செய்பவர் பெயர் அ. [illegible]

செய்யவேண்டுவதற்காக எடுத்துக் கொள்ளப்பட்ட நாள் 7/92

செய்யவேண்டு முடித்த நாள் 7/92

சரிபார்க்கும் உரியஅதி
மு.பா.எ. உதவியாளர்
கையொப்பம் கையொப்பம்

17/8/92

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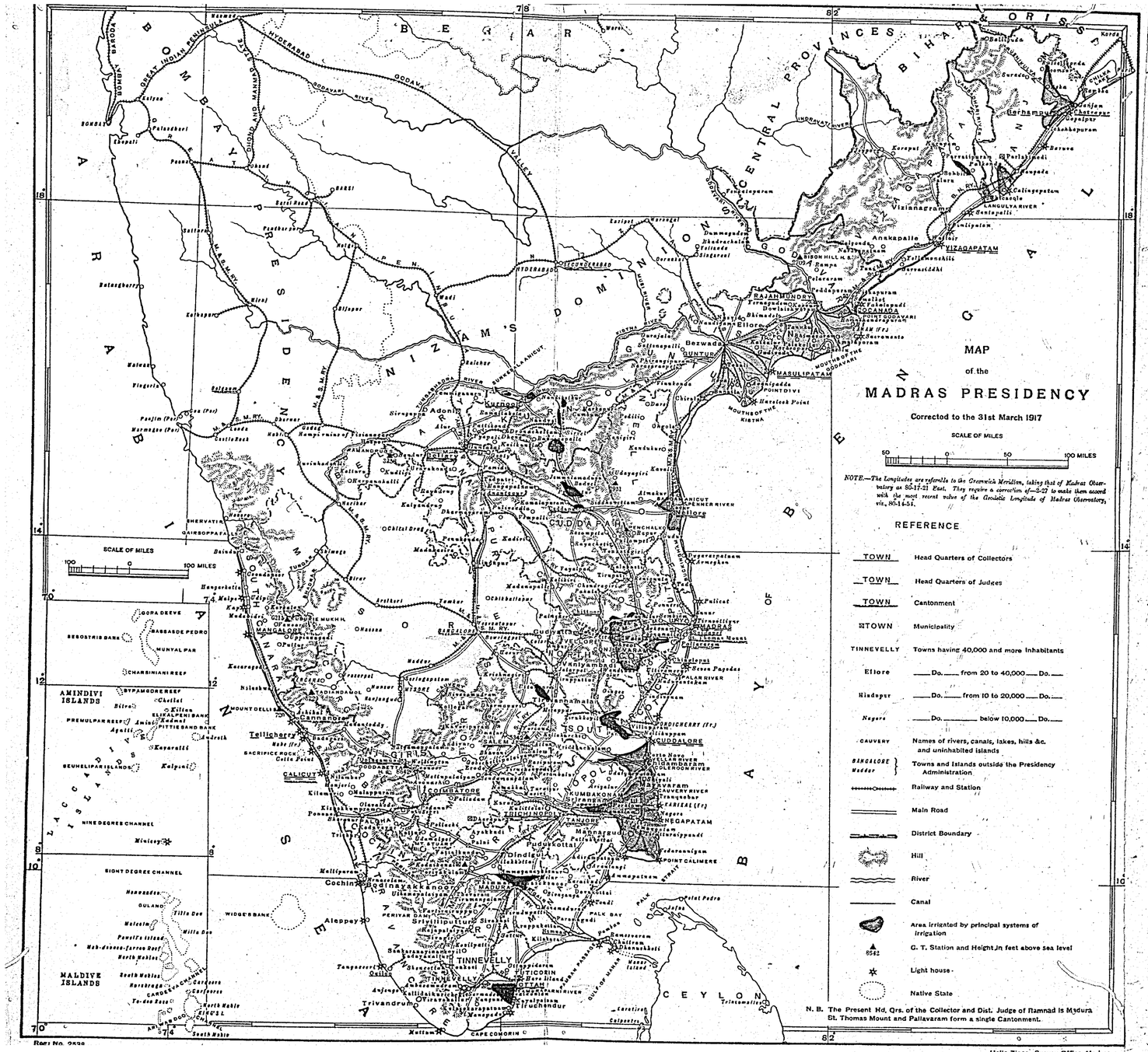
MAP
of the
MADRAS PRESIDENCY
Corrected to the 31st March 1917
SCALE OF MILES
50 0 50 100 MILES
NOTE.—The Longitudes are referable to the Greenwich Meridian, taking that of Madras Observatory as 80-17-21 East. They require a correction of—2·27 to make them accord with the most recent value of the Geodetic Longitude of Madras Observatory, viz., 80-14-54.
REFERENCE
TOWN Head Quarters of Collectors
TOWN Head Quarters of Judges
TOWN Cantonment
TOWN Municipality
TINNEVELLY Towns having 40,000 and more inhabitants
Ellore Do. from 20 to 40,000 Do.
Hindupur Do. from 10 to 20,000 Do.
Nagore Do. below 10,000 Do.
CAUVERY Names of rivers, canals, lakes, hills &c. and uninhabited islands
BANGALORE Madder Towns and Islands outside the Presidency Administration
Railway and Station
Main Road
District Boundary
Hill
River
Canal
Area irrigated by principal systems of irrigation
8542 G. T. Station and Height in feet above sea level
Light house
Native State
N. B. The Present Hd. Qrs. of the Collector and Dist. Judge of Ramnad is Madura
St. Thomas Mount and Pallavaram form a single Cantonment.
SCALE OF MILES
100 0 100 MILES
BENGAL
BIHAR & ORISSA
CENTRAL PROVINCES
BOMBAY
MYSORE
COORG
CEYLON
ARABIAN SEA
BAY OF BENGAL
LACCADIVE ISLANDS
AMINDIVI ISLANDS
MALDIVE ISLANDS
GOA DEVE
BASSASE PEDRO
SEBOSTRIS BANK
MUNYAL PAR
CHARBINIANI REEF
BYPAMBORE REEF
PREMULPAN REEF
SEUHELIPAR ISLANDS
NINE DEGREES CHANNEL
EIGHT DEGREE CHANNEL
WIDGER BANK
GULANDI
Tillis Doo
Willis Doo
Powell's Island
Mah-disse-farms Reef
North Nahlas
South Nahlas
Horsburgh
Cardoux
Carlsons
To-dee Rasa
Addoo Channel
Kiccil
South Nahlas
Minicoy
Kavaratti
Kalpeni
Kadmat
Chetlat
Kiltan
ELIKALPENI BANK
PITTIE SAND BANK
Andreth
Tellicherry
CALICUT
Cochin
Alleppey
Trivandrum
CAPE COMORIN
Mallam
Tuticorin
TINNEVELLY
Madura
Dindigul
Pudukottai
Trichinopoly
Kumbakonam
Tanjore
Negapatam
POINT CALIMERE
Cuddalore
Pondicherry (Fr.)
Karikal (Fr.)
Madras
Nellore
Ongole
Bezwada
Masulipatam
Ellore
Rajahmundry
Cocanada
Vizagapatam
Anakapalle
Vizianagram
Berhampur
Chicacole
Kurnool
Adoni
Bellary
Cuddapah
Kadiri
Chittoor
Vellore
Salem
Erode
Coimbatore
Mangalore
Cannanore
Bangalore
Mysore
Hyderabad
Godavari River
Kistna River
Cauvery River
Palk Bay
Gulf of Manar
Mouth of the Kistna
Point Divi
Hastesbek Point
Point Pedro
Colombo
Trincomalee
Calpentyn
Galle
Matara
Hambantota
Batticaloa
Jaffna
Mannar
Trichinopoly
Madras
Pallavaram
Cantonment
Municipality
Tinnevelly
Madura
Tuticorin
Trichinopoly
Negapatam
Cuddalore
Pondicherry
Karikal

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CONTENTS.

PAGE

INTRODUCTION ix

PART I.

GENERAL SUMMARY.

I.—General and Political.

PARAS.		PAGE
1	General	i
2	Changes in the Administration	i
3	Madras War Fund	ii
4	His Excellency the Governor's tours ...	ii
5	Travancore	iv
6	Cochin	iv
7	Pudukkōttai	v
8	Banganapalle	v
9	Sandur	vi
10	Condition of the people	vi

II.—Administration of the Land.

11	Realization of Land revenue	vi
12	Surveys	vii
13	Settlements	vii
14	Land Records	viii
15	Waste lands	viii
16	Court of Wards	viii
17	Revenue and rent-paying classes	ix

III.—Protection.

18	Course of legislation	ix
19	Police	ix
20–21	Criminal Justice	x
22	Prisons	xi
23	Civil Justice	xii
24	Registration	xiii
25	Registered Companies	xiii
26	Notaries Public	xiii
27	Co-operative Societies	xiii
28	Local Board administration	xiv
29	Municipal administration—Mufassal ...	xiv
30	Do. City of Madras.	xiv
31	Military (Volunteering)	xv
32	Marine	xv
33	Mortality caused by wild animals and snakes	xvi
34	Arms, explosives and sulphur	xvi

IV.—Production and Distribution.

35	Agriculture	xvi
36	Civil Veterinary Department	xvii
37	Weather and crops	xvii
38–39	Horticulture	xvii
40	Government Cinchona Plantations ...	xviii
41	Fisheries	xviii
42–46	Forests	xviii
47	Mines	xx
48	Manufactures	xx
49–52	Sea-borne trade	xxi
53	Public Works—General	xxiii
54	Railways	xxiii
55	Tramways	xxiv
56	Canals	xxiv
57	Irrigation	xxiv

V.—Revenue and Finance.

PARAS.		PAGE
58	General revenue and expenditure	xxiv
59	Imperial revenues	xxv
60	Provincial revenues	xxvi
61	Local funds	xxvi
62	Port and Marine funds	xxvi
63	Municipal revenues	xxvii
64	The Abkāri Department	xxvii

VI.—Vital Statistics and Medical Services.

65	Vital statistics	xxvii
66	Emigration and Immigration	xxvii
67	Medical relief	xxviii
68	Medical College and schools	xxviii
69	The Pasteur Institute, Coonoor	xxviii
70	Lunatic Asylums	xxviii
71	Sanitation	xxviii
72	Vaccination	xxix

VII.—Instruction.

73	General	xxix
74	General statistics and finance	xxix
75	University and Collegiate education ...	xxix
76	Secondary education (boys)	xxix
77	Elementary education (boys)	xxx
78	Special education	xxx
79	Female education	xxx
80	European education	xxx
81	Reformatory School, Chingleput... ...	xxx
82	Government examinations	xxx
83	Lawrence Memorial School	xxx
84	School of Arts	xxxi
85	Libraries	xxxi
86	Periodicals	xxxi
87	Registration of books	xxxi
88	Government Museum and Marine Aquarium	xxxi
89	Meteorology	xxxi
90	Astronomy	xxxi

VIII.—Archaeology.

91	Archæology	xxxii
92	Epigraphy	xxxii

IX.—Miscellaneous.

93	Ecclesiastical...	xxxii
94	Stationery	xxxii
95	Government Press, Madras	xxxii
96	District Presses	xxxii
97	Chemical Examiner's Department ...	xxxii
98	Charitable institutions	xxxiii
99	Muhammadans in the service of Government	xxxiii

PART II.

DEPARTMENTAL CHAPTERS, ETC

CHAPTER I.—PHYSICAL AND POLITICAL GEOGRAPHY.

PHYSICAL.

PARA.		PAGE
1	**Physical Features of the Country, Area, Climate and Chief Staples**	1

POLITICAL.

PARAS.		PAGE
2	**Historical Summary**	1
3	**Form of Administration**	1
4	**Character of Land Tenures**	1
5	**System of Survey**	1
6	**System of Settlements**	1
7	**Civil Divisions of the British Territory**	2
8	**Details of the Census of 1911—Tribes and Languages**	2
	Changes in the Administration.	
9	Changes in the Administration	2
	Relations with Tributary States and Frontier Affairs.	
	TRAVANCORE STATE.	
10	Political	2
11	General	2
12	Administration	2
13-18	Protection and Legislation	3
19-21	Production and Distribution	3
22	Public Works Department	4
23	Railways	4
24	Anchal	4
25-27	Vital statistics and Medical services	4
28	Education	4
	COCHIN STATE.	
29	General and Political	5
30	Finance	5
31	Legislation	5
32	Village Panchayats	5
33	Anchal	5
34-37	Production and Distribution	5
38	Tramway	6
39	Railway	6
40-44	Protection	6
45-48	Vital statistics and Medical services	6
49	Public Works	7
50	Instruction	7
51	Military	7
	PUDUKKOTTAI STATE.	
52	General	7
53	Revenue and Finance	7
54	Abkāri and Stamps	8
55-58	Law and Justice	8
59	Education	9
60	Vital statistics and Medical services	9
61	Local Bodies	9
	BANGANAPALLE STATE.	
62	General	10
63	Financial	10
64	Education	10
65	Public security and crime	10
66	Public health and sanitation	10
67	Forests and Industries	10
	SANDUR STATE.	
68	General and Political	11
69	Revenue and Finance	11
70	Protection	11
71	Production and Distribution	11
72	Public health and Vital statistics	11
73	Education	11
	Condition of the People.	
74	Condition of the people	11
	Political Pensions.	
75	Political pensions	13

CHAPTER II.—ADMINISTRATION OF THE LAND.

PARAS.		PAGE
	Realization of Land Revenue.	
76	Sources of Land revenue	14
77	Peshkash and Shrotriyam jodi	14
78-80	Ryōtwari and miscellaneous	14
81	Cesses	15
82	Collections	15
83	Coercive processes	15
84	Transfer of registration	16
85	Loans and advances	16
	Surveys.	
86	Parties	17
87	Districts	17
88	Central Office	18

PARAS.		PAGE
	Settlements.	
89	Parties	18
90-93	Districts	18
94	Registers	20
95	Finance	20
	Land Records.	
96	General	20
97	Operations preliminary to maintenance.	20
98	Current maintenance	20
99	Training of staff	20
	Waste Lands.	
100	Waste lands	21
	Government Estates.	
101	Government estates	21
	Wards' Estates.	
102	Estates under management	21
103	Finance	21
104	Surplus balances	21
105	Agricultural improvements	22
106	Establishment charges	22
107	Works	22
108	Debts due to the estates	22
109	Debts due by the estates	22
110	Education of the wards	22
111	Encumbered estates	23
112	Miscellaneous	23
	Revenue and Rent-paying Classes.	
113-114	Revenue-paying classes	23
115	Rent-paying classes	23

CHAPTER III.—PROTECTION.

116	**Legislating authority**	24
	Course of Legislation.	
117	Legislative Council	24
118	Acts and Bills	24
119	Government of India	24
	Police.	
120	Changes in the Police force	25
121	Strength	25
122	Casualties and Health	25
123	Conduct	25
124	Education	26
125	Cost	26
126	Village Police	26
127	Armed Reserves	26
128	Railway Police	26
129	Statistics of Crime	26
130-131	Detection and prevention of crime	27
132	Criminal Investigation Department	28
	Criminal Justice.	
133	Courts	28
134	Village Courts	28
135	Original cases	28
136	Appeals	29
137	Reference and revision	29
138	The Jury system	30
139-140	Miscellaneous	30
	Prisons.	
141	Accommodation	30
142	Prisoners	30
143	Convicts	31
144	Conduct	31
145	Vital statistics	32
146	Sanitation	32
147	Financial	32
	Civil Justice.	
148	Courts	32
149-153	Litigation	33
154-161	Courts of original jurisdiction	33
162	Insolvency	34
163-165	Appellate Courts	35
166-169	Miscellaneous	35
	Registrations and Companies.	
170	Offices	35
171	Registrations	35
172	Prosecutions	36
173	Finance	36
174	Registered Companies	36
175	Notaries Public	37
	Co-operative Societies.	
176	General	37
177-179	Working of societies	38
180	Reserve fund	39
181	Supervision	39
	Local Board Administration.	
182-184	Local Boards and Union Panchayats	39
185	Receipts	40
186-191	Expenditure	41
192	Railways	41
	Municipal Administration—Mufassal.	
193	General	42
194	Constitution of Councils	42
195	Receipts	42
196	Loans	43
197	Incidence of taxation	43
198-199	Expenditure	43
200	Debt	44
	Municipal Administration—City of Madras.	
201	Financial	44
202-204	Works	44
205	Drainage	45
206	Water-supply	45
207	Education	45
208	Sanitation and Medical services	45
209	Anti-malarial operations	46
210	Miscellaneous	46
	Military (Volunteering).	
211	Military (Volunteering)	46
	Marine.	
212-214	Madras Port Trust	46
215	Minor ports	48
216	General	48
	Mortality caused by Wild Animals and Snakes.	
217	Mortality	49
218	Rewards	49
	Miscellaneous.	
219	Arms, explosives and sulphur	49
220	Poisons Act, 1904	49

CHAPTER IV.—PRODUCTION AND DISTRIBUTION.

Agriculture.

PARAS.		PAGE
221	General	50
222	Research and experiment	50
223-227	Scientific research and experiments	51
228	Aid to the Public	52
229	Agricultural Associations	53
230	Agricultural Engineering	53
231	Finance	53
232-236	Civil Veterinary Department	53

Weather and Crops.

237	Rainfall	54
238	Crops	55

Horticulture.

239	Government Botanic Gardens and Parks, the Nilgiris	55
240	The Agri-Horticultural Society, Madras.	56
241	Government Cinchona Plantations	56
242	Quinine Factory	56

Fisheries.

243	General	57
244	The West Coast stations	57
245	Piscicultural work	57
246	Soap	57
247	Social work	57

Forests.

248	Area	58
249	Forest settlement	58
250	Demarcation	58
251	Surveys	58
252	Working plans	58
253	Communications and buildings	59
254-257	Protection	59
258	Sylviculture	60
259	Exploitation	60
260	Output	61
261	Finance	61
262	Research and experiments	61
263	General	61
264	Forest College, Coimbatore	62

Mines.

265	Output	62
266	General condition of the employees.	62

Manufactures.

PARAS.		PAGE
267	General	62
268	The Indian Factories Act	64
269	The Department of Industries	64

Sea-borne Trade.

270-272	General summary	65
273-276	Foreign Imports	66
277-281	Foreign Exports	69
282	Treasure	73
283	Government transactions	73
284	Shipping	73
285	Distribution of foreign trade by countries	74
286-287	General effect of the war	74
288	Coasting trade	75
289	Ports	76
290	Miscellaneous	76

Public Works—General.

291	Administrative changes	76
292	Chief Engineer's office	77

Civil Works.

293	Works in progress	78
294	Workshops	78

Railways and Tramways.

295	Control	79
296	Development	79
297	Accidents	79
298	District Board Railways	80
299	Tramways	80

Public Works—Canals.

300	Canals	80
301	Traffic	80

Public Works Department—Irrigation.

302	Gross expenditure and revenue	80
303	Class I. Major Protective Works	80
304	Productive Works	81
305-306	Revenue	81
307	Remissions	81
308	Class II. Minor Works and Navigation.	81
309	Class III. Works	81
310	Tank Restoration Scheme	82
311	Class IV. Agricultural Works	82
312-313	Investigation of projects	82
314-316	Miscellaneous	83

CHAPTER V.—REVENUE AND FINANCE.

Revenue and Finance other than Municipal.

(a) Gross Revenue.

317	Revenue and expenditure	84
318	Surplus revenue	85
319	Cash balances	86

(b) Imperial Revenue and Finance.

320	General	86
321	Land revenue	86
322	Customs	86
323	Opium	86
324	Salt	87
325	Excise (Abkari)	87
326	Stamps	88
327	Income-tax	88
328	Other Imperial receipts	88
329	Transfers between Imperial and Provincial revenues	88
330	Other Imperial expenditure	88
331	Capital outlay on State Railways and Irrigation works not charged to Revenue.	88
332	Imperial loans	89

(c) Revenue and Finance other than Imperial.

333	Provincial revenues	89
334	Land revenue	89
335	Stamps, Excise and Income-tax	89
336	Forests	89
337	Registration	89
338	Canal revenue	90
339	Other Provincial receipts	90
340	Other Provincial expenditure	90
341	Provincial loans	90
342-356	Local funds	91

Municipal Revenues.

357	Municipal Revenues	93

Excise Administration.

358	General	93
359	Experiments in aid of Temperance	93
360	Country liquor	93
361	Toddy	93
362	Foreign liquor	94
363	Opium and intoxicating drugs	94
364	Offences	94

CHAPTER VI.—VITAL STATISTICS AND MEDICAL SERVICES.

PARAS.		PAGE
365	**Details of Census**	**95**

Births and Deaths.

366	Population	95
367-369	Registration	95
370-371	Chief diseases	96
372	Europeans and Eurasians	96

Emigration and Immigration.

373	Regulated	97
374	Non-regulated	97

Medical Relief.

375	Institutions	97
376	Relief	97
377	Finance	98
378	Effects of the war	98
379-380	Medical College, Madras	98
381	Medical schools	98

The Pasteur Institute, Coonoor.

382	The Pasteur Institute, Coonoor	99

Lunatic Asylums.

383	Lunatic Asylums	99

Sanitation.

384	Sanitary Board	100
385	Sanitary Commissioner	100
386	Sanitary Engineer	100

Vaccination.

387	Vaccination	101

CHAPTER VII.—INSTRUCTION.

388	**General System of Public Instruction**	**102**

Education.

389	Progress of the quinquennial period	102
390	General statistics	102
391	Finance	103
392-394	Collegiate education	103
395	Secondary education	104
396	Elementary education of boys	104
397-398	Special education	104
399	Female education	104
400	European education	105
401	Education of Muhammadans	105
402	Education of Panchamas	105
403	Aboriginal and Hill tribes	106
404	Schools for the blind and for deaf mutes	106
405	Private institutions	106
406	Hostels	106

Reformatory School, Chingleput.

407	Reformatory School, Chingleput	106

Miscellaneous.

408	Government examinations	107
409	Lawrence Memorial School	107
410	School of Arts, Madras	107
411	**Literary Societies**	**108**

Literature and the Press.

412	Public Libraries	108
413	Periodicals	108
414	Registration of books	108

Arts and Sciences.

415-418	Government Museum	109
419	Marine Aquarium	109
420	Meteorology	109
421	Astronomy	109

CHAPTER VIII.—ARCHÆOLOGY.

422	Archæology	111
423	Epigraphy	111

CHAPTER IX.—MISCELLANEOUS.

424	**Ecclesiastical Jurisdiction**	**112**

Ecclesiastical.

425	Church of England	112
426	Church of Scotland	112

Stationery.

427	Stationery	112

The Government Press.

428	Finance	112
429	Publications	113
430	Printing and binding	113
431	Miscellaneous	113
432	District Presses	113

The Chemical Examiner's Department.

433-435	Medico-legal investigations	113

Charitable Institutions.

436	General	113
437	Monegar Choultry, etc.	114
438	Triplicane Langerkhana	114

Muhammadans in the service of Government.

439	Muhammadans in the service of Government	114

INTRODUCTION.

THE report on the Administration of the Madras Presidency for the year 1916–17 follows the same lines as the reports of previous years. The standing information contained in the red letter chapters of the report for 1911–12 is only referred to in the present report. At the head of each article in Part II the period to which it relates has been mentioned, and wherever the information given in Part I does not refer to the official year 1916–17, the period to which it relates is given in the margin. The references in italics in the margin of Part I are to the corresponding portions of Part II.

PART I.

GENERAL SUMMARY.

I.—GENERAL AND POLITICAL.

General.

1. The history of the Madras Presidency during the past year, though unmarked by striking events, has not been without interest. The curious phenomenon of local prosperity in the midst of world-wide distress is chiefly due to the self-contained character of the agricultural classes of India. The generally favourable season combined with a rise in prices of agricultural produce has enriched the village people. At the same time, the financial strain which the war has imposed on the whole Empire has necessitated the strictest economy in the sphere of Government. This factor, together with the depletion of the European staff of the Government and of private firms and the difficulties of transport by sea and rail, has resulted in a considerable measure of administrative and commercial stagnation. The restriction of imports has automatically raised a protective barrier round India, which would naturally have led to a great industrial advance, were it not for the impossibility of starting modern industry without machinery and without expert management. The only event during the year which gravely affected the agricultural classes was the serious cyclone in November 1916, which devastated a large part of the South Arcot district. Its effect was, however, only local, as can be seen from the fact that the gross revenue of the Presidency increased by Rs. 131 lakhs. A feature of the year was a slight decline in civil litigation combined with a decrease in grave crime. The peace of the political atmosphere was disturbed by the activities of the extreme section of the national party, which succeeded in arousing a ferment of political idealism among the more juvenile members of the educated classes. The possibility of the extension of this agitation to other sections of the community must be viewed with some uneasiness, since the tone of the agitation has shown a distinct tendency to become less constitutional and more embittered.

Changes in the Administration.

Personnel.

2. His Excellency the Right Hon'ble Lord Pentland, P.C., G.C.I.E., continued as Governor throughout the year 1916–17. The Hon'ble Sir Harold Stuart, K.C.S.I., K.C.V.O., I.C.S., resigned his office as an Ordinary Member of Council from the 12th October 1916 and the Hon'ble Mr. H. F. W. Gillman, I.C.S., was appointed as permanent Member of Council to fill the vacancy. The term of office of the Hon'ble Sir Pazhamarneri Sundaram Ayyar Sivaswami Ayyar, K.C.S.I., C.I.E., expired with effect from the 26th February 1917 and M.R.Ry. the Hon'ble Diwan Bahadur P. Rajagopala Achariyar Avargal, C.I.E., was appointed a permanent Member of Council to fill the vacancy.

Madras War Fund.

3. During the past year the activities of the Madras War Fund have continued and expanded. It has up to date equipped and maintained both the Hospital Ship "Madras" and the River Hospital Ship "Sikkim"; it has purchased and presented to the nation 352 horses as officers' chargers; it has raised, equipped and despatched a corps of 30 motor cyclists; finally, in December 1916, the fund raised a corps of 250 gardeners, who were organized and despatched to Mesopotamia to provide the troops with fresh vegetables. In addition to these activities, the Ladies' Depot has maintained a continuous supply of comforts to the troops serving in the East. The total amount raised by the various branches of the Madras War Fund from the beginning of the war to the end of March 1917 is nearly 55 lakhs of rupees. Besides this sum considerable contributions have been made from this Presidency to the Imperial Relief Fund and to the various funds raised by the *Madras Mail* and other organizations.

His Excellency the Governor's tours.

4. During the year 1916-17 His Excellency the Right Hon'ble the Lord Pentand, P.C., G.C.I.E., Governor of Madras, made four tours, viz., fourteenth, fifteenth, sixteenth, and seventeenth. On his fourteenth tour which commenced on the 9th April 1916, His Excellency left Madras for a visit to the High Range and central planting districts of Travancore. On his way from Kodaikānal Road Station to Mattupatti via Periyakulam and Bodinayakkanūr, His Excellency inspected the new bridge over the Pambar, opened the Emperor George Coronation Library and laid the foundation stone of the new Municipal Hospital at Periyakulam. From Mattupatti His Excellency inspected the planting district and a number of the principal tea factories. At Munnār His Excellency received a deputation from the Kanan Devan Planters' Association. From Mattupatti His Excellency proceeded to Vandiperiyar via Bodinayakkanūr and Uthamapalaiyam. At Bodinayakkanūr His Excellency accorded interviews to Mr. Suppan Chettiyar, chairman of the union, and the Zamindarni of Bodinayakkanūr, and at Uthamapalaiyam His Excellency was presented with an address by the inhabitants of the Cumbum valley. At Bodinayakkanūr and Uthamapalaiyam His Excellency was presented with contributions amounting to Rs. 24,070 towards the maintenance of the Hospital Ship "Madras." His Excellency also inspected the Periyar dam. From Vandiperiyar His Excellency proceeded to Peermade where he received a deputation from the local Planters' Association. Mundakayam was next visited, where His Excellency had an opportunity of seeing an important rubber district and the local rubber factory. Ootacamund was reached on the 21st April via Kōttayam, Ernakulam, Tirūr, Kottakkal, Malappuram and Nilambūr. At Kottakkal His Excellency received an address from the members of Raja K. C. Manavedan Raja's family and the people of Kottakkal, and at Malappuram inspected the Territorials and the Special Police Force. At Nilambūr His Excellency visited the well-known teak plantations. On his way to Madras in connexion with the Legislative Council meeting His Excellency visited the Kolar Gold Fields on the 29th July 1916. The next (fifteenth) tour which began on the 17th September was to that portion of the Ramnad district which is known as the Chettinad. His Excellency left Madura on the 18th September and halted for a few hours at Tiruppattūr, where he received addresses from the citizens and Nattukottai Chetti community of Tiruppattūr. His Excellency also visited the hospital maintained by the Church of Sweden Mission and received a welcome address from the staff and adherents of the Mission. Another halt was made at Amarāvati Pudur, where the Nattukottai Chetti community presented His Excellency with an address. At Dēvakōttai His Excellency received addresses from the Nattukottai Chetti community and from the citizens, and laid the foundation stones of the Women and Children's dispensary and the Veterinary dispensary. On his return from Dēvakōttai to Kānādukāttān His Excellency received addresses from the union panchayat and the citizens of Karaikudi, and laid the foundation stones of the High School and the Girls' School at Karaikudi. At Kōttaiyūr the Kandanūr Union Panchayat and the Nattukottai Chetti community of Kōttaiyūr presented His Excellency with addresses and at Pallattūr the Nattukottai Chetti community presented an address. Kānādukāttān was the next camp, where His Excellency received an address from the Nattukottai community, and laid the foundation stones of the Women and Children's Hospital and the Girls' School. On his way back to Madura His Excellency visited the temple and the Sanskrit School at Kōvilūr. In honour of His Excellency's visit to the Chettinad the inhabitants gave Rs. 1,16,297 towards the maintenance of the Hospital Ship "Madras." On his way to Madras in October 1916, His Excellency made a tour (sixteenth) to the fishery stations on the West Coast, the Anamalais and the Kāngayam cattle-breeding country. His Excellency visited the soap factory at Calicut, where he also presented the King's Police Medal to Mr. R. H. Hitchcock, the cannery at Beypore, and the fish-curing yard and oil works at Tanūr. At the latter place His Excellency received a sum of Rs. 809 subscribed by the fisher communities of 29 villages on the West Coast to the Madras War Fund. His Excellency took the opportunity of this tour to visit Kavalappara where he received an address from the Hon'ble Mr. K. K. R. Kavalappara Muppil Nayar. After witnessing the elephant sales at Walayar His Excellency proceeded to the Anamalais. His Excellency stopped at Valparai from which he made excursions to the surrounding planting districts. At Tonamudi His Excellency saw the school building erected for the children of the coolies and also the various processes of clearing and planting by which virgin forest is converted into tea plantations. He also inspected the township site which has been reserved for the location of public buildings. His Excellency visited Kalianapandal at the western edge of the district near the Cochin border and saw the planting extensions which are in progress there. He also visited the Stanmore Tea Factory. Coimbatore was the next camp, where His Excellency presided at the prize distribution at the Coimbatore College. He also inspected the Agricultural College and laid the foundation stone of a sports pavilion. From Coimbatore His Excellency proceeded to Kāngayam and Palayakōttai where he inspected the fine collection of cattle belonging to the Pattagar and made enquiries into the conditions under which the cattle-breeding industry is carried on. His Excellency, on his visit to Kāngayam, awarded six prizes to the best exhibits in three classes of cattle, viz., breeding bulls, working bullocks and heifers. His Excellency reached Madras on the 25th October 1916. In February 1917 His Excellency visited Bettili

Jeypore, Waltair and Venkatagiri. At Bobbili His Excellency received an address from the people of Bobbili and visited the most important public institutions. From Bobbili His Excellency proceeded to Jeypore via Sālūru and Koraput. At Jeypore His Excellency received an address from the inhabitants, visited the school and hospital, and opened the Marsh Choultry. His Excellency also opened the new bridge over the Indrāvati, 24 miles from Jeypore. At Waltair His Excellency opened the Reading Room which was a gift by the Rani Saheba of Wadhwan, and presented the Kaisar-i-Hind medal to the Rani. From Waltair His Excellency proceeded to Venkatagiri, where he laid the foundation stone of the Queen-Empress Mary Gosha Hospital and opened the extension of the High School. Opportunity was taken of this tour to present His Excellency with donations for the maintenance of the Hospital Ship "Madras": a sum of Rs. 30,000 was given by the Maharaja of Bobbili, Rs. 10,000 by the Rani Saheba of Wadhwan and Rs. 25,000 by the Raja of Venkatagiri.

Travancore. (M.E. 1091.)* *Part II, paras. 10 to 28.*

5. The chief event of the year was the visit of His Excellency Lord Pentland to the planting districts of North Travancore in April 1916. His Highness the Maharaja spent a month at Coonoor in April and May 1916. The Junior Rani gave birth to a daughter on the 17th September 1916. The season was not favourable to agriculture; the rainfall was less than in 1090 and prices and the wages of labour were higher. The adverse effect of the war was not on the whole felt so much as in 1090 and there was an appreciable revival in trade. The total revenue fell short of the expenditure, which included Rs. 10½ lakhs spent on the extension of the railway from Quilon to Trivandrum, by nearly Rs. 3½ lakhs, and the Darbar balance was reduced from Rs. 49 lakhs to Rs. 45½ lakhs. The reduction of the expenditure during the year was mainly under Public Works. Six Regulations were passed during the year, of which the most important dealt with the protection of horses against glanders and farcy, the currency of British Indian coins in Travancore and the protection of the telegraph. There was a slight increase of crime generally and of civil litigation. There was a fall in the birth-rate but the death-rate remained stationary.

Cochin. (M.E. 1091.)* *Part II, paras. 29 to 51.*

6. His Excellency Lord Pentland passed through the State in April 1916 while returning from the planting districts of Travancore. His Highness the Raja paid a visit to Madras on the invitation of His Excellency the Governor to join the Committee formed to supervise the management of the Park Fair and Exhibition held in December 1915 for the benefit of the War Fund. His Highness spent two months at Coonoor during the hot weather. The revenue of the State amounted to Rs. 48 lakhs and the expenditure to Rs. 44½ lakhs and the State surplus rose from Rs. 13½ lakhs to Rs. 17 lakhs. The year's surplus is mainly due to increased revenue collected under Excise, Stamps, Interest and Railways. The expenditure under Medical and Sanitation rose to Rs. 5½ lakhs and that under Education to Rs. 5¼ lakhs. The total number of pupils under instruction rose from 67,096 to 74,505. Five Regulations and three Proclamations were passed during the year. There was a rise in crime generally; the percentage of detection remained high and the percentage of conviction

* 17th August 1915 to 15th August 1916.

rose slightly, but the percentage of property recovered out of that lost fell from 67·77 to 53·10. The birth and death rates fell slightly. The State Railway worked by the South Indian Railway Company earned a net profit of 2·91 per cent on the capital outlay.

Pudukkottai. (Fasli 1326.)* *Part II, paras. 52 to 61.*

7. The Rani gave birth to a son on the 22nd July 1916. His Highness the Raja returned to India in the last week of December 1916 and left for Australia in the first week of March 1917. The total revenue of the State rose to a little over Rs. 19 lakhs, the expenditure fell to Rs. 16·9 lakhs and the State balances increased to Rs. 30·6 lakhs. At the end of the fasli advantage was taken of the opportunity offered by the War Loan to invest a little over Rs. 12 lakhs of the State's balances. The season was unfavourable for agricultural operations, and both wet and dry crops suffered in many parts. There was again considerable progress in the repair and improvement of irrigation sources. The extensive road system of the State was maintained in good order. The Legislative Advisory Council met twice in the year and seven draft Regulations were considered. Two Regulations were passed during the fasli. Civil litigation somewhat increased and the volume of work before the criminal courts slightly decreased. There was a trifling increase in crime. Offences under the Penal Code increased and there was a fall in the percentage of cases detected. A scheme for reorganizing the Police Department of the State was submitted to His Highness for sanction towards the close of the fasli. The work of the Civil and Criminal Courts and of the Police was on the whole satisfactory. The Municipal Council continued to work smoothly. There was considerable improvement in the public health. Small-pox, which prevailed in a sporadic form during the early part of the fasli, entirely disappeared in December 1916. There were no cases of cholera. The Town Hospital and the several dispensaries did very useful work. There were three Agricultural Instructors and one Veterinary Assistant at work in the State. There were 22 co-operative credit societies transacting business. There were 186 State schools, 153 aided schools and 67 unaided schools, 47 per cent of the male and 5 per cent of the female population of school-going age attending school. The second-grade college at the capital continued to prosper.

Banganapalle. *Part II, paras. 62 to 67.*

8. The most important event of the year was the devastation of the town of Banganapalle caused by the floods of the Zurreru river on 31st October 1916. The Government sanctioned the grant free of seigniorage to the amount of Rs. 2,946 of timber from the reserved forests in the Kurnool district for the relief of poor persons in the State whose houses were destroyed in these floods. Damage by the floods both to public and private property is roughly estimated at nearly Rs. 7 lakhs. A special survey establishment was entertained under the Town Improvement Scheme and an area of about 15 acres adjoining the old town has been planned and divided into blocks for the construction of houses on sanitary principles. The total receipts of the year amounted to Rs. 2,68,859 as against Rs. 2,82,478 in the previous year, the expenditure being Rs. 2,48,488 as against Rs. 3,81,345. An amount of Rs. 4,847 was spent during the year on village works and an amount of Rs. 12,429 on education.

* 1st July 1916 to 30th June 1917.

Sandur. *Part II, paras. 68 to 73.*

9. The year was a good one for agriculture, which forms the occupation of the majority of the labouring classes. The manganese mines are still closed. The excessive rainfall in October and November 1916 resulted in some damage to crops. There was a rise in the price of cholam, as in the Bellary district generally, but the poorer classes appear to have been little affected. During the year 92 acres of waste land were surveyed and granted on patta and every encouragement was given to ryots to bring more land under cultivation. Public health was fair. There were no epidemics except a slight outbreak of plague in one village. Education continued on the same lines and three schools were newly opened. Financially, the State showed a surplus, though a large amount of revenue from mines, viz., Rs. 75,210, was not realized. There is no prospect of realization of the arrears till the war is over.

Condition of the people. (Fasli 1326.)* *Part II, para. 74.*

10. The rainfall during both the south-west and the north-east monsoons was above the average in the majority of districts. There was an unusually heavy fall during the north-east monsoon, particularly in October throughout the Circars. A cyclone in the South Arcot district in November 1916 caused considerable loss of life, breached a large number of irrigation sources and did damage to trees and crops. The excessive rains during this monsoon in Kistna and Kurnool caused much damage to irrigation works and resulted in loss of property also in the latter district. The season was on the whole favourable except in Ramnad and Tinnevelly. There was a general rise in the price of food-grains.

II.—ADMINISTRATION OF THE LAND.

Realization of land revenue. (Fasli 1325.)† *Part II, paras. 76 to 85.*

11. The current demand on account of peshkash was a little less than that of the previous year. Quit-rent on shrotriyam villages also showed a slight decrease. The total assessment on ryotwari holdings rose by nearly three lakhs, the increase being mainly due to the extensive assignment of waste lands on darkhast in the districts of Guntūr and South Kanara, to the introduction of resettlement rates in some taluks of the North Arcot district and to the favourable character of the season in Madura. The revenue derived from water-rate and second crop charges rose by Rs. 2·06 lakhs, the increase being mainly due to the favourable character of the season. Season remissions showed a decrease of Rs. 5·69 lakhs. The total demand under land revenue and cesses rose to Rs. 767·10 lakhs, of which 98·9 per cent was collected within the fasli. Of the arrear demand of Rs. 10·62 lakhs, 97·3 per cent was collected within the fasli and 0·9 per cent was written off the accounts. The balance outstanding at the end of the fasli including both arrears and current was Rs. 8·98 lakhs, which was considerably reduced by subsequent collections. Coercive processes were sparingly used in the collection of revenue and the proportion of the number of defaulters whose property was actually sold to the total number of pattadars was the same as in the previous year, i.e., 0·5 per thousand. The advances made during the fasli under the two Loans Acts fell by Rs. ·67 lakh. The charges of district administration

* 1st July 1916 to 30th June 1917. † 1st July 1915 to 30th June 1916.

excluding the cost of village establishments were 6·8 per cent of the land revenue and cesses realized, as was the case in the preceding fasli. Including village service charges, the total charges amounted to 14 per cent, which is slightly in excess of the previous year.

Surveys. *Part II, paras. 86 to 88.*

12. Six parties and two town survey detachments were at work. One of the parties was employed almost exclusively on estate surveys in Nellore, Guntūr and Chittoor, and another was employed on estate surveys in the Circars as well as on resurvey of Government areas in Guntūr. The four remaining parties were mainly engaged on resurvey of Government tracts in South Arcot, Tanjore and Madura and on the survey of proprietary estates in Tanjore, Trichinopoly, Madura and Salem. The total cadastral outturn for the year comprised the initial survey of 16·02 square miles, the resurvey of 1,616·99 square miles of Government land and 659·1 square miles of proprietary estates, the block survey of 2·3 square miles of whole inam villages and the survey of 277 linear miles of streets in unions. The town survey detachments completed on the detailed system the survey of the towns of Anakāpalle, Tinnevelly and Palamcottah which had been completed on the simplified system last year. They also completed the survey of Tiruvālūr town on the detailed system and made some progress with the survey of the municipalities of Vizagapatam and Tuticorin and of Māyavaram and Coimbatore extensions. The total outturn of the detachments amounted to 29·81 square miles. The Central office issued prints of village maps for 4,295 square miles, and various reprints and street maps.

Settlements *Part II, paras. 89 to 95.*

13. All the five settlement parties continued their operations during the year. In Ganjām the revision of quit-rents on village service inams in the proprietary estates of the taluks of Berhampur and Chatrapur, the localization and classification of paik's inams in the Pālūru estate, the inam excess accounts relating to the unsettled inams in the previously settled tracts of the Goomsur and Aska taluks and of all inams in the newly settled villages of Goomsur and Chokkapād, and the revision of quit-rents in the newly settled villages of the Goomsur taluk were completed. The diglott registers and memoirs for two villages of the Chokkapād khandam and 57 villages of the previously unsettled tracts of Goomsur and a report on the introduction of settlement in both these tracts were submitted. In Vizagapatam, the block survey and classification of the whole inam villages in the district was completed and the land-cess was revised on the basis of the new classification. The revision of adangals and the survey of subdivisions were in progress in the Palkonda taluk and materials were collected for the scheme report for the resettlement of the three ryotwari taluks in the district. In Bellary, the special staff attended to patta transfer inquiries and the location of new subdivisions in respect of 22 villages. In North Arcot, resettlement rates were introduced in all the 87 villages in the taluks of South Cheyyār and Wandiwash commanded by the Cheyyār anicut system and a report on the introduction was submitted to Government. In Chittoor, the diglott registers of 370 villages in the taluks of Chittoor, Chendragiri and Palmanēr were submitted. The revision of quit-rents on enfranchised village service inams was carried out in the Chittoor, Chendragiri, Madanapalle and Vāyalpād taluks. The issue of rough

pattas for 69 villages brought the work to a close in the Trichinopoly taluk. The fair accounts of 119 ryotwari villages in the Trichinopoly taluk were handed over to the Revenue Department. The revision of adangals in the Nāmakkal taluk was also brought to a close. The balance of work connected with the localization of mamul wet areas in the Trichinopoly district was completed. The scheme report for the resettlement of the South Arcot district was submitted. The revision of adangals was completed in the remaining 231 villages of the Gingee taluk and in 165 villages of the Tirukkōyilūr taluk of the South Arcot district. The final scrutiny of survey records was completed in respect of 217 villages in the Cuddalore taluk and 53 villages in the Villupuram taluk and the field work preliminary to the introduction of resettlement in 199 villages of the Cuddalore taluk. In Tanjore, complete lists showing the revised registry consequent on the revision of adangals were published in 125 villages of the Māyavaram taluk and the final check of resurvey records was finished in 46 villages. In the Madura district, land registers were prepared for 66 villages in the Mēlūr taluk and 155 villages in the Tirumangalam taluk as well as for the villages included in the Madura municipality. Field work preliminary to resettlement was completed in 38 villages of the Periyakulam taluk and 59 villages of the Dindigul taluk. Resettlement rates were introduced in the 27 non-Periyar villages of the Periyakulam taluk and new settlement rates in the resumed inam villages of the Ramnad and Sivaganga zamindaris. The fair accounts of 66 villages in the Palni taluk were completed and the diglott registers for all the 68 villages of that taluk were written up.

Land Records. *Part II, paras. 96 to 99.*

14. Land Records staffs were employed throughout the year in all the districts of the Presidency. In most districts efforts were concentrated on regular maintenance work; but in South Arcot and in the delta taluks of Guntūr, the Land Records Inspectors were employed on the revision of village registers preparatory to resurvey. Two schools for the training of Assistant and Deputy Collectors in survey and maintenance were held during the year. Schools for the training of revenue subordinates and karnams were held in various districts.

Waste lands. (Fasli 1326.)* *Part II, para. 100.*

15. The season was on the whole favourable, but the area left fallow within patta holdings showed an increase.

Court of Wards. (Fasli 1325.)† *Part II, paras. 102 to 112.*

16. Including the Zamorin's estate newly taken over during the year nineteen estates were under the Court of Wards at the close of the fasli. The arrear balance at the end of the year amounted to Rs. 7·84 lakhs. Of the current demand of Rs. 23·60 lakhs, Rs. 19·68 lakhs were collected within the year. The ordinary cash receipts and charges amounted to Rs. 26·74 lakhs and Rs. 18·08 lakhs. The expenditure on public works amounted to Rs. 4·6 lakhs or 19·4 per cent of the ordinary charges. The surplus balances which exceeded a lakh in five estates, were reserved for expenditure on works of permanent utility. Of the debts due to the estates, amounting to Rs. 3·15 lakhs, Rs. ·94 lakh was recovered or remitted during the year. Excluding the balance of debt amounting to £180,800 payable in fixed annual instalments by the Kallikōta-Atagada estate, the debts due

* 1st July 1916 to 30th June 1917. † 1st July 1915 to 30th June 1916.

by the estates amounted to Rs. 8·60 lakhs. Of this Rs. 7·05 lakhs remained unpaid at the end of the year. No home-farm lands were used during the year for experiments in improved methods of agriculture. Twelve minors were at Newington during the whole or part of the year. Their health, educational and general progress were satisfactory. The Newington Advisory Committee met once and made useful proposals which were accepted by the Court. The Court contributed during the year Rs. 12,500 towards the War Fund and a monthly subscription of Rs. 950 for the Hospital Ship, on behalf of the estates under its management.

Revenue and rent-paying classes. (Fasli 1325.)* *Part II, paras. 113 to 115.*

17. The principal revenue-paying classes of the Presidency are zamindars, whole inamdars, minor inamdars and ryotwari pattadars. The last class predominates largely and contributes about 78 per cent of the land revenue. There was an increase of 5 per cent in the total number of ryotwari holdings as compared with that of fasli 1324. Tenants in zamindari and whole inam villages constitute the rent-paying classes. The relations between landholders and tenants were on the whole satisfactory.

III.—PROTECTION.

Course of legislation. *Part II, paras. 117 to 119.*

18. The Legislative Council sat on fourteen days during the year and two Acts were passed, viz., the Madras Civil Courts Amendment Act, 1916, and the Madras City Civil Court and Presidency Small Cause Courts Amendment Act, 1916. Leave was granted to a non-official additional member for the introduction of a revised Bill for amending and defining the law applicable to intestate succession among the Mappillas governed by the Marumakkattayam or the Aliyasantana Law of Inheritance, the original Bill on the subject having been withdrawn by him. A Government Bill to regulate the rate of interest and the transfer of land in the Agency tracts of the Ganjām, Vizagapatam and Gōdāvari districts, which was introduced at the meeting of the Legislative Council held on the 21st November 1916, was pending before the Council at the close of the year.

Police. (1916.) *Part II, paras. 120 to 132.*

19. There was a very slight increase in the sanctioned strength of the force. The expenditure rose by Rs. 2 lakhs, chiefly in consequence of the increased pay sanctioned for the mufassal constabulary during the year and a similar increase in Madras City in September of the previous year. The enhancement of pay had however little or no effect on recruitment, but there was a decrease in the number of resignations and desertions. Discipline and conduct were on the whole satisfactory; departmental punishments remained much the same, but dismissals and suspensions were fewer and judicial punishments also declined. There was a further increase in rewards disbursed to private individuals and village officers for assistance to the police, while the rewards earned by the members of the force showed little variation. The system of selection of candidates for the post of sub-inspector in each district by local committees came into force during the year. Efforts to secure the co-operation of village officers continued to be made. The total volume of crime diminished,

* 1st July 1915 to 30th June 1916.

the decrease occurring generally, except under thefts, and being marked under offences against property attended with violence, as a result mainly of the operation of the Criminal Tribes Act and closer supervision over habitual criminals. The most tragic case of the year was the murder of Mr. H. O. D. Harding, I.C.S., District and Sessions Judge, Trichinopoly, in broad daylight, while he was about to enter the court-house. There were no serious disturbances of the public peace. The percentage of detection showed a further, though slight, improvement and sub-inspectors did fairly well in handling crime. A fair proportion of grave crime was personally investigated by gazetted officers. A tentative scheme abolishing the post of circle inspector and placing the sub-inspectors under the direct supervision and control of the subdivisional officer, the district being divided into several subdivisions, was introduced in one district in the middle of the year and in another district at the close of the year, with beneficial results. The power to refuse investigation was more freely exercised. The amount of property stolen rose slightly, while the percentage of recovery was less. The results in prosecutions were nearly the same as in the previous year. The prosecuting staff was strengthened in a few districts. The number of false cases diminished appreciably. There was a decline in the number of bad characters at large at the end of the year, and only a small proportion was, as before, out of view. Three new tribes were declared to be criminal tribes and one more settlement was notified under the Criminal Tribes Act. The Deputy Inspector-General of Police, Railways and C.I.D. was entrusted with the general control of all criminal settlements. There was a slight decrease in the number of old offenders sentenced to enhanced punishment and in the number of persons bound over for good behaviour. The Criminal Investigation Department and the Finger-Print Bureau continued to do useful work. The re-allocation of police stations in the Presidency was completed.

Criminal Justice. (1916.) *Part II, paras. 133 to 140.* Working of Courts.

20. The total number of original cases instituted in the criminal courts during the year was 343,000 or 5,000 more than in the previous year. The increase was most noticeable in Gōdāvari, Nellore, Malabar and Trichinopoly and the falling off in South Arcot, Madura and Tanjore. The Presidency Town contributed 58,000 cases, Tanjore 20,000, Trichinopoly 19,000 and North Arcot 18,000. The total number of appeals preferred fell from 10,600 to 10,200. The number of cases instituted in village magistrates' courts fell from 12,700 to 12,100. The number of cases instituted in the regular magistrates' courts in the mufassal was 272,000 against 267,000 in 1915. The average duration from the beginning to the end of the trial of cases disposed of by these courts was 6·9 days against 6·8 days in the previous year. The number of cases committed to Sessions Courts in the mufassal was 1,500 and the average duration of cases rose from 40 to 41 days. There was a decrease in the number of appeals both to first-class courts and to Sessions Courts as compared with last year. The majority of the Judges reported that the jury system worked fairly well.

State of Crime.

21. The percentage of convictions in cases tried under the Indian Penal Code was 42 against 42·5 in the previous year. Of the cases for disposal under the Code 14·2 per cent were rejected under section 203, Criminal Procedure Code, as against 13·2 in the preceding year. Considerable attention is being directed to impressing upon sub-magistrates

the importance of a critical examination of complaints at the time of presentation. Compensation under section 250, Criminal Procedure Code, was awarded against 2,300 persons, a fall of 300 which under existing conditions is regrettable. The number of cases reported under the Indian Penal Code during the year showed a decrease, being 119,000 against 120,500 in the previous year. The decrease is noticeable under the heads of criminal intimidation, criminal force and assault, criminal trespass, wrongful restraint, offences against public tranquillity, criminal breach of trust, robbery and dacoity and rape. There was an increase under hurt, offences affecting public health, contempts of the lawful authority of public servants and criminal misappropriation. The general and continued fall is under existing conditions of economic disturbance a matter for satisfaction. Of the total sentences of imprisonment passed 3,500 were for periods of fifteen days and under (apart from those passed by village magistrates). The number of short sentences is still large and is very little less than that for 1915. A great reduction is noticeable in the number of punishments by confinement in the stocks. 329 persons were released on probation of good conduct under section 562, Criminal Procedure Code. The number of cases dealt with under this section is still very small and the possibilities of its use are very imperfectly apprehended.

Prisons. (1916.) *Part II, paras. 141 to 147.*

22. There was a substantial increase in the daily average prison population during the year. The average number was larger among convicted and civil prisoners. The total accommodation available increased and was sufficient for the prisoners though there was occasional overcrowding in a few jails especially in wards set apart for civil prisoners. The number of youthful offenders under the age of 15 years committed to the jail was smaller than in the previous year and the boys found eligible were removed to the Reformatory School at Chingleput. The Tanjore Jail for adolescents continued to be efficiently managed. Steps have been taken to teach such new industries as will be useful to the youths after release. A larger number of prisoners escaped during the year, but most of them were recaptured. The number of offences and punishments declined. There were 19 cases of corporal punishments of which 18 were awarded to habituals. The conduct of the prisoners was generally satisfactory and there was no combination against authority. Every jail has a school attached to it and prisoners are taught by paid teachers assisted by literate convicts. Lectures on religious and moral subjects are delivered by non-official gentlemen and some of them have presented money and books for jail libraries. The health of the prisoners was on the whole good. The death-rate was 12·06 per mille as compared with 11·00 in 1915. The admissions to hospital and the deaths increased and this was to a certain extent due to a rise in the average prison population. The figures of weighments of prisoners discharged were also good, the percentage of prisoners who lost weight having been only 15·82. Numerous improvements relating to water-supply, kitchens, latrines, hospitals and ventilation were carried out during the year. The gross expenditure of the department increased but the net cost per head fell from Rs. 71–5–0 in 1915 to Rs. 65–3–0 in 1916, while the average cash earnings per head rose from Rs. 42–7–0 in 1915 to Rs. 46–11–0 in 1916.

Civil Justice. (1916.) *Part II, paras. 148 to 169.*

23. The total number of suits instituted in the Presidency was 544,000 against 555,000 in 1915, the highest figure on record till then. For the Presidency as a whole one suit was instituted for every 76 persons of the population as against one for every 75 persons in 1915, and the ratio for the Presidency Town was one for every 28 persons against 25 in the last year. In 1916 the total number of suits instituted was only about 11,000 less than in 1915, and of this number an even higher percentage, 89·25 as against 86·67, consisted of suits instituted for money or moveable property. The tightness of the money market leading to more numerous suits for the recovery of debts seems to be the cause of the unusually high files. The total value of suits instituted in 1916 in courts other than Village and Revenue Courts and unpaid tribunals was Rs. 936 lakhs or Rs. 155 lakhs more than in the previous year. Apart from Revenue Courts, 38 per cent of the suits instituted were of the value of Rs. 20 and less; and 58 per cent of the suits were between the values of Rs. 20 and Rs. 500. The number of suits above Rs. 500 in value was 22,500, the highest figure on record. There were 58,000 suits of a value triable by Village Courts which were filed in the courts of District Munsifs. The total number of suits instituted in Village Courts was 136,500 against 145,600 in the previous year. The number of suits disposed of by village munsifs sitting alone rose from 121,000 in 1915 to 125,500, but there was a considerable fall in the number of suits tried by benches, 10,400 against 22,600 in the previous year. The fall is evidently due to the correction of the mistaken procedure under which the disposals of village munsifs sitting singly in bench areas had been shown as the disposals of benches. The number of suits filed in Revenue Courts other than in Agency tracts fell from 21,700 to 20,300. The number of ordinary suits filed in District Munsifs' Courts other than those for the Agency tracts was 110,000 or 3,500 more than in the previous year. There was however a decrease of 8,500 in the number of small cause suits filed, the figure being 219,000. The arrears of ordinary suits fell from 52,600 at the end of 1915 to 52,400 and the arrears of small causes from 24,000 to 22,500. Considering that District Munsifs have had to deal during the last two years with an increase of suits to the extent of over 80,000, during which period their number has only increased by six, it is highly satisfactory that the arrears have only increased by 2,500 suits since 1914. During the year the pecuniary jurisdiction of District Munsifs was increased from Rs. 2,500 to Rs. 3,000 by Madras Act III of 1916. This alteration in jurisdiction has, as was anticipated, made little difference in the District Munsifs' files. With effect from January two Special Small Cause Courts were established at Trichinopoly and Kumbakōnam. The duration in the trial of ordinary suits in Subordinate Judges' Courts has shown a marked increase during the year. In the District Courts the arrears of ordinary suits fell from 660 to 430. The number of appeals filed in District and Subordinate Judges' Courts rose. In the High Court there was a slight decrease in the number of suits instituted and an increase in disposals. The arrears of appeals decreased. The number of applications for execution received in all the courts in the mufassal except Village Courts was 357,000 against 336,000 in the previous year. Satisfaction in full was obtained in 16·7 per cent of the applications disposed of against 16·5 per cent in 1915, and satisfaction

in part in 7·8 per cent as against 7·6 per cent in 1915. The total receipts of civil and criminal courts in the Presidency in 1916 amounted to Rs. 1,12,40,000 and the charges to Rs. 87,80,000.

Registration. (1916.) *Part II, paras. 170 to 173.*

24. As in 1915, no new offices were opened. The number of registration offices was by the amalgamation of offices formerly separate reduced from 513 to 510. With the greater reconciliation of the public to the abnormal conditions created by the war the improvement in registrations which set in with July 1915 continued and they reached the record figure of 1,377,135, which represents an increase of 6 per cent over that of the pre-war year 1913 and of 7·2 per cent as compared with 1915, the net result of a rise of 7·3 per cent under documents relating to immovable property and of 5·4 per cent under all other documents including wills. The aggregate value of registered transactions rose from Rs. 41·23 crores to Rs. 45·28 crores, whilst the income increased from Rs. 22·71 lakhs to Rs. 24·66 lakhs. The expenditure fell from Rs. 13·70 lakhs to Rs. 13·58 lakhs.

