. Malaria	24	4.98	19	2.62	11	9.91	4	2.32
9. Plague	...	...	...	...	...	...	...	...
10. Influenza	2	0.91	4	2.08	...	...	2	4.00
11. Relapsing fever	...	...	...	...	1	50.00	2	33.33
12. Pneumococcal infection of the lung	67	24.28	64	28.44	10	31.37	3	7.69
13. Pyrexia of uncertain origin	2	3.45	4	3.25	1	1.92	...	...
14. Rheumatic fever	...	...	4	8.00	...	...	...	...
15. Smallpox	...	...	...	...	...	...	...	...
16. Tuberculosis of the lungs	43	23.40	38	20.00	5	15.62	9	17.31
17. Other tubercular diseases	4	2.25	11	7.28	...	...	2	10.00
18. All other infective diseases	44	10.84	17	10.89	7	3.54	2	4.55
19. Anemia	14	9.52	...	...	1	5.28	...	...
20. Diabetes	1	8.86	9	12.50	...	...	2	12.50

Diseases.	Non-Europeans.				Europeans.			
	1922.		1923.		1922.		1923.	
	Deaths.	Percentage of deaths to total treated.	Deaths.	Percentage of deaths to total treated.	Deaths.	Percentage of deaths to total treated.	Deaths.	Percentage of deaths to total treated.
21. Scoury ...	...	...	1	50.00	...	...	...	...
22. Rickets ...	1	50.00	...	...	...	...	...	...
23. Other diseases due to disorders of nutrition and metabolism.	2	4.88	...	...	...	...	...	...
24. Diseases of the ductless or endocrine glands.	...	...	...	...	...	...	...	...
25. } New growth { Non-malignant ...	2	11.77	...	...	...	...	1	16.67
26. } } Malignant ...	16	14.29	12	9.84	...	...	1	6.67
27. All other general diseases ...	3	3.3	4	5.063	5	14.29	2	7.41
28. { Diseases of the nerves, spinal cord, brain and meninges. Diseases of which the pathological basis is not accurately known. Mental diseases	6	3.30	21	9.31	1	1.43	5	7.04
29. Diseases of the eye ...	...	...	1	14.28	...	...	...	...
30. Do. ear ...	...	...	2	9.09	8	53.33	...	...
31. Do. nose ...	...	...	...	...	...	...	...	...
32. Do. circulatory system ...	35	22.56	39	24.09	...	...	8	17.25
33. All diseases of the respiratory system except pneumonia and tuberculosis of the lungs.	13	5.86	22	8.63	...	...	3	2.97
34. Diseases of the stomach ...	...	...	11	6.01	...	...	3	6.98
35. Do. intestines ...	8	10.26	18	6.95	1	3.65	2	2.94
36. Abscess of the liver ...	4	6.78	4	7.69	2	15.39	2	28.57
37. All other diseases of liver ...	16	17.20	21	29.59	1	6.25	...	...
38. All other diseases of the digestive system.	49	4.62	80	6.69	7	2.58	13	4.41
39. Acute or suppurative inflammation of the lymphatic glands.	3	2.38	6	5.00	...	...	...	...
40. Acute and chronic nephritis...	1	5.00	9	8.26	1	33.33	5	12.19
41. All other diseases of the urinary organs.	13	4.80	10	6.99	6	9.52	1	4.00
42. Other diseases of the generative system.	9	2.88	6	1.89	...	...	1	2.17
43. Diseases of the organs of locomotion.	6	6.45	12	20.00	...	...	...	...
44. Diseases of the areolar tissue	25	4.21	26	5.76	...	...	3	5.28
45. Inflammation, ulcerative ...	9	4.66	7	6.14	2	4.17	...	...
46. Other diseases of the skin ...	7	5.43	7	5.74	...	...	...	...
47. All other local diseases ...	...	...	4	2.13	...	...	...	...
48. Injuries (general and local) ...	42	6.70	45	9.49	3	5.00	2	66.66
49. Poisoning { By opium ...	...	...	...	...	...	...	...	...
{ By other poisons ...	1	12.50	...	...	...	...	...	...
50. Labour { Normal ...	...	...	...	...	...	...	...	...
{ Abnormal ...	...	...	...	...	...	...	...	...
Total ...	522	7.00	607	7.92	87	4.83	93	5.22

Of 7,662 non-European in-patients treated during 1923, 607 died and of 1,782 Europeans, 93 died. The percentage of death on both sides is slightly increased as compared with 1922.

Deaths from Septic Causes.—

	No.
Cellulitis ...	4
Gangrene ...	8
Tetanus ...	5
Peritonitis ...	11
Extravasation of urine ...	2
Septicæmia ...	2
Multiple injury with sepsis ...	11
Abscess ...	13
Empyema ...	5
Appendicular abscess ...	4
Faecal fistula ...	1
Urinary fistula ...	2
Streptococcal infection ...	1
Total ...	69

Sixty-nine deaths from sepsis were recorded against twenty-nine in 1922.

None of these were acquired in hospital.

The following table shows the total number of deaths occurred in hospital from septic causes, and the number of cases admitted and discharged in a moribund condition, with the percentage of deaths, etc., for 1923, as compared with the previous two years:—

Year.	Total number of deaths.	Ratio per cent of deaths to total treated.	Cases admitted moribund.	Cases removed moribund.	Deaths from septic causes.		Ratio per cent of deaths to total treated exclusive of cases admitted moribund.
					Acquired in hospital.	Acquired before admission.	
1921 ...	585	6.99	145	7	3	42	5.38
1922 ...	609	6.55	143	10	5	24	5.12
1923 ...	700	7.41	135	4	NIL	69	6.03

4. Classes of Diseases.—The statement of the important diseases (in and out-patients) treated during 1923 as compared with 1922:—

Classes of diseases.	1922.			1923.		
	Total treated.		Total.	Total treated.		Total.
	In-door.	Out-door.		In-door.	Out-door.	
Other general diseases	126	1,563	1,689	106	1,283	1,389
Malarial fevers	53	5,257	5,850	894	6,198	7,092
Diseases of the digestive system	1,311	8,938	10,249	1,506	8,844	10,350
Do. respiratory system except pneumonia and tubercle of lungs.	304	3,365	3,669	356	3,573	3,929
Do. skin	181	3,976	4,157	153	2,382	2,535
Do. ear	32	2,051	2,083	28	4,363	4,391
Do. generative system	390	1,199	1,589	363	1,927	2,290
Do. nervous system	248	833	1,081	285	1,246	1,531
Do. urinary system	434	1,963	2,402	168	580	748
Do. connective tissue	696	2,802	3,498	511	1,788	2,299
Injuries (general and local)	687	6,228	6,913	534	6,945	7,479
Ulcers	241	2,843	3,084	180	1,821	1,961
Diseases of stomach	30	977	1,007	211	705	916
Rheumatic fever and rheumatism	127	969	1,096	66	471	537
Dysentery	275	1,145	1,420	277	933	1,210
Tuberculous affections	405	850	1,255	418	609	1,027
Syphilis	400	1,784	2,184	317	1,879	2,196
Gonorrhoea	82	802	884	210	1,067	1,277

Statement of diseases arranged according to the numbers treated in excess over the previous year:—

	Nos.
(1) Disease of the ear ...	2,308
(2) Malarial fever ...	1,242
(3) Disease of generative system ...	701
(4) Injuries (general and local) ...	566
(5) Diseases of nervous system ...	450
(6) Gonorrhoea ...	393
(7) Diseases of respiratory system except pneumonia and tubercle of lungs ...	260
(8) Diseases of the digestive system ...	101
(9) Syphilis ...	12

Statement of cases showing a decrease as compared with 1922 enumerated in the order of their decreased numbers:—

	Nos.
(1) Diseases of urinary system ...	1,634
(2) Diseases of skin ...	1,602
(3) Diseases of connective tissue ...	1,199
(4) Ulcers ...	1,133
(5) Rheumatic fever and rheumatism ...	559
(6) Other general diseases ...	300
(7) Dysentery ...	210
(8) Gonorrhoea ...	143
(9) Diseases of stomach ...	91

Malaria—

Years.	Number of cases.	Years.	Number of cases.
1901	11,317	1912	3,513
1902	8,213	1913	8,457
1903	6,654	1914	9,118
1904	4,211	1915	8,821
1905	3,482	1916	7,495
1906	3,031	1917	6,687
1907	1,260	1918	5,563
1908	1,843	1919	5,320
1909	1,903	1920	5,403
1910	1,822	1921	5,469
1911	1,871	1922	5,850
		1923	7,092

The above figures show that the number of cases of Malaria treated has increased steadily from 1919 the year under review showing a sharp rise.

Septic Cases.—

Admitted with sepsis	Number admitted.
...	686

5. Operations.—The following is the comparative statement of work done by the three Surgeons during the past three years :—

Surgeons	1921.	1922.	1923.
First Surgeon	781	803	792
Second Surgeon	605	600	708
Third Surgeon	693	724	961
Total	2,079	2,127	2,461

6. Sexes and classes of patients treated.—Vide statement F attached to the report. The following statement shows, in a convenient form, the various classes and sexes of patients treated, both in and out, during the year as compared with the two preceding years :—

Years.	Europeans and Anglo-Indians.				Hindus.				Muhammadans.				Others.				Total treated.
	Adults.		Children.		Adults.		Children.		Adults.		Children.		Adults.		Children.		
	Male.	F. male.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	
In-patients.																	
1923	1,015	539	130	98	3,943	943	230	129	375	40	23	7	1,233	529	128	82	5,444
1922	1,024	549	131	96	4,225	1,060	280	150	387	81	26	10	733	375	91	53	9,296
1921	1,140	526	132	88	3,795	916	166	95	353	60	17	7	635	318	63	37	8,353
Out-patients.																	
1923	2,047	1,299	488	521	28,865	5,920	3,508	2,452	3,128	221	208	129	6,284	2,286	1,308	1,120	60,178
1922	2,324	1,228	597	433	30,647	5,633	3,019	2,443	3,150	276	206	162	6,369	2,337	1,331	1,173	61,524
1921	2,752	1,347	592	452	30,506	6,102	3,035	2,363	3,025	213	120	73	6,531	1,889	896	702	60,648
Total.																	
1923	3,062	1,838	618	619	32,808	6,863	3,538	2,581	3,503	261	231	133	7,517	2,815	1,436	1,202	69,684
1922	3,548	1,777	728	529	34,872	6,693	3,299	2,593	3,537	357	232	172	7,127	2,712	1,422	1,226	70,812
1921	3,892	1,873	724	540	34,301	7,018	3,201	2,458	3,378	292	137	80	7,217	2,207	959	739	60,960

In-patients.—The number of Europeans treated among adults and children is almost the same and calls for no special remarks.

A general decrease may be noted among Hindus and Muhammadans while an increase is observed among other castes which raises the total treated during the year.

Out-patients.—The out-patients show a fall during the present as well as past year.

7. Epidemics.—Two cases of cholera among non-Europeans were treated during the year of which one died in the hospital.

During the period when small-pox prevailed in an epidemic form in the City, 15 cases (8 non-Europeans and 7 Europeans) occurred in the hospital against 13 in 1922.

The accompanying table shows the number of enteric cases treated as in-patients during the past three years :—

	1921.		1922.		1923.	
	Euro-peans.	Non-Euro-peans.	Euro-peans.	Non-Euro-peans.	Euro-peans.	Non-Euro-peans.
Admissions	58	70	33	78	50	72
	128		116		122	

The death-rate was 14.00 and 13.89 in 1923 as against 12.20 and 19.32 respectively among Europeans and non-Europeans in 1922.

8. Training of Medical Students.—Two hundred and eighty-three students as detailed below were given clinical instructions in 1923 against 383 in 1922 :—

Third year Students	...	...	...	...	...	101
Fourth year	...	...	...	...	...	83
Fifth year	...	...	...	...	...	82
Additional	...	...	...	...	...	17
Total	...	...	...	...	...	283

9. Training School for Nurses.—During the year under report, 112 applications were received from women desirous of joining the hospital as Government probationers.

Probationers.—The following are the figures for the year :—

Existing staff on 1st January 1923	...	...	...	...	...	35
Newly entertained	...	...	...	...	...	44
Total	...	...	...	...	...	79
Qualified and promoted to the staff	...	...	...	...	...	29
Left the service	...	...	...	...	...	17
Remaining on the 31st December 1923	...	...	...	...	...	33
Total	...	...	...	...	...	79

Note.—Seventeen probationers left the service on the following grounds :—

Found unsuitable	...	...	...	...	...	12
On account of family difficulties	...	...	...	...	...	1
To be married	...	...	...	...	...	1
To Maternity Hospital	...	...	...	...	...	1
To better their prospects	...	...	...	...	...	2
Total	...	...	...	...	...	17

During the year 14 applications were received from women desirous of joining the hospital as Indian Nurse Probationers :—

Existing staff on 1st January 1923	...	...	...	...	...	4
Newly entertained	...	...	...	...	...	2
Total	...	...	...	...	...	6
Qualified and promoted to the staff	...	...	...	...	...	4
Did not like to work in male wards	...	...	...	...	...	1
Remaining on 31st December 1923	...	...	...	...	...	1
Total	...	...	...	...	...	6

Female Ward Attendants—Probationers.—

Existing staff on 1st January 1923	...	...	...	...	...	5
Newly entertained	...	...	...	...	...	...
Total	...	...	...	...	...	5
Qualified and promoted to the staff	...	...	...	...	...	5
Remaining on 31st December 1923	...	...	...	...	...	...
Total	...	...	...	...	...	5

Female Ward Attendants.—The sanctioned establishment is twenty-two ayahs:—

Existing staff on 1st January 1923	21
Trained in this hospital	—
Total	21
Remaining on 31st December 1923	21
Total	21

10. Special Departments.—Vide professional reports.

11. Finance.—Statement II gives the details of expenditure and income of the hospital during the year 1923.

Income.—The main sources of revenue to the hospital are as follows:—

(1) *Hospital stoppages recovered from paying patients.*—The recoveries made from such of the in-patients as are liable for payment under G.O. No. 399, Medical, dated 17th September 1917, are noted below:—

The amounts collected during the past three years are—

Year.	Amount. RS.
1921	27,641
1922	30,101
1923	32,396

(2) *Hire for motor ambulance car recovered from patients admitted to hospital and others.*—The amounts collected during the past three years are as under:—

Year.	Amount. RS.
1921	1,277
1922	454
1923	501

The car was out of order and under repairs during the close of the year 1923

(3) *The sale-proceeds of garden produce including usufructs of coconut trees in the hospital compound.*—The amounts collected during the past three years are—

Year.	Amount. RS.
1921	470
1922	350
1923	310

(4) *Fines on contractors.*—The amounts collected during the past three years are—

Year.	Amount. RS. A. P.
1921	57 9 3
1922	68 9 11
1923	169 3 9

(5) *Sale-proceeds of unserviceable articles, empty packings and tins.*—The amounts collected during the past three years are—

Year.	Amount. RS. A. P.
1921	873 7 6
1922	556 0 0
1923	677 3 0

Expenditure—Salaries.—The increase is due to the payment of leave and acting allowances given to the Matron and Assistant Matron Superintendents and others who went on leave during the year. Unlike previous years there were only a few vacancies in the Sisters' and Staff Nurses' grades.

Expenditure on diet, medicines etc., is higher owing to the increase in the prices of certain articles of drugs supplied by the Medical Stores as well as to the higher tender rates of certain articles of food stuffs and non-diet articles. The increase in the cost of building is due to the construction of quarters for 10 European Sisters as well as to certain improvements to the out-patient block.

12. Cost per head.—Information is given in Appendix C attached to this report.

13. General Hospital Poor Fund.—

Receipts.	Amount.	Expenditure.	Amount.
	RS. A. P.		RS. A. P.
Opening balance	69 7 9		
Anonymous	2 1 3		
Cheque drawn	600 0 0		
Mr. Chengalroyan	20 0 0	Expended during the year	1,055 12 6
Col. T. H. Symons, I.M.S.	10 0 0		
Mr. Simon	8 0 0		
Mrs. Annie Besant	175 0 0		
Mr. Chelva Pillai	20 0 0		
Col. F. P. Elwes, I.M.S.	20 0 0		
Col. W. C. Bradfield, I.M.S.	5 0 0		
Mrs. Gray	5 0 0		
Raja of Bobbili	50 0 0	Opening balance	81 13 2
Mr. Paico	5 0 0		
Concert	150 1 3		
Total	1,137 10 3	Total	1,137 10 3

14. Supplies—(a) Medicines and Surgical Equipments.—Medicines and instruments required were obtained from the Medical Store Depot, special and unauthorized medicines and instruments on Home indents, and emergent requisitions by local purchases as usual.

	RS. A. P.
The cost of medicines, etc., supplied by the Medical Store Depot	92,585 13 0
Amount of the Home indent for the year 1923	17,000 0 0
Amount of medicines purchased locally	11,064 0 0
By a special order of the Government, insulin was purchased locally from Messrs. W. E. Smith & Co., at a cost of	287 8 0

(b) **Diet and non-diet articles.**—These articles are supplied by the contractors annually at the rates proposed by the Superintendent, General Hospital, and approved by the Surgeon General on the submission of tenders by the contractors. Other articles for use are purchased departmentally or obtained from other departments of Government if obtainable.

Bedding and clothing.—These are standardized to suit the hospital requirements and are obtained from the Jail department.

(c) **Hospital necessities.**—These include articles obtained both from Home and by local purchase.

Owing to financial stringency every attempt is being made to reduce expenditure under the above head to the lowest possible degree.

The table below shows the expenditure of a few of the more important surgical dressings, etc., during the year 1923 as compared with the previous three years:—

Articles.	1920.		1921.		1922.		1923.	
	Quantity.	Cost.	Quantity.	Cost.	Quantity.	Cost.	Quantity.	Cost.
		RS. A. P.		RS. A. P.		RS. A. P.		RS. A. P.
Absorbent cotton	1,847½ lb.	2,771 4 0	1,574½ lb.	2,361 15 0	1,895½ lb.	2,671 4 0	2,219 lb.	3,373 8 6
Combed cotton	3,881½ "	3,818 0 0	4,106½ "	4,106 8 0	4,434 "	4,431 0 0	4,400 "	4,400 0 0
Dungry cloth	18,355 pcs.	22,405 15 0	17,955 pcs.	18,653 14 6	20,076 pcs.	21,330 12 0	22,419 pcs.	22,763 4 2
Muslin	1,380½ yds.	553 10 3	1,550 yds.	302 4 0	2,100½ yds.	623 9 4	2,350 yds.	697 10 6
Long cloth	3,010 "	1,489 5 0	3,043½ "	1,505 12 10	3,755½ "	1,810 1 2	4,363 "	
Glycerine	438½ lb.	1,754 0 0	511½ lb.	255 12 0	428 lb.	214 0 0	558 lb.	
Alcohol	2,638½ "	722 15 8	2,117½ "	2,646 6 6	2,587 "	3,171 4 0	8,051 "	2,288 4 0
Carbolic acid	668 "	2,672 0 0	734 "	275 4 0	539 "	202 2 0	706 "	485 6 0
Flannel	576 yds.	288 0 0	547½ yds.	273 10 0	732 yds.	326 0 0	1,040 yds.	1,560 0 0
White gauze	15,400 "	1,176 0 0	13,689 "	1,232 0 2	24,282 "	2,671 4 0	22,484 "	5,171 5 1
Total		16,889 5 9		21,817 7 0		37,503 4 6		42,868 3 1

The increase in total cost has been observed when compared to the previous year.

15. Electric Installation of Punkahs, Lights, Fans, etc.—The plant is in charge of the Electric Foreman who is provided with free quarters in the hospital, and under the supervision of the Electrical Engineer to Government, Madras.

The following statement shows the expenditure incurred on electrical works at the General Hospital, Madras, during the calendar year 1923:

A. ORIGINAL WORKS.

I. Works completed during the year 1923.

Name of work.	Amount of Expenditure.
	RS.
1. Providing additional lights and call bell for accident cases in the Duty Assistant Surgeon's rooms and additional lights in the Out-patient Department	174
2. Providing a call bell in the General Hospital	152
3. Renewal of 3 fans at the General Hospital	405
4. Providing a fan and 4 sterilizer boards to the General Hospital, Madras	356
5. Providing additional light in the Out-patient Department, General Hospital	38
6. Providing punkahs in the General Hospital	94
7. Providing electric lights in the inspection chamber and emergency latrines, General Hospital, Madras	89
8. Providing lights and fans to the Indian Nurse's Quarters, General Hospital	1,411
	<u>2,719</u>

II.—Works under construction.

Name of work.	Amount of Expenditure.
	RS.
1. Providing a fan and a light and shifting a light point at the Male Operation Theatre, General Hospital	142
2. Providing electric installation to 10 sisters' quarters at the General Hospital, Madras	2,736
3. Providing electric fans to the night nurses' quarters, General Hospital	1,700
	<u>4,618</u>

B.—REPAIRS.

1. Provincial electric repairs to the General Hospital	2,074+1,235 (3,309)	In progress.
2. Annual punkah repairs to General Hospital	944+96 (1,040)	Do.
3. Provincial electric repairs to the quarters of No. 1 Resident Medical Officer	4	Do.
4. Provincial electric repairs to the quarters of second Resident Medical Officer.	3	Do.
5. Special repairs to punkahs and punkah machinery.	2,976	Completed.
	<u>7,332</u>	

16. Establishment.—The following changes occurred during the year 1923 both in the Medical and Provincial service staff:—

Rank.	Name.	Nature of duties.	Period during which the officers were present for duty.		Remarks.
			From	To	
Medical Officers.					
Lieut.-Col., I.M.S.	T. H. Symons, O.B.E., M.R.C.S. (Eng.), L.R.C.P. (Lon.).	Superintendent ...	1 Jan. 1923	9 May 1923	Permanent.
Do.	F. F. Elwes, C.I.E., M.D. (Lon.), M.R.C.S. (Eng.), L.R.C.P. (Lon.).	Do. ...	10 May 1923	23 May 1923	Acting.
Do.	E. W. C. Bradfield, O.B.E., M.S., M.B. (Lon.), F.R.C.S. (Edin.).	Do. ...	24 May 1923	10 July 1923	Do.
Do.	R. B. B. Foster, B.A., M.B., B.Ch., B.A.O. (Dub.), D.P.H. (Cantab.), L.M.	Do. ...	11 July 1923	31 Dec. 1923	Do.
Do.	F. F. Elwes, C.I.E., M.D. (Lon.), M.R.C.S. (Eng.), L.R.C.P. (Lon.).	First Physician ...	1 Jan. 1923	27 May 1923	Permanent.
Major, I.M.S. ...	J. M. Skinner, M.B., B.Ch., D.T.M.	Do.	28 May 1923	24 June 1923	Acting.
Lieut.-Col., I.M.S.	F. F. Elwes, C.I.E., M.D. (Lon.), M.R.C.S. (Eng.), L.R.C.P. (Lon.).	Do.	25 June 1923	24 Oct. 1923	Permanent.
Major, I.M.S. ...	G. E. Malcomson, M.D. (Lon.), D.P.H. (Lon.).	Do. ...	25 Oct. 1923	31 Dec. 1923	Acting.
Do. ...	J. M. Skinner, M.B., B.Ch., D.T.M.	Second Physician.	1 Jan. 1923	30 Apr. 1923	Do.
Do. ...	W. L. Forsyth, M.B., Ch.B. (Glasgow) & (Lon.).	Do.	1 May 1923	24 May 1923	Do.
Do. ...	J. M. Skinner, M.B., B.Ch., D.T.M.	Do.	25 May 1923	4 July 1923	Do.
Do. ...	G. E. Malcomson, M.D. (Lon.), D.P.H. (Lon.).	Do.	5 July 1923	24 Oct. 1923	Sub. pro tem.
Do. ...	J. M. Skinner, M.B., B.Ch., D.T.M.	Do.	25 Oct. 1923	31 Dec. 1923	Acting.
Do. ...	W. L. Forsyth M.B., Ch.B. (Glasgow) and (Lon.).	Third Physician.	1 Jan. 1923	31 Dec. 1923	Permanent from 20th Oct. 1923
Civil Assistant Surgeon.	M. R. Guruswami Mudaliyar, B.A., M.D., C.M.	Fourth Physician.	Do.	25 May 1923	Acting.
Major, I.M.S. ...	W. L. Forsyth, M.B., Ch.B. (Glasgow) & (Lon.).	Do.	26 May 1923	31 May 1923	Do.
Civil Assistant Surgeon.	M. R. Guruswami Mudaliyar, B.A., M.D., C.M.	Do.	1 June 1923	31 Dec. 1923	Permanent from 12th Dec. 1923
	N. Venkataswami Chetti, M.B., C.M.	Hon. Physician ...	1 Dec. 1923	Do.	
Lieut.-Col., I.M.S.	T. H. Symons, O.B.E., M.R.C.S. (Eng.), L.R.C.P. (Lon.).	First Surgeon ...	1 Jan. 1923	9 May 1923	Permanent.
Major, I.M.S. ...	A. P. G. Lorimer, M.B., B.Ch.	Do. ...	10 May 1923	23 May 1923	Acting.
Lieut.-Col., I.M.S.	E. W. C. Bradfield, O.B.E., M.S., M.B. (Lon.), F.R.C.S. (Edin.).	Do. ...	24 May 1923	31 Dec. 1923	Do.
Do.	Do.	Second Surgeon.	1 Jan. 1923	23 Apr. 1923	Do.
Major, I.M.S. ...	A. P. G. Lorimer, M.B., B.Ch.	Do.	24 Apr. 1923	10 July 1923	Do.
Lieut.-Col., I.M.S.	R. B. B. Foster, B.A., M.B., B.Ch., B.A.O. (Dub.), D.P.H. (Cantab.), L.M.	Do.	11 July 1923	31 Dec. 1923	Do.

ANNUAL REPORT AND STATISTICS OF THE

Rank.	Name.	Nature of duties.	Period during which the officers were present for duty		Remarks.
			From	To	

Medical Officers—cont.

Major, I.M.S.	K. G. Pandalai, M.B., F.R.C.S.	Third Surgeon	1 Jan. 1923	31 Dec. 1923	Acting.
Do.	A. P. G. Lorimer, M.B., B.Ch.	Resident Medical Officer.	1 Jan. 1923	23 Apr. 1923	Permanent.
Do.	W. G. Patay, M.C., M.B., F.R.C.S.	Do.	24 Apr. 1923	8 Sep. 1923	Acting.
Do.	W. L. Forsyth, M.B., Ch.B. (Glasgow) and (Lon.).	Do.	4 Sep. 1923	2 Oct. 1923	Do.
Do.	W. C. Paton, M.C., M.B., F.R.C.S.	Do.	3 Oct. 1923	31 Dec. 1923	Do.

Provincial Service Staff.

First-class Military Surgeon.	L. P. Gernon, I.M.D.	Senior Assistant Surgeon.	1 Jan. 1923	3 Feb. 1923	Acting.
Temporary Civil Assistant Surgeon.	C. Oommen, M.B., B.S.	Do.	4 Feb. 1923	21 Feb. 1923	Do.
Major, I.M.D.	F. De Cruz	Do.	23 Feb. 1923	27 June 1923	Do.
First-class Military Surgeon.	D. H. J. Nicholas, I.M.D.	Do.	28 June 1923	31 Dec. 1923	Do.
Temporary Civil Assistant Surgeon.	V. K. Narayana Menon, M.B., B.S.	Assistant to First Physician.	1 Jan. 1923	31 Dec. 1923	Do.
Do.	K. Ranganathan, L.M.S.	Assistant to Second Physician.	Do.	3 Jan. 1923	Do.
Civil Assistant Surgeon.	D. Kanagasabhesan, L.M.S.	Do.	4 Jan. 1923	28 Feb. 1923	Do.
Temporary Civil Assistant Surgeon.	J. Srinivasan, L.M.S.	Do.	1 Mar. 1923	15 Mar. 1923	Do.
Civil Assistant Surgeon.	K. S. Subrahmanya Ayyar, L.M.S.	Do.	17 Mar. 1923	31 Dec. 1923	Do.
Do.	F. De Netto, M.B., B.S.	Assistant to Third Physician.	1 Jan. 1923	1 Feb. 1923	Do.
Temporary Civil Assistant Surgeon.	K. C. Paul, M.B., B.S.	Do.	2 Feb. 1923	13 Mar. 1923	Do.
Civil Assistant Surgeon.	F. De Netto, M.B., B.S.	Do.	14 Mar. 1923	31 Dec. 1923	Do.
Do.	G. R. Sivaram, L.M.S.	Assistant to Fourth Physician.	1 Jan. 1923	27 May 1923	Do.
Do.	F. De Netto, M.B., B.S.	Do.	23 May 1923	31 Dec. 1923	Do.
Do.	G. R. Sivaram, L.M.S.	Do.	31 Dec. 1923	20 Apr. 1923	Do.
Do.	N. B. Morris, F.R.C.S.	Assistant to First Surgeon.	1 Jan. 1923	20 Apr. 1923	Do.
Temporary Civil Assistant Surgeon.	R. Anantam Pillai, L.M.S.	Do.	21 Apr. 1923	13 May 1923	Do.
Do.	C. Oommen, M.B., B.S.	Do.	14 May 1923	24 May 1923	Do.
Do.	C. Krishnaswami Pillai, L.M.S.	Do.	25 May 1923	18 Aug. 1923	Do.
Civil Assistant Surgeon.	P. V. Cherian, M.B., B.S.	Do.	19 Aug. 1923	31 Dec. 1923	Do.
Temporary Civil Assistant Surgeon.	C. Krishnaswami Pillai, L.M.S.	Assistant to Second Surgeon.	1 Jan. 1923	24 May 1923	Do.
Do.	C. Oommen, M.B., B.S.	Do.	25 May 1923	2 Aug. 1923	Do.
Do.	R. Shanmugam, L.M.S.	Do.	3 Aug. 1923	18 Aug. 1923	Do.
Do.	P. A. Mathew, M.B., B.S.	Do.	19 Aug. 1923	18 Oct. 1923	Do.
Do.	R. Shanmugam, L.M.S.	Do.	19 Oct. 1923	31 Dec. 1923	Do.
Do.	N. S. Ramaswami Ayyar, M.B., B.S.	Assistant to Third Surgeon.	1 Jan. 1923	31 Dec. 1923	Do.
Civil Assistant Surgeon.	V. K. Natesan, L.M.S.	Assistant to Third Surgeon (Special Department).	Do.	Do.	Do.
Temporary Civil Assistant Surgeon.	M. Gopalakini, L.M.S.	Anaesthetist	27 Jan. 1923	Do.	Do.
Do.	C. Oommen, M.B., B.S.	First Assistant to the Resident Medical Officer.	1 Jan. 1923	3 Feb. 1923	Do.
Do.	G. P. Ragavayya, L.M.S.	Do.	2 Feb. 1923	21 Feb. 1923	Do.

GOVERNMENT GENERAL HOSPITAL

Rank.	Name.	Nature of duties.	Period during which the officers were present for duty.		Remarks.
			From	To	

Provincial Service Staff—cont.

Temporary Civil Assistant Surgeon.	C. Oommen, M.B., B.S.	First Assistant to the Resident Medical Officer.	22 Feb. 1923	13 May 1923	Acting.
Do.	R. Anantam Pillai, L.M.S.	Do.	14 May 1923	4 June 1923	Do.
Do.	G. I. Benjamin, L.M.S.	Do.	5 June 1923	31 Dec. 1923	Do.
Do.	C. K. Anantanarayana Ayyar, L.M.S.	Second Assistant to the Resident Medical Officer.	1 Jan. 1923	Do.	Do.

X-Ray Department.

Captain	T. W. Barnard, M.B., F.R.P.S.	Radiologist	1 Jan. 1923	31 Dec. 1923	Permanent.
Civil Assistant Surgeon.	M. J. Santanakrishna Pillai, L.M.S.	First Assistant to Radiologist.	Do.	Do.	Acting.
Second-class Military Assistant Surgeon.	A. St. C. Bartley, I.M.D.	Second Assistant to Radiologist.	Do.	Do.	Do.
Selection Grade Sub-Assistant Surgeon.	K. R. Venkatachala Ayyar.	Third Assistant to Radiologist.	2 Mar. 1923	Do.	Do.
Sub-Assistant Surgeon.	S. Subrahmanyam	Training in X-Rays.	7 Apr. 1923	3 May 1923	
Do.	S. Sabhapathi Pillai	Do.	5 May 1923	4 June 1923	

House Surgeons and Physicians.

House Surgeon	G. P. Ragavayya, L.M.S.	House Surgeon to First Surgeon.	1 Jan. 1923	12 June 1923	
Do.	K. Srinivasa Acharya, L.M.S.	Do.	Do.	14 Mar. 1923	
Do.	A. S. Ramachandran, L.M.S.	Do.	25 May 1923	21 Nov. 1923	
Do.	V. J. John, L.M.S.	Do.	21 May 1923	20 Nov. 1923	
Do.	P. Balakrishna Kurup, L.M.S.	Do.	1 June 1923	24 June 1923	
Do.	V. Krishna Rao, L.M.S.	Do.	26 June 1923	25 Dec. 1923	
Do.	V. Gnanamurthy, L.M.S.	Do.	21 Nov. 1923	31 Dec. 1923	
Do.	N. Gopalan, L.M.S.	Do.	Do.	Do.	
Do.	Venkataramnam, L.M.S.	Do.	24 Nov. 1923	31 Feb. 1923	
Do.	K. S. Appu, M.B., B.S.	Do.	25 Dec. 1923	31 Dec. 1923	
Do.	K. C. Paul, M.B., B.S.	House Surgeon to Second Surgeon.	1 Jan. 1923	1 Feb. 1923	
Do.	C. V. George, L.M.S.	Do.	30 Jan. 1923	15 Apr. 1923	
Do.	R. Shanmugam, L.M.S.	Do.	24 Apr. 1923	19 Oct. 1923	
Do.	P. Satyanarayana, M.B., B.S.	Do.	1 May 1923	16 June 1923	
Do.	Balakrishna Kurup, L.M.S.	Do.	25 June 1923	25 Oct. 1923	
Do.	R. Sundara Rajan, L.M.S.	Do.	30 Oct. 1923	31 Dec. 1923	
Do.	Vijaya Raghavan, M.B., B.S.	Do.	8 Dec. 1923	30 Dec. 1923	
Do.	Anantam Pillai, L.M.S.	House Surgeon to Third Surgeon.	26 Jan. 1923	30 June 1923	
Do.	Y. Sivarama Ayyar, L.M.S.	Do.	12 Mar. 1923	30 Sep. 1923	
Do.	M. A. Basir, L.M.S.	Do.	14 Mar. 1923	12 Apr. 1923	
Do.	M. K. Sumbasivam, M.B., B.S.	Do.	4 June 1923	31 Dec. 1923	
Do.	C. K. Krishnamurti	Do.	27 June 1923	3 Oct. 1923	
Do.	K. Raman Menon, M.B., B.S.	Do.	28 Oct. 1923	31 Dec. 1923	
Do.	S. Subrahmanyam, M.B., B.S.	Do.	5 Nov. 1923	Do.	

Rank.	Name.	Nature of duties.	Period during which the officers were present for duty.		Remarks.
			From	To	

House Surgeons and Physicians—cont.

House Physician.	K. Vasudeva Rao, M.B., B.S.	House Physician to First Physician.	1 Jan. 1923	30 June 1923	
Do.	C. Krishnamurti, L.M.S.	Do.	Do.	27 June 1923	
Do.	M. A. Basir, L.M.S.	Do.	Do.	14 Mar. 1923	
Do.	R. Anantam Pillai, L.M.S.	Do.	Do.	26 Jan. 1923	
Do.	S. Annaswami, M.B., B.S.	Do.	Do.	10 Sep. 1923	
Do.	K. S. Appa, M.B., B.S.	Do.	26 June 1923	25 Dec. 1923	
Do.	Sanjivi Rao, M.B., B.S.	Do.	27 June 1923	30 Oct. 1923	
Do.	Subba Rao, M.B., B.S.	Do.	27 Sep. 1923	31 Dec. 1923	
Do.	T. K. Ramau, M.B., B.S.	Do.	31 Oct. 1923	Do.	
Do.	V. Krishna Rao, L.M.S.	Do.	26 Dec. 1923	Do.	
Do.	J. Srinivasan, L.M.S.	House Physician to Second Physician.	1 Jan. 1923	30 May 1923	
Do.	S. Dorairaj, L.M.S.	Do.	Do.	25 Feb. 1923	
Do.	Madava Menon, M.B., B.S.	Do.	1 June 1923	30 Oct. 1923	
Do.	A. Krishnan, M.B., B.S.	Do.	Do.	20 Nov. 1923	
Do.	P. Govinda Nayar, L.M.S.	Do.	12 Nov. 1923	31 Dec. 1923	
Do.	V. J. John, L.M.S.	Do.	27 Nov. 1923	Do.	
Do.	G. P. Raghavayya, L.M.S.	House Physician to Third Physician.	27 June 1923	26 Dec. 1923	
Do.	Venkatasubba Rao	House Physician to Fourth Physician.	1 Jan. 1923	30 Apr. 1923	
Do.	K. Rajangam, L.M.S.	Do.	1 Mar. 1923	1 Apr. 1923	
Do.	K. Satyanarayana, M.B., B.S.	Do.	20 May 1923	6 Nov. 1923	
Do.	V. Raguthaman, L.M.S.	Do.	21 May 1923	21 Nov. 1923	
Do.	Venkateswaram, M.B., B.S.	Do.	7 Nov. 1923	10 Dec. 1923	
Do.	N. Narayanan, L.M.S.	Do.	27 Nov. 1923	31 Dec. 1923	
Do.	C. De Jordon, I.M.D.	Do.	17 Dec. 1923	Do.	