Registered Companies. *Part II, para. 174.*

25. There was a further decline in registrations owing to the war. 17 new companies were registered; 1 was transferred to Bengal and 29 ceased to exist, reducing the number of working companies from 387 at the commencement of the year to 374 at its close. The steady decrease in the number of companies which have ceased to exist in each of the three years during which the Indian Companies Act, 1913, has been in operation, is evidence that the apprehensions which prevailed in the beginning as regards difficulties in complying with the provisions of the Act were exaggerated. The average paid-up capital of Joint Stock Companies was Rs. 1,80,203, the highest since 1902. As a result of the healthy operation of the Provident Insurance Societies Act, 1912, the number of provident insurance societies declined from 21 to 18. The number of life assurance companies fell from 7 to 6.

Notaries Public. (1916-17.) *Part II, para. 175.*

26. During the year 178 registering officers performed the duties of a Notary Public at 140 stations. Operations were confined to 17 stations against 18 in 1915–16, the numbers of bills of exchange and promissory notes dealt with being 26 and 31 respectively.

Co-operative Societies.* *Part II, paras. 176 to 181.*

27. The most prominent feature of the co-operative year was the conversion of the Madras Central Urban Bank, Limited, into a Provincial Bank with its shares thrown open to societies. Three new District Banking Unions were also formed. There was a great increase in the number of local administrative unions of societies, resulting in a general improvement in collections. The total number of societies increased from 1,800 at the beginning of the year to 2,216 at its end. There was a general increase in the admission into societies of members of depressed classes. The total working capital of all societies rose from Rs. 169 lakhs to Rs. 205 lakhs. The net profit for the year was nearly two lakhs and the reserve funds rose from Rs. 8·49 lakhs to Rs. 9·63 lakhs. In spite of the tightness of the money market, loans from central banks and other societies to societies other than central rose from Rs. 59·47 lakhs to Rs. 71 lakhs. Credit continued to form the chief branch of co-operative activity; but some interesting experiments on a small scale were made by rural societies in joint buying and selling.

* 1st July 1916 to 30th June 1917.

Local Board Administration. *Part II, paras. 182 to 192.*

28. The number and maximum strength of the district boards underwent no change and the proportion of the elected members to the total strength was practically the same as in the previous year. No new taluk boards were created, but the maximum strength of these boards was raised from 1,753 to 1,764. Seven union panchayats were constituted, while four of the existing unions were changed into municipalities. Three taluk boards enjoyed the privilege of electing their own presidents and in the case of 28 others non-officials were appointed as presidents; the percentage of official to non-official members on the boards further declined. The total income of the local boards, excluding the transactions under debt heads, increased by over a lakh; the expenditure exceeded the receipts by nearly Rs. 10½ lakhs. Of this expenditure 40·8 per cent was on public works, repairs to communications accounting for more than half of that allotment, and 15·8 per cent was spent on education. Nine new medical institutions were opened and four of the existing institutions were transferred to municipalities; the number of patients treated also advanced; the outlay on these institutions was nearly 4·9 per cent of the total expenditure. The profits derived by the District Boards of Tanjore, Kistna, Coimbatore and Guntūr from their railways amounted to 8·04, 9·4, 7·8 and 3·7 per cent respectively of the capital outlay incurred on them. Two new railway lines, one from Salem to Suramangalam in the Salem district and the other from Tirutturaippūndi to Vēdāranniyam in the Tanjore district were completed during the year and the former line has since been opened for traffic.

Municipal Administration—Mufassal. *Part II, paras. 193 to 200.*

29. The new municipality of Dhārāpuram began work on 1st April 1916 and the unions of Chittoor and Bodinayakkanūr were constituted municipalities during the year. There were in all 70 municipalities with 1,089 members on the councils, comprising 89 ex-officio, 452 nominated and 548 elected councillors; the proportion of Indian to European and Eurasian members increased slightly. The current receipts of the municipalities increased by Rs. 7·48 lakhs and the income from taxation rose by Rs. 2·73 lakhs. The average incidence of taxation per head of the population further rose from Rs. 1-10-11 to Rs. 1-12-0. The aggregate expenditure exceeded the receipts by Rs. 5·44 lakhs and the closing balance was Rs. 33·98 lakhs. About 40 per cent of the expenditure was devoted to public works, Rs. 6·82 lakhs being spent on communications; the net educational charges amounted to 8·5 per cent of the income from general taxation. Excluding amounts covered by the sinking fund, the public debt outstanding against municipalities was over one-third of the annual revenues, and about 3·5 per cent was covered by sinking funds.

Municipal administration—City of Madras. *Part II, paras, 201 to 210.*

30. The revenues of the Corporation of Madras showed an increase of Rs. 3·77 lakhs over those of the previous year. Of this increase, Rs. 2·20 lakhs was contributed by the income from taxation. A loan was raised in the market for improvement of water-supply and drainage and extension of electric lights and a grant was received from Government for sanitary works. The incidence of taxation rose from Rs. 3-14-5 to Rs. 4-5-3. The expenditure from revenue account was about the same as in the previous year while that from capital account rose by Rs. 1·30 lakhs. The number of miles of road reformed fell from 59·30 to 43·46, the decrease being due to restriction of road repairs, this restriction being partly caused by the need for economy and partly due to difficulty in obtaining transport for material. Lands and buildings were acquired for widening roads and rounding off dangerous corners. Three model schools were completed and also a model cow-house. Owing to financial stringency caused by the war, the programme of construction of water-supply and drainage works was restricted to a sum of Rs. 50 lakhs spread over a period of five years. Gravitation mains and a storm water drainage which were in course of construction in the previous year were completed. The birth-rate was the highest since 1905 and was higher than the death-rate for the first time since 1904. The death-rate fell from 36·0 to 34·5 per mille, the lowest recorded since 1888. There were 17 imported cases of plague of which 11 proved fatal. More electric lights were installed. The motor fire-engines were requisitioned for twelve cases of fire during the year.

Military (Volunteering). *Part II, para. 211.*

31. During the past year the Volunteer Corps of the Presidency have contributed a considerable number both of officers and men to the combatant and non-combatant branches of the expeditionary forces. In Madras the Volunteer Guards and the Artillery Volunteers have had large contingents mobilized continuously for garrison duties. The Malabar Volunteer Rifles have performed useful service, while the Railway Corps have from time to time mobilized detachments for special duties. The close of the official year witnessed the introduction of the Indian Defence Force Scheme, but the new force cannot be said to have begun its work until April 1917.

Marine. *Part II, paras. 212 to 216.*

32. War conditions determined the trade of the port of Madras during the past year. Thus the tonnage of hides and skins exported was 50 per cent larger than the average of the previous fourteen years and the tonnage of minerals was more than three times that average. On the other hand lack of shipping caused a considerable fall in many of the chief imports, e.g., piece-goods. Total imports were 70·5 per cent, while total exports were 90 per cent of the figures for 1913–14. On the night of 22nd November 1916, the port experienced a severe cyclonic storm, as a result of which the 5,000-ton monolith structure at the head of the new North Arm was undermined and capsized with its lighthouse. The concrete blocks for a length of 117 feet of the breakwater were overturned towards the harbour side and a further length of 180 feet was damaged. The work of repairing the damage was taken up at once and by the end of March, 35,656 cubic feet of blocks had been manufactured. By the end of January 1917 the whole of the old titan crane track was put in order and a new track was laid on the North Arm. The cost of the restoration work is estimated at Rs. 15 lakhs. The gross receipts of the port during the year under review show an increase of 12·56 per cent over last year, but this increase is mainly due to the 25 per cent super dues on exports and imports. The gross expenditure was 90·82 per cent of the gross receipts, but, excluding the interest on loans, the actual working expenses came to 53·35 per cent of actual harbour earnings against 50·81 per cent in 1915–16. The whole of the substructure and the greater part of the top work of the west quay were completed during the year. This quay practically doubles the enclosed area available for steamers, and will add four first-class berths. A great deal of miscellaneous work was also completed, including the dismantling of two steel piers, the construction

of the new road and the connexion of the whole workshop yard with the metre gauge lines. The depressing effect of the war upon the trade of the minor ports continued to be felt in an even greater degree than in the preceding year. Even with regard to coasting trade there was little or no improvement although its aggregate value showed a slight increase. Hence there was a serious falling off in the port and light dues collections which necessitated the enhancement of the rates of the dues for the period of the war. Steps were taken for obtaining expert advice from home on the prospects of the Cochin Harbour Development Scheme and a set of borings was carried out in connexion with the Tuticorin Harbour investigation which proved the feasibility of constructing a harbour at that port with an approach channel of 30 feet draught.

Mortality caused by wild animals and snakes. (1916.) *Part II, paras. 217 and 218.*

33. There was a decrease in the number of persons killed by wild animals during the year, the mortality being 452 against 551 during the previous year. A slight decrease was also noticeable in the number of persons killed by snake-bite. Rs. 34,238 were spent on the destruction of wild animals and the removal of rank undergrowth.

Arms, explosives and sulphur. (1916.) *Part II, para. 219.*

34. There was a slight increase in the number of licences under the Arms Act issued during the year. This is satisfactory in view of the frequent complaints that have been made in recent years that the Arms Act is administered in an illiberal spirit. There has been a marked increase in the number of licences for the destruction of wild animals doing damage to crops or cattle. It is to be regretted that the number of revolver licences also increased. There was again a considerable fall in the number of licences under the Explosives Act, the explanation apparently being that the heavy rainfall restricted blasting operations.

IV.—PRODUCTION AND DISTRIBUTION.

Agriculture. *Part II, paras. 221 to 231.*

35. The important events of the year were the appointment of the Deputy Director of Agriculture for live-stock, the taking over of the Pumping and Boring section of the Department of Industries to form a basis of an Agricultural Engineering section of the Agricultural Department and the transfer of this department from the control of the Board of Revenue to that of the Government direct. All the ten agricultural stations were at work and four new stations were opened in the South Kanara district for the study of coconut cultivation. Land for a sheep and seed farm was taken over from the Forest Department in the Bellary district. The distribution of varieties of sugarcane suited to the several tracts continues. Seed farms for the multiplication of these varieties have been organized and improvements in cultivation, in crushing canes and in the manufacture of jaggery are being introduced. The use of green-manure crops and of superphosphate, bonemeal and fishmanure for paddy was encouraged and is spreading. Satisfactory progress has been made in connexion with the eradication of the palmyra disease in the Gōdāvari district and the spraying of arecanut trees against mahali disease in Malabar and of mango trees against the mango-hopper in the Chittoor district was carried out. Work against smut on Italian millet, cumbu

and cholam was continued in Bellary and Kurnool. The effort made in conjunction with the department by those interested in maintaining the superiority of Tinnevelly cotton by the eradication of pulichai cotton was continued and met with considerable success. In Tinnevelly much progress was made in the organization of seed unions for co-operative ginning and sale of pure strains of Tinnevelly cotton. The soil survey of the Kistna delta was completed and the sample soils were partly analysed. The Government Economic Botanist continued his work of evolving and preliminary testing of new strains of better paddy. Two Agricultural Co-operative Societies were newly formed in the Madura and Ramnad districts. At Tinnevelly an Agricultural Improvement Society was started which is already showing signs of useful activity.

Civil Veterinary Department *Part II, paras. 232 to 236.*

36. Fourteen graduates of the Veterinary College were added to the staff which consisted of 12 veterinary inspectors and 105 assistants. One veterinary inspector and 2 assistants were on military duty. There was a large increase in deaths from contagious diseases, 26,215 animals having died of rinderpest. The number of inoculations performed against this disease was 100,463. During the year a new hospital was opened at Mangalore and a dispensary at Madanapalle. The mobile corps was disbanded and the six assistants comprising the corps and seven more men were posted to taluks along the Hyderabad border. The net expenditure of the department was Rs. 2·42 lakhs.

Weather and Crops. (Fasli 1326. *Part II, paras. 237 and 238.*

37. The rainfall during the south-west monsoon was above the average in all the districts except Ganjām and South Arcot, and proved favourable to agricultural operations except in Cuddapah and Tinnevelly. During the north-east monsoon also, the rainfall was above the average in the majority of districts. The area under cultivation exceeded the normal extent by 1·64 per cent. The areas under paddy, groundnut, castors, sugarcane, indigo and tobacco showed an increase, while those under cholam, cumbu, ragi, gingelly and cotton decreased. In last year's report reference was made to the fact that the outturn of crops as reported by Collectors was unreliable being generally an underestimate. A more accurate estimate has since been made which shows that during the year under report the outturn was at or above the normal in the majority of cases.

Horticulture. *Part II, para. 239.* **Government Botanical Gardens and Parks, the Nilgiris.**

38. At the instance of the Hon'ble the Surgeon-General, an effort was made to revive the cultivation of drug plants. The work of improving the turf was continued in Cl.n's Park, a quantity of jungle was cleared, an endeavour was made to cover the bare stems of trees with climbing plants and new species of trees were planted. The orchard was greatly extended and a number of fruit trees imported from Australia. The mangosteen crop in Burliyar was a record one. The cocoa trees also produced good crops of fruit and the beans were sold to the East India Chocolate Factory. It is believed that this is the first time that cocoa and chocolate have been grown and manufactured in India. The Para rubber trees at Kallar were tapped and rubber valued approximately at Rs. 500 was collected. The receipts in all were Rs. 6,389 and the expenditure was Rs. 28,375.

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* 1st July 1916 to 30th June 1917.

The Agri-Horticultural Society, Madras. (1916.)

39. There was a further decline in subscriptions to the Society, but the year closed with a balance in hand. The annual flower-show was successful except from a financial point of view.

Government Cinchona Plantations.
Part II, paras. 241 and 242.

40. The only extension in the year under cinchona was a small experimental plot of 4·92 acres, planted with *cinchona officinalis*, at Dodabetta. The area under cultivation at the close of the year was 1,684·91 acres. The crop harvested was considerably smaller than that taken in the previous year. The bark used in the factory consisted of Java-grown *ledgeriana*, locally purchased and plantation-grown *officinalis* and hybrid bark. The percentage of quinine extraction showed a marked increase, while the outturn of quinine exceeded by 60 per cent the highest previous output of the factory. The cost of manufacture per pound of quinine was consequently less than that of the previous year. Another feature of the year's work was the large amount of quinine salts other than quinine sulphate which were manufactured, principally to supply the needs of the armies operating in the East. 13,000 lb. of quinine in various forms were sent to the army in Mesopotamia. The extensions to the factory buildings were completed, but the necessary plant is not yet installed. The receipts exceeded the expenditure by Rs. 5,15,673.

Fisheries.
Part II, paras. 243 to 247.

41. For the West Coast experimental stations the year was better than in 1915–16 but not very favourable. The experiments in mackerel pickled either plain with salt or with condiments, are being successfully developed. The cannery also did better than in the previous year and over half a lakh of tins of various sizes were packed. As regards inland fresh water fisheries the chief operations were the Sunkesula fish farms, the hilsa hatchery on the Coleroon, the stocking of an increased number of tanks, the starting of the Ippur fish farm (Nellore district) mainly for larvicides and the continuance of trout operations on the Nilgiris. The chank work was carried out as in the previous year but with a larger net profit than has ever been attained from chanks; nothing was received from pearls during the year. The lagoon fish farm at Tuticorin, the biological specimens sold to various colleges, the revived *bêche-de-mer* industry, all yielded substantial profit, but the Pulicat oyster farm showed a small loss. Socio-economic work was undertaken. Two co-operative societies were in existence at the beginning of the year on the West Coast and four more were started during the year, with preparation for several others. During the year 12 tons of fish-oil soaps and 32 tons of "Washwell" and 12 tons of "Vegetol" soaps, besides a small quantity of milled toilet soap, were made. The various qualities of soap manufactured by the department have a good market, large quantities of "Coal Tar" soap having been ordered by the military authorities. As the glycerine recovery plant ordered from England has not arrived, glycerine could not be recovered except to a small extent. An important proposal was made to Government by this department to take over all the Government fish-curing yards from the Salt Department.

Forests. (Fasli 1326.)*
Part II, paras. 248 to 264.

42. In pursuance of the policy recommended by the Forest Committee 44 square miles of reserves were disafforested, the greater part of the area being in the districts of Bellary, the Nilgiris and Cuddapah. In Upper

Area.

* 1st July 1916 to 30th June 1917.

Gōdāvari, where there are very large unreserves, 4 square miles were notified under section 16 of the Act. The total area of reserved forest was 18,810 square miles at the close of the year, a net decrease of 35 square miles. Working-plans providing for an area of 494 square miles were sanctioned during the year, and plans for 1,805 square miles were under preparation. The most important working-plans now under preparation are those for the sāl forests of Ganjām, the teak plantations of Nilambūr, and the Mount Stuart forests in the Anamalais. Working-plans for the Tekkadi leased forests and the adjacent Ulandi forests are nearing completion. Other working-plans sanctioned during the year were the Hosūr sandalwood working-plan in North Salem, and the revised working-plan for the fuel forests of Madura. There are still 7,000 square miles of forest for which no working-plans have been prepared, and many of the existing plans are either defective and require revision or are nearing the end of the period for which they were framed. But, owing to the number of forest officers away on military duty, satisfactory progress in this most important branch of work cannot be expected at present. Expenditure on buildings was restricted to absolutely essential requirements, and shows a reduction from Rs. 1·32 to Rs. 1·02 lakhs. Expenditure on roads and bridges being frequently remunerative rose from Rs. 1·08 lakhs to Rs. 1·62 lakhs. The chief works on which expenditure was incurred during the year under the head of buildings were quarters and offices for subordinates; under roads and communications, an extension of the Mount Stuart tramway for ten furlongs. The working of this tramway for the year showed a profit of Rs. 11,192 compared with Rs. 1,441 in the previous year. The Sriharikōta tramway transported 3,765 tons of fuel as against 1,518 tons in the previous year. The first five miles of the Alangayam-Komattiyur Ghat road were completed and work on the other sections carried out at a cost of Rs. 47,457. The alignment of the Nadanur-Amerdi road was selected, and the Forest Engineer completed the field work of the Tekkadi tram trace. In all, 403 miles of forest roads have been constructed during the year.

Working-plans.

Communications and buildings.

Protection of forests.

43. There was a satisfactory decrease in crime from 34,456 cases to 31,810. This is attributed to better supervision, to the satisfactory working of the patrol system, to the extension of forest panchayats and to the kancha system. More than half the cases were compounded, and only 7,438 actually disposed of by magistrates. Of these nearly 94 per cent ended in conviction. The season was favourable for protection against fires, and there was a decrease in the number of offences and in the area burnt. Instances of deliberate incendiarism occurred in the Anantapur and Cuddapah districts, and in some cases reserves were closed to grazing, grazing fees enhanced, and the privilege of free removal of grass was withdrawn in consequence. The area over which special protection was attempted was 7,213 square miles, of which 861 square miles were burnt, a percentage of failure of 11·9 as compared with 17 last year. The "Forest village" system in the Javadis, under which the villagers are granted various privileges including free grazing in return for protection of the forests, was further developed and worked well. In Kurnool, Chenchus were successfully employed on fire-protection and in Gōdāvari and Coimbatore the co-operation of the hill-men was secured in preventing fires.

Fire protection.

The number of cattle impounded during the year showed a decrease of 32,641 compared with the previous year. In some parts this is attributed to a decrease in illicit grazing due to better supervision.

Sylviculture and exploitation.

44. In Kurnool the teak plantations established for the reclamation of the Chenchus were maintained and an additional area of 45 acres was planted. In all, cultural operations were carried on over an area of 11,093 acres compared with 2,376 acres in the previous year, and regular planting was done in 100 acres at a cost of Rs. 5,411. The question is under consideration whether more planting should not be undertaken by the department, avoiding the waste of money which occurred in the past by concentrating on favourable localities and insisting on continuity of policy. In the matter of exploitation also it is becoming clear that the department must lead the way if the forests are to be properly developed.

Finance.

45. The gross revenue was Rs. 47,79,016 and the expenditure Rs. 27,84,374, leaving a net surplus of Rs. 19,94,642, the highest on record. This result is due to rigid economy and postponement of necessary expenditure and also to an increase in the revenue from sandalwood, to leases of *cassia auriculata* and *cassia fistula*, and also to the sale of reserved forests which have been given up.

General.

46. The position of the District Forest Officer as head of his department in the district has recently been defined by Government and the classification of all the forests of the Presidency in accordance with the recommendations of the Forest Committee has now been completed. There has been a satisfactory increase in the number of forest panchayats which are reported to have worked well on the whole. The kancha system in Nellore continued to develop. During the year a special officer has been appointed with a view to gain the confidence of the Chenchus, secure suitable employment for them and prevent crime. Mr. A. W. Lushington, C.I.E., retired Conservator of Forests, was employed as Special Assistant to the Forest Commissioner to investigate the possibility of more commercial exploitation of the forests. A new departure was made in handing over the revenue administration of the hill villages in the Javadis to the Forest Department. The Forest College continued to work satisfactorily, and the fourth batch of 28 men left the college in June 1917.

Mines. (1916.) *Part II, paras. 265 and 266.*

47. Compared with the previous year, the output of minerals worked showed a slight decrease under gold in Anantapur and a marked increase under manganese in Vizagapatam, magnesite in Salem and mica in Nellore. No diamonds were extracted during the year. The condition of the employees was generally good. There were four fatal accidents during the year—all in Anantapur.

Manufactures. *Part II, paras. 267 to 269.*

48. The natural protection afforded to local industries by war conditions has not led to such a large increase of manufactures as might have been expected, chiefly owing to the difficulty of getting machinery and experts from home. However, the number of factories under the Indian Factories Act rose during the period under report from 417 to 460, the new concerns being chiefly rice mills and cotton ginning works. Weaving mills have done well with army orders, but the hand-loom industry suffered a set-back owing to the high price of yarn and the scarcity of dyes. The tanning trade was busy with military work, but

the scarcity of bark for the tanning of hides made it necessary for the Government of India to prohibit the tanning of skins. The leather trade did well, and the coir industry has just managed to keep going. Scarcity of transport on sea and land was felt in every branch of trade. A feature of the year was the recrudescence of ship-building, nine wooden ships averaging 200 tons each having been built on the West Coast. The Department of Industries is making pencils on a commercial scale, but the experiments in glass and lime sand bricks have been closed down. The Factories Act continued to work smoothly, and the staff managed to maintain a very fair standard of inspection in spite of the increase in the number of factories.

Sea-borne trade. *Part II, paras. 270 to 290.*

49. The total value of the sea-borne trade of the Madras Presidency was nearly Rs. 5,455 lakhs, showing an increase of Rs. 569 lakhs, or 12 per cent, as compared with that of the previous year. Foreign trade continued to feel the effects of the war and in view of the difficulties of obtaining tonnage and the very high rates of freight, coupled with the restrictions extended to most commodities and exchange difficulties, it is remarkable that the total value of the sea-borne trade exceeded that of the average for the five years immediately preceding the war. It must be borne in mind, however, that this increase was largely due to the high prices prevailing and that the volume of trade borne by sea was in most cases materially less than in previous years. The trade of the United Kingdom with Madras increased both in imports and exports, and this is also true in the case of the United States of America and Japan. Foreign trade including Government transactions improved by Rs. 531 lakhs or 14 per cent and coasting trade by Rs. 38 lakhs or 3 per cent. Under foreign trade imports advanced by Rs. 165·49 lakhs or 13 per cent and exports by Rs. 366·10 lakhs or 14 per cent. The chief port registered a total trade of Rs. 2,614·18 lakhs against Rs. 2,108·34 lakhs in the preceding year, an increase of Rs. 505·84 lakhs or 24 per cent, representing 45 per cent of the aggregate trade of the Presidency, as compared with 42 per cent in 1915–16. The total trade of the outports amounted to Rs. 2,840·79 lakhs compared with Rs. 2,777·45 lakhs in the previous year. To this total the ports of Tuticorin, Cochin, Dhanushkodi, Calicut, Mangalore, Negapatam, and Cocanada each contributed more than Rs. 100 lakhs. The trade of all these ports with the exception of the last two has improved, particularly that of Tuticorin, Dhanushkodi, Calicut and Mangalore which rose by 8, 24, 13 and 21 per cent respectively. The trade of Negapatam declined by 15 per cent and that of Cocanada by 40 per cent. There was an expansion of Rs. 132·39 lakhs or 11 per cent under imports of private merchandise, due to increased values under cotton manufactures, paper and pasteboard, cotton twist and yarn, motor vehicles, spices, metals, chemicals and sugar, partly counterbalanced by decreased imports of railway materials, matches and cement. The total value of imports of cotton goods, which represent 33 per cent of the total foreign imports, increased by 17 per cent. The chief feature of the year was the speculative purchases of coloured yarns and goods owing to the general view that the scarcity of dye stuffs would cause a considerable rise in the prices of dyed goods. Large stocks were carried forward from the previous year's purchases and these, together with the continual rise of prices in Manchester, tended to reduce the imports in grey and white

Imports.

piece-goods. The increase under paper and pasteboard and metals was the result of inflated prices, whereas the quantities imported declined. There was an expansion of 11 per cent in the value of imports of sugar due to larger supplies of unrefined sugar from the Philippines in consequence of shortage under refined sugar from Java. Exports of country produce improved by Rs. 132·89 lakhs or 5 per cent, and if the figures for the tanned cow-hides shipped under Government control from September 1916 be added, the total exports show an increase of 13 per cent. The increase in value chiefly occurs under leather, raw cotton, oils, drugs and medicines, raw skins, raw rubber, spices and sugar, while decreases were recorded under grain and pulse, seeds, indigo, coffee and cotton twist and yarn. Under leather, increased demand for war materials and higher prices at home improved the trade in tanned hides by 54 per cent and the high prices obtainable for goat and sheep skins owing to an extraordinary demand from Europe and America prompted tanners to tan skins on a far larger scale which increased the value of shipments of tanned skins by 88 per cent. The increase of 37 per cent in the value of exports of raw cotton and of 75 per cent under raw skins was due to an abnormal rise in the price of these articles. High prices under coconut oil and larger shipments of essential, castor and groundnut oils improved the trade under oils, the exports of which rose by 45 per cent in value. The larger crops of rubber and sugarcane gave rise to larger shipments of raw rubber and sugar. On the other hand, there was a decline of 19 per cent in the exports of rice and paddy to Ceylon. Under seeds there was a fall of 25 per cent owing chiefly to reduced shipments of groundnuts. The decline under exports of indigo was 38 per cent. Large stocks in London and high local prices of indigo coupled with high freight rates restricted trading. The decline of 18 per cent under coffee was due to high freights. There was a fall in the shipments of cotton twist and yarn as the demand from Shanghai was not maintained.

Exports.

Trade according to countries.

50. The trade with the United Kingdom represented 48 per cent of the total trade as compared with 47·33 per cent in 1915–16 and expanded by Rs. 152·54 lakhs or 9 per cent. If we include the tanned cow-hides shipped under Government control, the total trade would show an expansion of Rs. 331·17 lakhs or 19 per cent. The trade with the British Empire, representing 75 per cent of the aggregate trade of the Presidency, improved by 6 per cent. The trade with the continent of Europe showed a decline of Rs. 68·22 lakhs or 16 per cent. Japan mainly contributed to the increase of Rs. 92·41 lakhs or 43 per cent in the trade with the Asiatic ports. The trade with Africa improved by Rs. 3·40 lakhs on account of larger shipments of rice to Réunion and that with America, which was practically confined to the United States, improved by Rs. 76·25 lakhs or 35 per cent.

Coasting Trade.

51. The total value of coasting trade excluding Government transactions improved by Rs. 26·82 lakhs or 2 per cent. There was an increase of Rs. 72·01 lakhs or 15 per cent under exports and a decrease of Rs. 45·19 lakhs or 7 per cent under imports. Imports of private merchandise declined by Rs. 47·57 lakhs or 7 per cent owing to smaller imports of grain and pulse, while exports improved by Rs. 69·51 lakhs or 14 per cent in consequence of larger shipments of coffee, coconuts, groundnut oil, manures, sugar, seeds and spices.

Shipping.

52. The total number of vessels engaged in the foreign trade which entered and cleared was 4,161 with an aggregate tonnage of 2,283,772 compared with 3,880 of 2,626,735 tons in 1915–16. The average tonnage per vessel for the year was 549 or 128 tons less than that of the previous year. The number of vessels (excluding native craft) under the British flag which entered and cleared was 2,814 with an aggregate tonnage of 2,059,580 against 2,773 of 2,315,119 tons in the previous year. The number of vessels under foreign colours was 58 with a tonnage of 135,761 against 87 of 247,636 tons in 1915–16. The number of vessels in the coasting trade increased from 25,413 to 26,179, but their tonnage declined from 7,086,420 to 5,299,032.

Public Works—General. *Part II, paras. 291 to 294.*

53. The services of 19 officers and upper subordinates of the department were placed at the disposal of the Army Department for military duty during the year, thus bringing the total number to 39, since the beginning of the war. One officer was killed in action, two others were wounded and have been awarded the Military Cross. Certain redistributions of territorial charges were effected, the most important being the abolition of the Tank Restoration Scheme Division, Fourth Circle, the works belonging to which were distributed among other circles. The estimated total cost of major works under execution and the actual outlay on works in progress show a decrease on that of last year, due to war conditions. There was a general decrease in the value of the outturn of the workshops at Dowlaishweram and Bezwada, due mainly to the present financial stringency; but the workshops at Madras showed an increase. Though the manufacture of high explosive shells in the Public Works Workshops was discontinued, the making of drag-hooks, curry-combs and other minor works for the Military Department was undertaken extensively. The total receipts of goods obtained for the Public Works Stores, Madras, were considerably higher than in previous years and this may be attributed to the abnormal prices prevailing and also to large supplies made to the Military Department for war purposes.

Railways. *Part II, paras. 295 to 298.*

54. The Tirutturaippūndi-Vēdāranniyam railway of the Tanjore District Board measuring 23 miles and the Suramangalam-Salem railway of the Salem District Board measuring 4 miles were completed during the year, but the lines could not be opened for traffic owing to the deficiency of rolling-stock and the difficulties caused by the war. The surveys of the Kollengode-Trichur, Trichinopoly-Jayankondasōlapuram and Mangalore-Panemangalore lines were also completed. The Quilon-Trivandrum railway was under construction by the South Indian Railway on behalf of the Travancore Darbar. The Mysore State being anxious to get a connexion with the West Coast, an officer of the Railway Board was appointed to frame a scheme of railway extension between a port on the West Coast and the hinterland including Coorg and the adjacent parts of Mysore and British territory. That officer investigated the following lines: (*a*) Shimoga to Bhatkal or Venkatapur, (*b*) Hassan to Mangalore, (*c*) Yedatore via Fraserpet to Tellicherry, (*d*) Nanjangud to Erode. The Attur-Tirumandorai and Attur-Perambalūr railways were also investigated by the South Indian Railway as alternatives to the proposed Attur-Chinnasalem railway. The Government, however, recommended that the Attur-Chinnasalem railway should be taken up first. Owing to the war,

work on the construction of the Tinnevelly-Tiruchendūr railway had to be suspended. The surveys of the Pālamcottah-Panaigudi and the Shōranūr-Manantoddy railways and the final location surveys of the Māyavaram-Tranquebar and Manamadura-Sivaganga railways could not be carried out owing to lack of staff. There were three collisions and two derailments during the year. On the night of the 22nd and 23rd November 1916 a cyclone caused the South Indian Railway boat mail and the Tuticorin express to capsize. Seventeen passengers were slightly injured. The Tanjore and Kistna District Board railways realized a net profit of 6·58 and 9·45 per cent, respectively, on capital outlay, while the Pōdanūr-Pollachi railway made a profit of 7·82 per cent, and the Tenali-Rōpalle line realized 3·75 per cent.

Tramways. *Part II, para. 299.*

55. There was only one electric tramway—that in the Presidency town—and it conveyed 20 million passengers against 19 millions in the previous year. The company worked nearly 15 miles of track.

Canals. *Part II, paras. 300 and 301.*

56. The ton mileage, the value of goods and the number of passengers carried on canals fell considerably; in the previous year's comparison the ton mileage and the value of goods had increased and the number of passengers fallen.

Irrigation. *Part II, paras. 302 to 316.*

57. The outlay incurred on irrigation works was Rs. 9·54 lakhs less than in the previous year. The area irrigated under all classes of irrigation works fell by about 99,000 acres with a consequent decrease in revenue of Rs. 12·52 lakhs. The expenditure on Class I—Major Protective Works—Capital Account was incurred mainly on the Mopad project in the Nellore district and the Bhavanasi project in the Guntūr district. The Rushikulya system is the only system in operation at present under this head and it worked at a loss of Rs. 57,612 for the year. The expenditure on Major Productive Works—Capital Account was incurred chiefly on the Gōdāvari and the Kistna delta systems, the Kurnool-Cuddapah canal, the Toludur project and the Cauvery delta system. The area charged as irrigated under this class of works was about three and a half million acres and the revenue gave a return of 6·54 per cent on the capital outlay or 9·88 per cent if the Kurnool-Cuddapah canal, which failed to prove productive, be excluded. The area irrigated under "Minor Works for which Capital and Revenue accounts are kept" was 357,000 acres and the net revenue derived therefrom gave a return of 2·18 per cent on the capital outlay. Under the Tank Restoration Scheme, the average area of cultivation under the works that are to be investigated is about 2·25 millions of acres; up to the end of the year works supplying 52·28 per cent of the area had been investigated and the year's expenditure was Rs. 4·07 lakhs. It was decided to keep the Kistna reservoir project in abeyance until a decision was come to in respect of the Cauvery reservoir project.

Major Protective Works.

Major Productive Works.

Minor Works.

Investigation of Projects.

V.—REVENUE AND FINANCE.

General Revenue and Expenditure. *Part II, paras. 317 to 319.*

58. The gross revenue of the Presidency, both Imperial and Provincial, rose from Rs. 1,952¾ lakhs in 1915–16 to Rs. 2,084 lakhs in 1916–17, but the gross expenditure charged to Revenue fell from Rs. 871 lakhs to Rs. 850½ lakhs. The surplus of the year amounted to Rs. 1,233½ lakhs and exceeded

that of the previous year by Rs. 151¾ lakhs, owing chiefly to an improvement in the net State Railway receipts (Rs. 30½ lakhs) and in the revenue derived from Salt (Rs. 12¾ lakhs), Excise (Rs. 20¾ lakhs), Customs (Rs. 28¼ lakhs) and Income-tax (Rs. 19½ lakhs), as well as to the curtailment of expenditure by Rs. 21½ lakhs, mainly under Sanitation (Rs. 16½ lakhs).

Imperial Revenues. *Part II, paras. 320 to 332.*

59. The receipts from Land Revenue amounted to Rs. 350 lakhs and were almost the same as those of the previous year. The Customs revenue amounted to Rs. 107¾ lakhs, being Rs. 28¼ lakhs more than that of the previous year, the increase occurring mostly under "Sea Customs—Import duty," owing partly to the enhanced rates of duty leviable under the revised tariff of March 1916 and partly to the high prices prevailing. The Salt revenue advanced from Rs. 115¾ lakhs to Rs. 128¾ lakhs; the rise of Rs. 13 lakhs was mainly under Excise duty owing to the enhanced rates of duty and to increase in sales. The charges rose from Rs. 15¾ lakhs to Rs. 17¾ lakhs, chiefly under Salt purchase and freight, owing to larger production of salt and to the execution of works in connexion with the extension of salt manufacture. The quantity of salt manufactured during the year was 131 lakhs of maunds against an average outturn of 90 lakhs of maunds in the preceding three years. The total issues for home and inland consumption amounted to 126 lakhs of maunds against 113½ lakhs of maunds in the previous year. The Stamp revenue rose from Rs. 75½ lakhs to Rs. 78 lakhs; and the charges amounted to Rs. 2¼ lakhs against Rs. 2 lakhs in the previous year. The total Opium revenue realized by the Excise Department improved from Rs. 14½ lakhs to Rs. 15¾ lakhs of which Rs. 5 lakhs represented the cost price of opium which was raised from Rs. 8-8-0 to Rs. 11 per seer on the 1st April 1916. The Excise revenue amounted to Rs. 175¼ lakhs against Rs. 165 lakhs in 1915–16 and the improvement was mainly under country spirits and toddy, owing to an increase in consumption due to the favourable season. The charges were Rs. 9 lakhs against Rs. 9¼ lakhs in the previous year. Income-tax receipts increased from Rs. 20¼ lakhs to Rs. 30 lakhs, owing mainly to the enhanced rates of tax introduced from 1st April 1916. Imperial revenue from other sources amounted to Rs. 420¼ lakhs and exceeded the corresponding revenue of 1915–16 by Rs. 32¼ lakhs; this was mainly contributed by State Railway receipts. The expenditure under other Imperial heads amounted to Rs. 64 lakhs and was less than that of the preceding year by Rs. 7¼ lakhs, chiefly under subsidized Companies (Rs. 3 lakhs) and under Civil Works in charge of Public Works Officers (Rs. 2¼ lakhs). The capital outlay on State Railways and Irrigation Works not charged to Revenue amounted to *minus* Rs. 5 lakhs against Rs. 28¼ lakhs in the previous year. The decrease occurred under State Railways—mostly on the South Indian Railway, owing to a considerable reduction in the balances of stores, caused mainly by the restrictions imposed on purchases both in England and in India.

Land Revenue.*

Customs.

Salt.

Stamps.*

Opium.

Excise.*

Income-tax.*

Other Imperial Revenue and Expenditure.

Capital Expenditure not charged to Revenue.

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* The receipts from LAND REVENUE and the receipts and charges under STAMPS, EXCISE (including the realizations of opium revenue by the Excise Department) and INCOME-TAX are shared equally between Imperial and Provincial. The comparison made here is in respect of the Imperial share.

Provincial revenues. *Part II, paras. 333 to 341.*

60. The Provincial account opened with a balance of Rs. 110 lakhs and closed with a balance of Rs. 152 lakhs; the surplus of Rs. 42 lakhs was the net result of an aggregate revenue of Rs. 794½ lakhs and an expenditure of Rs. 752½ lakhs. The receipts from Land Revenue amounted to Rs. 350 lakhs and were almost the same as those of the previous year. The charges were Rs. 122¾ lakhs against Rs. 123½ lakhs in the previous year. The receipts from Stamps, Excise (including the share of Opium revenue) and Income-tax amounted respectively to Rs. 78 lakhs, Rs. 186 lakhs and Rs. 30 lakhs against Rs. 75½ lakhs, Rs. 175½ lakhs and Rs. 20¼ lakhs in the previous year. Explanations of the increases under the last two heads are given in the Imperial section. The corresponding charges were Rs. 2¼ lakhs, Rs. 9 lakhs and Rs. 33,080 as against Rs. 2 lakhs, Rs. 9¼ lakhs and Rs. 30,281, respectively, in the previous year. The receipts of the Forest Department increased by Rs. 5 lakhs to Rs. 46 lakhs; the improvement was mostly under timber and other produce, since the market improved and better prices were realized. The charges amounted to Rs. 28½ lakhs against Rs. 29¼ lakhs in the previous year. The receipts under Registration rose from Rs. 23¼ lakhs to Rs. 24¾ lakhs, and the charges from Rs. 12·56 lakhs to Rs. 13·12 lakhs owing mainly to the raising of the minimum pay of clerks in registration offices. The receipts under the other Provincial heads amounted to Rs. 63½ lakhs and were higher than those of the previous year by Rs. 3¼ lakhs, chiefly under Scientific and Miscellaneous Departments—Cinchona Plantations and Fishery receipts. The expenditure under other Provincial heads declined by Rs. 14¼ lakhs to Rs. 576½ lakhs. There was a decrease of Rs. 31¼ lakhs under twelve heads and an increase of Rs. 17 lakhs under eleven other heads. The largest decrease occurred under Sanitation (Rs. 16½ lakhs). The more important increases were under Education (Rs. 6 lakhs) due chiefly to larger payments of subsidies and grants-in-aid, and under Police (Rs. 4¾ lakhs) owing mainly to the revision of the pay of the constabulary.

Land Revenue.*

Stamps, Excise and Income-tax.*

Forests.

Registration.

Other Provincial receipts and expenditure.

Local Funds. *Part II, paras. 342 to 345.*

61. The receipts and charges of Local Funds constituted under Act V of 1884 exclusive of debt transactions were Rs. 179¾ lakhs and Rs. 189¼ lakhs, respectively, leaving a deficit of Rs. 9½ lakhs against a deficit of Rs. 16¾ lakhs in the preceding year. The receipts and charges on account of debt transactions amounted to Rs. 50¾ lakhs and Rs. 38¾ lakhs respectively.

Port and Marine Funds. *Part II, paras. 346 and 347.*

62. The Madras Port Fund opened with a balance of Rs. 5,584 on 1st April 1916 and closed with a balance of Rs. 15,348. The income of the fund amounted to Rs. 97,666 and its expenditure to Rs. 87,902. The Minor Ports Fund opened with a balance of Rs. 1,83,114 and closed with a balance of Rs. 1,70,880; the receipts and charges of the fund were Rs. 6,77,706 and Rs. 6,89,940, respectively. The total security balance of these funds stood at Rs. 8,57,400 (face value) on the 31st March 1917. The income and expenditure of the Pilotage funds amounted to Rs. 11,364 and Rs. 10,434, respectively, the invested balance of the funds amounting to Rs. 1,72,500 (face value). The receipts and charges of the Landing and Shipping Funds came to Rs. 6,69,785 and Rs. 5,68,160, respectively, and

* The receipts from LAND REVENUE and the receipts and charges under STAMPS, EXCISE (including the realizations of opium revenue by the Excise Department) and INCOME-TAX are shared equally between Imperial and Provincial. The comparison made here is in respect of the Provincial share.

the invested balance at credit of the funds was Rs. 3,35,900 (face value). The Madras Coast Lights Fund opened with a balance of Rs. 16,853 and closed with a balance of Rs. 31,224, the invested balance of the fund being Rs. 50,000 (face value) on the 31st March 1917.

Municipal Revenues *Part II, para. 357.*

63. The receipts and charges of mufassal municipalities amounted to Rs. 87·30 lakhs and Rs. 92·74 lakhs respectively. The receipts and charges of the Madras Corporation were Rs. 46·46 lakhs and Rs. 46·34 lakhs respectively and the balance to the credit of the Corporation at the end of the year was Rs. 9·40 lakhs.

The Abkari Department. *Part II, paras. 358 to 364.*

64. The general prosperity of the people during the year is reflected in the increased consumption of intoxicants. In spite of a considerable reduction in the number of country liquor shops, the rentals rose from Rs. 44·32 lakhs to Rs. 45·79 lakhs, while consumption increased by 10 per cent. Similarly, though there were about 600 fewer toddy shops, the rentals rose from Rs. 88·94 lakhs to Rs. 90·98 lakhs, while the tree-tax produced five lakhs more than in 1915–16. Decreased imports of foreign liquor were offset by increased local production. Attempts to encourage tea and coffee shops as a counter-attraction to the toddy shop have not been very successful. Something has been done to remove liquor shops away from places where they are a temptation to the wayfarer. There was during the year a slight decline in the number of shops for the sale of opium and intoxicating drugs but rentals rose.

VI.—VITAL STATISTICS AND MEDICAL SERVICES.

Vital Statistics. (1916.) *Part II, paras. 366 to 372.*

65. Vital statistics for 1916 were furnished for a population of only 40,005,735. The birth-rate during the year was 32·5 per mille against 31·2 in 1915. Excluding Madras which had a birth-rate of 42·1 per mille, the highest birth-rate was recorded in Guntūr (41·0) and the lowest in Ramnad (24·0). As usual births exceeded deaths in all districts and there were more boys born than girls. Racially considered, Muhammadans returned the largest birth-rate of 36·2 per mille. Deaths registered during the year represented an annual ratio of 21·9 against 22·0 per mille in 1915. Excluding Madras which had a death-rate of 34·9 per mille, the highest death-rate in the mufassal was returned by Bellary (26·3) and the lowest by Ramnad (15·4). The death-rate in the mufassal among children under one year of age was 182·8 per mille of registered births against 186·6 in 1915. The Madras Registration of Births and Deaths Act III of 1899 was in force in 310 unions and 2,349 villages. Fevers as usual continued to be the chief classified cause of death, accounting for 292,491 deaths. Cholera claimed 16,735 victims, small-pox 21,903, plague 11,498, dysentery and diarrhœa 58,444 and respiratory diseases 43,814.

Emigration and Immigration. (1916.) *Part II, paras. 373 and 374.*

66. During the year 1916, recruitment was less active as regards Fiji and British Guiana. It was resumed in the case of Jamaica. The number of persons embarked was for Fiji 950, British Guiana 387, Trinidad 909 and Jamaica 258. There was an increase in the number of persons that proceeded to the Straits Settlements and a decrease in the number that returned, and this was due chiefly to greater demand for labour and to the good wages offered in the Malay States. The number of persons that returned from Burma declined with the number that went across, much

of this emigration being seasonal. The arrivals from Ceylon were more or less in proportion to the number who went there.

Medical Relief. (1916.) *Part II, paras. 375 to 378.*

67. The total number of medical institutions at the end of the year 1916 was 709, and medical relief was afforded to nearly 8¼ million patients. The percentage of deaths among in-patients fell from 4·54 in 1915 to 4·11 in 1916. The most common diseases treated were diseases of the skin, diseases of the digestive system, eye diseases, malaria, injuries (general and local), diseases of the generative system and venereal diseases. The proportion of patients operated on to the total treated remained practically the same, about 4 per cent. The nature of the operations has also varied but little from year to year, the most common being operation for abscesses, operation on skin and subcutaneous tissues, operation on male generative organs, and obstetrical operations. There was an increase in the total number of operations performed during the year. Of the operations performed 99 per cent were successful. There are at present 29 appointments for house surgeons and house physicians in the Presidency State hospitals and in certain selected headquarter and other hospitals in the mufassal.

Medical College and Schools. *Part II, paras. 379 to 381.*

68. The total number of students in the Medical College and Schools was 997 during 1916–17 against 859 in the previous year. The increase was due to the admission of 30 additional pupils into the Royapuram Medical School on 1st July 1916 and also to the opening of a new Medical School of 25 pupils at Calicut. A temporary shed for the practical Biology and Physics classes of the Medical College has been completed and certain other improvements to the lecture theatres are being effected to provide accommodation for a larger number of students.

The Pasteur Institute, Coonoor.* *Part II, para. 382.*

69. The number of patients treated during the year was 1,707, exceeding the record figure of last year by 217. Of the total number 1,546 were Asiatics, the rest being Europeans and Anglo-Indians. Four patients died during treatment, 5 within a fortnight after the completion of the treatment, and 15 more than a fortnight afterwards. The latter cases are considered as failures.

Lunatic Asylums. (1916.) *Part II, para. 383.*

70. The accommodation provided in the three Lunatic Asylums remained the same as in 1915. The daily average population was 832·68, the females numbering nearly one-fourth of the total. The commonest form of insanity was as usual mania. The general health of the patients was better than last year, the daily average sick in hospital being 79·49 as compared with 103·15 in 1915.

Sanitation. (1916.) *Part II, paras. 384 to 386.*

71. During 1916, 26 municipal towns had piped water-supplies. The minor sanitary works completed during the year consisted of the construction and repair of wells and tanks, markets, slaughter-houses and latrines and general sanitary improvements. There was a fall in the numbers of totis and sweepers, but an increase in the conservancy plant employed. The number of public latrines increased and there was a slight increase in the number of private latrines. Sewage farming did not show much improvement. Town-planning operations also received less attention during the year. Itinerating dispensaries for the treatment of malaria and other ailments worked in the districts of Chittoor

* 1st March 1916 to 28th February 1917.

Ganjām, Gōdāvari, Kurnool and Vizagapatam. It was only in Madras City that a systematic anti-malaria campaign on a pretty large scale was conducted under the supervision of a special officer. In combating cholera epidemics in rural areas, much good work was done by the four Provincial cholera parties on duty.

Vaccination. *Part II, para. 387.*

72. The total number of vaccinations performed by all agencies showed a decline as compared with the previous year. The percentage of success both under primary and re-vaccinations also fell.

VII.—INSTRUCTION.

General. *Part II, para. 389.*

73. Pending the issue of final orders on the scheme for the general reorganization of the inspecting agency, sanction was again accorded by Government for the retention for another year of 49 additional Sub-Assistant Inspectors and the additional Sub-Assistant Inspectresses. No change of any importance was made in the Madras Educational Rules and the Grant-in-Aid Code during the year. The educational institutions conducted or controlled by hostile missions continued to be under the management of the Missionary Educational Council of South India, pending a final decision as to the eventual management and ownership of these schools.

General Statistics and Finance. *Part II, paras. 390 and 391.*

74. Public institutions increased both in number and strength, the percentage of increase being 2·6 and 2·8 respectively. The percentage of boys under instruction to the male population rose from 6·4 to 6·5 and the corresponding percentages for girls were 1·49 and 1·55. Including the charges relating to institutions under the control of other departments, the total expenditure on education increased from Rs. 206·5 lakhs to Rs. 216·9 lakhs, towards which public funds contributed 52 per cent. Imperial grants, both recurring and non-recurring, amounted to Rs. 21 lakhs, of which nearly the whole amount was spent during the year. Grants-in-aid from Provincial funds amounted to about Rs. 51½ lakhs, of which nearly Rs. 33 lakhs were paid to institutions under private management.

University and Collegiate education. *Part II, paras. 392 to 394.*

75. A new regulation providing for candidates passing the Intermediate Examination in parts and certain alterations in the regulations relating chiefly to the Law courses and B.A. (Honours) courses were sanctioned during the year. Affiliation was granted in Group III of the Intermediate courses to the Government Ceded Districts College Anantapur, which was newly opened during the year. The number of arts colleges increased by one, while the strength decreased by 633 owing to the restriction of admissions to the Intermediate classes during the year whereby under the revised rules the holder of a secondary school-leaving certificate should obtain a minimum percentage of marks in certain subjects to be admitted to the University. The number of students reading for the B.A. (Honours) course in the year was 459.

Secondary education (Boys). *Part II, para. 395.*

76. Public secondary schools for boys increased by 5 in number and nearly 5,800 in strength. The direct expenditure on secondary education increased nearly by Rs. 2½ lakhs. The recurring Imperial grant of Rs. 80,000 sanctioned for the improvement of secondary education was fully spent. A change has been made in the syllabus with a view to

encourage a more thorough and more widely spread study of the vernacular and classical languages of India.

Elementary education (Boys). *Part II, para. 396.*

77. Public elementary schools for boys further increased both in number and strength, the increase being shared by all the three grades of elementary schools. The percentage of male pupils in public elementary schools calculated on the total male population was 5·2. Seventy-six per cent of the schools were under private management, 22 per cent being under missions. 645 buildings were constructed during the year for the housing of public elementary schools. Trained teachers formed 33 per cent of the total number as in the previous year.

Special education. *Part II, paras. 397 and 398.*

78. The number of teachers under training in training schools showed an increase. Most training schools for masters have been provided with hostel accommodation. An educational exhibition was organized at Saidapet and a series of lectures was held in connexion with it. Special lectures on first-aid were also given in training schools. Including the schools under the control of the Director of Industries, there were 5,258 pupils receiving instruction in technical or industrial subjects.

Female education. *Part II, para. 399.*

79. There was a further increase both in number and strength of non-European schools for girls; the number of girls under instruction at the end of the year was 321,540, representing a percentage of 1·5 to the total female population. There was a further advance in the numbers of Brahman and Muhammadan girls receiving secondary education. There were 184 women reading in arts colleges on the 31st March last. The Government Queen Mary's College for Women, Madras, was raised to the first grade and it was affiliated in Group V of the B.A. Pass course.

European education. *Part II, para. 400.*

80. The number of schools intended for Europeans increased by 3 and the strength by 90. In the case of girls, the results of European school examinations continued to be poor. There were 65 students reading in arts colleges, but there is no separate college for Europeans. Recurring grants provided from Imperial funds for the education of the domiciled community were fully utilized.

Reformatory School, Chingleput. (1916.) *Part II, para. 407.*

81. The average strength of the school rose from 250 to 254; of the 48 admissions during the year, 23 belonged to the criminal classes. The general health of the pupils improved considerably. Eighty-two per cent of the pupils discharged during the year obtained employment and 65 per cent of them were following the trade taught them in the school. The results of the inspection of the general educational classes were satisfactory. At the Government technical examinations 90 per cent of the pupils examined were successful.

Government Examinations. *Part II, para. 408.*

82. At the Technical examinations there was an increase in the numbers of candidates for all three grades, but there was a fall in the percentage of passes in the case of the Advanced and Intermediate grades. At the Special Test examinations, there was a slight decrease in the number of examinees, but there was an increase in the percentage of passes; the results were better than those of the previous year in most tests. The receipts more than covered the expenditure.

Lawrence Memorial School. (1916.) *Part II, para. 409.*

83. Both the branches of the school maintained their strength. The results obtained at the High School examinations by both of them were very creditable, while those of the girls' branch at the Middle School examination were not so satisfactory. The health of the school was good.

School of Arts. *Part II, para. 410.*

84. There was a slight increase in the total strength and the average daily attendance. The results of the Government technical examinations were very fair, the percentage of passed to examined being 69. Nearly 45 per cent of the pupils belonged to the artisan caste. Special effort was made during the year to develop the jewellery class, the art being very useful in helping the pupils in making a good living after training.

Libraries. *Part II, para. 412.*

85. The daily average number of readers in the Connemara Public Library was 62 against 56 in the previous year. The number of standard works added to the Library considerably decreased as a large consignment was lost at sea. The peripatetic search party was working on the Sanskrit and vernacular manuscripts in the Tanjore Palace Library and consequently the number of manuscripts acquired for the Oriental Manuscripts Library decreased.

Periodicals (1916.) *Part II, para. 413.*

86. The number of periodicals slightly increased in 1916 but there was a general fall in the circulation of newspapers, a notable exception, however, being *New India* which enlarged its circulation. The same journal was also conspicuous as the leader in a campaign of vituperation against Government, which resulted in the forfeiture of the security demanded under the Press Act. The general tone of the newspapers of the Presidency was much freer and more violent politically, but their attitude towards the war was as a rule irreproachable.

Registration of books. (1916.) *Part II, para. 414.*

87. The fall in the number of books and periodicals registered during the previous year was made up in the year under report, vernacular publications and books dealing with religion being, as usual, the largest in number. Increasing political activity has resulted in a rise in the number of publications relating to politics from 11 to 58.

Government Museum and Marine Aquarium. *Part II, paras. 415 to 419.*

88. Considerable additions were as usual made to the different sections, chief among them being a stone figure of Krishna from Vijayanagara, a copper image of Natesa from Bēlūr in the Salem district with a pedestal dated 1510 A.D., and eleven aurei of the Roman Emperors Claudius I, Nero and Domitian, discovered in the compound of the Madura Mills at Madura. The demonstrations to teachers and pupils in Madras schools were continued. A catalogue of the large collection of timber specimens in the Economic Gallery was published. The Marine Aquarium attracted as usual a large number of visitors.

Meteorology. *Part II, para. 420.*

89. The publication of weather reports and rainfall returns was carried on as in previous years. The number of rain-recording stations decreased by one. Ninety-eight per cent of the stations were inspected by district officers.

Astronomy. (1916.) *Part II, para. 421.*

90. At the Madras Observatory observations are mainly confined to those necessary for maintaining an accurate time service and this work was efficiently performed throughout the year. The Kodaikānal Observatory is devoted mainly to solar work but complete meteorological, magnetical, and seismetric records are also maintained, while other astronomical observations are made when matters of special interest are involved.

VIII.—ARCHÆOLOGY.

Archæology. *Part II, para. 422.*

91. A sum of Rs. 23,794 was spent on conservation works. The old fort and temples at Udayagiri in the Nellore district and the Buddhist remains at Guntupalle in the Kistna district were surveyed and photographed. The Province of Coorg was visited and a list of works worthy of conservation was prepared.

Epigraphy. *Part II, para. 423.*

92. During the year 24 copper-plate records and 668 stone inscriptions were examined and transcribed. The Ambāsamudram and Guntūr taluks were surveyed village by village for inscriptions. Copper-plate grants discovered during the year include some valuable information about the early members of the Eastern Chālukyan dynasty. Part V of *South Indian Inscriptions*, Volume II, was issued.

IX.—MISCELLANEOUS.

Ecclesiastical. *Part II, paras. 425 and 426.*

93. The Bishop of Madras was absent on leave for six months from the 29th April 1916. The services of five chaplains were placed at the disposal of the Government of India in the Army Department for active service in Mesopotamia. Owing to the shortage of chaplains on the establishment the Government of India sanctioned the appointment of two missionaries as temporary chaplains. At the close of the year there were in all 258 clerks in Holy Orders officiating under the licences of the Bishop of Madras and the Bishop in Tinnevelly and Madura.

Stationery. *Part II, para. 427.*

94. The value of stock on hand was Rs. 8·08 lakhs against Rs. 9·28 lakhs in 1915–16, the decrease being due to a fall in receipts during 1915–16. The value of stores issued was Rs. 7·4 lakhs against Rs. 9·4 lakhs. The decrease is chiefly due to the curtailment in the issue of paper and other articles of stationery. The value of the closing balance for the year was Rs. 7·2 lakhs against Rs. 8·1 lakhs in 1915–16, the fall being explained by the decrease under receipts.

Government Press, Madras. *Part II, paras. 428 to 431.*

95. There was a fall both in the receipts and in the expenditure of the Government Press, due in the former case to less chargeable work and smaller sales of Acts and books and in the latter mainly to reductions in printing orders. Work equal to 274,919 standard pages with 118,578,300 impressions was turned out.

District presses. *Part II, para 432.*

96. There was a decrease in the value of the work done by district presses during the triennium. The cash receipts, however, showed an increase, which was chiefly due to the insertion of a larger number of private advertisements in District Gazettes. There was a slight decrease under charges.

Chemical Examiner's Department. (1916.) *Part II, paras. 433 to 435.*

97. The total number of cases investigated by the Chemical Examiner in 1916 was 2,152 against 1,099 in the previous year. Of the cases investigated, 1,582 were general analyses and other work for various Government departments, municipalities and private parties. The increase in the general analyses was chiefly due to articles examined for the Customs Department. Poison was detected in 46·7 per cent of the cases of suspected human poisoning and in 59 per cent of the cases of suspected animal poisoning.

Charitable institutions. *Part II, paras. 436 to 438.*

98. Excluding dispensaries, there were during the year under report 3,076 charitable institutions in the Presidency, with an income of Rupees 14·05 lakhs, 92 garces of paddy and 26 muras of rice. Of these institutions, 2,017 were maintained entirely by means of subscriptions and donations from the general public and endowments in land and money, the total receipts from these sources amounting to Rs. 7·33 lakhs. Of the remaining institutions some were supported by Government, some partly by Government and partly by the public and the remainder by local bodies. 1,940 institutions were intended to provide travellers with accommodation and in many cases with food and other supplies. For the relief of paupers, 391 institutions were maintained. There were 362 institutions exclusively devoted to giving help to Brahmans and Byragis. The total number of persons aided during the year at all the charitable institutions was 11,418,427.

Muhammadans in the service of Government. *Part II, para. 439.*

99. As in previous years, by far the greater number of Muhammadans who entered the superior service of Government joined the police force; 135 Muhammadans entered the police force and 40 joined the superior service in other departments. The total number of Muhammadans in superior service was 8,355, or 210 less than last year's figure. The percentage of Muhammadans in the total number employed was 14·13 as against 14·14 in 1915–16.

PART II.

PARTMENTAL CHAPTERS, ETC.

CHAPTER I.

PHYSICAL AND POLITICAL GEOGRAPHY.

PHYSICAL.

PHYSICAL FEATURES OF THE COUNTRY, AREA, CLIMATE AND CHIEF STAPLES.

1. *Vide* pages 1 to 10 of the Report on the Administration of the Madras Presidency during the year 1911–12.

POLITICAL.

HISTORICAL SUMMARY.

2. *Vide* pages 11 to 33 of the Report on the Administration of the Madras Presidency during the year 1911–12.

FORM OF ADMINISTRATION.

3. *Vide* pages 34 to 54 of the Report on the Administration of the Madras Presidency during the year 1911–12.

CHARACTER OF LAND TENURES.

4. *Vide* pages 55 to 60 of the Report on the Administration of the Madras Presidency during the year 1911–12.

SYSTEM OF SURVEY.

5. *Vide* pages 61 to 72 of the Report on the Administration of the Madras Presidency during the year 1911–12.

SYSTEM OF SETTLEMENTS.

6. *Vide* pages 73 to 86 of the Report on the Administration of the Madras Presidency during the year 1911–12.

CIVIL DIVISIONS OF THE BRITISH TERRITORY.

7. *Vide* pages 87 to 100 of the Report on the Administration of the Madras Presidency during the year 1911–12.

DETAILS OF THE CENSUS OF 1911—TRIBES AND LANGUAGES.

8. *Vide* pages 101 to 104 of the Report on the Administration of the Madras Presidency during the year 1911–12.

CHANGES IN THE ADMINISTRATION. (1916–17.)

Personnel.

9. His Excellency the Right Hon'ble Lord Pentland, P.C., G.C.I.E., continued as Governor throughout the year 1916–17. The Hon'ble Sir Harold Stuart, K.C.S.I., K.C.V.O., I.C.S., resigned his office as an Ordinary Member of Council from the 12th October 1916 and the Hon'ble Mr. H. F. W. Gillman, I.C.S., was appointed as permanent Member of Council to fill the vacancy. The term of office of the Hon'ble Sir Pazhamarneri Sundaram Ayyar Sivaswami Ayyar, K.C.S.I., C.I.E., expired with effect from the 26th February 1917 and M.R.Ry. the Hon'ble Diwan Bahadur P. Rajagopala Achariyar Avargal, C.I.E., was appointed a permanent Member of Council to fill the vacancy.

RELATIONS WITH TRIBUTARY STATES AND FRONTIER AFFAIRS.

TRAVANCORE STATE.

(M.E. 1091—17TH AUGUST 1915 TO 15TH AUGUST 1916.)

[*Report on the Administration of Travancore State for the year 1091 M.E.*]

[The Maharaja of Travancore is a Kshatriya. His age is 60. He has a male heir. The area of the State is 7,129 square miles and the population according to the census of 1911 is 3,428,975. The annual subsidy paid to the British Government is Rs. 8,10,652. The gross revenue is estimated at Rs. 1,52,79,386.]

Political.

10. In April 1916, His Excellency the Governor of Madras visited the planting districts in North Travancore. On the 19th April His Highness the Maharaja left for Coonoor and stayed there for a month.

General.

11. The ordinary expenditure of the year was Rs. 1,45,75,660, resulting in a surplus of Rs. 7,03,726. Setting off this surplus against the capital expenditure on the extension of the railway from Quilon to Trivandrum, there was a net deficit of Rs. 3,44,780, thus reducing the Darbar balance from Rs. 49,02,047 at the beginning of the year to Rs. 45,57,267 at its close. The adverse effect of the war was not, on the whole, felt to the same extent as in 1090. The revenue from Stamps and the receipts under Registration increased. The revenue from Customs, however, still suffered, owing to increase of freights and difficulty of securing adequate tonnage. Excise revenue was seriously affected by the disturbance of economic conditions caused by the war and declined by more than a lakh during the year. Forest revenue also suffered to some extent, owing to the dullness of the timber market, both in and outside the State. The other sources of revenue have been consistently growing, in spite of war conditions. The amount payable by the Darbar to the South Indian Railway Company to make up the guaranteed interest to the debenture holders of the Quilon-Shencottah section of the Tinnevelly-Quilon Railway has fallen, owing to the development of traffic on this section.

Administration.

12. The current demand was Rs. 36·54 lakhs, showing an increase of Rs. 7 lakh on the demand. There was a perceptible fall under non-seasona remissions, while the seasonal remissions showed a slight increase and th Land Revenue collections on account of the current demand amounted t nearly 97 per cent in 1091 against 99 per cent in the previous yea

Compared with 1090 the volume of coercive action taken during 1091 shows an increase under all the heads owing to the tightness of the money market.

Protection and Legislation.

13. Four ordinary meetings of the Legislative Council were held during 1091. Three Regulations were passed by the Council during the year. Besides these, three Regulations were passed direct by His Highness the Maharaja; the most important of these is a Regulation to make better provision for the protection and efficient working of the British Electric Telegraph in Travancore.

Police.

14. At the end of the year the actual strength stood at 1,850. There was an increase of 12 in the number of policemen prosecuted, as compared with 1090. The percentage of conviction was 8 against 4 in the previous year. The number prosecuted by private parties was 77, and of these prosecutions only three ended in conviction. The total number of cognizable cases for disposal was 3,631, out of which 976 were referred as false, 411 transferred to the undetected list and 1,985 were charged.

Jails.

15. Nine hundred and seventy prisoners were admitted into prison. Of this number 842 had been convicted, 42 were under trial and 86 were civil prisoners.

Criminal Justice.

16. Seventy-three courts exercised criminal jurisdiction, i.e., one less than in the previous year. The number of offences reported rose from 19,353 to 21,850, of which 14,412 were offences under the Penal Code and 7,438 under special and local laws against 14,082 and 5,271 respectively in 1090. The number of juvenile accused rose from 204 to 274. The number of public servants prosecuted and the number convicted rose from 179 and 8 to 225 and 11, respectively. Two hundred and sixteen prosecutions were started by private individuals and of these three ended in conviction. Eighty per cent of the total number convicted by the magistracy were sentenced to fines only against 74 per cent in the previous year. Twelve magistrates exercised appellate jurisdiction and there were 1,598 appeals for disposal, of which 1,553 were disposed of. 177 cases were committed to the Sessions Courts and of the 431 persons involved 51 per cent were convicted. The appeals fell from 522 to 492. The High Court dealt with 5 referred cases, 210 appeals and 642 revision cases.

Civil Justice.

17. In the 44 civil courts there was, including original suits and appeals, an increase of 9,622 cases. In the munsifs' courts the institutions of the year rose from 60,563 to 70,308, there being an increase under both ordinary suits and small causes. The arrears increased from 18,732 to 21,285. The number of suits of between one and two years' duration fell from 4,525 to 4,473, while those of more than two years' duration rose from 987 to 1,000. The average duration of contested cases disposed of fell from 9 months and 24 days to 9 months and 23 days. In the district courts the number of ordinary suits instituted during the year went down from 737 to 594; the disposals fell from 730 to 703 and exceeded the institutions by 70. The average duration of contested suits disposed of fell from 16 months and 25 days to 15 months. Original litigation was very heavy during 1091 and the increase is noticeable in all grades except in suits of the highest value. In the High Court the institutions of the year numbered 573 first appeals and 526 second appeals, against 544 and 529 respectively in 1090. The disposals were 41 per cent of the cases against 44 in the year preceding.

Registration.

18. The total number of documents presented for registration and the aggregate value of the transactions rose. The increase was due to the improved economic conditions of the State. The ratio of the expenditure to the gross income was 39 per cent against 41 per cent in 1090.

Production and Distribution.

19. The season was on the whole not very favourable to agriculture. The prices of food-grains and the wages of labour were higher than in 1090. The experimental silk farm at Trivandrum continued to be worked on the same lines as in previous years, and a sericultural school was started at Nanthancode under the management of the Salvation Army. Successful attempts were made during the year towards the development

of sugarcane and groundnut in one taluk. It is gratifying to note that widespread interest is being evinced by the ryots in agricultural improvements generally.

Factories.

20. At the end of the year there were 94 factories against 86 in the previous year; of these 44 were for tea-making. Two of the four factories in the Devicolam division are worked by electric power. The total number of operatives at work was 6,143 including 978 women and 1,321 children.

Trade.

21. The value of the exports was British Rs. 4,32,14,127 and that of the imports Rs. 2,95,64,627. Nine per cent of the external trade was by sea, 53 per cent by backwater and 38 per cent by land. There was a large increase in the export of copra, coir, coffee, hides and rubber, but there was a decrease in tea and pepper. The trade in the produce of the coconut tree, the duty on which alone formed 69·3 per cent of the collections from dutiable exports, showed an increase of British Rs. 19,31,406 as compared with the previous year. The total value of the rice and paddy imported during the year was British Rs. 1,43,66,519. As usual the bulk of the trade was with British India.

Public Works Department.

22. The total expenditure on Public Works amounted to Rs. 27,22,845. The net outlay on the Kodayar project works during the year was Rs. 34,476, the total outlay on the project up to the end of 1091 being Rs. 80,01,511. 45,541 acres were under irrigation. Rs. 4·43 lakhs were spent on the maintenance of main roads; the average cost of maintenance was Rs. 176 per mile. On new roads and canals Rs. 5·1 lakhs were spent.

Railways.

23. The railway from Shencottah to Quilon continued to work at a loss. The construction of the Quilon-Trivandrum extension is in progress. The amount spent by the Darbar on account of the extension in 1091 was Rs. 10,48,506 against Rs. 13,45,020 in 1090, the total expenditure till the end of 1091 being Rs. 29,54,993.

Anchal.

24. There were 214 offices and 295 letter boxes and the total length of the mail line at the end of the year was 1,266 miles against 1,284 in 1090. The receipts were Rs. 1·92 lakhs and the cost of the department was Rs. 1·72 lakhs. The Savings Bank system was introduced in five more Anchal offices; 34 offices were doing Savings Bank work against 29 in the previous year. 2,431 new accounts were opened.

Vital statistics and Medical services.

25. The number of births registered during the year was 70,404 and the number of deaths 46,707 against 72,380 and 46,754, respectively, in 1090. The birth and death rates were 20·5 and 13·6 per mille, respectively, against 21·1 and 13·6 in the preceding year.

Diseases.

26. There was a further decrease in mortality from cholera. 13,027 infants were vaccinated during the year against 12,648 in 1090, the percentage to registered births being 18·5 against 17·4 in the previous year. Mortality from small-pox decreased from 223 to 130.

Medical service.

27. Twenty-seven hospitals and 26 dispensaries gave medical relief to 869,563 persons. There was an increase in the number of out-patients treated. The 49 midwives attended 3,751 cases, giving an average of 77 cases for each midwife in the year.

Education.

28. The chief events of the year are the introduction of vernacular teaching in non-language subjects in the lower forms of secondary schools, the extension of higher elementary education, the improvement of the system of training elementary teachers and the institution of scholarships for technical studies in foreign countries. Special attention continued to be paid to the progress of Muhammadan education. Taking the number of children of school-going age to be roughly 15 per cent of the total population, 62 per cent of the population of school-going age were attending recognized schools in 1091 against 51·1 per cent in 1090. The number of colleges affiliated to the University of Madras was five and their strength rose from 750 to 862. The number of recognized secondary schools remained the same as in 1090, viz., 79, and their strength rose from 18,840 to 20,646; many new elementary and girls' schools were opened.

COCHIN STATE.

(M.E. 1091—17TH AUGUST 1915 TO 15TH AUGUST 1916.)

[*Report on the Administration of the Cochin State for the year 1091 M.E.*]

[The Raja is a Kshatriya. He is 58 years of age and has male heirs. He pays a tribute of Rs. 2,00,089 and maintains a military force of 290 men. According to the census of 1911 the population of the State was 918,110. The gross revenue of the State was Rs. 48·17 lakhs. The Resident for Travancore is also the Resident for Cochin.]

General and Political.

29. The chief event of the year was the visit of His Highness the Raja to Madras on the invitation of His Excellency the Governor of Madras to join the Committee formed to supervise the management of the Madras People's Park Fair and Exhibition held for the benefit of the War Fund in December 1915. The hot weather of 1091 was spent by His Highness at Coonoor. Mr. R. A. Graham, I.C.S., continued to be the British Resident throughout the year. Mr. J. W. Bhore, I.C.S., held the office of Diwan.

Finance.

30. The actual transactions of the year resulted in a surplus of Rs. 3·46 lakhs, the gross revenue and expenditure being Rs. 48·17 lakhs and Rs. 44·71 lakhs respectively. The receipts for 1091 showed an increase of Rs. 1·97 lakhs over those of the previous year. The increase is chiefly noticeable under the heads Salt, Stamps, Abkāri and Ganja, Registration, Interest, Education, Public Works and Railway. There were on the other hand decreases under a few heads, notably under Land Revenue, Customs, Tobacco and Forests. The State had at the end of the year a net asset of Rs. 17 lakhs after completely providing for all liabilities, against Rs. 13·62 lakhs at the beginning of the year.

Legislation.

31. Five Regulations were passed during the year, one of the most important being the Regulation to amend the Cochin Hindu Religious Institutions Regulation. At the close of the year there were ten legislative measures under consideration of the Darbar.

Village Panchayats.

32. Seven more village panchayats were constituted bringing the total number up to 17. The panchayats in most cases gave a good account of themselves.

Anchal.

33. The value payable system was introduced in the Anchal offices of the State, but the system has not yet been made reciprocal with Travancore.

Production and Distribution.

34. During the year there was a partial recovery in trade and business activities due to a partial adaptation of trade to war conditions. The total area under cultivation during the year was 500,053 acres, 207,271 acres being under wet or paddy. The total current demand for the year under Land Revenue proper was Rs. 10,71,933 as against Rs. 10,71,359 in 1090. The demand under capital fell considerably owing to the fact that there were no accretions or other valuable lands for sale as in previous years. The total Land Revenue collected under all heads amounted to Rs. 11,45,792 or 99·9 per cent of the demand.

Land Revenue.

Diseases of crops.

35. The chief diseases of crops were the mahali of arecanut palms and the coconut leaf disease. Spraying was done on a large scale against both diseases with good results.

Co-operative Societies.

36. Fifteen societies were registered during the year as against 8 in the previous year, and at the end of the year there were 23 societies in working order. Almost all the loans issued were for productive and useful purposes; they amounted to Rs. 24,418.

Forests.

37. The forests continued to be worked under the system of selection felling by extraction of timber of specified girths, the trees being marked by the department. No new working-plans were drawn up during the year. The rubber trees were satisfactory and yielded well. The net revenue of the department for the year amounted to Rs. 3,44,048, against which had to be set off a sum of Rs. 1,21,520 on account of the maintenance charges of the forest tramway for the year, which was debitable to

the Forest Department. The actual net revenue therefore was Rs. 2,22,528 as against Rs. 2,15,963 in 1090.

Tramway. 38. There was no extension of the tramway during the year. The cost of maintenance was Rs. 1·14 lakhs as against Rs. 1·15 lakhs in the previous year and the receipts under private traffic during the year amounted to Rs. 24,687 as against Rs. 23,435 in the previous year.

Railway. 39. The State Railway was worked by the South Indian Railway Company. The gross earnings amounted to Rs. 6·94 lakhs and the net earnings gave a return of 2·91 per cent on the capital outlay.

Protection. Police. 40. The permanent establishment of the force consisted of 91 officers and 495 men, the ratio of effective police to population and area being 1 to 1,651 persons and 1 to 2·54 square miles respectively. All the men in the force can read and write. The River Police staff sanctioned in 1089 continued as a temporary institution in the year under report. The number of cases under the Penal Code and local and special laws was 1,206 as against 1,075 in 1090, and the percentage of convictions to charged cases rose from 87·9 in 1090 to 89·1 in 1091. There was a further increase in the number of grave crimes reported during the year (630 against 523 in 1090). The amount of lost property recovered was 53·10 per cent as against 67·77 per cent in 1090. The average cost of a policeman was Rs. 202·07 and the net cost per head of population was 2 annas.

Criminal Justice. 41. 3,316 cases were disposed of by the Magistrates and the percentage of convictions fell from 32·9 in 1090 to 31·7 in 1091. Appeals were filed in 26·2 per cent of the cases in which an appeal lay against the decisions of Second-class Magistrates, compared with 31·7 in 1090. The original decision was confirmed in 62·98 per cent of these cases. In the Sessions Courts 40 cases were disposed of. The expenditure under criminal justice amounted to Rs. 55,823 as against Rs. 55,072 in 1090.

Jails. 42. The number of convicts, under-trials and civil prisoners admitted during the year was 414, 3 and 104 respectively. The convicts were, as usual, supplied with clothing manufactured in the Central Jail. The coir industry was resumed towards the close of the year.

Civil Justice. 43. The total number of suits instituted and appeals filed in the year was 15,855 and 964 as against 13,491 and 922 respectively in the previous year. The munsifs disposed of 15,222 cases. Of the 1,240 suits pending at the end of the year, 5 were over three years and 2 over two years old. The District Judge disposed of 713 appeals leaving 269 as arrears as against 604 and 283, respectively, in the previous year. The average duration of contested regular and second appeals disposed of by the Chief Court was 267 and 202 days respectively against 345 and 241 days respectively in 1090.

Registration. 44. The number of registry offices was 21 and 51,536 documents were registered, showing an increase of 7,196 on the previous year.

Vital Statistics and Medical Services. 45. Compulsory registration of births and deaths under Regulation II of 1081 was in force in the same towns as in the previous year. The number of births registered was 15,414 as against 16,489 in the previous year. The total number of deaths was 10,037 as against 10,486 in 1090. The percentage of births and deaths during the year to population was 1·67 and 1·09. Public health was satisfactory throughout the year. There was only one death from cholera, whereas small-pox was fatal in 48 cases.

Medical relief. 46. The opening of the King Edward Memorial Maternity Hospital raised the number of medical institutions in the State at the end of the year to 27, viz., 11 hospitals, 14 dispensaries and 2 asylums. Nearly 290,000 patients were treated. The number of patients treated by female medical subordinates decreased from 45,000 to 40,779. With the opening of the King Edward Maternity Hospital a beginning was made in training midwives. The three veterinary institutions continued to work with success. The total expenditure on account of medical relief, including the two asylums and the three veterinary institutions, was Rs. 1,44,099 as against Rs. 1,21,280 in the previous year.

Sanitation and Conservancy. 47. As in the previous year there were six towns under health officers. The compulsory scavenging system continued to work in some of the towns. Lighting was done departmentally.

Work of the Town Councils. 48. The total Government contribution to the town councils was Rs. 60,430. The scheme of supplying the town of Ernakulam with drinking water from the Periyar river as well as the construction of the foreshore wall at Ernakulam and the improvements to the Palathode and Padiathode canals were practically completed by the close of the year.

Vaccination. 37,249 vaccinations were performed, and of these 88·32 per cent were successful as against 90·60 per cent in the previous year.

Public Works. 49. The expenditure under State Public Works during the year was Rs. 5,17,346 as against the budget grant of Rs. 5,36,500. Three new roads were opened during the year and 489 miles of roads were under the maintenance of the department.

Instruction. 50. The net expenditure by the State on education was Rs. 3,98,257 or Rs. 20,968 more than in 1090. The total number of State schools was 133 as against 131 in 1090, but the number of aided schools rose from 162 in 1090 to 177 in 1091. The total number of pupils under instruction during the year was 74,505 as against 67,096 in the previous year. 35·2 per cent of the educational work was done by the State institutions. 75·5 per cent of the boys and 32·8 per cent of the girls of school-going age attended school as against 68·3 and 29·3 respectively in 1090. Upper secondary education was imparted in 15 schools as against 14 in the previous year. The strength of the high school departments of the nine State high schools rose from 941 to 1,016. The number of aided high schools was six. The grants-in-aid given by the State to the aided high school departments amounted to Rs. 6,930 as against Rs. 5,808 in 1090, the average cost to the State per pupil instructed being Rs. 9 as against Rs. 12 in the previous year. The number of schools in which lower secondary instruction was imparted during the year was 36 as against 32 in 1090. Primary education was given in 1,354 schools as against 1,329 in 1090. There were two complete high schools for girls. The total amount of grants disbursed during the year was Rs. 1,28,531 as against Rs. 1,08,349 in 1090. The increase was due to the employment of better qualified teachers and to the subsidizing of new schools. Besides grants-in-aid to schools a sum of Rs. 10,983 was spent during the year for stipends and scholarships.

Military. 51. Including the Infantry and Artillery, the Nayar Brigade consisted of 25 officers and 248 men.

PUDUKKŌTTAI STATE.

(FASLI 1326—1ST JULY 1916 TO 30TH JUNE 1917.)

[*Report on the Administration of Pudukkōttai for fasli 1326.*]

[The Raja, His Highness Sri Brihadamba Das Raja Sir Marthanda Bhairava Tondaiman Bahadur, G.C.I.E., is a Kallar by caste and is 41 years of age. The population of the State according to the census of 1911 is 411,878. The Raja pays no tribute and maintains a military force of 110 infantry and 18 cavalry. The Collector of Trichinopoly is ex-officio Political Agent for the State.]

General. 52. On July 22, 1916, the Rani gave birth to a son. His Highness the Raja returned to India in the last week of December 1916 and left for Australia early in March 1917. The Legislative Advisory Council met twice during the year and passed two Regulations.

Revenue and Finance. 53. The revenue of the State increased under most of the principal heads, and the total rose from Rs. 18·71 lakhs in fasli 1325 to Rs. 19·06 lakhs in the current fasli. The receipts were Rs. 1,09,225 more than the budget estimate, the increase being chiefly under Land Revenue, Stamps,

Forests and Interest. The expenditure totalled Rs. 16·93 lakhs against Rs. 18·60 lakhs in 1325. The chief decrease was under Civil Works. The opening balance of the fasli was Rs. 28·50 lakhs and it closed with a balance of Rs. 30·62 lakhs, of which a sum of Rs. 11·77 lakhs is invested in Government securities, Rs. 16·75 lakhs in fixed deposits with the Bank of Madras and Rs. 3·46 lakhs in the Indian War Loan. The expenditure on Public Works was Rs. 4·48 lakhs, Rs. 1·14 lakhs were spent on irrigation, Rs. 1·21 lakhs on the new palaces and Rs. ·81 lakh on communications. The season was unfavourable, for the rainfall, though in excess of the average, was untimely. Still, the price of food-grains showed a tendency to fall, the fall in the case of cholam and cumbu being somewhat marked. Land Revenue. Of the total demand under Land Revenue which was Rs. ·35 lakh less than in fasli 1325, 98·95 per cent was either collected in the fasli, written off, or adjusted. This is, in view of the unfavourable character of the season, a satisfactory result. Rs. 74,964 were realized in the fasli from the sale of house-sites and redemption price levied on agricultural lands converted into house-sites in Chetti nathams. The number of co-operative societies increased from 21 to 22, while the total membership rose from 3,268 to 4,102. The expenditure under Land Revenue was Rs. 1,13,032 or 11·57 per cent of the actual collections. Inam survey operations have been nearly completed; there remained at the close of the fasli only nine villages to be dealt with. There was an outlay of Rs. 14,424 on the work during the fasli. During the fasli field correction work in respect of three nathams already settled and regular survey of the new natham formed in fasli 1325 were taken in hand and carried out. One Chetti natham was settled during the fasli.

Abkāri. Stamps. 54. The total Abkāri revenue, inclusive of the contribution from the British Government, aggregated Rs. 2,93,458 as against Rs. 2,75,135 in fasli 1325. The revenue realized from Stamps was Rs. 2,27,105 against Rs. 2,23,613 in the previous fasli.

Law and Justice. Criminal Justice. 55. In the Court of Sessions there were 10 cases for disposal. Of these 8 cases involving 17 persons were disposed of and 11 persons were convicted. In the Magistrates' Courts 3,859 cases were disposed of against 4,027 cases in the previous fasli. The percentage of conviction fell from 40·52 to 38·58. The average duration of cases was 14·40 days and 52 cases were pending over three months. The total number of appeals on the original side of the Chief Court was 12, in six of which the conviction was reversed. Fourteen appeals were disposed of on the appellate side, the original decision being confirmed in 11 cases. There were 46 revision petitions. The Chief Magistrate heard 72 appeals.

Civil Justice. 56. The total number of suits on the original side for disposal was 10,631 against 9,973 in the preceding fasli. 9,603 suits were disposed of leaving a balance of 1,028 cases pending against 1,230 cases in the preceding fasli. The number of regular suits for disposal was 2,872, of which 2,307 were disposed of. The percentage of disposal was as 78·49 against 80·22 in the previous fasli. The average duration of contested suits fell from 207 days in the previous fasli to 164. Of the suits concluded 189 lasted over one year and 170 over six months. The percentage of disposal of small cause suits was 92 and the average duration was 81 days as against 82 days in the previous fasli. Similarly the Registrar disposed of his suits more quickly, but there was a slight deterioration in the Court of the rural Small Cause Judges. There was a further increase in the average duration of regular appeals—282 days against 245.

Prisons. 57. 281 prisoners consisting of 94 convicts, 91 under-trials, 94 civil prisoners and 3 lunatics were admitted into the Central Jail and 265 were discharged. The accommodation for the prisoners was ample and their health was good. There were no escapes during the fasli and one convict who had escaped during the previous fasli was recaptured. A sum of Rs. 413 was realized by the sale of garden produce and there was a net income of Rs. 2,445 from the jail industries on an outlay of Rs. 7,873. The

expenditure on the Central Jail amounted to Rs. 7,636 or Rs. 126 per head of the average daily population as against Rs. 118 per head in the previous fasli.

Police. 58. The Police force consisting of a Deputy Superintendent, 3 Inspectors, 11 Sub-Inspectors, 27 head constables and 195 constables was under the control of the District Superintendent of Police, Trichinopoly. Although the strength has been reduced there is still a shortage of 36 men. The number of cases of all kinds rose from 2,136 to 2,142 and the percentage of detection was 83 against 87 in the previous fasli. Grave crimes increased from 285 to 312. One case of murder, 8 cases of dacoity, 16 cases of robbery and 102 cases of house-breaking were reported. The murder case was undetected. Of the dacoity cases one was undetectable, three were false and of the remaining four, one was discharged and three were pending trial. None of the robbery cases ended in a conviction. Of the 102 house-breaking cases, 10 were detected. The general conduct of the force judging by the number of punishments was unsatisfactory.

Education. 59. The educational institutions under the direct management of the State consisted of a second-grade college, 2 lower secondary schools, 3 special and 181 primary schools. One incomplete secondary school and 152 primary schools received grants-in-aid from the State and there were 67 unaided schools. The secondary schools showed a slight increase in strength together with a slight fall in average attendance. The number of State primary schools increased by 11 and that of aided schools by 13, but the number of unaided schools fell from 91 to 67. The total number of boys under instruction increased from 13,546 to 14,029, or 47·58 per cent of the male population of school-going age. There were 19 girls' schools, 8 of them being reserved for Muhammadans. The total number of girls in all the schools was 1,751. During the fasli 26 school-houses were repaired and 7 were newly constructed. An improvement was made in the pay of teachers under training. The expenditure exclusive of the college was Rs. 76,502 against Rs. 68,574 in the previous fasli. The number of pupils at the college was 663. In the intermediate examination 9 candidates out of 22 passed, while in the school-leaving examination 34 out of the 73 pupils were declared eligible for the college course.

Vital statistics and Medical services. 60. There were no deaths from cholera and victims of small-pox numbered 300, whereas in fasli 1325 the deaths from cholera and small-pox were 568 and 619 respectively. The total number of births and deaths registered during the year was 7,551 and 7,022 respectively and the rates per mille were 18·33 for births and 17·05 for deaths. Effective steps are being taken to ensure accurate registration. The medical institutions consisted of a hospital, a women and children's dispensary and 9 rural dispensaries. There was a general increase in the number of patients and a corresponding rise in the expenditure (Rs. 53,400 against Rs. 36,606). The total number of cases vaccinated was 11,642 against 11,187 in the previous fasli, but the percentage of successful cases declined from 92·41 to 92·24.

Local Bodies. 61. The municipal council held 30 meetings in the fasli but 7 had to be adjourned for want of a quorum. The Jewell filters worked satisfactorily and the pipe water was reported to be maintaining its purity. The cost of pumping filtered water was Rs. 2,928. A new tank was dug and 13 others were reserved for drinking purposes only. Steps are being taken to have the drainage question investigated and a scheme prepared. The total receipts of the municipality including the State grant of Rs. 14,000 amounted to Rs. 55,475 and the expenditure was Rs. 51,426. The income from taxation was Rs. 15,168 or As. 8–8 per head of the population. The expenditure of the five unions fell considerably below that of the previous year, but some attention was devoted to the improvement of sanitation in non-union villages, in several of which a small scavenging staff was maintained out of State funds.

BANGANAPALLE STATE.

[*Administration Report of the Banganapalle State for the official year 1916–17.*]

[Nawab Saiyid Ghulam 'Ali Khan Bahadur, a Muhammadan of the Shiah sect, is the ruler of the State. He is 43 years old and has male heirs. He pays no tribute and maintains no military force. The population of the State is 39,356 (1911 census). The Collector of Kurnool is Political Agent.]

General.

62. The most important event of the year was the devastation of the town of Banganapalle by the floods of the river Zurreru on 31st October. From 15th to 31st October, 19·49 inches of rain fell, the rainfall of the 30th October being 9·50 inches. On the morning of the 31st the Jolapuram tank, 7 miles from Banganapalle, breached and emptied its waters into the already swollen river. The floods in the town only lasted for 25 minutes, but nearly 1,000 houses were washed away. Only 17 lives were lost, the smallness of the number being largely due to the timely and energetic action of the police. The homeless people were sheltered and fed in the Nawab's palace. The damage caused by the flood is roughly estimated at nearly seven lakhs of rupees. A relief fund amounting to Rs. 12,000 was raised, and Government on the recommendation of the Political Agent sanctioned the grant free of seigniorage to the amount of Rs. 2,946–14–0 of timber from the reserved forest in the Kurnool district for the relief of the poor whose houses were destroyed. Owing to this disaster, practically all public works were suspended during the latter part of the year with a view to economy.

Financial.

63. The total income for the year was Rs. 2,68,859 or Rs. 13,519 less than the revenues of the previous year. The chief decreases were under Land Revenue and Forests, and are ascribed to the abnormal rains. The total expenditure was Rs. 2,48,489 which is Rs. 25,567 less than the expenditure of 1915–16. The Nawab continued his monthly contribution of Rs. 350 to the Madras Hospital Ship fund.

Education.

64. The highest education imparted in the State is up to the lower secondary standard. There were 27 State schools including two girls' schools. The total average attendance in the State schools was 918, which is nearly a hundred less than last year. In addition to these, the State aided 7 mission elementary schools for Panchamas, with a total average attendance of 46. There were also four State-aided private schools, including one for Muhammadan girls. These schools had an attendance of 64, more than half of whom were girls.

Public Security and Crime.

65. The work of the Police Department was most satisfactory. There was a marked fall in the amount of crime and an encouraging increase in the percentage of stolen property recovered. The strength of the force was slightly increased.

Public Health and Sanitation.

66. The hospital did useful work, though it was badly damaged in the floods. The average daily number of out-patients increased from 102 to 116, while that of in-patients declined from 10 to 8. Vaccination was for a time completely stopped by the floods, all the records being lost and a large number of the people homeless. There were no epidemics, but the death-rate increased from 17·28 to 31·94.

Forests and Industries.

67. The floods did great damage to the forests, and steps are being taken to restock the blanks. The weaving factory also suffered severely, all the new looms being washed away and damage to the amount of Rs. 1,650 was caused. Sales of goods manufactured in the factory amounted to Rs. 2,659, but there was a total loss of Rs. 1,782 on the year's working. The sericultural industry has for the time being been ruined by the floods, which swept away the whole of the building, equipment and mulberry plantation.

SANDUR STATE.

[*Administration Report of the Sandur State for the official year 1916–17.*]

[The Raja of Sandur, Raja Srimant Venkatrao Rao Sahib, Hindu Rao Ghorpade Mamlukatmadar, Senapati, is a Mahratta. He is 25 years of age. He pays no tribute and maintains no military force. The population of the State is 13,517 (1911 census). The Collector of Bellary is ex-officio Political Agent, exercises a general supervision over the administration and is also Sessions Judge for Sessions cases and appeals.]

General and Political.

68. M.R.Ry. A. Subbaraya Mudaliyar Avargal continued to hold the office of Diwan.

Revenue and Finance.

69. No income was derived from the mines during the year owing to their closure on account of the war. The revenue rose in 1916–17 from Rs. 71,315 to Rs. 73,620, whereas the expenditure fell from Rs. 63,898 to Rs. 63,166.

Protection. Police. Courts.

70. The scale of pay of police constables was revised so as to make the service more attractive. There was no grave crime, and a marked decrease in petty crime. Detection work was good. The Diwan as first-class Magistrate of Sandur, disposed of 144 out of 145 cases filed, and as District Munsif disposed of 33 suits out of 36. There were no criminal appeals. Three civil appeals filed in the Raja's Court are pending. The cost of the maintenance of the jail was Rs. 95, while Rs. 58 was earned by the prisoners' labour.

Production and Distribution.

71. The season was good, except that the heavy rains at the end of October damaged the crops. The total rainfall was 40·19 inches against an average of 31·11 inches for the previous five years. Crops were fair and good wages caused a rise in the price of food-grains to be little felt. The total receipts from forests were Rs. 18,445 against Rs. 14,228 in the previous year while the cost of the establishment (including the game preservation staff) rose from Rs. 1,368 to Rs. 1,496. With a view to encourage trade, the octroi import duty was abolished and replaced by an increase in toll fees with satisfactory results. The agricultural banks paid a dividend of 10 per cent.

Public Health and Vital Statistics.

72. 11,634 patients were treated at the State dispensary as against 11,366 in the previous year. The midwife attended to 151 cases. The cost of maintaining the dispensary was slightly less than in 1915–16. Public health was good. There was a small outbreak of plague which was checked by prompt evacuation, the number of deaths being 12. The birth-rate was 27 and the death-rate 20 per mille, as compared with 29 and 18 respectively in the previous year. Three hundred and thirty-three cases were vaccinated as against 337 in 1915–16, and the percentage of success was 84·08. Rupees 1,081 were spent on the improvement of congested areas.

Education.

73. There are eleven elementary schools in the State, of which eight are maintained entirely from the State funds. The attendance at the elementary schools on 31st March 1917 was 418 against 351 in the previous year. The expenditure on education rose from Rs. 2,195 to Rs. 2,227.

CONDITION OF THE PEOPLE.

(FASLI 1326—1ST JULY 1916 TO 30TH JUNE 1917.)

[*Season and Crop Report for fasli 1326 (1916–17).*]

74. The heavy rainfall during the monsoon in the Kistna district brought down floods in some of the rivers and necessitated the grant of remissions on a large scale in four taluks. Nevertheless the season was, on the whole, favourable to agricultural operations except in Cuddapah for dry crops and in Tinnevelly for wet crops. The area under first crop cultivation was 34,320,000 acres against a normal extent of 33,767,000 acres and the total cropped area was 39,052,000 acres against a normal

area of 38,166,000 acres. Paddy, groundnut and indigo were very largely grown, but the extents under cholam and cotton were much below the normal. Paddy increased chiefly in Anantapur and Kistna. The decline in cholam cultivation was mainly in the Deccan and was due to the preference given to other crops such as groundnut and indigo for which very high prices prevailed at the times of sowing. The decrease in the extent under cotton is directly attributed to the influence of the war and the consequent transport difficulties. The harvest prices of the principal food-grains were generally at or above the level of those prevailing in the previous year except those of rice in nine districts, of ragi in six districts, of cholam in Nellore and Trichinopoly and of cumbu in Vizagapatam. In no district did the harvest prices of the principal food-grains reach the scarcity rates except in the case of cholam in Madura. During the year under report the increasing scarcity of freight made itself felt and caused a drop in the prices of exported produce in some cases and restricted the rise that might otherwise have taken place in other cases. In July 1915, freight for groundnut cost about 85*s.* per ton. In October 1916, this had risen to 220*s.* and by May 1917 to 320*s.* But even at this price very little freight is available. The growing stringency of the money market and the difficulty of obtaining money from other countries also affected prices adversely. Lastly, the increasing restrictions on rail goods traffic have seriously hampered the movement of produce. The first crop to feel the effects of the freight shortage was groundnut. The crop was a bumper one and as soon as it began to come into the market in October 1916 the price fell from Rs. 40 per candy to Rs. 26–27 by December at which figure it has remained ever since. Export of cotton from Madras Port has practically ceased since January 1917, but fair quantities have gone from Tuticorin, mainly to Japan. The difficulty of obtaining long-stapled American cotton for warp in Bombay and other cotton spinning centres has led to an increased demand for Madras long staples. The steadily increasing price of cotton in Manchester has kept up Indian prices and there has been a steady rise during 1916–17. The value of indigo exported reached Rs. 609 per cwt. in January 1917, but thereafter fell considerably owing partly to the freight difficulty and partly to the size of last year's crop. Much remains unexported. Large profits were made by growers and exporters of senna in Tinnevelly up to August 1916 when the price reached Rs. 40 per cwt. at Tuticorin. There was a sudden fall from that date, the price being Rs. 19 in March 1917. This fall appears to have been due to the breaking of a "corner" in the London market. The difficulties of financing trade with Ceylon and the restrictions on goods traffic have checked rice milling and lowered the price of exported paddy in the deltas. Curiously enough the local price of rice has not fallen appreciably, though prices do show a downward tendency. The large landholders who usually sell their crop for export appear to be holding their stocks in hope of better prices. On the West Coast copra fell in price, but still remains a profitable crop. The price of pepper has ruled very high this year. The condition of the agricultural population continues to be satisfactory. The effects of the cyclone in South Arcot were severe at the time, but plentiful work was forthcoming in clearing roads, repairing irrigation channels, buildings, etc. The shortage of fodder which occurred in the black soil tracts of Tinnevelly caused many ryots there to sell some of their stock of draught cattle, but the high prices obtained for cotton enabled most of the black soil ryots to maintain their stock by importing paddy straw. The damage to the cholam and paddy crops in Kurnool led to a local rise in the price of food-stuffs, but here again the high prices of cotton and indigo enabled ryots to face this without trouble. The fall in groundnut affected ryots who depended mainly on this crop, but the yield was a bumper one and the price finally reached was not unremunerative.

POLITICAL PENSIONS. (1916.)

75. The political pensions in force on the 1st January 1916 amounted to Rs. 3,03,298-1-0 per annum and were distributed among 491 pensioners. During the year pensions amounting to Rs. 3,710 were either newly sanctioned or were transferred from other provinces, and pensions amounting to Rs. 7,645-5-0 either lapsed or were transferred to other provinces. Eighteen pensioners died during the year, and the pension of one was resumed. Nine new pensioners were added to the list and the pensions of three persons were commuted. The pensions in force on the 1st January 1917 amounted to Rs. 2,99,362-12-0 and were distributed among 478 pensioners. The payments made to the Carnatic stipendiaries and the Tanjore family aggregated Rs. 2,01,291-8-10 and Rs. 40,576-8-6 respectively.

CHAPTER II.

ADMINISTRATION OF THE LAND.

REALIZATION OF LAND REVENUE.

(FASLI 1325—1ST JULY 1915 TO 30TH JUNE 1916.)

[*Report on the Settlement of Land Revenue for fasli 1325.*]

Sources of Land Revenue.

76. The land revenue of the Presidency is derived from the undermentioned sources :—(*a*) Peshkash or revenue from permanently-settled estates ; (*b*) Shrotriyam jodi or quit-rent levied on inam villages ; (*c*) Assessment including water-rate on lands held under the ryotwari system ; (*d*) Miscellaneous revenue ; and (*e*) Proprietary estates' village service.

Peshkash and shrotriyam jodi.

77. The total amount of peshkash during the fasli was Rs. 49,86,531 against Rs. 49,87,350 in the preceding year. The decrease of Rs. 819 is chiefly due to a reduction on account of lands taken up for public purposes. The quit-rent payable to Government on villages held on shrotriyam on favourable tenure was Rs. 7,56,294 or Rs. 29 less than in the previous fasli.

Ryotwari and Miscellaneous.

78. The total extent of ryotwari holdings during the year was 25·68 million acres and exceeded that of the previous year by 129,447 acres. The increase was contributed by all the districts except the Nilgiris and it was noticeable in Anantapur and South Kanara. The total assessment on holdings was Rs. 518·17 lakhs against Rs. 515·35 lakhs in the previous year showing an increase of Rs. 2,82,169. The increase was marked in the districts of Guntūr, North Arcot, Madura and South Kanara, these districts together contributing an increase of Rs. 1,93,829 or about 70 per cent of the total increase. The increase in Guntūr was due to the revenue derived from lands newly assigned on patta and to the additional revenue derived from lands transferred from dry to wet ; that in North Arcot to the introduction of resettlement rates in two taluks ; that in Madura to the favourable character of the season ; and that in South Kanara to the extensive assignment of waste lands on darkhast. The total area cropped in ryotwari holdings during the year was 20·540 million acres against 20·597 million acres in the previous year showing a decrease of about 57,000 acres. This net figure is the net result of a decrease of 112,000 acres dry and an increase of 55,000 acres under wet. Dry waste charged showed an increase of 230,000 acres, and wet waste charged increased by 5,000 acres ; wet waste remitted fell by 48,000 acres. The total area cropped amounted to 21·81 million acres against 21·93 million acres in the previous year. The revenue from water-rate and second crop charge amounted to Rs. 34·78 lakhs against Rs. 32·72 lakhs or Rs. 2·06 lakhs more than in the preceding year. There were large increases in Gōdāvari, Kistna, Nellore, Cuddapah, Anantapur, Kurnool, Chittoor and Madura generally due to the favourable character of the season. The considerable decreases in Chingleput and South Arcot were due to the insufficient and uneven distribution of rainfall. The net increase, Rs. 2·06 lakhs, was the result of a decrease of Rs. 6,552 under "water-rate on dry lands" and of an increase of Rs. 2,13,113 under "second crop charge."

Remissions.

79. As compared with the previous year there was a net decrease in remissions of Rs. 5,51,124. Season remissions showed a net decrease of Rs. 5·69 lakhs. The remission under the head of "waste remitted" amounted to Rs. 1·76 lakhs or Rs. 2·22 lakhs less than that

remitted in the preceding year. The decrease was marked in the districts of Cuddapah, Anantapur, Bellary and Chittoor. There was however a large increase of Rs. 32,286 in South Arcot due to the failure of the monsoons. The total amount remitted under the head of "shavi or short crop" was Rs. 85,279 against Rs. 1,59,293 in the previous year showing a net decrease of Rs. 74,014 ; the decrease was marked in the districts of Cuddapah (Rs. 33,579) and Kurnool (Rs. 19,902), while in South Arcot (Rs. 31,332) there was a noticeable increase. Of the total remissions under "shavi" Rs. 83,951 related to "wet lands" and Rs. 1,328 to dry lands. A remission of Rs. 4,567 was granted under "short crop." Tirvakammi remission (the remission of the difference between wet and dry assessment on wet land cultivated with dry crops owing to the insufficiency or failure of the water-supply) amounted to Rs. 1,87,469 against Rs. 4,50,642. The amount remitted under the head of "injury by floods" was Rs. 69,190 against Rs. 63,262 in the previous year, Kistna alone showing an increase of Rs. 6,280. Fixed remissions amounted to Rs. 1·30 lakhs against Rs. 1·32 lakhs in the previous year. The decrease occurred mainly under increment remissions in the districts of South Kanara and Malabar. Remission of assessment on lands newly assigned on patta on which no crop was raised during the fasli also showed the large decrease of Rs. 4,417. Remission for the maintenance of irrigation works, however, showed an increase of Rs. 7,958. Beriz deductions amounted to Rs. 9·10 lakhs against Rs. 8·91 lakhs in the previous year, showing a net increase of Rs. 19,150.

Miscellaneous revenue.

80. The revenue under this head amounted to Rs. 94·61 lakhs against Rs. 92·15 lakhs in the previous year showing a net increase of Rs. 2·47 lakhs. Gōdāvari showed the largest increase (Rs. 1,65,884) and South Arcot the largest decrease (Rs. 28,978). The increase in Gōdāvari was due mainly to an increase in the revenue from the occupation of poramboke land and charges for Government water used for zamindari and inam lands. Water-rate on minor inams in ryotwari villages amounted to Rs. 15·16 lakhs against Rs. 13·71 lakhs in the previous year. The revenue under the head "charge for water in zamindari and inam villages including tirvajasti and fasaljasti" amounted to Rs. 0·84 lakh more than in fasli 1324. "Charges levied for occupation of assessed and unassessed lands for which no pattas have been granted" amounted to Rs. 0·43 lakh less than in the previous year. The revenue under "poramboke occupation" amounted to Rs. 0·61 lakh more than in the previous year, but the total area occupied fell by 4,333 acres. "Sale-proceeds of lands sold" amounted to Rs. 0·47 lakh less than in the previous year. The net ryotwari demand excluding remissions but including water-rate, second crop charge and miscellaneous revenue amounted to Rs. 631·91 lakhs against Rs. 619·05 lakhs in the previous year.

Cesses.

81. The current demand under cesses was Rs. 71·61 lakhs against Rs. 68·92 lakhs in fasli 1324. The increase is ascribed chiefly to the revision of land-cess due on estates, to the increase of cesses along with the increase of revenue and to the levy of railway cess in Gōdāvari, Trichinopoly and Cuddapah.

Collections.

82. The balance outstanding at the end of the fasli including both arrears and current was Rs. 8,98,461. The balance on 1st July 1916 was Rs. 8,99,734. Up to the end of October 1916 Rs. 7,60,532 or 84·5 per cent had been collected, Rs. 3,400 written off the accounts, and Rs. 264 were considered to be irrecoverable. The net recoverable balance on 1st November 1916 was Rs. 1,35,538. The charges of district administration, including salaries, etc., of Revenue Inspectors, but excluding those of village establishments, were 6·8 per cent of the land revenue and cesses realized, as was the case in the preceding fasli. Including village service charges the total charges were about 14 per cent of the collections of land revenue and cesses.

Coercive processes.

83. 1,293,401 processes were issued during the year for the realization of Government revenue, against 1,530,159 in fasli 1324. There was a decrease

under every head except that of sales which showed a slight increase. The number of demand notices decreased in nineteen districts and increased in six districts. The increase is marked in the districts of Guntūr, Tinnevelly and Malabar. The number of distraints and attachments was 79,446 in the year under report against 109,712 in fasli 1324. There was a decrease in the percentage borne by the number of distraints and attachments to that of demand notices as compared with the previous fasli. The number of defaulters whose immovable property was attached in the year was 14,871 against 18,339 in fasli 1324. In the Madura district a large disproportion is noticeable as in previous years, between the number of defaulters whose personal property was distrained and the number of those whose real property was attached; it is due to the larger number of absentee pattadars in the area irrigated by the Periyar. The decline in the proportion of defaulters who paid the arrears before sale notices were issued, was again noticeable and the percentage of actual sales to sale notices was 4·22 against 2·92, representing 0·05 of the total number of pattas as in the preceding year. Immovable property of the estimated value of Rs. 1,20,235 was sold for the recovery of arrears amounting to Rs. 24,336 and realized Rs. 53,350. The total area of lands bought in by Government for want of bidders was 3,025 acres of dry and 361 acres of wet, against 2,136 acres of dry and 290 acres of wet in fasli 1324. More than one-half of the total area bought in was in Cuddapah, Anantapur, Bellary and Madura.

Transfer of registration.

84. 242,743 applications for transfer of registration were received through the Registration Department during the fasli against 85,409 in the previous fasli, an increase of 184·21 per cent. The number of applications presented direct to revenue officers was 70,372 as against 49,315 in fasli 1324, an increase of 42·69 per cent. The number of cases which revenue officers dealt with on their own initiative rose from 19,794 in fasli 1324 to 27,414 in fasli 1325. The total number of applications of all kinds to be dealt with in the fasli under report including the number pending disposal at its beginning was 379,474; of these 297,977 were disposed of during the fasli, leaving a balance of 81,497 pending at the close of the fasli.

Loans and Advances.

85. The advances made under the Land Improvement Loans Act during fasli 1325 amounted to Rs. 2·40 lakhs and those under the Agriculturists' Loans Act to Rs. 5·11 lakhs. The aggregate amount advanced under both the Acts was thus Rs. 7·51 lakhs as against Rs. 8·18 lakhs in the previous year. The decrease in most of the districts is ascribed to the favourable character of the season. Of the sums repayable during the year under the Land Improvement and Agriculturists' Loans Acts respectively on account of principal, 90 per cent under the former Act and 87 per cent under the latter Act were collected. Advances amounting to Rs. 19,157 under the former Act and Rs. 18,628 under the latter Act were repaid by borrowers on account of loans, the repayment of which had not fallen due, while sums amounting to Rs. 2,573 under the former Act and Rs. 402 under the latter Act were written off the accounts as irrecoverable. The aggregate amount of principal and interest repayable during the year under both the Acts was Rs. 11,34,708, of which a sum of Rs. 2,69,278 or 24 per cent was collected without resort to coercion and a sum of Rs. 6,89,373 or 61 per cent after the issue of demand; Rs. 39,294 were realized after attachment but before sale, Rs. 1,859 by the sale of movable property and Rs. 13,466 by the sale of immovable property. The balance outstanding at the end of the year was Rs. 1,21,438. With the aid of loans under the Land Improvement Loans Act 433 wells were constructed during the fasli, against 435 wells during the previous year, and 326 wells were repaired against 349 in the preceding year. Rs. 34,595 were spent on the reclamation of 1,200 acres and Rs. 34,900 were expended on the purchase and installation of oil-engines and pumps. Under the Agriculturists' Loans Act, 7,871 head of cattle were purchased while 36 houses were rebuilt. Seed grain was purchased for Rs. 1,965, while Rs. 1,150 were expended on sugar mills.

SURVEYS. (1916–17.)

[*G.O. No. 3513, Revenue, dated 7th November 1917.*]

Parties.

86. All the six parties and the two town survey detachments which were at work in the previous year continued their operations during the year under report. No. I Party was employed in the Northern Circars, No. II in the Nellore district, Nos. III and IV in Madura, No. V in South Arcot and No. VI in Tanjore. The town survey section, north, was at work in Ganjām and Vizagapatam, and the town survey section, south, in Tinnevelly, Coimbatore and Tanjore districts. The headquarters of the town survey section, south, were transferred from Trichinopoly to Tanjore during the year. In addition to the above, survey of streets was completed in 18 unions and was in progress in five others. The gross expenditure was Rs. 11,90,707, of which Rs. 7,72,284 is chargeable to Government and Rs. 4,18,423 to proprietary estates, municipalities, etc.

Districts.

87. No. I Party worked in Ganjām, Vizagapatam, Gōdāvari, Kistna and Guntūr. In Ganjām the outturn comprised the cadastral survey of 13 square miles of Government land and 53·5 square miles of proprietary estates. The survey of Pondakhol Mutta was commenced in November 1916 and completed in March 1917. Five square miles of Kallikōta-Atagada estate were surveyed during the year. Chikati estate was taken up in August 1916 and 47 square miles were finished before the close of the year. In Vizagapatam the block survey of three whole inam villages was taken up at the instance of the Special Settlement Officer and completed. The cadastral survey of the Gollaprolu estate in Gōdāvari was taken up and completed. In Kistna the cadastral survey of the Mirzapuram zamindari, with the portion of Medur recently added thereto, was finished, the total area surveyed during the year being 98 square miles. An aggregate area of 5 square miles in the estates of Ravipadu, Konitivada, Peddamamidipalli and Kalagampudi was also credited during the year. The survey of Narikampadu in the Tiruvur division was abandoned as the District Board withdrew its application. The resurvey of Tenali taluk, Guntūr district, was commenced in July 1916, and 161 square miles credited during the year. The town survey section completed the survey of the Anakāpalle municipality and also did work in Vizagapatam, Chicacole and Parlākimedi. The total area surveyed was thus 15·66 square miles. The cadastral survey of estate lands of the Anakāpalle municipality was also completed. In Nellore and Guntūr No. II Party surveyed under the Punganūr system an aggregate of 440 square miles in four taluks of Venkatagiri zamindari. The cadastral survey of the unsurveyed portion of the Nellore municipality and the block survey of the villages of Matakampudi and Ramachandragunta were finished. In Chittoor the survey of the Padmapuram shrotriyam was taken up and completed. The survey of local fund roads in Karvetnagar was undertaken and 56 linear miles were finished out of a total of 166 linear miles. In Madura the outturn of No. III Party comprised 407 square miles of resurveys and 30·6 square miles of cadastral survey of proprietary estates. Street surveys were completed in four unions to the extent of 52 linear miles. In Madura No. IV Party resurveyed 244 square miles in the Mēlūr taluk out of a programme of 300 square miles. The large deficit was due to the exceptional conditions in the taluk and its unpopularity with the surveyors who deserted or resigned in large numbers. There was a strike of surveyors on a small scale in the beginning of December 1916. Street surveys were finished in two unions to the extent of 16 linear miles. In Trichinopoly the cadastral survey of Komagudi inam was completed. In Ramnad street surveys were completed in four unions totalling 46 linear miles. The town survey section completed the survey of Tiruvālūr, Tinnevelly and Palamcottah municipalities, and did some work in Māyavaram, Coimbatore and Tuticorin. Besides the above town surveys the section completed the resurvey of 1·99 square miles in Tiruvālūr and 8 linear miles of road surveys in Tinnevelly. The operations of No. V Party were confined to the South Arcot district where

it completed the remaining 1 square mile of revision survey in the Cuddalore taluk and the resurvey of 123 square miles in Villupuram and 331 square miles in Tindivanam. The joint verification by a British and a French representative of the boundaries of 16 villages in the Cuddalore taluk abutting the French territory was completed. Street surveys were completed in four unions totalling 70 linear miles. In Tanjore 348 square miles were resurveyed by No. VI Party. The survey of the Palace estate lands in the Mannārgudi taluk was taken up and completed, the area credited being 2 square miles. Street surveys were completed in three unions comprising 37 linear miles. In Trichinopoly the Agrahara Valavandi estate was commenced and 4·5 square miles credited during the year. The demarcation and survey of both the banks of the Cauvery river in the Kulittalai and Musiri taluks was completed during the year. In Salem the survey of the Kannankurichi mitta consisting of eight villages was taken up and finished, the area being 11 square miles.

Central Office.

88. The area of village maps printed during the year was 4,295 square miles including 21 square miles of proprietary estates and 12 square miles of Coorg Province as against 3,220 square miles printed last year. The arrears of printing at the end of the year were 1,382 square miles against 3,633 square miles last year.

SETTLEMENTS. (1916–17.)

[*G.O. No. 3513, Revenue, dated 7th November 1917.*]

Parties.

89. All the five settlement parties which were at work at the end of the previous year continued their operations during the year under report—Party No. I in the North Arcot district, Party No. II in the districts of South Arcot, Tanjore, Trichinopoly, Coimbatore and Salem, Party No. III in the Chittoor district, Party No. IV in the districts of Madura and Ramnad and Party No. V in the districts of Ganjām, Vizagapatam, Gōdāvari, Kistna and Nellore. The operations of Party No. II were extended to the Tiruvannāmalai taluk of the North Arcot district and those of Party No. III to Bellary.

Districts.

Ganjām.

90. The diglott registers and memoirs for the remaining two villages of the Chokapād khandam and 57 villages of the previously unsettled tracts of Goomsur were submitted. The revision of quit-rents on village service inams in the proprietary estates of the taluks of Berhampur and Chatrapur and the localization and classification of paik's inams in the Pālūr estate were completed. The tabulation of the results of the block classification of the twelve whole inam villages of the Karakavalasa estate in the Chicacole taluk was completed and the proposals for the assessment of these villages for purposes of land-cess have since been approved. The revision of quit-rents in the newly-settled villages of the Goomsur taluk was also completed. The block survey and classification of the whole inam villages in the district was completed and the existing land-cess revised on the basis of the new classification. A special staff was organized for the revision of adangals and the survey of subdivisions and the work is now in progress in the Palkonda taluk. Progress was also made during the year in the collection of materials for the scheme report for the resettlement of the three ryotwari taluks in the district. Rough pattas were issued in three resumed inam villages in the Peddāpur taluk and the fair accounts were sent to the Tahsildar. During the year the special staff attended to patta transfer enquiries and the location of new subdivisions in respect of 20 ryotwari villages and two shrotriyam villages.

Vizagapatam.

Gōdāvari.

Bellary.

North Arcot.

91. Resettlement rates were introduced in all the 87 villages in the taluks of South Cheyyār and Wandiwash commanded by the Cheyyār

anicut system. The manuscript diglott registers of 893 villages were sent to the Board for printing. The street survey of the three unions of Visharam, Ambūr and Wandiwash was completed. In Chittoor the diglott registers of 195 ryotwari and 175 shrotriyam villages in the taluks of Chittoor, Chendragiri and Palmanēr were submitted. The reports on the introduction of the new rates of assessment in the Palmanēr taluk and in the resumed inam village of Tirumanipalle in the Punganūr zamindari were submitted to Government. The revision of quit-rents on enfranchised village service inams was carried out in the Palmanēr taluk and in the Kālahasti and Karvetnagar estates.

Chittoor.