Sub-Assistant Surgeons.

Senior Sub-Assistant Surgeon.	U. S. Muttuswami Nadar.	Sub-Assistant Surgeon in charge of O.P. Dispensary.	1 Jan. 1923	15 Apr. 1923	
Sub-Assistant Surgeon.	D. Narayanaswami Ayyangar.	Do.	10 Apr. 1923	25 Apr. 1923	
Senior Sub-Assistant Surgeon.	R. Ramanjulu Nayudu.	Do.	26 Apr. 1923	16 Aug. 1923	
Do.	U. S. Muttuswami Nadar.	Do.	17 Aug. 1923	31 Dec. 1923	
Sub-Assistant Surgeon.	V. Narayanaswami Pillai.	Sub-Assistant Surgeon in charge of In-Dispensary.	1 Jan. 1923	16 Aug. 1923	
Senior Sub-Assistant Surgeon.	R. Ramanjulu Nayudu.	Do.	17 Aug. 1923	31 Dec. 1923	

Rank.	Name.	Nature of duties.	Period during which the officers were present for duty.		Remarks.
			From	To	

Medical Officers, Assistant Surgeons and Sub-Assistant Surgeons on Reserve duty.

Major, I.M.S.	W. C. Paton	Reserve duty	7 Apr. 1923	23 Apr. 1923	
Captain, I.M.S.	E. J. Anderson	Do.	7 May 1923	25 June 1923	
Major, I.M.S.	A. P. G. Lorimer	Do.	11 July 1923	21 July 1923	
Captain, I.M.S.	N. K. Bal	Do.	12 Dec. 1923	31 Dec. 1923	
First-class Military Assistant Surgeon.	D. H. J. Nicholas, I.M.D.	Do.	26 Jan. 1923	27 Jan. 1923	
Civil Assistant Surgeon.	A. M. Mohi-ud-din Sahib Bahadur, M.B., B.S.	Do.	1 Jan. 1923	5 Jan. 1923	
Do.	B. Dayananda Rao, L.M.S.	Do.	17 Jan. 1923	20 Jan. 1923	
Do.	T. V. Hajarathnam, M.B., B.S.	Do.	Do.	31 Jan. 1923	
Do.	V. N. Bencal	Do.	26 June 1923	25 July 1923	
Do.	M. Sanjivi Rao, M.B., B.S.	Do.	27 June 1923	4 July 1923	
Do.	P. Ramachandra Rao	Do.	20 Aug. 1923	13 Sep. 1923	
Do.	T. S. Somasundaram	Do.	23 Aug. 1923	25 Sep. 1923	
Do.	A. Srinivasala Nayudu.	Do.	31 Mar. 1923	29 May 1923	
Do.	E. A. Varada Ayyar	Do.	11 Dec. 1923	31 Dec. 1923	
Sub-Assistant Surgeon.	S. Venkatesa Ayyar, No. 687.	Do.	1 Jan. 1923	2 Apr. 1923	
Do.	D. Narayanaswami Ayyangar, No. 721.	Do.	Do.	15 Apr. 1923	
Do.	P. Chakrapani Nayudu, No. 821.	Do.	Do.	31 Dec. 1923	
Do.	B. K. Naraga Ayyar, No. 857.	Do.	Do.	25 May 1923	
Do.	D. Narayanaswami Ayyangar, No. 721.	Do.	26 Apr. 1923	4 May 1923	
Do.	Kothanda Raman	Do.	20 Aug. 1923	8 Sep. 1923	
Do.	D. Narayanaswami Ayyangar, No. 721.	Do.	19 Sep. 1923	31 Dec. 1923	
Do.	Muhammad Ali Sahib, No. 1250.	Special duty	1 Jan. 1923	Do.	

Indian Nursing Staff—

Existing staff on the 1st January 1923	...	5
Nurses trained in this hospital	...	4
Total	...	9
Remaining on the 31st December 1923	...	9

English and Indian Trained Sisters.—The sanctioned strength is 9.

Existing staff on the 1st January 1923	...	4
Newly entertained	...	3
Total	...	7
Left the service	...	2
Remaining on the 31st December 1923	...	5*
Total	...	7

* Of these five Sisters, one is acting as Assistant Matron Superintendent.

Nursing Staff—

Existing staff on the 1st January 1923	...	...	61
Nurses trained in the hospital	...	...	29
Otherwise attached	...	...	2
Joined from other hospital	...	...	1

Total ... 93

Left the service	...	...	23
Transferred to Maternity Hospital for training	...	...	4
Remaining on the 31st December 1923	...	...	66

Total ... 93

Twenty-three Nurses left the service on the following grounds:—

Promoted as Ward Sister	...	...	1
Transferred to other hospitals	...	...	6
To better their prospects	...	...	11
To be married	...	...	3
Family difficulties	...	...	1
Compelled to resign the service	...	...	1

Total ... 23

The Nursing Establishment.—Miss B. Royal Dawson, Assistant Matron Superintendent, who was granted long leave from the 6th November 1922, was invalided and given gratuity of Rs. 1,800 as per S.G. Memo. Ref. No. 1263-1-A, dated 14th November 1923.

Sister B. Lane, an English lady with English training, who acted as Assistant Matron Superintendent, resigned (vide S.G. Memo. No. P. 1795-G., dated 1st October 1923).

Sister G. Gadsden, Indian trained, who was permitted to act as Acting Assistant Matron Superintendent during the absence of Sister B. Lane, continues to act as Assistant Matron Superintendent (vide S.G. Memo. Ref. No. 1582, dated 31st August 1923, from the Personal Assistant to the Surgeon-General with the Government of Madras).

Under the Fundamental Rules Mrs. K. S. Palsgrave, Matron Superintendent, Government General Hospital, Madras, was granted four months' leave on full average salary and eight months' leave on half average salary from the 26th February 1923, as per memorandum from the Personal Assistant to the Surgeon-General Ref. No. 2848-G-5, dated 16th October 1922, and availed herself of the leave with effect from the 2nd April 1923 afternoon.

Miss Edith Isabel Hobson was appointed as Matron Superintendent to the Government General Hospital, Madras, on a five years' agreement on a salary of Rs. 300—20—400 per mensem and in accordance with the terms and conditions sanctioned by the Secretary of State for India in Council in this Order Mis. No. 443-P.H., dated 21st March 1923, Government or Madras, Local Self-Government Department.

During the year under report the Government in their Order No. 1651-P.H., dated 3rd October 1923, agreed with the Surgeon-General that it is no longer necessary to grant to pupil nurses a diploma at the end of their second year of training and they accordingly directed the discontinuance of the award of such diploma.

The Government have also in their Order No. 1467-P.H., dated 1st September 1923, from the Local Self-Government department sanctioned the following revised rates of ration allowance to the nursing staff with effect from the 1st September 1923:—

Existing rates.	Per mensem.
1. Matron and Assistant Matron in the General Hospital	Rs. 50
2. Matrons in other institutions	Rs. 50
3. Sisters	Rs. 22½ (temporarily raised to Rs. 26).
4. Staff nurses	
5. European and Anglo-Indian pupil nurses in the General Hospital	
6. Indian nurses in the Royapetta, Maternity and Victoria Caste and Gosha Hospitals Indian pupil nurses, General Hospital, Madras, and in mufassal hospitals	Rs. 15

A.—Presidency Hospitals.

Revised rates.	Rates of ration allowance per month.
	RS.
Matron—Sisters—Nurses and Pupils, European and Anglo-Indian	25
Matron—Sisters—Nurses and Pupils, Indian	15

B.—Mufassal Hospitals.

Revised rates.	Rates of ration allowance per month.
Matron—Sisters—Nurses and Pupils, Anglo-Indian	20.
Do. do Indian	15

Members of the nursing staff entertained under definite contract, such as Matron Superintendent of the Government General Hospital, Madras, will, however, be permitted to continue to draw the ration allowance in accordance with the terms of their agreement.

Linen Department—

The work done in this department is shown in the following table:—

Year	Amount spent under bedding and clothing.	Cost of materials used in the laundry.	Cost of washing 100 pieces in the laundry.	Number of pieces washed in the laundry.	Amount paid by nurses, etc., to replace linen lost.	Amount paid to extra tailors.
		RS. A. P.	RS. A. P.		RS. A. P.	RS. A. P.
1921	...	3,516 12 7	1 1 6	326,553	636 4 4	74 13 7
1922	...	3,726 5 8	1 1 11	333,364	484 2 3	42 12 0
1923	...	4,186 10 4	0 15 0	453,888	665 4 8	55 8 0

The stock of linen was examined quarterly and the work of the Linen department was satisfactory throughout the year.

Year.	Number of pieces condemned.	Cost of articles condemned.	Number of pieces washed.	Remarks.
		RS.		
1920-21	5,986	10,705	322,346	These figures are for the official years.
1921-22	6,438	12,353	330,196	
1922-23	5,967	10,417	351,623	

Male ward attendants.—Present strength 24.

Steam Laundry.—The plant was in charge of a mechanic as usual. The repairs needed to the machines were carried out by the fitters deputed by the Public Works Workshops. All the necessaries for the plants were obtained during the year on indents from the General Superintendent, Public Works Stores, at a cost of Rs. 364.

The air heater still remains a failure.

The licence for the boiler (Register No. 1228) was renewed for one year from 8th January 1924.

Steam Disinfecter (Lyons). The disinfection work is carried out thrice a week on Mondays, Wednesdays and Saturdays. Urgent work is carried out on all days. A Sub-Assistant Surgeon is deputed to supervise the disinfection of articles while the installation is in charge of a licensed driver. The licence for the disinfecter (Register No. 1037) was renewed for one year from 5th July 1923.

Motor Ambulance Car.—It is available for public use at any part of the day or the night. The chauffeur resides on the premises. He made 1,060 trips covering a distance of 5,123 miles during 1923 against 500 extending over 3,609 miles 3 furlongs during the previous year.

Four hundred and forty-eight gallons of commercial spirit (Powerin) were consumed and the distance travelled worked out to an average of 11.43 miles a gallon in 1923 with 10.43 miles a gallon during 1922.

The car is now being engaged more on Government purposes for treatment and transmission of patients from one hospital to another. It is utilized by the public when not engaged on public duty.

The car was overhauled and repaired at a cost of Rs. 447-8-0.

Electrical Department.—The Electrical Foreman is in charge of the installation with a gang of workmen under him. The plant is periodically inspected by the Electrical Engineer and Assistant Engineer who carry out the repairs necessary for maintenance.

Sanitary Department.—The Hospital Sergeant with the Jamadar or servant makes daily rounds and sees to the sanitation of the hospital and its compounds as well as to the daily cleaning of all drains and flush-outs. The permanent Sergeant Mr. F. Dady is on 4 months' leave from 29th November 1923.

The Resident Medical Officer supervises the work done by the Sanitary Department and gives such orders and suggestions as he thinks necessary to be carried out by the Sergeants or other departments concerned. The Superintendent makes inspection of the whole hospital building with the Public Works and other departments to note and carry out alterations and suggestions that he may like to give to the various departments.

Office Establishment.—The Resident Medical Officer is generally in charge of the internal administration of the hospital assisted by the Head Steward or the Manager with 22 members in his charge.

Telephones.—Telephone plant connecting 8 inter-communications to various departments and residences within the hospital is available both day and night in charge of telephone clerks.

Diet Accounts.—These are under the daily check of the Assistant Accountant of this hospital and under the concurrent monthly audit of the Accountant-General, Madras.

Articles.	1920.		1921.		1922.		1923.	
	Quantity.	Cost.	Quantity.	Cost.	Quantity.	Cost.	Quantity.	Cost.
		RS. A. P.		RS. A. P.		RS. A. P.		RS. A. P.
Coffee powder Lb.	5,028-5	3,699 0 8½	4,274-4½	2,938 6 9	4,776-5	3,582 3 9	5,403-5½	4,550 1 4
Sugar, brown "	3,239-2	885 14 8½	2,675-8½	674 6 4	3,162-5	710 1 7	3,550-10	743 8 3
" white "	11,491-13½	3,950 5 8½	12,153-15½	4,304 8 4	12,945-0½	2,860 9 10	15,640-0	3,210 7 3½
Tea "	317-11¼	357 6 7½	335-10½	235 12 0	354-8½	332 5 6	458-14½	458 14 9
Soda splits No.	12,958	223 15 8	5,682	147 9 0	19,243	400 1 10½	16,432	641 14 9
Lemonade splits	8,106	370 11 4	4,692	205 12 0	7,541	549 15 10	11,884	924 8 6
Longcloth Yds.	3,010	1,489 5 0	3,043	1,505 12 10	3,935	1,967 8 0	4,486½	1,752 8 6
Milk Pints.	273,062-12½	77,982 14 1	249,019-12½	54,473 1 1	284,065	42,905 10 0	314,749	53,273 5 8
Apples No.	1,652	316 1 0	489	75 7 3	1,366	234 12 6	1,605	250 12 6
Oranges "	16,201	830 13 1	21,899	912 2 4	21,286	997 12 6	16,512	688 0 0
Eggs "	75,386	3,693 1 2	68,453	3,565 4 2	60,981	2,858 7 9	90,357	4,706 0 6
Ice Lb.	1,18,044	3,313 14 0	139,084	8,662 12 0	157,591	9,849 7 0	168,561	7,901 4 3
Wines and Spirits.	...	2,071 4 8	...	3,056 7 3	...	3,809 1 6	...	1,075 14 1

Average daily cost of in-patients.—The following table shows the average daily cost of dieting European and Indian patients per diem in the general wards of the hospital, together with the average daily attendance of patients dieted during each month of the year from 1921 :—

Months.	Indians.						Europeans.					
	1921.		1922.		1923.		1921.		1922.		1923.	
	Average daily attendance of patients dieted.	Average cost per head per diem.	Average daily attendance of patients dieted.	Average cost per head per diem.	Average daily attendance of patients dieted.	Average cost per head per diem.	Average daily attendance of patients dieted.	Average cost per head per diem.	Average daily attendance of patients dieted.	Average cost per head per diem.	Average daily attendance of patients dieted.	Average cost per head per diem.
		A. P.		RS. A. P.		RS. A. P.		RS. A. P.		RS. A. P.		RS. A. P.
January ...	288-43	11 6	348-87	0 9 3½	352-84	0 8 4½	96-90	1 3 6	96-96	1 0 6	83-13	0 14 2½
February ...	308-98	10 2½	353-43	0 9 5½	373-64	0 8 2½	104-53	1 1 3½	97-07	0 15 11½	91-71	0 18 4½
March ...	325-77	10 5	382-71	0 9 9½	381-71	0 8 5½	101-61	1 1 11½	94-71	1 0 5	91-71	0 13 8½
April ...	315-37	12 3½	368-40	0 10 3½	372-83	0 8 2½	95-96	1 1 10	97-20	1 1 6½	99-10	0 14 2½
May ...	324-9	10 2½	375-00	0 10 5	384-22	0 8 1½	97-7	1 1 5½	97-50	1 8 0	92-94	0 15 1½
June ...	332-9	9 4	391-90	0 8 9½	400-10	0 8 11½	99-9	1 0 10½	90-10	1 0 1	84-87	1 0 3½
July ...	336-4	9 3½	412-20	0 8 9½	394-68	0 10 1½	88-09	1 1 2½	86-90	0 15 1½	84-35	1 1 7½
August ...	348-45	9 2½	404-54	0 8 6½	400-61	0 9 11½	98-26	1 0 10½	89-58	0 14 4	90-26	1 1 11½
September ...	344-96	9 8½	408-26	0 8 6½	375-80	0 9 9½	103-03	1 3 0½	92-43	0 15 1	94-93	1 2 1½
October ...	332-85	9 11½	399-22	0 8 7½	369-93	0 9 5½	112-77	1 3 10½	92-87	0 15 11½	104-42	1 0 7½
November ...	359-58	10 1½	363-40	0 8 7½	391-20	0 9 4½	101-73	1 3 11½	86-90	0 15 3½	111-03	1 0 5½
December ...	354-06	6 6½	363-68	0 8 2½	374-90	0 9 11	90-29	1 1 3½	82-03	0 14 3½	94-32	1 0 8½
Total average.	333-51	10 1½	380-88	0 9 1½	381-02	0 9 2½	99-18	1 2 1½	92-08	0 15 11½	93-30	0 15 10½

Water-supply.—The following statement shows the expenditure of water with costs during the past four years :—

Year.	Expenditure.		Cost.	
	GALLONS.	RS. A. P.	GALLONS.	RS. A. P.
1920 ...	9,007,448	10,731 8 0	...	...
1921 ...	11,820,081	14,498 5 0	...	...
1922 ...	13,223,631	16,517 4 0	...	...
1923 ...	16,257,297	20,320 0 0	...	...

The expenditure of water is high owing to additional flush system latrines of Clive, Hope, etc., as well as to the large consumption of water used by the P.W.D. for construction purposes.

Sale of unserviceable articles.—Public auctions were held during the year and articles condemned sold. The following are the realizations during the past three years :—

Years.	Amount realized.	
	RS. A. P.	RS. A. P.
1921 ...	878 7 0	...
1922 ...	556 0 0	...
1923 ...	677 3 0	...

Income.—(3) Sale-proceeds of the garden produce including usufruct of coconut trees in the hospital compound. The amount collected during the past three years are :—

Years.	Amount realized.	
	RS. A. P.	RS. A. P.
1921 ...	470 0 0	...
1922 ...	350 0 0	...
1923 ...	310 0 0	...

Protection of buildings.—The building is provided with four Minimax Extinguishers fixed to the walls of the hospital on the south side, where the medical stores and the in-dispensary are located. Eighty-four fire buckets are available for emergent use in charge of Hospital Sergeant. The Nurses' Quarters are protected with fixing up of two Minimax Extinguishers and the hand pump with buckets hitherto in use was removed.

Hot-water furnaces.—There are three hot furnaces connecting the wards and the Nurses' Quarters for supply of hot water during day and night.

17. Inspections.—Their Excellencies Lord and Lady Willington visited the hospital on 15th December 1923. The Hon'ble the Surgeon-General made during the year several visits both official and non-official.

18. The annual verification of stock and of furniture was conducted as usual by a committee of Medical Officers on the 31st January 1924.

The Medical Stores are in charge of the Fourth Physician and were inspected by him daily as regards medicines and appliances, while the instruments are in charge of First Surgeon who checks them on receipt from home.

The Resident Medical Officer visits the Provision Stores and the store-books are checked by the Head Steward. The annual stock-taking of the Provision Stores was carried out by the Head Steward on the 1st January 1924 and submitted for the approval of the Resident Medical Officer. The value of the stores was estimated to be Rs. 4,380-15-9 on that day.

The stock of stationery and linen was examined quarterly by the Resident Medical Officer and the Matron Superintendent, respectively.

19. Verification of Service Register.—The service books of both the superior and inferior permanent establishments were verified up to 31st December 1923.

20. Sanctioned establishments.—The strength of the establishment remained the same throughout the year except in following instances :—

Government in their order No. 12-R.P.H., dated 12th January 1924, confirmed M.R.Ry. M. R. Guruswami Mudaliyar Avl., B.A., M.D.C.M. and S. Rangachary Avl., M.B.C.M., as Fourth Physician and Third Surgeon of this hospital respectively with effect from 12th December 1923.

Government in their order Mis. No. 846-P.H., dated 15th June 1922 sanctioned the grant of a shorthand allowance of Rs. 25 and Rs. 15 per mensem to the typist of this hospital according as the typist possesses advanced or intermediate qualification. A special pay of Rs. 10 per mensem to the typist who possesses advanced qualification in typewriting was sanctioned from 9th January 1923 communicated in G.O. No. 41-P.H., dated 9th January 1923.

The scheme of appointing Honorary Surgeons and Physicians in Government Institutions has been sanctioned by Government in G.O. Mis. No. 1726-P.H., dated 17th October 1923, and brought into force for the first time during this year. M.R.Ry. N. Venkataswami Chetti

Avl., M.B.C.M., has been appointed as First Honorary Physician of this hospital and assumed charge on the 1st December 1923. He is styled as Fifth Physician for purposes of statistics.

21. Statement of wound and post-mortem certificates, etc.—

21. Statement of				
Number of wound certificates issued during the year 1923.	Number of post mortem certificates issued during the year 1923.	Number of post-mortem examination.		Number of days during the year spent in courts of justice by Medical Officers and subordinates.
		For medico-legal purposes.	For scientific purposes.	
148	27	27	65	
				Civil Asst. Surgeon ... Morris ... 4
				Do. do. ... N. S. Ramaswami Ayyar ... 3
				Do. do. ... V. R. Natesan ... 4
				Do. do. ... Benjamin ... 13
				Do. do. ... Sivaramayya ... 2
				Do. do. ... F. De Netto ... 4
				Do. do. ... Temporary Civil Asst. Surgeon Gopala Kinnu ... 2
				Do. do. ... Appu ... 2
				Do. do. ... T. C. Mathew ... 2
				Do. do. ... V. K. Narayana Menon ... 1
				Do. do. ... Sanjiva Rao ... 2
				Do. do. ... C. K. Anantanarayana Ayyar ... 6
				Do. do. ... Luther ... 2
				Do. do. ... C. Oommen ... 4
				Do. do. ... Krishnaswami Pillai ... 2
				House Surgeon ... A. S. Ramachandran ... 6
				Do. do. ... V. Krishna Rao ... 2
				Do. do. ... G. P. Raghavayya ... 3
				Do. do. ... K. Sambasivan ... 3
				Do. do. ... T. V. Ragudaman ... 4
				Do. do. ... P. Balakrishna Kurup ... 2
				Do. do. ... P. Shanmugam ... 3
				Do. do. ... C. K. Krishnamurti ... 2
				Do. do. ... M. A. Basir ... 2
				Do. do. ... Varadarajulu ... 1
				Do. do. ... K. Vasudeva Rao ... 4
				House Physician ... K. Srinivasachari ... 2
				Do. do. ... Anantham Pillai ... 1
				Do. do. ... Muttuswami Nadar ... 1
				Sub-Asst. Surgeon ... Narayanaswami ... 2
				Do. do. ... Ayyangar ... 2
				Do. do. ... P. C. Nayudu ... 2
				Temporary Civil Asst. Surgeon A. K. Vasudevan ... 2
				Total ... 95

22. General Remarks.—The following statement shows receipts and expenditure during the past four years ending with 1923 :—

Receipts.	1920.	1921.	1922.	1923.
	RS. 7,32,313	RS. 6,82,924	RS. 6,85,431	RS. 7,51,338
Expenditure—	RS.	RS.	RS.	RS.
	RS.	RS.	RS.	RS.
Salaries (Medical Officer) ...	94,509	1,01,077	1,10,110	1,05,433
Salaries (nurses) ...	74,947	74,581	93,319	1,09,639
Salaries (inferior servants) ...	63,475	71,752	69,712	71,672
Medicines (Europe) ...	56,640	75,622	68,059	92,586
Medicines (Bazaar) ...	3,572	8,712	4,383	11,064
Diet ...	1,45,790	1,19,960	1,30,170	1,33,121
Miscellaneous charges ...	1,67,737	1,07,767	1,51,977	1,58,431
Buildings and repairs ...	1,25,843	96,535	57,696	63,392
Average daily sick in 1918 (40437) ...	428.21	459.28	496.47	502.91
Cost per head of the total average strength ...	RS. A. P. 904 7 4	RS. A. P. 771 2 10	RS. A. P. 739 6 7	RS. A. P. 770 6 2

GOVT. GENERAL HOSPITAL, MADRAS,
28th March 1924.

R. B. B. FOSTER, Lieut.-Col., I.M.S.,
Superintendent.

APPENDICES.

APPENDIX A.

Comparative statement of the medical work done in the General Hospital, Madras, for the three years ending 1923.

Years.	In-patients.										Out-patients.										
	Total treated.	Average daily sick.		Deaths.	Average stay in hospital.	Average cost of diet.						Total treated.		Average daily sick.							
		Europeans and Eurasians.	Non-Europeans.			General wards.		Officers' quarters.		Europeans and Eurasians.	Non-Europeans.	Total.	Europeans and Eurasians.	Non-Europeans.							
						Europeans and Eurasians.	Non-Europeans.	Europeans and Eurasians.	Non-Europeans.												
															Europeans and Eurasians.	Non-Europeans.	Europeans and Eurasians.	Non-Europeans.			
1921	1,886	6,472	109-60	349-03	103	480	583	4,800	21-15	19-63	1 2 4	0 9 11 1/2	2 15 11 1/2	1 3 4 1/2	5,143	55,505	60,648	271-88	116-50	389-78	6,780
1922	1,800	7,496	03-36	393-11	87	522	639	4,293	20-58	19-15	1 0 4	0 9 2	3 3 2 1/2	1 7 7	4,732	56,746	61,528	263-41	122-21	385-72	7,509
1923	1,782	7,662	106-85	385-96	93	607	700	8,023	21-59	18-85	1 0 1 1/2	0 9 1	3 9 4 1/2	2 1 6 1/2	4,945	55,292	60,174	234-62	133-24	427-86	10,279

ANNUAL REPORT AND STATISTICS OF THE

APPENDIX B.

Statement showing the medical work done by each Medical Officer during 1923.

In-patients.

Medical officers.	Class of patients.	Admissions.							Operations.							Average cost of diet.		Post-mortem examinations.		
		Admissions.							Operations.							Average stay in hospital.	Patients in hospital.		Special wards.	General wards.
		Admitted.	Total.	Cured.	Relieved.	Discharged otherwise.	Died.	Remaining.	Remained.	Performed during the year.	Total.	Cured.	Relieved.	Discharged otherwise.	Died.						Remaining.
First Physician	Non-Europeans	41	694	630	154	118	111	41	62.83	111.27	3,187	2,187	3,187	3,187	3,187	19.39	22.10	RS. A. P. 2 1 1/2	RS. A. P. 0 11 7 1/2	10
	Europeans	29	687	585	143	75	43	41	41.60	62.53	1,186	1,186	1,186	1,186	1,186	22.10	22.10	2 1 1/2	0 11 7 1/2	...
	Total	70	1,381	1,215	297	193	154	82	94.43	91.97	4,373	3,373	4,373	4,373	4,373	41.49	44.19	...	...	...
Second Physician	Non-Europeans	38	975	625	172	175	113	28	42.85	111.55	678	678	678	678	678	16.23	16.23	2 2 8	0 9 10 1/2	19
	Europeans	14	237	231	141	47	37	5	14.74	36.76	158	158	158	158	158	21.35	21.35	3 2 2	0 12 2 1/2	...
	Total	52	1,212	856	213	212	150	33	60.59	101.27	836	836	836	836	836	37.81	37.81	...	...	...
Third Physician	Non-Europeans	10	325	143	87	68	26	11	19.63	77.91	189	189	189	189	189	14.77	14.77	...	0 9 1	...
	Europeans	10	325	143	87	68	26	11	19.63	77.91	189	189	189	189	189	14.77	14.77	...	...	...
	Total	20	650	286	174	136	52	22	39.26	155.82	378	378	378	378	378	29.54	29.54	...	...	...
Fourth Physician	Non-Europeans	47	1,316	1,022	283	273	101	43	57.43	71.10	1,129	1,129	1,129	1,129	1,129	15.34	15.34	1 15 1	0 9 8	7
	Europeans	10	241	231	143	53	42	17	13.80	43.62	176	176	176	176	176	20.69	20.69	3 5 3 1/2	0 15 1	...
	Total	57	1,557	1,253	426	315	112	60	71.23	60.59	1,305	1,305	1,305	1,305	1,305	35.44	35.44	...	...	...
Honorary Physician	Non-Europeans	66	66	27	4	3	5	27	1.93	75.76	103	103	103	103	103	10.35	10.35	...	0 9 7	...
	Europeans	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Total	66	66	27	4	3	5	27	1.93	75.76	103	103	103	103	103	10.35	10.35	...	...	...
First Surgeon	Non-Europeans	56	1,009	612	162	200	75	70	64.93	54.94	600	600	600	600	600	20.31	20.31	2 4 7	0 8 4 1/2	15
	Europeans	10	254	244	118	32	22	11	13.21	40.18	132	132	132	132	132	21.31	21.31	2 4 7	0 8 4 1/2	...
	Total	66	1,263	856	280	232	97	81	77.24	60.76	732	732	732	732	732	41.68	41.68	...	...	...
Second Surgeon	Non-Europeans	62	980	622	140	163	87	61	66.26	83.40	604	604	604	604	604	15.34	15.34	1 9 4	0 7 11 1/2	17
	Europeans	6	121	127	78	19	6	3	11.13	47.24	68	68	68	68	68	20.69	20.69	3 12 2	1 0 7	...
	Total	68	1,101	749	218	182	93	64	77.38	79.56	672	672	672	672	672	36.06	36.06	...	...	...
Third Surgeon	Non-Europeans	65	1,006	699	367	256	89	92	94.11	52.57	830	830	830	830	830	20.31	20.31	2 2 4 1/2	0 8 12 1/2	32
	Europeans	11	211	222	122	38	25	8	12.46	36.64	71	71	71	71	71	20.19	20.19	2 2 4 1/2	0 15 8 1/2	...
	Total	76	1,217	921	489	311	114	100	106.59	59.65	901	901	901	901	901	40.50	40.50	...	...	...
Total	Non-Europeans	342	7,320	4,412	1,418	1,222	607	373	70.56	70.23	73	73	73	73	73	18.85	18.85	3 1 6 1/2	0 9 1	89
	Europeans	80	1,762	1,629	328	252	93	40	106.55	52.22	1,087	1,087	1,087	1,087	1,087	21.59	21.59	3 9 11 1/2	1 0 14	1
	Grand Total	422	9,082	6,041	1,746	1,564	700	463	80.21	74.74	883	883	883	883	883	40.38	40.38	...	...	91

Out-patients.

Medical officers.	Class of patients.	Total treated.					Average daily sick.					Operations.		Post-mortem examinations.
		Men.		Women.		Total.	Male children.		Female children.		Total.	Total.		
Resident Medical Officers and Assistant Surgeons.	Non-Europeans	38,777	8,327	4,824	3,701	55,628	284.27	63.37	33.39	27.4	25.49	406.43	8,074	11
	Europeans	2,647	1,289	486	621	4,942	21.43	6.34	2.14	2.56	21.43	2,208	...	...
	Total	40,924	9,616	5,310	4,322	60,174	304.62	69.75	35.54	28.06	427.86	10,279	11	...

APPENDIX C.

Statement showing "Cost per head per annum" of the Daily Average Strength of the General Hospital, Madras, for the year 1921, as compared with those of 1919, 1920, 1921 and 1922.

Name of hospital or dispensary.	Number of medical institutions.	Daily average number of in-patients treated.	Daily average number of out-patients treated.	Total of the daily average strength.	Total cost.		Establishment.		Medicines, both European and country.		Diet.		Miscellaneous charges.	
					Cost.	Strength.	Cost.	Strength.	Cost.	Strength.	Cost.	Strength.	Cost.	Strength.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Government General Hospital, Madras, Founded in 1753.	1	421.71	357.01	808.72	5,19,580 0 0	835 0 4	2,06,710 0 0	253 9 7	86,562 0 0	82 4 8	1,01,052 0 0	121 1 1	78,716 0 0	97 5 4
1919.														
1920.		428.21	381.46	809.67	7,02,288 0 0	867 8 0	2,32,631 0 0	287 10 6	60,012 0 0	74 2 0	1,45,790 0 0	340 6 8	1,37,712 0 0	170 1 8
1921.		489.28	388.78	849.05	6,54,006 0 0	771 2 2	2,47,410 0 0	291 11 9	82,334 0 0	97 1 4	1,19,960 0 0	141 7 3	1,07,767 0 0	127 1 2
1922.		496.47	385.62	882.09	6,52,227 0 0	739 6 7	2,73,141 0 0	308 11 4	72,447 0 0	82 2 1	1,30,170 0 0	147 9 1	1,18,773 0 0	134 10 5
1923.		502.91	427.86	930.77	7,17,054 0 0	770 6 2	2,86,744 0 0	303 1 2	10,365 0 0	111 5 9	1,33,121 0 0	143 0 4	1,59,431 0 0	171 4 8

Column 6 is the same as column 22 in Statement H, minus column 11 of the same.

Column 12 is the same as column 18 of Statement H.

Column 14 is the same as column 19 of Statement H, minus column 11 of the same.

Cost of petty repairs to buildings is included in column 20 of Statement H.

Column 8 is the same as column 4 of Statement H.

Column 10 is the total of columns 16 and 17 of Statement H.

APPENDIX D.

INDIANS.

Statement showing the in-patients treated with results in the year 1923.

No.	Diseases.	Remained.	Admitted.	Total.	Results.						Total.
					Cured.	Relieved.	Discharged otherwise.	Died.	Remaining.		
1	Cholera, Asiatic...	...	2	2	1	...	...	1	...	2	
2	Dysentery	14	201	215	150	15	27	10	4	215	
3	Enteric fever	8	64	72	53	2	3	10	4	72	
4	Gonococcal infection	...	186	186	38	102	36	6	4	186	
5	Syphilis (primary and secondary)	16	267	283	37	140	82	14	1	283	
6	Kala Azar	6	145	151	71	16	37	19	8	151	
7	Leprosy	...	3	3	...	1	2	...	...	3	
8	Malaria	22	704	726	565	65	63	19	14	726	
9	Plague	...	...	...	...	...	...	...	...	...	
10	Influenza	...	130	130	119	2	6	4	...	130	
11	Relapsing fever...	...	17	17	12	4	...	...	1	17	
12	Pneumococcal infection of the lung...	8	217	225	122	12	23	64	4	225	
13	Pyrexia of uncertain origin	...	123	123	84	6	17	4	12	123	
14	Rheumatic fever	...	50	50	22	16	5	4	3	50	
15	Smallpox	...	8	8	3	...	5	...	...	8	
16	Tuberculosis of the lung	9	181	190	24	81	37	38	10	190	
17	Other tubercular diseases	12	139	151	27	49	54	11	10	151	
18	All other infective diseases	25	131	156	77	25	10	17	18	156	
19	Anæmia	...	10	10	2	4	1	...	3	10	
20	Diabetes...	5	67	72	23	23	15	9	2	72	
21	Scurvy	...	2	2	...	1	...	1	...	2	
22	Rickets	...	2	2	2	...	...	...	...	2	
23	Other diseases due to disorders of nutrition and metabolism.	5	6	10	3	5	2	...	...	10	
24	Diseases of the ductless or endocrine glands.	...	4	4	1	...	3	...	...	4	
25	} New growths {	Non-malignant	...	19	19	6	2	10	...	1	19
26		Malignant	1	121	122	32	27	39	12	12	122
27	All other general diseases	...	8	71	79	22	10	19	4	24	79
28	{ Diseases of the nervous system, spinal cord, brain and meninges. Diseases of which the pathological basis is not accurately known. Mental diseases.	...	15	199	214	62	62	64	21	5	214
29	Diseases of the eye	...	7	7	...	1	4	1	1	7	
30	Do. ear	1	21	22	9	5	6	2	...	22	
31	Do. nose	...	14	14	7	3	4	...	...	14	
32	Do. circulatory system	9	183	192	42	66	21	39	4	192	
33	All diseases of the respiratory system except pneumonia and tuberculosis of the lungs.	5	250	255	89	92	48	22	4	255	
34	Diseases of the stomach	...	168	168	73	27	33	11	24	168	
35	Do. intestines	3	256	259	130	43	28	18	40	259	
36	Abscess of the liver	2	59	61	28	9	10	4	1	61	
37	All other diseases of the liver	8	86	94	17	36	10	21	5	94	
38	Do. digestive system	38	1,173	1,211	768	127	203	80	33	1,211	
39	Acute or suppurative inflammation of the lymphatic glands.	...	120	120	56	21	27	6	10	120	
40	Acute and chronic nephritis	2	107	109	31	46	21	9	3	109	
41	All other diseases of the urinary organs	3	140	143	61	34	34	10	4	143	
42	Other diseases of the generative system	11	396	407	236	31	32	6	12	407	
43	Diseases of the organs of locomotion	11	149	160	91	21	32	12	4	160	
44	Do. Areolar tissue	29	434	463	302	59	66	26	1	463	
45	Inflammation, ulcerative	7	107	114	61	11	30	7	5	114	
46	Other diseases of the skin	8	113	121	55	28	23	7	8	121	
47	All other local diseases	18	151	164	67	19	63	4	11	164	
48	Injuries (general and local)	50	424	474	251	69	59	45	50	474	
49	Poisoning { By opium	...	...	...	...	...	...	...	...	...	
50	{ By other poisons	2	...	2	2	...	...	...	...	2	
51	Labour { Normal	...	...	...	...	...	...	...	...	...	
51	{ Abnormal	...	...	...	...	...	...	...	...	...	
51	Beri Beri	...	13	13	9	...	...	...	4	13	
Total		342	7,320	7,662	3,942	1,418	1,322	607	373	7,662	

APPENDIX E.