92. The diglott registers of three villages in the Erode taluk, of one village in the Coimbatore taluk and of two villages in the Karūr taluk of the Trichinopoly district were submitted. The resettlement rough accounts of six villages in the Coimbatore taluk and of three others in the Karūr taluk were handed over to the Collectors concerned. The issue of rough pattas for 69 villages in the Trichinopoly taluk during the year brought the work to a close in that taluk. The fair accounts of 119 villages in the same taluk were handed over to the Revenue Department. In the Nāmakkal taluk the revision of adangals was brought to a close. The records of 22 villages were finally passed. The balance of work connected with the localization of mamul wet areas in the Trichinopoly district was completed during the year as also the final scrutiny of the survey records of three unions in the Nāmakkal taluk.

Coimbatore.

Trichinopoly.

93. In South Arcot the revision of adangals was completed in 231 villages of the Gingee taluk and in 165 villages of the Tirukkōyilūr taluk. The scheme report for the resettlement of the South Arcot district was submitted. The final scrutiny of survey records was completed in respect of 217 villages in the Cuddalore taluk and of 53 villages in the Villupuram taluk and the field work preliminary to the introduction of resettlement was completed in 199 villages of the Cuddalore taluk. The initial work in connexion with the revision of adangals was completed in 58 villages of the Tanjore taluk and in 8 villages of the Pāpanāsam taluk. The Special Revenue Inspectors completed their enquiry and inspection in 127 villages of the Nannilam taluk and the Special Deputy Tahsildars completed their check in 119 villages. Complete lists showing the revised registry consequent on the revision of adangals were published in 125 villages of the Māyavaram taluk and the final check of resurvey of records was finished in 46 villages. The revision of adangals on the basis of the town survey records in the villages within the municipalities of Tanjore, Māyavaram, Mannārgudi, Negapatam and Kumbakōnam was completed during the year. The special staff completed field work in two villages and in portions of nine others included in the Madura municipality and prepared the land registers. The preparation of land registers for 66 villages in the Mēlūr taluk and 155 villages in the Tirumangalam taluk was also finished. In addition, special staff operations were started in 12 villages of the Aruppukkōttai and Paramagudi taluks of the Ramnad district. Settlement rates were introduced in the resumed inam villages of the Ramnad and Sivaganga zamindaris. The fair accounts of 66 villages of the Palni taluk were completed. Field inspection by the classifiers was completed in 46 villages of the Periyakulam taluk and 117 villages of the Dindigul taluk and final inspection by officers in 38 villages of the former taluk and in 59 of the latter. The officers also inspected the 143 Periyār-affected villages of the Nilakkōttai, Madura and Mēlūr taluks. Resettlement rates were introduced in the 27 non-Periyār villages of the Periyakulam taluk. In the Dindigul taluk rough pattas were prepared for 16 villages. The final scrutiny of survey records was completed in 69 villages of the Nilakkōttai taluk. The diglott registers for all the 68 villages of the Palni taluk were written up and those for 67 compared and finally checked.

South Arcot.

Tanjore.

Madura and Ramnad.

Registers.

94. During the year 1,445 manuscript registers were received, 1,394 were scrutinized, 1,471 were printed and 1,171 were issued to Collectors.

Finance.

95. The total expenditure was Rs. 5·52 lakhs against Rs. 6·03 lakhs in the previous year. The cost of printing and binding was Rs. ·60 lakh while Rs. 1·46 lakhs was spent on the controlling office. The rest of the expenditure was on the settlement parties which cost Rs. ·22 lakh less than in the previous year.

LAND RECORDS. (1916–17.)

General.

96. The Land Records staffs in most of the districts were mainly employed in regular maintenance. In South Arcot, where resurvey operations are in progress and in the delta taluks of Guntūr, the Land Records Inspectors were absorbed in the special staff. During the year, Government issued orders that the system of making ferro-prussiate prints of the field measurement books should be abolished and that manuscript maps should be supplied in future for purposes of maintenance. Orders were also issued dispensing with the maintenance of bend stones except on the boundaries of porambokes. The Director reports that on the whole the maintenance of land records in the districts is satisfactory and is improving. The raising of the land records fees from four to eight annas has stimulated the ryots to attend to the repairs of their own survey marks almost universally. There is still reason to be dissatisfied with the accuracy of the reported figures, which, compiled in the first instance from karnams' stone registers, subjected in many cases to little effective overcheck, cannot be regarded as trustworthy. Taluk records are being better kept and improvement has been effected in the disposal of patta transfer cases. The rapid increase of work under the latter head makes it apparent that the existing establishments, especially of Firka Revenue Inspectors, will prove inadequate.

Operations preliminary to maintenance.

97. Operations preliminary to maintenance were in progress in parts of Ganjām, North Arcot, Madura and Coimbatore. In Ganjām the work is nearly finished in the Goomsur taluk, and has been completed in the other taluks. In North Arcot most of Polur taluk has been brought under maintenance, while in Madura preliminary work has been completed in Palni and is in progress elsewhere. The Land Records Tahsildar in Coimbatore was on special duty for a portion of the year in connexion with the straightening of "corrugated" field boundaries.

Current maintenance.

98. As far as can be judged from the statistics, which appear to be of doubtful reliability, the work done by the Land Records staff in the renewal and repair of survey marks was satisfactory in the districts of Vizagapatam, Nellore, Kurnool, Salem, Chingleput, Tanjore, Ramnad, Tinnevelly, Coimbatore and South Kanara. The work done by ryots was good in North Arcot, Chingleput and Coimbatore and fair in Guntūr Kurnool, Bellary, Chittoor, Tanjore, Trichinopoly and South Kanara There was an increase in the number of subdivisions sanctioned during the year, as compared with last year, but the progress made in the check measurement and mapping of subdivisions was generally satisfactory.

Training of staff.

99. Schools for the training of karnams and revenue subordinates have as usual been held in the various districts as required. Two schools for the training of Assistant and Deputy Collectors were held during the year. The training of these officers is now definitely directed to instruction in land records work, including the examination of registers and taluk records, and the method of accounting for and recovering the cost of stones used for maintenance. Technical training in survey is also given with a view to practical usefulness.

WASTE LANDS.

(FASLI 1326—1ST JULY 1916 TO 30TH JUNE 1917.)

[*Season and Crop Report for the agricultural year 1916–17.*]

100. The total area of the Presidency is 89,533,299 acres, of which 34·30 million acres were under cultivation, 12·98 millions were classed as forest, and 22·31 million acres were not available for cultivation. Of the remainder, 8·47 million acres were fallow during the year and 11·45 million acres were cultivable waste not taken up by anyone. As compared with the previous year there was a slight decrease in the areas reserved for forest and other purposes and an increase in the extent of fallow land.

GOVERNMENT ESTATES.

101. There is nothing to record under this head in the Madras Presidency.

WARDS' ESTATES.

(FASLI 1325—1ST JULY 1915 TO 30TH JUNE 1916.)

[*Report on the Administration of the Estates under the Court of Wards in the Madras Presidency for fasli 1325 (1915–16).*]

Estates under management.

102. Eighteen estates continued under the Court's management throughout the fasli; the Zamorin's estate in the Malabar district was taken under the Court's superintendence with effect from the 17th September 1915. The number of estates under the Court at the close of the fasli was therefore nineteen.

Finance. Demand, collection and balance.

103. The total current demand was Rs. 23·60 lakhs, of which Rs. 19·67 lakhs were collected and Rs. ·01 lakh written off, leaving a balance of Rs. 3·92 lakhs at the end of the year. There was no outstanding balance in Kadambūr; in six estates, the balance was less than 5 per cent of the demand; in two between 5 and 10 per cent; and in eight between 10 and 25 per cent. The balance exceeded 25 per cent in the remaining two estates, viz., Madukkūr (76·1) and Urkkādu (31·2). The large percentage in Madukkūr, which was even higher than that of the preceding year (62·2), is attributed by the Collector to the difficulty in collection work owing to the poverty of the ryots, the dullness of the groundnut market and the long-standing disputes between the ryots and the late Zamindar regarding rents. The outstanding balance in Urkkādu, though heavier than in the previous year, was mostly covered by processes. The total arrear demand at the beginning of the fasli amounted to Rs. 11·39 lakhs, of which Rs. 7·84 lakhs were outstanding at its close. There was no outstanding balance in Timmājiamma's estate, Māmbārai and Kadambūr; in one estate, the balance was less than Rs. 1,000; in three between Rs. 1,000 and Rs. 5,000; and in four between Rs. 5,000 and Rs. 15,000. The arrears exceeded Rs. 15,000 in the remaining eight estates. The aggregate cash balance of all the estates at the beginning of the fasli was Rs. 6·13 lakhs. The total cash receipts of the estates during the year amounted to Rs. 29·17 lakhs. The total assets of the fasli in cash were therefore Rs. 35·30 lakhs. The total expenditure during the year amounted to Rs. 27·99 lakhs leaving a cash balance of Rs. 7·31 lakhs at its close. Including Government promissory notes and other securities and the estimated value of grain on hand the total closing balance to the credit of the estates was Rs. 31·30 lakhs.

Surplus balances.

104. Of the estates under management those which had surplus balances exceeding a lakh of rupees at the end of the year were:— Kallikōta-Atagada (Rs. 4·91 lakhs); South Vallūru (Rs. 6·42 lakhs); Mīrzāpuram (Rs. 12·56 lakhs); Kangundi (Rs. 1·33 lakhs); and Sāptūr (Rs. 1·08 lakhs). A considerable portion of the surplus balance in Kallikōta-Atagada is required for the survey of the estate and settlement of rents. In South Vallūru three villages have since the close of the fasli been purchased on behalf of the estate at a cost of Rs. 3,48,695. The Court has also sanctioned the payment of a contribution of Rs. 15,000 from the estate

funds towards the cost of opening a dispensary at Vallūru, and arrangements are being made to establish a veterinary dispensary at the same place. The remaining amount is reserved for improving irrigation works. In Mīrzāpuram, negotiations for the purchase of three villages were not concluded when the minor attained his majority. A portion of the surplus was spent on the survey of the estate proper and of that portion of the Mēdūru estate which was added to it. Of the surplus in Kangundi it is proposed to spend half a lakh in effecting improvements to the irrigation works, on the construction of a hospital and a veterinary dispensary, on the building of a school-house and on other improvements. It is also proposed to purchase a village at a cost of Rs. 17,700. In Sāptūr the surplus is reserved for the repair of irrigation works and estate buildings, for the construction of wells and for the marriage of the ward's sisters.

Agricultural improvements.

105. In Kallikōta-Atagada the question of starting a home farm and a cattle-breeding farm is under consideration. In Uttumalai the Court has sanctioned the opening of a model pasture ground with two cattle sheds and three tube wells. In none of the estates under management were any home-farm lands used during the year for experiments in improved methods of agriculture, the bulk of such lands having been leased out as usual.

Establishment charges.

106. For all the estates, the average percentage of the establishment charges and Government commission to the normal receipts, exclusive of extraordinary items of income, such as debts recovered, sale-proceeds of property, etc., was 15·5 per cent against 15·1 in the preceding year. The percentage exceeded 15 in twelve estates. In none of the estates was it possible to curtail the establishment charges without impairing the efficiency of the administration.

Works.

107. Including the Devastānam and Chattram sections of estates the total allotment for maramat works in all the estates was Rs. 5·92 lakhs, of which Rs. 4·61 lakhs, or 77·8 per cent, were actually spent during the year against 89·2 per cent in the preceding year. The aggregate value of work done but not paid for within the fasli was Rs. 87,000. The total value of the work executed during the year was therefore Rs. 5·48 lakhs, or 92·5 per cent of the allotment against 93·2 per cent in the previous year. Of the total expenditure Rs. 2·39 lakhs were spent on irrigation works, Rs. 1·28 lakhs on buildings, Rs. ·26 lakh on roads and other works and Rs. ·68 lakh on establishments and contingencies. The aggregate outlay on maramat works was 19·4 per cent of the total ordinary charges of the year against 26·9 in the preceding year and 16·2 in fasli 1323.

Debts due to the Estates.

108. The debts due to the several estates under management at the beginning of the fasli amounted to Rs. 2·48 lakhs. The aggregate amount due was Rs. 3·15 lakhs, of which Rs. ·61 lakh was collected and Rs. ·33 lakh written off, leaving a balance of Rs. 2·21 lakhs appertaining to twelve estates. The outstanding debts were large in Kallikōta-Atagada (Rs. ·40 lakh), South Vallūru (Rs. ·44 lakh), and Mīrzāpuram (Rs. 1·15 lakhs). The greater portion of these balances were covered by decrees.

Debts due by the Estates.

109. The liabilities of the several estates at the beginning of the fasli amounted to Rs. 7·86 lakhs, exclusive of the two debenture loans aggregating £212,500 repayable in fixed annual instalments from the income of the Kallikōta-Atagada estate, of which £31,700 had been discharged up to the end of the year. Debts amounting to Rs. ·55 lakh were newly brought to account during the year. Including interests and costs which accrued during the year (Rs. ·19 lakh), the total liabilities amounted to Rs. 8·60 lakhs, of which Rs. 1·46 lakhs were repaid and Rs. ·09 lakh struck off, leaving a balance of Rs. 7·05 lakhs which was payable by nine estates. The debts exceeded Rs. 50,000 in Nandigāma, Chundi, Madukkūr and Kadavūr estates.

Education of the Wards.

110. The minors of eleven estates were in residence at Newington during the whole or part of the fasli. All the minors paid a good deal of attention to riding, gymnastics, cricket and tennis. Their health during the year was satisfactory on the whole. There was sustained progress in the education of the minors and with one exception their conduct was

uniformly satisfactory. The Kallikōta ward passed the Matriculation examination with distinction and is now preparing at Newington for the Intermediate examination. Seven of the minors were allowed to make contributions to the war fund from the incomes of their estates.

Encumbered Estates.

111. Kadavūr was the only estate in which the provisions of section 45 of the Madras Court of Wards Act I of 1902 continued to be in operation during the fasli. Debts amounting to Rs. ·31 lakh were paid off and debts amounting to Rs. ·02 lakh were struck off during the year leaving a balance of Rs. 2·08 lakhs at its close. It has been decided to sell the estate's kudivaram right in the pannai lands, in order to discharge the debts due by the estate. Proposals to issue licences to prospect for minerals are under consideration.

Miscellaneous.

112. The Zamorin's College, Calicut, maintained by the Zamorin's estate, has improved in tone and discipline. The Raja's High School, Sivaganga, continues to work well. The forests in Kallikōta-Atagada, Pedda Merangi, South Vallūru, Mīrzāpuram, Chundi, Kangundi, Timmājiamma's estate, Kadavūr, Sāptūr, Berikai, and Madugula were worked during the year under the rules sanctioned by Government under sections 26 and 32 of the Madras Forest Act. The forests in Nandigāma were as usual under departmental management. The survey records of all the villages of the Nandigāma estate were returned during the year to the Deputy Director of Survey with a view to the publication of notices. The survey of Kallikōta-Atagada estate was practically finished. The survey and the preparation of a record-of-rights in the South Vallūru estate have been completed. The village accounts were maintained in all the estates, though the degree of their efficiency varied considerably. In Madukkūr and Kallikōta-Atagada it is reported that the low scale of pay given to karnams prevents the maintenance of proper accounts. The state of things in the Madukkūr estate has not improved much. The tenants are reported to be mostly poor and heavily indebted, but every endeavour is being made to settle the accounts of each ryot amicably.

REVENUE AND RENT-PAYING CLASSES.

(FASLI 1325—1ST JULY 1915 TO 30TH JUNE 1916.)

[*Report on the Settlement of Land Revenue for fasli 1325.*]

Revenue-paying classes.

113. The chief revenue-paying classes in the Presidency are the zamindars, whole inamdars, minor inamdars and ryotwari pattadars or ryots. Of these, for purposes of revenue, the first and last classes are the most important. There are 14 large zamindaris in the Presidency, the largest being Jeypore and Venkatagiri. The total area of all the zamindaris is over 19 million acres and the amount of peshkash paid by them was Rs. 49·87 lakhs which is rather more than a quarter of the estimated revenue. The richest zamindaris are Vizianagram, Venkatagiri, Ramnad and Sivaganga.

114. The total extent of ryotwari holdings was 25·68 million acres, of which 20·54 million acres were cropped in the year. The assessment on this was Rs. 518·17 lakhs and thus formed the bulk of the land revenue. The number of ryotwari villages was 22,321, which is a net increase of 38 over the previous year's figure. This increase is largely due to the inclusion in the Vizagapatam district statistics of Agency villages formerly omitted.

Rent-paying classes.

115. Sub-letting in ryotwari villages is chiefly resorted to by those engaged in professions other than agriculture and by large landholders. It is reported to be on the increase in Ganjām, in the area under the Periyār in Madura and in parts of South Kanara, where lands are let out for the cultivation of pepper. Sub-letting is the general practice in Tinnevelly and in the delta taluks of Guntūr. In parts of Kistna a tendency has been noticed among landholders to decrease sub-letting, as they apprehend legislation on the lines of the Estates Land Act conferring occupancy rights on tenants.

CHAPTER III.

PROTECTION.

LEGISLATING AUTHORITY.

116. *Vide* pages 128 to 131 of the Report on the Administration of the Madras Presidency during the year 1911–12.

COURSE OF LEGISLATION. (1916–17.)

Legislative Council.

117. The term of office of all the additional members expired on the 31st May 1916 and the Council was re-constituted by fresh elections and nominations on the 1st August 1916. There was no change among the additional members between the 1st April and 31st May 1916. After the re-constitution, two official additional members resigned, one as he was proceeding on leave out of India and the other on becoming an additional member in the Legislative Council of the Governor-General. Two more official vacancies were caused on the elevation to the Executive Council of the Hon'ble Mr. H. F. W. Gillman, C.S.I., and the Hon'ble Diwan Bahadur P. Rajagopala Achariyar Avargal, C.I.E. A non-official additional member resigned his seat as he was proceeding to England. All the above vacancies were duly filled up in the course of the year. Including nine adjourned meetings there were fourteen meetings of the Council during the year, the average attendance of additional members being 38·8 (12·6 official and 26·2 non-official).

Acts and Bills.

118. The following Acts were passed during the year :—(1) The Madras Civil Courts Amendment Act, 1916, raising the pecuniary limit of the jurisdiction of a District Munsif to Rs. 3,000 ; and (2) the Madras City Civil Court and Presidency Small Cause Courts Amendment Act, 1916, enacting that small cause suits in the Presidency town between Rs. 1,000 and Rs. 2,000 in value, which are cognizable by the Madras Small Cause Court, may at the election of the plaintiff, be instituted in the City Civil Court and also enabling the High Court to transfer such suits filed in the Small Cause Court to its own file or to that of the City Civil Court according to its discretion. The Mappilla Succession Bill, intended to amend and define the law applicable to intestate succession among the Mappillas governed by the Marumakkattayam or the Aliyasantana Law of Inheritance, was withdrawn by the non-official member in charge of the Bill, and leave was granted to him for the introduction of a revised Bill in its place. A Government Bill to regulate the rate of interest and the transfers of land in the Agency tracts of the Ganjām, Vizagapatam and Gōdāvari districts was introduced at the meeting of the Council held on the 21st November 1916 and referred to a select committee for report. The object of the Bill was to check the tendency for the Khonds and other tribes in these tracts to be dispossessed of their more valuable lands by Uriyas and other money-lending classes and to limit the rate of interest on loans to members of hill tribes. The Bill was pending before the Council at the close of the year but has since been passed into law.

Government of India.

119. No draft Bills were submitted during the year by the Local Government to the Government of India for introduction in the Governor-General's Council.

POLICE. (1916.)

[*Report on the Administration of the Police of the Madras Presidency for the year 1916 ; Statistics of British India, Part VI, Administrative and Judicial—Police.*]

Changes in the Police Force.

120. Mr. P. L. Moore, C.I.E., I.C.S., held charge of the department throughout the year. The experimental scheme abolishing the post of Circle Inspector was introduced in Trichinopoly and Kurnool districts. Three additional subdivisions were formed in the former and two in the latter, the cadre of Deputy Superintendents being temporarily increased by four. The Superintendents of the two districts were relieved of the responsibility of any direct charge. Changes in district charges were slightly more numerous than in the preceding year. Seven districts had a single change and four others had two changes. In the remaining seventeen districts there was either no change at all or the change was for a short interval only. During the year two officers died, viz., Messrs. Bernays and Anderson, both of the Imperial Police Service. Mr. Bernays' premature death deprived the department of the services of an able and conscientious officer. Mr. Anderson, who went on leave out of India in 1914, joined the army during his leave in England and died of wounds in the Balkans on 13th September 1916.

Strength.

121. The sanctioned strength of the permanent force on the last day of the year was 32,934 or an increase of 16 over the figure of the previous year. The temporary additional forces consisted of (i) Plague force (1,567), (ii) Police guards at the various criminal settlements in the Presidency (128), and (iii) Temporary forces enlisted for other special purposes (184). With effect from 1st June 1916 the pay of the mufassal constabulary was revised as follows :—(1) The pay of head constables was increased from Rs. 15, 17½ and 20 to Rs. 17, 21 and 25 respectively in all districts except seven, in which the pay of third grade head constables was raised to Rs. 16. (2) The initial pay of constables was raised to Rs. 9½ in seven districts and to Rs. 10 in the remaining districts. (3) A local allowance of one rupee per mensem was sanctioned to constables serving in the towns of Negapatam, Madura and Tuticorin. (4) An advance of Rs. 6 was sanctioned to recruits on enlistment. This enhancement of pay, which was really a very small one as the grain compensation allowance was stopped, had little or no effect on recruitment. The number of vacancies in the constabulary at the end of the year was 1,127, which was only slightly less than that at the beginning of the year. There has been no appreciable improvement in the quality of the men enlisted.

Casualties and Health.

122. There was a decrease in the total number of casualties in the permanent force during the year (3,116 against 3,381). Resignations numbered 758 against 997 and desertions 548 against 587. The number of men discharged from the force was 667 against 560. The percentage of the number of admissions into hospitals was slightly larger than in the previous year while the daily sick rate remained the same (2·7 per cent). The number of deaths in the year was 362 against 378, the percentage to the actual strength being 1·1 against 1·2.

Conduct.

123. The ratio of all punishments inflicted during the year to the actual strength of the force was almost the same as in the preceding year. As regards absence without leave, there was a slight falling off in the percentage. The rise in the percentage of punishments for other offences was small. The average was exceeded in Madras City and twelve districts. There were fewer dismissals (294 against 356). An Inspector of Madura district was dismissed from service for being in league with a notoriously bad character. The number of suspensions was again less (357 against 370). The proportion of blackmarks to the actual strength of the constabulary was practically stationary. Free use was made of the system of deferred punishments. The number of judicial punishments again diminished, being 199 against 223 in the previous year. During the year, the King's Police medal was awarded to ten officers in this Presidency and two officers received titles. Rewards by promotion were

earned by 50 police officers and men against 54 in 1915. There was a satisfactory increase in the amount of money rewards earned by the police and by private individuals.

Education.

124. There were 3,416 head constables and 26,373 constables in the force on the last day of the year. Twenty-nine or 0·8 per cent of the former and 3,035 or 11·5 per cent of the latter were illiterate. There were again no illiterates in the forces of three districts, viz., Coimbatore, the Nilgiris and Trichinopoly Railway Police. The administration of the Provincial Training School, Vellore, continued to be satisfactory. The system of selection of Sub-Inspectors by district committees came into force during the year. The Principal, however, reports that the capacity of the men selected in the year was much the same as in the previous year. The working of the Central Recruits' schools was almost on the same lines as before. The buildings for the Central Recruits' School, Anantapur, were completed and the school has since been opened.

Cost.

125. The cost of the department in 1916 was Rs. 99,04,055 against Rs. 97,03,645 in 1915, the increase being principally due to the revision of pay of the constabulary.

Village Police.

126. The village police are in need of reform, for without their full co-operation the regular police force is bound to suffer in efficiency. Improvement in this direction will be expensive and must presumably wait until financial conditions improve. Meanwhile every effort is being made to secure the co-operation of the village magistrates. During the year 591 village officials were granted rewards against 483 in 1915.

Armed reserves.

127. The armed reserves at district headquarters and the special forces were on the whole kept up to the prescribed strength and maintained in an efficient condition. The orders on the subject of annual mobilization were generally attended to. At Malappuram a bicycle section consisting of one head constable and 12 constables was formed. The good work done by the men of the Kurnool reserve during the floods has been brought to the notice of Government. Swedish drill was introduced and arrangements are being made for the introduction of signalling.

Railway Police.

128. Although there was not much crime of great importance the number of thefts was appreciably higher than in the previous year and this is attributed to the large increase in traffic during the year. Complaints of shortages preferred by the railway authorities are steadily going down, but the number is still large in the Madras Railway Police district. The percentages of detection and of recovery of property were almost stationary. There were 12 collisions and 27 derailments but there was no loss of life. The number of persons run over and killed was almost the same as in the previous year.

Statistics of crime.

129. The prices of food-grains were slightly higher than in the previous year. Nevertheless grave crime decreased appreciably. There was a fall in the total number of true cases of cognizable crime under the Indian Penal Code excluding nuisances (52,776 against 54,474). As regards offences under special and local laws the number for the Presidency rose from 17,659 to 18,747. The number of nuisances again declined. The increase in thefts was no doubt due to the high prices which prevailed. There was a marked decrease in crime against property attended with violence, due in several districts to the restriction of the movements of criminal gangs by the application of the Criminal Tribes Act or to the arrest of notorious criminals and the consequent breaking up of their organizations and also to closer supervision over habitual criminals. The total number of serious offences against person and property was 20,818 against 21,787. There was a decrease of grave crime under every head except "ordinary theft", the total for the Presidency falling by 429 cases. The number of murders was 687 or 15 less than that of the previous year. The most tragic case of the year was the murder of Mr. H. O. D. Harding, I.C.S., District and Sessions Judge, Trichinopoly, in broad daylight just as he was about to enter the court-house. The assasin was a Muhammadan

The Court duffadar who was hard by and tried to protect Mr. Harding also received severe injuries. The murderer was arrested and removed to the sub-jail where he broke away from the guard, and snatching a sword from the guard room, injured a warder and chased the jailor. He had then to be shot and disabled by the head constable of the guard. He was eventually tried and executed. There were no serious disturbances of the public peace during the year. There was a noticeable decrease under dacoities as well as robberies. The former numbered 478 against 562 and the latter 974 against 1,079. The total for both dacoities and robberies for the year has been the lowest in the quinquennium. In Nellore there was again an increase, a large number of dacoities being organized by absconders from Kalichedu settlement, the working of which continued to present difficulties. An outstanding feature of the year's work was the arrest of the absconding members of the Lagarai gang, of whom all but one were caught. The services rendered by various officers including Mr. Sweney, Assistant Superintendent of Police, who was placed on special duty to run down the gang, were acknowledged by Government. A decrease under house-breaking was counterbalanced by a corresponding increase in the number of ordinary thefts which rose from 17,847 to 18,489. In spite of the prevailing high prices of hides, the number of cattle thefts declined from 4,161 to 3,936. There was a decrease in the number of true cases relating to coin (37 against 55).

Detection and prevention of crime.

130. There was a further, though slight, improvement in detection. Excluding false cases and those in which investigation was refused from the total number for disposal, the percentage of detection in the year under report stood at 26·3 as against 25·7 in the previous year. The ratio of convictions in Madras was higher than that of any other province except Bombay. The work of Sub-Inspectors is on the whole fairly well reported on. The general impression is that with increasing experience the Sub-Inspector handles individual cases better than formerly, though he still lacks skill in picking up information. A very pressing need of the department is for a more intelligent and better class of head constable who can be of some real use to the Sub-Inspector in the investigation of crime. As regards the Circle Inspector, the experiment which is under trial in Trichinopoly has shown that in the absence of this intermediate officer, the work of Sub-Inspectors can be controlled better than formerly by subdivisional officers. Out of a total of 50,984 cases reported to the police during the year under classes I to V, investigation was refused in 3,340 or 6·6 per cent against 4·4 per cent in 1915. It does not appear that the power to refuse investigation was abused anywhere. There was a further but slight increase in the amount of property lost during the year under report, while the percentage recovered was only 20·7 as against 22·2 in 1915. The percentage of successful prosecutions rose from 72·8 to 73·7, but the proportion of the number of persons convicted to those tried was still low. The poor results in prosecutions are mainly due to the inadequacy of the police prosecuting staff and the lack of supervision over investigations. The number of prisoners who escaped from police custody was 133 against 158 in the previous year. One hundred and eight of them were recaptured during the year, besides 24 who had escaped in previous years. The number of cases struck off as "wilfully and maliciously false" fell from 4,829 to 4,560.

Preventive work and criminal gangs.

131. There was a decrease in the number of known depredators as well as suspects registered, while the number of receivers registered was nearly the same. The total number of bad characters at large at the close of the year declined from 24,760 to 23,729. Of these 8·1 per cent were out of view. Relations with the Mysore Police, His Highness the Nizam's Police and the French Police continued to be satisfactory. The provisions of section 10 (*b*) of the Criminal Tribes Act were made applicable to three fresh tribes during the year. The number of persons registered under the Criminal Tribes Act during the year was 3,476. The number of persons convicted under the Act during the year was 1,323. The Deputy Inspector-General of Police, Railways and Criminal Investigation Department, was

entrusted with the general supervision and control of all the settlements in the Presidency. The work of the various settlements has not been uniformly successful, the chief trouble being to find suitable labour for the members. An attempt made to introduce members of the Kalichedu settlement into the tea plantations of the Anamalais proved a failure. In all there were ten settlements (including voluntary settlements) at work during the year and five of them are considered to have been fairly successful. The strength of the schools at the various settlements on the last day of the year was 984 (616 boys and 368 girls). The number of persons bound over under the Criminal Procedure Code was slightly less than in the previous year (1,719 against 1,774). The number of persons sent to jail for failure to furnish security was 1,197.

Criminal Investigation Department.

132. A watch over seditious literature continued to be kept. Besides other work, mostly of a confidential nature, the members of the staff were engaged in collecting information about the movements of criminal gangs, in examining coins in the sub-treasuries and railway cash offices throughout the Presidency and in the investigation of special cases such as note forging, false personation, theft of railway mail bag, etc. The number of references to the Finger-print Bureau was 15,398 against 16,271 in 1915 and the number of successful identifications was 3,753 or 24·4 per cent, a record figure. These include 2,999 references from other Provinces and Native States of which 394 were identified. The number of finger impression slips received for record during the year was 13,336.

Finger-print Bureau.

CRIMINAL JUSTICE. (1916.)

[*Statistics of the Criminal Courts in the Madras Presidency for the year 1916; Statistics of British India, Part VI, Administrative and Judicial—Criminal Justice.*]

Courts.

133. On the 31st December 1916, there were in the Madras Presidency the following criminal courts, viz., the High Court, 25 Sessions Courts (including three for Agency Tracts), 5 Additional Sessions Courts (including four in Agency Tracts), 25 District Magistrates' Courts, 2 Additional District Magistrates' Courts, 4 Presidency Magistrates' Courts, 103 Subdivisional Magistrates' Courts, 22 Courts of Assistant and Deputy Magistrates without divisional charges, 444 Subordinate Magistrates' Courts (including 124 Tahsildar Magistrates' Courts), 131 Benches of Magistrates (on which 899 Honorary Magistrates had seats), 85 Special Magistrates' Courts, 4 Cantonment Magistrates' Courts, and 4 Honorary Magistrates' Courts. This year two Benches were established in the town of Madras, in addition to the two already working and on the last day of the year there were 97 Honorary Magistrates as against 74 in 1915. During 1916, 19 new Bench Courts were established, of which 5 were in North Arcot and 6 in Tanjore. Besides Magistrates of the classes already mentioned 4,299 Village Magistrates exercised jurisdiction. Compared with the figure for 1915 (4,314) and the average for the preceding five years (4,392) the number shows a slight decrease. Opinions still differ as to whether litigants prefer a cheap court or the greater dignity of a more expensive court. The total number of original cases instituted in the Criminal Courts during the year was 343,352 or 4,965 more than in the previous year; the Presidency town contributed 57,566 cases, Tanjore 19,524, Trichinopoly 18,749 and North Arcot 18,338. The number of appeals preferred fell from 10,619 to 10,200.

Village Courts.

134. In the Village Magistrates' Courts the total number of cases instituted fell from 12,669 to 12,072 and the number of persons tried by those courts also fell from 21,597 to 21,091 in 1916. Of these 16·57 per cent were convicted against 17·94 per cent in 1915.

Original cases.

Regular Magistrates' Courts.

135. The number of cases instituted in the Regular Magistrates' Courts in the mufassal was 272,241 against 267,257 in 1915, of which 3,715 were pending at the end of the year against 3,716 in 1915. The average duration of a trial was 6·9 days against 6·8 in the previous year; before

Bench Courts and Special Magistrates, the average duration was 2 days, before Sub-Magistrates 9, before the Deputy Magistrates 26, before Assistant Magistrates 12, and before Joint Magistrates 29. The total number of cases instituted in the Presidency Magistrates' Courts was 57,523 against 57,010 in 1915. An increase in the cases under the City Police and Hackney Carriage Acts is attributed to the more energetic application of the provisions of these laws by the executive. A decrease of 2,000 in the cases under the City Municipal Act is ascribed to recovery of taxes in a large number of cases without recourse to law, to vigilant protection of the water-supply at the Red Hills by watchers, and to the greater opportunity given to persons who had infringed sanitary regulations of conforming to the requirements of law. The number of cases committed to the sessions in the mufassal was 1,473 against 1,417 in 1915. The courts to which the largest number of cases was committed were the courts of Coimbatore (144), South Malabar (107) and North Arcot (102). Coimbatore and South Malabar had also the largest number of cases for trial in 1915 and Coimbatore and North Arcot in 1914. There was a noticeable increase in the number of cases committed to the Sessions Courts of Coimbatore (33), Trichinopoly (30) and Tinnevelly (12). There was a fall in Tanjore (24) and South Arcot (9). The total number of cases pending in all the courts was 37 against 46 at the end of 1915. The average duration of cases before Sessions Courts rose from 40 to 41 days; 3,369 persons were under trial and of these 1,641 or 48·71 per cent were discharged or acquitted. Forty-three cases were committed to the High Court Sessions against 34 in the previous year.

Presidency Magistrates' Courts.

Sessions Courts.

The High Court.

Appeals.

Magistrates' Courts.

136. Of the persons sentenced by second and third-class magistrates, 15,050 appealed to first-class magistrates as against 16,129 in the previous year. The appeals of 744 persons were pending at the end of the year as against 849 at the end of 1915. The average period which elapsed between the presentation of an appeal and its disposal in the courts of subdivisional magistrates was 18 days against 19 days in the previous year. The percentage of successful appellants was the same as in last year, viz., 31. The number of persons who appealed to Sessions Courts against the decisions of first-class magistrates was 2,640 against 2,374 in 1915. The average duration of an appeal in the Sessions Courts fell from 31 days in 1915 to 27. The percentage of appellants who had their convictions reversed or the proceedings quashed was 19·4. The number of appellants to the High Court was 1,001 against 1,255 in 1915. The Government appealed against the acquittal of 47 persons, the average for the preceding five years being 61. Four hundred and seventy-six appellants had their appeals rejected *in limine*; the convictions of 85 persons were set aside, and in the case of 13 the order of acquittal was altered into one of conviction on appeal by Government. The finding and sentence in the case of 235 persons were maintained after notice and on 61 the sentences were reduced or otherwise altered. New trial or further enquiry was ordered in the case of 43 persons. The average duration of an appeal was 43 days against 47 days in 1915.

Sessions Courts.

The High Court.

Reference and Revision.

137. The number of applications for revision presented in the District Magistrates' courts was 587 against 553 in 1915. The District Magistrates took up 38 cases *suo motu* or on reports from subdivisional magistrates, against 49 in the previous year. In Sessions Courts 424 applications for revision were presented or 18 less than in the previous year: and the number of cases taken up *suo motu* was 67 against 94 in 1915. Nine hundred and fifteen revision petitions were received in the High Court; 127 cases were reported by District Magistrates and Sessions Judges and 49 were taken up by the High Court *suo motu*. Death sentences on 99 persons were referred to the High Court for confirmation under section 374 of the Code of Criminal Procedure. The sentences on 63 persons were confirmed, those on 10 persons were commuted to transportation for life, and the sentences on 26 persons were reversed and acquittal ordered. Of the cases referred by Sessions Judges under section 307, Criminal Procedure Code,

on the ground that the verdicts were wrong, the verdicts on 32 persons were upheld and those on the remainder (13 of "guilty" and 16 of "not guilty") were reversed.

The Jury system.

138. The number of persons tried by jury was 1,318 and in the case of 1,247 persons the Judges approved of their verdict. The number of persons tried with the aid of assessors was 1,561. In the case of 1,025 persons the Judge agreed with all the assessors and in the case of 215 he differed from one or more of them and in the case of 321 he differed from all the assessors. The majority of the Judges reported that the jury system on the whole worked fairly well.

Miscellaneous.

Punishments.

139. The number of witnesses detained for over three days was still large both in Magistrates' Courts and in Sessions Courts. 242,882 sentences were passed during 1916 of which 63 were of death, 177 of transportation, 19,283 of rigorous imprisonment, 5,051 of simple imprisonment, 308 of forfeiture of property, 217,158 of fine and 842 of whipping. The amount of fines imposed was Rs. 10,22,955, of which a sum of Rs. 45,821 was paid to complainants under section 545 of the Code of Criminal Procedure. One thousand two hundred and sixty-six persons were bound over to keep the peace of whom 764 were not given any additional punishment. One thousand eight hundred and sixty-six persons were ordered to give security for good behaviour, and for failing to give such security 1,326 persons were imprisoned. Of the total sentences of imprisonment passed 3,470 were for periods of fifteen days and under (apart from those passed by village magistrates); the number of short sentences is still large and is very little less than that for 1915 (3,818). Three hundred and twenty-nine persons were released on probation of good conduct under section 562, Criminal Procedure Code, as against 390 in the previous year. A great reduction is noticeable in the number of punishments by confinement in the stocks (346 against 812 in 1915), in pursuance of the order of the Government directing the discontinuance of this form of punishment except in special cases.

Stocks.

Juveniles.

140. Two thousand eight hundred and ninety-eight boys and 431 girls were under trial during the year, chiefly for offences under special and local laws; of those who were convicted, the sentences of 37 were commuted to detention in the Reformatory School, 41 were discharged after admonition, and 22 were delivered to their parents or guardians. It is satisfactory to observe that the number of juveniles in jails fell from 146 in 1915 to 94 in 1916.

PRISONS. (1916.)

[*Report on the Administration of the Jails of the Madras Presidency, 1916; Statistics of British India, Part VI, Administrative and Judicial—Jails.*]

Accommodation.

141. The number of central and district jails remained the same as in the previous year, viz., 9 and 5 respectively. The sub-jail at Kokkarakulam in the Tinnevelly district was closed and one at Mummidivaram in the Gōdāvari district was opened; so the total number of sub-jails was the same at the end of the year as at the beginning, viz., 319. At the close of the year, there was accommodation in the central and district jails and in the Civil Jail, Madras, for 12,222 prisoners as compared with 12,086 at the end of the previous year. The increase was largely due to the construction of additional cells at Coimbatore and Bellary, to the construction of a hospital at Cannanore and to additional accommodation provided for civil prisoners at Vellore and Cuddalore. The daily average population for these jails was 10,169 and thus accommodation was sufficient and there was no overcrowding to any serious extent except in the case of civil prisoners.

Prisoners.

142. On the 1st January 1916, there remained in the jails and the sub-jails together a total population of 12,537 prisoners of all classes; 91,956

were admitted during the year and 92,066 discharged from all causes, leaving 12,427 in confinement at the close of the year. The daily average population increased from 12,181·25 to 12,440·07 in the year under review. The number of undertrial prisoners who remained in custody at the beginning of the year was 1,813; 40,156 were received during the year and 40,225 were discharged from all causes leaving 1,744 in confinement at the end of the year. The daily average number was 2,003·93 as compared with 2,034·70 in 1915. Sessions prisoners were detained in jail on an average for 26·52 days, which is an improvement over the previous year when it was 33·88 days, but those pending trial before magistrates were kept for 15·52 days against 14·75 in 1915. Of the total number of prisoners dealt with during the year, 37·98 per cent were convicted, 54·73 per cent were acquitted or discharged. Among this class of prisoners, there were 16 deaths and 33 escapes, of which 13 escaped from the District Jail, Cuddalore, and 20 from sub-jails. On the first day of the year 646 civil prisoners remained in custody and 4,185 prisoners were received during the year making a total of 4,831 dealt with; of these 4,227 were released, 20 were transferred, 5 died and 579 remained in jail at the close of the year. The daily average number was 474·10 as compared with 471·53 in the previous year, and was the highest on record. Six State prisoners remained in jails at the beginning of the year and six were in confinement at its close.

Undertrial Prisoners.

Civil Prisoners.

State Prisoners.

Convicts.

143. At the commencement of the year, the convict population stood at 9,830 males and 248 females; 21,532 males and 1,104 females were received during the year by direct committal as compared with 22,817 males and 1,068 females in 1915. Of those discharged during the year, 2,573 were released on appeal, 17,626 on expiry of sentence, and 3,080 under remission rules. Under the orders of Government, 190 convicts were released on account of sickness or other grounds. The number of convicts deported was 105, and 22 were transferred to the Lunatic Asylum at Madras. Six prisoners escaped and remained at large, 59 were executed and 129 died. The daily average number advanced from 9,675·02 in 1915 to 9,962·04 in 1916. Of the convicts admitted, 88·27 per cent were Hindus, 8·94 per cent Muhammadans, 2·78 per cent Christians and ·01 were Buddhists or Jains. The reduction in the number of convicts admitted under sixteen years of age from 146 in 1915 to 94 is noteworthy. The ratio per cent of convicts who had been previously convicted advanced from 11·21 to 13·84. The number of boys under fifteen years of age declined from 30 to 24 but the number of girls admitted was 15 as compared with 3 in the previous year. Twelve boys were transferred to the Reformatory School at Chingleput and the remaining 12 boys and 13 girls served their sentences in jails. The Tanjore District Jail for adolescents continued to be efficiently managed. The chief industries are carpentry, weaving and agriculture, and steps have been taken to teach such new industries as will be useful to the youths after release.

Juveniles.

Conduct.

144. There were eleven escapes from central and district jails during the year and ten from sub-jails. Of the eleven escapes from jails, nine were from inside and two from outside the jail. The number of convicts recaptured during the year was 25, including 10 who had escaped in previous years. The number of offences and punishments declined, the former from 8,799 to 8,524 and the latter from 8,859 to 8,619. There were nineteen cases of corporal punishment during the year as compared with seven in the previous year. Penal diet with or without solitary confinement was imposed in 185 cases as compared with 111 in the previous year. The ratio of punishments to the daily average population was only 86·52 per cent and is the lowest on record for the past fifteen years. On the 1st January 1916 there remained in confinement 3,678 habituals in all the central and district jails and 3,959 were received during the year, making in all 7,637 habituals dealt with. They formed 28·04 per cent of the convict population but received no less than 53·23 per cent of the punishments, and 18 of the 19 whippings awarded during the year were to habituals. During the year 3,070 convicts were released under the remission rules. Four convicts who came under the remission system failed to gain any

Habituals.

Remission.

remission. The largest remission of 1,021 days was earned by a convict sentenced to transportation for life released from the Trichinopoly Central Jail. The same prisoner earned the maximum gratuity of Rs. 58-15-6. Special remission for continuous good conduct for one year was awarded to 1,835 convicts as compared with 1,750 in the previous year. The system of paying prisoners in cash or by grant of remission for extra work performed was taken advantage of by fewer prisoners. Every jail has a school attached to it and instruction is given by paid teachers assisted by literate convicts. The general course of instruction is reading and writing, the four rules of arithmetic and working out bazaar bills. The teaching is in the vernaculars, but in some jails English is also taught. The schools are being inspected by officers of the Educational Department. New school buildings are being built and school libraries and other equipment are being gradually provided. Religious and moral instruction is also given by the paid staff while several non-official gentlemen have delivered lectures on religious and moral subjects and presented money and books for jail libraries.

Education.

Vital statistics.

145. The admissions to hospital numbered 4,485 as compared with 4,297 in the previous year and there were 150 deaths as against 134 in 1915. The death-rate was 12·06 per mille as compared with 11·00 in the preceding year.

Sanitation.

146. At Rajahmundry a second oil-engine was provided for the drinking water well. A new pump was purchased for the aermotor of the big well in the Coimbatore Jail, and the well in the dhoby yard was provided with a pump. A deep well has been dug in the close prison compound of the Trichinopoly Central Jail. A new fly-proof kitchen with a new cooking-range was constructed in the Salem Central Jail. A clockwork patent fly trap was put up in the kitchen of the Penitentiary, and several improvements were effected in the kitchens of Madura, Tanjore and Vizagapatam jails. Cage latrines were built in the association wards of Rajahmundry and the old pattern latrines in the hospital and in three blocks were rendered fly-proof. All the latrines in the Coimbatore Jail were rendered fly-proof and new fly-proof latrines were put up at Salem. A new hospital was completed at the Cannanore Central Jail and fitted with up-to-date appliances.

Financial.

147. Excluding the outlay by the Public Works Department on buildings, the total expenditure of the year was Rs. 15,46,965 which exceeds that of the previous year by Rs. 38,462 owing to a larger outlay on manufactures and increased expenditure on account of petty construction and repairs. The total cost and cost per head under dietary charges fell owing to the issue of rice diet to a smaller number of prisoners and to more favourable rates obtained for rice, ragi and dhall. The total cost per head of maintaining prisoners was Rs. 83-0-5. The net cash earnings of prisoners rose from Rs. 1,62,653 to Rs. 1,74,904 and the average per head rose also from Rs. 42-7-0 to Rs. 46-11-0. The value of convict labour supplied to the Public Works Department amounted to Rs. 3,427. The net cost for maintaining prisoners decreased from Rs. 8,68,996 in 1915 to Rs. 8,57,964 in 1916 and the net cost per head of average strength from Rs. 71-5-0 in 1915 to Rs. 65-3-0 in 1916. The expenditure on jail buildings including the money spent by the Public Works Department amounted to Rs. 1,39,008 as compared with Rs. 1,58,762 in the previous year.

CIVIL JUSTICE. (1916.)

[*Statistics of the Civil Courts in the Madras Presidency for the year 1916*; *Statistics of British India, Part VI, Administrative and Judicial—Civil Justice.*]

Courts.

148. On the 31st December 1916, there were in the Madras Presidency the following permanent civil courts, viz., the High Court, the Presidency Court of Small Causes, the City Civil Court, 25 District Courts (including

three for Agency tracts), 30 Subordinate Judges' courts (including 11 for Agency tracts and one Revenue Officer exercising the powers of a Subordinate Judge), 156 District Munsifs' courts (including 22 for Agency tracts and 4 Revenue Officers exercising the powers of District Munsifs), and 127 Revenue courts. At the end of the year there were 20 temporary Subordinate Judges' courts and 29 temporary Additional District Munsifs' courts. Three new Subordinate Judges' courts were established at Chingleput, Cuddapah and Rajahmundry. A temporary Subordinate Judge's court was established in Bellary for nine months during the year. Two special Small Cause courts were established at Trichinopoly and Kumbakōnam, as a result of which the temporary Subordinate Judge's court and the Additional District Munsif's court at Trichinopoly ceased to exist. It was found necessary to continue all the Additional District Munsifs' courts except that at Trichinopoly. In addition four new courts had to be opened in June owing to the pressure of work and accumulation of arrears. Three members of the Indian Civil Service were selected to undergo judicial training. In addition to the regular courts, 5,817 village courts exercised civil jurisdiction during the year against 6,007 in 1915.

Litigation. Number of suits.

149. The total number of suits instituted in the Presidency in 1916 was 543,716 against 555,020 in 1915. For the Presidency as a whole, one suit was instituted for every 76 persons as against one for every 75 persons in 1915 and the ratio for the Presidency town was one for every 28 persons as against one for every 25 in 1915. In the mufassal, North Malabar showed itself as usual the most litigious district with one suit for every 33 persons and, apart from the Agency tracts, Bellary was again the least litigious with one suit for every 259 persons.

Nature of suits.

150. The number of suits instituted for money or movable property was 467,010 or 89·25 per cent of the total as against 86·67 per cent in 1915, when the number of suits of this class was 481,014. The number of suits for immovable property other than mortgage suits was 23,355 against 21,707 in 1915, and the number instituted in revenue courts was 20,423 against 21,751 or 1,328 less than in the previous year. 27,020 mortgage suits were instituted against 24,724 in the previous year. The number of suits for specific relief was 4,856 against 4,723 in 1915.

Value of suits.

151. The total value of suits instituted in 1916 in courts other than village and revenue courts and unpaid tribunals was Rs. 936·15 lakhs, or Rs. 154·84 lakhs more than in the previous year. The average value of each suit was Rs. 242 against Rs. 202 in 1915. The number of suits above Rs. 500 in value was 22,506 against 21,968 in 1915—the highest figure on record.

Percentage of successful plaintiffs.

152. Apart from suits compromised or disposed of without trial, plaintiffs in 77·04 per cent of the suits disposed of during the year succeeded in obtaining decrees for the whole or part of the relief claimed against 78·09 per cent in 1915 and an average of 75·03 for the preceding five years.

Number of appeals.

153. The number of appeals preferred in 1916 was 16,454 or 823 more than in the previous year; the average for five years ending with 1914 was 15,502.

Courts of Original Jurisdiction. Village Courts.

154. The total number of suits instituted in village courts was 136,516 against 145,587 in 1915. A large decrease was noticeable in all the districts except six. The number of suits disposed of by village munsifs sitting alone rose from 121,189 in 1915 to 125,488 in 1916, but there was a considerable fall in the number of suits tried by benches, 10,404 against 22,656 in 1915. The fall is evidently due to the correction of the mistaken procedure under which the disposals of village munsifs sitting singly in bench areas had been shown as the disposals of benches in the previous year.

Revenue Courts.

155. The total number of suits filed in revenue courts other than in Agency tracts fell from 21,664 to 20,324. The fall was most marked in Trichinopoly, Ramnad and Vizagapatam. There was an increase in Chittoor, Salem and Kistna. The total number of suits disposed of was

22,055 against 22,716 in 1915 and there was a slight reduction in the arrears. The average duration of contested suits rose from 173 days in 1915 to 198 days in 1916 but that of uncontested suits fell from 90 days to 66. The proportion of appeals preferred from the decisions of revenue courts to appealable decrees passed by them rose from 8·19 in 1915 to 10·24.

Agency Courts.

156. The number of suits instituted in Agency courts was 1,650 against 1,415 in 1915. The number of suits disposed of was 1,588 and 318 were left pending at the end of the year against 240 in the previous year. The average duration of contested suits rose from 94 days in 1915 to 131 days and that of uncontested suits remained as in last year, viz., 50 days.

District Munsifs' Courts.

157. In the District Munsifs' courts other than those for Agency tracts, 109,917 ordinary suits were instituted or 3,476 more than in the previous year and 4,630 less than in 1912, when the highest figure was recorded. The average total disposal for each court during the year was 2,111 against 2,144 in 1915 and 1,924 in 1914. Of the ordinary suits disposed of 58,057 were contested against 55,875 in 1915. The arrears of ordinary suits fell from 52,611 at the end of 1915 to 52,388 at the end of 1916 and the arrears of small causes fell from 23,873 to 22,572. The average duration of contested ordinary suits was 323 days against 339 days in the previous year and 345 in 1914. The average duration of uncontested ordinary suits rose from 55 to 56 days in the year. Considering that the District Munsifs' courts have had to deal during the last two years with an increase of suits to the extent of over 80,000 during which period their number has only increased by six, it is satisfactory that the arrears have increased by only 2,500 suits during that period.

District and Subordinate Judges' Courts.

158. In the Subordinate Judges' courts other than those for the Agency tracts, 2,394 ordinary suits and 21,205 small cause suits were instituted during the year against 2,242 and 29,263 in 1915 and the average of 1,849 and 30,421 for the five years ending 1914. The number of ordinary suits disposed of rose from 2,512 to 2,849 and the arrears increased from 2,416 to 2,438. 23,051 small cause suits were disposed of and the number left pending was reduced from 4,972 to 3,226. The average duration of contested ordinary suits in Subordinate Judges' courts was 559 days against 437 days in 1915 and it exceeded 250 days in all the Subordinate Judges' courts except two. The number of ordinary suits disposed of by District Judges after trial was 345 of which 269 were contested. The average duration of ordinary suits in district courts was 463 days against 570 in 1915 in the case of contested suits and 135 days against 128 in 1915 in the case of uncontested suits.

City Civil Court.

159. In the Madras City Civil Court, 501 suits were instituted against 470 in 1915 and 405 in 1914. The Judge disposed of 504 suits, of which 337 were contested and the rest uncontested. The average duration of contested suits fell from 387 days in 1915 to 234 in 1916 but that for uncontested suits rose from 39 days to 52.

Presidency Court of Small Causes.

160. In the Presidency Court of Small Causes, the number of suits instituted was 17,337 against 19,540 in 1915. The number of suits disposed of was 17,528 against 19,836 in 1915. The arrears decreased slightly. The average duration for contested suits rose to 37 days.

The High Court.

161. In the High Court, the number of suits instituted or received by transfer was 510 against 542 in 1915 and 448 in 1914. The number of suits disposed of was 598 against 566 in 1915 and 551 in 1914 and the arrears further decreased from 367 to 287, the lowest figure since 1908. The average duration of contested suits was 438 days. One prize case was instituted and disposed of in 1916.

Insolvency.

Mufassal Courts.

162. The steady increase in the number of insolvency petitions presented to the mufassal courts was maintained in 1916, the number instituted being 2,348 against 2,140 in 1915. The number of persons adjudged insolvent was 1,398 against 1,303 in 1915. Creditors' claims were admitted for Rs. 11,03,428 and the assets distributed were Rs. 4,51,477 against Rs. 2,41,875 in 1915. The number of insolvency petitions presented in the High Court during the year was 274 against 337 in 1915 and 278

The High Court.

were disposed of. Claims admitted during the year were Rs. 6,20,042 and the amount paid as dividend to creditors was Rs. 2,02,453.

Appellate Courts.

Agency Courts.

163. The number of appeals filed in Agency tracts fell from 123 in 1915 to 61 in 1916. The number of appeals disposed of was 64 and 8 were left pending at the end of the year. The average duration of appeals in these courts was 54 days against 31 days in 1915 and 46 in 1914 and the percentage of confirmation was 55 against 34·45 in 1915.

District and Subordinate Judges' Courts.

164. In the District and Subordinate Judges' courts the number of appeals filed was 13,334 against 12,200 in 1915. The number of appeals pending for more than six months before Subordinate Judges rose from 625 to 1,175 while those before District Judges fell from 2,731 to 1,728. The average duration of appeals disposed of by District Judges was 430 days for uncontested and 316 for contested appeals.

The High Court.

165. The number of appeals from original decrees of mufassal courts filed in the High Court in 1916 was 428 against 451 in 1915. The number disposed of was 553 against 538 in the previous year and the arrears decreased from 850 to 725. The average duration of appeals disposed of was 548 days against 650 in 1915 and 883 in 1914. The number of letters patent appeals (other than original side appeals) filed was 289 against 243 in 1915. The number of appeals received against appellate decrees was 2,006 against 2,197 in 1915. The number of revision petitions filed in the High Court was 1,413, of which 797 were for the revision of decisions in small cause suits against 1,091 and 566 respectively in 1915. The number of petitions disposed of was 1,644 against 1,306 in 1915 and the arrears fell from 1,295 to 1,064. The number of cases referred by the lower courts to the High Court was 8. Seventeen cases were left pending at the end of 1915 and of the 25 cases for disposal, 18 were finished.

Reference and revision.

Miscellaneous.

Execution.

166. The total number of applications for execution received in all the courts in the mufassal taken together, except village courts, was 356,881 against 335,847 in 1915. Satisfaction was obtained in full in 16·66 per cent, part satisfaction in 7·79 of the applications disposed of, and the number of wholly infructuous applications rose from 252,258 to 266,285. The number of debtors imprisoned in execution was 2,300 against 3,169 in the previous year. 397 judgment-debtors were imprisoned in execution against 436 in 1915.

Inspections.

167. Nearly all the permanent District Munsifs did some inspection of village courts during the year. Ninety-five District Munsifs' and Subordinate Judges' courts were inspected.

Finance.

168. The total receipts of civil and criminal courts in the Presidency in 1916 amounted to Rs. 1,12,40,266 and the charges to Rs. 87,80,376, leaving a large surplus of Rs. 24,59,890. The charges include money spent on the upkeep of buildings and all other charges except pensions and cost of new buildings.

Shorthand writers.

169. All District and Subordinate Judges and selected District Munsifs of the first grade were specially empowered to dictate judgments to a shorthand writer in open court. The privilege was a considerable relief to those who used it.

REGISTRATIONS AND COMPANIES. (1916.)

[*G.Os. No. 1391, Home (Judicial), dated 5th July 1917, and No. 1392, Home (Judicial), dated 5th July 1917; Statistics of British India, Part II, Commercial, and Part VI, Administrative and Judicial—Registration—Indian Companies Act.*]

Offices.

170. No new offices were opened during the year so that the number of offices remains 513 as in 1915.

Registrations.

171. The decline in registration which marked the beginning of the war was checked about the middle of 1915, since when things have been steadily improving, people having become accustomed to abnormal conditions. The recovery has been so rapid that in 1916 registrations reached the record figure of 1,377,135, as compared with 1,285,051 in 1915 and 1,371,747 in 1912. Taking the figures for the triennium, the number of

registrations in the three years ending 1916 was 3,984,996, which is about 7,000 less than the number for the previous triennium. The general rise in prices during the last few years has caused a corresponding rise in the value of land, which is shown by the fact that whereas sales of all values have in the last fifteen years advanced by only ·63 per cent, those of property worth Rs. 100 and upwards have risen by 7·09 per cent. The effect of the war has been felt most severely in those districts which produce industrial crops for export, especially the groundnut area in South Arcot where there has been a marked decrease in registrations. The depression in the weaving industry seriously affected the districts of Madura and Ramnad. The tightness of the money market and the increasing activities of co-operative credit societies combined to cause a drop of 3·75 per cent in mortgages. There has been a continued advance in the registrations of wills and in the number of documents registered on behalf of co-operative societies.

rosecu-ons.

172. The number of private prosecutions under the Act fell from 26 to 14 during the last three years, but departmental prosecutions rose in the same period from 26 to 29 of which 18 were for false personation.

inance.

173. The total income for the triennium ending in 1916 was Rs. 70·18 lakhs as against Rs. 65·26 lakhs during the preceding triennium. In the same period the expenditure rose from Rs. 39·30 lakhs to Rs. 40·58 lakhs. The income and expenditure in the year 1916 were Rs. 24·66 lakhs and Rs. 13·58 lakhs, respectively, as against an income of Rs. 22·71 lakhs and an expenditure of Rs. 13·70 lakhs in 1915.

egistered ompanies.

174. The year opened with 387 working companies, 344 limited by shares and 43 by guarantee. Seventeen were registered, 16 limited by shares and 1 by guarantee. Twenty-nine companies, 27 limited by shares and 2 by guarantee, ceased to exist. There were 374 working companies at the close of the year, 332 limited by shares and 42 by guarantee. Of the 17 new companies registered, 3 are European concerns. Whereas in the three years during which the present Act has been in force new registrations have almost maintained a dead level, the number of companies that have ceased to exist has shown a steady decline, thus indicating the beneficial effects of the Act in putting an end to unsound concerns. The fall of companies has been due chiefly to the launching of enterprises without foresight and out of season or without adequate expert knowledge among the chief office-bearers, the disappearance of the prime-mover in one-man concerns, dishonesty on the part of directors, competition by better-established rivals and, last but not least, the lack of co-operation among the constituents, of a proper business spirit in the supervising agency and of sustained zeal in the organizers. Of the 29 companies which ceased to exist, 13 were banking and lending firms, 5 were insurance companies and 7 were trading concerns. The new companies registered include 8 trading houses, 2 banks, 2 mills and presses and 2 mining companies. The aggregate increases in the authorized, subscribed and paid-up capitals were Rs. 29,17,837, Rs. 44,40,381 and Rs. 31,04,423, respectively. Of the last increase, nidhis absorbed about Rs. 20 lakhs, trading concerns Rs. 6 lakhs, planting companies Rs. 4½ lakhs and other companies half a lakh. There is ample scope for insurance work in India, but the lack of local expert knowledge on the subject stands in the way of any safe and appreciable extension by companies of this class established in India. The planting companies concern themselves mainly with crops not indigenous to the soil and here the lack of Indian enterprise is marked. There were several prosecutions for technical offences under the Act, but it is noteworthy that none of them were in Madras in spite of the number of companies there. The only serious case was that against the officers of the Permanent Investment Saving and Lending Society, Limited. Now that the Act has been in operation for three years its provisions, which at the outset were viewed as extremely stringent, are becoming better known and are receiving closer attention at the hands of companies, with the result that there is smoother working. The stagnation in joint stock enterprise in this Presidency may be attributed primarily to the financial stringency consequent on the war. It is probable also that the Indian

investor is holding his hand pending the results of the labours of the Industries Commission in order to see how far and in which directions the State will act as a pioneer in industries. One new provident insurance society was registered during the year and 4 ceased to work, reducing the number of working societies from 21 to 18. The constitution of the majority of these funds is crude and unsound. The dividing societies, i.e., those which collect monthly premia and devote a fixed percentage of the collections to meeting death claims or marriage bonuses, are, as a rule, promoted by a handful of organizers. From the percentage reserved for working expenses are met the establishment expenses, commission to agents and canvassers and contingencies, and the balance is divided amongst the share-holders. The profitable nature of this arrangement to the promoters is apparent from the fact that in one of these societies with a paid-up capital of Rs. 1,000 the annual profits appropriated by the nine share-holders during the first three years of the existence of the society average Rs. 6,600. Certificates of health are not demanded in the case of the insured and the rate of mortality amongst them is, as might be expected, high. Moreover, the subscriptions are fixed and do not vary with the age of the insured at the time of admission. The inspections by the Registrar during the last two years have hastened the end of several of those societies and it is satisfactory that the number has dwindled from 16 in 1914–15 to 7 in 1916–17. The next class of any importance is commonly known as "death-call societies." These do not collect monthly subscriptions, but make a call of a fixed amount on the occurrence of the death of a policy-holder, the amount collected less the expenses for issuing the calls being paid to the nominee. There is no provision in the present law to prevent the starting of societies of either of these descriptions, but the care which is taken to ensure that provident insurance societies comply with the Act is evidenced by the fact that, instead of the 123 societies which were working at the time of its introduction in 1912, the number now stands at 18.

Provident Insurance Societies Act, 1912.

175. The number of notarial stations and that of registering officers exercising the functions of Notaries Public remained the same as at the close of the previous year, viz., 140 and 178, respectively. The operations were performed at 17 stations against 18 in 1915–16. The decline in operations under bills of exchange, which is to be attributed to fewer transactions owing to the continuance of the war, was most marked in districts where an extensive trade in cotton and copra existed in the pre-war period. The scarcity of money consequent on the dislocation of commerce entailed by the war had the opposite effect on the notings and protests of promissory notes which rose in number mainly in Tinnevelly and South Malabar. Fees realized amounted to Rs. 255 against Rs. 533 in 1915–16 and a sum of Rs. 56 was expended by the Notaries Public.

Notaries Public. (1916–17.)

CO-OPERATIVE SOCIETIES.

(1st July 1916 to 30th June 1917.)

[*Annual Report on the working of the Co-operative Societies Act for the year 1916–17; Statistics of British India, Part II, Commercial.*]

General.

176. On the whole the year was one of progress for the co-operative movement. The total cost to Government of working the Act was equivalent to ·807 per cent of the total working capital of societies as against ·869 in the previous year. The Madras Central Urban Bank, Limited, was converted into a Provincial bank, having agreed to throw open its shares to societies. The Vizagapatam District Supervising Union was converted into a banking union and banking unions were formed at Vellore and Berhampur. There was a great increase in the number of local administrative unions of societies, 27 fresh unions being registered during the year, thus bringing the total number to 56. The

number of societies in the Presidency under the control of local or banking unions was 1,758 as against 1,212 of the previous year. There is reason to hope that practically all the primary societies in the Presidency will soon come under the scheme. As many as 421 societies were registered and the registration of six societies was cancelled during the year. There were on the 30th June 1917, 163,121 individual members in 2,216 societies (excluding 57 unions and the liquidated societies) against 136,286 in 1915–16, giving an average of 74 members to a society. The working capital of all societies rose from Rs. 168·89 lakhs to Rs. 204·99 lakhs and the paid-up share capital from Rs. 16·12 lakhs to Rs. 20·49 lakhs; loans from central banks and other societies to societies other than central banks rose from Rs. 59·47 lakhs to Rs. 71 lakhs, and the reserve fund from Rs. 8·49 lakhs to Rs. 9·63 lakhs. An even larger sum could have been profitably employed by the societies had it been available; but the banks were unable, owing to the general financial situation, to satisfy all the applications received. Out of 118,939 members of agricultural societies, 87,798 were pure agriculturists, 6,556 were Christians, 6,236 Muhammadans, and 5,623 were Panchamas. There was an increase of 870 in the number of Panchamas over that of the previous year.

Working of societies. Provincial and District Banks.

177. Besides the newly constituted Provincial bank, there were thirteen central banks. The North Arcot District Co-operative Bank started work on 6th May 1917. Of the 206 members, 168 are societies registered under the Act. Sums amounting to Rs. 43,900 were lent to member societies. The Ganjām District Co-operative Bank started work on 8th October 1916; 25 individuals and 25 primary societies were admitted as members. Loans for Rs. 30,190 were issued to 17 societies. The Vizagapatam District Co-operative Union converted itself on 5th November 1916 into a banking union; 87 members, of whom 45 are primary societies, were enlisted. Loans for Rs. 71,265 were issued to societies and Rs. 11,050 repaid by them. It is hoped soon to form central banks in six of the ten districts which still have none. The Christian Central Co-operative Bank started work on the 1st July 1916 with 71 individuals and 23 societies as share-holders. The working capital of the bank at the end of the year amounted to Rs. 46,233 and it lent Rs. 30,090 to primary societies and Rs. 35,000 to central banks. Both the Salem Bank and the Coimbatore Bank are admitting societies as share-holders, thus advancing a stage towards transformation into banking unions. The share capital of all the financing banks in the Presidency rose from Rs. 5·15 lakhs to Rs. 6·30 lakhs and their reserve funds from Rs. 1·51 lakhs to Rs. 1·93 lakhs. A few of the banks (notably Chingleput and South Kanara) are urgently in need of more share capital. Any great development of the co-operative movement must still largely depend on the banks succeeding in attracting deposits from outside the movement. In this the Provincial Bank (Rs. 30 lakhs) and the Trichinopoly Bank (Rs. 10 lakhs) have been far the most successful. The proportion of uncollected balance under instalments of principal and interest, taking all banks together, was considerably lower than in the previous year, the most marked improvement being in the collection of arrears of interest due in previous years.

Agricultural societies.

178. The number of agricultural credit societies on 30th June 1917 was 1,898 with unlimited and 9 with limited liability. The total working capital of the agricultural societies (credit and non-credit) including societies the registration of which has been cancelled, was Rs. 88·08 lakhs against Rs. 74·95 lakhs last year, and the paid-up share capital was Rs. 5·91 lakhs as against Rs. 4·53 lakhs. These societies worked at a net profit of Rs. 39,013. The net profit earned by agricultural societies for the year 1916–17 alone, i.e., the profit arrived at before the loss of the previous year was deducted, was Rs. 75,666. There remains still a very large amount of unrecouped loss standing against a majority of the societies. Of the loans due by members at the end of the previous year (Rs. 64·87 lakhs) 17·95 per cent was shown as overdue. Similarly 50·48 per cent of the previous year's unpaid interest was overdue at the end of the year under review. These figures are better than last year though there is room for

improvement. The total of the loans given by agricultural societies was Rs. 45·38 lakhs, of which Rs. 25·99 lakhs were for productive purposes. There was a considerable increase in loans given for payment of kist. There were 14 non-credit societies, 12 being purchase societies and two for production and sale. Five societies made joint purchases of seed and manure and sold them to their members. In only three cases were there joint sales of produce. A society was formed in the Ganjām district with the object of purchasing improved sugarcane crushers for hire to its members. Another undertook the manufacture of bone and phosphate manure. The manure was produced at a rate cheaper than that obtained in the open market and was sold at a small profit to the members.

Non-agricultural societies.

179. The progress in numbers and quality of non-agricultural credit societies continued. The number of limited liability societies increased from 97 to 140 while the number of unlimited liability societies rose from 37 to 56. The total working capital of the 196 non-agricultural credit societies was Rs. 25·622 lakhs against Rs. 19·916 lakhs in the previous year. These societies made a net profit of Rs. 83,312 against Rs. 61,372 in 1915–16. The collections continued to be good. In respect of current interest the percentage of balance to demand fell from 12·98 to 8·15 in the year under report. There was a slight improvement also in the collection of principal. There were at the end of the year 15 societies exclusively composed of Panchama members against 6 in the previous year. In 48 societies more than 50 per cent of the members were Panchamas. There were 17 non-agricultural societies for purchase, production and sale. The Triplicane stores had a turn-over of nearly Rs. 5 lakhs and showed a fair profit. Other stores were a failure. Two new building societies were formed, one for coolies and the other for fishermen.

Reserve fund.

180. The reserve fund increased from Rs. 8·49 lakhs to Rs. 9·63 lakhs. The increase is mainly contributed by central and non-agricultural credit societies.

Supervision.

181. There has been considerable development in the scheme for supervision of societies by local unions. These unions employ their own staff which works independently of the Government staff. Owing to the increased facilities given by central banks to local unions it is expected that before long the unaffiliated society will disappear and the necessity for detailed Government supervision will decrease.

LOCAL BOARD ADMINISTRATION. (1916–17.)

[*Statistics of British India, Part VIII, Local Funds—Local Boards.*]

Local Boards and Union Panchayats. District Boards.

182. The Madras Local Boards Act, 1884, as amended in 1900, continued to be in operation in all the districts of the Presidency except Madras, where the Madras City Municipal Act, 1904, was in force. The number of district boards (25) remained unchanged. Except in the Nilgiris, where the minimum number of members excluding the president was 12, each board consisted of the Collector of the district, as ex-officio member and president, and not less than 24 other members, including the officers in charge of the revenue divisions. There were at the end of the year 759 members on the district boards, which was 14 less than in the previous year; the maximum strength remained unaltered. Of the members 124 were ex-officio, 283 were nominated by Government, and the remaining 352 were elected by the taluk boards; in 1915–16 the corresponding figures were 124, 292 and 357. Except in Koraput and the Nilgiris where there were no taluk boards, and in Gōdāvari, half the sanctioned members of each district board were elected by the taluk boards. 286 meetings were held by the district boards, eight less than in the previous year.

Taluk Boards.

183. There were in all 96 taluk boards as in the previous year and each consisted of a president and not less than 12 other members. The boards of Ellore, Chittoor and Cuddalore continued to elect their own

presidents and 28 others had non-official presidents. The sanctioned strength of the taluk boards increased from 1,753 to 1,764; the actual number of members at the end of the year was 1,648, of whom 383 were officials and 1,265 non-officials. The elective system, which was introduced in July 1909 and subsequently expanded, continued in force; of the 340 seats open to election in the year, only 271 were actually so filled and in the case of those elections which were actually contested only 33·6 per cent of the registered voters came to the poll. Seventeen seats had to be filled up by presidents of district boards by nomination because no candidates were proposed. 1,248 meetings were held by the taluk boards, which was two more than in 1915–16.

Union Panchayats.

184. In all districts, except South Kanara and the Nilgiris, union panchayats assisted in the administration of local affairs in important villages. There were altogether 411 of these panchayats, excluding Bōdinayakkanūr in Madura which was constituted into a municipality from 1st September 1916, or three more than in the previous year. Each of them consisted of not less than five members, the headmen of the revenue villages wholly or partly included in the unions sitting ex-officio, and the other members being appointed by the presidents of taluk boards except in the case of twenty-seven selected unions where the members were partly appointed by election by the tax-payers of the unions. The number of panchayatdars fell from 3,924 to 3,918, of whom 889 were village headmen, 2,977 were nominated and 52 were elected. The functions of the unions were generally confined to conservancy and minor sanitary works and the construction, repair and lighting of the roads within their charges, but in some cases the management of choultries and markets was also added.

Receipts.

185. The land-cess was levied at 2 annas on every rupee of the land assessment in the Nilgiris (except a portion of the South-East Wynad, where the rate was 1 anna), at rates varying from 2 annas to As. 1–3 in Malabar, at As. 1–6 in South Kanara and at 1 anna in the remaining districts. In addition to land-cess, in South Arcot, Coimbatore, Cuddapah, Gōdāvari, Guntūr, South Kanara, Kistna, Kurnool, Madura, Nellore, Ramnad, Salem, Tinnevelly, Trichinopoly and Vizagapatam, a special cess of 3 pies in the rupee on the annual rent value of all occupied lands was levied for the construction of railways. In Tanjore a fourth of the receipts under land-cess which had hitherto been set apart for railway construction was credited to general funds. Tolls upon carriages, carts and animals were collected in all districts except in Guntūr. House-tax was levied in all unions, the maximum rates being in force in 342 cases, three-fourths in 62, two-thirds in one, and half rates in the remaining seven. Excluding the transactions under debt heads, the year opened with a balance of Rs. 1,63,02,532 or Rs. 16,99,687 less than in the previous year. The receipts rose from Rs. 1,78,70,534 to Rs. 1,79,74,070; excluding the receipts from the special railway cess, the revenue from rates and taxes rose from Rs. 88,55,607 to Rs. 90,35,355 owing to increases of Rs. 37,352 and Rs. 2,44,135 respectively which occurred under house-tax and tolls, but the collections under land-cess fell by Rs. 1,01,739. There was a rise under land-cess in nine districts, the increase being marked in Vizagapatam (Rs. 85,865) and Bellary (Rs. 30,253), but there was a fall in 16 districts, the decrease being specially marked in Ramnad (Rs. 57,076), Guntūr (Rs. 46,570), Kurnool (Rs. 36,576) and Tanjore (Rs. 29,315). The income from tolls showed an increase in 19 districts, a noticeable rise having occurred in North Arcot (Rs. 53,174), Ramnad (Rs. 26,931), Tinnevelly (Rs. 26,848), Vizagapatam (Rs. 24,978) and Chingleput (Rs. 21,952). The grants received from Provincial funds amounted to Rs. 41,69,966 of which Rs. 16,32,658 were contributed in aid of the general resources of local boards, Rs. 2,53,265 were granted for roads and bridges, Rs. 46,441 for the maintenance and equipment of hospitals and dispensaries, Rs. 2,99,000 for minor sanitary works, Rs. 60,000 for the Rāmēswaram water-supply and Rs. 29,438 for choultries. The grants for public works were paid as usual to the district boards of the Nilgiris

(Rs. 1,00,600) and Koraput (Rs. 23,750) in consideration of the smallness of their revenues. The educational grants took the shape of lump assignments intended to enhance the board's resources so as to enable them to equip and maintain their own elementary schools adequately. The grants towards hospitals and dispensaries represented the Provincial share of the pay and allowances of the medical subordinates employed by the local boards and half the cost of the maintenance and equipment of hospitals and dispensaries opened after 1915; the grants for choultries consisted mainly of the lump payments made to local boards in lieu of the income from lands originally assigned for the maintenance of choultries by their founders and subsequently resumed by the Government.

Expenditure.

186. Excluding the charges relating to debt heads and the contributions from one district board to another and an expenditure of Rs. 14,41,470 which, though debited to service heads, was met from loans which were credited to debt heads, the total expenditure of the local boards fell from Rs. 1,90,93,905 to Rs. 1,74,71,802 and the year closed with a balance of Rs. 1,68,04,800.

Public Works.

187. The outlay on public works fell from Rs. 95,60,952 to Rupees 77,19,753; Rs. 26,51,894 were spent on the construction of roads, bridges, school-houses, dispensaries, markets and other miscellaneous public improvements and the remainder on repairs to existing works. The length of the new roads constructed was 125 miles; it was 76 miles less than in the previous year; the expenditure on this account fell from Rs. 2,85,480 to Rs. 2,58,380. 24,796 miles of roads were repaired against 24,523 in 1915-16, but the outlay thereon fell from Rs. 48,64,614 to Rs. 44,12,912. All the district boards except Koraput maintained their own engineering establishments; the Public Works Department had charge of all local fund works in Koraput, in addition to certain roads running along tank and canal banks and a few special roads and bridges in other districts.

Education.

188. The educational institutions maintained by the local boards at the close of the year consisted of 48 sessional schools for the training of teachers, one Sanskrit college, 70 secondary and 6,548 elementary schools. In the sessional schools, 1,488 students received instruction and the attendance at all the schools on the 31st March 1917 was 326,904 boys and 73,887 girls against 326,515 boys and 75,536 girls in the previous year. Teaching grants to private institutions were disbursed directly from Provincial funds instead of through the agency of the local boards. The total expenditure incurred by local boards on educational objects was Rs. 29,89,378, towards which Rs. 3,99,162 were contributed by fees collected from pupils and Rs. 15,78,029 by Provincial funds. The net local fund outlay was thus Rs. 10,12,187, or 13·3 per cent of the total ordinary income of the local boards.

Medical institutions.

189. The local boards maintained 123 hospitals and 279 dispensaries against 124 and 273, respectively, in the previous year; the cost of maintenance declined from Rs. 9,47,346 to Rs. 9,27,612, but the number of patients treated at them rose from 4,385,177 to 4,545,402.

Vaccination.

190. The district boards employed 716 vaccinators (including probationers) against 721 in the previous year. The average cost of each successful operation increased from As. 3-6 to As. 3-11.

Sanitation.

191. The expenditure on sanitation was Rs. 12,57,214 against Rupees 16,33,430 in 1915–16; special attention was paid to rural water-supply so far as funds permitted.

Railways.

192. The only district boards which possessed open railways were those of Coimbatore, Tanjore, Guntūr and Kistna; new lines were under construction in the districts of Salem and Tinnevelly, as also a further extension of the railway in Tanjore. The balance in favour of the railway guarantee fund of the Tanjore District Board at the beginning of the year was Rs. 28,55,800 in Government securities and Rs. 73,498 in cash. The gross traffic earnings increased from Rs. 10,05,282 to Rs. 10,19,000,

and the working expenses also rose from Rs. 5,64,027 to Rs. 5,83,364. The district board repaid Rs. 71,051 to Provincial funds towards the recoupment of the Government share in the railway, which is treated as a loan; it paid Rs. 32,530 to debenture holders as interest and Rs. 21,520 to the sinking fund towards the liquidation of the debenture loan. The profit derived from the working of the railway was Rs. 4,35,636, or 8·04 per cent of the capital outlay, and at the end of the year the balance in favour of the fund, after taking into account all charges (inclusive of a sum of Rs. 3,60,097 debited to the head "construction of railways") and receipts was Rs. 28,55,800 in Government securities and Rs. 81,714 in cash. In view of the difficulty of selling the Government securities in hand, the Board borrowed on their pledge a sum of Rs. 2,43,000 from the Bank of Madras for the construction of its railway in the year. In Kistna the opening balance of the railway cess fund was Rs. 16,68,500 in Government securities and Rs. 3,04,527 in cash; the gross earnings of the railway declined from Rs. 4,18,796 to Rs. 3,82,728 and the working expenses also fell from Rs. 1,89,097 to Rs. 1,73,408. The District Board repaid a sum of Rs. 1,35,448 to Provincial funds towards the loan taken from Government for the construction of the line. The profit derived from the working of the railway was Rs. 2,09,320 or 9·4 per cent of the capital outlay, and the closing balance in favour of the fund was Rs. 19,70,000 in Government securities and Rs. 2,75,528 in cash. In Coimbatore the opening balance of the railway cess fund was Rs. 7,08,200 in Government securities with a cash deficit of Rs. 1,63,332. The gross earnings of the railway were Rs. 1,60,791 and the working expenses were Rs. 78,819. The District Board paid a sum of Rs. 1,08,551 towards the capital and interest on the loan borrowed from the public and the Bank of Madras. The profit derived from the working of the railway was Rs. 81,792 or 7·81 per cent of the capital outlay, and at the end of the year the balance in favour of the fund was Rs. 7,08,200 in Government securities and a cash deficit of Rs. 40,935. The net earnings of the railway in Guntūr amounted to Rs. 53,405 or 3·7 per cent on the capital outlay. The Salem-Suramangalam line in the Salem district and the Tirutturaippūndi-Vēdāranniyam line in Tanjore were completed towards the end of the year and the former has since been opened for traffic.

MUNICIPAL ADMINISTRATION—MUFASSAL. (1916–17.)

[*Statistics of British India, Part VIII, Local Funds—Municipalities.*]

General.

193. The new municipality of Dhārāpuram began actual work on 1st April 1916, and the unions of Chittoor and Bodinayakkanūr were constituted municipalities in the year.

Constitution of Councils.

194. The maximum strength of the councils increased from 1,121 to 1,162 owing to the opening of three new councils and to additions to the elective strength of the Adōni, Bezwada, Cannanore and Guntūr councils. The actual strength of the various councils at the end of the year was 1,089 members of whom 89 were ex-officio, 452 nominated by Government and the remaining 548 elected by the rate-payers; 190 members were officials and 899 non-officials, against 186 and 833 respectively in the previous year. The municipal councils of Tiruvannāmalai, Walajapet, Chidambaram, Adōni, Bellary, Chittoor, Cuddapah, Proddatūr, Berhampur, Peddāpuram, Narasaraopet, Tenali, Ellore, Kurnool, Nandyal, Bodinayakkanūr, Periyakulam, Mannārgudi, Negapatam, Srīrangam and Anakāpalle consisted entirely of Indian members. The councils held 1,874 meetings or 113 more than in the previous year, and 68 others were adjourned for want of a quorum; the average attendance of councillors at each meeting was 59·2 per cent of the total strength. The system of appointing municipal councillors by election was in force in 61 municipalities.

Receipts.

195. The opening balance was Rs. 39,42,296 against Rs. 45,02,533 in 1915–16 and the current receipts increased by Rs. 7,48,233 to Rs. 87,30,202

the increase occurring mainly under "advances recovered" and "rates and taxes", compensated partly by a reduction in the receipts under "grants from Provincial funds." The income realized from the tax on buildings and lands, the water and drainage tax and the tax on arts and professions amounted to Rs. 16,82,718, Rs. 8,36,427 and Rs. 2,94,043 respectively. The income from tolls and from educational institutions rose from Rs. 6,96,637 and Rs. 2,80,623 to Rs. 7,49,476 and Rs. 2,87,441. The grants and contributions paid by Government amounted to Rs. 13,78,882 in 1916–17 and consisted of Rs. 10,99,855 paid for general purposes, Rs. 2,08,426 for education and Rs. 70,601 for medical purposes. The necessity for economy in view of the financial stringency accounted for the fall of over Rs. 6 lakhs in Provincial grants. **Government grants.**

196. The Māyavaram Municipal Council raised a loan of Rs. 7,500 from the Tanjore District Board for acquiring land for the construction of a hostel. Loans advanced to municipal councils by Government amounted to Rs. 2,16,820 against Rs. 1,36,380 in 1915–16. The municipal councils of Erode, Tirupati and Negapatam borrowed Rs. 47,000, Rs. 70,670 and Rs. 18,350, respectively, for expenditure on water-supply, while the municipal councils of Anakāpalle, Parlākimedi and Vizagapatam borrowed Rs. 9,500, Rs. 3,000 and Rs. 10,000, respectively, for expenditure on survey. The Vellore Municipal Council borrowed Rs. 29,600 for its drainage scheme and the Salem Municipal Council Rs. 28,000 for a town extension scheme. The Government advanced a sum of Rs. 2,000 to the Bodinayakkanūr Municipal Council to enable it to start work as a municipality. **Loans.**

197. The average incidence of municipal taxation per head of the population rose from Rs. 1–10–11 to Rs. 1–12–0. The incidence was relatively high, as was natural, in the hill municipalities of Coonoor, Kodaikānal and Ootacamund, being Rs. 5–11–3, Rs. 7–12–1 and Rs. 7–5–5, respectively; in the plains it ranged from Rs. 3–7–10 in Tuticorin to As. 13–8 in Cannanore. **Incidence of taxation.**

198. Expenditure amounted to Rs. 92,74,441 against Rs. 85,44,627 in 1915–16. The increase occurred chiefly under capital outlay on drainage works and under "advances recoverable." The expenditure on public works amounted to Rs. 36,34,443 which was Rs. 2·16 lakhs more than in the previous year. The water-works of Ellore, Erode, Masulipatam, Anantapur, Bellary, Chingleput, Cuddalore, Narasaraopet and Tuticorin, the improvements and extensions to existing water-works at Kumbakōnam, Kurnool, Madura and Tirupati and the drainage schemes for Madura and Vellore were under execution by the Public Works Department. Water-supply schemes for Calicut, Cochin, Mangalore, Palni, Parlākimedi, Peddāpuram, Rajahmundry, Srīrangam, Tiruvālūr and Tiruvannāmalai, improvements to existing works at Conjeeveram, Guntūr, Tanjore, Trichinopoly and Vellore, drainage schemes for Adōni, Berhampur, Bezwada, Bimlipatam, Calicut, Chingleput, Cocanada, Ellore, Kumbakōnam, Negapatam, Parlākimedi, Rajahmundry and Salem and improvements to drainage works at Ootacamund were either under investigation or preparation by the Sanitary Engineer, or under the consideration of the Sanitary Board, the Chief Engineer or Government. **Expenditure.** **Public Works.**

199. In each municipality there was at least one hospital or dispensary open to the public. The hospitals at Ootacamund and Vizagapatam remained under private management but received aid from municipal funds, while in Chittoor and Virudupatti which were newly constituted municipalities, the local boards continued to maintain the hospitals. The institutions in the other towns were maintained by the municipal councils themselves, a portion of their maintenance charges being generally contributed by the local boards. The number of in-patients treated in these institutions was 45,354 and that of out-patients rose from 2,350,394 to 2,503,717. The cost of maintenance was Rs. 6,55,897 against Rs. 6,58,451 in the previous year. There were 562 educational institutions maintained by municipal councils, or 26 more than in 1915–16; they consisted of three **Medical relief.** **Education.**

colleges, 25 secondary schools and 534 elementary schools; the attendance at schools within municipal limits rose from 241,599 to 244,392. The councils also aided 366 elementary schools with teaching grants. The expenditure on conservancy was Rs. 11,04,512 and that on lighting Rs. 3,16,736 against Rs. 13,08,157 and Rs. 2,86,174 in 1915–16.

Sanitation and lighting.

Debt.

200. The public debt outstanding against the several municipalities was Rs. 30,48,014, towards the repayment of which there were sinking funds to the extent of Rs. 1,07,000.

MUNICIPAL ADMINISTRATION—CITY OF MADRAS. (1916–17.)

[*Statistics of British India, Part VIII, Local Funds—Municipalities.*]

Financial.

201. The total receipts of the Corporation including the opening balance amounted to Rs. 55,74,189 and the expenditure to Rs. 46,34,399 against Rs. 54,58,619 and Rs. 45,30,719 respectively in 1915–16. The income from municipal rates and taxes was Rs. 22,44,355, or Rs. 2,19,70 more than in the previous year. This large increase was chiefly due to the lighting tax rate having been raised from $1\frac{1}{4}$ to 2 per cent and also to cursory as well as general revisions of assessment. The incidence of taxation per head of the population was Rs. 4-5-3 against Rs. 3-14-5 in 1915–16. The revenue derived from municipal property and powers apart from taxation was Rs. 5,65,478, or Rs. 39,466 more than in the previous year. This increase was chiefly due to a larger import of timber by sea during the year. The grants and contributions from Government amounted to Rs. 1,38,126 as against Rs. 7,60,957 in 1915–16 and were made up of the usual annual contribution amounting to Rs. 40,126 and a special grant of Rs. 98,000 for minor sanitary works. The miscellaneous receipts rose from Rs. 1,96,804 to Rs. 2,08,613, the increase occurring chiefly under payment for water used for non-domestic purposes. A loan of Rs. 14 lakhs was raised in the market during the year for improvement of water-supply and drainage and for extension of electric lighting. The debt at the close of the year was Rs. 97,95,094. A sum of Rs. 38,846 was paid towards Government instalment loans and Rs. 3,55,560 towards interest on all loans. The sinking funds at the end of the year on account of the several loans, excluding the Government instalment loans, amounted to Rs. 26,02,300 in Government promissory notes and Madras municipal debentures and Rs. 1,218 in cash.

Works.

202. The expenditure on works amounted in all to Rs. 26,66,636, or 57·5 per cent of the total expenditure, as against Rs. 24,99,786 in the previous year. Of this sum Rs. 15,37,671 or 33·2 per cent was spent on new works, Rs. 9,39,664 or 20·2 per cent on repairs, Rs. 1,52,950 or 3·3 per cent on establishment and Rs. 36,351 or 0·8 per cent on tools and plant, etc.

Communications.

203. A sum of Rs. 14,577 was spent on new works such as acquisition of lands and buildings for widening roads and rounding off corners and the construction of a foot-path from Parry's corner to Napier Bridge. The amount spent on repairs was Rs. 3,09,636 against Rs. 3,89,653 in 1915–16. During the year 43·46 miles of road were re-formed against 59·30 miles in the previous year; 2 miles, 7 furlongs and 82 yards of unmetalled roads were metalled and 1 mile and 29 yards of roads were tar-sprayed for the first time. In addition, 2 miles, 6 furlongs and 48 yards of roads were retarred, and an experimental length of voidless asphaltic road surface was laid in Mount Road near the Munro statue.

Buildings.

204. The expenditure on new works was Rs. 1,21,066 and that on repairs Rs. 37,302. The improvements designed to make the present building in Barracks Square suitable for use as a hospital for the treatment of infectious diseases were completed and drainage and sanitary fittings to the Raja Sir Ramaswami Mudaliyar's Lying-in Hospital were in progress. The three school-buildings that were in progress in the

previous year were completed and steps were taken for the acquisition of a site for a model school in Ubbarapalaiyam. The old "B" conservancy depot in Basin Bridge Road was altered and repaired so as to make it suitable for use as a model cow-house and additions to the central fire station in Pudupet were completed. Improvements to three conservancy depots were effected and to three more were in progress. Seven flush-out latrines that were in course of construction in the previous year and eight others were completed and the construction of a pail depot at Lang's Garden was in progress. The rhinoceros enclosure in the menagerie at the People's Park was converted into a lion enclosure by adding two masonry rooms and erecting a high iron bar fence.

Drainage.

205. The amount spent on new drainage works was Rs. 6,46,273 and on maintenance Rs. 4,19,600. The construction of deep gravitation mains and intercepting sewers in the Napier Park and Purasawakam areas was completed and sewer-laying in the Royapuram area was continued up to the end of January 1917 when the work had to be stopped on account of the shortage of stoneware pipes. The storm water drainage in North Triplicane, which was in course of construction in the previous year, was completed and similar work in Moor Street, Georgetown, was in progress. The Kelly's drain was further extended by 220 feet seawards and the three portions of the anti-malaria drainage scheme known as Brick-kiln Road south, Brick-kiln Road north and Strahan's Road in the Purasawakam area were completed. The work of altering house drains in the Tondiarpet area was continued during the year as well as that of laying sewers and construction of side-drains.

Water-supply.

206. The expenditure on water-supply was Rs. 10,20,481, of which Rs. 8,49,341 related to new works and Rs. 1,71,140 to maintenance. All the new filter-beds (fourteen in number) were brought into use for the first time in November 1916. The extension of the water-supply distribution system was continued during the year in accordance with the restricted programme. The quantity of water supplied during the year was 4,982·34 million gallons, which was equivalent to 26·30 gallons per head per day. The maximum average daily consumption per head in any month was 29·78 gallons and the minimum 22·89 gallons. House-to-house inspection for prevention of waste of water was continued during the year and leaky fittings in 5,495 houses were detected and rectified. A length of 114,400 feet of water pipes was laid under the new scheme during the year making a total of 338,400 feet. Under ordinary works, 10,069 feet of old pipes were cleaned and relaid, 4,153 feet of old mains were renewed and 15 valves, 35 stop-cocks, 3 hydrants, 4 pumps and 64 meters were fixed. The quantity of water supplied to the City as measured at Red Hills was 848,983,248 cubic feet against 899,476,812 cubic feet in the previous year.

Education.

207. The expenditure on education was Rs. 39,416 against Rs. 32,301 in the previous year, the increase being due to the establishment of five new schools. The total number of schools maintained by the Corporation was 21 and there were 2,338 boys and 404 girls on the rolls of these schools on 31st March 1917. There were 124 teachers in the Corporation schools and most of them were qualified. Nine teachers were under training in the Government Training School, Saidapet, and one in the school at Triplicane. Stipends were paid to these teachers.

Sanitation and Medical Services.

208. The cost of maintenance of the Corporation hospitals and dispensaries amounted to Rs. 86,652 against Rs. 86,902 in 1915–16. The total number of patients treated in them was 172,359 as against 207,431 in the previous year, the decrease being due to the Georgetown Dispensary having been taken over by Government from 1st May 1916. The usual contribution of Rs. 20,000 to Government on account of hospitals and contributions to other medical institutions amounting to Rs. 12,638 were paid.

Vaccination.

The amount spent on vaccination was Rs. 15,250 against Rs. 14,384 in 1915–16 and the total number of cases vaccinated in the city in the calendar year 1916 was 65,832. The percentages of success in primary vaccination and re-vaccination cases were 96·87 and 65·52 respectively, as against 96·31

and 56·80 in 1915. The number of children under one year vaccinated was 16,053. The expenditure on registration of births and deaths was Rs. 18,704 as against Rs. 18,573 in 1915–16. The number of births and deaths registered in 1916 was 21,675 and 17,872 as against 18,331 and 18,688 respectively in 1915. The birth and death rates were respectively 41·8 and 34·5 per mille as against 35·3 and 36·0 per mille in 1915. There were 17 imported cases of plague of which 11 proved fatal. 138,611 rats were caught and destroyed making a total of 2,099,555 since the beginning of the operations in July 1898. A sum of Rs. 4,53,839 or 9·79 per cent of the total expenditure was spent on sanitation and conservancy during the year 1916–17 as against Rs. 5,65,413 in 1915–16.

Births and Deaths.

Plague.

209. The amount spent on anti-malarial operations in 1916 was Rs. 67,342 as against Rs. 1,50,266 in 1915. The mosquito and malaria survey having been completed in the previous year, the usual preventive measures were undertaken during the year in the known malarial zones and in the breeding grounds of the malaria-carrying anophelene mosquitoes in and around these zones. Malaria accounted for 4·3 per cent of the total deaths as against 9·0 in 1915, which gives a malaria death-rate of 1·5 per mille against 3·3 in 1915.

Anti-Malarial Operations.

210. A sum of Rs. 1,62,980 was spent on lighting and the cost of maintenance alone amounted to Rs. 67,905. Two hundred and seventy-seven new electric lights were installed and eight were removed. The number of electric lights on 31st March 1917 was 2,138. There were also 4,374 oil lamps and two power lamps. The public parks were maintained at a cost of Rs. 38,653 as against Rs. 36,978 in the previous year. The cost of maintenance of fire-engines was Rs. 14,925 against Rs. 12,086 in 1915–16. The engines were requisitioned for 12 fires as against 7 in 1915–16.

Miscellaneous.

MILITARY (VOLUNTEERING). (1916–17.)

211. There were 13 volunteer corps attached to the 9th (Secunderabad) division, as in the previous year. Of these, nine corps had their head-quarters in the Presidency; the other four corps were located at Hyderabad, Bangalore, Kolar and Coorg. Of the total number of volunteers, 8,369 were extra-efficient and 1,211 were efficient, against 8,179 and 1,672, respectively, in the previous year. Thirty-eight men belonging to three corps were non-efficient. At Madras, a large number of the Volunteer Guards and Artillery Volunteers continued to be mobilized for garrison duties. The Malabar Volunteer Rifles and the South Indian Railway Volunteer Rifles also mobilized considerable detachments for actual military service. A very large number of volunteers proceeded on active service in various capacities. Many officers and men received commissions in the Indian Army Reserve of Officers. Others have enlisted in the regular army, while the Madras Volunteer Guards have sent a number of men out as machine gunners, despatch riders and motor-boat drivers. One hundred and fifty-four of the Madras Artillery Volunteers are now on active service. At the end of the official year the inauguration of the Indian Defence Force put a stop to volunteering as such, but the new conditions cannot be said to have been fully operative until the beginning of 1917–18.

MARINE. (1916–17.)

[*Reports of the Madras Port Trust and the Madras Port Department for 1916–17; Statistics of British India, Part VIII—Local Funds.*]

Madras Port Trust.

212. In the year under review the receipts of the Trust from all sources were Rs. 13,13,310 against Rs. 11,66,697 in 1915–16. This represents an increase of 12·56 per cent. But Rs. 1,14,998 of the receipts were ascribable to the 25 per cent super-dues on exports and imports. The

gross expenditure out of revenue—not counting contributions made by revenue to capital or repayment of debt—was Rs. 11,92,825 or the equivalent of 90·82 per cent of the gross receipts. Excluding from working expenses the interest on loans, which in the year under review came to Rs. 4,92,151, actual working expenses came to 53·35 per cent of actual harbour earnings against 50·81 per cent in 1915–16. The increased percentage is attributable to heavy payments made for claims, due to the adverse judgment in the "cotton case" and to law charges. The average cost per ton of goods passed through the port by the Trust's own agency was Rs. 3·18 or, if the whole of the goods passing through be counted, including those not handled by the Trust, the average cost was Rs. 1·95 per ton. The harbour dues alone, i.e., excluding the charges for specific services such as cranage and storage, came to Rs. 8,22,787. The average charges paid by shipping came to about As. 1·82 per net registered ton.

213. The whole of the substructure and the greater part of the top work of the west quay were completed during the year, and fair progress was made with the paving of the roadway at the back of the quay. The completion of this quay practically doubles the enclosed area available for steamers, and will add four first-class berths. The dismantling of the two steel piers, begun last year, was practically completed. The hydraulic cranes from these piers have been installed on the west quay in groups, intermediate to the berths where vessels lie alongside, and are used for handling cargo into and out of barges. The railway booking offices at the ends of the platforms opposite the transit sheds were completed and brought into use during the year. The southern grid-iron sidings of the railway yard were completed during the year. The old entrance to the present Beach station yard has been closed and a new temporary connexion with the harbour main line has been laid, pending remodelling of the Beach station yard. The new road to the east of the Beach station was completed and brought into use during the year. The shifting of the workshops to the present site at Springhaven, close to the water's edge and alongside the slipway, has without doubt greatly facilitated the repairs to the fairly large and valuable fleet of floating craft. The whole workshop yard throughout has been connected up with metre gauge lines and turntables, so that any work coming in for repairs from the floating craft can be picked up by the hand crane on the little jetty in the buoy repairing yard, loaded on a metre gauge truck and wheeled into any of the shops. Land machinery coming in for repairs is brought into the running shed, which is also connected up by metre gauge lines to the various shops. About the close of the year all the works required as a result of handing over the old engineering yard to the South Indian Railway, were completed and the old yard was vacated. The work of removing the damaged part of the breakwater was commenced in February 1917 and by the end of March 206 blocks, aggregating 84,188 cubic feet, had been removed by the all-round titan crane and by the steam barge "Wenlock"—the latter picking up blocks beyond the reach of the crane and placing them so as to be subsequently picked up by the crane. Of the slice-blocks and wave-breakers recovered from the wreck, 138 blocks of 56,966 cubic feet were deposited in places where the cyclone had dragged outwards and thereby weakened the wave-breaker protection of the breakwater. Such of the slice-blocks as were in sound condition were reserved for use in the restoration work.

Works.

214. The tonnage of imports, amounting to 428,937 tons in 1916–17, showed an increase of 46,460 over the figures for the previous year, but the quantity of coal imported by sea fell by 58·6 per cent. In addition to coal, the chief falling off in comparison with the previous year was in metals, railway materials and cotton manufactures. There was a considerable increase in the imports of mineral oil and a slight increase in sugar. There was an increase of 8,464 tons in the imports of teak from Burma, while no timber was received from Australia during the year. As anticipated last year, there was a decrease in imports of iron and steel, 7,872 tons being received against 12,513 tons last year. Imports of

Trade.

piece-goods still showed a downward tendency, the figure for 1916–17 being 9,435 tons against 11,203 tons last year. The sugar imported showed an increase of 14 per cent. Imports of mineral oil increased by 27,822 tons, or nearly 42 per cent. Imports of railway materials fell by 6,886 tons or nearly 35 per cent. The hopes entertained in regard to the shipment of groundnuts for this year were not realized, as only 61,868 tons were exported from Madras as compared with 97,200 tons last year. Out of this quantity, 40,531 tons went to Europe and 21,337 tons to coast ports. Only 3,936 tons of cotton were shipped during 1916–17 as against 5,809 tons last year. Salt and hides and skins were shipped in larger quantities than in the previous year, the increase in the tonnage of these commodities being 2,161 tons and 3,943 tons respectively. There was a falling off of 502 tons in the shipment of tea, the figures for 1916–17 being 2,298 tons. The value of the private trade in foreign merchandise from foreign ports in the year under review amounted to Rs. 10,47,15,893 against Rs. 9,25,88,759 for the year 1915–16, showing an increase of Rs. 1,21,27,134 and was 13·1 per cent above last year's record and 11·1 per cent above the previous ten years' average. In Indian merchandise from Indian ports, the trade rose to Rs. 1,69,95,605 from Rs. 1,15,81,467 for the previous year, showing an increase of 46·7 per cent over that of the previous year. For Indian merchandise to foreign ports, the figure for the year 1916–17 rose from Rs. 8,58,89,607 for the previous year to Rs. 9,54,87,004 and was 41·5 per cent over the ten years' average. The value of Indian merchandise to Indian ports was Rs. 95,03,041 against Rs. 95,16,217 for the previous year, showing a decrease of Rs. 13,176.

Minor ports. Finance.

215. The receipts of Port, Marine and Coast Lights funds were Rs. 9·83 lakhs and the expenditure was Rs. 15·52 lakhs. The closing balance consisted of Rs. 5·84 lakhs in cash and Rs. 14·16 lakhs in Government securities. Though the number of vessels increased, their total tonnage fell considerably, owing chiefly to country craft having largely replaced steamers in the coastal trade. The aggregate value of the sea-borne trade amounted to Rs. 27·48 crores as against Rs. 27·40 crores in the preceding year, but the volume of trade was, except in a few cases, considerably less than in the previous years. The great rise in prices accounts mainly for the increase in value with a decline in bulk. The collection of port dues fell to Rs. 1·75 lakhs and coast lights dues to Rs. ·78 lakh. Tuticorin was the chief minor port with import trade valued at Rs. 154·46 lakhs and an export trade of Rs. 590·30 lakhs. 504,127 passengers arrived at and sailed from the various outports; Dhanushkōdi continued to maintain its place as the foremost port in the matter of passenger traffic. Rs. 2·72 lakhs were spent on Public Works. Several sanctioned schemes designed to improve the landing and shipping facilities of certain outports could not be carried into execution in view of the present financial conditions. In connexion with the Tuticorin harbour scheme, borings were taken which pointed to the feasibility of a thirty-foot channel.

General.

216. The dearth of steam tonnage and high rates of freight attracted a large number of country craft to coastal trade and also offered a stimulus to the revival of the wooden ship-building industry at the principal centres, e.g., Cocanada, Masulipatam, Calicut and Cochin. At Masulipatam alone the construction of no less than four vessels of fairly large size was undertaken during the year and two with an aggregate tonnage of 560 tons were launched. There were twenty cases of shipping casualties of ordinary importance during the year, only one of which was attended with loss of life. Dredging operations for the maintenance of boat channels were conducted at the ports of Cocanada, Cuddalore, Negapatam and Tuticorin. A case of piracy occurred in the vicinity of Cochin during the year; the culprits were all apprehended and sentenced to imprisonment.

MORTALITY CAUSED BY WILD ANIMALS AND SNAKES. (1916.)

[*Report on the measures adopted for the destruction of wild animals and snakes during the year 1916; Statistics of British India, Part V, Area, Population and Public Health.*]

Mortality.

217. 452 persons were killed by wild animals and 1,505 by snakes: the totals for the previous year were 551 and 1,519. The number of deaths from wild animals was trivial, except in Ganjām and Vizagapatam, where the mortality was, as in the previous year, caused mostly by tigers; the deaths from this cause being 212 in Ganjām and 100 in Vizagapatam. Snakes were most destructive in South Arcot (136 deaths), Tanjore (147 deaths), Trichinopoly (155 deaths), Salem (116 deaths) and Malabar (146 deaths). No other districts returned more than 100 deaths.

Rewards.

218. The rewards paid for the destruction of wild animals totalled Rs. 18,108. A sum of Rs. 16,130 was spent in clearing rank undergrowth from the neighbourhood of villages.

MISCELLANEOUS. (1916.)

[*Reports on the working of the Indian Arms and Explosives Acts, and of the Poisons Act, 1904; Return of sulphur licences in force during the year 1916.*]

Arms, explosives and sulphur.

219. The number of licences for arms was 46,814 as against 46,553 in 1915 and 47,962 in 1914. In accordance with the policy of Government, there was a pronounced fall in the number of licences to carry arms for sport, protection and display, and a corresponding increase in the number of licences for the destruction of wild animals. Licences belonging to the former class decreased by 132, while there was an increase of 541 in the latter class. The districts of Guntūr, Kurnool, Tanjore, Vizagapatam and Chittoor showed a decrease under the former class without a compensating rise under the latter. A decrease in the total number of muzzle-loading guns is set off by an increase in breech-loaders. Match-locks and flint-locks are rapidly becoming extinct. The number of rifles declined, but there was a regrettable increase of 108 in the number of licences for revolvers, an increase contributed largely by the districts of Anantapur and Trichinopoly. Licences under the Explosives Act fell from 12,885 in 1915 to 10,583. This fall is ascribed to the decrease of blasting operations in Coimbatore and Trichinopoly owing to heavy rains. There was a slight increase in Nellore due to the activity of mica mining. The steady reduction in the number of prosecutions under the Arms and Explosives Acts was continued, there being only 695 cases in 1916, of which 604 resulted in convictions. The number of prosecutions was greatest in the districts of Salem, Guntūr and Coimbatore. The number of licences for sulphur remained constant, but there was a decline in the quantity for which licences were issued, owing to the rise in the price of the commodity. The closure of mica mines in Salem district also contributed to the decline.

Poisons Act, 1904.

220. The number of licences under the Indian Poisons Act fell from 161 in 1915 to 151. There were 35 licences in Malabar, 15 in Gōdāvari and 12 in Tinnevelly. No other district had more than 10 licences. There was only one prosecution under the Act against ten in 1915. The number of cases of detected poisoning was very small. Human poisoning and cattle poisoning together give an average of less than 100 detected cases per annum for the whole Presidency. As usual, arsenic was the most common form of poison used.

CHAPTER IV.

PRODUCTION AND DISTRIBUTION.

AGRICULTURE. (1916–17.)

[*Reports on the working of the Agricultural and Civil Veterinary Departments, Madras Presidency, for the year 1916–17 (G.Os. No. 3141, Revenue, dated 4th October 1917, and No. 3217, Revenue, dated 11th October 1917); Agricultural Statistics of British India.*]

General.

221. From the 1st November 1916 the Agricultural Department was removed from the control of the Board of Revenue, and placed under the direct control of Government in the Department of Land Revenue. At the beginning of August the "Pumping and Boring" section of the Department of Industries was transferred to form the basis of an Agricultural Engineering section of the Agricultural Department. Four out of the five coconut stations on the West Coast were opened during the year. Certain forest reserves near Bantanahal in the Alur taluk of the Bellary district were taken over by the Agricultural Department for the purpose of a sheep farm and a cotton seed farm. The Deputy Director of Agriculture for Live-Stock is engaged in looking for a suitable site in the Nellore district for a Government cattle farm. Out of 268 applicants for admission into the Agricultural College 42 were admitted. The foundation stone for the new reading-room and games pavilion was laid by His Excellency Lord Pentland on the 23rd November 1916 and the building has since been completed. Owing to the change in the curriculum there was no examination for the diploma during the year. In the usual examination at the end of the first course 23 out of 32 candidates were successful.

Research and experiment.

222. The season was marked by excessive rain in the north especially in the Ceded Districts, and a deficiency of the north-east monsoon in the south. In the central districts the season was good except for the cyclone in November 1916. The cotton crop was very poor both in quality and quantity all over the Ceded Districts. At Sirvel the Cuddapah-Kurnool canal breached as in the last two years and in consequence the crops were miserable. At Koilpatti the rainfall was short, and unusual rain in February and March caught the cotton crop in full flower with the result that this year's crop of Tinnevelly cotton is much below the average both in quality and quantity. At Coimbatore the season was entirely favourable. There was comparatively little sugarcane disease at Samalkota this year. At Anakāpalle red-rot was severe and of the seven varieties tested all suffered except one. Out of five varieties tested in irrigated dry lands at Palur, Red Mauritius gave the best yield of 36 tons of cane per acre. The spacing experiment with paddy at Samalkota was discontinued. At Anakāpalle, Hoogli jute and local gogu (*hibiscus cannabinus*) were tried as a rotation with paddy. It was found that these crops exhausted the soil to the detriment of the succeeding paddy crops. At Samalkota experiments were in progress to test the value of hot weather cultivation for dry paddy. At Coimbatore a new experiment in stacking a green manure crop, covering it with earth and allowing it to decompose before applying it to the land, promises to give useful results. A gratifying feature of the work at the central farm is the steady increase in the average yield of paddy over the whole of the 40 acres of wet land. The records of the cost of cultivation of each field show a profit of at least Rs. 100 an acre in almost all cases and in some cases as much as Rs. 150. At Sirvel in spite of the bad season it was shown that superphosphate invariably increased

Sugarcane.

Paddy.

the yield of paddy. At Palur the effect of continuous green manuring with daincha has been a steady increase of yield. Fourteen different experiments on paddy manuring were in progress at Manganallur. Speaking generally, soluble phosphatic manures have given markedly increased yields especially when used in combination with either green manuring or ammonia salts. Much work was done with a view to improve the yield and quality of local cottons by selecting pure strains bred from single plants picked out from the local mixed crops. These strains are multiplied and tested *inter se* on the farms and the best finally picked for growing on a large enough scale to allow of sufficient cotton being obtained for spinning tests. It is only when these tests are favourable that a strain is finally selected and multiplied on seed farms for distribution to ryots. A new experiment was made in cultivating cholam in lines three and four feet apart. The rotation experiments with cereals and Bengal gram which have been in progress since 1906 will be discontinued and experiments with groundnut as the leguminous member of the rotation substituted. The comparison between fodder cholam and guinea-grass as a fodder crop was continued at Coimbatore. A successful introduction was Rhodes grass originally coming from South Africa. Three varieties of lucerne were obtained from America and tried at Hagari. One of these did very well. A beginning was made this year with single-plant selection of groundnut. The experiment on potatoes at Hagari was continued, but the rain in February practically drowned the crop. At Palur the tapioca was damaged by the cyclone. Henbane did very well at Koilpatti. Samples of the stems and leaves were valued and pronounced to be of fair quality though inferior to Egyptian henbane. The Coimbatore Dairy herd was increased and at the end of the year consisted of 39 cows, 5 heifers, 5 buffaloes and 72 calves. The year was unfortunate in that the herd suffered from two attacks of foot and mouth disease. The dairy continued to work most successfully and the sales went up considerably. The difficulty in securing tins for packing the butter was surmounted by the use of red cedar wood boxes made at one of the Trichinopoly cheroot factories. The dairy made a net profit of Rs. 326. The flock at Hagari was affected by the unusually wet season. The results of the breeding experiments will be tested on a larger scale on the new sheep farm and an attempt made to breed out pure types. Work on poultry at Coimbatore showed the difficulty in evolving a strain which will be an improvement on the mongrel country fowl in quality but which at the same time will prove as hardy.

Cotton.

Dry grains.

Fodder crops and grasses.

Groundnut.

Miscellaneous crops.

Livestock.

223. The preliminaries for the Kistna delta soil survey were completed and out of 133 soil samples taken 80 have been analysed. Nearly 5,000 analyses were made, mainly of sugarcane. Investigations on paddy soils continued. A commencement was made with the microscopic examination of oil-cakes with a view to detect adulteration. A study of the effect of varying manurial treatment upon the composition of grain was also commenced.

Scientific research and experiments.

Agricultural Chemistry.

224. The Economic Botanist and his staff continued their work on paddy at the Paddy Breeding Station. Work on the interaction of characters in paddy was continued and the more definite results obtained so far are being published. The most promising single-plant strains were again compared for yield and the same two head the list as last year. Several pure types of varying duration obtained from a cross between the local six months' variety and a strong growing four months' variety are showing good promise. A paddy survey of the Presidency has been in progress, the varieties being sent in by the district staff and grown at the Paddy Breeding Station. Some 65 varieties were so grown this year, but many of them proved to be mixtures. The pure types are gradually being sorted out, and pure line cultures started.

Economic Botany.

225. Spraying against the mango hopper was carried out in the Chittoor district. A serious pest in the shape of a climbing caterpillar appeared on paddy crops in the Chingleput, North Arcot and South Arcot districts in January and was studied in the field. Some work was also

Entomology.

32064

done on the fresh water crab pest of Manganallur, but no certain remedy has yet been discovered. The cotton stem weevil also remains an unsolved problem.

Mycology.

226. A considerable amount of work was done on the fungus causing secondary leaf fall in hevea rubber. A root disease of coffee on the Nilgiris was investigated and successful preventive measures devised. Cultural and spraying operations against brown-blight on tea were most successful. One nursery which was about to be destroyed as being hopelessly diseased was saved and 77,000 seedlings planted out from it.

Sugarcane Breeding Station

227. The work continued on the same lines as in previous years, but with increasing success. The number of cane varieties which flowered was 96 as against 71 last year. From these some 4,000 crosses were obtained and 99,000 seedlings raised. These crosses are between thick and thin canes made with a view to obtaining canes combining the hardiness of the thin North Indian cane with something of the high sugar-yielding qualities of the thick South Indian cane. Work was done during the year on the classification of Indian canes, 33 varieties of local canes growing on the farm being exhaustively studied.

Aid to the Public.

Operations against disease.

228. By the middle of June 1917, the work of general examination of palmyra trees for disease had been finished in Kistna and in the central delta of Gōdāvari. In the eastern delta and uplands of Gōdāvari the work was completed in 172 villages. 879,134 trees were examined in the two districts. Statistics show that the system is working successfully and the incidence of the disease is being steadily reduced. One noteworthy feature in the operation was that the ryots have borne the entire cost of cutting and burning the trees since July 1916. The work of spraying areca palms against mahali disease was transferred from the Government Mycologist to the district staff. Nearly 43,000 palms were treated and the operations were a thorough success. The steeping of seed in a solution of copper sulphate as a preventive against smut was found effective in the case of Italian millet and cumbu as well as cholam and 21,790 acres were sown with treated seed. Over 79,000 sugarcane setts were sold for seed from the Samalkota and Anakāpalle farms. Exotic canes are spreading rapidly round Anakāpalle under the stimulus of Messrs. Parry & Co. who have now opened a factory there. A beginning was made in improving the local methods of cane cultivation near Madanapalle and Pakala in the Chittoor district. There has been a considerable development of sugarcane cultivation in the Palghat taluk of the Malabar district where Messrs. Parry & Co. have put up a milling and jaggery-making plant. The introduction of the hard Red Mauritius cane has greatly widened the scope of cane cultivation in South Kanara as this cane is comparatively immune from the attacks of wild animals. It is hoped to introduce jaggery-making by the actual growers with the help of the Co-operative Department. Efforts to encourage the growing of good strains of cotton were continued successfully. 87,086 lb. of seed raised on the seed farms were sold to ryots at a premium for sowing in October-November 1916 and 26,840 lb. issued to seed farms. Last year 87,096 lb. of seed were sown and about 40 per cent of the resulting crop from this seed was sold by ryots on co-operative lines. A conservative estimate would show that some 56,000 acres of cotton were sown with farm seed during 1916. The system of joint sales and ginning was expanded, and 362 ryots in 71 villages combined for this purpose. In six of these villages regular seed unions were formed during the year. The aim of the department is to form a network of these seed unions over the Tinnevelly cotton tract, so that the bulk of the seed annually sown in the 600,000 acres of cotton may be supplied by these unions. The fight against pulichai cotton has been successfully continued. Fortunately the department has been able to produce a variety of long-stapled cotton which is not only superior in quality, but actually gives a better yield per acre. The chief danger has been the shortage of seed of this variety, but the combined efforts of the chief firms co-operating with the Agricultural and Revenue departments succeeded in checking the

Crops.

raising of pulichai, which the firms have bound themselves not to buy. Pulichai has thus been largely stamped out but it still exists as an impurity in the general crop over a wide area. The demand for the surplus paddy seed of the farms continued and altogether 68,251 lb. of seed were sold. Economic planting has proved signally successful in the fertile and well-drained lands along the Bhavani valley and has shown such a marked increase of yield that it is being rapidly adopted by the ryots. The use of superphosphate as a manure for paddy is becoming popular in the south. Altogether 166,457 lb. of green manure seed were sold as compared with 170,515 lb. last year. The decrease was due to the failure of the supply of daincha seed from Bengal, the crop there having been destroyed by a cyclone. The researches of the special Indigo Chemist have shown the feasibility of considerable improvements in indigo manufacture and the possibilities are being further investigated. The demand for the light "Monsoon" iron plough continues in spite of the fact that its cost has risen; during the year some 50 of these ploughs were sold and others let out on hire. One hundred and eleven sets of drills were sold against 83 last year and 15 sets are known to have been made by ryots for themselves, which is a new departure.