EUROPEANS AND ANGLO-INDIANS.

Statement showing the in-patients treated with results in the year 1923.

No.	Disease.	Remained.	Admitted.	Total.	Results.					Total.	
					Cured.	Relieved.	Discharged otherwise.	Died.	Remaining.		
1	Cholera, Asiatic	1	61	62	53	1	4	3	1	62	
2	Dysentery	5	45	50	37	...	2	7	4	50	
3	Enteric fever	...	24	24	5	16	2	...	1	24	
4	Gonococcal infection	...	34	34	4	20	8	1	1	34	
5	Syphilis (primary and secondary)	5	42	47	29	4	3	4	7	47	
6	Kala Azar	...	...	...	...	...	...	...	...	...	
7	Leprosy	...	...	...	136	10	9	4	9	168	
8	Malaria	4	164	168	41	...	3	2	4	50	
9	Plague	...	...	...	...	...	...	...	...	...	
10	Influenza	...	50	50	3	1	...	2	...	6	
11	Relapsing fever	...	6	6	30	3	3	3	...	39	
12	Pneumococcal infection of the lung	2	37	39	30	3	3	...	2	64	
13	Pyrexia of uncertain origin	2	62	64	56	3	3	...	1	16	
14	Rheumatic fever	...	16	16	7	5	3	...	...	7	
15	Smallpox	...	7	7	7	...	...	...	...	...	
16	Tuberculosis of the lung	2	50	52	8	22	12	9	1	52	
17	Other tubercular diseases	3	17	20	11	5	...	2	2	20	
18	All other infective diseases	8	35	43	30	1	3	2	7	43	
19	Anæmia	...	2	2	1	...	1	...	...	2	
20	Diabetes	...	16	16	6	6	2	2	...	16	
21	Scarvy	...	...	...	...	...	...	...	...	...	
22	Rickets	3	3	3	1	...	2	...	...	3	
23	Other diseases due to disorders of nutrition and metabolism.	2	2	2	1	1	...	...	...	2	
24	Diseases of the ductless or endocrine glands.	...	...	...	...	...	...	...	...	...	
25	New growths	Non-malignant	6	6	2	1	2	1	...	6	
26		Malignant	2	13	15	4	4	3	1	3	15
27	All other general diseases	2	25	27	11	4	4	2	6	27	
28	{ Diseases of the nervous system.	{ Diseases of the nerves, spinal cord, brain and meninges. Diseases of which the pathological basis is not accurately known.	2	69	71	31	24	10	5	1	71
29			Mental diseases	...	...	...	...	...	...	...	...
30	Disease of the eye	...	5	5	3	1	...	...	...	5	
31	Do. ear	...	6	6	5	...	1	...	...	6	
32	Do. nose	...	3	3	2	...	1	...	...	3	
33	Do. circulatory system	3	45	48	17	14	8	8	1	48	
34	All diseases of the respiratory system except pneumonia and tuberculosis of the lungs.	8	93	101	33	46	16	3	3	101	
35	Diseases of the stomach	...	43	43	17	10	3	3	10	43	
36	Do. intestines	4	64	68	43	11	5	2	7	68	
37	Abscess of the liver	...	7	7	4	1	...	2	...	7	
38	All other diseases of the liver	...	11	11	8	1	...	...	2	11	
39	Do. digestive system	9	286	295	174	49	51	13	8	295	
40	Acute or suppurative inflammation of the lymphatic glands.	1	14	15	8	5	2	...	...	15	
41	Acute and chronic nephritis	...	41	41	24	9	3	5	...	41	
42	All other diseases of the urinary organs	3	22	25	11	8	4	1	1	25	
43	Other diseases of the generative system	3	43	46	26	7	10	1	2	46	
44	Diseases of the organs of locomotion	2	20	22	11	4	7	...	...	22	
45	Do. areolar tissue	...	57	57	47	3	4	3	...	57	
46	Inflammation ulcerative	...	16	16	8	8	...	...	...	16	
47	Other diseases of the skin	...	32	32	20	8	...	...	4	32	
48	All other local diseases	3	51	54	15	7	30	...	2	54	
49	Injuries (general and local)	6	54	60	47	4	7	2	...	60	
49	Poisoning	...	3	3	2	1	...	...	...	3	
50	Labour	Normal	...	...	...	...	...	...	...	...	
		Abnormal	...	...	...	...	...	...	...	...	...
	Total	80	1,702	1,782	1,039	323	232	93	90	1,782	

APPENDIX F.

Table showing the number of admissions, etc., from 1862.

Years.	In-patients.										Out-patients.						Total.	
	Total treated.				Average daily sick.				Deaths.				Total treated.		Average daily sick.		Total treated.	Average daily sick.
	Europeans.		Indians.		Europeans.		Indians.		Europeans.		Indians.		Europeans.		Indians.			
	Medical.	Surgical.	Medical.	Surgical.	Medical.	Surgical.	Medical.	Surgical.	Medical.	Surgical.	Medical.	Surgical.	Medical.	Surgical.	Medical.	Surgical.		
1842	1,118	741	684	794	39	108	145	672	1,314	154	311	1,790	2,085	82	111			
1843	1,229	651	694	844	37	78	115	827	1,654	134	203	2,058	2,305	75	107			
1844	1,328	680	724	814	43	81	129	1,111	2,294	104	22	2,437	2,824	68	104			
1845	1,480	683	82	62	42	107	149	891	1,864	6	13	2,471	2,637	83	104			
1846	1,478	1,238	92	94	95	144	239	1,251	2,502	12	12	2,729	3,740	106	110			
1847	1,402	1,265	99	98	68	131	199	1,729	3,468	17	34	3,131	4,723	116	132			
1848	1,489	1,469	100	97	43	171	160	2,154	4,308	14	29	3,643	5,777	114	123			
1849	782	525	700	766	32	75	107	1,577	5,032	104	43	2,884	6,528	66	114			
1850	633	402	489	781	39	72	109	1,608	6,009	111	53	2,731	7,554	59	124			
1851	738	475	601	553	27	63	80	1,834	5,836	15	54	3,147	7,320	72	137			
1852	891	499	1,118	888	41	56	97	2,199	6,407	17	59	3,889	8,613	84	159			
1853	830	460	815	988	44	74	45	2,425	8,768	16	71	3,715	10,561	79	195			
1854	252	123	237	323	12	23	18	2,107	15	15	64	952	2,777	81	199			
1855	922	551	995	1,058	43	65	54	108	89	9,443	18	73	4,112	11,465	90	194		
1856	921	458	1,142	1,111	52	127	41	175	62	3,001	9,902	19	81	4,380	12,155	186	194	
1857	978	432	1,123	1,104	39	41	56	4,096	11,859	27	56	5,506	12,186	84	221			
1858	1,314	550	3,306	1,304	45	876	113	5,292	13,281	32	10	7,166	17,511	101	233			
1859	1,562	2,536	75	137	80	200	276	4,508	16,994	33	66	6,470	18,520	109	253			
1860	1,307	2,345	70	136	46	164	210	4,539	18,441	35	59	6,366	31,786	109	281			
1861	1,193	2,566	56	134	57	172	229	5,463	18,023	38	97	6,671	20,769	92	277			
1862	1,046	2,240	60	119	58	163	211	5,719	18,904	41	33	6,765	21,144	101	290			
1863	1,027	2,221	61	128	57	178	235	4,947	18,698	35	20	5,974	20,919	90	262			
1864	1,044	2,038	62	138	49	138	187	6,433	22,505	30	62	5,983	24,223	88	287			
1865	1,181	2,173	65	122	77	208	285	4,983	22,155	30	77	6,683	24,679	100	289			
1866	1,160	2,313	73	138	40	154	203	5,533	25,129	31	30	6,093	27,442	101	307			
1867	1,209	2,238	72	129	49	143	192	6,270	23,730	32	32	7,485	29,037	101	307			
1868	1,210	2,827	50	136	60	230	290	6,923	33,600	33	60	8,133	32,579	99	305			
1869	1,423	3,432	89	158	64	177	241	6,943	27,135	41	35	8,860	30,567	110	332			
1870	1,433	3,451	87	140	39	194	233	8,087	30,417	48	39	9,420	33,968	116	370			
1871	1,439	3,946	71	172	67	238	305	8,862	32,405	55	33	10,361	36,351	126	412			
1872	1,235	3,416	68	174	75	329	404	7,735	31,077	47	81	9,020	35,386	116	424			
1873	1,273	3,077	81	181	74	316	390	7,959	27,961	52	66	9,232	40,084	133	461			
1874	1,329	3,181	80	173	62	246	308	8,171	41,450	50	63	9,500	44,611	130	474			

APPENDIX F—cont.

Table showing the number of admissions, etc., from 1862—cont.

Years.	In-patients.						Out-patients.						Total.			
	Total treated.			Average daily sick.			Total treated.			Average daily sick.			Total treated.		Average daily sick.	
	Europeans.		Indians.	Europeans.		Indians.	Europeans.		Indians.	Europeans.		Indians.	Europeans.		Indians.	
	Medical.	Surgical.	Medical.	Medical.	Surgical.	Medical.	Medical.	Surgical.	Medical.	Medical.	Surgical.	Medical.	Medical.	Surgical.	Medical.	Medical.
1864	1,548	3,947	407-11	84-21	109-18	300-81	67	302	300	300	300	300	8,465	42,350	49-54	252-27
1865	1,620	4,233	300-81	109-18	300-81	300-81	77	300	300	300	300	300	10,656	42,350	49-54	252-27
1866	2,170	5,232	207-01	111-00	207-01	98	98	344	344	344	344	344	14,338	47,442	74-18	325-52
1867	2,059	5,823	266-72	111-59	266-72	120	120	413	413	413	413	413	14,263	51,233	70-93	346-43
1868	1,842	5,119	282-52	102-32	282-52	106	106	449	449	449	449	449	12,903	46,828	70-54	318-28
1869	1,527	4,677	206-98	100-58	206-98	109	109	412	412	412	412	412	11,751	42,380	75-97	313-85
1870	2,028	5,585	110-24	100-74	204-50	138	138	407	407	407	407	407	11,778	51,829	69-03	310-02
1871	1,886	5,032	100-74	100-74	278-63	131	131	523	523	523	523	523	10,468	56,632	67-18	355-73
1872	2,415	6,802	279-51	106-68	279-51	122	122	543	543	543	543	543	10,375	50,895	70-92	301-65
1873	1,543	5,254	253-01	110-49	253-01	138	138	505	505	505	505	505	10,428	50,210	72-96	361-51
1874	1,938	5,036	272-46	117-24	272-46	121	121	450	450	450	450	450	10,186	40,618	68-94	313-58
1875	1,979	5,257	281-20	108-52	281-20	145	145	477	477	477	477	477	8,720	45,030	57-14	363-44
1876	1,563	4,068	253-75	115-29	253-75	133	133	435	435	435	435	435	8,407	40,739	49-05	345-40
1877	1,747	4,502	254-03	103-17	254-03	125	125	363	363	363	363	363	7,038	40,262	48-53	359-26
1878	1,974	5,543	268-03	111-55	268-03	111	111	448	448	448	448	448	6,338	45,705	45-93	382-01
1879	1,946	5,629	305-81	115-03	305-81	132	132	461	461	461	461	461	6,037	45,098	47-06	411-10
1880	2,038	5,818	300-95	113-12	300-95	146	146	508	508	508	508	508	6,120	45,876	49-72	407-83
1881	2,068	5,705	312-05	121-41	312-05	136	136	363	363	363	363	363	6,107	41,453	40-77	353-87
1882	2,022	6,270	297-69	108-54	297-69	98	98	454	454	454	454	454	5,740	43,232	35-64	341-75
1883	2,037	5,579	332-03	123-43	332-03	56	56	416	416	416	416	416	6,294	47,006	56-24	340-11
1884	2,127	6,179	318-69	120-13	318-69	75	75	466	466	466	466	466	7,047	53,807	38-63	321-95
1885	1,823	5,749	291-90	103-32	291-90	87	87	353	353	353	353	353	5,091	56,053	27-31	409-72
1886	1,743	4,176	284-76	94-47	284-76	70	70	361	361	361	361	361	5,163	52,177	27-57	437-95
1887	1,685	5,673	278-70	93-90	278-70	62	62	301	301	301	301	301	5,030	55,183	26-73	152-67
1888	1,831	5,401	311-12	102-25	311-12	82	82	540	540	540	540	540	4,980	57,682	25-72	383-60
1889	1,831	5,551	326-03	95-08	326-03	100	100	465	465	465	465	465	4,633	52,150	23-63	360-48
1890	1,802	5,718	325-08	100-12	325-08	80	80	443	443	443	443	443	4,830	57,096	25-93	350-53
1891	1,886	6,172	349-68	109-60	349-68	106	106	480	480	480	480	480	5,143	55,506	23-71	355-07
1892	1,800	7,406	303-11	103-06	303-11	87	87	622	622	622	622	622	4,782	58,748	24-68	360-43
1893	1,782	7,662	305-96	104-56	305-96	93	93	607	607	607	607	607	4,345	56,229	21-43	400-43

Nominal Register of Medical Officers of the General Hospital, Madras, from the year 1830.

Old Organization.

Garrison Surgeon.				Surgeon.				Permanent Assistant Surgeon.			
Name.	Acting or permanent.	Tenure of office		Name.	Acting or permanent.	Tenure of office		Name.	Acting or permanent.	Tenure of office	
		From	To			From	To			From	To
T. Sevestre	Permanent.	1 Jan. 1830	1 Jan. 1833	W. Mortimer	Permanent.	Unknown.	1 July 1841	W. Shaw	Permanent.	1 April 1851	1 Jan. 1852
H. A. Atkinson	Acting	1 July 1830	1 April 1831	G. Harding	Do.	1 July 1841	1 April 1851	A. Blacklock	Do.	1 Jan. 1852	24 Aug. 1855
				W. Evans, M.D.	Do.	1 April 1851	24 Feb. 1852	J. B. Thomas	Acting	20 June 1857	13 July 1857
				W. Gilchrist, M.D.	Do.	24 Feb. 1852	24 May 1852		Permanent.	14 July 1857	25 Oct. 1870
				T. A. Arthur, M.D.	Do.	30 Aug. 1852	12 Jan. 1854				
				W. Evans, M.D.	Do.	15 Jan. 1854	14 April 1859				
				T. L. Paul, M.D.	Do.	14 April 1859	2 May 1859				

New Organization.

Senior Medical Officer.				Senior Surgeon.				Second Surgeon.				Resident Medical Officer.				First Physician.				Assistant Physician.				Additional Medical Officer.			
Name.	Acting or permanent.	Tenure of office		Name.	Acting or permanent.	Tenure of office		Name.	Acting or permanent.	Tenure of office		Name.	Acting or permanent.	Tenure of office		Name.	Acting or permanent.	Tenure of office		Name.	Acting or permanent.	Tenure of office		Name.	Acting or permanent.	Tenure of office	
		From	To			From	To			From	To			From	To			From	To			From	To			From	To
W. N. Chipperfield.	Perma- nent.	24 Aug. 1868	21 Aug. 1872	R. W. Cockerill	Acting.	3 May 1869	5 May 1874	J. Maitland, M.D.	Perma- nent.	23 Feb. 1862	27 Jan. 1861	E. F. Drake- Brockman.	Acting.	6 July 1870	25 Oct. 1870	W. B. Browning	Perma- nent.	4 May 1895	31 Dec. 1900	A. M. Branfoot, M.B.	Perma- nent.	12 July 1878	30 June 1881	G. C. Hall	Perma- nent.	19 July 1893	11 Mar. 1895
G. Smith, M.D.	Acting.	22 June 1868	20 Aug. 1872		Perma- nent.	6 May 1874	24 Feb. 1885	C. M. Thompson, M.B.	Acting.	10 April 1865	9 July 1865	P. N. Mookerjee	Perma- nent.	26 Oct. 1870	28 Feb. 1875	H. A. F. Nailer, M.B.	Acting.	9 June 1896	29 Aug. 1899	T. K. Rodgers	Acting.	7 April 1878	27 June 1879	D. Simpson, M.B.	Acting.	29 Oct. 1898	18 Mar. 1894
	Perma- nent.	21 Aug. 1873	24 Oct. 1874		Acting.	1 July 1875	31 Aug. 1875	W. R. Browne, M.D.	Do.	18 Oct. 1880	26 Mar. 1887	W. E. Wright	Do.	7 July 1872	28 Aug. 1872	D. E. Dymott, M.B.	Do.	29 Aug. 1896	10 Nov. 1896	H. Armstrong	Do.	27 June 1879	16 July 1879	C. L. Williams	Do.	19 Mar. 1894	11 April 1895
	Acting.	2 Sep. 1874	30 Sep. 1874		Do.	6 May 1876	24 May 1876	M. H. Smith	Do.	27 Mar. 1887	11 Aug. 1887		Do.	2 July 1873	27 Dec. 1873	J. Smyth, M.D.	Do.	10 Nov. 1896	3 April 1897		Do.	17 July 1879	30 June 1881	G. G. Giffard	Do.	12 April 1894	4 June 1895
M. C. Furnell, M.D., C.F.R.	Do.	24 Oct. 1874	28 Feb. 1875	C. Sibthorpe	Do.	3 Aug. 1876	30 Sep. 1876	A. P. Adams	Do.	12 Aug. 1887	8 Sep. 1887		Do.	6 Aug. 1874	21 Sep. 1874	D. Simpson, M.B.	Do.	3 April 1897	16 April 1898	C. J. McNally, M.D.	Perma- nent.	1 July 1881	4 July 1881	R. Robertson	Perma- nent.	12 Mar. 1895	...
	Perma- nent.	1 Mar. 1875	5 April 1899		Do.	7 April 1877	10 April 1877	F. Clarence Smith	Do.	9 Sep. 1887	19 Dec. 1888	D. R. Thompson, M.D.	Do.	13 Nov. 1874	28 Feb. 1875	G. G. Giffard	Do.	16 April 1898	5 June 1898	W. G. King	Acting.	14 April 1882	12 Nov. 1883	W. Molesworth	Acting.	5 June 1895	16 Mar. 1896
R. W. Cockerill	Acting.	14 April 1876	24 May 1876	J. L. Ratton, M.D.	Do.	11 April 1877	19 June 1878	W. R. Browne, M.D.	Do.	22 Mar. 1889	17 April 1889		Perma- nent.	1 Mar. 1875	10 May 1875	Dr. A. C. Rendle, M.B.	Do.	5 June 1898	5 July 1898		Do.	1 April 1884	4 July 1884	F. C. Gabbett	Do.	17 Mar. 1896	3 Oct. 1896
J. E. Dickenson	Do.	23 May 1876	17 April 1877	C. Sibthorpe	Do.	6 July 1880	5 Aug. 1880	W. B. Browning	Do.	18 April 1889	30 Aug. 1890	C. Sibthorpe	Do.	11 May 1876	15 Aug. 1883	G. G. Giffard	Do.	6 July 1893	13 Mar. 1899	D. E. Dymott, M.B.	Perma- nent.	5 July 1881	27 Mar. 1885	J. L. Macrae	Do.	4 Oct. 1896	27 Oct. 1896
Henry King, M.B.	Perma- nent.	6 April 1890	4 April 1892	W. E. Browne, M.D.	Do.	1 July 1881	30 Sep. 1881	F. J. Crawford, M.D.	Perma- nent.	1 Sep. 1890	27 Jan. 1891	W. Butler	Acting.	1 July 1875	30 Aug. 1875	C. Donovan, M.D.	Do.	14 Mar. 1899	16 April 1899		Do.	28 Mar. 1885	25 Jan. 1889	F. C. Pereira	Do.	13 Oct. 1897	31 Jan. 1898
James Keess, M.D.	Acting.	5 April 1892	15 Aug. 1893		Do.	9 April 1884	5 Oct. 1884	M.D.	Acting.	28 Jan. 1891	14 Sep. 1900	J. A. Laing, M.D.	Do.	3 July 1875	30 Sep. 1876	R. Robertson	Do.	17 April 1899	14 June 1900	H. Allison, M.D.	Do.	28 Mar. 1885	25 Jan. 1889	Dr. H. H. G. Knapp.	Do.	1 Feb. 1898	20 Feb. 1898
	Do.	16 Aug. 1893	4 Jan. 1897	J. L. Ratton, M.D.	Perma- nent.	25 Feb. 1885	25 Jan. 1888	F. C. Reeves	Acting.	27 June 1891	28 July 1891	A. M. Branfoot, M.B.	Do.	23 April 1877	11 July 1878	A. N. Fleming	Do.	15 June 1900	9 Aug. 1900	F. C. Reeves	Acting.	29 Oct. 1885	10 Dec. 1885	Dr. V. O. Taylor	Do.	21 Feb. 1898	30 Nov. 1898
A. Porter, M.D.	Do.	5 Jan. 1897	25 July 1899	C. Sibthorpe	Acting.	19 July 1886	31 Aug. 1886	D. Simpson, M.B.	Do.	29 July 1891	24 Sep. 1891	J. J. Moran, M.D.	Do.	2 Dec. 1878	14 Dec. 1878	C. Donovan, M.D.	Do.	10 Aug. 1900	9 Sep. 1900	J. Smyth, M.D.	Do.	11 Dec. 1885	23 Mar. 1886	Dr. V. O. Taylor	Do.	21 Feb. 1898	30 Nov. 1898
C. Sibthorpe	Acting.	12 Aug. 1887	30 Sep. 1887		Do.	1 Sep. 1886	30 Sep. 1886	D. Simpson, M.B.	Do.	2 May 1892	2 July 1892	G. L. Walker, M.D.	Do.	15 Dec. 1878	27 July 1879	R. Robertson	Do.	10 Sep. 1900	31 Dec. 1900		Do.	13 Aug. 1886	31 Aug. 1887	Dr. A. C. Rendle, M.B.	Do.	1 Dec. 1898	2 May 1899
H. Allison, M.D.	Do.	9 Sep. 1888	30 Sep. 1888	J. Maitland, M.D.	Do.	1 Oct. 1886	16 Nov. 1886	R. Robertson	Do.	3 July 1892	22 Jan. 1893	A. J. Sturmer	Do.	4 Sep. 1879	5 Dec. 1879	R. Robertson	Perma- nent.	1 Jan. 1901	1 Aug. 1901	T. H. Pope, M.D.	Perma- nent.	26 Jan. 1883	5 Dec. 1892	Dr. W. H. Murray, M.B.	Do.	3 May 1899	13 Dec. 1899
J. H. Ritchie, M.D.	Do.	3 April 1889	9 Dec. 1889	W. R. Browne, M.D.	Do.	17 Nov. 1886	25 Jan. 1888	D. Simpson, M.B.	Do.	23 Jan. 1893	31 Mar. 1893	W. R. Browne, M.D.	Do.	18 Nov. 1890	5 April 1892		Do.	10 Sep. 1900	31 Dec. 1900		Do.	13 Aug. 1886	31 Aug. 1887	Dr. A. C. Rendle	Do.	1 Dec. 1898	2 May 1899
C. Sibthorpe	Do.	10 Dec. 1889	15 April 1890	C. Sibthorpe	Perma- nent.	26 Jan. 1888	8 Dec. 1890	D. Simpson, M.B.	Do.	1 April 1893	4 Oct. 1893	W. E. Johnson, M.D.	Do.	6 April 1882	31 Mar. 1883		Do.	10 Sep. 1900	31 Dec. 1900		Do.	13 Aug. 1886	31 Aug. 1887	Dr. W. H. Murray	Do.	3 May 1899	13 Dec. 1899
J. H. Ritchie, M.D.	Perma- nent.	26 July 1889	18 Nov. 1891		Do.	26 Jan. 1888	8 Dec. 1890	C. L. Williams	Do.	25 Mar. 1895	16 Nov. 1895	J. Smyth, M.D.	Do.	1 April 1883	13 April 1883		Do.	1 Jan. 1901	1 Aug. 1901		Do.	13 Aug. 1886	31 Aug. 1887	Dr. A. C. Rendle	Do.	1 Dec. 1898	2 May 1899
	Acting.	29 Sep. 1891	16 Nov. 1891	H. Allison, M.D.	Acting.	29 July 1888	30 Sep. 1888	R. Robertson	Do.	7 Nov. 1895	27 Oct. 1896	G. T. Thomas	Do.	14 April 1883	7 Nov. 1883		Do.	1 Jan. 1901	1 Aug. 1901		Do.	13 Aug. 1886	31 Aug. 1887	Dr. A. C. Rendle	Do.	1 Dec. 1898	2 May 1899
W. Price, M.D.	Perma- nent.	19 Nov. 1891	6 April 1896	W. R. Browne, M.D.	Do.	1 Oct. 1888	30 June 1889	P. C. Gabbett	Do.	20 April 1896	12 Mar. 1899	W. R. Browne, M.D.	Perma- nent.	13 Mar. 1889	17 Mar. 1890		Do.	1 Jan. 1901	1 Aug. 1901		Do.	13 Aug. 1886	31 Aug. 1887	Dr. A. C. Rendle	Do.	1 Dec. 1898	2 May 1899
	Acting.	1 April 1893	30 June 1893	H. Allison, M.D.	Do.	1 Sep. 1889	31 Jan. 1890	W. J. Niblock	Do.	13 Mar. 1899	17 Mar. 1900	J. Smyth, M.D.	Acting.	April 1884	5 Oct. 1884		Do.	1 Jan. 1901	1 Aug. 1901		Do.	13 Aug. 1886	31 Aug. 1887	Dr. A. C. Rendle	Do.	1 Dec. 1898	2 May 1899
W. R. Browne, M.D.	Do.	6 Oct. 1893	5 July 1894	W. R. Browne, M.D.	Do.	1 Sep. 1889	31 Jan. 1890	W. J. Niblock, M.D.	Do.	30 Mar. 1900	14 Sep. 1900	G. T. Thomas	Perma- nent.	29 Oct. 1884	27 Mar. 1885		Do.	1 Jan. 1901	1 Aug. 1901		Do.	13 Aug. 1886	31 Aug. 1887	Dr. A. C. Rendle	Do.	1 Dec. 1898	2 May 1899
J. Maitland, M.D.	Do.	15 Aug. 1895	14 Sep. 1895	W. Price, M.D.	Do.	1 Feb. 1890	16 April 1890	W. J. Niblock	Perma- nent.	15 Sep. 1900	1 Aug. 1901	D. F. Dymott, M.B.	Do.	23 Mar. 1883	30 June 1888		Do.	1 Jan. 1901	1 Aug. 1901		Do.	13 Aug. 1886	31 Aug. 1887	Dr. A. C. Rendle	Do.	1 Dec. 1898	2 May 1899
W. R. Browne, M.D.	Perma- nent.	7 April 1896	1 Aug. 1901		Do.	15 May 1893	28 Sep. 1893		Do.				Acting.	27 Oct. 1885	7 May 1886		Do.	1 Jan. 1901	1 Aug. 1901		Do.	13 Aug. 1886	31 Aug. 1887	Dr. A. C. Rendle	Do.	1 Dec. 1898	2 May 1899
H. Allison, M.D.	Acting.	2 July 1897	2 Aug. 1897		Do.	29 Sep. 1890	31 Dec. 1890		Do.				Sub. pro tem.	23 June 1886	23 Dec. 1887		Do.	1 Jan. 1901	1 Aug. 1901		Do.	13 Aug. 1886	31 Aug. 1887	Dr. A. C. Rendle	Do.	1 Dec. 1898	2 May 1899
J. Maitland, M.D.	Do.	23 May 1898	26 June 1898	W. R. Browne, M.D.	Perma- nent.	9 Dec. 1890	6 April 1896		Do.				Do.	24 Dec. 1887	30 June 1888		Do.	1 Jan. 1901	1 Aug. 1901		Do.	13 Aug. 1886	31 Aug. 1887	Dr. A. C. Rendle	Do.	1 Dec. 1898	2 May 1899
G. L. Walker, M.D.	Do.	3 April 1900	7 Jan. 1901		Do.				Do.				Do.	1 July 1883	6 June 1886		Do.	1 Jan. 1901	1 Aug. 1901		Do.	13 Aug. 1886	31 Aug. 1887	Dr. A. C. Rendle	Do.	1 Dec. 1898	2 May 1899
				J. Maitland, M.D.	Acting.	7 April 1893	5 July 1894		Do.				Do.	7 April 1889	24 Sep. 1889		Do.	1 Jan. 1901	1 Aug. 1901		Do.	13 Aug. 1886	31 Aug. 1887	Dr. A. C. Rendle	Do.	1 Dec. 1898	2 May 1899
				J. Smyth, M.D.	Do.	15 Aug. 1893	14 Sep. 1895		Do.				Do.	10 April 1901	2 Sep. 1891		Do.	1 Jan. 1901	1 Aug. 1901		Do.	13 Aug. 1886	31 Aug. 1887	Dr. A. C. Rendle	Do.	1 Dec. 1898	2 May 1899
					Do.	15 Sep. 1895	6 April 1896		Do.				Do.	21 July 1892	11 Aug. 1892		Do.	1 Jan. 1901	1 Aug. 1901		Do.	13 Aug. 1886	31 Aug. 1887	Dr. A. C. Rendle	Do.	1 Dec. 1898	2 May 1899
				J. Maitland, M.D.	Perma- nent.	7 April 1896	1 Aug. 1901		Do.				Do.	12 Aug. 1892	21 Sep. 1892		Do.	1 Jan. 1901	1 Aug. 1901		Do.	13 Aug. 1886	31 Aug. 1887	Dr. A. C. Rendle	Do.	1 Dec. 1898	2 May 1899
				J. Smyth, M.D.	Acting.	4 April 1896	3 July 1896		Do.				Do.	7 May 1893	1 June 1893		Do.	1 Jan. 1901	1 Aug. 1901		Do.	13 Aug. 1886	31 Aug. 1887	Dr. A. C. Rendle	Do.	1 Dec. 1898	2 May 1899
				H. Allison, M.D.	Do.	30 Mar. 1899	3 July 1899		Do.				Do.	2 June 1893	2 Sep. 1893		Do.	1 Jan. 1901	1 Aug. 1901		Do.	13 Aug. 1886	31 Aug. 1887	Dr. A. C. Rendle	Do.	1 Dec. 1898	2 May 1899
				F. J. Crawford	Do.	30 Jan. 1900	16 Feb. 1900		Do.				Do.	3 Sep. 1893	5 Mar. 1895		Do.	1 Jan. 1901	1 Aug. 1901		Do.	13 Aug. 1886	31 Aug. 1887	Dr. A. C. Rendle	Do.	1 Dec. 1898	2 May 1899
					Do.	31 Mar. 1900	11 May 1900		Do.				Do.	5 June 1895	6 Nov. 1899		Do.	1 Jan. 1901	1 Aug. 1901		Do.	13 Aug. 1886	31 Aug. 1887	Dr. A. C. Rendle	Do.	1 Dec. 1898	2 May 1899
				H. Allison, M.D.	Do.	1 May 1900	25 June 1900		Do.				Do.	6 July 1896	11 Aug. 1896		Do.	1 Jan. 1901	1 Aug. 1901		Do.	13 Aug. 1886	31 Aug. 1887	Dr. A. C. Rendle	Do.	1 Dec. 1898	2 May 1899
				F. J. Crawford	Do.	26 June 1900	14 Sep. 1900		Do.				Do.	12 Aug. 1896	4 Oct. 1896		Do.	1 Jan. 1901	1 Aug. 1901		Do.	13 Aug. 1886	31 Aug. 1887	Dr. A. C. Rendle	Do.	1 Dec. 1898	2 May 1899
				G. G. Giffard	Do.	15 Sep. 1900	24 Dec. 1900		Do.				Do.	2 Dec. 1896	6 Nov. 1899												
									Do.				Do.	7 Nov. 1899	1 Aug. 1901												
									Do.				Do.	6 April 1900	...												
									Do.				Do.	7 April 1900	8 July 1900												
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Nominal Register of Medical
(G.O. No. 371, Educational, dated 2nd July 1901, G.O. No. 826, Public)