Agricultural Associations.

229. Considerable progress has been made amongst the various societies which exist for the extension of scientific methods of agriculture. Much good work was done by co-operative societies which purchase seeds and manures for the local ryots. There is a healthy tendency to eliminate the old district associations and substitute village associations or agricultural co-operative societies.

Agricultural Engineering.

Pumping.

230. The new Agricultural Engineering section of the department was organized on 1st August 1916 when the Pumping and Boring establishment of the Department of Industries was taken over. During the year 6 pumping and 20 minor industrial plants were erected for private parties and 23 were in course of erection at the end of the year. The difficulty in getting new machinery during the war and the high price of liquid fuel which is more than double that of three years ago, militated against any large expansion of this branch of work. These factors account for a decline in applications for investigation and advice which totalled 125 as against 136 last year. The number of installations paying the inspection fee was 234, 111 being pumping plants and the rest industrial. Twelve pumping sets owned by the department were let on hire to ryots during the year and 32 hand-boring sets and two power drills were in use. The total depth bored came to 22,323 feet as against 24,750 feet last year. A strong sub-artesian spring was tapped in the Gudivada taluk of Kistna district giving a supply of 500 gallons per minute at 7½ feet below the ground level. Work is in progress on the preparation of maps giving the contours of sub-soil water levels, to assist the department in giving advice to ryots. Two sugarcane-crushing and jaggery-making plants were in use during the year, one in the Coimbatore district, and the other near Hospet in the Bellary district, and as a result of this demonstration two similar sets have been erected for private parties. These plants are an economic success provided that sufficient cane can be obtained within a small distance. Further expansion may be possible after the war by laying down light tramways to bring in the cane. Work to the value of Rs. 13,666 was carried out at the workshops attached to the Agricultural Engineering section.

Boring.

Finance.

231. The gross expenditure of the department was Rs. 7,15,518 while the receipts amounted to Rs. 1,35,903. This includes the cost of the pumping and boring sections.

Civil Veterinary Department.

Madras Veterinary College.

232. The number of students in the Veterinary College at the end of 1916 was 76. Fifteen out of eighteen candidates passed the final examination. Four men entered the newly formed class for compounders and two passed.

Hospitals and Dispensaries.

233. During the year a new hospital was opened at Mangalore and a dispensary at Madanapalle. Cuddapah is now the only district which has no veterinary institution of any kind. The Court of Wards is arranging to open hospitals in the estates of Uttumalai, Kangundi and Vallūrū. The majority of the hospitals showed a satisfactory increase in attendance and the improvement was marked at Rajahmundry, Berhampur and Tinnevelly. The fall in admissions at Saidapet is ascribed to the introduction of admission fees.

Diseases.

234. The number of deaths recorded increased under almost every head. There was a considerable expansion of rinderpest, from which Guntūr district suffered most severely. Over 100,000 cattle were inoculated against this disease and additional men were posted to the districts of Guntūr, Kistna and Gōdāvari to combat it. Hæmorrhagic septicæmia was also on the increase and there was a notewothy spread of black-quarter. Anthrax increased slightly and the number of cases of foot-and-mouth disease was more than double last year's figure.

Breeding Operations.

235. There were nine stud bulls on 1st April 1916; of these one was sold and one destroyed. No stallions are now maintained as the breeding of Arabs has been discontinued and it has not been found possible to secure suitable country-bred stallions.

Fairs and shows.

236. The usual shows were held at Madura and Tiruppūr. No show was held at Ongole as it has been decided to hold the show biennially. The Cattle Disease Act was enforced at all important cattle fairs.

WEATHER AND CROPS.

(FASLI 1326—1ST JULY 1916 TO 30TH JUNE 1917.)

[*Season and Crop Report for fasli 1326; Agricultural Statistics of India; and Area and Yield of certain principal Crops in India.*]

Rainfall.

237. The south-west monsoon commenced earlier than usual about the beginning of June with good showers in the Circars, Deccan, the Central group of districts, the West Coast and the Hills. The rainfall in July and August was generally above the average throughout the Presidency. In Ganjām, the rains were inadequate along the coast and consequently transplantation was delayed. The inadequacy of rainfall in the uplands of Gōdāvari in August and September necessitated the grant of larger remissions than in the previous year. The rainfall in September was below the average in the Circars except Gōdāvari, in the Carnatic, in the Central group of districts except North Arcot, and in Tanjore and Tinnevelly. The total rainfall during the south-west monsoon was above the average in all the districts except Ganjām and South Arcot. The heavy rainfall during the monsoon in the Kistna district brought down floods in some of the rivers and necessitated the grant of remissions on a large scale in four taluks. The season was, on the whole, favourable to agricultural operations except in Cuddapah for dry crops and in Tinnevelly for wet crops. The area cultivated with dry first crop up to the end of September was above the average in all the districts except Gōdāvari, Kurnool and Chittoor. The deficiency was 11 per cent in Gōdāvari, 4 per cent in Kurnool and 5 per cent in Chittoor. The area under wet first crop showed a decrease as compared with the average in Guntūr and Malabar, the percentages of decrease being 3 and 6, respectively. The north-east monsoon commenced as usual in the month of October with good showers throughout the Presidency. The rainfall in this month was above the average in all the districts except Trichinopoly, the South and the Nilgiris. There was a diminution in rainfall in the first week of November, but prospects improved in the second week and the improvement was maintained throughout the month with particularly good showers towards the close of the month in several districts. The rainfall in November was above the average in the Circars except Gōdāvari, in the Deccan, in the Carnatic except Nellore and in the Central group of districts except Salem and Trichinopoly and in South Kanara.

The heavy rains in this month, followed by a cyclone in the tracts bordering on the trijunction of Chingleput, South Arcot and North Arcot districts and the abnormal fall in Salem, breached a number of irrigation sources and caused considerable damage to crops especially in South Arcot. The excessive rains in Kistna, Guntūr and Kurnool also affected the standing crops. Submersion of crops by floods occurred in Vizagapatam and in Kistna. Season remissions had to be granted in Vizagapatam, Guntūr, Bellary and Salem. The rainfall in this monsoon was above the average in all the districts except Nellore, Trichinopoly, the South and the Hills. On the whole, the season was favourable and led to an increase in cultivation in many of the districts. But remission had to be granted in Tanjore owing to deficiency of water-supply. The dry weather rains were above the average in the majority of districts; but the hot weather rains were a comparative failure.

Crops.

238. The total cropped area of 1916–17 was 39,052,000 acres against a normal area of 38,166,000 acres. The area under paddy was $11\frac{1}{2}$ million acres and exceeded last year's area by 360,000 acres. There was a marked increase in Anantapur (109,183 acres) due to good rains while a similar increase in Kistna was due to the extension of cultivation. $4\frac{3}{4}$ million acres were planted with cholam as against $5\frac{1}{2}$ million acres last year. The chief decrease was in the Deccan (569,798) and is ascribed to the preference given to groundnut and indigo. Untimely rains accounted for smaller decreases in Coimbatore and Kistna. The area under cumbu also declined from 3·6 to 3·4 million acres, the chief cause being the preference given to the cultivation of groundnut and irrigated crops. Ragi fell from 2·5 to 2·4 million acres for similar reasons and there was a 5 per cent fall in the area under gingelly. The area under groundnut increased by half a million acres to $1\frac{3}{4}$ millions. The increase was chiefly in the Deccan, Coimbatore and Ramnad and is explained by the relatively high prices which prevailed at the time of sowing. Sugarcane rose from 94,623 to 114,371 acres owing to the curtailment of foreign supplies and consequent high prices. The general depression of trade and difficulties of transport account for the shortage of the area under cotton, which was 2·17 million acres, or 12 per cent below the normal. At the same time there was an increase in many districts as compared with last year's figures, owing to the difficulty felt by the Bombay mills in obtaining sufficient supplies of American long staples and the consequent demand for Madras long-stapled cotton. The area under indigo was 460,000 acres, which is twice the area sown with indigo in 1915–16 and nearly six times that of 1914–15. This is due to the shortage of synthetic dyes. There were slight increases in the areas cultivated with tobacco and castors.

HORTICULTURE. (1916–17.)

[*G.Os. No. 2037, Revenue, dated 7th July 1917; No. 3197, Revenue, dated 9th October 1917; Report of the Agri-Horticultural Society of Madras for 1916.*]

Government Botanic Gardens and Parks, the Nilgiris.

239. Great difficulty was experienced throughout the year in keeping the Botanic Gardens in good order owing to the difficulty in procuring labour, in spite of the fact that the wages were increased. Nevertheless the conservatory was always full of flowering plants and there was a fine show of orchids, of which 44 species flowered during the year. Two crops of potatoes were grown but both were poor. Most of the seed obtained is being reserved for planting. At the instance of the Honourable the Surgeon-General an effort has been made to revive the cultivation of drug plants such as *digitalis*, *atropa belladonna* and *hyoscyamus niger* (henbane). A large consignment of fruit trees was imported from South Australia and many varieties of orchids were purchased locally. The work of improving the turf in Sim's Park was continued. The turf was top-dressed with the silt obtained when cleaning the lake, which latter undertaking occupied the attention of the whole garden staff for over two months. The orchard has been greatly extended by opening out a new

piece of land and planting it with trees obtained from Australia. The trees arrived in October and were immediately planted in pits. As was to be expected some of the trees have since died but the remainder have grown well. Some of the apple, peach and plum trees imported in 1912 are doing well in spite of the ravages of a fungoid disease. In the Burliar experimental garden the mangosteen crop was a record one and Rs. 543 were realized by the sales. The cocoa trees also produced good crops of fruit and the beans were sold to the East India Chocolate Factory. This is believed to be the first time that cocoa and chocolate have been grown and manufactured in India. The Para rubber trees in the Kallar experimental garden were tapped when weather conditions were favourable and at the close of the year 353 lb. of rubber valued at approximately Rs. 500 were available for sale. But orders have been received to discontinue rubber experiments. The coffee plants at Benhope have grown better than in previous years. This is no doubt due to some of the shade trees being cut down to admit more light and to prevent drip from the trees. The receipts in all were Rs. 6,389 and the expenditure was Rs. 28,376. The proposal to establish a seed farm for potatoes on the Nilgiris was accepted by Government and after various sites have been inspected, it was decided to locate the farm in the village of Ketti, Coonoor taluk. This site not being available immediately, Government have since decided to open the station in Nanjanadu village in the Ootacamund taluk.

The Agri-Horticultural Society, Madras. (1916.)

240. The income of the Society from all sources, excluding the Government grant, amounted to Rs. 12,590 or Rs. 1,491 less than in 1915. The Government grant amounted to Rs. 5,800. The fall in subscriptions is attributed to the effect of the war. The expenditure of the Society was Rs. 20,228 and the year closed with a balance of Rs. 1,662. The Seventy-seventh Annual Flower Show was held on the 25th February 1917; the exhibits were good but the financial result was a loss. A considerable sum was spent during the year on constructions and repairs.

Government Cinchona Plantations.

241. Generally speaking the season was a favourable one for the growth of cinchona trees. The total area under cultivation at the beginning of the year was 1,679·99 acres, consisting of 1,002·44 acres under cinchona and 677·55 acres under fuel trees. The only addition to the estates was an area of 4·92 acres, opened as an experiment at Dodabetta with *cinchona officinalis* plants. At Naduvattam, 138 acres of forest land were cleared and pitted. At Hooker 62 acres of forest land were felled to receive cinchona plants in 1917–18. 12,071 lb. of bark were received from the Dodabetta estate and 46,991 lb. from Naduvattam.

Quinine Factory.

242. The total amount of bark worked up in the factory was 1,184,000 lb., consisting of 295,800 lb. of *cinchona ledgeriana*, 115,924 lb. of locally purchased *cinchona officinalis* and hybrids and 772,276 lb. of *cinchona officinalis* from Dodabetta plantation. The total quantity of quinine sulphate obtained from the bark was 52,513 lb. which surpasses by 60 per cent the highest previous output of the factory. The percentage of extraction for the year is 92·8, which shows a marked increase compared with previous years. 1,775 lb. of quinine hydrochloride and 2,191 lb. of quinine hydrochloride acidum were manufactured during the year. The department supplied to the army over 10,000 lb. of quinine sulphate, mainly in the form of five-grain tablets, 1,000 lb. of quinine hydrochloride and 2,000 lb. of quinine hydrochloride acidum (for injections). The total factory expenditure was Rs. 75,298. The total cost of manufacture of quinine worked out at Rs. 8-10-0 per pound against Rs. 9-6-6 per pound last year whereas the average wholesale market rate for the year was Rs. 26-8-0 per pound. In all 50,320 lb. of factory products were sold, made up of 39,973 lb. of quinine sulphate, 1,430 lb. of quinine hydrochloride, 2,050 lb. of quinine hydrochloride acidum, 5,380 lb. of quinine sulphate tablets, 1,487 lb. of cinchona febrifuge. The Medical depots received the bulk of the quinine hydrochloride and quinine hydrochloride acidum. The sales through post offices in the Madras Presidency were 3,085½ lb. representing 21,598 packets, an increase of 373½ lb. on the previous year's sales.

Finance.

Sales.

FISHERIES. (1916–17.)

General.

243. Sir Frederick Nicholson, K.C.I.E., continued to be Honorary Director of the department. In the course of the year the cannery and soap-works were visited by His Excellency the Governor and by the members of the Indian Industrial Commission. The main operations during the year were :—(1) curing, smoking and pickling fish and the manufacture of fish-oils and guano at Tanur; (2) canning at Chaliyam with experiments in solar heating; (3) soap-making; (4) fresh water fish-farms at Sunkesula and Ippur, including larvicide breeding; (5) re-stocking and conservancy of waters in the plains and trout culture in the Nilgiris; (6) the Tuticorin marine fish-farm; (7) edible oyster farm at Pulicat; (8) pearl oyster farm at Pāmban; (9) *bêche-de-mer* cultivation; (10) chank work; and (11) experimental deep-sea fishing.

The West Coast stations.

244. The experimental stations at Tanur and Beypore had a better year than in 1915–16, but the season was far from favourable. Only small and lean sardines and unusually small mackerel were obtainable and large fish were scarce. The oil and guano manufactured at the yard continued to be of first class quality though small in quantity and there is now little difference between the skimmed and pressed oil. The guano gave a high percentage of nitrogen. The experiments in mackerel pickled either plain with salt or with condiments are being successfully developed. The cannery also did better than in the previous year and over half a lakh of tins of various sizes were packed. The Henderson method of freezing fish was successfully operated. The two Ratnagiri boats bought in the previous year brought in considerable quantities of fish.

Piscicultural work.

245. As regards inland fresh water fisheries, the Sunkesula fish-farms were extended by what is known as the Pudūr scheme. Work progressed at the Hilsa hatchery on the Coleroon. A good deal of useful work was done in stocking and restocking many of the principal tanks in the Presidency. The Ippur fish-farm in the Nellore district was started mainly for larvicides and for the breeding of gourami and other valuable fish. Other operations were the acclimatization of tench, breeding operations at the Old Powder Factory, Madras, anti-malarial work in the Nallamalais and elsewhere and the continuance of trout operations in the Nilgiris. A considerable area was brought under the restrictive operation of section 6 of the Fisheries Act. The late Mr. H. C. Wilson who was in charge of piscicultural work also visited Java and successfully brought back a valuable consignment of gourami. Chank work resulted in a larger profit to the department than has ever been attained before from chanks. Nothing was realized from pearls as there was not a pearl oyster to be found. The Tuticorin marine fish-farm and the *bêche-de-mer* industry both yielded profits, and something was made by the sale of biological specimens to the colleges. The Pulicat oyster farm worked at a small loss, being more of a research station than a commercial enterprise. The estimates for the proposed pearl oyster farm off Pāmban are under consideration by Government. The initial cost is estimated at over half a lakh of rupees, but there is a probability of considerable profit.

Marine work.

Soap.

246. Marked progress was made by the soap manufactures. During the year 12 tons of fish-oil soaps, 32 tons of "Wash-well" and 12 tons of "Vegetol" soap were turned out besides a small quantity of milled toilet soap. More was not possible as the manager was occupied in obtaining and fitting up the new plant, experimenting, buying raw material, training the staff and getting business together. The various qualities of soap manufactured by the department have a growing market, and large orders have been received from the Military and Red Cross authorities. As the glycerine recovery plant ordered from England has not arrived, glycerine could only be recovered on a small scale by make-shift arrangements, which are, however, under development.

Social work.

247. Social work forms part of the activities of the department, which has made great efforts to spread the co-operative movement among the fisherfolk. Two societies were in existence on the West Coast at the

beginning of the year and four more were started during the year, besides preparatory work for other societies, four of which have since materialized. The school attached to the Tanur yard had 30 boys on its roll, and earned a grant of Rs. 116 from Government. It is run by the yard staff, who also teach carpentry and smith work.

FORESTS.

(FASLI 1326—1ST JULY 1916 TO 30TH JUNE 1917.)

[*Annual Administration Report of the Forest Department of the Madras Presidency for the year ending 30th June 1917; Statistics of British India, Part IV (b)—Finance and Revenue.*]

Area.

248. Some 8 square miles were constituted reserved forests and in pursuance of the policy recommended by the Forest Committee 44 square miles were disafforested during the year, the greater part of the latter area being in the districts of Bellary, the Nilgiris and Cuddapah. The total area of reserved forest was 18,810 square miles at the close of the year, a net decrease of 35 square miles on last year's figure. The area of reserved lands also fell from 734 to 725 square miles. In the Parlākimedi Maliahs a block of about 13 square miles was added to reserved lands during the year.

Forest settlement.

249. Out of a total area of 493 square miles which awaited settlement at the close of the year, the Northern Circle alone accounts for 422 square miles. Three large blocks covering an area of 418 square miles were awaiting settlement in the Gōdāvari district. The settlement papers in respect of two large blocks, viz., Nugur (246·61 square miles) and Peddamedisileru (96·48 square miles) are still undergoing revision at the hands of the local officers. It is reported that the final notification in respect of the remaining block, the Coringa extension reserve (75 square miles), will be ready for publication during 1917–18. The Chokkapad block in the Ganjām district (area 64·69 square miles) was notified under section 16 after the close of the year. The appointment of a Special Forest Settlement Officer for the Southern Circle still awaits the orders of Government. The forest settlement work is practically complete in the Central and the Western Circles.

Demarcation.

250. Of the 35,370 miles of forest boundaries 1,887 miles do not require artificial demarcation. The total length of artificially marked boundaries was 33,041 miles, of which 123 miles were demarcated for the first time. 442 miles remained still to be demarcated at the close of the year, principally, as in the previous year, in the districts of Kollegal and Madura. The length of old boundaries repaired during the year was 18,808 miles against 17,644 miles in the previous year; of this length 12,259 miles were cleared by subordinates free of cost. The average cost per mile of fresh demarcation and of repairs rose from Rs. 36–5–3 and Rs. 2–11–7 to Rs. 37–1–8 and Rs. 3–2–9.

Surveys.

251. The Survey of India continued its operations in the Nellore district and surveyed about 115 square miles on the 4-inch scale and about 65 square miles on the 2-inch scale. A special surveyor deputed by the Survey of India completed the survey of some of the teak plantations in South Malabar and prepared maps for them. Miscellaneous work, such as the survey of coupes, the alignment of roads and fire lines, the verification of boundaries and preparation of coupe and working-plan maps, was done by departmental surveyors.

Working-plans.

252. Working-plans for an area of 494 square miles were sanctioned during the year and plans for 1,805 square miles were under preparation by District Forest Officers. The most important working-plans now under preparation are those for the sāl forests of Ganjām, the teak plantations of Nilambūr and the Mount Stuart forest in the Anamalais. Other working-plans sanctioned during the year were the Hosūr sandalwood working-

plan in North Salem and the revised working-plan for the fuel forests of Madura. There are still about 7,000 square miles of forests for which no working-plans have been prepared and many of the existing plans are either defective and require revision or are nearing the end of the period for which they were framed. An additional working-plans party has been sanctioned since the close of the year for the Southern Circle. Satisfactory progress in this most important branch of work cannot be expected at present, owing to the absence on military duty of many officers of the department.

Communications and Buildings.

253. Expenditure on buildings was restricted to essential requirements and fell from Rs. 1·32 lakhs to Rs. 1·02 lakhs. Expenditure on roads and bridges, being frequently remunerative and even more vital for the successful working of the department, rose from Rs. 1·08 lakhs to Rs. 1·62 lakhs. The chief works were under the head of buildings, quarters and offices for subordinates; and under roads and bridges an extension of the Mount Stuart tramway for ten furlongs. The working of this tramway for the year showed a profit of Rs. 11,192 as compared with Rs. 1,441 in the previous year. In the Nellore district temporary tram lines were laid for the transport of fuel from the casuarina plantations and the Srīharikōta reserve. 3,765 tons of fuel were transported from Srīharikōta and 1,045 from the casuarina topes, a considerable increase over the figures of last year, which were 1,518 and 927 tons respectively. Satisfactory progress was made by the Forest Engineer on the important Alangayam-Komattiyur Ghat road. The first section of five miles was completed and work on the other two sections well advanced. Rs. 47,457 were spent on this work. The alignment of the Nadanur-Amerdi road was selected and the Forest Engineer completed his field work in connexion with the Tekkadi tram trace. In all 403 miles of forest roads and bridle-paths were constructed during the year.

Protection. Offences.

254. The total number of offences was 28,087 or 2,798 less than in the preceding year and 3,647 less than the average for the three preceding years. This satisfactory decrease of crime is attributed to better supervision, to the satisfactory working of the patrol system and to the extension of forest panchayats and the kancha system. Offences appreciably decreased in the districts of Kurnool, Bellary, Nellore, North Arcot, South Arcot, Salem and Madura. The Southern Circle contributed 44 per cent and the Central Circle 33 per cent of the total number. Crime was heaviest in the districts of Guntūr, North Vellore, South Arcot, North Salem, Trichinopoly and Madura, which together return 40 per cent of the total offences in the Presidency. Of all reported cases the percentages that were taken to court, compounded and undetected were 22·13, 71·08 and 6·79, respectively, against 24·34, 67·15 and 8·51 in the previous year. Of the 7,438 cases disposed of by magistrates, nearly 94 per cent ended in conviction against 92·8 per cent last year. Rewards amounting to Rs. 772 were granted to informers and forest subordinates against Rs. 903 in the previous year.

Fire.

255. The season was favourable for protection against fires and there was a decrease in the number of offences and in the area burnt. Instances of deliberate incendiarism occurred in the Anantapur and Cuddapah districts, and in some cases reserves were closed to grazing, grazing fees enhanced and the privilege of free removal of grass withdrawn. The area over which special protection was attempted was 7,213 square miles, of which 861 square miles were burnt, a percentage of failure of 11·9 as compared with 17 of last year. The cost of successful protection per square mile was Rs. 18–4–8 against Rs. 20–12–7 in the previous year. The forest village system in the Javadis, under which the villagers are granted various privileges, including free grazing, in return for the protection of the forests, was further developed and worked well.

Cattle.

256. In all new working-plans special attention is being paid to the question of grazing, with a view to minimizing hardship to the ryots, while improving the grazing and protecting the forests from the damage done by

overgrazing. The kancha system in Nellore continued to develop, and a special Deputy Collector was deputed to popularize the system and encourage its growth. Attempts are being made to introduce the system into the adjacent district of Chingleput. When statistics of cattle and the "grazeable" areas are carefully examined, it is usually found that the area available for each head of cattle is quite insufficient to maintain them in condition. The forest panchayats, the kanchas of Nellore and the forest village system will all relieve the situation when they are practicable and a gradual enhancement of the present nominal grazing fees coupled with more effective supervision should, in time, reduce the excessive number of useless animals now kept by the villagers. The fees charged by Government are considerably lower than those charged by private individuals for grazing. In the meantime efforts are being made to diminish the friction between the department and the people, as will be seen from the fact that the number of cattle impounded during the year showed a decrease of 32,641 compared with the previous year. The total number of animals licensed to graze on payment fell from 3,875,000 to 2,704,959. The main cause of the decrease was the transfer of a number of reserves to panchayat management.

Natural causes.

257. Spike continued its attacks upon sandal in North Salem, Trichinopoly, Kollegal and North Coimbatore. The cause of the disease is being investigated. Good progress has been made in the eradication of lantana in North Malabar and Coimbatore. Loranthus in the *Hardwickia binata* forests of the Yerramalais in West Kurnool division is reported to be a serious and increasing pest and no measures have yet been devised to combat this evil, the lopping of branches affording only a temporary relief. The cyclone of November last uprooted a large number of trees in the reserves of South Arcot and great damage was done to the forest of South and West Vellore where sandal and other trees were uprooted by thousands.

Sylviculture.

258. Owing to a favourable season natural reproduction was satisfactory, especially in the case of sāl in Ganjām and *Hardwickia binata* in Kurnool, Bellary and Guntūr. In Cuddapah red sanders coppiced well, and reproduction in Chittoor was satisfactory. Sandal reproduction was good throughout the chief sandalwood areas. Favoured by bamboo seeding, hopea reproduction in South Kanara was good. In Kurnool, the teak plantations established for the purpose of providing labour for the Chenchus were maintained and an additional area of 4[illegible] acres was planted. Small additions were made to the teak plantations in South Malabar. Cultural operations were carried on over a total area of 11,093 acres, compared with 2,376 acres in the previous year, and regular planting was done in one hundred acres at a cost of Rs. 5,411. The Board is considering the question whether more planting should not be undertaken by the department, care being taken to avoid the waste of money which occurred in the past by concentrating effort on favourable localities and insisting on a proper continuity of policy. Operations for the improvement of growing stock consisted of improvement fellings, thinnings, fencing, creeper-cutting and the removal of inferior species, dead and dying trees, parasites and noxious growth and weeds.

Exploitation.

Major produce.

259. The various methods of exploitation of major produce were, clear or regeneration fellings, thinnings, selection fellings, improvement fellings and coppice fellings. Clear or regeneration fellings were carried out in Ganjām, Kurnool West, South Arcot, Trichinopoly and South Malabar. Thinnings were carried out in Gōdāvari Lower only and selection fellings were made, as usual, in timber coupes or where it was found necessary to eliminate dead and unsound trees. Improvement and coppice fellings were undertaken principally in fuel coupes and in a few timber coupes and bamboo areas. Unregulated fellings under the permit system were confined to Rampa in Lower Gōdāvari and to some unreserved lands.

Minor produce.

Minor produce was generally leased out. Bamboos were removed on permit in six divisions in the Western Circle to meet the local demand. The manufacture of catechu in North Mangalore and the collection of miscellaneous produce in Kurnool West, in parts of Nellore, the Nilgiris and

South Coimbatore were carried out by departmental agency. In Kurnool the Chenchus were employed on the collection of minor forest produce and bamboos from areas not leased out. In Ganjām the enjoyment of fruit trees was generally left to the Khonds. The right to collect cassia barks was leased out in most districts. In the Central and Southern Circles *cassia fistula* (rela bark) was leased out for the first time in all districts. Ryots were allowed to cut and remove grass from reserves in all districts, except in parts of North Cuddapah, Anantapur and Nellore, where the privilege was withdrawn because the villagers had failed to assist in putting out fires, and in those districts where there was no demand. In Bellary 860 tons of hay were cut on contract, against 450 tons in the previous year. The Military Department held leases of areas in Bellary, Anantapur, West Cuddapah and North Vellore at Rs. 2 per ton of hay removed. The revenue from grazing and fodder grass, Rs. 7,03,869, was higher than in the previous year by Rs. 17,298. There was a large increase in North Coimbatore, where the fees were doubled as a punitive measure for incendiarism.

Output.

260. The output of timber was 4·3 million cubic feet and 21 million cubic feet of fuel were removed from the forests. Bamboos to the value of Rs. 3·43 lakhs were cut and the value of the minor produce (including grazing) was Rs. 18·42 lakhs. The quantity of timber and fuel and the value of bamboos extracted by departmental agency decreased, owing to the extension of contract work. The quantity of fuel and the value of bamboos removed by purchasers increased in all the circles. The value of minor produce extracted by departmental agency decreased in the Western and Northern Circles, but the value of removals by purchasers increased in all the circles except the Southern. In the Central Circle the rise was due to the sale of *cassia fistula* bark and to the better prices obtained for tangedu leases in general. The estimated value of forest produce removed by right-holders was Rs. 55,684 against Rs. 41,872, and of produce granted free and at reduced rates, Rs. 47,766 against Rs. 22,240. The increase in the value of free grants was due to the large applications for rebuilding houses and huts damaged or destroyed by the floods in Kistna and Kurnool in October and November 1916 and by the severe cyclone of November 1916 in South Arcot district.

Finance.

261. The gross revenue was Rs. 47·79 lakhs and the expenditure Rs. 27·84 lakhs, leaving a net surplus of Rs. 19·95 lakhs, the highest yet recorded. This surplus was distributed over all the circles and was higher than that of the previous year by Rs. 6·64 lakhs. This result is partly due to rigid economy and the postponement of necessary expenditure owing to the war and also to an increase in the revenue from sandalwood, to the leases of *cassia auriculata* and *cassia fistula* which had not been sold for five years and also to the sale of reserved forests which had been given up. The expenditure on Conservancy and Works increased from Rs. 10·98 lakhs to Rs. 11·89 lakhs and that on Establishments by Rs. ·85 lakh. As soon as favourable conditions return, a much larger expenditure will be necessary under both these heads.

Research and experiments.

262. Besides the work on sandalwood pests mentioned above, experiments were carried out to ascertain the conditions best suited for the natural regeneration of red sanders. Considerable research work was done with reference to natural dyes, tanning barks and paper-making materials. Under the latter head, proposals are under consideration for the establishment of a bamboo pulp factory on the West Coast by a private firm.

General.

263. All the forests of the Presidency have now been classified in accordance with the recommendations of the Forest Committee. There has been a satisfactory increase in the number of panchayats, which now number 290 as compared with 147 last year. The area under management is now about 479 square miles of reserved forests and unreserved lands which have been declared reserved lands for purposes of panchayat management, compared with 210 square miles last year. The panchayats are reported to have worked well on the whole. Six panchayats are reported to have been dissolved and the area under their management

resumed on account of misconduct. A special officer has been appointed to look after the Chenchus of Kurnool, for whom work has hitherto been found in the teak plantations which are not capable of much further extension. Mr. A. W. Lushington, C.I.E., retired Conservator of Forests, has been employed as Special Assistant to the Forest Commissioner to investigate the possibility of more commercial exploitation of the forests. It is clear that as soon as conditions permit much more direct exploitation will have to be undertaken by Government. Private firms are not willing to invest large sums of money in tramways, sawmills and other plant, and without these the more remote forests will remain unexploited. Little, however, can be attempted till the staff of the department has been strengthened. A new departure was made in the transfer of the revenue administration of the hill villages in the Javadis to the Forest Department.

Forest College, Coimbatore.

264. The Forest College, Coimbatore, continued to work satisfactorily. Out of the 29 students who appeared for the final examination, 19 obtained the higher standard certificates and 8 the lower standard and only 1 failed to qualify for any certificate. The 1916–18 division started in August 1916 with 34 students, of whom seven were found to be unfit for training.

MINES. (1916.)

[*G.O. No. 1193, Revenue, dated 24th April 1917; Statistics of British India, Part I, Industrial—Mines.*]

Output.

265. During the year mining was carried on only in the five districts of Vizagapatam, Nellore, Anantapur, Kurnool and Salem. There was a slight decrease in the output of gold in Anantapur; out of the total quantity of 66,540 tons of quartz raised from the mines during the year, 22,371 troy oz. of fine gold and 1,362 troy oz. of fine silver were extracted. There was a considerable increase in the output of manganese in Vizagapatam, of magnesite in Salem, and of mica in Nellore. 817 tons of mica were raised principally from the mines in Nellore district as against 195 tons in 1915. Manganese increased from 352 tons to 2,755 tons and magnesite from 7,450 tons to 13,254 tons. In Vizagapatam five mines were reopened. There was a little mining of steatite in Kurnool.

General condition of the employees.

266. The general health of the employees was good. There were no epidemics during the year except in Anantapur where there were six cases of cholera, eleven cases of small-pox, and an imported case of plague. In Vizagapatam the average daily number of labourers employed during the year was 291 against 39 during the previous year. The rates of wages were the same as in the previous year. In Nellore labour was extensively supplied by the members of the Kalichedu criminal settlement. There was no general change in wages of mine workers. Neither women nor children were employed below ground in Anantapur, but in other districts women and sometimes children worked underground. In Nellore two persons were seriously injured and in Salem one. In Anantapur four persons were accidentally killed and four were seriously injured. There were no accidents in Vizagapatam and Kurnool.

MANUFACTURES. (1916–17.)

[*G.Os. No. 708, Home (Education), dated 29th May 1917, No. 642, Home (Education), dated 15th May 1917, and No. 1470, Home (Judicial), dated 17th July 1917; Statistics of British India, Part I, Industrial—Factories.*]

General.

Spinning and weaving.

267. The chief manufacture in the Presidency is the spinning and weaving industry. The number of cotton spinning and weaving mills

in the Presidency, exclusive of four in the French Settlements and one in Cochin, was twelve, with over 400,000 spindles at work. Weaving is mostly carried on as a cottage industry, but the Buckingham Mills at Madras work a considerable number of looms and there are two other factories in the Presidency which have power-looms. The hand-loom industry is very extensive and absorbs the greater portion of the yarn produced by the mills. During the year, the hand-loom weavers suffered considerably from the high price of yarn and the scarcity of dyes, but the weaving mills did well with army orders. All the cotton mills in the Presidency were worked by joint-stock companies, the largest spinning concern being the Madura Mills which worked over 100,000 spindles and employed 1,700 men. The Buckingham Mills at Madras have over 2,000 looms and 70,000 spindles and employ more than 8,000 men in two factories. The number of mill hands in all the cotton mills in the Presidency was over 23,000. There were three jute mills working in the Circars. They have 293 looms and 6,556 spindles and find work for 2,450 employees. The leather and tanning industry does not for the most part come under the Factories Act, since it does not generally employ mechanical power. It is nevertheless an important industry and has been very fully employed during the year owing to the military requirements of Great Britain. The lack of sufficient tanning barks, however, has been a serious difficulty, and eventually, in order to ensure the export of a larger quantity of tanned hides, the Government of India was obliged to prohibit the tanning of skins. The great demand for tanned hides has resulted in a rapid rise in the number of large tanneries. There were in 1916–17 thirteen tanneries with an average of 50 or more employees, as against five in the previous year. The largest concern, that of Messrs. Chambers & Co. at Pallāvaram in the Chingleput district, employed 1,200 persons, which is more than double last year's figure. The coir industry on the West Coast suffered chiefly from the lack of shipping but found employment for some 2,000 hands. There were eighteen coffee works using mechanical power and one employing only hand labour: the average number of employees in all the coffee works was over 5,500. More than 11,000 persons were employed in cotton ginning and pressing, 19 mills having been newly registered under the Factories Act. The total number of cotton ginning works was 148, but many of these also did rice milling and the decorticating of groundnut. There were 127 registered rice mills employing nearly 8,500 persons besides four unregistered mills with 368 hands. Many other concerns do not appear in the statistics owing to their small size. The great majority of the rice mills are located in the delta districts of the East Coast. There were seven sugar factories in the Presidency employing an average of over 2,500 hands. Five iron and brass foundries at Madras found work for 1,055 employees. A very large number of men were employed in oil-mills, which are for the most part small local concerns. Tile works, chiefly on the West Coast, employed nearly 6,000 hands, while over 4,000 were employed in printing presses in Madras. In addition to the pioneer enterprises dealt with by the departments of Industries and Fisheries, there were 15 Government and local fund factories with 6,400 employees. The chief of these is the Cordite Factory; the various Government printing presses employed nearly 2,000 hands. About 14,000 men were employed in 19 railway workshops. A feature of the year was the recrudescence at Cochin, Calicut and Masulipatam, of ship-building, 9 wooden ships averaging 200 tons each having been built at Cochin and Calicut. The East India Distillery Company at Nellikuppam in South Arcot has started the manufacture of golden syrup, rum and sweets. Two brush factories have been opened at Madras. Besides the Cordite Factory, the Arsenal and the Army Clothing Factory, many factories, both Government and private, were largely engaged on military work. The Buckingham Mills turned out large quantities of material for the Army Clothing Factory. The activities of the Public Works Department are described elsewhere. A considerable amount of munitions work was done by the railway workshops and by some of the large private engineering companies.

Jute mills.

Leather.

Coir.

Coffee works.

Cotton-ginning.

Rice mills.

Sugar factories.

Other industries.

Government Factories.

New industries.

Military work.

The Indian Factories Act, 1916.

268. The total number of factories subject to control under the Act rose from 417 in 1915 to 460. Of these, six were removed towards the close of the year. The factories newly registered include 13 rice mills, 19 cotton ginning works, 4 decorticating mills and 5 tile works. Twenty factories were closed throughout the year. The average daily number of operatives employed was 91,415, being an increase of 6,996 over 1915. 15,799 women and 7,395 children were employed in factories, an increase of 2,208 women and 1,313 children. The increase is due to the additional factories registered, to the steady working of the textile factories and to the larger employment of women in cotton ginning. For the illegal employment of children, prosecutions were launched and convictions obtained against the managers of three factories. The general health of the operatives was good and the rules regarding sanitation were generally observed. There was a general increase in wages of skilled labourers due to a greater demand for them. Industrial development failed to attract labour from agriculture; this was proved by the difficulty experienced in some of the larger factories in obtaining the necessary amount of labour, while in others, at the time of planting and harvesting, a large number of labourers refused to work. There was one strike during the year, which lasted longer than any previous strike. Two fires caused some damage but no loss of life. The managers of fifteen factories were convicted for failure to fence dangerous parts of machinery. An interval of half an hour was observed in 386 factories and a system of shifts was adopted in 34. Precautions were taken that women should not be employed more than eleven hours and the employment of children during the night hours was strictly prohibited. The total number of accidents increased during the year from 340 to 420, of which no less than 140 occurred in one factory. There were 13 fatal accidents resulting in the death of 15 persons.

The Department of Industries.

269. The year under review has been one of great opportunities combined with unexampled difficulties for industrial enterprise. The stoppage of imports, while giving almost complete protection to Indian industries, at the same time checked every experiment by making it impossible to procure plant; this, added to the difficulty of getting expert assistance from Europe, made the results of the year on the whole disappointing. The visit of the Indian Industrial Commission helped to throw light on the openings, but did not do much in the way of removing the immediate difficulties. One important event was the transfer of pumping and boring to the control of the Agricultural Department. A proposed demonstration of a gas suction engine had to be postponed owing to the impossibility of shipping the plant from England. Arrangements have been made for a systematic survey of the rice mill industry with a view to improve the methods of manufacture. The attempt to establish a glass bottle industry at Madras was reluctantly abandoned, the chief difficulty lying in the fact that it is now impossible to obtain the services of a glass expert and that more or less amateur supervision must necessarily result in commercial failure. Similarly it has been found necessary to terminate the attempts to manufacture lime sand bricks on a commercial scale since it was not found feasible to produce bricks cheaply enough to compete with the superior qualities of clay bricks. The pencil industry has been more successful and, in spite of difficulties in procuring satisfactory raw materials, the department has managed to produce a pencil of fair quality and sell it at a small profit. Hitherto efforts to use Indian wood and Indian graphite have not been encouraging, but the raw materials for the industry have been obtained from East Africa and Ceylon. The position as regards dyes is unchanged; it has been found unfeasible to replace synthetic dyes, even when their price is prohibitive, by the use of natural and indigenous colours. Two peripatetic weaving parties have done useful work in introducing improvements into the hand-loom weaving industry. Industrial education is still in an experimental stage, but the progress of the experiments is encouraging. The total expenditure of the department was Rs. 2,32,307, while the receipts were Rs. 19,245.

SEA-BORNE TRADE. (1916–17.)

[*Review of the Sea-Borne Trade of the Madras Presidency for the year 1916–17; Annual Volume of the Sea-Borne Trade and Navigation of the Madras Presidency; Statistics of British India, Part II, Commercial; Annual Statement of the Sea-Borne Trade with the British Empire and Foreign Countries; Annual Statement of the Coasting Trade and Navigation of British India; Review of the Trade of India for 1916–17.*]

General summary.

270. The aggregate value of the sea-borne trade of the Presidency was nearly Rs. 5,455 lakhs showing an increase of Rs. 569 lakhs, or 12 per cent, as compared with that of the preceding year, and an increase of Rs. 215 lakhs, or 4 per cent, when compared with the average for five years ending 1913–14, and only Rs. 361 lakhs, or 6 per cent, below the record figures of 1913–14. Government transactions amounted to Rs. 304 lakhs, or Rs. 222 lakhs more than those of 1915–16. Foreign trade continued to feel the effects of the war and in view of the difficulties of obtaining tonnage and the very high rates of freight, coupled with the restrictions extended to most commodities and exchange difficulties, it is remarkable that the total value of our sea-borne trade considerably exceeded that of the average for the five years immediately preceding the war. It must be borne in mind, however, that this increase was largely due to the high prices prevailing almost everywhere and that the quantity of trade borne by sea was in most cases materially less than in previous years. The United Kingdom has increased her trade with Madras both in imports and exports, and this is also true in the case of the United States of America and Japan. Foreign trade, including Government transactions, improved from Rs. 3,714 lakhs to Rs. 4,245 lakhs, or by 14 per cent. Coasting trade increased from Rs. 1,172 lakhs to Rs. 1,210 lakhs, or by 3 per cent. Excluding Government transactions, foreign trade improved by 9 per cent and coasting trade by 2 per cent. Under foreign trade, imports of private merchandize expanded from Rs. 1,153·20 lakhs to Rs. 1,285·59 lakhs, or by 11 per cent, due to increased values under cotton manufactures, paper and pasteboard, cotton twist and yarn, motor vehicles, spices, metals, chemicals, sugar, machinery and millwork, provisions, woollen manufactures and soap, while under railway materials, matches and cement there was a decrease. Exports improved from Rs. 2,458·27 lakhs to Rs. 2,591·27 lakhs, or by 5 per cent, and if the figures for tanned cow-hides shipped under Government control from September 1916 be added, the total exports show an increase of 13 per cent. The increase in value chiefly occurs under leather, raw cotton, oils, drugs and medicines, raw skins, raw rubber, spices, sugar, fish, manures, postal articles, raw jute and living animals. These increases were partly counterbalanced by decreases under grain and pulse, seeds, indigo, coffee and cotton twist and yarn. Imports of treasure declined from Rs. 2·87 lakhs to Rs. 2 lakhs, or by 30 per cent, while exports improved from Rs. 34·56 lakhs to Rs. 89·98 lakhs, or by 160 per cent, owing to larger shipments of rupees to Ceylon and the Straits Settlements. Under coasting trade imports of private merchandize declined from Rs. 660·32 lakhs to Rs. 612·75 lakhs, or by 7 per cent, owing to smaller imports of grain and pulse, while exports improved from Rs. 488·92 lakhs to Rs. 558·43 lakhs, or by 14 per cent, in consequence of larger shipments of coffee, coconuts, groundnut oil, manures, sugar, seeds and spices.

Balance of trade.

271. The excess of imports over exports was Rs. 1,475 lakhs as against Rs. 1,275 lakhs in 1915–16.

Customs revenue.

272. The total gross customs revenue was Rs. 101·21 lakhs, an increase over the previous year of Rs. 27·30 lakhs, or 37 per cent. The amount of import duty realized improved from Rs. 59·94 lakhs to Rs. 87·03 lakhs, or by 45 per cent, partly as a result of enhanced rates of duty leviable under the revised tariff of March 1916 and partly as the result of the high prices of the articles. Larger payments of duty were received on manufactured articles

(+ Rs. 11·69 lakhs or 89 per cent), sugar (+ Rs. 3·74 lakhs or 181 per cent), articles of food and drink (+ Rs. 3·02 lakhs or 80 per cent) and cotton manufactures (+ Rs. 2·40 lakhs or 30 per cent). The increase of Rs. 0·21 lakh, or 1·5 per cent, under export duty was the net result of larger collections on tea by Rs. 2·86 lakhs and smaller collections on rice by Rs. 2·67 lakhs.

Foreign Imports.

273. The following table shows the relative importance of the principal foreign articles, including treasure, imported into the Madras Presidency :—

Foreign imports.	Average for five years ending 1914-15.	1915-16.	1916-17.	Increase or decrease in 1916-17.	Percentage of total imports in 1916-17.
	RS.	RS.	RS.	RS.	
Cotton manufactures ...	3,32,04,987	2,29,54,757	2,76,28,496	+ 46,73,739	21·49
Cotton twist and yarn ...	1,06,73,573	1,28,80,301	1,43,46,272	+ 14,65,971	11·16
Metals and ores ...	1,37,32,321	1,09,36,382	1,17,10,594	+ 7,74,212	9·11
Sugar ...	52,65,012	58,38,809	65,02,548	+ 6,63,739	5·06
Oils ...	53,74,598	57,38,602	58,19,928	+ 81,326	4·53
Spices ...	43,77,354	48,19,459	56,68,590	+ 8,49,131	4·41
Machinery and millwork ...	54,77,083	38,38,932	44,88,454	+ 6,49,522	3·49
Paper and pasteboard ...	20,43,869	22,05,980	38,52,815	+ 16,46,835	3·00
Apparel (excluding hosiery, boots and shoes) ...	36,19,091	38,84,422	36,10,287	— 2,74,135	2·81
Railway plant and rolling-stock ...	80,94,981	68,51,019	35,56,410	— 32,94,609	2·77
Provisions and oilman's stores ...	23,15,964	24,48,970	30,57,508	+ 6,08,538	2·38
Motor-cars and motor-cycles ...	14,62,747	18,63,279	30,48,630	+ 11,85,351	2·37
Hardware ...	33,09,461	25,14,230	27,05,757	+ 1,91,527	2·10
Articles imported by post ...	16,62,235	21,71,638	26,13,390	+ 4,41,752	2·03
Chemicals and chemical preparations ...	9,73,599	16,61,020	24,40,945	+ 7,79,925	1·90
Liquors, methylated and perfumed spirits ...	19,49,699	18,77,588	21,10,393	+ 2,32,805	1·65
Soap ...	9,39,915	12,80,935	17,38,268	+ 4,57,333	1·35
Jute, raw and manufactures ...	9,81,481	13,99,359	15,40,369	+ 1,41,010	1·20
Instruments, apparatus, etc. ...	13,88,466	11,43,248	13,90,752	+ 2,47,504	1·08
Building and engineering materials ...	11,35,254	18,76,712	11,54,069	— 7,22,643	0·90
Drugs and medicines ...	11,34,735	10,81,503	11,37,439	+ 55,936	0·88
Arms and ammunition ...	10,86,823	9,83,288	10,85,182	+ 1,01,894	0·84
Stationery, excluding paper ...	7,43,614	7,02,433	10,60,329	+ 3,57,896	0·82
Animals, living ...	5,17,318	10,60,422	10,20,940	— 39,482	0·79
Wool, raw and manufactures ...	6,65,991	2,85,213	8,34,867	+ 5,49,654	0·65
Glass and glassware ...	16,15,995	5,10,252	8,24,619	+ 3,14,367	0·64
Rubber, raw and manufactures ...	2,51,630	7,31,170	7,99,471	+ 68,301	0·62
Haberdashery and millinery ...	8,69,573	6,72,891	7,36,785	+ 63,894	0·57
Paints and painters' materials ...	6,05,582	6,54,869	7,06,515	+ 51,646	0·55
Dyeing and tanning substances ...	13,39,948	2,88,634	6,80,964	+ 3,92,330	0·53
Silk, raw and manufactures ...	4,86,717	4,98,851	6,67,003	+ 1,68,152	0·52
Tobacco, raw and manufactures ...	4,26,341	4,50,142	6,59,176	+ 2,09,034	0·51
Wood and timber ...	8,12,377	7,21,784	6,08,636	— 1,13,148	0·47
Books and printed matter ...	4,12,348	6,48,032	6,00,557	— 47,475	0·47
Tea chests, entire or in sections ...	3,33,793	4,22,925	5,62,690	+ 1,39,765	0·44
Matches ...	11,48,724	11,31,008	5,35,474	— 5,95,534	0·42
Hides and skins, raw ...	5,47,824	3,57,830	5,00,138	+ 1,42,308	0·39
Fruits and vegetables ...	3,33,507	3,43,338	4,37,711	+ 94,373	0·34
Toys and requisites for games ...	3,28,585	3,42,723	3,82,963	+ 40,240	0·30
Belting for machinery ...	3,03,951	3,09,186	3,73,077	+ 63,891	0·29
Leather ...	3,94,936	3,70,620	3,49,885	— 20,735	0·27
Cycles ...	5,99,750	4,37,848	3,40,888	— 96,960	0·27
Gums and resins ...	2,59,241	2,52,940	2,99,367	+ 46,427	0·23
Clocks and watches ...	1,58,759	1,47,747	2,56,520	+ 1,08,773	0·20
Candles ...	2,88,099	1,79,341	2,50,220	+ 70,879	0·19
Earthenware and porcelain ...	3,45,974	2,62,517	2,15,236	— 47,281	0·17
Boots and shoes ...	2,03,044	1,72,655	1,50,358	— 22,297	0·12
Furniture and cabinetware ...	2,30,347	1,75,648	1,48,016	— 27,632	0·12
Manures ...	3,53,832	1,33,282	1,44,313	+ 11,031	0·11
Printing and lithographing materials ...	2,36,779	1,60,621	1,43,175	— 17,446	0·11
Jewellery and plate of gold and silver ...	3,20,089	1,07,829	1,11,828	+ 3,999	0·09
Coal, coke and patent fuel ...	3,03,466	2,31,297	42,428	— 1,88,869	0·03
Other articles ...	28,48,086	23,05,901	29,07,581	+ 6,01,680	2·26
Total, Merchandise ...	12,84,89,468	11,53,20,382	12,85,58,826	+ 1,32,38,444	100·00
Treasure—					
Gold ...	16,59,464	437	...	— 437	...
Silver ...	17,98,703	2,86,799	1,99,583	— 87,216	
Total, Treasure ...	34,58,167	2,87,236	1,99,583	— 87,653	
Total, Foreign Imports ...	13,19,47,635	11,56,07,618	12,87,58,409	+ 1,31,50,791	...

FOOD, DRINK AND TOBACCO.

Liquors.

274. The total value under food, drink and tobacco increased from Rs. 157·99 lakhs to Rs. 184·38 lakhs. The total import of liquors showed a decline of 25 per cent in quantity but the value rose by 13 per cent. Imports of malt liquors fell by 35 per cent in quantity, those from the

United Kingdom having decreased by 78,949 gallons or by 40 per cent Japan, Holland and Denmark supplied 9,321, 4,622 and 759 gallons of beer against 827, 2,770 and 2,022 gallons respectively in the previous year. Imports of spirits declined by 15 per cent, whisky showing a decrease of 28 per cent and brandy of 14 per cent. Imports of other sorts of spirits increased by 32 per cent. Imports of wine fell by 15 per cent, the decline being most marked under port and still red wines from the United Kingdom and France. Imports under provisions and oilman's stores totalled Rs. 30·58 lakhs compared with Rs. 24·49 lakhs in 1915–16. The chief increases were on biscuits and cakes and farinaceous and patent foods. Imports of spices advanced from Rs. 48·19 lakhs to Rs. 56·69 lakhs. Betelnuts which are the chief spices imported rose from 263,191 cwt. valued at Rs. 46·46 lakhs to 287,884 cwt. valued at Rs. 52·94 lakhs of which Ceylon and the Straits Settlements sent almost equal quantities. Imports of pepper increased threefold. Imports of sugar improved by 25 per cent in volume and 11 per cent in value. Refined sugar declined by 18 per cent in quantity and 7 per cent in value. Under the arrangements made by the Royal Commission appointed to control sugar supplies, Java sent large quantities of raw sugar to the United Kingdom and consequently was unable to send such large quantities as usual to India and imports thence declined by 14 per cent in quantity and 2 per cent in value. The local prices of "Java white" rose from Rs. 35 per bag of 2 cwt. to Rs. 38¼ in May 1916 and to Rs. 44 at the end of November, but thereafter gradually declined the closing price being Rs. 40¼. The decrease of 69 per cent in supplies from Mauritius was likewise due to purchases by the Commission on behalf of the French Government. Imports of unrefined sugar advanced by 34 per cent. This was to some extent the natural outcome of the shortage under refined sugar. Two large consignments were received for the first time from the Philippine Islands. There were no imports either from Java or Mauritius. Imports of molasses from Java increased fourfold and were used principally for distillery purposes. The total imports of tobacco improved by 27 per cent in quantity and 46 per cent in value, although the quantity imported was much below the pre-war average. Imports of raw tobacco showed a decline of 21 per cent in quantity and 10 per cent in value, those from the United Kingdom and Holland having fallen from 42,708 and 41,425 lb. to 36,594 and 31,705 lb. respectively. A consignment of 1,908 lb. was imported from the United States of America for the first time. Imports of cigarettes improved by 103 per cent in quantity. The United Kingdom supplied 133,044 lb. compared with 65,765 lb. in 1915–16.

Provisions and oilman's stores.

Spices.

Sugar.

Tobacco.

RAW MATERIALS AND PRODUCE.

Oils.

275. The total value under this head improved from Rs. 77·45 lakhs to Rs. 82·05 lakhs. The quantity of mineral oils showed a fall of 7 per cent but there was a slight rise amounting to 1 per cent in the value. The figures for kerosene oil show a decrease of 20 per cent in quantity and 8 per cent in value. The average price has risen by one anna per gallon in each of the last two years and now stands at As. 8–4. Imports of Borneo oil showed a further drop of 51 per cent but imports of American oil rose by 22 per cent. This increase is due to consignments intended for Pondicherry and Karikal being landed at Madras instead of being imported by sea direct. The decrease in the imports of foreign oil was partly met by larger imports of Burma oil which increased by about half a million gallons. Liquid fuel showed an increase of over a million gallons, or 65 per cent. Lubricating oils showed a rise of 11 per cent. There have been no imports of foreign petrol during the past four years. Coastwise imports of petrol advanced from 930,496 gallons to 1,337,206 gallons owing to the large number of motor vehicles which have been imported in the last two years. The imports of raw silk from China showed a recovery. The cessation of imports of jarrah wood from Western Australia brought about a fall of 14 per cent under wood and timber. Imports of teak from Siam, which ceased during the previous two years revived and amounted to Rs. 1·67 lakhs. Fewer palmyra rafters were received from Ceylon.

Textile materials.

Wood and timber.

MANUFACTURES.

Apparel.

276. The total value of imports under this head increased from Rs. 884·39 lakhs to Rs. 981·99 lakhs. The fall of Rs. 2·96 lakhs or 7 per cent in the total value under apparel was due to smaller imports of gold and silver thread from France which decreased from Rs. 32·30 lakhs to Rs. 29·94 lakhs and resumed the normal. The imports of gold thread by land from Pondicherry declined from Rs. 6·69 lakhs to Rs. 0·31 lakh. Imports of boots and shoes further declined from Rs. 1·73 lakhs to Rs. 1·5 lakhs. Motor vehicles and accessories rose from Rs. 18·63 lakhs to Rs. 30·49 lakhs. The number of motor cars imported increased from 454 to 560. Imports of motor vehicles would have been considerably greater but for the embargo placed on them towards the close of December last. The number of motor cycles also went up from 279 to 360, of which 305 were of British manufacture. 107 motor wagons (87 from the United States of America and 20 from the United Kingdom) were imported against 6 in the previous year. Imports of cycles and accessories further declined. The value of chemicals imported (other than chemical manures) again showed a remarkable increase of nearly Rs. 8 lakhs. The main factor in this increase was the large quantity of soda compounds (especially cyanide of sodium for the Mysore Gold Mines) which was imported. 82 per cent of the chemicals came from the United Kingdom. Under drugs and medicines, imports of camphor decreased by 31 per cent in quantity and 23 per cent in value, practically the whole coming from Japan. Clocks and watches improved from Rs. 1·48 lakhs to Rs. 2·57 lakhs and cutlery from Rs. 0·73 lakh to Rs. 1·1 lakhs. There was an increase of 8 per cent in the value of hardware but imports were still far below the average imports before the war. 73 per cent of the imports came from the United Kingdom, 11 per cent from the United States and 4 per cent from Japan. Instruments and apparatus showed an increase of Rs. 2·48 lakhs, mainly due to the increase in the number of electrical appliances. When compared with the previous year there was some recovery in dyeing and tanning substances imports of which amounted to Rs. 6·81 lakhs against Rs. 2·89 lakhs but they were far below the pre-war averages. Imports of alizarine amounted to 50,772 lb. valued at Rs. 3·04 lakhs and these came from the United Kingdom. In 1915-16 there were no imports from the United Kingdom. Prices of both alizarine and aniline were phenominally high. Imports of aniline dyes amounted to 49,240 lb. valued at Rs. 2·26 lakhs against 11,355 lb. valued at Rs. 0·43 lakh. Of this year's imports 45,717 lb. came from the United Kingdom. Imports of paints and painters' materials improved from Rs. 6·55 lakhs to Rs. 7·07 lakhs. Although there was some recovery in the imports of glassware (from Rs. 5·10 lakhs to Rs. 8·25 lakhs), yet they represented only 48 per cent of the annual average imports before the war. The United Kingdom supplied 53 per cent and Japan 20 per cent against 43 and 33 per cent respectively in the previous year. Before the war the shares of these two countries were only 11 and 1 per cent. Imports of earthenware amounted to Rs. 2·15 lakhs compared with Rs. 2·63 lakhs in 1915–16. Imports of machinery improved by Rs. 7·13 lakhs, or 17 per cent. The United Kingdom sent 84 per cent of the machinery and the United States of America 12 per cent. The extension of Government control over iron and steel industries in the United Kingdom, the high prices at the supplying centres and the shortage of tonnage, all combined to bring about a decline of 20 per cent in quantity. The urgent demand for the available material, however, brought about a rise of 13 per cent in value; and the local price of iron has more than doubled since the commencement of the war. Previous to the war the United Kingdom supplied 45 per cent of the iron and steel imported into this Presidency. This share increased to 80 per cent in 1916–17. Belgium prior to the war sent 40 per cent. Supplies from America have fallen from 22 per cent in 1915–16 to 13 per cent. Import of bar iron improved by 58 per cent in volume and 131 per cent in value. Bars of Pondicherry manufacture rose from Rs. 5·23 lakhs to Rs. 8·3 lakhs. On the other hand steel bars showed a decline of 70 per cent and plates and sheets of 36 per cent. There was an unprecedented demand

Cycles and motor cars.