Superintendent.			First Physician.			Second Physician.			Third Physician.		
Name.	Acting or permanent.	Tenure of office		Name.	Acting or permanent.	Tenure of office		Name.	Acting or permanent.	Tenure of office	
		From	To			From	To			From	To
W. R. Brown, M.D., Lieut.-Col., I.M.S.	Permanent.	2 Aug. 1901	18 May 1903	E. Robertson, M.D., Major, I.M.S.	Permanent.	2 Aug. 1901	29 June 1913	F. J. Crawford, M.D., Major, I.M.S.	Permanent.	2 Aug. 1901	10 April 1903
F. J. Crawford, M.D., Major, I.M.S.	Acting.	19 May 1902	29 June 1902	F. J. Crawford, M.D., Major, I.M.S.	Acting.	9 Jan. 1903	27 Feb. 1903	F. D. S. Fayer, Captain, I.M.S.	Acting.	2 Aug. 1901	25 Feb. 1902
J. Mathland, M.D., Lieut.-Col., I.M.S.	Do.	7 Nov. 1902	18 May 1903	A. Miller, M.D., Major, I.M.S.	Do.	29 Feb. 1903	9 April 1903	C. Donovan, M.D., Captain, I.M.S.	Do.	9 Jan. 1903	10 Mar. 1903
J. Mathland, M.D., Lieut.-Col., I.M.S.	Permanent.	19 May 1903	31 Mar. 1906	W. A. Lee, Lieut.-Col., I.M.S.	Do.	8 May 1904	31 Oct. 1905	(Promoted to the rank of Major on 23rd July 1903.)	Do.	19 Nov. 1901	2 Mar. 1902
R. Robertson, M.D., Lieut.-Col., I.M.S.	Acting.	20 May 1903	30 June 1903	C. Donovan, M.D., Major, I.M.S.	Do.	22 May 1910	16 Nov. 1910	C. Donovan, M.D., Major, I.M.S.	Permanent.	3 Mar. 1902	10 Mar. 1903
W. A. Lee, Lieut.-Col., I.M.S.	Do.	18 May 1904	17 June 1904	H. Kirkpatrick, Major, I.M.S.	Do.	23 Mar. 1911	7 July 1911	F. H. Foulkes, Major, I.M.S.	Acting.	27 Mar. 1902	4 April 1902
W. A. Lee, Lieut.-Col., I.M.S.	Do.	1 Mar. 1906	31 Mar. 1906	W. J. Niblock, Major, I.M.S.	Do.	23 June 1912	(One day only.)	E. W. Browne, Captain, I.M.S.	Do.	5 April 1902	8 Dec. 1902
W. A. Lee, Lieut.-Col., I.M.S.	Permanent.	1 April 1906	18 May 1910	W. Molesworth, Lieut.-Col., I.M.S.	Do.	25 June 1912	15 Dec. 1912	F. F. Elwes, Major, I.M.S.	Do.	9 Dec. 1902	3 July 1903
W. A. Lee, Lieut.-Col., I.M.S.	Acting.	11 May 1906	22 Dec. 1906	F. F. Elwes, Major, I.M.S.	Do.	15 Dec. 1912	8 June 1913	T. S. Ross, Major, I.M.S.	Do.	14 Mar. 1903	7 April 1914
W. A. Lee, Lieut.-Col., I.M.S.	Do.	7 May 1906	5 Nov. 1909	F. F. Elwes, Major, I.M.S.	Do.	6 June 1913	3 July 1913	W. C. Gray, Captain, I.M.S.	Do.	4 July 1903	12 July 1903
W. A. Lee, Lieut.-Col., I.M.S.	Do.	23 Sep. 1906	22 Nov. 1909	F. F. Elwes, Major, I.M.S.	Do.	30 June 1913	14 Sep. 1914	C. Donovan, M.D., Major, I.M.S.	Do.	13 July 1903	30 Aug. 1903
W. A. Lee, Lieut.-Col., I.M.S.	Do.	23 Nov. 1906	16 May 1910	F. F. Elwes, Major, I.M.S.	Do.	13 June 1914	16 June 1914	W. H. Tucker, Captain, I.M.S.	Do.	31 Aug. 1903	30 Oct. 1903
W. A. Lee, Lieut.-Col., I.M.S.	Permanent.	17 May 1910	31 Mar. 1911	F. F. Elwes, Major, I.M.S.	Do.	30 June 1914	12 Aug. 1914	W. H. Tucker, Captain, I.M.S.	Do.	21 Feb. 1904	1 Mar. 1904
W. A. Lee, Lieut.-Col., I.M.S.	Acting.	1 April 1911	4 April 1911	F. F. Elwes, Major, I.M.S.	Do.	17 June 1914	14 Sep. 1914	D. G. Reel, Lieut.-Col., I.M.S.	Do.	2 Mar. 1904	19 Oct. 1904
W. A. Lee, Lieut.-Col., I.M.S.	Sub. pro tem.	8 April 1911	7 July 1911	F. F. Elwes, Major, I.M.S.	Do.	17 June 1914	14 Sep. 1914	J. W. Illius, Major, I.M.S.	Do.	20 Oct. 1904	25 Oct. 1904
W. A. Lee, Lieut.-Col., I.M.S.	Acting.	8 July 1911	31 Mar. 1913	F. F. Elwes, Major, I.M.S.	Do.	17 June 1914	14 Sep. 1914	J. W. Illius, Major, I.M.S.	Do.	15 May 1905	12 Nov. 1905
W. A. Lee, Lieut.-Col., I.M.S.	Permanent.	1 April 1912	30 June 1913	F. F. Elwes, Major, I.M.S.	Do.	17 June 1914	14 Sep. 1914	J. W. Illius, Major, I.M.S.	Do.	16 Feb. 1906	29 Mar. 1906
W. A. Lee, Lieut.-Col., I.M.S.	Acting.	25 June 1912	(One day only.)	F. F. Elwes, Major, I.M.S.	Do.	17 June 1914	14 Sep. 1914	J. W. Illius, Major, I.M.S.	Do.	11 May 1906	22 July 1906
W. A. Lee, Lieut.-Col., I.M.S.	Do.	26 June 1912	18 Dec. 1912	F. F. Elwes, Major, I.M.S.	Do.	17 June 1914	14 Sep. 1914	J. W. Illius, Major, I.M.S.	Do.	23 July 1906	22 Dec. 1906
W. A. Lee, Lieut.-Col., I.M.S.	Do.	15 Dec. 1912	23 July 1913	F. F. Elwes, Major, I.M.S.	Do.	17 June 1914	14 Sep. 1914	J. W. Illius, Major, I.M.S.	Do.	20 May 1907	19 June 1907
W. A. Lee, Lieut.-Col., I.M.S.	Do.	29 July 1913	7 April 1914	F. F. Elwes, Major, I.M.S.	Do.	17 June 1914	14 Sep. 1914	J. W. Illius, Major, I.M.S.	Do.	3 April 1908	2 April 1908
W. A. Lee, Lieut.-Col., I.M.S.	Do.	8 April 1914	16 June 1914	F. F. Elwes, Major, I.M.S.	Do.	17 June 1914	14 Sep. 1914	J. W. Illius, Major, I.M.S.	Do.	16 Oct. 1908	21 May 1909
W. A. Lee, Lieut.-Col., I.M.S.	Permanent.	17 June 1914	17 June 1914	F. F. Elwes, Major, I.M.S.	Do.	17 June 1914	14 Sep. 1914	J. W. Illius, Major, I.M.S.	Do.	22 May 1909	23 May 1909
W. A. Lee, Lieut.-Col., I.M.S.	Acting.	15 June 1915	4 July 1915	F. F. Elwes, Major, I.M.S.	Do.	17 June 1914	14 Sep. 1914	J. W. Illius, Major, I.M.S.	Do.	24 May 1909	3 July 1909
W. A. Lee, Lieut.-Col., I.M.S.	Do.	3 May 1916	31 May 1916	F. F. Elwes, Major, I.M.S.	Do.	17 June 1914	14 Sep. 1914	J. W. Illius, Major, I.M.S.	Do.	4 July 1909	15 May 1910
W. A. Lee, Lieut.-Col., I.M.S.	Do.	1 June 1916	17 Sep. 1916	F. F. Elwes, Major, I.M.S.	Do.	17 June 1914	14 Sep. 1914	J. W. Illius, Major, I.M.S.	Do.	16 May 1910	15 June 1910
W. A. Lee, Lieut.-Col., I.M.S.	Do.	18 Sep. 1916	17 Oct. 1916	F. F. Elwes, Major, I.M.S.	Do.	17 June 1914	14 Sep. 1914	J. W. Illius, Major, I.M.S.	Do.	20 June 1911	6 Nov. 1911
W. A. Lee, Lieut.-Col., I.M.S.	Do.	18 Oct. 1916	8 Sep. 1917	F. F. Elwes, Major, I.M.S.	Do.	17 June 1914	14 Sep. 1914	J. W. Illius, Major, I.M.S.	Do.	3 June 1912	2 July 1912
W. A. Lee, Lieut.-Col., I.M.S.	Do.	9 Sep. 1917	8 Oct. 1917	F. F. Elwes, Major, I.M.S.	Do.	17 June 1914	14 Sep. 1914	J. W. Illius, Major, I.M.S.	Do.	8 April 1914	30 June 1914
W. A. Lee, Lieut.-Col., I.M.S.	Do.	9 Oct. 1917	19 Jan. 1917	F. F. Elwes, Major, I.M.S.	Do.	17 June 1914	14 Sep. 1914	J. W. Illius, Major, I.M.S.	Do.	1 July 1914	9 Oct. 1914
W. A. Lee, Lieut.-Col., I.M.S.	Do.	20 Jan. 1917	5 Feb. 1918	F. F. Elwes, Major, I.M.S.	Do.	17 June 1914	14 Sep. 1914	J. W. Illius, Major, I.M.S.	Do.	10 Oct. 1914	17 Jan. 1915
W. A. Lee, Lieut.-Col., I.M.S.	Sub. pro tem.	6 Feb. 1918	17 June 1918	F. F. Elwes, Major, I.M.S.	Do.	17 June 1914	14 Sep. 1914	J. W. Illius, Major, I.M.S.	Do.	18 Jan. 1915	23 April 1915
W. A. Lee, Lieut.-Col., I.M.S.	Acting.	18 June 1918	23 July 1918	F. F. Elwes, Major, I.M.S.	Do.	17 June 1914	14 Sep. 1914	J. W. Illius, Major, I.M.S.	Do.	8 Sep. 1914	1901
W. A. Lee, Lieut.-Col., I.M.S.	Sub. pro tem.	28 July 1918	6 Oct. 1918	F. F. Elwes, Major, I.M.S.	Do.	17 June 1914	14 Sep. 1914	J. W. Illius, Major, I.M.S.	Do.	6 Nov. 1915	30 April 1917
W. A. Lee, Lieut.-Col., I.M.S.	Acting.	7 Oct. 1918	16 Oct. 1918	F. F. Elwes, Major, I.M.S.	Do.	17 June 1914	14 Sep. 1914	J. W. Illius, Major, I.M.S.	Do.	1 May 1917	3 June 1917
W. A. Lee, Lieut.-Col., I.M.S.	Sub. pro tem.	17 Oct. 1918	22 Dec. 1918	F. F. Elwes, Major, I.M.S.	Do.	17 June 1914	14 Sep. 1914	J. W. Illius, Major, I.M.S.	Do.	One day on 4 June 1917	4 June 1917
W. A. Lee, Lieut.-Col., I.M.S.	Acting.	23 Dec. 1918	2 Jan. 1919	F. F. Elwes, Major, I.M.S.	Do.	17 June 1914	14 Sep. 1914	J. W. Illius, Major, I.M.S.	Do.	3 June 1919	21 June 1917
W. A. Lee, Lieut.-Col., I.M.S.	Sub. pro tem.	3 Jan. 1919	9 Mar. 1919	F. F. Elwes, Major, I.M.S.	Do.	17 June 1914	14 Sep. 1914	J. W. Illius, Major, I.M.S.	Do.	22 June 1917	18 Sep. 1917
W. A. Lee, Lieut.-Col., I.M.S.	Permanent.	10 Mar. 1919	5 April 1919	F. F. Elwes, Major, I.M.S.	Do.	17 June 1914	14 Sep. 1914	J. W. Illius, Major, I.M.S.	Do.	19 Sep. 1917	3 Jan. 1918
W. A. Lee, Lieut.-Col., I.M.S.	Acting.	5 April 1919	29 June 1919	F. F. Elwes, Major, I.M.S.	Do.	17 June 1914	14 Sep. 1914	J. W. Illius, Major, I.M.S.	Do.	4 Jan. 1918	13 Aug. 1918
W. A. Lee, Lieut.-Col., I.M.S.	Do.	27 June 1919	6 July 1919	F. F. Elwes, Major, I.M.S.	Do.	17 June 1914	14 Sep. 1914	J. W. Illius, Major, I.M.S.	Do.	13 June 1919	22 June 1919
W. A. Lee, Lieut.-Col., I.M.S.	Do.	7 July 1919	31 Aug. 1919	F. F. Elwes, Major, I.M.S.	Do.	17 June 1914	14 Sep. 1914	J. W. Illius, Major, I.M.S.	Do.	12 July 1919	26 Dec. 1919
W. A. Lee, Lieut.-Col., I.M.S.	Do.	1 Sep. 1919	21 Sep. 1919	F. F. Elwes, Major, I.M.S.	Do.	17 June 1914	14 Sep. 1914	J. W. Illius, Major, I.M.S.	Do.	27 Dec. 1919	2 Jan. 1920
W. A. Lee, Lieut.-Col., I.M.S.	Do.	22 Sep. 1919	30 Sep. 1919	F. F. Elwes, Major, I.M.S.	Do.	17 June 1914	14 Sep. 1914	J. W. Illius, Major, I.M.S.	Do.	3 Jan. 1920	9 June 1920
W. A. Lee, Lieut.-Col., I.M.S.	Do.	30 Sep. 1919	18 Mar. 1920	F. F. Elwes, Major, I.M.S.	Do.	17 June 1914	14 Sep. 1914	J. W. Illius, Major, I.M.S.	Do.	10 June 1920	1 July 1920
W. A. Lee, Lieut.-Col., I.M.S.	Do.	19 Mar. 1920	9 May 1920	F. F. Elwes, Major, I.M.S.	Do.	17 June 1914	14 Sep. 1914	J. W. Illius, Major, I.M.S.	Do.	2 July 1920	30 April 1921
W. A. Lee, Lieut.-Col., I.M.S.	Do.	10 May 1920	8 June 1920	F. F. Elwes, Major, I.M.S.	Do.	17 June 1914	14 Sep. 1914	J. W. Illius, Major, I.M.S.	Do.	1 May 1921	4 May 1921
W. A. Lee, Lieut.-Col., I.M.S.	Do.	10 June 1920	8 July 1920	F. F. Elwes, Major, I.M.S.	Do.	17 June 1914	14 Sep. 1914	J. W. Illius, Major, I.M.S.	Do.	5 May 1921	7 May 1921
W. A. Lee, Lieut.-Col., I.M.S.	Do.	9 July 1920	3 May 1921	F. F. Elwes, Major, I.M.S.	Do.	17 June 1914	14 Sep. 1914	J. W. Illius, Major, I.M.S.	Do.	8 May 1921	12 May 1921
W. A. Lee, Lieut.-Col., I.M.S.	Do.	4 May 1921	7 Nov. 1921	F. F. Elwes, Major, I.M.S.	Do.	17 June 1914	14 Sep. 1914	J. W. Illius, Major, I.M.S.	Do.	19 May 1921	13 May 1921
W. A. Lee, Lieut.-											

ers of the Government General Hospital, Madras, from 2nd August 1901.

at 13th August 1901; G.O. No. 16, Public, dated 8th January 1902; and G.O. No. 1177, Public, dated 20th November 1902.)

Fourth Physician.				First Surgeon.				Second Surgeon.				Third Surgeon.				Resident Medical Officer.			
Name.	Acting or permanent.	Tenure of office		Name.	Acting or permanent.	Tenure of office		Name.	Acting or permanent.	Tenure of office		Name.	Acting or permanent.	Tenure of office		Name.	Acting or permanent.	Tenure of office	
		From.	To.			From.	To.			From.	To.			From.	To.			From.	To.
Giffard, J. M.S.	Permanent.	2 Aug. 1901	19 May 1903	Malind, M.D., Lieut.-Col., I.M.S.	Permanent.	2 Aug. 1901	18 May 1903	H. Allison, M.D., Lieut.-Col., I.M.S.	Permanent.	2 Aug. 1901	2 Aug. 1901	W. J. Niblock, M.D., Capt., I.M.S.	Permanent.	2 Aug. 1901	5 Nov. 1903	H. St. J. Fraser, Captain, I.M.S.	Permanent.	2 Aug. 1901	3 Mar. 1902
Giffard, J. M.S.	Acting.	2 Aug. 1901	29 Feb. 1902	Malind, M.D., Lieut.-Col., I.M.S.	Acting.	2 Aug. 1901	30 June 1902	H. Kirkpatrick, Captain, I.M.S.	Acting.	2 Aug. 1901	4 April 1902	T. H. Symons, Captain, I.M.S.	Acting.	2 May 1902	2 Nov. 1902	C. R. Harrison, Do.	Acting.	19 Nov. 1901	1 May 1902
S. Fraser, in I.M.S.	Do.	27 Feb. 1902	7 Jan. 1903	W. B. Rowland, M.D., Major, I.M.S.	Do.	7 Nov. 1902	3 Jan. 1903	C. Dunsen, Captain, I.M.S.	Do.	5 April 1902	10 Aug. 1902	E. Bryer, Captain, I.M.S.	Do.	9 April 1903	23 Dec. 1903	Captain, I.M.S.	Do.	2 May 1902	28 Sep. 1902
Symons, in I.M.S.	Do.	22 Feb. 1903	12 April 1903	R. Robertson, M.D., Major, I.M.S.	Do.	9 Jan. 1903	8 April 1903	E. Kirkpatrick, Captain, I.M.S.	Do.	19 Nov. 1902	30 Oct. 1903	F. P. Elwes, Captain, I.M.S.	Do.	1 Dec. 1903	13 June 1906	Do.	Do.	29 Sep. 1902	2 Nov. 1902
Tucker, in I.M.S.	Do.	14 April 1903	3 July 1903	W. J. Niblock, M.D., Major, I.M.S.	Do.	9 April 1903	23 Dec. 1903	D. Simpson, Major, I.M.S.	Do.	31 Oct. 1903	11 April 1906	W. C. Long, Captain, I.M.S.	Do.	14 June 1906	13 July 1906	F. P. Elwes, Captain, I.M.S.	Do.	3 Nov. 1902	9 Mar. 1903
Symons, in I.M.S.	Permanent.	10 May 1903	5 Nov. 1903	G. Giffard, Major, I.M.S.	Permanent.	19 May 1903	18 May 1906	W. J. Niblock, M.D., Major, I.M.S.	Acting.	3 May 1904	4 July 1904	P. P. Elwes, Captain, I.M.S.	Do.	14 July 1906	5 Mar. 1907	Do.	Do.	2 Mar. 1904	24 Jan. 1905
Elwes, in I.M.S.	Acting.	4 July 1903	12 July 1903	W. B. Rowland, M.D., Major, I.M.S.	Acting.	12 June 1903	3 July 1905	F. J. Crawford, Major, I.M.S.	Permanent.	12 April 1902	5 Nov. 1905	J. W. Elliot, Captain, I.M.S.	Do.	6 Mar. 1907	29 April 1907	Do.	Do.	23 Jan. 1905	11 June 1906
Elwes, in I.M.S.	Do.	16 May 1904	10 May 1904	F. J. Crawford, Major, I.M.S.	Acting.	19 May 1904	25 Aug. 1912	W. A. Lee, Lieut.-Col., I.M.S.	Permanent.	15 April 1906	14 May 1906	E. W. Rowland, Captain, I.M.S.	Do.	30 April 1907	1 Dec. 1907	Do.	Do.	23 July 1906	11 Nov. 1906
Harley, in I.M.S.	Do.	20 May 1904	10 June 1904	T. H. Symons, Major, I.M.S.	Acting.	22 Jan. 1906	13 July 1909	H. Kirkpatrick, Captain, I.M.S.	Do.	14 Feb. 1906	22 Mar. 1906	R. D. Willocks, Captain, I.M.S.	Do.	29 April 1906	30 April 1906	Do.	Do.	14 Feb. 1907	30 Oct. 1907
Long, in I.M.S.	Do.	13 July 1906	11 May 1906	W. J. Niblock, Major, I.M.S.	Do.	26 Aug. 1910	30 April 1911	H. Kirkpatrick, Captain, I.M.S.	Do.	11 May 1906	22 Dec. 1906	D. S. A. O'Keefe, Captain, I.M.S.	Do.	1 May 1909	15 July 1909	Do.	Do.	11 Feb. 1908	6 Nov. 1909
Elwes, in I.M.S.	Do.	12 May 1906	11 June 1906	A. Chalmers, Major, I.M.S.	Do.	1 May 1911	31 May 1911	T. H. Symons, Captain, I.M.S.	Do.	3 May 1907	23 Feb. 1908	T. H. Symons, Major, I.M.S.	Do.	16 July 1906	15 Aug. 1909	Do.	Do.	31 Oct. 1908	4 Feb. 1910
Long, in I.M.S.	Do.	12 June 1906	11 Nov. 1906	W. J. Niblock, Major, I.M.S.	Do.	1 June 1911	8 Sep. 1912	T. H. Symons, Major, I.M.S.	Do.	7 May 1908	21 Jan. 1909	D. S. A. O'Keefe, Captain, I.M.S.	Do.	16 Aug. 1909	25 Aug. 1912	Do.	Do.	6 May 1910	14 Mar. 1912
Scrago, in I.M.S.	Do.	20 May 1907	25 May 1907	L. Hirsch, Major, I.M.S.	Do.	9 Sep. 1912	18 May 1913	L. Hirsch, Major, I.M.S.	Do.	22 Jan. 1909	2 May 1909	T. W. Harley, Major, I.M.S.	Do.	6 Nov. 1909	25 Aug. 1912	Do.	Do.	6 Feb. 1910	17 July 1910
Bal, in I.M.S.	Do.	26 May 1907	1 Dec. 1907	E. W. Rowland, Major, I.M.S.	Do.	20 Aug. 1913	...	E. W. Rowland, Major, I.M.S.	Do.	3 May 1909	25 May 1909	W. C. Long, Captain, I.M.S.	Do.	11 Mar. 1910	13 Mar. 1910	Do.	Do.	14 Oct. 1910	Only one day.
Rowland, in I.M.S.	Do.	2 Dec. 1907	29 Feb. 1908	W. J. Niblock, Major, I.M.S.	Acting.	19 May 1916	29 June 1913	T. W. Harley, Major, I.M.S.	Do.	24 May 1906	18 Jan. 1910	J. W. Elliot, Captain, I.M.S.	Do.	11 April 1910	10 Apr. 1910	Do.	Do.	13 Oct. 1910	1 Dec. 1910
Fraser, in I.M.S.	Permanent.	7 May 1908	...	T. H. Symons, Major, I.M.S.	Do.	30 June 1913	9 Dec. 1913	W. J. Niblock, Captain, I.M.S.	Do.	6 Nov. 1909	25 Aug. 1912	D. H. Giffard, Major, I.M.S.	Do.	11 April 1910	10 Apr. 1910	Do.	Do.	6 Dec. 1910	16 Jan. 1911
Skinner, in I.M.S.	Acting.	22 May 1910	10 Nov. 1910	A. Chalmers, Major, I.M.S.	Do.	1 June 1916	30 June 1916	W. J. Niblock, Major, I.M.S.	Do.	1 June 1910	17 July 1910	W. J. Niblock, Major, I.M.S.	Do.	31 June 1910	17 July 1910	Do.	Do.	17 Jan. 1911	17 July 1911
Skinner, in I.M.S.	Do.	13 July 1911	27 Aug. 1911	W. J. Niblock, Major, I.M.S.	Do.	14 May 1917	7 June 1917	T. H. Symons, Major, I.M.S.	Do.	28 Aug. 1912	...	W. J. Niblock, Major, I.M.S.	Do.	18 July 1910	19 Aug. 1910	Do.	Do.	13 Jan. 1912	8 Sep. 1912
Fraser, in I.M.S.	Acting.	28 Aug. 1911	2 June 1912	A. Chalmers, Major, I.M.S.	Do.	8 June 1917	9 June 1917	A. Chalmers, Major, I.M.S.	Do.	26 April 1915	25 May 1915	A. Chalmers, Major, I.M.S.	Do.	20 Aug. 1910	25 Aug. 1912	Do.	Do.	5 Sep. 1911	10 Nov. 1914
McCre, in I.M.S.	Do.	3 June 1912	2 July 1912	E. W. Rowland, Major, I.M.S.	Do.	10 June 1917	13 June 1917	W. C. Gray, Captain, I.M.S.	Do.	10 Mar. 1912	27 Mar. 1912	T. W. Harley, Major, I.M.S.	Do.	1 Nov. 1912	18 Dec. 1912	Do.	Do.	15 July 1914	17 July 1914
Fraser, in I.M.S.	Do.	3 July 1912	20 June 1913	E. W. Rowland, Major, I.M.S.	Do.	16 May 1918	6 June 1918	E. W. Rowland, Major, I.M.S.	Do.	10 Sep. 1912	9 Dec. 1913	E. W. Rowland, Major, I.M.S.	Do.	10 Dec. 1913	19 Mar. 1914	Do.	Do.	13 Aug. 1914	12 Aug. 1914
Russell, in I.M.S.	Do.	30 June 1913	2 July 1913	E. W. Rowland, Major, I.M.S.	Do.	26 May 1919	25 June 1919	W. C. Gray, Captain, I.M.S.	Do.	13 Nov. 1914	12 Nov. 1914	W. C. Gray, Captain, I.M.S.	Do.	9 April 1914	8 April 1914	Do.	Do.	13 Aug. 1914	17 Aug. 1914
Skinner, in I.M.S.	Do.	3 July 1913	14 Sep. 1914	E. W. Rowland, Major, I.M.S.	Do.	29 Sep. 1919	29 Sep. 1919	A. Chalmers, Major, I.M.S.	Do.	16 Nov. 1914	23 April 1915	J. M. Skinner, Major, I.M.S.	Do.	28 May 1914	12 Nov. 1914	Do.	Do.	18 Aug. 1914	20 Oct. 1914
Fraser, in I.M.S.	Do.	15 Sep. 1914	4 Nov. 1915	E. W. Rowland, Major, I.M.S.	Do.	10 July 1920	14 May 1921	E. W. Rowland, Major, I.M.S.	Do.	26 April 1915	31 June 1915	W. C. Gray, Captain, I.M.S.	Do.	10 Nov. 1914	22 Nov. 1914	Do.	Do.	17 Nov. 1914	9 April 1916
Fraser, in I.M.S.	Do.	6 Nov. 1915	10 Nov. 1916	E. W. Rowland, Major, I.M.S.	Do.	13 Dec. 1921	14 May 1921	E. W. Rowland, Major, I.M.S.	Do.	1 Oct. 1917	7 June 1917	E. W. Rowland, Major, I.M.S.	Do.	23 Nov. 1914	22 Nov. 1914	Do.	Do.	31 Oct. 1914	31 Oct. 1914
Fraser, in I.M.S.	Do.	11 Nov. 1916	31 Jan. 1917	E. W. Rowland, Major, I.M.S.	Do.	15 May 1921	31 May 1921	E. W. Rowland, Major, I.M.S.	Do.	1 Oct. 1917	7 June 1917	E. W. Rowland, Major, I.M.S.	Do.	23 Nov. 1914	22 Nov. 1914	Do.	Do.	31 Oct. 1914	31 Oct. 1914
Fraser, in I.M.S.	Do.	1 Feb. 1917	6 June 1918	E. W. Rowland, Major, I.M.S.	Do.	10 July 1920	14 May 1921	E. W. Rowland, Major, I.M.S.	Do.	1 Oct. 1917	7 June 1917	E. W. Rowland, Major, I.M.S.	Do.	23 Nov. 1914	22 Nov. 1914	Do.	Do.	31 Oct. 1914	31 Oct. 1914
Fraser, in I.M.S.	Do.	7 June 1918	15 June 1918	E. W. Rowland, Major, I.M.S.	Do.	13 Dec. 1921	14 May 1921	E. W. Rowland, Major, I.M.S.	Do.	1 Oct. 1917	7 June 1917	E. W. Rowland, Major, I.M.S.	Do.	23 Nov. 1914	22 Nov. 1914	Do.	Do.	31 Oct. 1914	31 Oct. 1914
Fraser, in I.M.S.	Do.	10 July 1918	28 July 1918	E. W. Rowland, Major, I.M.S.	Do.	11 June 1921	14 May 1921	E. W. Rowland, Major, I.M.S.	Do.	1 Oct. 1917	7 June 1917	E. W. Rowland, Major, I.M.S.	Do.	23 Nov. 1914	22 Nov. 1914	Do.	Do.	31 Oct. 1914	31 Oct. 1914
Fraser, in I.M.S.	Do.	23 July 1918	28 Sep. 1918	E. W. Rowland, Major, I.M.S.	Do.	13 Dec. 1921	14 May 1921	E. W. Rowland, Major, I.M.S.	Do.	1 Oct. 1917	7 June 1917	E. W. Rowland, Major, I.M.S.	Do.	23 Nov. 1914	22 Nov. 1914	Do.	Do.	31 Oct. 1914	31 Oct. 1914
Fraser, in I.M.S.	Do.	30 Sep. 1918	27 Dec. 1918	E. W. Rowland, Major, I.M.S.	Do.	15 May 1921	31 May 1921	E. W. Rowland, Major, I.M.S.	Do.	1 Oct. 1917	7 June 1917	E. W. Rowland, Major, I.M.S.	Do.	23 Nov. 1914	22 Nov. 1914	Do.	Do.	31 Oct. 1914	31 Oct. 1914
Fraser, in I.M.S.	Do.	28 Dec. 1918	1 Jan. 1919	E. W. Rowland, Major, I.M.S.	Do.	10 July 1920	14 May 1921	E. W. Rowland, Major, I.M.S.	Do.	1 Oct. 1917	7 June 1917	E. W. Rowland, Major, I.M.S.	Do.	23 Nov. 1914	22 Nov. 1914	Do.	Do.	31 Oct. 1914	31 Oct. 1914
Fraser, in I.M.S.	Do.	2 Jan. 1919	30 April 1919	E. W. Rowland, Major, I.M.S.	Do.	13 Dec. 1921	14 May 1921	E. W. Rowland, Major, I.M.S.	Do.	1 Oct. 1917	7 June 1917	E. W. Rowland, Major, I.M.S.	Do.	23 Nov. 1914	22 Nov. 1914	Do.	Do.	31 Oct. 1914	31 Oct. 1914
Fraser, in I.M.S.	Do.	1 May 1919	30 May 1919	E. W. Rowland, Major, I.M.S.	Do.	15 May 1921	31 May 1921	E. W. Rowland, Major, I.M.S.	Do.	1 Oct. 1917	7 June 1917	E. W. Rowland, Major, I.M.S.	Do.	23 Nov. 1914	22 Nov. 1914	Do.	Do.	31 Oct. 1914	31 Oct. 1914
Fraser, in I.M.S.	Do.	31 May 1919	29 Sep. 1919	E. W. Rowland, Major, I.M.S.	Do.	10 July 1920	14 May 1921	E. W. Rowland, Major, I.M.S.	Do.	1 Oct. 1917	7 June 1917	E. W. Rowland, Major, I.M.S.	Do.	23 Nov. 1914	22 Nov. 1914	Do.	Do.	31 Oct. 1914	31 Oct. 1914
Fraser, in I.M.S.	Do.	30 Sep. 1919	8 Oct. 1919	E. W. Rowland, Major, I.M.S.	Do.	15 May 1921	31 May 1921	E. W. Rowland, Major, I.M.S.	Do.	1 Oct. 1917	7 June 1917	E. W. Rowland, Major, I.M.S.	Do.	23 Nov. 1914	22 Nov. 1914	Do.	Do.	31 Oct. 1914	31 Oct. 1914
Fraser, in I.M.S.	Do.	9 Oct. 1919	23 Dec. 1919	E. W. Rowland, Major, I.M.S.	Do.	10 July 1920	14 May 1921	E. W. Rowland, Major, I.M.S.	Do.	1 Oct. 1917	7 June 1917	E. W. Rowland, Major, I.M.S.	Do.	23 Nov. 1914	22 Nov. 1914	Do.	Do.	31 Oct. 1914	31 Oct. 1914
Fraser, in I.M.S.	Do.	21 Dec. 1919	23 Dec. 1919	E. W. Rowland, Major, I.M.S.	Do.	15 May 1921	31 May 1921	E. W. Rowland, Major, I.M.S.	Do.	1 Oct. 1917	7 June 1917	E. W. Rowland, Major, I.M.S.	Do.	23 Nov. 1914	22 Nov. 1914	Do.	Do.	31 Oct. 1914	31 Oct. 1914
Fraser, in I.M.S.	Do.	29 Dec. 1919	6 Sep. 1920	E. W. Rowland, Major, I.M.S.	Do.	10 July 1920	14 May 1921	E. W. Rowland, Major, I.M.S.	Do.	1 Oct. 1917	7 June 1917	E. W. Rowland, Major, I.M.S.	Do.	23 Nov. 1914	22 Nov. 1914	Do.	Do.	31 Oct. 1914	31 Oct. 1914
Fraser, in I.M.S.	Do.	7 Sep. 1920	3 May 1921	E. W. Rowland, Major, I.M.S.	Do.	15 May 1921	31 May 1921	E. W. Rowland, Major, I.M.S.	Do.	1 Oct. 1917	7 June 1917	E. W. Rowland, Major, I.M.S.	Do.	23 Nov. 1914	22 Nov. 1914	Do.	Do.	31 Oct. 1914	31 Oct. 1914
Fraser, in I.M.S.	Do.	4 May 1921	31 May 1921	E. W. Rowland, Major, I.M.S.	Do.	10 July 1920	14 May 1921	E. W. Rowland, Major, I.M.S.	Do.	1 Oct. 1917	7 June 1917	E. W. Rowland, Major, I.M.S.	Do.	23 Nov. 1914	22 Nov. 1914	Do.	Do.	31 Oct. 1914	31 Oct. 1914
Fraser, in I.M.S.	Do.	1 June 1921	31 Dec. 1921	E. W. Rowland, Major, I.M.S.	Do.	15 May 1921	31 May 1921	E. W. Rowland, Major, I.M.S.	Do.	1 Oct. 1917	7 June 1917	E. W. Rowland, Major, I.M.S.	Do.	23 Nov. 1914	22 Nov. 1914	Do.	Do.	31 Oct. 1914	31 Oct. 1914
Fraser, in I.M.S.	Do.	1 Jan. 1922	1 May 1922	E. W. Rowland, Major, I.M.S.	Do.	10 July 1920	14 May 1921	E. W. Rowland, Major, I.M.S.	Do.	1 Oct. 1917	7 June 1917	E. W. Rowland, Major, I.M.S.	Do.	23 Nov. 1914	22 Nov. 1914	Do.	Do.	31 Oct. 1914	31 Oct. 1914
Fraser, in I.M.S.	Do.	2 May 1922	1 June 1922	E. W. Rowland, Major, I.M.S.	Do.	15 May 1921	31 May 1921	E. W. Rowland, Major, I.M.S.	Do.	1 Oct. 1917	7 June 1917	E. W. Rowland, Major, I.M.S.	Do.	23 Nov. 1914	22 Nov. 1914	Do.	Do.	31 Oct. 1914	31 Oct. 1914
Fraser, in I.M.S.	Do.	1 June 1922	25 May 1923	E. W. Rowland, Major, I.M.S.	Do.	10 July 1920	14 May 1921	E. W. Rowland, Major, I.M.S.	Do.	1 Oct. 1917	7 June 1917	E. W. Rowland, Major, I.M.S.	Do.	23 Nov. 1914	22 Nov. 1914	Do.	Do.	31 Oct. 1914	31 Oct. 1914
Fraser, in I.M.S.	Do.	25 May 1923	31 May 1923	E. W. Rowland, Major, I.M.S.	Do.	15 May 1921	31 May 1921	E. W. Rowland, Major, I.M.S.	Do.	1 Oct. 1917	7 June 1917	E. W. Rowland, Major, I.M.S.	Do.	23 Nov. 1914	22 Nov. 1914	Do.	Do.	31 Oct. 1914	31 Oct. 1914
Fraser, in I.M.S.	Do.	1 June 1923	31 Dec. 1923	E. W. Rowland, Major, I.M.S.	Do.	10 July 1920	14 May 1921	E. W. Rowland, Major, I.M.S.	Do.	1 Oct. 1917	7 June 1917	E. W. Rowland, Major, I.M.S.	Do.	23 Nov. 1914	22 Nov. 1914	Do.	Do.	31 Oct. 1914	31 Oct. 1914

† Granted combined leave and furlough for a year.

‡ On combined leave preparatory to retirement.

STATEMENT A

Showing the number of dispensaries during the year 1923.

[Population of the City: 522,981.]

Class of dispensary.	Number opened on 31st December 1922.	Number opened during the year.	Number closed during the year.	Number opened on the last day of the year.	Remarks.
1	2	3	4	5	6
I--State-Public ...	1	...	...	...	...

STATEMENT B

Showing the number of in-door and out-door patients treated in the State-Public, Local Fund and Private-aided dispensaries of Government General Hospital, Maunabo, during the year 1923.

District.	Name of dispensary.	Of what class.	In-door patients.													Out-door patients.													Total number of patients treated both in-door and out-door.			
			Total treated during the year.					Number cured.	Number relieved.	Discharged otherwise.	Died.	Ratio of deaths per cent to total treated.	Number of beds available.	Daily average number.					per- cent.	Number treated.					Average daily attendance.							
			Men.	Women.	Male children.	Female children.	Total.							Men.	Women.	Male children.	Female children.	Total.		Men.	Women.	Male children.	Female children.	Total.		Men.	Women.	Male children.		Female children.	Total.	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33
Madras.	Government General Hospital, Madras.	Non-Euro- peans. Europeans ...	6,881	1,512	381	218	7,062	3,942	1,418	1,322	407	7,92	200	63	572.86	82.74	27.30	13.33	30,576	56,298	...	28,977	8,127	4,213	701	55,220	28,427	63.27	35.30	29.19	608.43	62,891
			1,016	539	180	98	1,792	1,052	328	292	81	5.22	48	32	49.20	20.94	5.42	4.02	100.76	4,045	...	2,647	1,280	188	221	4,045	10.76	6.93	2.14	2.56	21.43	6,737
			Total ...	6,866	2,051	511	315	5,443	1,981	1,716	700	7.41	277	86	328.06	118.28	56.72	13.40	562.91	60,174	...	40,994	9,216	5,312	4,222	60,174	29,652	60.75	35.44	28.08	427.86	69,618
			Besides these, 171 beds are common to both Europeans and Non-Europeans.																													

Bed-rooms, 117 beds are common to both Europeans and Non-Europeans.

INSTRUCTIONS.

- (1) Statement B is intended to comprise only those institutions from which full information can be expected. These are State-Public, Local Fund and Private-aided Institutions.
- (2) The classification in column 3 should accordingly be into I, II, IV of the classes shown in Statement A.
- (3) In column 2 individual dispensaries should be shown. The dispensary being annexed by district. The arrangement of districts should be given in first, A--General dispensary, that is to say, dispensaries open to both sexes, and then B--Female dispensary. The whole statement will conclude with a provincial total for A--Female dispensary, and a combined provincial total.
- (4) In filling up columns 6, 7, 13, 16, 25, 26, 30 and 31 all persons under 16 years of age should be treated as children.
- (5) The columns for in-door treated (Nos. 4 to 27) should include both those remaining from the previous year and those admitted during the year under report. The words "total treated" refer to the number of different individuals treated. If, for example, the same person attends for 10 days, he should not be counted 10 times; if he returns as a fresh case he should be counted again.

ANNUAL REPORT AND STATISTICS OF THE

10

Systemic diseases.

STATEMENT C (I)---cont.

GOVERNMENT GENERAL HOSPITAL

INSTRUCTIONS.

	Column	10 to include all diseases due to malaria.	Nou malarial fevers should be returned in column 21.—All other general diseases.
(1) Statement C (1) is complementary to Statement B and is intended to relate only to those institutions from which complete information can be expected. These are State-Public, Local Fund, and Private-aided Institutions (classes I, III, IV of the classes in Statement A).	"	7 to include all diseases due to the poison of syphilis, e.g., syphilitic iritis.	7 to include all diseases due to the poison of syphilis, e.g., syphilitic iritis.
(2) Details need not be given for each institution. It will suffice if details are given for each class.	"	8 to include all diseases resulting from gonorrhoeal infection, e.g., gonorrhoeal rheumatism.	8 to include all diseases resulting from gonorrhoeal infection, e.g., gonorrhoeal rheumatism.
(3) For guidance in filling up the columns the following remarks are added:— In all cases the instructions contained in "The Nomenclature of Diseases," fifth edition, 1918, should be followed.	"	21 to include only cases of amoebiasis of which the cause cannot be ascertained.	21 to include only cases of amoebiasis of which the cause cannot be ascertained.

STATEMENT C (II)

Showing the diseases of the out-door patients treated in the Government General Hospital, Madras, during the year 1923.

District.	Class of dispensary.		Infective diseases.																				Systemic diseases.										Abscess of the liver.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
	1	2	Cholera, Asiatic.	Dysentery.	Enteric fever.	Gonococcal infection.	Syphilis (Primary and Secondary).	Kala-azar.	Leprosy.	Malaria.	Plague.	Influenza.	Relapsing fever.	Pneumococcal infection of the lung.	Pyrexia of uncertain origin.	Rheumatic fever.	Smallpox.	Tuberculosis of the lungs.	Other tubercular diseases.	All other infective diseases.	Anemia.	Diabetes.	Scurvy.	Rickets.	Other diseases due to disorders of metabolism.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
Madras.	I Class, State, Public, Government General Hospital, Madras—	1923	...	...	153	17	27	41	27	5	418	...	73	...	30	173	40	1	69	18	24	23	9	6	3	...																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
			...	...	1	780	81	1,040	1,838	168	153	5,750	...	569	...	148	1,531	431	6	322	280	483	121	109	25	17	...																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
			Total	1	933	98	1,007	1,879	195	158	6,168	...	642	...	178	1,707	471	7	391	308	510	141	118	31	14	...																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
District.	Class of dispensary.		Other general diseases.										Diseases of the nervous system.										Diseases of the eye.	Diseases of the ear.	Diseases of the nose.	Diseases of the circulatory system.	All diseases of the respiratory system except pneumonia and tuberculosis of the lungs.	Diseases of the stomach.	Diseases of the intestines.	Abscess of the liver.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
	Non-malignant.	Malignant.	All other general diseases.	Diseases of the brain and meninges.	Diseases of the spinal nerves.	Diseases of the peripheral nerves.	Diseases of the sensory system.	Diseases of the motor system.	Diseases of the mental system.	Diseases of the nervous system.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
	Madras.	I Class, State, Public, Government General Hospital, Madras—	1923	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

STATEMENT C (II)—cont.
Showing the diseases of the out-door patients treated in the Government General Hospital, Madras, during the year 1923—cont.

District.	Class of dispensary.	Systemic diseases—cont.														General and local.			Labour.		Total number of out-door patients.	Operations.
		All other diseases of the liver.	All other diseases of the digestive system.	Acute or sub-acute inflammation of the liver.	Chronic inflammation of the liver.	All other diseases of the urinary system.	Other diseases of the urinary system.	Diseases of the organs of locomotion.	Diseases of the areolar tissue.	Inflammation of the liver.	Other diseases of the skin.	All other local diseases.	Injuries (general and local).	By other means.	By other means.	General and local.	Normal.	Abnormal.	...	...	...	...
Madras.	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Total	194	8,644	197	168	550	1,827	561	1,783	1,521	2,382	4,841	6,946	...	...	...	...	...	...	...	60,174	10,279

INSTRUCTIONS.

- (1) Statement C (II) is complementary to Statement B and is intended to relate only to those institutions from which complete information can be expected. These are State-Public, Local Fund and Private-aided institutions (Classes I, II, IV of the classes in Statement A).
- (2) Details need not be given for each institution. It will suffice if totals are given for each class.
- (3) For guidance in filling up the columns the following remarks are added:—
In all cases the instructions contained in "The Nomenclature of Diseases," fourth edition, 1903, should be followed.

Column 9 to include all diseases due to malaria. Non-malarial fevers should be returned in column 24.—"All other general diseases."
"15 to include all diseases due to the poison of syphilis, e.g., syphilitic infection."
"16 to include all diseases resulting from gonorrhoeal infection, e.g., gonorrhoeal inflammation."
"17 to include only cases of anæmia of which the cause cannot be ascertained."
Late cases should be included under columns 62 and 63 of statement C (I).

STATEMENT F

Number of in-door and out-door patients, according to class and sex, treated in the State-Public, Government General Hospital, Madras, in the year 1923.

District.	Name and class of dispensary.	Europeans and Anglo-Indians.						Hindus.						Muhammadians.						Others.						Total treated.
		Adults.			Children.			Adults.			Children.			Adults.			Children.			Adults.			Children.			
		Male.		Female.	Male.		Female.	Male.		Female.	Male.		Female.	Male.		Female.	Male.		Female.	Male.		Female.	Male.		Female.	
		3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19								
Madras.	(Government General Hospital, Madras, Class I, State-Public, 1923.)	In-door ...	1,015	539	130	93	3,943	943	230	129	375	47	23	7	1,233	529	128	62	9,414							
		Out-door ...	2,647	1,286	483	521	25,865	5,920	3,308	2,452	3,128	221	208	124	6,284	2,286	1,308	1,120	80,174							
		Total ...	3,662	1,825	613	614	32,808	6,863	3,538	2,881	3,503	291	231	136	7,517	2,815	1,436	1,202	89,618							

INSTRUCTIONS.

- (1) Statement F is intended to comprise only those institutions from which full information can be expected. These are State-Public, Local Fund and Private-aided dispensaries (Classes I, III and IV of the classes shown in Statement A).
- (2) In filling up columns 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18 all under ten years of age should be reckoned as children.
- (3) The number of individual patients and not the number of visits should be shown throughout.
- (4) The specimen form is primarily adapted for use in provinces of India proper. For the Burma Provincial report the arrangement of the columns may be altered as the local Government sees fit.

STATEMENT F (SUPPLEMENT)

Number of in-door and out-door patients, according to class and sex, treated in the State-Public, Government General Hospital, Madras, in the year 1923.

Name and class of dispensary.		Europeans and Anglo-Indians.						Hindus.						Muhammadians.						Others.				Total treated.																															
		Adults.		Children.		Adults.		Children.		Adults.		Children.		Adults.		Children.		Adults.		Children.																																			
																						Male.			Female.		Male.		Female.		Male.		Female.		Male.		Female.																		
		3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19																																					
District.	1	2	In-door ...	1,015	639	130	98	3,943	843	230	129	375	40	23	7	1,233	529	128	82	9,414																																			
																					Out-door labour cases.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...																	
																																							Other out-door cases represented by friends.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total ...	3,662	1,823	618	619	32,808	6,863	3,533	2,581	3,503	291	231	136	7,517	2,815	1,436	1,202	69,618																																						

INSTRUCTIONS.

- (1) Statement F is intended to comprise only those institutions from which full information can be expected. These are State-Public, Local Fund and Private-aided dispensaries (Classes I, III and IV of the classes shown in Statement A).
- (2) In filling up columns 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18 all under ten years of age should be reckoned as children.
- (3) The number of individual patients and not the number of visits should be shown throughout.
- (4) The specimen form is primarily adapted for use in provinces of India proper. For the Burma Provincial report the arrangement of the columns may be altered as the local Government sees fit.

Operation on veins ...	{	Intravenous injection	...	3,103	...	3,108	3,103	...	3,103	...	3,103	...	...	...	
		Venesection	...	26	...	26	2	...	2	...	...	...	...	...	
		For varices excision, partial or complete	...	2	...	2	...	...	...	...	...	...	...	...	
		Total	...	3,131	...	3,131	2	...	2	...	...	...	...	...	
Operation on aneurysm ...	{	Ligature of artery proximal	...	2	...	2	2	...	2	...	...	...	...		
		Do.	...	2	...	2	2	...	...	...	...	...	...		
Operation for arrest of haemorrhage.	{	Total	...	4	...	4	4	...	2	...	1	...	...		
			...		...			...		...		...	...		
Operation on lymphatics ...	{	Ligature of bleeding point or artery on proximal side.	...	1	...	1	1	...	1	...	...	...	...		
		Removal of lymphatic glands by excision	...	34	...	34	84	...	20	...	12	...	2	4	
		By curceting	...	14	...	14	14	...	14	...	...	...	...	...	
		Removal of varicose lymphatic vessels	...	1	...	1	1	...	1	...	...	...	...	2	
Operation on nerves ...	{	Excision of inflamed lymphatic glands	...	18	...	18	18	...	16	...	...	...	...	6	
		Total	...	67	...	67	67	...	61	...	12	...	2	6	
			...		...			...		...		...			
		Injection of medical substance into Gasserian ganglion.	...	10	...	12	10	...	...	9	...	...	1	...	
Operation on the skin and subcutaneous tissues.	{	Removal of sympathetic	...	1	...	1	1	...	1	...	1	...	...	...	
		Total	...	11	...	13	11	...	...	10	...	1	...	...	
			...		...			...		...		...			
		Plastic operations for cicatrices and congenital malformation.	...	2	...	13	13	...	14	...	1	...	...	...	...
Operation on the skin and subcutaneous tissues.	{	Skin grafting	...	8	...	11	8	...	8	...	...	...	...	...	
		Curettage—	...	...	...	...	...	...	...	...	...	...	...	...	...
		For chronic ulcers	...	108	...	108	108	...	80	...	18	...	...	...	...
		For sinuses	...	119	...	119	119	...	117	...	1	...	...	...	...
		For sloughing tissues	...	19	...	22	19	...	19	...	...	...	...	...	...
		Linear scarification—	...	...	...	...	...	...	...	...	...	...	...	...	...
		For indurated tissues for sloughing tissues	...	1	...	74	74	...	69	...	4	...	2	...	...
		For carbuncles	...	88	...	88	88	...	88	...	...	...	...	...	...
		For whitlows	...	81	...	81	81	...	81	...	...	...	...	...	...
		Excision for elephantoid tissues, Krombohus operation.	...	1	...	4	4	...	...	5	...	...	...	...	...
		For corns and warts	...	3	...	3	3	...	3	...	...	...	...	...	...
		For avulsion of nails	...	42	...	42	42	...	42	...	...	...	...	...	...
		For keloids and cicatrices	...	1	...	1	1	...	1	...	...	...	...	...	...
		For carbuncles	...	20	...	20	20	...	19	...	...	2	...	...	...
		For mycetoma	...	3	...	3		...	1	...	...	...	...	...	...
		For infective granumoma	...	1,868	...	1,868	1,868	...	1,868	...	...	...	...	...	...
Subcutaneous injection	...	820	...	820	820	...	816	...	2	...	1	...	...		
Repair of wounds	...	3	...	3	3	...	3	...	1	...	...	...	...		
Plaster casing of wounds	...	...	...	...	...	...	...	...	...	...	...	...	...		
		Total	7	3,073	6	3,079	3,073	3,038	2	36	5	2	...		

STATEMENT G—cont.
Showing the Results of the Surgical Operations performed in the General Hospital, Madras, for the year 1923—cont.

Class of operations.	Nature of operations.	Number of patients remaining from last year.	Number of operations performed during the year.			Number of patients operated on in columns 4 to 6.	Results of operations on patients.				Number of patients remaining at the end of the year.
			Priary.	Secondary.	Total.		Cured.	Relieved.	Discharged otherwise.	Died.	
1	2	3	4	5	6	7	8	9	10	11	12
Operations on bones	Incision of periosteum	...	1	...	1	1	4	...	...	...	...
	Osteotomy—	...	3	...	3	3	2	1	...	...	...
	Linear	...	1	...	1	1	1	...	...	...	...
	Correction of deformity by fracture	...	206	...	206	206	292	...	...	1	3
	Wiring or otherwise uniting recent fractures or ununited fractures.	...	7	...	7	7	2	2	...	2	2
	Grafting of bones	...	42	2	44	42	30	7	1	...	4
	Removal of sequestra	...	7	...	7	7	6	1	...	...	1
	Excision, partial or complete	...	24	1	25	24	10	12	2	...	2
	Excision of diseased bone (removal of tubercular bone).	...	...	...	...	...	...	...	...	...	...
	Total	7	382	3	385	382	348	23	3	3	12
Operations on joints	Reduction of dislocation—	...	51	...	51	51	54	...	...	...	...
	Shoulder	...	28	...	28	28	26	...	...	...	...
	Elbow	...	1	...	1	1	1	...	...	...	...
	Hip	...	1	...	1	1	1	...	...	...	...
	Ankle	...	164	...	164	151	48	101	...	...	5
	Passive movements	...	8	2	10	8	...	8	...	...	3
	Aspiration with or without injection	...	12	2	14	12	5	2	1	1	1
	Arthrotomy with or without drainage	...	12	...	12	12	12	1	...	...	...
	Excision, partial or complete	...	12	...	12	12	12	...	...	...	...
	Excision or removal of intra-articular cartilage.	...	5	1	6	5	5	...	...	...	...
Operations on muscles and tendons.	Total	3	274	7	281	274	152	112	1	2	9
	Tenotomy	...	3	1	4	3	3	...	...	...	...
	Intraosseous injections	...	2115	...	2115	2115	...	2115	...	...	...
Total			2118	1	2119	2118	3	2115	...	...	...

For injury—	Interoscapulo Thoracic	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
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STATEMENT G—cont.
Showing the Results of the Surgical Operations performed in the General Hospital, Madras, for the year 1923—cont.

Showing the Results of the Surgery Operations performed in the Calendar Year 1906												
Class of operations.	Nature of operations.	Number of patients remaining from last year.	Number of operations performed during the year.			Number of patients operated on in columns 4 to 6.	Results of operations on patients.				Number of patients remaining at the end of the year.	
			Primary.	Secondary.	Total.		Cured.	Relieved.	Discharged otherwise.	Died.		
1	2	3	4	5	6	7	8	9	10	11	12	
Dental operations	Extraction of teeth ...	...	3,950	...	3,950	3,950	3,950	...	...	...	...	
	Filling ...	...	130	...	130	130	130	...	...	...	...	
	Other Dental Operations—	...	732	...	732	732	732	...	...	...	...	
	(a) Scaling ...	...	89	...	89	89	89	...	...	...	...	
	(b) Incision of gums ...	...	11	...	11	11	11	...	...	...	...	
Operations on nasal cavities and accessory sinuses.	(c) Removal of sequestra ...	...	1	...	1	1	1	...	...	...	...	
	(d) Wiring for dislocated teeth ...	...	1	...	1	1	1	...	...	...	...	
	Dentures ...	...	4,914	...	4,914	4,914	4,914	...	...	...	...	
	On nasal septum ...	...	8	...	8	8	8	...	...	...	...	
	On turbinate body ...	...	5	...	5	5	5	...	...	...	...	
Operations on naso-pharynx	On accessory sinuses ...	...	7	...	7	7	7	...	...	...	...	
	Removal of polypus ...	...	4	...	4	4	4	...	...	...	...	
	Total ...	...	24	...	24	24	24	...	...	...	...	
	Removal of adenoid growth ...	...	3	...	3	3	3	...	...	...	...	
	Removal of new growth ...	...	2	...	2	2	2	...	...	...	...	
Operations on the ear and accessory cavities.	Total ...	...	5	...	5	5	5	...	...	...	...	
	For restoration of pinna ...	...	12	...	12	12	12	...	...	...	...	
	Incision of mastoid operation and opening into mastoid antrum.	...	6	...	6	6	6	...	...	...	...	
	Complete mastoid operation ...	...	21	...	21	21	21	...	...	...	...	
	Opening of mastoid antrum ...	...	...	...	...	...	...	...	...	...	...	
Operations on the larynx and trachea.	Total ...	...	39	...	39	39	39	...	...	...	...	
	Tracheotomy and intubation ...	...	4	...	4	4	4	...	...	...	...	
	Removal of laryngeal growth ...	...	2	...	2	2	2	...	...	...	...	
	Bronchoscopy ...	...	1	...	1	1	1	...	...	...	...	
	Total ...	...	7	...	7	7	7	...	...	...	...	

Operations on the thyroid and accessory glands.	Removal of cyst ... Removal of thyrotoxic cyst ... Removal of growth ...	... ... ...	3 1 1	... ... ...	3 1 1	3 1 1	3 1 1	...	...	...	...
Operations on breast	Removal of breast, partial or complete ... Excision of breast with axillary glands, etc. ...	... ...	8 6	... ...	8 6	8 6	8 6	...	...	...	...
Operations on thorax and contents.	Pneumothorax of pleura ... Incision and drainage of pleural effusion of rib ... Trans-thoracic incision ... For drainage of sub-diaphragmatic or liver abscess.	... ... ... ...	45 3 1 11	... ... ... ...	45 3 1 11	45 3 1 11	45 3 1 11	...	...	...	...
Operations on the abdominal wall and cavity.	Operations for external hernia for radical cure. For strangulation (radical cure) ... Paracentesis abdominis ... Abdominal section (exploratory) ... Carative for tubercular peritonitis, etc. ...	... ... ... ... ...	182 20 368 64 16	... ... ... ... ...	182 20 368 64 16	182 20 368 64 16	182 20 368 64 16	...	...	...	...
Operations on stomach	Gastrostomy ... Postgastro-enterostomy ... Gastro-entrostomy and gastro-enterostomy ...	... ... ...	5 219 7	... ... ...	5 219 7	5 219 7	5 219 7	...	...	...	...
Operations on intestines	Enterectomy and lateral anastomosis ... Lateral anastomosis ... Operation for intestinal obstruction ... Colotomy ... Colostomy ... Removal of appendix ... In the acute stage during quiescent period ... Opening and drainage of abscess ...	... ... ... ... ... ... ...	3 3 11 1 2 13 76 2	... ... ... ... ... ... ...	3 3 11 1 2 13 76 2	3 3 11 1 2 13 76 2	3 3 11 1 2 13 76 2	...	...	...	...
Operations on the rectum and anus.	For imperforate anus ... Incision or excision of anal fistula ... Removal of haemorrhoid by excision ligature or White heads. By ligature ... By clamp and cautery ... Removal of polypus ... For prolapse— By manipulation ... By operation ... For non-malignant stricture ...	... ... ... ... ... ... ... ... ... ...	1 65 102 6 23 2 5 4 1	... ... ... ... ... ... ... ... ...	1 65 102 6 23 2 5 4 1	1 65 102 6 23 2 5 4 1	1 65 102 6 23 2 5 4 1	...	...	...	...

STATEMENT Q—cont.

Showing the Results of the Surgical Operations performed in the General Hospital, Madras, for the year 1923—cont.

Class of operations.	Nature of operations.	Number of patients remaining from last year.	Number of operations performed during the year			Number of patients operated on in columns 4 to 6.	Results of operations on patients				Number of patients remaining at the end of the year.
			Number of operations performed during the year				Cured.	Relieved otherwise.	Died.		
			Primary.	Secondary.	Total.						
1	2	3	4	5	6	7	8	9	10	11	12
Operations on the rectum and anus—cont.	Dilatation of sphincter for stricture	..	1	..	1	1	..	1	..	..	..
	Synovectomy	..	13	..	13	13	..	13	..	..	..
	Excision of new growth	..	1	..	1	1	..	..	..	..	..
	Examination under chol.	..	2	..	2	2	..	..	..	..	..
	For anal fissure	..	10	..	10	10	10	..	..	..	..
	Total	..	26	3	29	26	168	26	..	1	8
Operations on liver and gall bladder.	Exploratory puncture for abscess of Kala Azar	..	169	..	169	169	..	168	..	1	..
	Paracentesis for abscess or left	..	25	7	32	25	24	..	..	2	..
	Cholecystectomy	..	1	..	1	1	1	..	..	1	..
	Cholecystostomy	..	1	..	1	1	3	..	..	..	..
	Total	..	3	7	205	188	28	168	..	5	..
Operation on pancreas	Incision drainage or removal of cyst	..	1	..	1	1	..	1	..	..	..
	Total	..	1	..	1	1	..	1	..	..	..
Operations on spleen	Splenectomy	..	1	..	1	1	1	..	..	..	..
	Exploratory puncture spleen	..	10	..	10	10	..	..	10	..	..
	Total	..	11	..	11	11	1	10	..	..	..
Operations on kidney	Nephrolithotomy	..	2	..	2	2	2	..	..	..	..
	Nephrectomy	..	1	..	1	1	1	1	..	..	..
	Decapsulation	..	3	..	3	3	..	..	4	..	..
	Total	..	6	..	6	6	3	4	..	..	..

Operations on urethra	Passage of catheter	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
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STATEMENT G (I) (REVISED).

Showing the Results of the Surgical Operations in the General Hospital, Madras, for the year 1923.

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ANNUAL REPORT AND STATISTICS OF THE

Class of operations.	Nature of operations.	Remaining from 1920.	Number of operations during the year.			Number of patients operated on in columns 3 and 4.	Results.				Remaining.
			Primary.	Secondary.	Total.		Cured.	Relieved.	Discharged otherwise.	Died.	
1	2	3	4	5	6	7	8	9	10	11	12
Operations on tumours ...	Removal by excision and diathermy ...	2	72	5	77	72	52	14	1	4	3
Operations on cysts ...	Removal by enucleation or excision ...	...	124	...	124	124	123	...	...	...	1
Operations on arteries ...	Ligature ...	...	8	...	8	8	3	...	...	...	...
	Anastomosis ...	...	1	...	1	1	1	...	...	...	...
Operation on veins.	Total ...	...	4	...	4	4	4	...	...	...	...
	For varices— Excision partial or complete	...	2	...	2	2	2	...	...	...	...
Operation on aneurysm.	Ligature of artery proximal	...	2	...	2	2	2	...	...	...	...
	Do.	...	2	...	2	2	...	...	...	...	...
Operation for arrest of hemorrhage.	Total ...	...	6	...	6	6	4	1	...	1	...
	Ligature of bleeding point or artery on proximal side.	...	1	...	1	1	1	...	...	...	...
Operation on lymphatics ...	Removal of lymphatic glands by excision ...	4	34	...	34	34	20	12	...	2	4
	Injection of medical substances into gasserian ganglion.	...	10	2	12	10	...	9	...	1	...
Operation on nerves ...	Removal of sympathetic ...	...	1	...	1	1	...	1	...	...	...
	Total ...	...	11	2	13	11	...	10	...	1	...
Operation on skin and subcutaneous tissues.	Plastic operations for cicatrices and congenital malformations.	2	13	...	13	13	14	1	...	...	...
	Excision for elephantoid tissues and kromedecsis operation.	1	4	...	4	4	...	5	...	...	...
Total ...	Total ...	3	17	...	17	17	14	6	...	...	...

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Operations on bones ...	Incision of periosteum ...	...	1	...	1	1	4	...	...	...	...
	Osteotomy linear ...	...	3	...	3	3	3	...	...	...	...
Operations on joints ...	Osteotomy cuneiform ...	...	1	...	1	1	1	...	...	...	...
	Correction of deformity by fracture	...	1	...	1	1	1	...	...	...	...
Amputations ...	Grafting of bones ...	...	7	...	7	7	2	...	...	...	...
	Removal of sequestra	...	42	...	44	42	30	7	...	...	...
Operations on skull ...	Excision partial or complete	...	7	...	7	7	5	1	...	...	...
	Total ...	...	62	2	64	62	45	11	1	2	7
Operation on brain and meninges,	Excision, partial or complete	...	12	...	12	12	12	1	...	...	...
	Fixation or removal of intra articular cartilage	...	5	...	5	5	5	...	...	...	...
Operations on spine and spinal cord.	Total ...	...	17	1	18	17	17	1	...	...	...
	For injury arm, middle third	...	3	...	3	3	3	...	...	...	...
Operations on the face ...	Forearm, lower third	...	1	...	1	1	1	...	...	...	...
	Thigh, middle third	...	7	...	7	7	4	...	...	...	...
Operations on the mouth.	Thigh, lower third	...	2	...	2	2	2	...	...	...	...
	Leg, middle third	...	4	...	4	4	2	...	...	...	...
Total ...	For disease— Interscapulo thorax	...	1	...	1	1	...	...	...	...	...
	Arm, middle third	...	2	...	2	2	...	...	...	...	...
Total ...	Forearm, middle third	...	1	...	1	1	...	...	...	...	...
	Disarticulation hip	...	1	...	1	1	...	...	...	...	...
Total ...	Thigh, upper third	...	3	...	3	3	...	...	...	...	...
	" lower third	...	6	...	6	6	...	...	...	...	...
Total ...	Knee ...	...	2	...	2	2	...	...	...	...	...
	Leg, upper third	...	3	...	3	3	...	...	...	...	...
Total ...	" middle third	...	6	...	6	6	...	...	...	...	...
	" lower third	...	7	...	7	7	...	...	...	...	...
Total ...	Ankle ...	...	2	...	2	2	...	...	...	...	...
	Total ...	...	50	1	51	50	39	2	...	13	5
Total ...	Trephining or removing a portion of skull	...	10	...	10	10	1	3	...	...	...
	Paracentesis cerebral ventricles	...	1	...	1	1	...	1	...	...	...
Total ...	Laminectomy	...	1	...	1	1	...	1	...	...	...
	For hernia	...	3	...	3	3	4	...	...	...	...
Total ...	For salivary fistula	...	1	...	1	1	1	...	...	...	...
	Total ...	...	4	2	6	4	5	...	...	...	...
Total ...	For cleft palate	...	2	...	2	2	1	1	...	1	...
	For salivary calculus	...	1	...	1	1	1	...	...	...	...
Total ...	Removal of tongue partial or complete	...	5	...	5	5	3	1	...	...	...
	Removal of tonsils by enucleation	...	89	...	89	89	88	...	...	...	1
Total ...	Total ...	...	97	2	99	97	93	2	...	1	2

Showing the Results of the Surgical Operations in the General Hospital, Madras, for the year 1923—cont.

Class of operations.	Name of operations.	Remaining from 1919.	Number of operations during the year.			Number of patients operated on in columns 4 to 6.	Results.				Remaining.
			Primary.	Secondary.	Total.		Cured.	Relieved.	Discharged otherwise.	Died.	
1	2	3	4	5	6	7	8	9	10	11	12
Operations on nasal cavities and accessory sinuses.	On nasal septum ...	...	8	...	8	8	8	...	...	...	...
	Removal of new growth	...	2	...	2	2	...	1	...	...	1
	Incision of mastoid abscess	...	6	...	6	6	6	...	...	...	...
	Complete mastoid operation	...	21	...	21	21	14	2	...	2	3
	Total ...	...	27	...	27	27	20	2	...	...	2
Operations on larynx and trachea.	Removal of laryngeal growth ...	...	2	...	2	2	...	...	...	...	2
	Removal of cyst ...	...	3	...	3	3	2	1	...	...	...
	Removal of thyroglossal cyst ...	...	1	...	1	1	1	...	...	...	...
	Removal of growth ...	...	5	...	5	5	4	1	...	...	...
	Total ...	...	8	...	8	8	8	2	...	...	2
Operations on breast.	Removal of breast partial or complete	...	6	...	6	6	2	2	...	...	2
	Excision of breast with axillary glands	...	14	...	14	14	10	2	...	...	2
	Total ...	...	20	...	20	20	12	4	...	...	4
Operations on thorax and contents.	Incision and drainage of pleural exsion of rib	...	3	...	3	3	1	...	...	...	2
	Trans thoracic incision for sub-diaphragmatic liver abscess.	...	1	...	1	1	1	...	...	...	...
	Total ...	...	4	...	4	4	2	...	...	...	2
Operations on the abdominal wall and cavity.	Operations for external hernia for radical cure	...	182	...	182	182	180	...	...	1	2
	For strangulation radical cure ...	...	20	...	20	20	16	2	...	...	1
	Abdominal section laparotomy exploratory	...	54	...	54	54	14	8	...	24	5
	Abdominal curative	...	16	...	16	16	1	...	...	12	6
	Total ...	...	272	...	272	272	211	10	16	32	9

Operations on stomach ...	Gastrostomy ...	Gastro-enterostomy ...	Gastrostomy & Gastro enterostomy ...	6	219	7	15	231	...	...	...	5	219	7	194	...	1	9	...	1	...	2	33	...	4	27	...	7
Operations on stomach ...	Gastrostomy ...	Gastro-enterostomy ...	Gastrostomy & Gastro enterostomy ...	6	219	7	15	231	...	...	...	5	219	7	194	...	1	9	...	1	...	2	33	...	4	27	...	7
Total	...	...	...	6	219	7	15	231	...	...	...	5	219	7	194	...	1	9	...	1	...	2	33	...	4	27	...	7
Operations on liver and gall bladder...	Paracentesis for abscess or cyst ...	Cholecystostomy ...	Cholecystectomy ...	25	1	3	1	...	...	...	...	32	1	3	...	23	...	...	...	...	...	...	...	2	7	...	1	...
Operations on pancreas	Incision and drainage or removal of cyst ...	Splenectomy ...	Nephrolithotomy ...	1	...	...	...	1	...	...	...	1	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...
Operations on spleen	Nephrolithotomy ...	Nephrectomy ...	Decapsulation ...	2	...	...	...	2	...	...	...	2	1	3	...	2	...	...	...	...	...	...	...	...	...	...	...	...
Operations on kidneys	For extravasation of urine ...	External urethrostomy ...	Suprapubic—Cystostomy for diseases of bladder or prostate	4	27	...	2	31	...	...	...	4	27	...	20	...	...	...	...	...	1	...	...	1	3	...	...	...
Operations on urethra	Suprapubic—Cystostomy for diseases of bladder or prostate	Lithotomy suprapubic	Total	4	27	...	2	31	...	...	...	4	27	...	20	...	...	...	...	...	1	...	...	1	3	...	...	...
Operations on bladder	Total	...	...	4	27	...	2	31	...	...	...	4	27	...	20	...	...	...	...	...	1	...	...	1	3	...	...	...

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STATEMENT G (I)—cont.
Showing the Results of the Surgical Operations in the General Hospital, Madras, for the year 1923—cont.

ANNUAL REPORT AND STATISTICS OF THE												
Class of operations.	Name of operations.	Remaining from 1919.	Number of operations during the year.			Number of patients operated on in columns 4 to 6.	Results.					
			Primary	Secondary	Total.		Cured.	Relieved, otherwise.	Died.	Remaining.		
1	2	3	4	5	6	7	8	9	10	11	12	
Operations on prostate	Prestatotomy	...	2	...	2	2	...	...	1	1	...	
	Amputation of penis, partial or complete	...	14	...	14	14	12	...	...	2	...	
	Plastic operation for hypospadias	...	1	...	1	1	1	...	...	...	...	
	For undescended testicle	...	1	...	1	1	1	...	...	...	...	
	For varicocele	...	8	...	8	8	9	...	...	...	4	
	Incision and eversion of sac	...	176	...	176	176	176	...	...	...	...	
	Excision of parietal sac	...	5	...	5	5	5	...	...	...	...	
	For hydrocele of cord	...	4	...	4	4	4	...	...	...	...	
	For haematocoele—	...	...	...	...	...	...	...	...	...	...	
	Incision and eversion of sac	...	1	...	1	1	10	...	...	...	...	
Operations on male generative organs.	Excision of parietal sac	...	6	...	6	6	7	...	...	...	...	
	Removal of testicle	...	14	...	14	14	13	...	1	...	...	
	Removal of elephantiasis penis and scrotum	...	44	...	44	44	44	...	...	1	...	
	Total	8	232	...	232	232	232	...	1	3	4	
	Ovariectomy	...	2	...	2	2	...	...	1	...	1	
	Operation for ectopic gestation	...	1	...	1	1	...	...	...	...	...	
	Total	...	3	...	3	3	...	...	1	1	1	
	Grand total	59	1,573	26	1,599	1,573	1,292	112	24	192	62	
	Operations on female generative organs.											

ANNUAL REPORT AND STATISTICS OF THE

STATEMENT III-B.

Selected List of Operations performed by each Medical Officer, Government General Hospital, Madras, for the year 1923.

Number.	Names of Surgeons.	Period of duty.	Operations performed																																			
			Excision of tumours.	Excision of joints, partial or complete.	Operations on bones.	Crushing of bone (Albers operation).	Amputation above meta-carpus.	Amputation above meta-tarsus.	Operations on skull (hemi-craniectomy).	Operations on spine (hemi-laminectomy).	Operation for cleft palate (necrosis).	Operation for cleft palate (salivary duct).	Operations for adhesion of nasum septum.	Operations for naso-pharyngeal polypus.	Operations on thyroid body.	Operation for laryngeal growth.	Excision of tongue.	Excision of breast with axilla.	Abdominal section (laparotomy).	Operations on stomach.	Operations on intestines.	Operations on liver for abscess.	Other operations on gall bladder.	Operations on kidney (nephrectomy).	Operations on spleen (splenectomy).	Operation for hernia (hernioplasty).	Operations for appendicitis.	Operations for ectopic gestation.	Operation for ovarian cyst.	Operations on prostate.	Operations on bladder for stone.	Operations radical on nasopharynx.	Operations for elephantoid cure.	Operations on rectum for malignant disease and prolapse.				
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36			
1	Lieut.-Col. T. H. Symons, M.B.E., I.M.S.	First Surgeon, from 1st Jan. to 9th May 1923.	4	5	...	...	1	5	4	...	...	...	...	...	...	...	...	...	...	4	23	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...		
2	Lieut.-Col. E. W. C. Bradfield, M.B.E., I.M.S.	Second Surgeon, from 1st Jan. to 23rd Apr. First Surgeon, 24th May to 31st Dec. 1923.	4	6	18	5	...	12	4	...	...	...	...	...	...	...	...	...	...	18	50	12	6	3	...	...	...	...	...	...	...	...	...	...	...	...		
3	Lieut.-Col. R. B. Foster, I.M.S.	Second Surgeon, from 11th July to 31st Dec. 1923.	2	...	5	...	1	2	...	...	...	...	...	...	...	...	...	...	...	7	29	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...		
4	Major K. G. Pandat, I.M.S.	Third Surgeon, from 1st Jan. to 31st Dec. 1923.	4	19	2	...	2	13	2	1	...	...	3	8	2	3	1	2	5	29	96	7	14	1	...	...	...	...	...	...	...	...	...	...	...	...		
5	Major A. P. G. Lotimer, I.M.S.	Resident Medical Officer from 1st Jan. to 23rd Apr. Second Surgeon, 24th Apr. to 10th July 1923.	5	1	...	...	1	6	...	...	...	...	...	...	...	...	...	...	...	1	16	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...		
6	Major W. C. Eaton, I.M.S.	Resident Medical Officer from 24th Apr. to 31st Dec. 1923.	...	...	...	...	...	1	12	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
		Total	23	48	13	4	3	50	10	1	4	4	3	8	3	3	2	5	11	59	236	24	33	4	6	1	181	40	29	1	2	2	7	21	40	3		

GOVERNMENT GENERAL HOSPITAL

SUPPLEMENTARY STATEMENT.

Showing venereal diseases of in-door and out-door patients, by sexes, treated in the Government General Hospital, Madras, during the year 1923.