Chemicals, drugs and medicines.

Cutlery, hardware, implements and instruments.

Dyes and colours.

Glassware and earthenware.

Machinery.

Iron and steel.

Other metals.

for copper both in Europe and America for munitions, and consequently exports to India fell by 63 per cent in quantity and 38 per cent in value. The United Kingdom supplied 82 per cent against 73 per cent in 1915–16 and Japan 13 per cent against 7 per cent. Imports of yellow metal sheets showed a decline of 61 per cent and those of braziers and sheets 86 per cent. Imports of tin rose by 31 per cent as a result of larger receipts from the Straits Settlements. Imports of lead increased by 11 per cent. Only 2 cwt. of aluminium were imported. The total value of imports of paper and pasteboard amounted to Rs. 38·53 lakhs against Rs. 22·06 lakhs, an increase of 74 per cent although there was a decline in the quantities imported. The imports under railway plant again declined from Rs. 68·51 lakhs to Rs. 35·56 lakhs, or by 48 per cent, carriages and wagons falling from Rs. 30·27 lakhs to Rs. 18·71 lakhs, locomotives and tenders from Rs. 23·35 lakhs to Rs. 4·03 lakhs and materials for construction from Rs. 14·89 to Rs. 12·82 lakhs. Of the total imports 75 per cent came from the United Kingdom and 25 per cent from the United States against 95 and 2 per cent, respectively, in 1915–16. The value of yarns and textiles improved from Rs. 386·10 lakhs to Rs. 454·42 lakhs. The total value of imports of cotton goods, representing 33 per cent of the total foreign imports, increased by 17 per cent. The market at Madras showed considerable fluctuations during the year and it often happened that piece-goods, bought in a moment of considerable activity, actually arrived to a dull market. The chief feature of the year was the speculative purchases of coloured yarns and goods owing to the general view that the scarcity of dye stuffs would cause a considerable rise in the price of dyed goods. Imports of cotton twist and yarn declined by 29 per cent in quantity but rose by 11 per cent in value. Mule yarn declined by 56 per cent, the high rates prevailing in Manchester enabling Indian mills to compete successfully in producing fancy classes of yarn. The total import of cotton piece-goods further decreased by 19 per cent in quantity, but increased by 20 per cent in value. The decrease in quantity was the net result of smaller imports of grey and white piece-goods partly set off by larger imports of coloured goods. The trade in cotton piece-goods was almost entirely confined to the United Kingdom, only 1 per cent coming from other sources. Imports of arms, ammunition and military stores improved from Rs. 9·83 lakhs to Rs. 10·85 lakhs. Imports of cement, mainly from the United Kingdom, declined from Rs. 16·04 lakhs to Rs. 8·58 lakhs owing to the high cost and the difficulty of obtaining supplies. Imports of safety matches declined from Rs. 6·13 lakhs to Rs. 3·94 lakhs and other matches from Rs. 5·18 lakhs to Rs. 1·41 lakhs. Japan sent Rs. 3·01 lakhs' worth of matches, Sweden Rs. 1·21 lakhs, and Norway Rs. ·63 lakh against Rs. 4·40 lakhs, Rs. 4·77 lakhs and Rs. 1·60 lakhs, respectively, in 1915–16. Imports of soap improved from Rs. 12·81 to Rs. 17·38 lakhs. Articles imported by post amounted to Rs. 26·13 lakhs against Rs. 21·72 lakhs.

Paper and stationery.

Railway plant and rolling-stock.

Yarns and textile fabrics.

Cotton goods.

Other minor items.

Foreign Exports.

INDIAN PRODUCE AND MANUFACTURES.

277. The following table gives the value and relative importance of the principal articles of Indian produce and manufacture, including treasure, exported from the Madras Presidency to foreign countries :—

Indian produce and manufactures.	Average for five years ending 1914–15.	1915–16.	1916–17.	Increase or decrease in 1916–17.	Percentage of total exports in 1916–17.
	RS.	RS.	RS.	RS.	
Leather	3,60,66,498	4,49,72,985	5,87,23,728*	+ 1,37,50,743	22·85
Grain and pulse	2,05,98,352	4,05,97,512	3,30,22,174	— 75,75,338	12·85
Cotton, raw	3,49,52,663	1,74,09,658	2,39,33,311	+ 65,23,653	9·32
Seeds	4,13,65,037	2,86,62,155	2,14,19,999	— 72,42,156	8·34
Tea	1,34,75,675	1,73,76,053	1,75,85,439	+ 2,09,386	6·84
Cotton manufactures	93,86,908	1,24,54,434	1,21,76,035	— 2,78,399	4·74
Rubber, raw and manufactures ...	41,82,518	96,41,286	1,14,43,059	+ 18,01,773	4·45
Oils	43,61,940	53,67,618	77,81,856	+ 24,14,238	3·03
Coffee	1,45,24,777	92,42,013	75,36,078	— 17,05,935	2·93

* Excludes Rs. 1,78,63,434 the value of exports of tanned cow hides shipped on Government account.

Indian produce and manufactures.	Average for five years ending 1914-15.	1915-16.	1916-17.	Increase or decrease in 1916-17.	Percentage of total exports in 1916-17.
	RS.	RS	RS.	RS.	
Spices	58,89,288	59,58,274	75,00,663	+ 15,42,389	2·92
Dyeing and tanning substances ...	14,02,451	1,16,68,650	73,84,380	— 42,84,270	2·87
Coir, raw and manufactures	75,93,309	63,70,660	63,98,489	+ 27,829	2·49
Oil-cakes	50,24,821	51,51,367	48,92,063	— 2,59,304	1·90
Articles exported by post	30,68,383	40,38,667	46,86,055	+ 6,47,388	1·82
Hides and skins, raw	33,38,900	26,72,416	46,53,900	+ 19,81,484	1·81
Drugs and medicines	8,21,685	12,69,288	34,97,059	+ 22,27,771	1·36
Fruits and vegetables	27,55,581	33,28,292	31,70,273	— 1,58,019	1·23
Fish (excluding canned fish) ...	23,50,087	23,26,243	30,58,420	+ 7,32,177	1·19
Animals, living	23,58,681	15,86,238	19,98,383	+ 4,12,145	0·78
Fibre for brushes and brooms ...	14,48,519	17,27,545	19,84,713	+ 2,57,168	0·77
Jute, raw and manufactures	23,70,411	12,69,163	17,11,680	+ 4,42,517	0·67
Sugar	11,52,468	5,16,548	17,07,548	+ 11,91,000	0·66
Wood and timber	17,52,449	14,35,018	15,59,870	+ 1,24,852	0·61
Manures	4,84,218	8,05,201	14,90,582	+ 6,85,381	0·58
Cotton, twist and yarn...	26,14,620	25,86,199	11,68,905	— 14,17,294	0·46
Hemp, raw and manufactures ...	7,16,624	7,86,098	9,54,243	+ 1,68,145	0·37
Tobacco, raw and manufactures ...	8,94,987	8,64,257	9,51,463	+ 87,206	0·37
Provisions and oilman's stores ...	7,44,063	7,91,705	9,29,118	+ 1,37,413	0·36
Mica	5,82,003	3,75,116	6,05,161	+ 2,30,045	0·24
Silk, raw and manufactures	2,82,286	3,26,489	5,73,010	+ 2,46,521	0·22
Building and engineering materials ..	2,70,501	3,77,517	5,08,392	+ 1,30,875	0·20
Wool, raw and manufactures ...	3,79,581	3,61,890	3,59,114	— 2,776	0·14
Metals and ores	3,41,217	37,134	2,61,105	+ 2,23,971	0·10
Fodder, bran and pollard	2,93,675	1,27,959	53,165	— 74,794	0·02
Horn and hornmeal	2,74,669	25,870	24,666	— 1,204	0·01
Other articles	24,22,113	11,61,072	12,53,864	+ 92,792	0·50
Total, Merchandise ...	23,05,41,958	24,36,68,590	25,69,57,963	+ 1,32,89,373	100·00
Treasure—					
Gold	9,81,465	2,32,863	7,955	— 2,24,908	...
Silver	52,79,935	32,23,289	89,90,210	+ 57,66,921	...
Total ...	62,61,400	34,56,152	89,98,165	+ 55,42,013	...
Total, Exports ...	23,68,03,358	24,71,24,742	26,59,56,128	+ 1,88,31,386	...

FOOD, DRINK AND TOBACCO.

Grain, pulse and flour.

278. The total value under food, drink and tobacco declined from Rs. 811 lakhs to Rs. 754·7 lakhs. The exports of grain and pulse declined by 18 per cent in quantity and 19 per cent in value. Exports of paddy improved by 76 per cent in quantity and 83 per cent in value, while those of rice declined by 23 per cent in quantity and 21 per cent in value. Shipments of rice and paddy to Ceylon represented 90 per cent of the total exports under this head and declined by 19 per cent both in quantity and value. This was partly due to want of tonnage and partly to larger supplies from Burma to that colony. The average value of rice rose from Rs. 8–3–9 to Rs. 8–7–5 per hundredweight. There was a very slight decline in the quantity of spices exported, but the value rose by 26 per cent. During the first nine months of the year under review shipments of pepper fell away by 47 per cent in quantity and 21 per cent in value when compared with those in the corresponding period of 1915–16. During the last three months, however, shipments increased sixfold in quantity and ninefold in value. The final figures for the whole year showed a decline of 9 per cent in quantity and a rise of 36 per cent in value, the average value having risen from As. 4–8 to As. 7 per pound. Shipments to the United States and the United Kingdom decreased from Rs. 18·24 and Rs. 15·22 lakhs to Rs. 16·90 and Rs. 14·21 lakhs respectively, the pre-war average shipments to these countries being Rs. 5·34 and Rs. 3·17 lakhs. Shipments to France and Italy however showed a marked recovery from Rs. 1·51 and Rs. 2·13 lakhs to Rs. 13·21 and Rs. 4·95 lakhs respectively. There was a great recovery in the exports of sugar (mostly unrefined sugar) from 60,897 cwt. valued at Rs. 5·17 lakhs to 220,684 cwt. valued at Rs. 17·08 lakhs and exports almost reached the level of 1912–13. The area of sugarcane under cultivation increased by 20 per cent and the total yield by 31 per cent. Shipments to Ceylon improved from Rs. 3·53 lakhs to Rs. 14·77 lakhs. Shipments of unrefined sugar to the United Kingdom practically ceased. The exports of tea amounted to 24·91 million pounds valued at Rs. 175·85 lakhs against 25·84 million pounds valued at Rs. 173·76 lakhs, a decrease

Spices.

Sugar.

Tea.

of 4 per cent in quantity and an increase of 1 per cent in value. The coffee crop turned out better than that of the previous season, but exports declined 17 per cent in quantity and 18 per cent in value. As in the previous year 48 per cent went to the United Kingdom whereas France increased her receipts from 24 to 26 per cent. Exports of tobacco increased by nearly a million pounds and amounted to 3·95 million pounds. The value likewise rose by almost a lakh and reached Rs. 9·51 lakhs. As usual the chief consumers were the Straits Settlements and the Federated Malay States. Shipments of cigars further declined.

Coffee.

Tobacco.

RAW MATERIALS.

279. The total value of exports of raw materials increased from Rs. 706·03 lakhs to Rs. 784·18 lakhs. Exports of raw hides from the Madras Presidency improved by 11 per cent in quantity and 31 per cent in value. The whole quantity went to the United Kingdom. Raw skins consisting almost entirely of goat skins expanded by 15 per cent in weight and 75 per cent in value. The marked increase in price is ascribed to the large demand for tanned skins at the London sales which reacted on the local market. The share of the United Kingdom rose from 18 to 32 per cent, while that of the United States fell from 53 to 36 per cent. There was again a considerable increase in the quantity of oil exported and the value rose by Rs. 24·14 lakhs to Rs. 77·82 lakhs. Exports of coconut oil, representing more than half the quantity of all oils, amounted almost to the same quantity as in the previous year, namely, 2·02 million gallons, but the value rose from Rs. 38·57 lakhs to Rs. 42·53 lakhs, a rise of 10 per cent. The value of shipments to the United Kingdom improved from Rs. 21·54 lakhs to Rs. 34·25 lakhs, the average exports before the war being valued at Rs. 6·15 lakhs. Shipments to the United States have been prohibited since July 1916. Exports of castor oil increased from 384,305 gallons valued at Rs. 5·02 lakhs to 1,016,905 gallons valued at Rs. 14·30 lakhs. The United Kingdom imported castor oil to the value of Rs. 13·07 lakhs against Rs. 3·92 lakhs. Shipments of groundnut oil also increased. In 1916–17 the quantity of seeds exported declined by 44 per cent and the value by 25 per cent, representing only 8·34 per cent of the total foreign exports, although this was formerly the chief item of the export trade. The trade in groundnuts represented 68 per cent of the total exports of seeds. Before the war the exports annually averaged 197,318 tons valued at Rs. 344·49 lakhs and France was the chief consumer. During 1914–15 there was a decline of 42 per cent in quantity and 45 per cent in value. In 1915–16, however, the trade with foreign countries revived and large consignments of nuts were sent to Marseilles. The shortage of tonnage to Mediterranean ports gave rise to considerable anxiety as to the disposal of the season's harvest which was above the average, and prices dropped considerably. The position improved somewhat towards the close of the official year and an outlet was found by considerable exports to the Straits Settlements. The figures for the whole year disclose a fall of 56 per cent in quantity and 49 per cent in value. The high prices prevailing in 1915–16 induced cultivators to sow more crops and the area under groundnuts in 1916–17 increased by 60 per cent. The estimated yield is 30 per cent above that of the previous year and is given as 825,000 tons. Exports to France declined by 59 per cent in quantity and 52 per cent in value. Shipments to Italy and the United Kingdom increased slightly. The total quantity shipped at Madras was 56,819 tons compared with 97,535 tons in 1915–16, a decrease of 42 per cent. Exports from Pondicherry showed a decrease of 54 per cent. Inasmuch as Germany was formerly by far the largest importer of copra, with Belgium and Russia standing next, it was only to be expected that the complete cessation of exports to these countries would have a very serious effect on the trade in this product. This was early realized and manufacturers in England turned their attention to producing 'vegetable butter.' They also bought large quantities of coconut-oil. France increased her imports of copra and during the last two years her share has been 56 and 83 per cent and the United Kingdom's share 43 and 12 per cent, respectively.

Hides and skins, raw.

Oils.

Seeds.

Groundnuts.

Copra or coconut kernels.

Textile materials.

During 1916–17 exports of copra improved by 61 per cent in quantity and 65 per cent in value. The total value under textile materials improved from Rs. 196·27 lakhs to Rs. 268·12 lakhs. Exports of raw cotton showed a decline of 2 per cent in volume and a rise of 37 per cent in value. Shipments during the first nine months showed an increase of 8 per cent in quantity and 54 per cent in value. Owing to scarcity of tonnage very little was shipped in January 1917 and there were no shipments during February and March. The area under cotton cultivation was estimated at 2,288,000 acres, an increase of 11 per cent. The estimated yield was 377,000 bales, and increase of 6 per cent. Shipments to Japan expanded by 64 per cent, while those to the United Kingdom and Italy declined by 80 and 19 per cent, respectively. The increase in the exports to Japan was due partly to relatively low freights and partly to the expansion in the trade in textiles. With an increase of Rs. 1·25 lakhs the total value of the exports of wood and timber stood at Rs. 15·44 lakhs. Exports of teak and other timber amounted to Rs. 1·84 lakhs against Rs. 1·92 lakhs and of sandalwood to Rs. 13·59 lakhs against Rs. 12·27 lakhs. Exports of raw rubber have shown large increases every year and in 1916–17 further improved by 31 per cent in quantity and 19 per cent in value. Shipments to the United Kingdom, Ceylon and the United States amounted to Rs. 77·89, 29·70 and 6·57 lakhs, respectively, against Rs. 63·65, 28·90 and 3·39 lakhs in 1915–16.

Wood and timber.

Rubber.

MANUFACTURED ARTICLES.

Chemicals, drugs and medicines.

280. The total value of exports of manufactured articles increased from Rs. 862·03 lakhs to Rs. 963 lakhs. Exports of cinchona bark amounted to 688,143 lb. valued at Rs. 1·73 lakhs against 607,807 lb. valued at Rs. 1·30 lakhs in 1915–16. Shipments were confined to the United Kingdom. Consignments of *nux vomica* declined from 2,225 tons valued at Rs. 3·28 lakhs to 2,172 tons valued at Rs. 3·53 lakhs and were sent to the United Kingdom and the United States. Shipments of senna have again shown a considerable increase and rose from 1,599 tons to 4,753 tons and from Rs. 7·49 lakhs to Rs. 29·03 lakhs. Rs. 20·14 lakhs' worth was sent to the United Kingdom compared with Rs. 5·80 lakhs' worth in 1915–16 and the United States and France increased their supplies from Rs. 0·91 lakh and Rs. 0·55 lakh to Rs. 4·41 lakhs and Rs. 3·03 lakhs, respectively. The remarkable expansion referred to in last year's report under the head of dyeing and tanning substances was not maintained and exports declined from Rs. 116·69 lakhs to Rs. 73·84 lakhs. Exports of indigo receded from 1,308 tons to 614 tons, or by 53 per cent, and from Rs. 108·77 lakhs to Rs. 67·55 lakhs, or by 38 per cent. The average value rose from Rs. 416 to Rs. 550 per cwt. Shipments to the United Kingdom, representing 60 per cent of the total exports, declined from Rs. 89·93 lakhs to Rs. 41·86 lakhs, while those to Egypt, the United States and Italy improved from Rs. 9·53 lakhs, Rs. 3·95 lakhs and Rs. 1·87 lakhs to Rs. 15·26 lakhs, Rs. 6·02 lakhs and Rs. 2·62 lakhs, respectively. The area under indigo in 1916–17 is reported to have been 449,900 acres, or double the actual area sown in 1915–16. The yield was estimated at 2,954 tons, or about two and a half times last year's estimate. The total exports of tanned hides and skins on private account decreased by 16 per cent in quantity but increased by 30 per cent in value. Exports on private and Government account combined showed an increase of 24 per cent in weight and 70 per cent in value. The total shipments of tanned hides showed an expansion of 23 per cent in quantity and 54 per cent in value. Exports of all tanned hides were almost entirely confined to the United Kingdom. Exports of tanned skins improved by 27 per cent in weight and 88 per cent in value. There was an extraordinary demand from Europe and America during the year under review and prices rose steadily until December 1916. At the end of the year the export of tanned skins was prohibited to the United States of America, and from January 1917 a fall has taken place. Under goat skins the United Kingdom increased her imports by 25 per cent and the United States by 13 per cent. The United Kingdom received sheep skins valued at Rs. 108·81 lakhs, the United States Rs. 36·83 lakhs and Japan Rs. 15·03

Dyes and colours.

Hides and skins, tanned or dressed, and leather.

lakhs against Rs. 48·73 lakhs, Rs. 19·66 lakhs and Rs. 8·86 lakhs, respectively in the previous year. Exports of cotton twist and yarn declined in quantity from 5·96 million lb. to 1·81 million lb. or by 70 per cent and from Rs. 25·86 lakhs to Rs. 11·69 lakhs or by 55 per cent in value. The trade with Shanghai, which was considerable in 1915–16 was not maintained. Exports of cotton piecegoods slightly declined. Under coloured goods the value of lungis and saris rose from Rs. 103·50 lakhs to Rs. 108·55 lakhs. The export trade in Madras handkerchiefs made by handlooms declined from Rs. 13·73 lakhs to Rs. 4·19 lakhs partly owing to the restriction placed on the import of these goods into the United Kingdom. Exports of coir manufactures consisting chiefly of coir yarn and matting, amounted to Rs. 63·54 lakhs. Oil cakes to the value of Rs. 48·92 lakhs were exported against Rs. 51·51 lakhs in 1915–16. Articles exported by post improved from Rs. 40·39 lakhs to Rs. 46·86 lakhs.

Yarns and textile fabrics.

Coir manufacture.

Oil cakes.

281. The total value of re-exports amounted to Rs. 21·69 lakhs against Rs. 21·59 lakhs in the previous year. Cotton piecegoods sent to the Straits Settlements, the Federated Malay States and Ceylon accounted for Rs. 8·43 lakhs, or 39 per cent, and articles by post for Rs. 6·92 lakhs, or 32 per cent.

Re-exports.

282. There were no imports of gold during the year under review, whereas the average imports of gold prior to the war amounted to Rs. 38·3 lakhs. Exports of gold declined from Rs. 2·33 lakhs to Rs. 0·08 lakh. Imports of silver declined from Rs. 2·87 lakhs to Rs. 2 lakhs. The quantity of bar silver amounted to 66,175 oz. valued at Rs. 1·55 lakhs, against 144,760 oz. valued at Rs. 2·57 lakhs. Imports from the United Kingdom declined from Rs. 2·53 lakhs to Rs. 0·01 lakh, while those from the Straits Settlements rose from Rs. 48 to Rs. 1·53 lakhs. Imports of Government of India rupees amounted to Rs. 43,300 against Rs. 28,000 in the previous year. Exports of silver consisting mostly of rupees shipped to Ceylon (Rs. 80 lakhs), the Straits Settlements (Rs. 8·9 lakhs) and the Federated Malay States (Rs. 1 lakh), were valued at Rs. 89·9 lakhs compared with Rs. 32·23 lakhs in 1915–16.

Treasure.

Gold.

Silver.

283. The total value of Government stores imported and exported amounted to Rs. 97·12 lakhs and Rs. 179·23 lakhs respectively, compared with Rs. 63·13 lakhs and Rs. 1·55 lakhs in the previous year. The increase of Rs. 33·98 lakhs under imports was brought about by larger receipts of apparel (+ Rs. 17·77 lakhs), cotton goods (+ Rs. 16·93 lakhs), hardware (+ Rs. 3·04 lakhs), and drugs and medicines (+ Rs. 2·15 lakhs), but imports of chemicals declined by Rs. 4·58 lakhs. Imports were mostly from the United Kingdom. The increase under exports was due to the shipment of Rs. 178·63 lakhs' worth of tanned cow hides to the United Kingdom on Government account.

Government Transactions

284. Previous to the war the total tonnage of shipping averaged 3·96 million tons per annum. In 1914–15 there was a decrease of a million tons and during the past two years a further drop to 2·28 million tons. On the other hand the actual number of vessels has steadily increased and amounted to 4,161 against a pre-war average of 3,343. The average tonnage per vessel was 549 tons against 677 in the previous year and less than half the average for the five years ending 1913–14. This result was due to the larger number of native craft now employed. Excluding the ferry steamers plying daily between Dhanushkodi and Talaimannar, the average tonnage of British vessels entering and clearing was 1,835 and that of foreign vessels 2,341 tons. Of the 26 vessels which entered under foreign colours 5 were Norwegian, 5 Dutch, 4 Russian, 4 Swedish, 2 French, 2 Greek, 2 Italian, 1 American and 1 Arabian. The tonnage of British vessels amounted to 87 per cent of the whole against 86 per cent in 1915–16. British Indian vessels and native craft claimed 7 per cent against 5 per cent in the previous year. The number of native craft engaged in foreign trade rose from 1,020 to 1,289 and their tonnage from 63,980 to 88,431.

Shipping.

Foreign Trade. Distribution of foreign trade by countries.

285. The following table shows how the trade of the Madras Presidency with foreign countries was distributed :—

Countries.	Imports.			Exports.			Total of imports and exports.			Percentage which the total of one country bears to the whole.	
	Average for five years ending 1914-15.	1915-16.	1916-17.	Average for five years ending 1914-15.	1915-16.	1916-17.	1915-16.	1916-17.	Increase or decrease in 1916-17.	1915-16.	1916-17.
	LAKHS. RS.	LAKHS. RS.	LAKHS. RS.	LAKHS. RS.	LAKHS. RS.	LAKHS. RS.	LAKHS. RS.	LAKHS. RS.	LAKHS. RS.		
British Empire—											
United Kingdom	853·76	762·70	856·89	673·80	946·57	1,004·92	1,709·27	1,861·81	+ 152·54	47·33	48·02
Ceylon	58·16	69·15	74·78	424·51	644·59	603·53	713·74	678·31	− 35·43	19·76	17·50
Straits Settlements, etc. (including Labuan).	52·55	71·63	80·76	105·25	127·39	142·67	199·02	223·43	+ 24·41	5·51	5·76
Canada	...	...	0·49	33·15	2·55	24·61	2·55	29·01	+ 26·46	0·07	0·75
Mauritius	4·63	10·87	0·94	17·57	23·00	27·10	33·87	24·04	− 10·83	1·03	0·73
Victoria	6·36	12·70	11·22	7·30	8·87	9·39	21·57	20·61	− 0·96	0·60	0·53
Federated Malay States ...	0·15	0·69	1·09	10·92	13·03	15·77	13·63	16·86	+ 3·23	0·34	0·43
Egypt	0·25	0·68	0·10	5·00	9·77	15·99	10·45	16·09	+ 5·64	0·29	0·42
New South Wales	1·21	0·27	0·22	4·11	5·66	9·06	5·93	9·28	+ 3·35	0·16	0·24
Bahrein Islands	...	...	0·03	3·72	3·45	3·71	3·45	3·74	+ 0·29	0·09	0·10
Natal	0·44	2·06	0·12	3·14	5·15	2·17	7·21	2·29	− 4·92	0·20	0·06
Aden and Dependencies ...	0·06	0·03	0·37	1·49	0·65	0·44	0·68	0·81	+ 0·13	0·02	0·02
Hongkong	1·52	0·19	0·31	1·64	0·02	0·13	0·21	0·47	+ 0·26	0·01	0·01
Western Australia	5·96	3·09	0·02	0·47	0·41	0·40	3·50	0·42	− 3·08	0·10	0·01
Other British Possessions ...	0·48	0·32	0·36	4·63	4·18	4·60	4·50	4·96	+ 0·46	0·12	0·13
Total, British Empire ...	945·53	934·29	1,027·64	1,296·85	1,800·29	1,856·49	2,734·58	2,896·13	+ 161·55	75·72	74·71
Foreign countries—											
Europe—											
France	39·16	42·35	40·61	345·65	279·14	235·87	321·49	276·44	− 45·01	8·90	7·13
Italy	2·25	1·70	2·41	37·63	61·93	65·01	63·63	67·45	+ 23·82	1·76	1·75
Sweden	10·75	13·89	7·60	4·36	...	...	13·89	7·60	− 6·29	0·38	0·20
Norway	2·18	4·55	4·31	0·43	0·82	3·09	5·37	7·40	+ 2·03	0·15	0·19
Switzerland	1·45	1·87	2·35	0·19	3·76	2·93	5·63	5·28	− 0·35	0·16	0·13
Holland	4·39	4·45	3·09	20·26	7·44	0·91	11·89	4·00	− 7·89	0·33	0·10
Spain	0·20	0·23	0·30	5·47	8·80	2·80	9·03	3·10	− 5·93	0·25	0·08
Germany	62·45	3·61	0·46	197·53	...	...	3·61	0·46	− 3·18	0·10	0·01
Belgium	40·98	1·73	0·33	101·62	...	...	1·73	0·33	− 1·40	0·05	0·01
Austria-Hungary	22·91	0·02	0·20	41·11	...	...	0·02	0·20	+ 0·18	...	0·01
Russia	2·43	0·01	...	10·14	1·52	0·15	1·53	0·15	− 1·38	0·04	...
Portugal	0·03	0·05	0·04	3·07	2·03	...	2·08	0·04	− 2·04	0·06	...
Other countries	0·22	0·50	0·13	0·71	0·41	...	0·91	0·13	− 0·78	0·03	...
Total, Europe ...	189·45	74·99	61·83	769·27	365·85	310·79	440·84	372·62	− 68·22	12·21	9·61
Asia—											
Japan	10·87	23·70	26·87	141·43	82·52	187·01	106·22	213·88	+ 107·66	2·95	5·52
Java	39·92	42·18	33·78	1·76	1·55	1·06	43·73	34·84	− 8·89	1·21	0·90
China (excluding Hongkong and Macao).	4·05	4·27	5·36	31·45	34·53	13·90	33·85	19·26	− 19·59	1·03	0·50
Philippines	0·01	...	15·77	0·34	...	...	...	15·77	+ 15·77	...	0·41
Arabia (excluding Aden) ...	0·45	0·04	...	4·91	7·02	6·10	7·06	6·10	− 0·96	0·19	0·16
Turkey (Asiatic)	1·11	2·00	4·24	3·95	0·27	1·27	2·27	5·51	+ 3·24	0·06	0·14
Sumatra	2·44	...	...	1·07	5·77	4·24	5·77	4·24	− 1·53	0·16	0·11
Siam	1·15	0·75	2·32	...	0·09	0·17	0·84	2·49	+ 1·65	...	0·06
Indo-China	...	...	...	1·33	3·02	2·41	3·02	2·41	− 0·61	0·08	0·06
Borneo (Dutch)	4·07	...	...	...	...	...	...	1·27	− 4·33	0·18	0·03
Other countries	0·24	0·61	...	2·00	4·99	1·27	5·60	...	...	...	...
Total, Asia ...	64·35	73·55	88·34	188·29	139·81	217·43	213·36	305·77	+ 92·41	5·91	7·89
Africa—											
Réunion	0·05	0·03	0·11	4·17	...	3·25	0·08	3·36	+ 3·28	...	0·09
Other countries	0·11	...	0·02	0·55	0·53	0·63	0·53	0·65	+ 0·12	0·01	0·01
Total, Africa ...	0·16	0·03	0·13	4·72	0·53	3·88	0·61	4·01	+ 3·40	0·01	0·10
America—											
United States	45·35	70·29	107·65	73·75	151·77	190·61	222·06	298·26	+ 76·20	6·15	7·69
Other countries	...	...	...	0·02	0·02	0·07	0·02	0·07	+ 0·05	...	...
Total, America ...	45·35	70·29	107·65	73·77	151·79	190·68	222·08	298·33	+ 76·25	6·15	7·69
Total, Foreign countries ...	299·31	218·91	257·95	1,036·05	657·93	722·78	876·89	980·73	+ 103·84	24·23	25·29
Grand Total ...	1,234·89	1,153·20	1,285·59	2,332·90	2,458·27	2,591·27	3,611·47	3,876·86	+ 265·39	100·00	100·00

Imports and exports of treasure and Government stores are excluded from the above table. Of the aggregate trade in the Madras Presidency the British Empire's share, which before the war amounted to 63 per cent, improved to 75 per cent both in 1915–16 and 1916–17.

General effect of the war.

286. Prior to the outbreak of the war the trade of the Madras Presidency with the Continent amounted to 28 per cent of the total foreign trade ; in 1914–15 it dropped to 20 per cent, in 1915–16 to about 12 per cent and in 1916–17 to 10 per cent. Imports declined by Rs. 13·16 lakhs or 17 per cent and exports by Rs. 55·06 lakhs, or 15 per cent, making a total deficit of Rs. 68·22 lakhs, or 16 per cent.

Europe.

287. Trade with France, which amounted to 7 per cent of the total foreign trade, fell away by Rs. 45 lakhs, or 14 per cent, the fall being chiefly

due to the decline in the export of groundnuts and coffee. The trade with Italy improved by Rs. 3·82 lakhs as there were larger shipments of pepper, raw cotton and groundnuts but shipments of raw hemp declined. Smaller arrivals of matches and iron and steel reduced the trade with Sweden by Rs. 6·29 lakhs. There have been no exports to that country during the past two years. Trade with Norway expanded by Rs. 2·03 lakhs owing to larger shipments of copra. Holland received less coir manufactures and Spain less raw cotton and groundnuts than in the previous year, and the trade with these two countries was reduced by Rs. 7·89 lakhs and Rs. 5·93 lakhs respectively. There was very little variation in the trade with Switzerland which amounted to Rs. 5·28 lakhs. There were no imports from Russia and exports to that country declined from Rs. 1·52 lakhs to Rs. 0·15 lakh. The small quantity of imports from enemy countries represents goods landed from prize vessels. The trade with Asiatic ports, other than British ports, improved by Rs. 92·41 lakhs, or 43 per cent, and represented 8 per cent of the aggregate trade. The trade with Japan expanded by Rs. 107·66 lakhs, or 101 per cent. Larger arrivals of articles by post, stationery, paper and pasteboard, haberdashery and cotton hosiery, partly set off by smaller receipts of camphor and matches improved the imports from that country by Rs. 3·17 lakhs. Exports were larger by Rs. 104·49 lakhs, raw cotton, tanned sheep skins and articles by post contributing to the increase. By sending two large consignments of sugar the Philippine Islands increased their trade with Madras at the expense of Java. The trade with China declined by Rs. 19·19 lakhs owing to smaller exports of cotton. The trade with Africa, excluding Egypt, improved from Rs. 0·61 lakhs to Rs. 4·01 lakhs on account of large shipments of rice to Réunion. There was a further expansion of Rs. 76·25 lakhs, or 35 per cent, in the trade with America, practically the whole of which was confined to the United States. The total trade amounted to Rs. 298·33 lakhs or was nearly double the pre-war total and formed 7·69 per cent of the total trade. Imports showed an increase of Rs. 37·36 lakhs, or 53 per cent, chiefly under motor vehicles, railway plant and rolling-stock and mineral oils. Exports expanded by Rs. 38·89 lakhs chiefly owing to larger shipments of tanned skins.

Asia. *Africa.* *America.*

Coasting trade.

288. The aggregate value of coasting trade improved from Rs. 1,172 lakhs to Rs. 1,210 lakhs or by 3 per cent, Rs. 1,171 lakhs representing private merchandise and Rs. 39 lakhs treasure and Government stores. Imports coastwise of Indian produce declined from Rs. 586·65 lakhs to Rs. 530·96 lakhs, or by 9 per cent, while those of foreign merchandise increased from Rs. 73·66 lakhs to Rs. 81·79 lakhs, or by 11 per cent. Exports of both Indian and foreign produce increased by 13 and 56 per cent respectively, the figures for the former being Rs. 541·48 lakhs and the latter Rs. 16·95 lakhs. The decline of Rs. 1·21 lakhs in imports from Bombay was the net result of smaller receipts of grain and pulse, coffee, cotton twist and yarn, salt, coriander seeds and copper, partly counter-balanced by larger imports of raw cotton, sugar and paper and pasteboard. The expansion of exports to Bombay was due to increased shipments of coffee, groundnuts, coconuts, drugs and medicines, copra, dried fruits, timber, betelnuts, pepper, groundnut oil, sandalwood, ginger and manures, but shipments of raw cotton and rice declined. There was decrease of Rs. 38·03 lakhs in the imports from Burma, the net result of smaller imports of grain and pulse, partly met by larger receipts of teak, petrol, kerosene-oil and raw hides. The increased exports to Burma were brought about by heavier shipments of groundnut oil, gingelly seeds, coconut oil, coffee and coir manufactures, but shipments of cotton piece-goods and groundnuts declined. Smaller imports of coal (— Rs. 13·23 lakhs) and jute gunny bags (— Rs. 3·77 lakhs) reduced the imports from Bengal by Rs. 16·35 lakhs and smaller shipments of rice (— Rs. 9·51 lakhs), coconut oil, groundnuts, coir manufactures and indigo, partly set off by larger shipments of cotton twist and yarn and salt brought about a decrease of Rs. 9·32 lakhs in exports to Bengal.

Bombay. *Burma.* *Bengal.*

Ports.

289. The following table shows the total trade (excluding Government transactions) and comparative importance of the principal ports in the Madras Presidency :—

Ports.	Average for five years ending 1914-15.	1915-16.	1916-17.	Increase or decrease in 1916-17.	Percentage of trade of the whole Presidency for 1916-17.
	LAKHS. RS.	LAKHS. RS.	LAKHS. RS.	LAKHS. RS.	
1. Madras	2,038·31	2,027·75	2,311·75	+ 284·00	44·88
2. Tuticorin	868·70	765·48	830·17	+ 64·69	16·11
3. Cochin	644·34	555·29	556·89	+ 1·60	10·81
4. Dhanushkodi	14·90	241·87	299·72	+ 57·85	5·82
5. Calicut	240·85	228·51	259·16	+ 30·65	5·03
6. Mangalore	188·52	176·31	214·76	+ 38·45	4·17
7. Negapatam	186·32	175·56	149·08	— 26·48	2·90
8. Cocanada	280·02	206·77	126·62	— 80·15	2·46
9. Cuddalore	167·38	103·41	78·07	— 25·34	1·51
10. Tellicherry	128·83	80·47	74·63	— 5·84	1·45
11. Kulasekarapatnam	21·48	23·35	33·59	+ 10·24	0·65
12. Badagara	48·68	26·07	29·08	+ 3·01	0·56
13. Cannanore	47·06	19·36	15·55	— 3·81	0·30
14. Porto Novo	50·18	24·50	14·55	— 9·95	0·28
15. Bimlipatam	34·50	12·87	13·06	+ 0·19	0·25
16. Masulipatam	12·17	6·16	10·33	+ 4·17	0·20
17. Pamban	17·41	15·08	9·07	— 6·01	0·17
18. Vizagapatam	26·82	8·67	8·77	+ 0·10	0·17

The relative importance of the trade of the outports remained much the same as in the previous year. Cocanada which occupied the sixth place in 1915-16, ranked eighth in the year under review. Sea-borne trade on private account at the port of Madras represented 45 per cent of the trade of the whole Presidency compared with 42 per cent in the previous year.

Miscellaneous.

290. The total revenue receipts for the Presidency increased from Rs. 79,31,527 to Rs. 1,07,06,467, or by 35 per cent. The total disbursements on account of customs for the whole Presidency amounted to Rs. 7,01,480 compared with Rs. 5,77,094 in 1915-16. The number of offences dealt with under the Sea Customs Act during the year was 1,494 against 1,488 in the previous year. Penalties realized Rs. 27,019. Eight hundred and ninety-four cases occurred at Madras and 600 at the outports. At Madras there were three cases of smuggling of opium. In one of these, the quantity seized was 512 tolas. At Negapatam 55 seers of opium and 46 seers of ganja were seized in a native craft which cleared at dead of night but was overtaken. On the Karikal frontier, a case of smuggling of 7,000 bars of silver valued at Rs. 32,000 was detected. The silver was confiscated.

PUBLIC WORKS—GENERAL. (1916-17.)

[*Administration Report of the Public Works Department, Madras Presidency, for the year 1916-17.*]

Administrative changes.

291. The two temporary engineers and staff appointed in 1914 for the investigation and execution of works connected with the Forest Department were placed under the control of the Forest Commissioner with effect from the 1st April 1916. The committee appointed by the Government of India to inquire into and report generally on the organization and the system of administration of the Buildings and Roads branch of the Public Works Department, sat in Madras in February 1917 and examined seventeen witnesses. With a view to provide for the open market a larger supply of trained mechanics than has hitherto been available, the Government increased the number of apprentice workmen undergoing training in the Public Works Workshops. Ten more officers of the engineer establishment and nine officers of the upper subordinate establishment left for military duty during the year. Two other officers were wounded and received the Military Cross. In the I Circle the Gōdāvari Eastern and the Gōdāvari Conservancy

divisions were reconstituted into three divisions, viz., the Gōdāvari Eastern, the Gōdāvari Headworks and the Gōdāvari Conservancy divisions. In the IV Circle the territorial limits of the Headquarters and Coimbatore subdivisions of the Coimbatore division were re-arranged during the year. The Tank Restoration Scheme division of the Circle was abolished and its works were distributed among the Tank Restoration Scheme divisions of the VI and VII Circles and the Salem division, IV Circle.

Chief Engineer's office.

Technical section.

292. Seventy-two estimates of the aggregate value of Rs. 104·19 lakhs were scrutinized in the section during the year; seventeen of these (totalling Rs. 23·88 lakhs) dealt with water-supply, including schemes for Bellary (Rs. 8·09 lakhs), Madras (Rs. 9·70 lakhs) and Anantapur (Rs. 2·58 lakhs); eleven estimates (for Rs. 51·5 lakhs) were for drainage works, especially at Madras (Rs. 39·93 lakhs), Adōni (Rs. 3·28 lakhs) and Vellore (Rs. 4·23 lakhs); twenty-six estimates totalling Rs. 19·09 were for roads and bridges, the chief works being new bridges over the Mahanadi at Aska (Rs. 2·50 lakhs) and over the Netravati river at Panemangalore (Rs. 3·98 lakhs) and the widening of the Government House and Penitentiary bridges at Madras (Rs. 3·20 lakhs). The Consulting Architect to Government prepared 250 drawings for various buildings and also specifications and schedules of quantities for most of them. Of these the more important are the new General Hospital and University Library at Madras, the new hospitals at Vizagapatam and Masulipatam and the St. George's Homes' School at Kethi. Four revised type-designs were prepared during the year. In addition to this work, 155 estimates and designs with an aggregate value of Rs. 87,09,156 were scrutinized. Of these, 16 were for buildings estimated to cost over one lakh of rupees each, 13 for buildings costing from Rs. 50,000 to Rs. 1,00,000 and 126 for buildings costing less than Rs. 50,000. Amongst the more expensive estimates are the new Forest College at Coimbatore, the Medical School hostel at Royapuram, and the new Engineering College at Guindy. The investigation of the Coimbatore hydro-electric scheme and of a scheme to supply the town of Ootacamund with electricity had to be held over for the present owing to the shortage of establishment. The subject of supply of electricity to the town of Madura until the Periyār scheme materializes, is under consideration. To provide for the increased prices of materials and for the additional requirements of the authorities of the New Engineering College, Guindy, a revised estimate for an installation amounting to Rs. 1,68,800 has been prepared and is under consideration. The subject of a testing laboratory for the Electrical Inspector has been investigated and detailed estimates for the building and equipment expected to cost Rs. 25,000 are under preparation. The Electrical Inspector scrutinized 96 estimates with an aggregate value of Rs. 1,64,115. Of these seven were for installations costing over Rs. 5,000 and 26 for installations costing from Rs. 1,000 to Rs. 5,000. The more important works completed were electric installations at the Penitentiary, Madras (Rs. 5,977), and the New Court House, Egmore (Rs. 3,697). The work at the King Institute, Guindy, estimated to cost Rs. 28,876 is practically completed, as also the installation of electric cranes, lifts, lights and fans at the Stationery stores, Madras (Rs. 73,770). The installation at the Royapuram Hospital is finished except for the new sub-station plant and mains which cannot be got from England. The number of electric installations under Public Works Department maintenance is 74. With the exception of six, all were inspected and tested. The amount spent on their maintenance apart from actual consumption charges was Rs. 36,951. There are 129 electric plants in the Presidency notifiable under the Act and of these 118 were inspected during the year. The Madras Electric Supply Corporation and Madras Electric Tramways works necessitated 194 inspections. As in previous years the standard of work of the majority of electrical contractors is decidedly poor. Out of the 21 cinema companies touring the Presidency, 6 were inspected during the year. The number of

Consulting Architect's section.

Electrical Department.

accidents reported was eight of which seven were trivial. The serio case occurred in the East India Distilleries, Nellikuppam, and resulte in the death of a workman. The increase in the use of electricity i Madras City is being well maintained. The number of consumers at tl end of the year 1916 had increased from 2,009 to 2,305 and the quantit of electricity sold from 5·1 to 5·7 million units. About 54 industri concerns are being worked with electric power. The suburban extensio to Kilpauk, Royapuram and Adyar have been further delayed by tl difficulties of obtaining materials from Home.

CIVIL WORKS. (1916–17.)

Works in progress. Buildings.

293. The expenditure for the year, including expenditure fro contributions, minor works and repairs, was Rs. 61·23 lakhs as compare with Rs. 69·92 lakhs in the previous year. The construction of the gener hospital at Guntūr (estimate Rs. 1,43,000) was continued during the yea and Rs. 40,505 was spent, bringing up the total outlay on the work t Rs. 80,328. The main building and several quarters connected with th Central Police Recruits' School at Anantapur (revised estimate Rs. 2,44,90 were completed. The municipal hospital at Bellary was finished except fo certain details and fittings. Additions and improvements to the Quee Mary's College for Women, Madras, were completed during the year at total cost of Rs. 2,19,779. The outlay during the year amounted to Rs. 31,80 Satisfactory progress was made in the construction of the new Enginee ing College at Guindy estimated to cost Rs. 15,05,000. The amount spen during the year was Rs. 2,81,084 and the total outlay on the work to th end of the year is Rs. 4,73,221. The construction of the new Court-hous for the Chief Presidency Magistrate at Egmore was completed, except fo a few details. The estimated cost of the work is Rs. 1,12,631. The tota outlay was Rs. 1,00,979 inclusive of Rs. 43,080 spent during the yea The new building for the Stationery stores at North Beach Road, Madra was practically completed at a total cost of Rs. 3,56,832. The constructio of the main ward for the new hospital at Royapuram was finished an other subsidiary buildings were in progress. The total outlay is Rs. 3,59,43 of which Rs. 97,957 were spent during the year. The Central Agricultura College and Research Institute, Coimbatore (estimate Rs. 10,25,172), wer nearly completed. The new Collector's office at Madura was finishe except for a few details and the building was occupied. The total outlay was Rs. 4,11,214 against an estimate of Rs. 4,00,500. Good progress wa made on improvements to the customs accommodation at Cochin, worl amounting to Rs. 25,011 being done during the year. The construction o the new Kalingia Ghaut road (estimate Rs. 1·86 lakhs) progressed, th outlay during the year being Rs. 39,841. Rs. 20,668 were spent during th year on the girder bridge over the Aliyar river at Yakkara (estimated cos Rs. 1,09,600). The whole of the steel work of the pier at Tellicherry wa erected. The outlay during the year amounted to Rs. 1,22,511 bringing u the total outlay to Rs. 1,59,820. Work amounting to over a lakh of rupee was done on water-supply schemes both at Masulipatam and at Ellore More than four lakhs were spent on the Madura drainage scheme an considerable progress was made with the water-supply at Erode and th improvements to the Madura water-works. Work on other schemes wa generally restricted by war conditions.

Imperial civil works. Communications. Port and Marine works. Water-supply and drainage.

Workshops.

294. The Dowlaishweram Workshops, formerly a separate subdivisio attached to the late Gōdāvari Eastern division, are now part of the Gōdā vari Head Works division under the direct charge of the Executiv Engineer. The value of the work done was Rs. 1,45,986 against Rs. 1,57,35 of the previous year, the fall of Rs. 11,373 being mainly due to the genera curtailment of works owing to the war. Amongst the work turned out wa the improvement of five barges for use in Mesopotamia. At Bezwada th value of the work done was Rs. 1,00,707 against Rs. 1,08,604 in 1915–16 and Rs. 1,18,825 in 1914–15. The shops lent a big lathe to the railway shop

at Perambur for munitions manufacture, and a few tram trucks and one mile of tram line were sent to Mesopotamia. An order for 170 buoys for use on the rivers in Mesopotamia has been executed. The Presidency Workshops, Madras, turned out work to the value of Rs. 3,24,506 against Rs. 2,40,314 in the previous year. The increase of Rs. 84,192 was under non-provincial works and works for other departments and quasi-public bodies. Though the manufacture of high explosive shells was discontinued, the making of minor military supplies was undertaken extensively.

RAILWAYS AND TRAMWAYS. (1916–17.)

[*Administration Report of the Public Works Department, Madras Presidency, for the year 1916–17; Statistics of British India, Part III—Commercial Services.*]

Control.

295. The main railway systems are controlled by the Railway Board and the district board railways are subject to the general control of this Government.

Development.

296. There was no addition to the working mileage during the year and the total mileage of the railway systems was therefore the same as in the previous year, viz., 3,805 miles, of which 1,716 were broad gauge, 1,966 metre gauge, and 123 miles narrow gauge. Besides these extents, there were also 210 miles of railway owned by the Tanjore, Kistna, Coimbatore and Guntūr District Boards. The construction of the Tirutturaippūndi-Vēdāranniyam railway of the Tanjore District Board and the Suramangalam-Salem railway of the Salem District Board was completed, but the lines could not be opened during the year owing to deficiency of rolling-stock and difficulties caused by the war. Work on the construction of the Tinnevelly-Tiruchendur railway was also suspended for this reason. The Quilon-Trivandrum extension was under construction. The survey of three new railways was completed but four new district board lines could not be surveyed owing to lack of staff. At the instance of the Mysore State, an officer of the Railway Board has investigated four lines with a view to connecting Mysore with the West Coast and opening up the district of Coorg. Two other lines, viz., Attur-Tirumandorai and Attur-Perambalūr, were investigated as alternatives to the Attur-Chinnasalem connexion contemplated by the South Arcot and Salem District Boards; but Government, on considering the three alignments, recommended the construction of the Attur-Chinnasalem line in preference to the other two. The total number of new district board railways and other lines under consideration is 44.

Accidents.

297. There was an unusually large number of accidents during the year under review. A collision on the main line at Trichinopoly Fort resulted in slight injuries to five third-class passengers and two railway servants. On the night of the 22nd and 23rd November 1916 a cyclone of intense severity struck the coast of South India with the result that the Boat Mail and the Tuticorin Express capsized at Mailam and Pakkam stations, respectively. Three passengers and one mail sorter of the Boat Mail and thirteen passengers of the Express were slightly injured. The rolling-stock was also damaged. A collision at Nandalur on the Madras and Southern Mahratta Railway resulted in some damage to rolling-stock and injuries to passengers. A derailment between Rungapuram and Betamcherla stations due to a broken rail caused some damage to the rolling-stock and permanent-way and slight injury to a passenger. In another derailment between Navabpalem and Nidadavolu the three rear vehicles of the train capsized down the embankment. The permanent-way was badly torn up and eight people suffered slight injuries. In a collision between the South Indian Railway mail and a goods special at Katpadi station due to a wrong setting of points, six passengers were slightly injured. While lifting an old girder from the piers of a bridge between Settigunta

and Koduru the crane capsized carrying with it the girder, crane support wagon, twin timber truck and brakevan. The craneman and gang cooly were killed and the permanent-way inspector, a fireman, and 5 gang coolies injured.

District Board Railways

298. The model agreement for working district board railways was still under the consideration of the Railway Board. The conclusion of the agreements for the several district board lines now open is deferred pending the final settlement of the model agreement. The Bezwada-Masulipatam Railway earned a net profit of Rs. 2·30 lakhs which worked out at 10·40 per cent on the capital outlay. The profits of the Tenali-Rēpalle Railway, the Tanjore District Board Railway and the Pōdanūr-Pollachi Railway on the same basis of calculation were ·13, 8·16 and 3·08 per cent, respectively.

Tramways.

299. The Madras Electric Tramway was the only tramway system; the Company operated a route mileage of 14 miles, 6 furlongs and 107 yards, of which 5 miles, 1 furlong and 76 yards were double track. The plant at the power station, namely, two Burnley horizontal engines, two Willans central valve engines and one Diesel oil-engine, was used only as a standby, current being obtained from the Madras Electric Supply Corporation, Limited. The rolling-stock consisted of 72 motor-cars, 14 trailers, 1 bond testing car, 1 road metal carrying car and 1 watering car. The average daily service was 66 cars or three more than in the previous year. The car mileage was 1,598,157 and the number of passengers carried 20,395,294. The Company had a net balance £17,396 on the year's working.

PUBLIC WORKS—CANALS. (1916–17.)

Canals.

300. Navigation was carried on as usual on the Chilka Lake canal, the Dumagudem, Gōdāvari, Kistna, Kurnool-Cuddapah, Buckingham, West Coast and Vēdāranniyam canals. Excluding the West Coast canals for which figures are not available, the total receipts amounted to Rs. 2,47,478 and were Rs. 12,699 more than in the preceding year; the increase occurred chiefly under the Kistna canals and was due to a larger number of boats having taken out licences and more revenue being realized on wharfage fees and boat rent, the canals having been navigable throughout the season.

Traffic.

301. Compared with the figures of the previous year, there was a decrease under 'number of passengers', 'ton mileage' and 'value of goods.' The decrease in the number of passengers occurred mainly in the Kistna canals and was due chiefly to the opening of the Guntūr-Tenali-Rēpalle railway.

PUBLIC WORKS DEPARTMENT—IRRIGATION. (1916–17.)

Gross Expenditure and Revenue.

302. The expenditure incurred on and the revenue derived from irrigation works were Rs. 71,61,302 and Rs. 2,63,27,903 respectively against Rs. 81,15,716 and Rs. 2,75,80,236 in the previous year. The area charged as irrigated was 7,279,619 acres.

Class I—Major Protective Works.

303. There were four works sanctioned under this head—the Rushikulya system in the Ganjām district, the Bhavanasi tank project in the Guntūr district, the Mopad reservoir project in the Nellore district and the Venkatapuram tank project in the Kurnool district. The Rushikulya system was in operation and the other three works were still under construction. The capital outlay under this head was Rs. 2,76,056 (direct and indirect), the bulk of which was spent on the projects under construction. The area irrigated under the Rushikulya system was 101,954 acres of first crop and 2,692 acres of second crop. The gross revenue (including old irrigation revenue) and working expenses

were Rs. 2,36,591 and Rs. 80,183 respectively against Rs. 2,66,094 and Rs. 79,227 in the previous year. The net revenue, deducting interest charges, showed a deficit of Rs. 1,24,837 against Rs. 1,02,026 in the preceding year.

Productive Works.

304. The capital outlay on productive works aggregated Rs. 6,34,586 (direct and indirect) and was mainly incurred on the Gōdāvari and the Kistna delta systems, the Kurnool-Cuddapah canal, the Toludur project and the Cauvery delta system. The Toludur project was the only work of this class under construction. In the Gōdāvari delta system, the works in progress were improvements to the Yenamadurru drain, remodelling the Chinchinada channel, excavating a new approach channel to the Bobberlanka lock, protecting with steel sheet piles the lower margin of the impervious apron below the Dowlaishwaram head-sluice and constructing a retaining wall on the right side of the main canal below the head-sluice, restoring the Kovvur-Manjair junction canal and improvements to the mouth of the Tuliabhaga drain. In the Kistna delta system, the improvement to the Ryves regulator were completed and the provision of steel lock-gates for the Sitanagaram head lock was in progress. In the Kurnool-Cuddapah canal, the Chepad and the Ukkayapalli projects were under execution. In the Cauvery delta system the improvements to the Manniar and the Vellapalam Uppanar were in progress, while those for the Pillai Voikal and the Morakkakorayar were almost completed. The total area charged as irrigated was 2,985,600 acres under first crop and 485,665 acres under second crop against 3,007,893 acres and 491,946 acres respectively in the previous year.

Revenue.

305. The gross revenue and working expenses inclusive of old irrigation revenue and old maintenance charges amounted to Rs. 1,54,26,216 and Rs. 31,11,209, respectively, against Rs. 1,59,01,094 and Rs. 34,04,097 in the previous year. The net revenue due to improvements was Rs. 83,36,100 which represented a return of 9·63 per cent on the capital outlay of Rs. 8·66 crores. The profit for the year after deducting interest charges was Rs. 56,61,858, the accumulated profits to the end of the year amounting to Rs. 16·18 crores. The gross revenue, when compared with that of the previous year, showed a decrease of Rs. 4,74,878 which occurred chiefly under the Gōdāvari, the Kistna and the Cauvery delta systems.

Expenditure under Revenue Account.

306. There was a decrease of Rs. 2,92,888 under "Working expenses", the expenditure in the previous year having been particularly heavy, chiefly owing to the reconstruction of the Bezwada head works and the strengthening of the Kistna flood banks damaged by the floods of 1914.

Remissions.

307. The remissions granted under protective and productive works were Rs. 4,386 and Rs. 2,36,569 against Rs. 2,347 and Rs. 1,30,127 in the previous year. The bulk of the remissions was granted in the Gōdāvari and the Kistna delta systems.

Class II. Minor Works and Navigation.

308. The capital outlay incurred on "Minor works and navigation" was Rs. 2,00,194 (direct and indirect) which was incurred chiefly on the Siddapur project in the Kurnool district, the Panjapatti project in the Trichinopoly district and the Kaniyampalayam project in the Coimbatore district. The area charged as irrigated by this class was 269,224 acres under first crop and 87,437 acres under second crop against 269,463 acres and 94,003 acres respectively in the previous year. The gross revenue and working expenses including old irrigation revenue and old maintenance charges amounted to Rs. 14,14,605 and Rs. 3,88,646 against Rs. 15,17,813 and Rs. 4,20,224 in the previous year; the net revenue due to improvements decreased by Rs. 58,383. Remissions, which decreased from Rs. 10,006 to Rs. 6,956, were granted principally under the Ganjām minor rivers system and the Pālār anicut system.

Class III Works.

309. The outlay on this class of works amounted to Rs. 24,35,469 including the outlay incurred by Civil officers and accounted for by the Civil department. The area charged as irrigated was 3,347,047 acres and the revenue derived amounted to Rs. 91,57,003, including Rs. 45,607

collected in the Public Works Department. Rs. 4,98,608 were remitted against Rs. 4,40,432 in the previous year.

Tank Restoration Scheme.

310. The area under all works in the Presidency to be investigated under the Tank Restoration Scheme, classes III (*a*) and III (*b*), was calculated to be about 103,750 square miles. The area of minor basins entered upon at the beginning of the year was 83,157 square miles, of which 77,055 square miles had been investigated. No new area was entered upon during the year. The area investigated was, however, increased to 77,558 square miles and the remaining 5,599 square miles were under investigation. In the area completely investigated, works were executed for 68,511 square miles, and in progress for 4,507 square miles; for the balance of 4,540 acres works were not commenced. The estimates sanctioned for Government works during the year amounted to Rs. 2,98,430 against Rs. 2,65,217 in the previous year, the amount sanctioned for Government works from the beginning of the operations up to the end of the year being Rs. 1,37,66,171. The expenditure during the year was Rs. 3,31,615 excluding percentage charges.