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ANNUAL REPORT AND STATISTICS OF THE

		GONOCOCCAL INFECTION.										SYPHILIS (PRIMARY AND SECONDARY).																																																																																																																																																																																			
		State-Public.					State-Special and Railway.					Private non-aided.					State Public.																																																																																																																																																																														
		In-door.		Out-door.		Deaths.	In-door.		Out-door.		Deaths.	In-door and out-door.		In-door.		Deaths.	In-door.		Out-door.		Total treated.																																																																																																																																																																										
		Total treated.		Total treated.			Total treated.		Total treated.			Total treated.		Total treated.			Total treated.		Total treated.																																																																																																																																																																												
		Males.	Females.	Males.	Females.		Males.	Females.	Males.	Females.		Males.	Females.	Males.	Females.		Males.	Females.	Males.	Females.																																																																																																																																																																											
Class of dispensary.		1	2	3	4	5	6	7	8	9	10	11	12	13			14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100																																																																																								
District.		Non-Europeans...		Europeans ...		Total ...		Non-Europeans...		Europeans ...		Total ...		Non-Europeans...		Europeans ...		Total ...		Non-Europeans...		Europeans ...		Total ...		Non-Europeans...		Europeans ...		Total ...		Non-Europeans...		Europeans ...		Total ...		Non-Europeans...		Europeans ...		Total ...		Non-Europeans...		Europeans ...		Total ...		Non-Europeans...		Europeans ...		Total ...		Non-Europeans...		Europeans ...		Total ...		Non-Europeans...		Europeans ...		Total ...		Non-Europeans...		Europeans ...		Total ...		Non-Europeans...		Europeans ...		Total ...		Non-Europeans...		Europeans ...		Total ...		Non-Europeans...		Europeans ...		Total ...		Non-Europeans...		Europeans ...		Total ...		Non-Europeans...		Europeans ...		Total ...		Non-Europeans...		Europeans ...		Total ...		Non-Europeans...		Europeans ...		Total ...		Non-Europeans...		Europeans ...		Total ...		Non-Europeans...		Europeans ...		Total ...		Non-Europeans...		Europeans ...		Total ...		Non-Europeans...		Europeans ...		Total ...		Non-Europeans...		Europeans ...		Total ...		Non-Europeans...		Europeans ...		Total ...		Non-Europeans...		Europeans ...		Total ...		Non-Europeans...		Europeans ...		Total ...		Non-Europeans...		Europeans ...		Total ...		Non-Europeans...		Europeans ...		Total ...		Non-Europeans...		Europeans ...		Total ...		Non-Europeans...		Europeans ...		Total ...		Non-Europeans...		Europeans ...	

* Among these are included gonorrhoeal ophthalmia, gonorrhoea, rheumatism and salpingitis, pelvic abscess, gonorrhoeal cystitis and tertiary syphilitic lesions of the brain, spinal cord, skin, liver, bone and teeth, etc.

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STATEMENT H

Showing the Income and Expenditure of the Government General Hospital, Madras, in the year 1923.

GOVERNMENT GENERAL HOSPITAL																									
District.		Name of dispensary.	Income.										Expenditure.												
			Government contribution.		Local Fund contributions.	Municipal Fund contributions.	Interest on investment.	Subscriptions.		Miscellaneous receipts (to include sale of securities).	Total receipts.	Salaries.			Medicines.			Buildings or repairs.	Investments.	Total expenditure.	Closing balance.				
As sal.	Other.	Indian.	Europe.	Medical officers.				Nurses.	Interior ser.			Pharm.	Bazaar.	Diet.	Miscellaneous charges.	RS.	RS.					RS.	RS.	RS.	RS.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23			
Madras.	Government General Hospital.	Nil	2,86,744	4,30,310	...	...	...	...	...	34,284	7,51,338	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	RS.	...			
																						7,51,338			

INSTRUCTIONS.

(1) Statement is intended to complete only those institutions from which complete information can be expected. These are State-Public, Local Fund and Private-aided dispensaries (Classes I, III and IV of the classes shown in Statement A).
 (2) Figures for individual dispensaries should be given, and dispensaries should be arranged in column 2 as in Statement B, except that district totals for general, female or combined institutions need not be given.
 (3) Aims and fees should be certified through the Government.
 (4) In column 13 should be shown (1) the pay of Surgeons, Assistant Surgeons, Apothecaries, Hospital Assistants and Indian Doctors, attached to the dispensary, including special dispensary allowance (if any), and (2) the special dispensary allowance (if any) for the pay of Civil Surgeons or other Medical officers holding the position of dispensary in addition to their ordinary civil work. The pay of Civil Surgeons or other Medical officers should be shown in column 14.
 (5) In column 15 should be shown the salaries of (1) compounders, dressers, etc., (2) menial servants, e.g., cooks, sweepers, chankidar, etc.

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FIRST PHYSICIAN'S WARDS.

These wards were being looked after by Lieut.-Col. F. F. Elwes, C.I.E., I.M.S., till 25th October 1923 when I assumed charge of them.

The following is a comparative statement of the number of cases treated and deaths for the three years 1921 to 1923:—

Class of patients.	1921.		1922.		1923.	
	Total treated.	Deaths.	Total treated.	Deaths.	Total treated.	Deaths.
Europeans ...	705	51	706	36	686	43
Non-Europeans ...	538	54	960	85	994	111
Total ...	1,243	105	1,666	121	1,680	154

The following table shows the number of admissions and the result of treatment during this year:—

Class of patients.	Admissions.								Average daily sick.	Death rate per 1,000.
	Remained.	Admitted.	Total.	Cured.	Relieved.	Discharged otherwise.	Died.	Remaining.		
Europeans ...	29	658	687	385	143	75	43	41	41.00	62.68
Non-Europeans ...	41	953	994	530	194	118	111	41	52.83	111.57
Total ...	70	1,611	1,681	915	337	193	154	82	94.43	91.67

Minor operations performed during 1923.

Operations.	Europeans.	Non-Europeans.	Total.
Intramuscular injections ...	656	1,159	1,822
Intravenous injections ...	468	632	1,100
Paracentesis abdominalis ...	6	217	223
Paracentesis thoracis ...	...	15	15
Lumbar puncture ...	...	8	8
Liver puncture ...	39	67	106
Spleen puncture ...	4	3	7
Venesection ...	2	1	3
Abscess opened ...	11	14	25

Intramuscular injections were those of quinine, emetine, iron arsenite, sodium morrhuate and vaccines tuberculin tried subcutaneously. Intravenous injections were mostly of antimony tartrate for Kala Azar Salvarsan derivatives, quinine, peptone and alkaline glucose saline.

Percentage of mortality.

Class of patients.	Total treated.	Deaths.	Percentage.	Moribund cases.	Percentage of deaths excluding moribund cases.
Europeans ...	687	43	6.26	4	5.68
Non-Europeans ...	994	111	11.16	25	8.64

Principal diseases treated and deaths.

Diseases.	Non-Europeans.			Europeans.			Total.	
	Total treated.	Deaths.	Remarks.	Total treated.	Deaths.	Remarks.	Cases treated.	Deaths.
Benign tertian ...	60	...	...	44	...	...	104	...
Malignant tertian ...	69	2	1 cerebral. Admitted, 1 sudden death. P.M. cause unknown. Smear from spleen and brain negative	33	2	1 Cerebral ...	92	4
Malaria. Quartan ...	5	...	...	...	...	...	5	...
Chronic ...	19	...	...	2	...	...	21	...
Enteric ...	33	1	...	27	5	...	60	6
Influenza ...	12	...	...	21	...	...	33	...
Pneumonia ...	64	19	7 moribund ...	17	2	...	81	21
Dengue ...	9	...	...	11	...	...	20	...
P.U.O. ...	51	1	Admitted moribund.	44	...	...	95	1
Relapsing fever ...	3	1	...	...	...	...	3	1
Kala Azar ...	39	8	4 complicated with pneumonia. 1 due to perforation of large intestine due to amoebic ulceration. 3 were advanced cases and died of heart failure.	24	4	1 improperly treated outside. 1 sudden death. P.M. not allowed. 1 complicated with pneumonia.	63	12
Tuberculosis of lung ...	42	12	1 admitted moribund.	25	2	...	67	14
Ratbite fever ...	3	...	...	...	...	...	3	...
Bronchial Asthma ...	18	...	...	30	...	...	48	...
Pleurisy. Dry ...	3	...	...	8	...	...	11	...
With effusion ...	6	3	1 moribund ...	1	...	...	7	3
Diseases of heart ...	42	12	4 moribund ...	12	3	...	54	15
Pericarditis ...	2	...	...	3	...	...	5	...
Hepatitis ...	6	...	...	2	...	...	7	...
Cirrhosis of liver ...	39	6	...	2	1	...	41	7
Catarrhal jaundice ...	10	...	...	3	...	...	13	...
Diseases of stomach ...	21	...	...	14	...	...	35	...
Diseases of intestines ...	33	3	...	39	6	...	69	9
Dysentery. Amoebic ...	50	2	1 moribund ...	21	...	...	71	2
Bacillary ...	11	2	Do. ...	7	1	with ankylostomiasis.	18	3
Nephritis. Acute parenchymatous ...	2	1	Admitted moribund.	1	...	...	3	1
Chronic do. ...	28	4	1 moribund ...	11	1	...	37	5
Chronic interstitial ...	2	...	...	2	...	...	4	...
Diseases of nervous system ...	15	1	...	5	...	...	20	1
Hemiplegia ...	6	2	Both moribund ...	8	1	...	14	3
Diabetes mellitus ...	11	1	Complicated with T.P.	3	...	...	14	1
Ankylostomiasis ...	74	3	2 were advanced cases and died of heart failure. 1 complicated with T.P.	3	...	...	77	3
Other intestinal worms ...	18	...	...	10	...	...	28	...
Deficiency diseases ...	20	...	...	2	...	...	22	...
Rheumatism ...	7	...	...	10	...	...	17	...

In this connexion it may be mentioned that about 20 per cent of amoebic dysentery cases had malarial parasite (Benign tertian in the majority of cases) in the blood, although some of them showed no rise of temperature. In most of these cases emetine stopped the blood and mucus in the stools, but a kind of obstinate enteritis persisted. Whether the malarial parasites are responsible for the enteritis, and if so in what measure, will be an interesting investigation. That some of the malaria cases had associated enteritis which yielded to quinine injections lends support to the supposed relation between the plasmodia and the enteritis.

Also the association of Quartan parasite with a small percentage of cases of parenchymatous nephritis is interesting. It is highly probable that the toxin of the Quartan parasite has a special predilection for the kidneys.

SPECIAL ANKYLOSTOMIASIS REPORT.

A.—Non-Europeans.

Place of residence.	Number treated.	Place of residence.	Number treated.
Choolai ...	1	Dindigul ...	1
Vepery ...	2	Tirupati ...	1
Georgetown ...	3	Villupuram ...	1
Purasawakam ...	1	Travancore ...	2
Sowcarpet ...	1	Puttur ...	1
Triplicane ...	3	Tiravottiyur ...	1
Egmore ...	4	Ponneri ...	1
Chintadripet ...	1	St. Thomas' Mount ...	2
Periamet ...	2	Chingleput ...	1
Adyar ...	1	Villivakkam ...	1
Park Town ...	3	Conjeevaram ...	1
Royapetta ...	1	Tindivanam ...	1
Chetput ...	1	Nellore ...	1
Perambur ...	1	Tiruvallur ...	1
Pudupet ...	1	Cochin ...	1
Washermanpet ...	1	Nizampet ...	1
Malabar ...	1	Destitute ...	19
Chittoor ...	2	Not known ...	7
		Total ...	74

Occupation.	Number treated.	Occupation.	Number treated.
Cook ...	2	Student ...	2
Coolie ...	5	Attender ...	1
Police Constables ...	2	Beggar ...	16
Ryot ...	2	No particular occupation ...	18
Clerk ...	2	Not known ...	13
Servant ...	1		
Merchant ...	3	Total ...	74

Result of treatment.

Cured ...	59
Relieved ...	7
Discharged otherwise ...	5
Died ...	3
Total ...	74

B.—Europeans.

Place of residence.	Number treated.	Occupation.	Number treated.
Egmore ...	1	Student ...	1
Perambur ...	1	No particular occupation ...	2
Vepery ...	1		
Total ...	3	Total ...	3

Result of treatment.

Cured ...	3
Relieved ...	...
Discharged otherwise ...	...
Died ...	...
Total ...	3

INTERESTING CASES AND OBSERVATIONS.

1. Optic Neuritis.—Two cases of optic neuritis apparently accompanied by endocrine insufficiency were treated this year. One of them was a case of "dystrophia adiposo-genitalis" so may have had a pituitary tumour. The other case showed marked improvement with endocrine treatment.

2. Extraordinary Haemorrhagic tendency in an individual after treatment for Kala-Azar with antimony tartrate:—

Mr. S. , admitted for bleeding from the gums. He had previously undergone treatment for Kala-Azar in my wards. He had 3 grammes of antimony in all, the last injection being a fortnight before the readmission. On examination the gums were bleeding, and there were extensive subcutaneous hæmorrhages, the main distribution being the flexor aspects of arms, upper eye-lid, and posterior aspect of the ears. The condition of the arms improved under treatment with calcium; but the bleeding from the gums persisted as well as the patches on the eye lids and ears. The patient was discharged at his own request four days after admission. About three days later, he was reported to have been found dead in bed in the morning. Possibly the sudden death may have been due to profuse hæmorrhage from some of the internal organs. The interesting feature about the case is the sudden development of a hæmorrhagic tendency after a course of injections of antimony tartrate.

3. K. , a girl aged 8 years, admitted on 22nd November 1923, for general anasarca of 7 days' duration. No definite previous history could be got except that she suffered from continuous fever for two months. On examination, liver and spleen were just palpable, and there was free fluid in the peritoneal cavity. A few petechial hæmorrhages were present on the anterior aspect of both legs. Circulatory system normal except that the sounds were a little feeble. Deficient air entry over bases of both lungs. Urine, sp. gr. 1014; sugar nil; albumen present; reaction alkaline; deposit shows a few cells. Nothing special about the temperature, excepting slight rise to 99°6' on the day of admission. A diagnosis of nephritis was made and the patient was given purgatives and an alkaline diuretic mixture. Everything went on well till the 25th morning, when the patient suddenly complained of pain in the left thigh, and had difficulty in breathing. On examining the patient, a large area of subcutaneous hæmorrhage was detected occupying the whole of the inner and a portion of the outer aspect of the thigh. In a few minutes the patient died.

An exploratory puncture of the liver was made after death, and the smear from the liver juice showed numerous Leishman-Donovan bodies. The interesting feature about this case is that there was no definite clinical evidence of Kala-Azar, but could easily be mistaken for Bright's disease, the more so on account of the presence of albumin in the urine.

4. Ataxic paraplegia due to Malaria.—X. , male aged 36 years, admitted with signs of marked inco-ordination and sensory disturbance to a small extent. Deep reflexes exaggerated. Babinski's sign and ankle clonus present. Benign tertian parasite was accidentally discovered in the blood, although he had only a temperature of about 100° once a few days after admission. Treatment with quinine gradually improved his condition, and at the time of discharge he had regained co-ordination of movements to a considerable extent.

5. Sudden death from Kala-Azar due to perforation of Amoebic ulcer of the large intestines.—S. , male aged 25 years, admitted on 9th August 1923, for irregular fever and tumour in the abdomen of 6 months' duration. A month before coming into my ward he was diagnosed by the Second Physician, General Hospital, as suffering from Kala-Azar by demonstrating Leishman-Donovan bodies in the liver juice. Aldehyde test was also positive in 5 minutes. He was given two injections of tartar emetic in his ward; but he did not remain for the full course of treatment.

On admission the patient was anæmic; Spleen tender, extended to 11 inches below the left nipple in the nipple line and 1 inch to the right of the middle line at level of umbilicus. Liver 1 inch below costal margin. Circulatory and respiratory systems normal. Bowels were rather loose, but this was attributed to the milk diet.

Tartar emetic injections were begun without delay. He had four injections of tartar emetic amounting to a total of 11 c.c. of 2 per cent solution, the last injection (3.5 c.c.) being on 19th August 1923. The patient was doing well on this day. At 10 p.m. he suddenly complained of severe pain in the abdomen. On examination there was nothing to indicate an acute abdomen, and so only palliative measures were adopted to relieve the pain. Later on the same night his condition grew worse, and on examining him at 1 a.m. definite signs of peritonitis were present. But it was too late for operative treatment. The patient expired at 2-15 a.m.

Post-mortem notes.—On opening the abdomen there were signs of chronic peritonitis (of at least a week's duration according to the pathologist) and a perforation near the hepatic flexure of the colon could be seen. The large intestines showed numerous ulcers, many of them looking like typical tubercular ulcers. There were no ulcers in the Ileum. The spleen was enlarged, and smear from spleen pulp showed Kala-Azar bodies.

The histological appearances of the ulcers were those of a dysenteric one; and a few entamoeba histolytica were seen after prolonged search in the submucosa.

After careful observation during the last few years we have come to the conclusion that Leishman-Donovan bodies *per se* are incapable of producing a dysenteric ulceration of the intestines. In a great many cases of Kala-Azar the patients do suffer from intestinal disorders as diarrhoea or dysentery, but these conditions do not seem to depend primarily on the presence of Kala-Azar parasites in the body. Some secondary agent, as amoeba histolytica or pathogenic bacteria, is responsible for these complications, the Leishman-Donovan bodies merely causing de-vitalization of the tissues of the body including the intestinal wall. It is very significant that very careful examination of scrapings from the base of the ulcers and of sections of the ulcers failed to reveal the presence of Kala-Azar bodies in them.

Brilliant green.—Intravenous injections of 1 in 1,000 Solution of brilliant green was tried in a few cases of Kala-Azar that proved to be resistant to antimony salts. The dose was 5 c. c. to start with, going up to 40 c.c. The result of this treatment has not been satisfactory. A 1 in 1,000 ointment of brilliant green in vaseline has been found to be exceedingly useful as a local dressing for bed sores.

Alipoid tuberculin has been used (subcutaneously) in the treatment of pulmonary tuberculosis. The result has not been so far very encouraging.

Insulin in Diabetes.—Of 11 cases of diabetes mellitus treated with insulin, excepting one fatal case complicated by pulmonary tuberculosis, all showed improvement on discharge as regards increase of weight, decrease of blood and urine sugar and disappearance of present, of aceto-acetic acid.

GOVT. GENERAL HOSPITAL, MADRAS,
February 1924.

G. E. MALCOMSON, M.D., Major, I.M.S.,
Acting First Physician

SECOND PHYSICIAN'S WARD.

The wards were in my charge throughout the year excepting 1st to 24th May 1923 when Major W. L. Forsyth, I.M.S., was in charge, and from 5th July to 24th October 1923 when Major G. E. Malcomson, I.M.S., was in charge.

Class of patients.	Admissions.							Average daily sick.	Death-rate per 1,000.	Operations.						
	Remained.	Admitted.	Total.	Cured.	Relieved.	Discharged otherwise.	Died.			Remained.	Performed during the year.	Total.	Cured.	Relieved.	Discharged otherwise.	Died.
Europeans ...	14	237	251	143	47	37	15	14.74	59.76	58	58	...	...	58	...	...
Non-Europeans ...	38	975	1,013	525	172	175	113	45.85	111.55	678	678	...	...	678	...	...
Total ...	52	1,212	1,264	668	219	212	128	60.59	101.27	736	736	...	...	736	...	...

Percentage of mortality.

Class of patients.	Total treated.	Deaths.	Percentage of deaths.	Moribund cases.	Percentage of deaths excluding moribund cases.
Europeans ...	251	15	5.98	4	4.38
Non-Europeans ...	1,013	113	11.15	20	9.18

Minor operations performed during 1923 in the Second Physician's ward.

Operations.	Europeans.	Non-Europeans.	Total.
Intravenous injections ...	42	485	527
Paracentesis abdominis ...	...	108	108
Do. thoracis ...	...	13	13
Do. lumbar cord ...	3	4	7
Liver puncture ...	6	53	59
Spleen puncture ...	...	3	3
Venesection ...	6	9	15
Incision for pinta abscess ...	1	2	3
Total ...	58	678	736

Principal diseases treated and their deaths.

Diseases.	Europeans.			Non-Europeans.		
	Total treated.	Deaths.	Remarks.	Total treated.	Deaths.	Remarks.
Malaria { Benign tertian ...	9	...	.....	117	...	1 admitted moribund.
Malaria { Malignant tertian ...	12	1	1 admitted moribund.	41	2	1 complicated with broncho-pneumonia.
Malaria { Quartan ...	...	...	.....	3	...	...
Malaria { Chronic ...	3	...	.....	2	1	1 complicated with dysentery.
Kala-Azar ...	4	...	.....	36	8	2 complicated with pneumonia.
Enteric fever ...	9	1	.....	12	1	1 Do. mastoiditis.
						1 Do. ascites.
						1 Do. dysentery.

Diseases.	Europeans.			Non-Europeans.		
	Total treated.	Deaths.	Remarks.	Total treated.	Deaths.	Remarks.
Pneumonia	4	...	...	48	11	3 admitted moribund. 3 double pneumonia. 1 complicated with ankylostomiasis.
Influenza	4	...	...	12	...	...
Pyrexia of uncertain origin ...	11	...	...	42	...	...
Small-pox	1	...	...	2	...	...
Chicken-pox	1	...	...	3	...	...
Measles	6	...	...	2	...	...
Diphtheria	8	1	1 admitted moribund.	2	1	1 died of pneumonia.
Whooping cough	1	...	...	1	1	1 complicated with broncho-pneumonia.
Rheumatic fever	...	...	...	7	...	...
Relapsing fever	1	...	...	1	...	...
Ratbite fever	...	...	...	4	...	...
Cholera Asiatica	...	...	...	1	1	1 admitted moribund.
Tubercle of the lungs	5	1	...	43	14	2 admitted moribund. 1 complicated with V.D.H. 1 complicated with severe diarrhoea.
Asthma	1	...	...	15	...	...
Bronchitis acute	9	...	...	20	...	...
Broncho-pneumonia	9	1	...	17	4	1 complicated with mastoiditis.
Pleurisy { Dry	3	...	...	4	...	...
{ With effusion	...	...	...	10	4	1 empyema; 1 haemorrhagic; 1 complicated with tubercle of the lungs.
Diseases of the heart	5	3	1 admitted moribund.	38	10	1 admitted moribund. 1 acute infective endocarditis. 2 advanced arterio-sclerosis.
Diseases of stomach	4	...	...	16	...	...
Enteritis	13	2	...	46	7	1 admitted moribund. 2 tubercular.
Colitis	5	...	...	27	...	...
Catarrhal jaundia	2	...	...	4	...	...
Toxic jaundia	...	...	...	2	2	2 admitted moribund.
Hepatitis	7	...	...	3	...	...
Cirrhosis of liver	2	...	...	29	5	1 complicated with V.D.H. 1 complicated with T.P. lungs.
Dysentery { Amoebic	14	1	...	32	7	5 admitted moribund.
{ Bacillary	...	...	...	2	1	do.
Diseases of the nervous system.	...	...	...	26	...	...
Ch. interstitial nephritis ...	2	...	...	10	...	...
Ch. perianchymatous nephritis.	1	1	Uremia	13	1	Uremia.
Acute perianchymatous nephritis.	...	...	...	7	1	...
Hemiplegia	3	1	...	13	3	2 admitted moribund.
Ankylostomiasis	2	...	...	60	5	1 complicated with V.D.H. 1 complicated with pneumonia.
Other intestinal worm infections.	3	...	...	9	...	...
Meningitis (cerebrospinal) ...	2	1	1 admitted moribund.	2	2	1 admitted moribund. 1 tubercular.
Diabetes mellitus	...	...	...	10	1	1 complicated with T.P. lungs.
Fernicious anaemia	...	...	...	2	...	...

ANKYLOSTOMIASIS REPORT.

European Ankylostomiasis.

Place of residence.	Number treated.	Occupation.	Result of treatment.
Madras-Perambur	1	Student	1
Bitragunta	1	Engineer	1
Total	2		

Result.

Cured	2
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Non-European Ankylostomiasis.

Place of residence.	Number treated.	Place of residence.	Number treated.
Georgetown	13	Bapatla	1
Periamet	4	Coimbatore	2
Vepery	2	Chidambaram	1
Triplicane	2	Cuddalore	1
Pudupet	2	Kallakurchi	1
Choolai	1	Malabar	1
Park Town	2	Nellore	1
Chintadripet	1	Pallavaram	1
Perambur	1	Ponneri	1
Destitutes (Place unknown) ...	15	Poonamallee	1
Salem	1	Suralupetta	1
		Tiruvallur	2
		Tiruvallur	1
		Vellore	1
		Total	60

Occupation.	Number treated.	Occupations.	Number treated.
Beggars	15	Clerk	2
No occupation	16	Sweeper	2
Coolies	11	Police constable	1
Teacher	2	Milkman	1
Merchant	5		
Ryot	4	Total	60
Barber	1		

Result.

Cured	35
Relieved	16
Otherwise discharged	4
Died	5
Total	60

Pneumococcal Arthritis occurred in one case of pneumonia, a youth of 16. The onset was acute two days after the crisis. The ankle joints were both affected simultaneously. There was much effusion in the joints and extensive oedema of the dorsum of the foot. Tenderness was extreme, even the weight of the blanket was very uncomfortable. The slightest attempt at movement caused very severe pain. The clinical diagnosis was provisional, but was confirmed by the immediate recovery of the joints after injection of anti-pneumococcal serum (polyvalent). Salicylates had no effect at all in relieving pain. There was no other pneumococcal lesions except the pneumonia.

Pericarditis with effusion.—A case of extensive effusion was admitted to the Female ward. The onset was gradual, the patient remaining at work till two days before admission. The chief complaint was gradually increasing dyspnoea, with moderately severe aching pain over the praecordial area.

On examination the cardiac dullness was increased, the left border reaching to the axillary line and the right two inches to the right of the sternum and the upper border to the second intercostal space. There was no rise of temperature and the pulse was regular.

There was faint cyanosis. The liver was enlarged, being felt two inches below the costal margin. The pleurae were unaffected. There were no pressure symptoms.

Paracentesis was performed in the third space an inch from the left border of the sternum, and 8 oz. bloodstained fluid was removed. The patient felt great relief from this immediately and the liver rapidly returned to its normal size.

The cause could not be ascertained. There was no history of any disease predisposing to serious pericarditis. There was no history of rheumatism or other disease.

After removal of the fluid, the heart was still enlarged reaching four inches to the left of the sternum.

GOVT. GENERAL HOSPITAL, MADRAS,
15th Feb. 1924.

J. M. SKINNER, Major, I.M.S.,
Acting Second Physician.

THIRD PHYSICIAN'S WARDS.

Statement of admissions and discharges.

Admissions.			Discharges.				
Remained.	Admitted.	Total.	Cured.	Relieved.	Discharged otherwise.	Died.	Remaining.
10	325	335	143	87	68	26	11

Percentage of mortality.

Total treated.	Deaths.	Percentage of deaths	Moribund cases.	Percentage of deaths excluding moribund cases.
335	26	7.8	9	4.48

Minor operations:—

Paracentesis Abdominis	...	...	...	...	12
Do. Thoracis	...	...	...	...	1
Intravenous Injections	...	...	...	...	154
Intramuscular Do.	...	...	...	...	30
Abcesses incised	...	...	...	...	2
Total	...	...	...	...	199

Principal diseases treated with their mortality.

Diseases.	Total treated.	Deaths.
Malaria Malignant Tertian	13	...
" Benign Tertian	14	...
" Quartan	2	...
" Chronic	19	...
Enteric	4	...
Pyrexia of uncertain origin	5	...
Kala-Azar	12	2
Tubercle of lungs	5	6
Lobar Pneumonia	8	3
Broncho-Pneumonia	18	1
Bronchitis	23	...
Asthma	11	2
Influenza	26	5
Diseases of the Heart	9	...
" Stomach	11	...
" Nervous system	12	1
Enteritis	11	...
Ankylostomiasis	8	...
Other Intestinal parasites	8	...
Dysentery, Amebic	2	...
" Bacillary	8	2
Nephritis	10	...
Cirrhosis liver	9	...
Diseases of the generative organs	3	...
Filariasis	6	...
Hysteria	4	1
Mental Diseases	...	...

REPORT ON HOOKWORM DISEASE.

Localities.	Number treated.
Avadi	1
Calcut	1
Kallidaikurichi	1
Perambur	1
Pariamet	2
Address not known	5
Total	11
Results--Cured	8
Relieved	3
Total	11

The report from this ward for the year under review includes a high percentage of cases of asthma. Many of these are due to absorption by the intestines of anaphylactic proteins. It has been found that in 90 per cent of these anaphylactic cases an injection of adrenalin on admission gives immediate relief varying in degree. We have not had any measure of success from the administration of medicines of the anti-spasmodic group, e.g., stramonium, belladonna, grendelia, etc. Free purgation and non-protein diet have been useful.

The treatment of malaria remains the same—intravenous quinine plus quinine by the mouth with free ministration of alkalies to bring the urine to the alkaline side of Ph. 7 "B.D.H. Universal Indicator" is very useful for this purpose and easily applied.

In the treatment of valvular heart lesions with waterlogging of tissues, large doses of digitalis up to its maximum dose have been useful, and the infusion has been more reliable than the tincture.

Many of the women admitted to this ward have suffered from extreme degrees of anæmia with low red cell count and it is probable that some of these are caused by hæmolytic streptococci having foci of infection in Pyorrhea Alveolaris, etc. These patients will not remain in hospital to make blood and invariably leave before a complete cure is effected.

Education in schools on dental defects and dietetics and on simple physiological principles in general is not given the prominence it should. The value of this will probably be reflected in the health of the next generation. It is reasonable to suppose that the diet of this country has many gross physiological defects, e.g., hot curry stuffs and excessive salt must do damage to the Indian constitution.

Throughout the year various efficiency tests applied to Hepatic and Renal lesions have been carried out by my Assistant, Dr. DeNetto and although this work has just been begun, it has been found very interesting and useful help towards prognosis.

Under the present regime only a small percentage of the number of deaths come to the post-mortem table and it is hoped that as education advances there will be less objection to the performance of post-mortems as this adds materially to the accumulation of knowledge in the progress of medicine.

W. LEONARD FORSYTH, Major, I.M.S.,

GOVT. GENERAL HOSPITAL, MADRAS,
31st Jan. 1924.

Third Physician.

FOURTH PHYSICIAN'S WARDS.

These wards were under my charge from the 1st January to 31st December 1923 except for the period between 26th to 31st May 1923 when Major W. L. Forsyth, I.M.S., was in charge.

Early in the year 4 beds in Alexandra Ward were handed over to 2nd Physician and towards the end of the year 10 beds in Alexandra Ward were made over to the newly appointed Honorary Physician.

Tabular statement of admissions and discharges.

	Admissions and discharges.					Discharged otherwise.	Died.	Remaining.	Average daily sick.	Death rate per 1,000.
	Remained.	Admitted.	Total.	Cured.	Relieved.					
Europeans	10	241	251	143	28	42	11	17	18.80	43.8
Non-Europeans	47	1,316	1,363	663	283	273	101	43	57.43	74.1
Total	57	1,557	1,614	806	321	315	112	60	71.23	69.3

The following table shows the number of cases treated and deaths this year as compared with the preceding years :—

	1921		1922		1923	
	Total treated.	Deaths.	Total treated.	Deaths.	Total treated.	Deaths.
Europeans	289	16	229	16	251	11
Non-Europeans	943	80	1,202	74	1,363	101
Total	1,232	96	1,431	90	1,614	112

Principal diseases and their mortality.

Diseases.	Total treated.			Deaths.		
	Non-Europeans.	Europeans.	Total.	Non-Europeans.	Europeans.	Total.
Amoebic dysentery	61	16	77	2	...	2
Bacillary dysentery	6	1	7	1	...	1
Enteritis	27	7	34	2	...	2
Enteric	13	5	18	1	...	1
Pneumonia	45	7	52	9	1	10
Broncho-pneumonia	15	3	18	5	...	5
Pleurisy dry	8	2	10	...	...	...
Do. with effusion	10	2	12	...	...	...
Tubercle of lung	73	9	82	15	1	16
Asthma	40	4	44	...	...	...
Dengue	7	3	10	...	...	...
Influenza { Respiratory	11	2	13	2	1	3
Febrile	90	11	101	...	...	...
Cardiac	...	...	...	...	...	...
Gastric	2	...	2	...	...	...
Measles	4	2	6	...	...	...
Smallpox	4	...	4	...	...	...
Malaria { Benign tertian	100	30	130	1	...	1
Malignant tertian	83	14	102	3	...	3
Quartan	10	...	10	1	...	1
Kala-Azar	59	5	68	5	1	6
Acute Rheumatic fever	8	1	9	...	...	...
Relapsing fever	4	...	4	...	...	...
E.H.O.	8	1	9	...	...	...
V.D.H.	42	7	49	8	...	8
Aneurysm	3	1	4	...	...	...
Anæmia	8	...	8	1	...	1
Gastritis chronic	28	5	33	...	...	...
Peptic ulcers	6	...	6	...	...	...

Principal diseases and their mortality—cont.

Diseases.	Total treated.			Deaths.		
	Non-Europeans.	Europeans.	Total.	Non-Europeans.	Europeans.	Total.
Cirrhosis liver	25	...	25	3	...	3
Jaundice Catarrhal	8	3	11	...	...	...
Jaundice Malignant	2	...	2	2	...	2
Tubercular Peritonitis	12	1	13	2	...	2
Tabes Mesenterica	5	...	5	...	...	...
Beri Beri	2	1	3	...	...	...
Diabetes	15	3	18	...	...	...
Deficiency disease	11	1	12	...	...	...
Sprue	1	...	1	1	...	1
Filariasis	12	4	16	...	...	...
Ascariasis	16	2	18	...	...	...
Ankylostomiasis	82	2	84	1	...	1
Nephritis { Acute	2	1	3	...	...	...
Sub-acute	27	1	28	...	...	...
Chronic interstitial	12	2	14	...	...	...
Meningitis	3	1	4	2	1	3
Diseases of the nervous system	21	3	24	...	...	...
Hemiplegia	12	2	14	1	...	1
Epilepsy	2	1	3	...	...	...
Hodgkins disease	2	...	2	...	...	...
Hepatitis	4	6	10	...	...	...
Liver abscess	7	...	7	...	...	...
Hilum tuberculosis	1	...	1	...	...	...
Hydrophobia	1	...	1	1	...	1
Leprosy	3	...	3	...	...	...

Tabular statement of minor operations.

	Performed.	Indians.	Europeans.	Total.
Paracentesis thoracis	...	8	1	9
Paracentesis abdominis	...	22	...	22
Intravenous injections	...	1,012	150	1,162
Intramuscular injections	...	74	23	97
Venesection	...	7	1	8
Lumbar punctures	...	3	1	4

Percentage of mortality.

	Total treated.	Deaths.	Percentage of deaths.	Moribund cases.	Percentage of deaths excluding moribund cases.
Europeans	251	11	4.38	3	3.14
Non-Europeans	1,363	101	7.41	20	5.91
Total	1,614	112	6.94	23	5.51

REPORT ON "Hook Worm."

Localities.

Georgetown	6	Trichinopoly	5
Triplicane	4	Arcot	2
Choolai	1	Nellore	3
Egmore	2	Tinnanur	5
Perambur	5	Guntur	5
Pudupet	4	Mangudi	3
Medical College	1	Destitute (unknown)	20
Puramavakam	3	Ambur	1
Poonamallee	2	Mannargudi	1
Chidambaram	2		
Ongole	3		
Tiruvallur	4		
		Total	82

Results.										
Cured	...	...	...	...	52	Discharged otherwise	...	...	14	
Relieved	...	...	...	...	15	Death	...	...	1	
Total									82	
Occupation.										
Coolies	...	...	...	...	17	Clerks	...	...	5	
Destitute	...	...	...	...	20	Students	...	...	4	
Ryots	...	...	...	...	17	Weavers	...	...	3	
Milkmen	...	...	...	...	2	Without occupation	...	...	12	
Merchants	...	...	...	...	2	Total				82

The following cases are some of the more interesting ones admitted into my wards:—

1. Cardiac Malaria.—B aged 38 was admitted on 3rd February 1923 with a history of irregular fever and ascites. Liver palpable $2\frac{1}{2}$ " below costal margin in midclavicular line. Heart slightly enlarged, left border being just external to left nipple line. Heart sounds soft and masked by breath sounds. Blood at the time of admission showed no parasites, and slight leucopenia. Wasserman reaction negative. Was being treated for ascites symptomatically, when on 27th February 1923, patient had a slight rise of temperature to 100° and suddenly developed orthopnoea. Heart was acutely dilated. Injections of strychnine, digitalin and camphor in oil, and oxygen inhalations were given. On 28th it was found necessary to do venesection, after which there was an improvement. On the 1st of March temperature rose to 102° , and Cardiac distress with orthopnoea recurred. The periodicity of the attacks and of the fever aroused the suspicion of malaria once again, and the blood was examined. Heavy infection with malignant tertian parasites was found and the patient was treated with quinine and began to improve steadily. The patient later on left the hospital of his own accord.

2. Mixed Taeniasis and Cysticercus Cellulosae of brain.—A Hindu, shepherd boy of 13 was sent from Ophthalmic Hospital to my wards on 11th August 1923 with a diagnosis of intense neuro-retinitis. The boy's trouble began 5 months before admission with headache, and tingling in the great toe which gradually extended up involving ultimately the trunk and upper extremities as well. The extension used to be by exacerbations, once every 2 or 3 days. Vision was lost a month ago. His memory, speech, tactile sensibility, hearing, intelligence, etc., were normal. Pupils equal, regular, and of normal size. No reaction to light. Muscular power normal; no inco-ordination. Knee jerks sluggish. Other reflexes normal. Blood showed no parasites, moderate eosinophilia was found. Motion examination showed only whip worm ova. Wasserman reaction was negative. Urine had neither sugar nor albumen. He was put up for radiography of his skull, but that very morning he had a series of convulsions and died within 15 minutes after the onset of fits.

Post-mortem conducted by Major W. L. Forsyth, I.M.S., revealed infection with Taenia Saginata as well as Taenia Solium. The brain showed multiple cysticercoid cysts of the taenia solium, larval stage scattered indiscriminately throughout its substance. There was however a very definite predelection shown for the grey matter. These cysts were seen in both the cortical and basal grey matter particularly that of the Optic Thalamus. The cerebellum escaped. There were several nodules in the fourth ventricle. The blindness may be explained by the cysts in the Optic Thalamus and in the cortex of the angular gyrus.

The actual structure of the cysts.—Size varies from $\frac{1}{4}$ " to $\frac{1}{2}$ " in diameter. Outer layer of fibrous laminar and an inner almost transparent membrane in which is the invaginated larva with six hooklets.

The intestine of the patient contained one adult Taenia Saginata complete with its head.

The case is of interest as it brings out the possibility of a person being infected with both forms of Taenia and also as it reveals cysticercus as one of the possibilities to be thought of in cases of neuro-retinitis.

3. Gumma of Brain or Hysteria?—G, aged 35, multipara—last delivery 7 months ago. Was admitted on 1st August 1923 for convulsions, inability to talk or walk and weakness of right extremities. She had four fits within the first hour of admission. They started with slight twitchings of lips, which lasted half a minute. About a minute later, the right arm (i.e., the paralysed limb) began to twitch and was followed by twitchings in right leg (also paralysed one), which gradually became rigid and was lifted off the bed. The fingers were bent into the palms, and the wrist strongly flexed. No frothing at the mouth, biting of the tongue, involuntary micturition or defecation. The patient was neither drowsy nor unconscious immediately after the attack, though during the attack she was unconscious. There was apparent conjugate deviation of the eyes in one attack. Pupils normal. Cutaneous sensation normal. Kernig's sign absent. Knee jerks absent. Respiratory and

circulatory systems normal. Blood showed eosinophilia. Wasserman negative. In 10 days the fits ceased. Speech gradually returned after a fortnight—being indistinct in the beginning, later normal. By the 24th the patient was able to walk, talk and use her right hand, and was discharged apparently all right on 5th September 1924.

4. Amyotrophic lateral sclerosis and Bulbar paralysis.—Mrs. S. aged 49 admitted on 28th September 1923 with a history of gradually growing inability to speak and weakness of body. Duration 3 years. On examination it was found that the intrinsic muscles of the tongue were atrophied. The superior constrictor of the pharynx was partially affected. Deltoid, supraspinatus, infraspinatus, trapezius, supinator longus showed a good deal of wasting, while muscles of forearm were only slightly wasted and thenar and hypothenar eminences had disappeared. Muscles of lower extremities were not appreciably affected though there was a slight hesitation in gait. No sensory disturbances. Abdominal reflexes could not be elicited. Deep reflexes exaggerated. Babinski's sign present. Romberg's sign absent. Skin showed malnutrition. Vessels were sclerosed. Reaction of degeneration was tested for me by Captain Barnard, whose report was in the negative. The patient does not show the rigidity and deformity noted by Charcot in cases of amyotrophic lateral sclerosis. This is a good case for illustrating that bulbar paralysis, Amyotrophic lateral sclerosis and progressive muscular atrophy—usually described separately are in reality one condition, an efferent tract lesion, the anatomical basis of which is a chronic degeneration of the motor neurons.

5. Broncho-pneumonia due to ascariasis.—Ten of the cases of broncho-pneumonia treated this year were intimately connected with ascariasis infection. The motions showed heavy infection, one of the cases passing more than 350 worms under treatment; the lung condition improved in these cases after the expulsion of worms. A few sputa were examined by my assistants for larva of ascaris but without success. The want of senior students was found a great handicap in carrying out such investigations.

6. Syphiloma lung.—A woman aged 35 was admitted into the tuberculosis section of my wards. She showed the hectic temperature, and the physical signs of consolidation in the whole of left lung but in spite of the fact that the disease had lasted 5 months, there was no evidence of cavity formation. Sputum was repeatedly examined both by Ziel Nielsen as well as by Mueh's method, but no tubercle bacilli were found. Blood showed Wasserman reaction positive. Two injections of ampsalves cleared up the lungs and brought the temperature to normal. Evidently a condition of syphiloma of lung, which might with advantage be more often looked for.

Aneurysm of Innominate artery.—M.D., a railway fitter, admitted with a history of pain and pressure symptoms about the upper part of chest and right upper extremity. There was no difficulty about the diagnosis of the case. It was operated on by my colleague Major Pandalai, F.R.C.S., who ligatured the axillary and common carotid arteries on that side. The patient made an uneventful recovery, and presented himself for inspection thrice during the year and was found to be perfectly all right.

Kala Azar.—It would appear as if Madras was passing through an epidemic of Kala-Azar, to judge by the large number of cases admitted for treatment, and the high continuous type of temperature. A fairly large proportion of these were children. The aldehyde test and the relative proportion of leucocytes to erythrocytes were found in conjunction to be very reliable for diagnosing Kala Azar. The shortest time in which the Gel test was positive was 3 seconds. The largest disparity between white and red cells was 1:1920. I have to put down that liver puncture is not, in spite of prophylactic calcium chloride treatment, a safe thing, having lost one case from slow haemorrhage after a liver puncture. The coagulation time in these cases was found to vary widely, but no regular research could be carried out either on this point or about the carrier, as the system of posting senior students to my wards was suspended, temporarily I hope, this year. I would suggest paying some attention to the cock-reach as a possible carrier.

Insulin.—The treatment of diabetes with insulin was started as soon as the drug was available in Madras. The first case treated was very successful. Later on the results have not always been satisfactory. The treatment attracted a large number of diabetics to Hospital.

Ectebin.—Was tried in a few cases of lung tuberculosis. Results were not satisfactory. Zinc sulpho-Carbolol was tried in some cases of enteritis, tubercular and otherwise. Results have been somewhat encouraging.

Lastly I have to express my appreciation of my assistant, Captain Siva Ram, for the large amount of microscopic and other work which he had to carry out in the absence of reliable senior students.

GOVT. GENERAL HOSPITAL, MADRAS,
31st January 1924.

M. R. GURUSWAMI, B.A., M.D., C.M.,
Fourth Physician.

HONORARY PHYSICIAN'S WARDS.

These wards were formed about the 5th December 1923 out of 12 beds from the First Physician's Wards, 10 beds from the Second Physician's Wards and 10 beds from the Fourth Physician's Wards. I was in charge of these wards from the 5th December to the end of the year.

The number of cases admitted into my wards during that period (inclusive of the cases handed over to me by the different Physicians) was 66.

The class of patients is Non-European.

The number of patients discharged as cured is ... 27

Do. do. relieved ... 4

Do. do. otherwise ... 3

The number of deaths ... 5

The number of patients remaining in the wards at the

end of the year was ... 27

Minor operations performed during 1923.

Intramuscular injections ... 40

Intravenous injections ... 58

Paracentesis abdominis ... 2

Paracentesis lumbar cord ... 1

Intravenous saline ... 2

Intramuscular injections were mostly of quinine, emetine and sodium morrhuate. Intravenous injections were mostly salts of antimony for Kala Azar, collo-al manganese for Hodgkin's disease, sodium morrhuate for tubercle, salvarsan derivatives and hexamin.

Percentage Mortality.

Class of patients.	Total treated.	Deaths.	Percentage.	Moribund cases.	Percentage of deaths excluding moribund cases.
Non-Europeans	66	5	7.56	1	6.08

Principal diseases treated and deaths:—

Diseases.	Total treated.	Deaths.	Remarks.
Malaria { Benign Tertian ... Malignant Tertian ... Quartan ...	7 7 1	1	Was emaciated and developed haemorrhagic motions.
Enteric	1	1	Admitted in a moribund condition. Pulse 160 per minute, unconscious and could not take her feeds.
Influenza	5		
Pneumonia { Lobar ... Broncho ...	1 2	1	This was a case of terminal pneumonia in a case of pulmonary tuberculosis.
Relapsing fever	1		
Cerebro spinal Meningitis	1	1	Meningo-cocci were grown on culture.
Dengue	2		
Kala Azar	4		
Tuberculosis of the lung	1		
Bronchial Asthma	2		
Rheumatism	1		
Pleurisy with effusion	1		
Diseases of the heart	2	1	
Fernicious Anemia	1		
Diseases of the stomach	3		
Dysentery { Amebic ... Bacillary ...	2 1		
Diseases of the nervous system	3		
Tubercular caecum	3		
Beri Beri	1		
Deficiency oedema	1		
Diabetes	1		
Hodgkin's disease	1		
Ankylostomiasis	4		
No apparent disease	1		

GOVT. GENERAL HOSPITAL, MADRAS,
14th February 1924.

N. VENKATASWAMI CHETTI,
Honorary Physician.

FIRST SURGEON'S WARDS, 1923.

The following officers were in charge of S.-1 Wards during the year:—

Lieut.-Col. T. H. Symons, O.B.E., I.M.S., 1st January 1923 to 9th May 1923.

Lieut.-Col. E. W. C. Bradfield, M.S., I.M.S., 24th May 1923 to 31st December 1923.

Major A. P. C. Lorimer, I.M.S., 10th May 1923 to 23rd May 1923.

The following table shows the number of patients treated during the year 1923:—

Class.	Remaining.	Admission.	Total.	Cured.	Relieved.	Discharged otherwise.	Died.	Remaining.
Europeans	10	234	244	168	23	32	10	11
Non-Europeans	56	1,099	1,155	642	162	206	75	70
Total	66	1,333	1,399	810	185	238	85	81

Mortality.—6.3 per cent. This includes 13 cases admitted moribund.

The following table shows the operative work done during the year 1923:—

Class.	Remaining on 1 Jan. 1923.	Operated during the year.	Total.	Cured.	Relieved.	Discharged otherwise.	Died.	Remaining.
Europeans	4	128	132	105	13	2	5	7
Non-Europeans	20	640	660	502	75	23	40	20
Total	24	768	792	607	88	25	45	27

Mortality.—5.6 per cent.

The following table shows the important operations done during the year:—

Diseases.	Total number operated.	Cured and relieved.	Discharged otherwise.	Died.	Remaining.
Removal of tumours (including malignant)	77	73	2	2	
Plastic operations (including harelip and cleft palate)	15	14		1	
Operations on bones—					
Osteotomy for genu valgum	3	3			
Sequestrectomy	18	18			
Major amputations	11	9	1	1	
Excision of breast	3	2		1	
Excision of joint	7	7			
Excision of rectum	1	1			
Laparotomy (exploratory)	11	5	2	4	
Gastro-enterostomy	72	62		10	
Gastrectomy	2	1		1	
Hepatitis and Cirrhosis of liver	2	1		1	
Hysterectomy	1	1			
Liver abscess	10	9		1	
Colopecty	3	3			
Intestinal obstruction	1			1	
Appendicectomy	33	31		2	
Hernia (a) Strangulated	2	2			
(b) Reducible	58	57		1	
Decapsulation Kidney	2	2			
Nephrectomy	1	1			
Amputation of penis	7	6		1	
Do. tongue	1	1			
Elephantiasis scrotum	18	15		1	
Hydrocele	63	63			
Haemorrhoids	39	39			
Fistula-in-ano	25	25			
Tonsil and adenoids	34	34			
Mastoid abscess	5	4		1	
Abscess and cellulitis	60	56	1	3	
Empyema thoracis	2	2			
Circumcision	8	8			
Fractures	4	4			
Tabes mesenterica	1	1			
Mastoiditis	8	6		2	
Glands neck	12				

Diseases.	Total number operated.	Cured and relieved.	Discharged otherwise.	Died.	Remaining.
Decompression and Trophizing ...	3	1	...	2	...
Removal of renal and vesical calculus ...	5	5	...	...	...
Trigeminal neuralgia ...	4	4	...	...	...
Synovitis and arthritis ...	8	1	...	...	...
Gonitis ...	4	1	...	...	...
Excision of semilunar cartilage ...	5	1	...	...	...
Prolapse rectum ...	3	2	...	1	...
Fracture patella ...	1	...	...	1	...
Caries rib ...	1	...	...	1	...
Subclavian aneurysm ...	1	1	...	...	...
Separation of epiphysis ...	1	1	...	...	...
Ischemic contracture ...	1	1	...	...	...
Frontal sinusitis ...	2	1	1	...	...
Tub. caecum ...	4	3	...	1	...
Cholecystectomy ...	...	...	...	...	...
Stricture and urinary fistula ...	35	32	...	3	...

N.B.—Remaining patients are not entered in the above column.

CANCER.

The following tables prepared for another report show the admission for cancer into all the Surgical wards of the Hospital during the past five years. Statistics for Sarcoma are not included.

TABLE 1.

Number of admissions for cancer for the period of five years ending 1923 with results :—

	1919.	1920.	1921.	1922.	1923.
Cured ...	31	19	20	22	29
Relieved ...	1	3	6	8	26
Otherwise discharged (Inoperable) ...	29	29	22	37	51
Died in Hospital ...	5	7	7	13	18
Total ...	66	57	55	80	124

TABLE 2.

The percentage of cancer among the different races to total admissions into Hospital for the period of five years ending 1923 as follows :—

	Europeans.	Hindus.	Muham- madans.	Other cas tes.
Total admissions for the five years ...	9,221	24,227	2,422	7,160
Total cancer do. ...	36	268	23	35
Percentage do. ...	37 per cent.	1.19 per cent.	.95 per cent.	.48 per cent.

TABLE 3.

Occurrence of cancer by site, race or caste, 1923 :—

	Hindus.	Europeans and Anglo- Indians.	Indian Christians.	Muham- madans.	Other castes.	Total.
Tongue and floor of mouth ...	7	2	...	...	...	9
Jaws ...	13	...	...	1	...	18
Cheek ...	28	2	1	6	1	37
Lips ...	2	...	...	1	...	3
Breast ...	7	1	...	...	...	8
Penis ...	17	...	...	1	...	18
Uterus ...	1	...	...	...	...	1

	Hindus.	Europeans and Anglo- Indians.	Indian Christians.	Muham- madans.	Other castes.	Total.
Anus and rectum ...	2	1	...	...	1	4
Stomach ...	6	...	...	2	...	8
Intestines ...	4	...	...	...	...	4
Larynx ...	1	1	...	...	...	2
Oesophagus ...	1	2	1	...	...	4
Liver ...	2	...	...	...	1	3
Bladder ...	1	...	...	...	1	2
Skin ...	3	...	...	...	...	3
Other parts ...	3	...	...	...	...	3
Total ...	98	9	2	10	5	124

The tables are interesting, as giving a fair idea of the incidence of the disease in Madras, but are not complete since we are unable to include statistics from the out-patient department, where many inoperable cases, especially affecting the mouth present themselves for treatment. Cancer would appear to be slightly more prevalent among Hindus than among other races and castes. (Table 2) but this is due to the higher incidence among them of carcinoma of the mouth and of the penis, the most frequent sites for the disease in this Presidency. The low incidence among Europeans, and Anglo-Indians was unexpected, but is due to the same cause.

CANCER OF THE MOUTH.

A rough examination of the mouths of Hospital patients, will reveal the fact that about 80 per cent of them have infected teeth, and that quite a number 8 to 10 per cent, exhibit patches of leukoplakia or chronic glossitis. These patches are found on the inside of the cheek, most frequently leading to the angle between the cheek and lower jaw and are in many cases a pre-cancerous condition. They occur among the poorer classes, a result of continuous betel chewing a chronic irritation being produced by the coarse lime (chunam) with which the nut is mixed. When cancer supervenes, these areas become ulcerated. The disease spreads widely, rapidly, and insidiously in the submucous layer, in the buccinator muscle whence it involves the periosteum of the upper and lower jaw, and occasionally spreads backwards towards the pterygoid region, this last being difficult to detect and an incident of very grave prognosis. The glands, submaxillary, and upper cervical, as a rule become infected late, though frequently enlarged and inflamed. Previous Hospital reports have commented upon the numbers of patients presenting themselves in advanced stages of this disease, upon the high mortality which results from operation and upon the frequency with which recurrences are detected even before such patients can leave Hospital. The condition of these patients is extremely distressing, they cannot open their mouths, which contain an ulcerating foul smelling growth, absorption of septic material from which rapidly undermines their health while its smell makes them a nuisance to their neighbours. They implore the surgeon to do something for their condition, often asserting that any risk is worth taking to rid them of their cancer and undoubtedly a wide removal, even though some growth remains and will recur, will produce extraordinary relief. The gap in the cheek which is not closed allows free escape of the discharges, while the division of the nerves which necessarily occurs during the operation is a great factor in the resulting freedom from pain. We have tried injecting the gasserian ganglion through the foramen ovale with alcohol in some of these advanced cancers, but the results have not been satisfactory.

The operations performed for cancer of the mouth during the year were :—

	Dis. Number.	Apparent complete removal.	Recurred.	Partial operation only.	Operation mortality.
Cancer of cheek ...	8	3	4	1	Nil.
Cancer of cheek and lower jaw ...	5	2	2	1	Nil.
Cancer-tongue ...	2	1	1	Nil.	Nil.
Cancer-floor of mouth ...	1	1	...	...	...

The average age of the chunam cancer cases was 44 years, the oldest being 64 and the youngest 35, while 7 were males and 6 women patients. Recurrence took place in the wound in 3 patients, in the pterygoid region in 3 patients, in the lower jaw 1 patient and in the upper jaw 1 patient.

At first sight these results are most discouraging, only mitigated by the knowledge that very great though temporary relief has been given in what is one of the most distressing of

diseases. They bear out what has been the usual experience with these patients for some years and which has suggested that operative treatment holds out very little hope of cure in this type of cancer. "Follow up" efforts are notoriously difficult in India but amongst the answers received from our recent attempt to trace all our 1922 patients, was one from a patient operated on for a moderately advanced cancer of the cheek 2½ years ago and who now reports himself perfectly well, a result which shows that this disease can be cured.

A record of 13 of these operations without a death, considering their known high mortality when the lower jaw is removed and which in 1914 I reported as being as high as 42 per cent in the women's wards over a period of several years, is evidence of that luck which sometimes follows a surgeon; but our routine method of procedure has had a considerable influence. It is often impossible to remove or clean up the teeth before operation and without splitting the cheek, but a preliminary laryngotomy reduces the risk of bronchopneumonia and a preliminary injection of novocaine into the gasserian ganglion of shock and enables us to operate with a minimum of general anaesthetic. Our later cases have all had the advantage of the diathermy cautery; and the results have so far been extremely encouraging. The cancer floor of mouth reported in the above table was a very advanced condition in a European, who was sent up from another province in the hope of that something could be done. There was a large fungating growth involving the floor of the mouth, with its usual distressing accompaniments, and huge glands in the submental region. The growth on section proved to be a typical epithelioma. The tumour was very freely cauterised with the diathermic cautery on three occasions; the last occasion destroying part of the lower jaw, the necrosed area of which has only recently separated. His doctor now reports, "16 months ago this man had an inoperable carcinoma and to-day he is earning a living running two motor lorries, there is no sign of recurrence."

One patient had a hard epitheliomatous ulcer at the junction of the middle and posterior third of the tongue. After a preliminary operation to remove the glands and tie the lingual artery the tongue was split along the anterior half, the removal completed with a diathermic cautery, and the area of the wound deeply cauterised. Satisfactory removal would have been impossible with knife or scissors, and the appearance after sloughs separated was excellent though it is too early to say what the final result will be.

This method of surgical removal with the diathermic cautery is too well known to warrant a description, but it appears to be especially suitable for malignant growths in the region of the mouth. In dealing with these chunam cancers, the most satisfactory procedure is to use a knife for removal of the growth with a wide margin and to include the glands of the submaxillary triangle where possible, the danger of shock having been averted by the free use of novocaine. The operation is then completed by a free diathermic cauterisation of the wound area using a button cautery, and paying special attention to the area leading to the pterygoid region. The sloughs which result from this treatment take 6 to 14 days to separate, but there is little or no smell and much less disturbance to the patient than would be expected. It is early to report the final results, but this method is far more promising than any others that we have attempted for these very malignant growths. We have obtained very little advantage from X-Ray treatment in inoperable cases, but a series of regulated exposures are given after all these operations.

CANCER OF PENIS.

This form of cancer is fairly common in Madras, and 8 operations were performed in my wards during the year with one death, a patient aged 55, who died on the 13th day with advanced disease of both kidneys (Pyonephrosis). The average age of these patients was 54 years, the oldest being 65 and the youngest 40; one patient was a Mussalman. Operative treatment gives very good results in this form of cancer and we were able in 1921 to trace patients who have remained well for several years. Of late, however, the necessity for removal of the inguinal glands has not been sufficiently impressed upon patients, an idea having grown up that the disease very rarely recurs. Recently our optimism in this respect has been rudely shaken, for two patients, one operated upon in another hospital and one in our own wards presented themselves with large inoperable growths in the glands. It is difficult to remove the glands with the penis for these are old patients often of poor operative risk and the danger of sepsis is considerable. For the same reason they are anxious to leave hospital as soon as the tumour has been removed and their wound healed. Removal of these glands at a first operation is the safest procedure, but there is always risk of sepsis in this area especially in the presence of a fungating growth.

The results of operation for cancer of the penis are invariably good, but a note of warning is necessary as to this danger of recurrence in the inguinal glands.

ABSCCESS OF THE LIVER.

For some time now it has been the routine practice of this hospital to treat all cases of abscess of the liver by aspiration followed by a course of emetine treatment. The result of

these methods has been entirely satisfactory and a comparison of the results obtained during the 10 years 1912 to 1921 with those obtained during the past year is very instructive. During the former period of 10 years 171 patients were operated upon in the General Hospital for abscess of the liver, of whom 31 died, a mortality of 18.1 per cent. During the past year 33 patients were operated upon for abscess of the liver, of whom 2 died, a mortality of 6.3 per cent. These two patients who died illustrate in the one a difficulty of diagnosis and in the other a warning necessary regarding this treatment. The former patient was admitted with symptoms which pointed entirely to a gastric condition. He complained of pain after food, had a tumour in the left side of the abdomen and was acutely ill. Laparotomy was performed and a large rounded tumour was discovered growing from the left lobe of the liver and fixed to the upper border of the stomach, which organ was small and almost hour glass in shape. The tumour on aspiration proved to be an abscess. This patient followed the course which so often follows drainage of a liver abscess in a patient acutely ill. The abscess became septic and in spite of all efforts the patient died of septicaemia. A better treatment would have been to close the laparotomy wound and aspirate the abscess from behind.

The second patient was also admitted acutely ill and with symptoms pointing to an abscess which had ruptured into the lung. He was aspirated on two occasions and was so improved in his condition that he declined further treatment and left the hospital. He returned to the hospital after two months again acutely ill and with a large septic empyema, which necessitated drainage and ended in death of the patient. There is no doubt whatever that treatment by aspiration is an enormous improvement on older methods and that with improved confidence in this treatment the first patient operated upon would probably have recovered with a suitable aspiration. The condition of many of these patients, who were admitted, was very grave. The notes of one patient state that "this patient was practically moribund on admission but recovered in an extraordinary way after aspiration of 10 ounces of liver abscess pus. Frequently more than one aspiration is necessary to bring about a cure.

Eleven cases recorded in my own wards show that a cure was registered after one aspiration in five patients, after two aspirations in three patients, after three aspirations in two patients and after four aspirations in one patient. The danger with Indian Hospital patients is that there is such immediate and rapid improvement after aspiration of a liver abscess that they frequently consider themselves cured and insist on leaving the Hospital only to return at a later date with the abscess re-filled or because of further complications occurring.

DISEASES OF THE STOMACH.

Ulcer of the stomach and duodenum is now very readily recognized in this Hospital, and the prevalence of this disease is shown by the fact that during the year under review no less than 226 operations were performed for these diseases by six Surgeons. In my own wards 50 patients have been treated as follows:—

Dis.	No. of patients.	Died.	Mortality rate.
Duodenal ulcer.	46	3	6.5%
Gastric ulcer.	2	Nil	Nil
Cancer of the stomach.	2	1	50%

Of the above 2 were patients admitted with acute perforation of duodenum. One was operated upon 2½ hours after perforation occurred and the second 19 hours. Both recovered although the second had a somewhat stormy convalescence. The symptoms shown by these patients show nothing of special note other than what was reported last year. Visible peristalsis was noted as present in 32 of these patients, showing the advanced general condition in which they seek hospital treatment. The average duration of symptoms is 3.5 years, the longest being 20 years and the shortest 5 months. One patient only was a woman, a desperate case suffering from cancer of the stomach (Pylorus) and who died as a direct result of the operation. The mortality rates in these operations have been steadily improving during the last year, a result largely due to the absence of pneumonia following the operations, and to the experience which the nurses in the post-operative wards have received in this class of patients. The desperate condition to which these patients have arrived before coming to the hospital is shown by a record of their weight. No less than 21 of these patients weighed under 80 lb. while one weighed only 40 lb., a man of 22, and two others weighed 65 and 64 lb. No less than 28 are noted as suffering from pyorrhoea or from septic condition of the teeth and I consider that the very careful attention which we now give to the mouths of these patients has been mainly responsible for the almost total disappearance of post-anaesthetic lung trouble. The average age was 35 years, the oldest being 60 and the youngest 16.

Posterior gastro-enterostomy, vertical no-loop method, has been performed in all these cases and the appendix has been removed as a routine except in 7 where the condition was too desperate to warrant the extra procedure. The microscopic reports obtained of 36 appendixes so removed showed that 18 were normal, 12 showed evidence of chronic inflammation and 6 contained thread worms. A further careful investigation of this last figure during the past

few months has shown that a much larger percentage of appendixes in India contain thread worms. If the appendix is placed in preserving fluid and sent to the Pathologist for microscopic examination, the thread worms are generally missed but if examined at the time of operation we rarely fail to find one or several thread worms in the organ. This together with the high percentage of septic infection of the mouth (28 in 46 patients having pyorrhoea or infected teeth) is still considered a possible source of the duodenal infection and ulceration. It is difficult to assign any other cause for the high prevalence of this disease amongst people in South India although it must be remembered that the General Hospital draws its patients from over a wide area.

As to caste only 3 of these patients were Indian Christians, 3 Muhammadans and the remainder 40 Hindus but this figure is really of no special value.

Four patients died as the result of the operation, one following the operation for cancer, really an inoperable case but in whom an almost complete stenosis of the pylorus due to gastric cancer rendered some method of relief imperative. (2) One died of chronic sepsis with intestinal obstruction 22 days after the operation. It was difficult to account for this, as there was no leakage from the anastomosis and the sepsis was of a very low grade. (3) One patient died suddenly of heart failure 8 days after operation and post-mortem elicited the fact that he had advanced atheroma of the coronary arteries and that death was due to sudden heart failure. (4) This patient also was severely ill, and died apparently from shock following the operation. In addition to the duodenal ulcer he had a chronic cholecystitis and experience has proved that this type of patient runs a very much graver risk than one whose liver is not affected.

HERNIA.

Fifty-two operations classified as follows:—Right Inguinal hernias 25, left inguinal 12, recurrent hernias 6, ventral hernia 1, direct inguinal hernia 4, (sliding hernias 4) irreducible 1, strangulated hernias 2 with intestinal 2.

The average age of these patients was 32, the oldest being 60. Of the recurrent hernias, in 5 Banks operations have been performed, i.e., suture of conjoined tendon to Poupart's ligament over the cord. Some years ago this operation was very frequently practised for the cure of inguinal hernia in Madras, and has of late years provided the great majority of recurrences seen in this Hospital. The hernia recurs as a rule at the lower part of the canal, which is left open over the passage of the spermatic cord. In these 5 patients, the conjoined tendon had become firmly united to Poupart's ligament and I have seen no evidence to support the theory recently advanced that such union of muscle to ligament never takes place. The remaining case had apparently suppurated at the original operation and there was no attempt at union whatever. A sliding hernia, a fairly common type of hernia in Madras was found in four patients. Each was a right inguinal hernia containing caecum and ascending colon, which had prolapsed through the hernial ring, the posterior portion of the mass consisting of the intestinal vessels. No difficulty was found in any of these cases in pushing back the hernia and sewing up the ring but in one patient in an hour the hernia was strangulated and the operation was fatal.

APPENDICITIS.

There were 29 operations for appendicitis, among the following classes:—Europeans 10, Anglo-Indians 9, Indian Christians 3, Hindus 5, Muhammadans 1, and Parsee 1.

One European, one Anglo-Indian and three Indian Christians were operated upon for chronic dyspepsia and in whom only a chronic appendicular condition could be found, the removal of which was apparently successful in curing the disease.

One European admitted with severe gastric symptoms and persistent vomiting extending over three weeks was cured by the removal of a normal appendix which contained several thread worms. No other treatment was adopted and he has remained well since.

Four Hindus, one Indian Christian and one Muhammadan were all admitted with definite symptoms of acute appendicitis verified and cured by operation.

FRACTURE SPINE.

In February 1922 I reported a case in the *Indian Medical Gazette* of fracture of the atlas vertebra, which was not followed by a fatal result. A similar case was admitted into my wards during the past year and was reported in the College Magazine by Mr. C. Krishnaswami Pillai, Assistant Professor of Surgery. The patient, a boy of 10, was admitted for paralysis and with a history that six months previously he fell from the top of a tree and remained unconscious for 24 hours. His symptoms cleared up in a day and he went about his work with hardly any discomfort. After two months, he noticed increasing weakness of both arms, which soon developed into paralysis of all his limbs.

On admission the patient was found to be suffering from marked paresis of all his limbs, with paresis of the abdominal wall, back and neck. Sensibility was unaffected, reflexes

were exaggerated and electrical reactions were normal. A bony tumour could be felt at the back of the neck, but not through the pharynx, and which X-Rays proved to be a thickened and displaced atlas vertebra. Diagnosis.—fractured atlas vertebra with callus formation.

The patient was kept in bed with a weight extension fixed to the head and after four months' treatment, was discharged from Hospital with complete recovery.

"The nature of the injury is explained by the direction of the articular facets of the atlas vertebra and by the force producing the injury, which acts upwards by the weight of the body through the vertebral column. The articular facets of the lateral masses of the atlas are obliquely placed, the upper pair looking upwards backwards and inwards and the inferior pair downwards and inwards. The result of such a fall would be a horizontal force tending to cause separation of the lateral masses from each other and a consequent tension fracture at the weak points, i.e., the anterior and posterior arches."

KIDNEYS.

Operations on kidney 4. Two patients, renal calculus, present nothing of note. One patient with a large suppurating pyelonephrosis, died as a result of septicæmia after drainage had been established. The remaining patient presents a condition of considerable interest. A European, age 33, was admitted for hæmaturia with a history that he had suffered from the same complaint on two former occasions and had been severely injured in the left loin by a shell during the war. Cystoscopy showed gushes of hæmorrhage issuing from the left ureter, but there was no ulceration or disease round the ureteral opening. The urine from the right ureter was normal in colour. As the patient was showing signs due to the continued loss of blood, operation was decided upon and the left kidney explored by the usual lumbar incision. The ureter and pelvis were distended with blood but no evidence of tumour, disease or stone could be found either in kidney itself or in the pelvis which was explored through an incision in the kidney. After a small portion of kidney substance had been removed for microscopic examination, its capsule was stripped and the wound sutured after leaving a small drain through the kidney wound. No other treatment was adopted. Following the operation, the urine became quite clear within 24 hours and the wound healed rapidly. The patient presented no further symptoms and was able to sail for England, apparently well, two months after the operation. Microscopic examination of the kidney specimen showed the affection to be a subacute nephritis (chronic parenchymatous nephritis—large white kidney).

The following notes have been obtained from Mr. Gopala Kini, L.M.S., Anaesthetist of the General Hospital:—

During 1923 the chief anaesthetic used for all major operations was chloroform, which was administered to 1,400 patients without any death. Several brands of chloroform have been used during the past year and their properties would seem to vary, possibly due to the effects of the climate. With several samples we experienced difficulty in getting the patient under the anaesthetic, such chloroform frequently causing spasm and was often followed by more anaesthetic vomiting and discomfort than usual. We have endeavoured with the aid of the Chemical Department of the College and with the Medical Stores to find out what the cause of these differences is, but so far have not been able to find any abnormalities or impurities in the chloroform.

Ether has been given both by the open and the closed method in a large number of cases amongst younger patients and with success. A useful anaesthetic for small operations has been a combination of ethyl chloride and ether. Nitrous oxide gas for short operations and with oxygen for longer operations has been used in a number of cases but we were unable to continue this on account of the difficulty of obtaining supplies of the gas. Spinal anaesthesia and local anaesthesia have been used in a large number of cases, the latter being especially useful combined with general anaesthetic in severe abdominal operations and in operations for cancer of the face.

A very great improvement during the past year has taken place in the incidence of post-anaesthetic pneumonia and this, we think, is almost entirely due to the fact that all patients who have to submit to severe operations are referred to the dental department for careful attention to the teeth before operation. Injection of 1/100 gr. of atropine before operation has also had a considerable effect and we consider is a most useful precaution before a severe operation. During operation the practice of recording the blood pressure on a chart has been continued and we consider that this method is of a very great value in giving timely warning as to the patient's condition. Many Indian patients have a very low blood pressure. It is quite common to have a patient brought in for operation with a systolic blood pressure of 90 m.m. but as a general rule we consider a blood pressure below this point is a danger signal calling for suitable measures such as the administration of stimulants or an infusion of glucose saline.

SPECIAL DEPARTMENT.

The number of cases that attended the Special Department during the year 1923 was 6,677 of which 2,785 cases were new admissions made up as follows:—

1. Syphilis	1,354	District ... {	Malabar 6 Tinnevely 1 Ceylon 1
Primary	215		
Secondary	691		
Tertiary	448		
2. Extra-genital chancre	7		
3. Infective Granuloma	48		
4. Soft-sore	161		
5. Scabies of genitals	22		
6. Stricture urethra	4		
7. Perineal abscess	15		
8. Chyluria	7		
9. Psoriasis-non-specific	12		
10. Yaws... ..	8		
11. Rodent ulcer... ..	2		
12. Gonorrhoea Acute	297		
13. Gleet Chronic with prostatitis	811		

Minor operations performed during the year 1923.

Made up as follows:—

1. Circumcision	88
2. Reduction of paraphimosis	48
3. Incision and erosion of inguinal glands	21
4. Primary dilatations	7
5. Secondary dilatations	29
6. Intravenous injections of pure Salvarsan	1
7. Intravenous injections of new preparations of Salvarsan	615
8. Intravenous injections of Stabilsan	64
9. Intravenous injections of silver Salvarsan	15
10. Intravenous injections of hea silver Salvarsan	47
11. Intravenous injections of 2 per cent solution-Tartar Emetic	471
12. Intravenous injections of Cyarsal	487
13. Intravenous injections of 1 per cent Emulsion Intramine	2
14. Intra-muscular injections of Hg: Cream	341
15. Intra-muscular injections of heotrejol	43
16. Intra-muscular injections of Trejol	25
17. Intra-muscular injections of Bismogenol	36
18. Intra-muscular injections of Intramine	10
19. Hypodermic injections—various	1,072
20. Aspiration of bubos and injection of iodoform emulsion, colloidal argentum and colloidal iodine	14
Total	3,436

GOVT. GENERAL HOSPITAL, MADRAS,
2nd May 1924.

E. W. C. BRADFIELD, O.B.E., Lt.-Col., I.M.S.,
First Surgeon.

SECOND SURGEON'S WARDS.

The following table shows the number of patients treated:—

Class of patients.	Remained.	Admitted.	Total.	Cured.	Relieved.	Discharged otherwise.	Died.	Remaining.
Europeans	6	121	127	78	19	21	6	3
Non-Europeans	62	989	1,042	552	143	193	87	61
Total	68	1,101	1,169	630	168	214	93	64

Mortality.—7.8 per cent. This includes 28 cases admitted moribund.

OPERATIVE WORK.

The following table shows the operative work done during the year:—

Class of patients.	Remained.	Performed during the year.	Total.	Cured.	Relieved.	Discharged otherwise.	Died.	Remaining.
Europeans	2	68	70	56	9	...	4	1
Non-Europeans	26	604	630	412	111	9	67	31
Total	28	672	700	468	120	9	71	32

Mortality.—8.9 per cent. This includes 16 cases admitted moribund.

The following table shows the more important operations done during the year:—

Diseases.	Total number operated.	Cured.	Relieved.	Discharged otherwise.	Died.	Remaining.
Tumours and cysts	22	17	2	...	2	1
Thyroidectomy	2	2	...	...	...	...
Plastic operations	5	4	1	...	...	...
Excision of joints	3	2	...	...	1	...
Major amputations	15	10	...	...	4	1
Hardlip and cleft palate	1	1	...	...	...	...
Tonsils and adenoids	20	20	...	...	...	...
Inguinal hernia	46	44	...	...	1	1
Hydrocele and haematocele	48	47	...	...	1	1
Enterectomy and anastomosis	3	2	...	...	1	...
Appendicitis	13	11	...	...	2	...
Gastro-enterostomy	57	42	...	...	14	1
Liver abscess	10	9	1	...	...	...
Kidney-capsulotomy	1	...	1	...	...	...
Splenectomy	1	...	...	...	1	...
Vesical calculus	1	1	...	...	...	...
Empyema thoracis	1	1	...	...	...	...
Operations in bones sequestrotomy	25	18	4	...	2	1
Bonegrafting	4	3	1	...	...	...
Mastoid operation	8	6	1	...	...	1
Decompression	2	2	...	1	...	...
Excision breast	4	3	...	...	1	...
Cancer cheek (under diathermy)	5	3	1	...	1	...
Excision of lower jaw	2	1	1	...	...	...
Stricture urethra	16	10	6	...	...	1
Urinary fistula	12	10	2	...	...	...
Cancer penis	9	8	...	...	...	1
Elephantiasis scrotum and penis	9	9	...	...	...	...

The following are a few of the more interesting cases treated during the year.

(1) Fracture of cervical spine (atlas).

An account of this case was published by Lieut.-Col. E. W. C. Bradfield, O.B.E., I.M.S., in the Madras Medical College Journal.

There was more or less complete paralysis and some wasting of the muscles of the upper and lower extremities without sensory disturbance.

There was complete recovery of function with slight angular deformity and rigidity of neck.

(2) Two cases of cystic goitre in which the tumours were removed by Major A. P. G. Lorimer, I.M.S.

Both were large being described as about the size of a coconut.

Their removal (complete enucleation) was not followed by any sign of thyroid secretory disturbance.

(3) A case of thyroid carcinoma showing metastasis.

In this case a thyroid tumour was removed five years previously.

On admission a bunch of enlarged painful glands were found in his left supraclavicular region also some enlarged glands in his right axilla.

Pathological examination of the glands revealed thyroid epithelium and colloid formation of rapid growth, a malignant papilliform adenocarcinoma.

The patient was also suffering from an advancing condition of spastic paraplegia presumably a metastasis involving his vertebrae.

(4) A case of lympho-sarcoma of jejunum duodeno-jejunal flexure with involvement of the glands in the mesentery in relation to it. A small nodule probably of similar nature was found on the anterior surface of the stomach.

There was also a small puckered ulcer on the first part of the duodenum.

A posterior gastro-enterostomy was performed, the anastomosis being made to the jejunum beyond the growth.

The symptoms complained of were those of an ordinary chronic duodenal ulcer and these were completely relieved by the operation.

(5) A few cases suffering from various septic conditions, such as suppurative arthritis, knee joint, carbuncle, tubercular ischio-rectal abscess, pyaemic multiple abscess were treated with intravenous injections of tinct. Iodine B.P. strength diluted in 10 c.c. normal saline at intervals regulated according to the reaction.

The number of cases was so limited that no statistics would be of any value.

But one fact of interest was observed namely that those cases which gave a reaction accompanied by polymorpholeucocytosis showed marked improvement.

On the other hand those cases which showed leucopenia or absence of polymorpholeucocytosis did not improve.

GOVT. GENERAL HOSPITAL, MADRAS,
13th March 1924.

R. B. B. FOSTER, Lieut.-Col., I.M.S.,
Second Surgeon.

THIRD SURGEON'S WARDS.

These wards were in charge of Major K. G. Pandalai, I.M.S., during the year 1923.

The following table shows the total number of cases treated during the year :—

Class of patients.	Remained.	Admitted.	Total.	Cured.	Relieved.	Discharged otherwise.	Died.	Remaining.
Europeans	11	211	222	123	58	25	8	9
Non-Europeans	88	1,606	1,694	860	367	286	89	92
Total	99	1,817	1,816	982	425	311	97	101

Mortality including moribund cases 6 per cent. including 27 moribund cases.

The following table shows the operative work done during the year :—

Class of patients.	Remained.	Operated.	Total.	Cured.	Relieved.	Discharged otherwise.	Died.	Remaining.
Europeans	4	71	75	63	3	1	5	3
Non-Europeans	27	859	886	711	84	7	42	41
Total	31	930	981	774	87	8	47	44

Mortality 4.2 per cent.

The following table shows the more important operations performed during the year :—

	Cured.	Relieved.	Discharged otherwise.	Died.	Remaining.	Total.
Cholecystectomy	2	...	...	1	...	3
Gastro-jejunostomy	79	1	...	5	4	89
Gastrectomy	4	...	...	2	1	7
Intestinal obstruction	...	1	...	3	...	4
Tubercular peritonitis	...	9	...	2	1	12
Liver abscess	16	...	...	...	...	16
Vesical Calculus	2	...	...	...	2	4
Appendicectomy	88	1	...	3	1	93
Salivary calculus and fistula	8	...	...	...	...	3
Median cervical fistula and Thyroglossal cyst	1	...	...	...	...	1
Perforation and peritonitis	1	...	...	1	...	2
Aneurysm of the arch of the Aorta, Ligation of the common carotid and first part of Axillary	1	...	...	...	...	1
Thyroidectomy	2	...	...	...	...	2
Deflected nasal septum	8	...	...	...	...	8
Mobile colon	1	...	...	...	...	1
Gynaecomastia	4	...	...	...	...	4
Decompression	...	...	...	3	...	3
Hernia { Reducible Inguinal	60	...	...	3	...	63
Strangulated	4	...	...	1	...	5
Ventral	2	...	...	...	1	3
Recurrent	3	...	...	...	...	3
Hydrocele and Hematocele	37	...	...	...	2	39
Varicocele	10	...	...	...	...	10
Elephantoid scrotum	14	...	...	...	1	15
Elephantoid leg (Kondoleons operation).	3	...	...	...	...	3
Mucoid abscess	8	...	...	...	1	9
Stricture urethra	1	20	...	1	...	22
Major amputations	22	1	...	4	...	27
Tumours and cysts	36	6	...	3	3	48
Tonsils and adenoids	34	...	...	...	1	35
Carbuncle	11	...	...	1	...	12
Tubercular glands	3	8	...	...	...	11
Gangrene toe, sympathectomy and cross anastomosis	...	1	...	...	...	1
Albee's operation	...	...	...	...	1	1
Thyroidectomy	2	...	...	...	...	2
Suppuration antrum of Highmore	4	...	...	...	...	4

THIRD SURGEON.

Major K. G. Pandalai, I.M.S., has been in charge of S. 3 wards throughout the year, but it may be mentioned that in the beginning of the year the Indian male wards (Clive and Dalhousie) which were formerly under the Third Surgeon were handed over to the Second Surgeon and Canning and Elgin wards were allotted to the Third Surgeon. This

arrangement led to a reduction of 12 beds under charge of the Third Surgeon. The number of beds under my charge was 70 exclusive of beds in the venereal section.

The following table shows the total number of patients treated during the year—No. I table attached.

The following attached table No. II shows the operative work done during the year.

Table No. III shows the more important operations performed during the year.

The following notes on the work of the year may be of interest.

Anaesthesia.—For the reasons abovementioned, viz., the absence of a trained anaesthetist and the poor condition of some of the patients that have to be operated upon I was constrained to resort to other methods of anaesthesia than chloroform inhalation. Spinal anaesthesia has been employed in a good many cases for operations below the costal margin with remarkably good results. Stovaine and in rare cases novocaine in 5 per cent solution were the drugs used in these injections. There has been no mortality by this method and post operative complications have been reduced to a minimum. This method was used in such diverse conditions as gastro-enterostomy, partial gastrectomy, appendicectomy, inguinal and ventral hernias, excision of tubercular caecum, amputation of the lower limb as well as operations on the genitalia, perineum and anus. In cases which would not stand even a spinal anaesthetic, not to mention general anaesthetic, local anaesthesia by the infiltration method has been employed in a number of cases. I am convinced that mortality has been reduced and a number of lives saved by the adoption of these methods of anaesthesia. Rectal ether anaesthesia has also been employed in a number of cases with satisfactory results.

Gastric and Duodenal Ulcers.—The age of the patients has varied from 16 to 60. The general condition of the great majority on arrival has been poor. The duration of the disease before seeking treatment has been from 3 months to 10 years. The proportion of males to females was 48:1 and that of duodenal to gastric ulcers was 4:1. Test meals were analysed by the Chemical Examiner in a small proportion of my earlier cases but nearly all cases so examined showed a normal proportion of hydrochloric acid. There has been no difficulty in the diagnosis of 80 per cent of these cases by the history alone and in all these cases the diagnosis has been verified at operation. The remainder have shown such diverse conditions as chronic appendicitis, visceroptosis, early cirrhosis of the liver, commencing tubercular peritonitis and rarely intoxications of unknown origin. Pyorrhoea alveolaris has been present in 51 per cent of cases but it cannot be said that this condition has a definite causal relation to the ulcers. The measures adopted at operation have been gastro-enterostomy and partial gastrectomy, associated with infolding of the base of the ulcers when this was feasible. Appendicectomy and cholecystectomy have also been performed at the same time according to the conditions found. In two cases the transverse meso-colon was so short that a retro-colic gastro-enterostomy could not be done and an antecolic posterior gastro-enterostomy had to be done with excellent after results. In 9 cases with typical symptoms of ulcers, no abdominal lesion whatever could be found. The abdomen was then closed but patients returned a few months later with identical symptoms and at the second operation and in the absence of any visible lesion, a posterior gastro-enterostomy has been done resulting in relief of all symptoms. These were probably cases of simple hyperchlorhydria.

I have looked carefully for mobile colon in all these cases. The colon has varied in its mobility in every possible degree and although in some of the earlier cases I have attempted to fix the ascending colon I have latterly given up doing so and cannot see that any change in the final results has been produced since ceasing to adopt this measure. I have come to the conclusion that the ascending colon may vary in its mobility within wide limits and that such a condition could not be looked upon as pathological. Among my first 39 gastroenterostomies, there were 3 deaths and in 50 subsequent cases there were two deaths, one of them being in a case of carcinoma of the stomach. The total mortality for all cases of gastroenterostomy has been 5.6 per cent. Post-operative complications, viz., bronchitis, pneumonia were frequent at the time I was operating in the F.O.T. without the help of a trained anaesthetist but this trouble is now rare. Partial gastrectomy has been done for gastric ulcer 6 times with one death due to gangrene of the lung 17 days after operation, and for gastric cancer once, with a mortality of 100 per cent.

Gall Bladder Lesions.—There have been only three operations on the gall bladder and bile passages. The rarity of lesions of the bile passages in this Presidency is remarkable. All my gall bladder cases have been Indians, and no case of gall stones occurred in my wards during the year.

Liver Abscess.—Sixteen cases of abscess in the liver have been under treatment, they were all treated by aspiration repeated 2, 3 or 4 times as necessary without drainage and without injection of any drug into the abscess cavity but associated with hypodermic injections of eucetone 1 gr. daily up to 10 injections. I have had no deaths in cases which have been treated by this method. A previous history of dysentery has been available in only a third of the cases and amoebae have been found in the motions, in no case at all.

Salivary Calculus.—Two cases of salivary calculi in the duct of the submaxillary salivary gland have been treated. In both the calculus was demonstrated by X-Rays and was removed by slitting open the duct into the mouth, with permanent relief of the symptoms. On analysis the stones were found to consist entirely of calcium carbonate with a small proportion of organic matter.

Median Cervical Fistula.—One case of this condition in a young veterinary student, age 22 years, which had existed for several years, came for treatment. The opening of the fistula was in the middle line in the thyro-hyoid space and led upwards behind the body of the hyoid bone, to a depth of one inch. Its complete dissection necessitated the division of the hyoid bone which was subsequently united by catgut. Perfect recovery followed.

Ventral Hernia.—Three cases of this condition were operated upon and required implantation of filigrees. In one case in the left line a semi-lunaris the gap in the abdominal wall easily admitted a closed fist. The patient was a young man, who had been gored by a bull. Two large filigrees were implanted between the peritoneum and the attenuated and atrophied muscular layer, which was brought together over it. In another case the gap in the right inguinal canal of a young man who had two previous operations for inguinal hernia. In a third case a large gap 5 inches by 3 inches in the midline of the abdomen below the umbilicus of a middle aged woman had followed an abdominal hysterectomy. In all these cases the functional result of filigree implantation was eminently satisfactory.

Arterial Surgery.—The patient, a young man of 37 years of age, had his left leg amputated above the knee 12 months ago for gangrene of the toes. On admission gangrene was present in 8 toes of the remaining foot. An attempt was made to avoid amputation by performing periarterial sympathectomy of the femoral artery, at the apex of the Scarpa triangle. This failed and after a suitable interval another attempt at saving the limb was made by performing arterio-venous anastomosis in Hunter's canal. This led to no result. The limb subsequently had to be amputated but the patient finally succumbed to serious infections of both kidneys.

Aneurysm of the Innominate and Arch of Aorta.—A patient, age 37, occupation fitter, was admitted for a pulsating swelling just above the right sterno-clavicular articulation. A bruit was audible on auscultation and the pulse at the right radial and right temporal arteries was weaker than on the left side. X-Rays showed a well marked aneurysm of the innominate artery involving the origin of the right common carotid and the first part of the right subclavian artery. The patient gave a history of syphilis and complained of a persistent and dry cough, and dyspnoea on exertion. At operation, the third part of the axillary and the common carotid immediately below the omo-hyoid were ligated at the same sitting. Pain over the swelling and cough ceased at once and never returned. The radial pulse disappeared and is still absent. The swelling has shrunk, the patient feels relieved and is now doing his work. He is seen periodically and his condition is satisfactory. X-Rays show a contraction of the original aneurysmal shadow.

Elephantiasis Leg.—Three cases were treated by Kondoleon's operation. The immediate results, functional and cosmetic, were satisfactory and for a period of 6 months subsequent to operation there has been no increase in the circumference of the limb. In none of these cases were microfilariae found in the blood.

Intussusception.—Two cases of intussusception were admitted into my wards during the year. The condition was desperate in one of them and the second patient was moribund on admission. In both the symptoms calling for treatment, were enlargement of the abdomen, and frequent passage of blood and mucus per anum. A gangrenous mass protruded from the anus in one case and in the other was palpable on rectal examination. Laparotomy with excision of the gangrenous gut, with end to end anastomosis of the divided ends, was carried out. But both cases died.

Mobile Ascending Colon.—The only genuine case of this condition admitted into my wards during the year was a patient, male, age 39, whose complaint was pain in the abdomen shortly after meals and of five years' duration. On Laparotomy no pathological condition was found except a mobile colon which was fixed in its normal bed by a series of catgut sutures with relief of symptoms.

Melano-endothelioma.—A case of melano-endothelioma affecting the skin of the outer canthus of the left eye and involving portions of the upper and lower eye-lids was admitted and operated upon. The growth was of a jet black colour, flat, rough on the surface and occupied an area of 1½ inches by ¾ inch. The mass was excised, the wound healing by granulation. There has been no recurrence up-to-date. The diagnosis was made by the Pathologist.

Parotid Gland Fistula.—A patient, age 22 years, was admitted for a persistent salivary fistula situated immediately in front of the left tragus. The history was that an abscess had formed in this region 6 months ago and was incised. The fistula proved refractory to repeated dilatations of the duct as well as to radiations of the gland with a view

to its functional destruction. Subsequently with daily applications of a silver nitrate stick to the track of the fistula continued over a period of 6 weeks, it ultimately contracted and closed.

Carcinoma Thyroid.—Patient, Hindu, male, age 35, reported for a swelling of the thyroid gland of 5 months' duration. The swelling affected both lobes of the thyroid as well as the isthmus. The right lobe was of the size of a fist and a clinical diagnosis of an adenomatous goitre was made. At operation the right lobe and the isthmus were removed. Pathologist reported that this was a case of carcinoma of the thyroid gland. The patient refused operation for the removal of the remaining lobe and has since been lost sight of.

Intrinsic Carcinoma of the Larynx.—The patient, an Anglo-Indian, male, age 65, reported sick for a persistent hoarseness of the voice and difficulty to take solid food. The laryngoscope demonstrated a small ulcerative swelling on the posterior part of the left ventricular band. A clinical diagnosis of carcinoma was made, Wasserman reaction was negative and there was no response to large doses of potassium-iodide. Laryngo fissure was performed and the entire lining of the left half of the thyroid cartilage including a portion of the epiglottis left true and false vocal cords and inner perichondrium was removed en masse, after a preliminary low tracheotomy. A small pre-laryngeal lymphatic gland in the crico-thyroid space was also removed. The growth on section was a typical carcinoma. The patient is still under observation, speaks in a loud whisper, is able to swallow normally, and is gaining weight.

Suppuration, Antrum of Highmore.—Four cases of this condition were admitted, all with a history of a retained stump after tooth extraction. One of these cases, after operation under chloroform developed an abscess in the lung, as demonstrated by profuse expectoration of pus and by X-Rays. This patient, after prolonged illness, lasting more than three months ultimately recovered and is now well. This is rather exceptional as it is stated that abscesses of the lung subsequent to inhalation of purulent matter under an anaesthetic rarely recover without an operation.

Ano-coccygeal Tumour.—An infant, age 1 year, was admitted for difficulty in micturition which required catheterisation every day. On rectal examination a large swelling occupying practically the entire pelvic cavity and leaving only a finger's breadth between it and the back of the symphysis was palpable. Under chloroform a median posterior incision was made and the swelling proved to be a congeries of thick walled cystic spaces containing mucoid fluid, and the upper end of the swelling appeared to extend as high as the level of the kidneys. Its position was in the midline in front of the vertebral column and was entirely retro-peritoneal. An interesting point was the practical absence of the sacrum and coccyx. The patient survived the operation for a few hours only. The cysts were reported on by the Pathologist as being Ependymal in origin. This is a very rare condition and has been fully reported in the "Journal of Pathology and Bacteriology," Vol. 27 of 1924, pages 139 to 141.

It is regrettable that a very large majority of our operative work cannot be followed up in the absence of an efficient organisation, to get into touch with the patients after discharge from the hospital. Attempts to get directly into communication with discharged cases by Medical Officers in charge have been unsuccessful for many reasons, the chief of which is the average patient's inability to give a correct address at the time of admission. The only solution of the difficulty is to employ the services of voluntary social service workers to help Hospital authorities in this matter.

GOVT. GENERAL HOSPITAL, MADRAS,
7th May 1924.

R. G. PANDALAI, Major, I.M.S.,
Third Surgeon.

OUT-PATIENT DEPARTMENT.

The out-patient department was in charge of the following officers during the year 1923:—

Major A. P. G. Lorimer, I.M.S., 1st Jan. to 23rd Apr. 1923.
Major W. C. Paton, I.M.S., 24th Apr. to 3rd Sep. 1923.
Major W. L. Forsyth, I.M.S., 4th Sep. to 2nd Oct. 1923.
Major W. C. Paton, I.M.S., 3rd Oct. to 31st Dec. 1923.

The following Assistant and Sub-Assistant Surgeons were on the out-patient staff during the year:—

1. Senior Assistant Surgeons—

Acting.

	From	To
(1) First Class Military Assistant Surgeon L. P. Gernon, I.M.D. ...	1 Jan. 1923	3 Feb. 1923.
(2) Temporary Civil Assistant Surgeon C. Ooman, M.B., B.S. ...	4 Feb. 1923	21 Feb. 1923.
(3) Major F. D's Cruz, I.M.D. ...	22 Feb. 1923	27 June 1923.
(4) First Class Military Assistant Surgeon D. H. J. Nicholas, I.M.D. ...	28 June 1923	31 Dec. 1923.
2. First Assistant to the Resident Medical Officer—		
(1) Temporary Civil Assistant Surgeon C. Ooman, M.B., B.S. ...	1 Jan. 1923	3 Feb. 1923.
(2) Temporary Civil Assistant Surgeon G. P. Raghavayya, I.M. & S. ...	4 Feb. 1923	21 Feb. 1923.
(3) Temporary Civil Assistant Surgeon C. Ooman, M.B., B.S. ...	22 Feb. 1923	13 May 1923.
(4) Temporary Civil Assistant Surgeon R. Anantam Pillai, I.M. & S. ...	14 May 1923	4 June 1923.
(5) Temporary Civil Assistant Surgeon G. I. Benjamin, I.M. & S. ...	5 June 1923	31 Dec. 1923.
3. Second Assistant to the Resident Medical Officer—		
Temporary Civil Assistant Surgeon C. K. Anantanarayana Ayyar ...	1 Jan. 1923	31 Dec. 1923.
Sub-Assistant Surgeon in charge of out-patient dispensary—		
(1) U. S. Muttuswami Nadar, No. 697 ...	1 Jan. 1923	15 Apr. 1923.
(2) D. Narayanaswami Ayyangar, No. 721 ...	16 Apr. 1923	25 Apr. 1923.
(3) R. Ramanjulu Nayudu, No. 505 ...	26 Apr. 1923	16 Aug. 1923.
(4) U. S. Muttuswami Nadar, No. 697 ...	17 Aug. 1923	31 Dec. 1923.

The following table shows the work done in the out-patient department during the year 1923:—

	Total treated.					Average daily sick.				
	Men.	Women.	Male children.	Female children.	Total.	Men.	Women.	Male children.	Female children.	Total.
Non-Europeans ...	28,277	8,427	4,821	3,701	55,229	284.27	63.37	33.30	25.49	406.43
Europeans ...	2,647	1,289	483	521	4,945	10.35	6.33	2.14	2.56	21.43
Total ...	40,924	9,716	5,312	4,222	60,174	294.62	69.75	35.44	28.05	427.86

The work of the out-patient department during the year has been carried out on the lines originated by Major A. P. G. Lorimer, I.M.S., the late Resident Medical Officer.

Casualty Department.—The main structural alteration has been the completion of the Casualty Department. The inside stair-case to the Duty Assistant Surgeons' quarters has been abolished and replaced by an outside stair case. This has provided room for two additional couches in the detention room, and allows a clear run-in for stretchers from the entrance to the cleaning up baths and the small operation room. The scheme by which an accident case can be run on an iron-grid stretcher on rails from the entrance, over two cement baths, into the operation room has also been completed. The grid-stretcher at present in use, however, is too heavy to permit the patient being carried on it directly to the ward, and an experimental lighter stretcher is being made.

In connexion with the casualty department I wish to draw attention again, as was done by Major Lorimer last year, to the urgent necessity of improving the emergency operation theatre in the main building, in which most of the emergency operations are done. At present it cannot accurately be described as a theatre at all. It is badly lit both by day and night, is dusty, and has inadequate washing arrangements. A large number of instruments, etc., are being obtained from home for this theatre, and when they arrive it will be reasonably well equipped instrumentally. But certain structural alterations and improvements are urgently needed, and I have submitted a scheme for these. It need hardly be urged again that a theatre in which serious accident and urgent abdominal cases have to be dealt with should be as well-constructed, well-lit, and well-equipped as possible.

Lights and fans.—The completion of the installation of electric lights and fans in the out-patient department has had to be postponed for another year owing to want of funds.

Skin Department.—Diseases of the skin form a considerable proportion of out-patient cases, and I would urge the necessity of a separate out-patient skin department under an Assistant Surgeon who has specially studied this subject. This would be very valuable not only for the treatment of cases but also for the teaching of students. It might be combined with the new venereal department when that is constructed.

Anti-Rabic Section.—During the year 797 cases attended for anti-rabic treatment. Of these, however, only 399, or practically one-half completed the full course of 14 injections. Of the remaining 398, 264 had less than 7 injections. Post cards are sent to the Police department of the patients' district when they cease to attend, but with very little effect. One reason for many patients not completing their treatment is the high charge levied by Government, namely Rs. 10 for a course of injections for all patients whose monthly income is over Rs. 30. Most patients cannot afford to pay so much, even for a treatment which may be so urgently necessary, and the charge becomes still harder to meet when more than one member of a family is bitten, as not infrequently happens.

I think it may be concluded that the injections which are given to patients who receive less than half the full course are wasted. Patients who go to Coonoor specially for treatment are under more control and are more likely to complete the treatment, and from that point of view it appears doubtful whether the giving of anti-rabic treatment in Madras will prove satisfactory. As far as we know no case which received anti-rabic treatment during the year developed hydrophobia.

Staff.—The present permanent staff of the out-patient department is insufficient. It is supplemented by Assistant Surgeons and Sub-Assistant Surgeons doing reserve duty at the General Hospital for longer or shorter periods, but they cannot adequately take the place of more permanent men, of whom we need two more Assistant Surgeons and one more Sub-Assistant Surgeon.

GOVT. GENERAL HOSPITAL, MADRAS,
February 1924.

W. C. PATON, Major, I.M.S.,
Resident Medical Officer.

ANNUAL REPORT OF THE GOVERNMENT X-RAY INSTITUTE FOR 1923.

The statistics show a great increase in the attendance of patients as compared with the previous year :—

Nature of work performed.	1919.	1920.	1921.	1922.	1923.
I. (a) Radiographs	999	1,758	3,853	5,323	5,817
(b) Screen examinations	55	49	Nil.	Nil.	Nil.
II. (a) Clinical photographs	16	28	10	51	87
(b) Radiographic and photographic prints	...	...	77	410	189
III. Radio-therapeutic exposures	602	660	1,342	1,388	2,573
IV. Electro-therapeutic sittings—					
(a) Galvanization	64	141	821	1,213	1,437
(b) Faradization	281	289	179	441	2,036
(c) Ionic medication	360	396	892	1,534	2,061
(d) Electrolysis	11	4	13	6	35
(e) Cauterization	71	60	33	Nil.	Nil.
(f) Vibratory massage	72	80	28	48	85
(g) Muscle testing	Nil.	Nil.	67	52	60
(h) Diathermy, High Frequency and General Electrical Treatment.	...	...	Nil.	1,243	2,958
(i) Orthopaedic exercises	...	...	...	...	590
Total ...	2,531	3,465	7,315	11,757	17,778

RADIOGRAPHIC DEPARTMENT.

1923.

Hospitals from which patients were sent for Radiographic Examination.

Hospitals.	Radiography.	Electrical Treatment (a) to (i) IV, above.	X-Ray Treatment.	Photographs and prints.
Government General Hospital	4,726	8,841	2,061	276
" Rayapuram Hospital	357	105	23	Nil.
" Ophthalmic Hospital	81	4	64	...
" Royapetta Hospital	35	25	16	...
" Maternity Hospital	22	59	247	...
" Penitentiary	4	Nil.	Nil.	...
" Tuberculosis Hospital	253	...	...	...
British Station Hospital	65	175	...	...
Indian Station Hospital	7	59	...	...
Mental Hospital	4	...	4	...
Victoria Goshia Hospital	85	...	5	...
Rainy Mission Hospital	12	20	123	...
Kalyani Mission Hospital	5	15	...	...
Veterinary Hospital	1	...	Nil.	...
Total ...	5,617	9,312	2,573	276

The General Hospital total includes those patients sent from the maffassal, nearly all of which were special cases requiring an X-Ray Examination to elucidate obscure conditions.

Radio-therapy (X-Ray Treatment).—With regard to the figures given for this Department it is pointed out that in addition to the increase in the number of patients dealt with there has been a great increase in the dosage given, the statistics being as follows :—

In 1922 1,386 patients were given 1214 'B' doses.
 „ 1923 2,573 „ 3430 „

This increase is due to the heavy dosage given to patients suffering from cancer. The results have been encouraging and when our new treatment department for the disease is complete we hope to be able to deal even more effectively with this scourge. Special apparatus is being imported for this work and should be in use before next year's report is written.

Electrical treatment.—The figures for this need no explanation and show the type and amount of work done in the several departments. Much benefit has been given to patients

with Medical Diathermy and there is a great future for this pleasant treatment. A number of Diathermic Operations have been carried out, the majority by Colonel Bradfield with very good results.

Bismuth Meals.—The figures given for 1922 showed the number of Radiographs taken in Bismuth Meal examinations. Actually there were 221 Bismuth Meals administered while in 1923 the number of Bismuth Meal patients increased to 441.

Thoracic Examination.—Four hundred and six radiographic examinations of the thorax were carried out against 156 in the previous year. Of these, two hundred and fifty-three were taken at the request of the Director of the Tuberculosis Institute and Hospital.

Examination of skull.—In 1922 sixty-eight radiographs of the skull were made and in 1923 the figure reached one hundred and thirty-seven; ninety of these were taken for the Government Ophthalmic Hospital in connexion with the research work which is being carried out on cases of optic atrophy.

Dental Radiography.—There has been a falling off in these figures, this year showing a total of one hundred and twenty against one hundred and seventy-four in 1922.

Veterinary Hospital.—One case was sent for examination. This was a dog with an injury to the foot.

We have also given several exposures of X-Rays to a valuable dog which had an obstinate patch of skin lesion, the treatment resulting in a cure.

A London exhibition.—It is very pleasing to note that again in 1923, for the fourth consecutive year Madras radiographs were accepted by the Royal Photographic Society of Great Britain for the Scientific Section of their sixty-eighth Annual Exhibition held in London during September and October. The exhibition is open to the world and of about a thousand exhibits shown only 21 were radiographs, five of which came from the Madras X-Ray Institute.

The departmental staff.—During the year under review Civil Assistant Surgeon M. J. Santhanakrishna Pillai and Military Assistant Surgeon A. St. C. Bartley have been on duty the whole time and we have also had the assistance of Selection Grade Sub-Assistant Surgeon K. S. Venkatachella Ayyar, who has just completed his training.

The whole of the staff have carried out their duties very conscientiously and I cannot close this report without recording my appreciation of their most valuable assistance. It has meant very hard work indeed dealing with the large numbers passing through the Institute, and more help is badly required.

X-Ray work is dangerous, a fact recognized the world over, and every encouragement should be given to the men engaged in it, not only in increased allowances to the Assistant Surgeons, which I understand Government is kindly considering favourably, but also in arranging for short working hours and generous leave.

X-RAY INSTITUTE,
GOVT. GENERAL HOSPITAL, MADRAS,
14th March 1924.

T. W. BARNARD, Captain,
Radiologist

DENTAL DEPARTMENT.

The number of admissions during 1923 was	...	...	...	...	...	4,566
Those on the First Dental Surgeon's days being	...	...	...	...	...	1,804
And those on the Second Dental Surgeon's days	...	...	...	...	...	2,762

The admissions included—

Europeans and Anglo-Indians	...	...	...	...	...	1,019
Muhammadans	...	...	...	...	...	136
Hindus	...	...	...	...	...	3,064
Other castes	...	...	...	...	...	347

Males	...	...	...	...	...	3,305
Females	...	...	...	...	...	952
Children	...	...	...	...	...	309

The treatment carried out by me, as First Dental Surgeon, was as follows:—

Deciduous teeth extracted in treatment of persistence, stomatitis and dental caries	...	...	...	...	...	130
Permanent teeth extracted in treatment of the following conditions:—						
Dental caries	...	...	...	...	...	548
Pyorrhea alveolaris	...	...	...	...	...	756
Alveolar abscess, necrosis, ulceration, etc.	...	...	...	...	...	224
Impaction of lower third molars	...	...	...	...	...	19
Abrasion and attrition	...	...	...	...	...	10
Fracture and dislocation	...	...	...	...	...	8
Irregularity	...	...	...	...	...	10
Supernumerary teeth	...	...	...	...	...	4

Total extractions ... 1,709

Cocaine solution was injected for extractions 25 times.

Ethyl chloride was administered by the Anaesthetist Major A. W. Lynsdale, I.S.O., I.M.D., for extractions on my days 170 times.

Fillings	...	...	...	...	...	60
Scalings	...	...	...	...	...	228
Incisions, in cases of erupting teeth, abscess, etc.	...	...	...	...	...	24
Sequestra removed	...	...	...	...	...	3

Total operations ... 2,024

Treatment of gums, alveolo-dental periosteum, etc.	...	...	...	...	...	210
Advice	...	...	...	...	...	38
Refusals by patients of examination or treatment	...	...	...	...	...	41

Major A. W. Lynsdale, I.S.O., I.M.D., acted as Second Dental Surgeon during the year. His report on the cases treated by him follows.

SECOND DENTAL SURGEON'S REPORT.

Operations.

Extraction of deciduous teeth in treatment of persistence, stomatitis and dental caries	...	...	...	...	...	132
Extraction of permanent teeth in treatment of the following conditions:—						
Dental caries	...	...	...	...	...	929
Pyorrhea alveolaris	...	...	...	...	...	731
Alveolar abscess, necrosis, ulceration, etc.	...	...	...	...	...	132
Impaction of lower third molars	...	...	...	...	...	57
Abrasion and attrition	...	...	...	...	...	55
Fracture and dislocation	...	...	...	...	...	51
Cancer cases	...	...	...	...	...	129
Supernumerary teeth	...	...	...	...	...	5
Irregularity	...	...	...	...	...	12
Concussion. Ankylosis	...	...	...	...	...	3
Cleft palate	...	...	...	...	...	2
Total extractions	...	...	...	...	...	2,238

ANNUAL REPORT AND STATISTICS OF THE

Fillings	70
Scalings	504
Incisions, in cases of erupting teeth, abscess, etc.	65
Sequestra removed	8
Wiring for dislocated teeth	1
Denture	1
Total operations	2,887

Treatment of gums, alveolo-dental periosteum, etc.	200
Treatment of teeth for abrasion, attrition, etc.	41
Pain after extraction	118
Preparation of carious cavities for filling	94
Grinding and polishing	7
Advice	66
Treatment or examination refused	70

Anaesthetics administered for my own operations—

Cocaine injections	43
Ethyl chloride administrations	247
A. C. E. mixture	1
Pressure anaesthesia	6

GOVT. GENERAL HOSPITAL, MADRAS,
12th January 1924.

A. W. LYNSDALE, I.S.O.,
Major, I.M.D., retired.

It is to be noted that the Second Dental Surgeon attended during 12 months, not having availed himself of the month's leave to which he was entitled.

GOVT. GENERAL HOSPITAL, MADRAS,
12th January 1924.

C. F. BADCOCK, L.D.S.R.C.S. (Eng.),
First Dental Surgeon.

GOVERNMENT GENERAL HOSPITAL

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EAR, NOSE AND THROAT DEPARTMENT.

Temporary Civil Assistant Surgeon S. Luther, L.R.C.P. & S. (Edin.), was in charge of this Department throughout the year.

The total number of cases treated during the year was 6,094 as against 4,670 of the previous year and the number of operations performed was 266 as against 260 of the previous year.

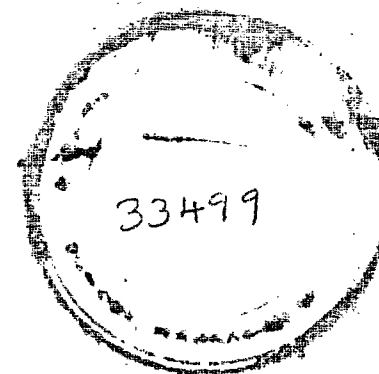
Statement of cases treated (both new and old cases) during the year:—

Europeans	Hindus	Muham- madans.	Indian Christians.	Other castes.	* Total.	Average daily attendance.
2,758	4,862	1,944	2,005	3,811	16,980	34.00

* New patients 6,094. Old patients 10,886.

GOVT. GENERAL HOSPITAL, MADRAS,
24th June 1924.

R. B. B. FOSTER, Lt.-Col., I.M.S.,
Superintendent.



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