Class IV. Agricultural Works.

311. The outlay incurred on these works decreased from Rs. 6,68,807 to Rs. 6,55,973 and the revenue realized, Rs. 93,488, exceeded that of the previous year by Rs. 18,829.

Investigation of Projects.

312. The estimate for the Cauvery reservoir project was further revised and forwarded to the Government of India for obtaining the sanction of the Secretary of State. The Kistna reservoir project was ordered to be kept in abeyance until a decision was come to in respect of the Cauvery reservoir project. The plans and estimates for the Vengalapuram project in the Nellore district, the Velgode project in the Kurnool district, the improvements to the Kurnool-Cuddapah canal and the Cardamom Hills project in the Madura district were still under consideration. The Board's report on the financial aspect of the Uttaramerur project in the Chingleput district was received and the scheme was under the consideration of Government.

Small Projects.

313. In the Ganjām district, the investigation connected with the improvements to the Girisola channel was completed and plans and estimates were under preparation. Investigation was in progress in connexion with the improvements to the Korathala Tampara and the Jayamangalam channel. The Vamsadhara project and the proposed anicut across the Langulya were still under consideration. The feasibility of the Thandava or Tuni river project in the Vizagapatam district was under examination. In the Gōdāvari district estimates for the extension of irrigation to the Coringa and Polavaram islands were examined by the Chief Engineer for Irrigation and returned to the Superintending Engineer for revision. The detailed investigation of a scheme to irrigate an area of 10,768 acres by pumping from the Kistna river at Pratur was approved and the necessary establishment therefor sanctioned during the year. In the Kurnool district a full report on the investigation of the Thippayapalaiyam project together with a rough estimate of cost was under preparation. In the Coimbatore district, the investigation connected with the resluicing of some of the Amarāvati channels was completed and plans and estimates prepared. The revenue aspects of the Amarāvati project were under the consideration of Government. The further consideration of the Meengarai and the Malapuzha projects was held in abeyance pending the settlement of the question of supply available. Proposals to render the Nilambūr river suitable for the transport of forest produce were investigated and an estimate was prepared. Investigation connected with the improvements to the Tennēri tank and supply channel in the Chingleput district was completed and an estimate was under preparation. The proposal connected with the supply channel to the Kolathur tank was still under the consideration of the Local Government. Further information was called for on the Thambipettai Odai project—a scheme for feeding a system of four tanks in the South Arcot district. The Tennel project was abandoned as the local officers' reports showed that the supply

credited to "Opium" and the difference between this value and the value according to the issue price is credited to "Excise" as "Gain on sale-proceeds of excise opium." Owing to an increase in recent years in the prices paid to cultivators for crude opium and to a rise in the charges of manufacture, the standard rate of cost price was raised by the Government of India from Rs. 8-8-0 to Rs. 11 per seer with effect from 1st April 1916; the issue price which is fixed locally was also correspondingly raised. This accounts mainly for the increase of the revenue credited to opium from Rs. 4,02,759 in 1915-16 to Rs. 4,90,681 in 1916-17. The gain on sale-proceeds amounted to Rs. 6,65,816 against Rs. 7,01,611 in the previous year, the decrease being due to a fall in the quantity of opium issued. The shop rentals and miscellaneous revenue credited to "Excise" rose, however, from Rs. 3,54,360 to Rs. 4,06,808. The total opium revenue thus realized by the Excise department amounted to Rs. 15,63,305 against Rs. 14,58,730 in the previous year and the incidence of taxation per head of population was 9·8 pies as in 1915-16. The charges were Rs. 2,929 against Rs. 1,537 in the previous year.

Salt.

324. The opening of the Levingepuram monopoly extension and of the Veppolodai factory raised the number of Government and Excise factories by one in each case to 20 and 45, respectively. There was, however, no manufacture in the Pandraka factory, as in the previous year. The seasons of 1913, 1914 and 1915 were very unfavourable in the north and centre of the Presidency and the average outturn of these years was 9,009,246 maunds against 13,186,465 maunds manufactured in 1912. The season of 1916 was, however, somewhat more favourable and, aided by an increase in acreage, gave an output of 13,096,241 maunds of which 5,057,477 maunds were Government salt and 8,038,764 maunds were excise salt against 3,652,166 maunds and 5,758,862 maunds respectively in the previous year. This increased output would have produced a marked improvement in the stock on hand at the close of the year as compared with the previous year but for the smaller imports and larger issues made during the year owing to a bad season in Bombay and to increased demands arising out of the war. The quantity of duty-paid salt imported by sea from the Bombay Presidency fell from 1,536,569 maunds to 1,400,063 maunds, and that imported by rail from Bombay and Goa fell from 627,113 maunds to 472,245 maunds. The quantity of duty-bearing salt imported chiefly from the United Kingdom by sea was 4,580 maunds against 2,823 maunds in the previous year. The issues for home and inland consumption of salt locally manufactured and imported by sea and rail rose from 1,346,427 maunds in 1915-16 to 12,596,982 maunds in 1916-17. 511,926 maunds were issued for export by sea to Calcutta and Rangoon. The quantities issued to the French and Ceylon Governments and to the Travancore and the Cochin darbars were 73,316, 26,000, 63,000 and 39,682 maunds respectively. The available stock of Government and Excise salt at the end of the year was 4,557,054 maunds against 3,652,668 maunds in the previous year. The year's revenue amounted to Rs. 1,28,65,839 against Rs. 1,15,78,575 in 1915-16. The increase occurred mainly under Excise duty and was due to the enhanced rate of duty and to increase in sales. The incidence of taxation was As. 4-10·3 as against As. 3-8 in the previous year. The charges increased from Rs. 15,79,370 to Rs. 17,86,342, the increase occurring chiefly under "Salt purchase and freight" owing to larger production of Salt and to the execution of works in connexion with the extension of Salt manufacture.

Excise* (Abkari).

325. The Excise revenue amounted to Rs. 1,75,28,680 against Rs. 1,65,03,408 in 1915-16. The improvement was mainly under country spirits and toddy resulting from an increase in consumption. The incidence of taxation per head was As. 13-6·6 against As. 12-9 in the previous year. The charges declined however from Rs. 9,24,706 to Rs. 9,05,097.

* Vide footnote on page 86.

Stamps.*

326. The revenue rose from Rs. 75,50,999 to Rs. 77,94,639 owing to the growth of litigation, the general development of business, and an expansion in monetary transactions and investments in landed property. The incidence of taxation per head rose to As. 6-0·2 from As. 5-10 and the charges to Rs. 2,23,185 from Rs. 2,06,948.

Income-tax.*

327. The receipts amounted to Rs. 30,04,572 as against Rs. 20,37,328 in the previous year. The increase was mainly due to the enhanced rates of tax introduced from 1st April 1916. The incidence of taxation was As. 2-3·8 per head as against As. 1-6·9 in the previous year. The charges were Rs. 33,079 as against Rs. 30,280 in 1915-16.

Other Imperial receipts.

328. Imperial revenue from other sources amounted to Rs. 4,20,29,322 and exceeded the corresponding revenue of 1915-16 by Rs. 32,26,814, the excess consisting chiefly of Rs. 30,45,387 in the net State Railway receipts and Rs. 1,11,488 under Subsidized Companies on account of repayment of advance of interest. Larger traffic receipts counterbalanced by increases in the cost of rolling-stock and in the share of surplus profits paid to Railway Companies and Native States account mainly for the excess under State Railway receipts.

Transfers between Imperial and Provincial.

329. The decrease in the net transfer to Provincial revenues was chiefly due to the assignment of Rs. 6,43,000 made from Provincial to Imperial revenues in order to enable the latter to obtain the full benefit of the enhancement of taxation made under Income-tax and Excise.

Other Imperial expenditure.

330. The remaining Imperial expenditure amounted to Rs. 64,15,042 and was less than that of the preceding year by Rs. 7,28,419. The decrease was chiefly under Subsidized Companies (Rs. 3·05 lakhs), Civil Works in charge of Public Works Officers (Rs. 2·26 lakhs), Working expenses of Major Irrigation Works (Rs. 1·31 lakhs), Protective Irrigation Works (Rs. 1·14 lakhs) and Stationery and Printing (Rs. ·83 lakh), partly counterbalanced by increases under Refunds and Drawbacks (Rs. ·98 lakh) and Miscellaneous Railway expenditure (Rs. ·78 lakh). The decrease under Subsidized Companies was due to heavy land acquisition charges having been incurred in 1915-16 in connexion with the Tinnevelly-Tiruchendūr and Sūramangalam-Salem Railways; under Civil Works in charge of Public Works Officers mainly to the inclusion in the actuals of 1915-16 of Rs. 1·82 lakhs paid for an additional site acquired for the new Currency Office; under Working Expenses of Major Irrigation Works chiefly to slow progress of work in the first half-year in the Gōdāvari and Kistna delta systems owing to abnormal rains and to credit taken under this head for the value of a river steamer and certain barges made over by the Public Works Department to the Military Department; under Protective Irrigation Works to the progress of the Mopad project having been retarded by frequent rains; and under Stationery and Printing to less expenditure on the purchase of stationery for Central Stores, owing to delay in the supply of paper ordered from Calcutta. The increase under Refunds and Drawbacks occurred chiefly under Customs refunds owing to the levy of provisional duty on certain classes of consignments subject to refund on the result of tests.

Capital outlay on State Railways and Irrigation Works not charged to Revenue.

331. The capital outlay on irrigation works not charged to Revenue amounted to Rs. 6,07,438 against Rs. 7,50,444 in 1915-16; that on State Railways was *minus* Rs. 11,14,770 against Rs. 20,72,905, the former figure being mainly the net result of an advance of Rs. 6 lakhs made to the Tinnevelly-Tiruchendūr Railway and a *minus* outlay of Rs. 18 lakhs under South Indian Railway. The expenditure of this Railway charged to final heads was Rs. 8 lakhs as compared with Rs. 21 lakhs in the previous year and the decrease occurred chiefly under rolling-stock. On the other hand, there was a net credit of Rs. 26 lakhs under Suspense Accounts as against a net debit of Rs. 1 lakh in the preceding year. The net credit occurred for the most part under Stores owing to the charging off under the sanction

* Vide footnote on page 86.

of the Railway Board of 11 "K" class engines, 18 timber trucks and materials for 21 mile renewals, to the restriction of purchases both in England and India and the consequent employment of all available materials in stock and to a large sale of stores to the Public Works, Military and other departments.

Imperial Loans.

332. The opening balance on 1st April 1916 was Rs. 1,74,84,941. Rs. 11 lakhs were advanced during the year to the Madras Port Trust, Rs. 8 lakhs being in connexion with improvements to the harbour and Rs. 3 lakhs being for repairs to the breakwater wrecked by the cyclone of November 1916. The repayments amounted to Rs. 13,14,918; the chief items were Rs. 38,846 by the Madras Corporation, Rs. 2,00,429 by the Madras Port Trust, Rs. 26,557 by the Madras Coast Lights Fund, Rs. 10 lakhs by the Bank of Madras and Rs. 35,247 by the Tanjore District Board Railway. The closing balance of the year was Rs. 1,72,70,023. For the repayment of the old loan of Rs. 14,30,000 taken by the Madras Corporation, a sinking fund has been constituted and the instalment due to the fund during the year, viz., Rs. 28,600, was duly paid. On the 31st March 1917, this sinking fund held Government securities of the face value of Rs. 13,89,700.

(c) Revenue and Finance other than Imperial.

Provincial Revenues.

333. The Provincial accounts opened with a balance of Rs. 1,10,02,216 on 1st April 1916 and closed with a balance of Rs. 1,52,09,491 on 31st March 1917. The transactions of the year thus yielded a surplus of Rs. 42,07,275 which was the net result of an aggregate revenue of Rs. 7,94,60,092 and an expenditure of Rs. 7,52,52,817.

Land Revenue.*

334. The receipts from Land Revenue amounted to Rs. 3,50,08,412 and were higher than those of 1915-16 by Rs. 1,11,481. The more important variations in district collections are explained in the Imperial section. The charges were Rs. 1,22,76,136 against Rs. 1,23,55,014 in the previous year, the decrease being due chiefly to larger recoveries on account of estate surveys.

Stamps, Excise and Income-tax.*

335. The receipts from Stamps, Excise and Income-tax amounted respectively to Rs. 77,94,638, Rs. 1,86,01,304 † and Rs. 30,04,572 against Rs. 75,50,999, Rs. 1,75,59,379 and Rs. 20,37,328 in the previous year. Explanations of the increases are given in the Imperial section. The corresponding charges were Rs. 2,23,184, Rs. 9,08,026 ‡ and Rs. 33,080 as against Rs. 2,06,949, Rs. 9,26,244 and Rs. 30,281, respectively, in the previous year.

Forests.

336. Forest revenue amounted to Rs. 45,96,126 against Rs. 41,06,838 in the previous year. The improvement, which occurred mostly under timber and other produce removed from the forests by consumers or purchasers, was due chiefly to better prices fetched by fuel coupes, to the leasing of a greater area of forests, to sales of trees blown down by the cyclone and of forest lands in certain districts, and to larger revenue derived from rela and tangedu barks and from mica. The expenditure amounted to Rs. 28,42,678 and it was Rs. 87,209 more than that of the previous year, after excluding from the latter a special payment of Rs. 1,71,849 made for the acquisition of Mudimalai and Komborakolli forests in the Nilgiris. The increase was, for the most part, under roads and bridges and under temporary establishment, owing, in the former case, chiefly to the construction of a ghaut road in the North Arcot district.

Registration.

337. The receipts under Registration were Rs. 24,70,160 against Rs. 23,37,549 in the preceding year. The charges amounted to Rs. 13,12,200 or Rs. 56,184 more than in the foregoing year, the increase being mainly due to the raising of the minimum pay of clerks in registration offices to Rs. 20 per mensem with effect from 1st June 1916.

* The receipts from Land Revenue and the receipts and charges under Stamps, Excise (including the realizations of opium revenue by the Excise Department) and Income-tax are shared equally between Imperial and Provincial. The comparison made here is in respect of the Provincial share. But the incidence of taxation has been calculated with reference to the total receipts and is mentioned in the Imperial section.

† Includes share of opium revenue credited to this head.

‡ Includes expenditure relating to opium charged to this head.

Canal Revenue.

338. The Canal Revenue collected during the year amounted to Rs. 2,47,478 and was Rs. 12,699 more than in the previous year.

Other Provincial receipts.

339. The Provincial receipts under the remaining heads amounted to Rs. 63,50,571 * and were higher than those of the previous year by Rs. 3,34,035. There were increases under thirteen heads (+ Rs. 5,02,447) and decreases under five heads (— Rs. 1,68,412); the former were chiefly under Scientific and Miscellaneous Departments (+ Rs. 2·72 lakhs), Jails (+ Rs. ·59 lakh) and Education (+ Rs. ·44 lakh), and the latter under Courts of Law (— Rs. ·62 lakh) and Civil Works in charge of Civil Officers (— Rs. ·60 lakh). The increase under Scientific and Miscellaneous Departments occurred mainly under Cinchona plantations (+ Rs. 2·07 lakhs) and under Fishery receipts (+ Rs. ·54 lakh). Smaller receipts under general fees, fines and forfeitures (chiefly Translation and Printing fees) and variations in the amounts of unexpended balances of Provincial contibutions refunded by local bodies account for the decreases under Courts of Law and Civil Works in charge of Civil Officers.

Other Provincial expenditure.

340. The expenditure in the Provincial section under the heads other than those already dealt with amounted to Rs. 5,76,57,513 and was less than that of the previous year by Rs. 14,24,863 which was the net result of decreases under twelve heads (— Rs. 31,33,466) and increases under eleven heads (+ Rs. 17,08,603). The decreases were chiefly under Sanitation (— Rs. 16·47 lakhs), Civil Works in charge of Public Works Officers (— Rs. 3·93 lakhs) and Civil Officers (— Rs. 3·36 lakhs), Minor Irrigation Works in charge of Public Works Officers (— Rs. 2·69 lakhs), Stationery and Printing (— Rs. 1·93 lakhs) and Working Expenses of Major Irrigation Works (— Rs. 1·32 lakhs). The variation in the last case has been explained in the Imperial section. The falling off under Sanitation which forms the bulk of the total decrease was under grants for sanitary purposes. Smaller expenditure on civil buildings, chiefly police buildings, and on grants to local bodies for the construction of roads, bridges, etc., caused the decrease under Civil Works. That under Minor Irrigation Works in charge of Public Works Officers occurred chiefly under the Panjampatti Reservoir project and under Tank Restoration repairs. The reduction in the expenditure under Stationery and Printing was mainly the result of the economies enforced in the use of stationery in Government offices in view of the war conditions. The more important increases were under Education (+ Rs. 6·18 lakhs), Police (+ Rs. 4·64 lakhs), Scientific and Miscellaneous Departments (+ Rs. 2·02 lakhs) and Medical (+ Rs. 1·21 lakhs). Larger payments of subsidies in support of Local Board and Municipal Schools (+ Rs. ·88 lakh), of teaching grants to Elementary Schools (+ Rs. 1·44 lakhs), and of building and hostel grants to Non-European Schools (+ Rs. 2·07 lakhs) account in a large measure for the increase under Education. Under Police, the increase occurred almost wholly under district executive force (+ Rs. 4·53 lakhs) and was mainly due to the revision of the pay of the constabulary. The increase under Scientific and Miscellaneous Departments was chiefly under Cinchona plantations and under Fishery Bureau charges. That under Medical was, for the most part, due to the revision of the pay of Civil Assistant Surgeons and to the opening of the Rayapuram Hospital and the Medical School at Calicut.

Provincial loans.

341. The Provincial advance and loan account (including loans to local bodies for railway construction) opened with a balance of Rs. 94,76,881 on 1st April 1916 and closed with a balance of Rs. 94,55,363 on 31st March 1917; advances amounted to Rs. 10,14,901 and repayments to Rs. 10,36,419. Ryots received advances to the extent of Rs. 7,16,309 as against Rs. 7,69,620 in the previous year. The District Boards of Madura and Coimbatore took advances of Rs. 50,150 and Rs. 5,438, respectively, for the construction of bridges. Rs. 18,350 and Rs. 70,670 were advanced to the Negapatam and Tirupati Municipal Councils respectively, for improvements to water-works; and Rs. 9,500, Rs. 3,000 and Rs. 10,000, respectively,

* This excludes the net amount transferred from Imperial to Provincial which has been dealt with in the Imperial section.

to the Anakāpalle, Parlākimedi and Vizagapatam Municipal Councils for town survey. The Salem municipality borrowed Rs. 28,000 in connexion with the Hastampati extension scheme; the Vellore municipality Rs. 29,600 for drainage works; and the Erode municipality Rs. 47,000 for water-supply. The Zamindar of Punganūr received an advance of Rs. 13,000 to complete the survey of his estate. A loan of Rs. 12,000 was granted to the Uralan (guardian) of the Tirukaliyur Devaswam in the Malabar district for urgent repairs to the Tirukaliyur temple, according to the terms of the agreement under which the Devaswam's forests in the Nilambūr valley have been leased to Government. No loans were granted to co-operative credit societies during the year.

Local Funds.

342. The following paragraphs deal with funds raised from special sources and devoted to special objects and not to general purposes of the administration (Imperial and Provincial). The funds comprised under the head "Local Funds" are local funds constituted under Act V of 1884, the Irrigation Cess fund, Port and Marine funds, and other funds which are mentioned below seriatim.

Local Funds Act V of 1884.

343. The local funds constituted under Act V of 1884 opened with a balance of Rs. 78,32,488 and closed with a balance of Rs. 80,98,050. Exclusive of debt head transactions, the receipts and charges amounted to Rs. 1,79,74,070 and Rs. 1,89,13,272, showing a deficit of Rs. 9,39,202 against a deficit of Rs. 16,84,587 in the preceding year. The chief factor in the improvement in 1916–17 was a smaller outlay on Civil Works (— Rs. 18·71 lakhs) partly counterbalanced by larger expenditure on railway construction (+ Rs. 8·53 lakhs). The receipts and charges on account of debt head transactions amounted to Rs. 50,83,780 and Rs. 38,79,016. The Salem, Tanjore, Guntūr and Tinnevelly District Boards obtained loans from the Bank of Madras on the security of their Government promissory notes of Rs. 1·6 lakhs, Rs. 4·88 lakhs, Rs. 2·38 lakhs and Rs. 5·62 lakhs, respectively, for railway construction. For the same purpose, the District Board of Tinnevelly took a loan of Rs. 6 lakhs from the District Board, Tanjore. A loan of Rs. 1·04 lakhs obtained from the Bank of Madras on the security of Government paper by the Chingleput District Board to meet its liabilities was repaid before the close of the year. The funded capital of the district boards, which was Rs. 1,26,93,000 on 31st March 1916, rose to Rs. 1,35,11,000, of which Rs. 1,06,50,000 represented investments of railway cess balances and the balance of Rs. 28,61,000 investments on account of endowments, provident funds and other institutions. The closing cash balance of the local boards was ear-marked as follows: railway cess fund (Rs. 11·1 lakhs), endowment fund (Rs. 4·16 lakhs), unexpended amount of Provincial grants (Rs. 24·33 lakhs) and debt heads (Rs. 20·09 lakhs). Thus, the net balance available for general purposes of the district funds was Rs. 21·30 lakhs and the South Arcot, Madura and Nellore boards closed with deficit cash balances under general funds.

Bhadrāchalam Estate Village Service Fund.

344. The receipts of this fund consisted mainly of the payments made by the proprietors and of the deductions made from the land revenue collections (beriz) of Government villages, no cess being levied from the proprietors on account of the emoluments of village servants. The receipts and charges of the fund amounted to Rs. 9,458 and Rs. 8,455, respectively, against Rs. 9,124 and Rs. 7,234 in the previous year, and the fund closed with a credit balance of Rs. 16,549.

Irrigation Cess Fund.

345. This fund exists in the districts of Chingleput, Trichinopoly, Madura and Coimbatore. The fund opened with a balance of Rs. 1,02,037 and closed with a balance of Rs. 99,891. The receipts and charges amounted to Rs. 42,831 and Rs. 44,977, respectively, against Rs. 46,311 and Rs. 42,635 in the previous year. The unspent balance of the Irrigation Cess Fund of the South Arcot district, which was abolished in 1915–16, was transferred to the credit of the Public Works Department in 1916–17 for expenditure on clearance of silt in the Tiruvadi and Wallajah channels, this being the object for which the cess was levied.

Port and Marine Funds.

The Madras Port Fund.

346. These funds consist of Port Funds (Act XV of 1908), Pilotage Funds (outports), Landing and Shipping Funds, and the Madras Coast Lights Fund. The Port Funds are again subdivided into Madras and Minor Ports Funds. The Madras Port Fund opened with a balance of Rs. 5,584 and closed with a balance of Rs. 15,348; receipts improved owing to the levy of enhanced port dues, and charges fell off owing chiefly to the absence of expenditure on buoys and beacons. The income of the fund amounted to Rs. 97,666 and its expenditure to Rs. 87,902. The Minor Ports Fund opened with a balance of Rs. 1,83,114 and closed with a balance of Rs. 1,70,880; the receipts and charges amounted to Rs. 6,77,706 and Rs. 6,89,940, respectively. The fund advanced a loan of Rs. 86,435 to the Tellicherry Landing and Shipping Fund. Rs. 27,156 in all were repaid towards the principal of the loans taken by the Tuticorin, Cocanada, Calicut, Negapatam and Cochin Landing and Shipping Funds. Free grants to the extent of Rs. 2,35,637 were also made to the Cocanada, Tuticorin, Adirāmpatnam, Cochin and Tellicherry Landing and Shipping Funds. The security balance at the credit of the fund was Rs. 8,57,400 (face value). The income and expenditure of the Pilotage Funds (outports) amounted to Rs. 11,364 and Rs. 10,434, respectively. The opening and closing balances were Rs. 2,573 and Rs. 3,503. The invested balance of the funds was Rs. 1,72,500 (face value). The opening balance of the Landing and Shipping Funds amounted to Rs. 2,76,317; the receipts and charges to Rs. 6,69,785 and Rs. 5,68,160, respectively, and the closing balance to Rs. 3,77,942. The invested balance to the credit of the funds was Rs. 3,35,900 (face value). The balance of loans repayable by the Landing and Shipping Funds to the Minor Ports Fund amounted to Rs. 5,83,523.

The Minor Ports Fund.

Pilotage Funds (outports).

Landing and Shipping Funds.

The Madras Coast Lights Fund.

347. The Madras Coast Lights Fund opened with a balance of Rs. 16,853 and closed with a balance of Rs. 31,224; the receipts and charges of the year were Rs. 1,31,682 and Rs. 1,17,311. The face value of the fund's investments was Rs. 50,000.

Cantonment Funds.

348. The receipts and charges of these funds amounted to Rs. 5,62,654 and Rs. 5,51,598, respectively, the result being a surplus of Rs. 11,056, which raised the balance from Rs. 1,05,287 to Rs. 1,16,343.

Cantonment Hospital Fund, Secunderabad.

349. The fund opened with a balance of Rs. 87 and closed with a balance of Rs. 32. The receipts and charges amounted to Rs. 9,880 and Rs. 9,935, respectively.

Civil Hospital Fund, Secunderabad.

350. The opening balance of this fund was Rs. 15,437. The receipts and charges amounted to Rs. 45,669 and Rs. 62,649 respectively. The fund closed with a deficit balance of Rs. 1,543 under general funds which was made good in April 1917 by a contribution received from the Secunderabad Local Abkāri Fund.

University Fee Fund.

351. The opening and closing balances were Rs. 53,435 and Rs. 54,501 respectively. The receipts and charges amounted to Rs. 5,01,721 and Rs. 5,00,655. The invested balance (Rs. 6·8 lakhs) was unaltered and the total held in fixed deposit with the Bank of Madras was Rs. 3,05,000.

Kumbakōnam College Hostel Fund.

352. The receipts and charges amounted to Rs. 6,169 and Rs. 6,263 and the cash balance to the credit of the fund was reduced to Rs. 808.

Mrs. A. V. Narasinga Rao's College Fund.

353. The opening and closing balances were Rs. 71,202 and Rs. 57,601. The receipts and charges amounted to Rs. 35,451 and Rs. 49,052, respectively. There was an invested balance of one lakh.

Vizagapatam Hospital Fund.

354. The Vizagapatam Hospital Fund opened with a balance of Rupees 2,596. The receipts and charges were Rs. 17,242 and Rs. 16,584 and the closing balance was Rs. 3,254.

Hyderabad Residency Bazaar Fund.

355. The receipts and charges of the Hyderabad Residency Bazaar Fund amounted to Rs. 1,18,999 and Rs. 1,01,322, and the balance was thus raised from Rs. 1,41,753 to Rs. 1,59,430.

Secunderabad Local (Abkāri) Fund.

356. The opening balance was Rs. 5,03,802. The receipts and expenditure were Rs. 8,39,582 and Rs. 10,20,798 thus reducing the closing balance to Rs. 3,22,586.

MUNICIPAL REVENUES.

357. The receipts and charges of mufassal municipalities amounted to Rs. 86,23,102 and Rs. 92,74,441, respectively, and the balance at their credit fell from Rs. 39,39,875 to Rs. 33,98,057. The receipts of the Madras Corporation amounted to Rs. 46·46 lakhs and the charges to Rs. 46·34 lakhs. The balance at the credit of the Corporation at the end of the year rose from Rs. 9·28 lakhs to Rs. 9·40 lakhs.

EXCISE ADMINISTRATION.

[*Report on the Administration of the Abkāri Revenue for 1916–17.*]

General.

358. The only administrative change of importance made during the year was the final withdrawal of the rules requiring licensing of trees tapped for sweet juice in the districts of Malabar and South Kanara. These rules had long been the subject of criticism on account of the interference they involved with the jaggery industry and the work they imposed on the department and, after various attempts to modify them, it was finally decided to withdraw them altogether from these districts from 1st October 1916. The following minor changes may also be mentioned: the enhancement of the duty on country spirits from Rs. 8–2–0 to Rs. 8–12–0 per proof gallon in Madras and the adjoining villages; the raising of the tree-tax in four districts; the grant of permission in the Tinnevelly subdivision to holders of shops supplied by palmyras, which ordinarily yield only till July, to supplement their supplies by tapping trees which throw out hot weather spathes in August and September, on payment of half the rate of tree-tax; the removal of the duty of 7½ per cent *ad valorem* on the local manufacture of denatured spirits from 19th January 1917, the tariff rate on import remaining; the enhancement of the issue price of opium from Rs. 39 to Rs. 41–8–0 per seer; and the revision of the rules relating to cocaine and allied drugs, medical and veterinary practitioners and dentists being permitted to possess the drugs without licence up to half an ounce.

Experiments in aid of Temperance.

359. Two experiments were tried during the year: the removal of road-side shops to places where they would not prove a temptation to wayfarers and the establishment of tea and coffee shops as counter-attractions to liquor shops. The former was tried in the North Arcot and Tinnevelly districts. The results were, however, inconclusive owing to difficulties in finding suitable sites and in obtaining relevant statistics. The harm done by the concentration of shops on the road-side is, however, obvious and definite instructions have been issued not to locate arrack and toddy shops, sanctioned to supply the needs of villages, on road-sides where they put temptation in the way of travellers. Tea and coffee shops were opened generally through the agency of local boards or municipalities, sometimes at their own charges, sometimes by toll-gate or market contractors as a term of their contracts. The reports on the experiments were not encouraging. Over thirty shops were opened, but there was no indication that any of them effected a reduction of drunkenness, while all but about three appear to have been conducted at a loss.

Country liquor.

360. The number of shops in the excise tracts was reduced by 205: the rentals rose from Rs. 44·32 lakhs to Rs. 45·79 lakhs; and consumption increased by 10·3 per cent to 1,644,466 proof gallons chiefly owing to good agricultural prospects, reviving trade, suppression of illicit distillation and closure of foreign liquor taverns and retail shops. There was a fall in revenue in the non-excise tracts.

Toddy.

361. The number of toddy shops was reduced from 12,447 to 11,851. The rentals rose from Rs. 88·94 lakhs to Rs. 90·98 lakhs and the receipts under tree-tax from Rs. 74·16 lakhs to Rs. 79·75 lakhs. The toddy consumed was calculated to have been roughly 106 million gallons. A cyclone in the Chingleput and South Arcot districts caused so much damage to palm

trees that it was found necessary to make considerable remissions of both tree-tax and shop rentals. The quantity of jaggery exported by sea in 1916–17 from the districts of Gōdāvari and Kistna, where the sweet juice tapping is controlled by licences, was 1,138·35 tons against 1·35 tons in the previous year, the increase being due to large shipments from Gōdāvari to Ceylon.

Foreign Liquor.

362. The quantity of foreign liquor imported by sea during the year amounted to 322,028 gallons, showing a decrease of 24·6 per cent of the previous year's figure : 40·6 per cent of this quantity came under the head "Ale, beer and porter." The increase in the local manufacture of beer more than covered the deficiency in imports under that head. The total issues from the local breweries amounted to 926,326 gallons against 587,464 in 1915–16. Out of this 216,775 gallons were exported, mainly for the use of troops.

Opium and intoxicating drugs.

363. The total issues of opium within the Presidency were 36,468 seers against 37,082 in the previous year : 8,115 seers were issued to Mysore and other States including Coorg and the French Settlements. 658 shops in both the ordinary and Agency tracts were sold or licensed for Rs. 8,10,590 against 697 shops for Rs. 7,06,019 in 1915–16. There was a slight increase in the retail selling price of opium during the year. The quantity of hemp drugs including preparations of hemp consumed increased from 44,722 seers to 47,773 seers, or by about 7 per cent. The main reason given for the increase is the increase in the selling price of opium. The number of retail licences issued was 418 against 451 in 1915–16. There were no shops in the Ganjām Agency and the four allowed in the Gōdāvari Agency were given to selected vendors on payment of fixed fees. The remaining shops were sold in auction for Rs. 5,59,900 against Rs. 5,25,732 in 1915–16. The number of licences for possession and sale of cocaine and allied drugs declined slightly.

Offences.

364. There was a decrease of 4·2 per cent in the number of offences reported against the Abkāri law. The number of cases of illicit manufacture of toddy decreased by 7·5 per cent and those under smuggling by 20·8 per cent, but cases of illicit distillation and possession of illicitly distilled spirits increased by 16·2 per cent owing mainly to the drastic reduction in the number of licences for sale of spirits.

CHAPTER VI.

VITAL STATISTICS AND MEDICAL SERVICES.

DETAILS OF CENSUS.

365. *Vide* pages 196 to 205 of the Report on the Administration of the Madras Presidency during the year 1911–12.

BIRTHS AND DEATHS. (1916.)

[*The fifty-third annual report of the Sanitary Commissioner, Madras, 1916 ; Report on the working of the Births, Deaths and Marriages Registration Act of 1886 in the Madras Presidency during 1916–17 ; Statistics of British India, Part V, Area, Population and Public Health.*]

Population.

366. The population of the Presidency according to the census of 1911 was 41,829,232 exclusive of Europeans and Eurasians, who numbered 40,928. Vital statistics were returned for a population of 40,005,735, the remainder representing the hill tribes of Ganjām and Vizagapatam and the inhabitants of the Laccadive Islands, of the Banganapalle State and of the Pudukkōttai State. The estimated population of the year 1916 was 43,817,734. The number of emigrants aggregated 356,518 and exceeded that of immigrants by 86,120.

Registration.

367. In rural areas registration of births and deaths is generally optional and this combined with the natural indifference exhibited by the local registering staff gives results which cannot be accepted as quite accurate. Comparatively better results are obtainable in municipalities where registration is compulsory and where there is a special staff employed for the purpose. During the year, the Madras Registration of Births and Deaths Act was in force in only 310 unions and 2,349 villages.

Births.

368. During the year, 1,301,597 births were registered, an increase of 52,163 on the previous year. Calculated upon the census population of 1911 for which returns were received, the birth-rates for 1916 and 1915 stood at 32·5 and 31·2 per mille, respectively ; the rate for 1916 showed an increase of 0·6 per mille over the decennial average. Leaving out of account Madras (42·1), the highest birth-rate was recorded in Guntūr (41·0) and the lowest rate in Ramnad (24·0). Compared with the previous year increased birth-rates occurred in all but five districts, the largest increase being in South Arcot (+6·8). Of the five districts (Cuddapah, Kistna, Kurnool, North Arcot and Salem), where there was a decreased birth-rate, Kistna headed the list with a deficiency of 3·1 per mille. The proportion of male to female births was 104·4 to 100 ; Muhammadans as usual returned the largest birth-rate (36·2) but the increase of the year was shared by all communities. The birth-rates for the year in compulsory and non-compulsory rural areas were 32·8 and 32·0 per mille, respectively. In rural towns the recorded birth-rates of 1916 and 1915 were 27·4 and 24·6 per mille, respectively. The municipal birth-rate was 37·7 per mille, the excess over the rural rate being probably due to better registration.

Deaths.

369. Deaths registered during the year numbered 875,013 against 879,950 in 1915. These figures represent annual ratios of 21·9 and 22·0 per mille against the decennial average of 24·0. Cholera, small-pox, dysentery

and diarrhœa were less severe. The infantile death-rate for the districts was less than that of the previous year and below the quinquennial average, the ratio being 182·8 per mille of births against 186·6 in 1915 and 187·4 for the quinquennium. The rate of mortality among male infants was 192·6 and that among female infants 172·5. The death-rate in rural towns was 19·0 per mille against the quinquennial average of 20·7. In municipalities the death-rates for 1916 and 1915 were 31·3 and 32·3 per mille, respectively, against the quinquennial average of 34·0 per mille. The fall occurred chiefly under cholera, fevers, dysentery and diarrhœa. The highest death-rates were returned by Bellary (60·2), Coimbatore (52·4), Tiruppattūr (49·9), Salem (44·6) and Palni (41·7). The total infantile death-rate for the municipalities averaged 230·9 per mille of registered births.

Chief Diseases. Cholera.

370. Deaths from cholera fell from 30,098 or 0·8 per mille in 1915 to 16,735 or 0·4 per mille in 1916, against the quinquennial death-rate of 1·4 per mille. The mortality from this disease has been, on the decline for the last few years and particularly so since 1914, a feature attributable to a better knowledge on the part of the public of the accepted preventive measures. The incidence of cholera mortality during 1916 was heaviest in the months of January to April and November and December. From 48 municipal towns 1,269 deaths from cholera were reported against 1,794 in 46 towns in 1915. One additional cholera party was sanctioned by Government during the year to check the spread of cholera in rural tracts, thus bringing the total number of such parties on duty in the Presidency to four. The mortality from cholera in municipal towns which have a protected water-supply has been on the decline year after year.

Small-pox.

Small-pox contributed 21,903 deaths against 24,038 in 1915. The disease was reported from all the districts of the Presidency and was continuously present throughout the year in all of them excepting the Nilgiris. Chingleput and South Arcot returned the highest death-rates of 1·1 and 1·0 per mille, respectively.

Plague.

The number of deaths from plague registered was 11,498 against 3,889 in 1915. Eight districts were completely free from the disease; in six others there were in all 21 imported cases; in the remaining 11 the disease was present in an indigenous form. Bellary, Coimbatore and Salem districts had plague death-rates of 1·3, 2·6 and 1·5, respectively. Fifteen municipal towns had indigenous cases, the highest death-rates registered in them being 15·3 per mille in Palni, 12·2 in Coimbatore, 9·6 in Salem and 8·0 in Gudiyattam.

Fevers.

371. Under fevers a total of 292,491 deaths was registered during the year against 290,228 in 1915. These figures give annual ratios of 7·3 per mille in each year. All cases of malaria are at present brought under "fevers."

Dysentery and diarrhœa.

Dysentery and diarrhœa caused 58,444 deaths against 61,057 in 1915. The largest number of deaths under this head was registered as usual in Madras which had a mortality rate of 7·2 per mille.

Europeans and Eurasians. (1916-17.)

372. The statistics given above do not include Europeans and Eurasians. In this class there were 255 births, 99 in Madras and 156 in the mufassal, and 160 deaths. The drop in the number of births and deaths registered is the result of the instructions issued by the Registrar-General of Births, Deaths and Marriages to the several municipalities to the effect that their returns of births and deaths should include statistics only of persons falling under the category of Europeans and European British subjects, as defined in the Code of Criminal Procedure. The number of licensees under the Indian Christian Marriage Act, 1872, was 704. There was a decrease in the number of marriages contracted by European Christians—448 against 498. There were 857 burials. Fever was the most common cause of death and after that diseases of the heart, diarrhœa and dysentery and pneumonia.

EMIGRATION AND IMMIGRATION. (1916.)

[*G.O. No. 512, Home (Miscellaneous), dated 29th May 1917; Statistics of British India, Part V, Area, Population and Public Health—Emigration.*]

Regulated.

373. Emigration to Trinidad was in operation till the 6th March 1916, and three joint shipments from Calcutta and Madras were made, the number of persons embarked at Madras being 909. Recruitment for Jamaica began on the 7th March and continued till the 14th April 1916. One joint shipment was made, the number of persons embarked at Madras being 258. Emigration for Fiji was in operation between the 20th June and the 9th October 1916, during which period two joint shipments were made, 950 persons being embarked at Madras. Recruitment for British Guiana began on the 10th October 1916 and continued till the end of the year. Two joint shipments were made, the number of persons who left Madras being 387. There was no emigration to Mauritius or the Seychelles. The prescribed proportion of women to men was maintained in respect of all the shipments made during the year. The management of the depots was good and the emigrants were well cared for. 4,007 emigrants returned from Natal, 243 from Fiji and 128 from Mauritius. As in previous years there was no emigration to the French Colonies.

Non-regulated.

374. The increase in the number of passengers to the Straits Settlements is attributed to the greater demand for labour in the Malay States, to the regularity of steamer services and to the high price of food-grains. In the case of Burma and Ceylon it is impossible to distinguish emigrants from ordinary passengers. The decrease in the number of passengers to Burma is mainly from the districts of Ganjām, Vizagapatam and Gōdāvari and is ascribed to the favourable character of the season and to the smaller number of vessels available as a result of the war. There was an increase in the number of passengers to Ceylon.

MEDICAL RELIEF. (1916.)

[*Annual Returns of the Civil Hospitals and Dispensaries in the Madras Presidency for the year 1916; Statistics of British India, Part V, Area, Population and Public Health—Hospitals.*]

Institutions.

375. During the year under review 17 new dispensaries were opened and 10 were re-opened after closure. 15 institutions were closed, 3 of them permanently. There were in all 709 dispensaries and hospitals working in the Presidency at the close of the year, as against 697 at the end of 1915. Of these institutions, 511 were maintained by Local Funds, 54 by private agencies without a grant and 24 with a grant; 48 were railway hospitals and 43 were for the police; 17 were public hospitals maintained by the State and the remaining 12 were State institutions maintained by various departments. There are now 7 itinerating dispensaries under sub-assistant surgeons at work in the districts mainly for the purpose of combating malaria. The number of institutions which treat only women and children was 41, of which 4 were opened during 1916 while 3, which were working last year, had to be closed. Among the new institutions opened during the year mention must be made of the King Edward VII Tuberculosis Institute and the new hospital at Salem. For in-door patients, the total number of beds available was 4,486 for males and 3,585 for females. Considerable attention has recently been directed towards the improvement of the medical and surgical care of women, both by increasing the number of female medical practitioners and by creating a class of trained midwives throughout the districts.

Relief.

376. The total number of in-and out-patients treated at the public and aided institutions has been steadily increasing and was 7,562,890 in 1916. The number of in-patients was 98,370 against 90,867 in 1915. Of the total number treated 74·12 per cent were Hindus, 12·67 per cent Mussalmans and 0·94 per cent Europeans and Eurasians. As is usual, diseases of the

Diseases.

VITAL STATISTICS AND MEDICAL SERVICES

skin were the most common complaints, and next came digestive disorders. There has been a steady increase in the number of "eye" cases treated, which was 739,571 in 1916. Admissions from malaria increased to 554,195, but there was a distinct drop in Madras City where anti-malarial work has been extensive. Venereal diseases rose to 115,046 cases, and there was a marked increase in tuberculosis. Very few cholera patients reach the hospitals, but special cholera parties have done good work in checking the disease. The proportion of patients operated on to those treated remained about 4 per cent. Operations for abcesses were the chief variety. Over 47,000 labour cases were conducted. The total death-rate in hospitals was 4·11 per cent as against 4·54 in 1915.

Finance.

377. Rupees 8,68,578 were spent on medical relief in public and aided institutions in Madras. Government contributed Rs. 6,28,184, the Corporation gave Rs. 1,31,105, the public subscribed Rs. 17,898, and the balance accrued from Local Fund contributions and miscellaneous receipts. The expenditure on buildings and repairs was Rs. 82,679, this item being reduced to the barest necessities. There was also a great saving on dietary charges, the daily average for each patient being only As. 5–8 against As. 6–10 in 1915. The total mufassal receipts (exclusive of the opening balance) were Rupees 22,39,876 of which Government contributed Rs. 2,37,604 while Rs. 18,72,500 came from Local and Municipal Funds. The average daily cost of each patient (exclusive of buildings and dietary charges) was As. 3–8 against As. 3–6 in 1915.

Effects of the War.

378. In estimating the success of the year's work it must be borne in mind that all the officers of the Indian Medical Service except sixteen, in addition to 27 assistant surgeons and 76 sub-assistant surgeons, were on military duty. In spite of this fact and notwithstanding financial difficulties, it was possible to increase considerably both the number of institutions and the number of patients relieved, while at the same time there was a pronounced fall in the hospital death-rate. This state of affairs reflects the greatest credit on all grades of the medical services, particularly on the remaining officers of the superior service who have almost all been doing several men's duties, and on the assistant surgeons who have been called on to take charge of important hospitals.

Medical College, Madras. (1916-17.)

379. The eighty-second session of the college began on the 3rd July 1916 and ended on the 31st March 1917. The strength of the college rose from 425 to 448. The increase was due to the rise in the number of admissions to the apothecaries' classes. There were 283 students attending the University classes. The percentage of passes at all the University examinations held in October 1916 and March-April 1917 was 66 as against 60·5 in the previous year. There were only seven students in the Chemist and Druggist class, and most of them were deficient in general education.

Women students.

380. The number of women students during the year has decreased (32 against 36 in 1915–16). Of this number 12 were Europeans or Eurasians, 16 Indian Christians and 4 non-Brahmans. The results attained by the female pupils were satisfactory. During the year the control of the Government grants made hitherto to the Countess of Dufferin's Fund was transferred to the Surgeon-General and the selection of candidates for the award of scholarships has also been transferred to him. It is hoped that candidates will take full advantage of the generous concessions granted by Government for furthering female medical education in this Presidency.

Medical Schools.

381. During the year 1916–17 there were 280, 132, 112 and 25 pupils on the rolls of the four Medical Schools, Royapuram, Tanjore, Vizagapatam and Calicut, against 225, 113 and 96, respectively, in the previous year. The new Medical School at Calicut was opened on 3rd July 1916. Of the above number, 216 were private pupils against 137 in the previous year. The receipts of the three medical schools (the receipts of the Calicut School being nil) amounted for the year to Rs. 10,446 and the expenditure for the four schools to Rs. 90,888 as against Rs. 10,798 and Rs. 73,016,

VITAL STATISTICS AND MEDICAL SERVICES

respectively, during the previous year. An instructor was added to the teaching staff of each of the three medical schools for teaching pathology. Proposals for the enlargement of all the medical schools have been called for by Government. Government have decided to transfer the Calicut school to Coimbatore, where there is a new and up-to-date hospital. Government have also sanctioned the provision of hostel accommodation for 210 more pupils at Royapuram and for about 100 pupils at Rayapettah. An amount of Rs. 65,104 has been sanctioned by Government for providing the schools with up-to-date equipment. Proposals have further been submitted to Government for the opening of a separate medical school for women.

THE PASTEUR INSTITUTE, COONOOR.

(1ST MARCH 1916 TO 28TH FEBRUARY 1917.)

382. The number of patients treated at the Pasteur Institute during 1916-17 was 1,707, exceeding last year's record figure by 217. The number of Asiatic patients was 1,546, i.e., 167 more than in 1915–16. One hundred and sixty-one Europeans and Anglo-Indians were treated, against 111 in the previous year. Of the total number of patients, 4 died during the treatment, 5 within a fortnight after the completion of the treatment, and 15 at some later date. The last are classed as failures, giving a rate of ·87 per cent. This failure rate compares unfavourably with that of last year (·54), which was, however, abnormally low. 169 persons came for advice but were not treated as it was found that they had run no risk of infection. The system of checking the results of the treatment by means of post-card reports was abandoned in favour of a system of verification through the local authorities. The new system involves more work but gives much more complete results. Attempts were made to secure data as to the comparative mortality in treated and untreated cases, but the results so far have not been very reliable. The receipts during the year were Rs. 33,314 against Rs. 28,132. The expenditure fell from Rs. 20,248 to Rs. 15,636, the saving being chiefly under buildings and repairs and imports from Europe. The Institute had a closing balance of Rs. 38,038.

LUNATIC ASYLUMS. (1916.)

[*G.O. No. 179, Local and Municipal (Medical), dated the 30th April 1917; Statistics of British India, Part V, Area, Population and Public Health—Lunatic Asylums.*]

383. There is accommodation for 978 lunatics in the asylums at Madras, Calicut and Vizagapatam. Additional buildings have been provided at Madras and Calicut for the treatment of hospital patients. 222 males and 54 females were admitted during the year; of these 43 and 11 respectively were criminals. Two males were admitted as voluntary boarders. The daily average population was 832·68. Of those under treatment 10·36 per cent were discharged as cured, 4·55 per cent were partially cured, 2·36 per cent were discharged without relief and 7·73 per cent died. The daily average sick in hospital was 79·49. The fall of about 25 per cent occurs mainly in the Madras Asylum and is due to a comparatively healthy year. Dysentery was as usual the chief cause of death but tubercle was also in evidence especially at Calicut. Of the criminal lunatics nine were discharged to stand their trial. Two criminals escaped from Madras and are still at large. There were four escapes among civil patients all being recaptured. The total expenditure on the asylums decreased from Rs. 2,16,127 in 1915 to Rs. 1,98,869, while there was an increase of Rs. 1,335 in receipts

CHAPTER VII.

INSTRUCTION.

GENERAL SYSTEM OF PUBLIC INSTRUCTION.

388. *Vide* pages 213 to 228 of the Report on the Administration of the Madras Presidency during the year 1911–12.

EDUCATION. (1916–17.)

[*Report on Public Instruction in the Madras Presidency for 1916–17 and for the quinquennium, 1911–12 to 1916–17; Statistics of British India, Part VII—Educational.*]

Progress of the quinquennial period.

389. With the outbreak of war in Europe many desirable schemes had to be postponed for financial reasons. The chief events of the quinquennium were the appointment of a special officer to assist the Director of Public Instruction for two years, the reorganization of the inspecting staff, the transfer of Industrial Schools to the Director of Industries, the holding of a number of conferences, the development of the Madras University, the increase in the number of arts colleges, the improvement and reorganization of professional colleges and special schools, the improvement of European, Muhammadan and Sanskrit education, the first beginnings of the medical inspection of schools and a number of changes in the Grant-in-Aid Code and the Madras Educational Rules.

General Statistics.

Number and strength of institutions.

390. During the year the total number of public institutions rose from 30,474 to 31,276 and their strength from 1,491,945 to 1,534,051. The number of private institutions, advanced and elementary, was 4,769 with a strength of 126,961. Classified according to management, out of a total of 36,045 schools and colleges of all kinds 7,723 were under public management, Government managing 488, municipal councils 587 and local boards 6,648. The remaining 28,322 were under private management, 19,657 being aided from public funds, 3,896 being unaided and 4,769 indigenous and private schools. During the quinquennium the total number of public institutions rose from 25,859 to 31,276 or by 20·9 per cent and their total strength from 1,152,886 to 1,534,051 or by 33·0 per cent. The number and strength of private institutions showed a decline, the former by 8·8 per cent and the latter by 0·1 per cent. Taking public and private institutions together, the number of institutions rose by 16·0 per cent and their strength by 29·7 per cent as against an increase, in the case of the latter, of 27·1 per cent in the previous quinquennium. There was a decrease in the number of institutions in the case of five districts and of strength in the case of three districts. The number of Government institutions, municipal and local board schools and of aided institutions has steadily risen while there has been a decline in the number of unaided institutions. The percentage of male scholars to the male population increased from 5·1 in 1911–12 to 6·5 in 1916–17 and the corresponding percentage for female scholars rose from 1·0 to 1·5; the percentage of the number of scholars—male and female—to the total population rose from 3·0 in 1911–12 to 4·0 in 1916–17. The increase in the percentage of scholars to population took place in all the districts except Madura, Tinnevelly and Salem.

Quinquennial figures.

Finance.

391. The total expenditure of the year rose from Rs. 135·6 lakhs to Rs. 216·9 lakhs of which Rs. 148·5 lakhs represented direct expenditure. Of the total expenditure, public funds contributed 53·15 per cent, fees 26·46 per cent and other sources 20·39 per cent, the percentages showing little variation from those of last year. Arts colleges claimed 6·62 per cent, professional colleges 2·84 per cent, general schools 55·31 per cent, special schools 7·72 per cent and general or indirect charges 27·51 per cent of the total expenditure. Excluding the figures relating to the Lawrence Memorial School, Ootacamund, and professional colleges and special schools under the control of other departments except industrial schools, provincial receipts and charges aggregated Rs. 3·65 lakhs and Rs. 91·38 lakhs respectively against Rs. 3·25 lakhs and Rs. 49·22 lakhs respectively in the previous quinquennium. Of the total heads of expenditure under the various heads of education, the percentages met from public and private funds were 53·15 and 46·85 respectively. The average cost of general education in public institutions for boys under the three heads, Government, board and aided schools was for arts colleges Rs. 308, Rs. 131 and Rs. 138; for secondary schools Rs. 63, Rs. 25 and Rs. 28; and for elementary schools Rs. 13, Rs. 6½ and Rs. 4 respectively. Comparing these figures with those for the previous quinquennium it is found that the total expenditure on education, including that on the industrial schools increased by Rs. 74 lakhs or 55 per cent. The amounts met from the five main sources, provincial funds, district funds, municipal funds, fees and private funds, all increased considerably but in very different proportions. The increase in district board and municipal expenditure was largely met by contributions from provincial funds, and taking the first three sources together, it will be seen that expenditure from public funds showed an increase of 79 per cent. Fees rose by 51 per cent and the amount contributed from private funds and other sources by a little less than 20 per cent. Thus the share of the expenditure borne by public fund is proportionately greater and that borne by private funds proportionately less. The total direct expenditure has increased by 57 per cent in the quinquennium, while the indirect expenditure has risen by nearly 50 per cent.

Quinquennial statistics.

Collegiate Education.

University.

392. With the help of special Imperial and Provincial grants the University has been able to enlarge its functions during the last five years. Courses of special University lectures have been delivered, arrangements have been made to encourage research work and three new University chairs have been established for Indian History and Archæology, Comparative Philology and Indian Economics. Another feature is the compilation of a Tamil Lexicon under the supervision of a committee of experts. Of the changes made in the regulations and curricula, the most important perhaps is that the Intermediate Examination can now be taken in parts in successive years.

Arts Colleges.

393. Two new Government colleges were opened during the quinquennium, one a second grade college for men at Anantapur, the other a first grade college for women at Madras. The total number of students in arts colleges for men and women rose from 4,939 in 1912 to 7,724 in 1917. The striking increase in numbers is largely due to the change in the system of admission, whereby the passing of the Matriculation examination is no longer a necessary preliminary to a University education. The number of women students in arts colleges rose from 46 in 1912 to 184 in 1917. The number of honours students increased from 92 in 1911–12 to 459 in 1916–17.

Colleges for Professional Training.

394. The present staff of the Law College as reorganized in March 1916 consists of a principal, two professors and six assistant professors. The course of study for graduates in law was in 1915 extended from two to three years, but last year there was a reversion to the two years' course. At the College of Engineering the course of study for graduates in civil and mechanical engineering was in 1914 extended from three to four years. The number of students is now double what it was in 1911–12, and improved accommodation will shortly be available in the new residential buildings which are under construction. The Teachers' Training

College at Saidapet is attracting an increasing number of graduates and its accommodation is found insufficient. Consequently arrangements have been made to re-open the Training College at Rajahmundry.

Secondary Education.

395. There has been a pronounced tendency during the last five years to overcrowd the secondary schools in the large towns. The question of whether congestion can be relieved by abolishing the sharp distinction between elementary and secondary schools and encouraging the growth of higher elementary schools is still a matter of controversy. The number of pupils appearing for the Secondary school-leaving examination has increased steadily. In 1913 there were 4,400 candidates appearing for the first time and 2,453 taking a supplementary course: in 1917 the respective figures were 5,578 and 3,343. The number of secondary schools for boys rose from 343 in 1911–12 to 345 in 1916–17, whereas the total strength increased from 99,668 to 134,608 during the same period. The direct expenditure on secondary schools rose from Rs. 24½ lakhs in 1911–12 to Rs. 38 lakhs in 1916–17. To the increase of Rs. 13½ lakhs aided schools contributed nearly Rs. 11 lakhs and board schools Rs. 2½ lakhs. Non-recurring grants to the extent of Rs. 12 lakhs were spent during the quinquennium towards the improvement of school and hostel buildings and the equipment of secondary schools. The average cost of educating each student was Rs. 28–1–4 and average fee paid was Rs. 20–12–0.

Elementary Education of boys.

396. The total number of public elementary schools other than those reserved for girls rose from 24,034 in 1911–12 to 28,867 in 1916–17 and the number of boys attending them was 1,070,942 an increase of 29 per cent during the quinquennium. The increase in the number of schools having a fourth standard is disappointingly small, though the number of complete elementary schools (i.e., schools with all seven standards) rose from 188 to 298. There were in 1916–17 only 4,149 schools of four standards. Only 199 elementary schools were directly under Government. There was a marked increase in the schools under board and municipal management, the number in the former case increasing from 4,079 to 6,095 and in the latter from 312 to 500. The rest of the schools are aided or unaided private institutions, 22 per cent being managed by missions. Out of 38,773 teachers employed in 1911–12 in elementary schools for boys, 12,956 were trained. The corresponding figures for 1916–17 were 49,060 and 16,631. Night schools rose in number from 466 to 707 during the quinquennium with a corresponding increase in strength from 9,784 to 17,606. The total expenditure on elementary schools for boys rose from Rs. 37·55 lakhs in 1911–12 to Rs. 58·32 lakhs in 1916–17, towards which public funds contributed Rs. 42·20 lakhs or 72 per cent, fees Rs. 7·29 lakhs or 13 per cent and other sources Rs. 8·33 lakhs or 15 per cent, the corresponding percentages for the previous quinquennium being 61, 19 and 20, respectively. The average cost per pupil was Rs. 4–13–0; each pupil in Government schools (which were mostly in Agency tracts) costs Rs. 13–2–7, in board schools Rs. 6–8–8 and in aided schools Rs. 4–2–0. Fees met 3 per cent of the expenditure in Government schools, 4 per cent in board schools and 17 per cent in aided schools.

Special Education.

Training schools.

397. There were 206 special schools during the year against 178 in the preceding quinquennium. Of these 124 were training schools for masters and mistresses and 79 were technical, industrial or art schools. The number of training schools for mistresses was 24 and their strength rose to 812. Of the total number of mistresses 598 were Indian Christians and 68 Europeans or Anglo-Indians. During 1916–17, 84 sessional schools were at work and 1,283 students completed the course.

Technical and Industrial schools.

398. The number of higher technical schools fell during the quinquennium from 48 to 44, but their strength rose from 2,294 to 2,781. The most popular courses were drawing and commerce. There were 40 recognized industrial schools with 1,970 pupils. Most of these institutions provide instruction in carpentry or lace-making but there were two schools for weaving and two for printing.

Female Education.

399. The number of girls in non-European schools, public and private, rose from 223,012 in 1911–12 to 321,540 in the past year showing an increase of 44 per cent and representing 1·5 per cent of the total female

population as against 1 per cent five years ago. While there is little change in the proportion of secondary schools under public management, in the case of elementary schools Government schools increased in number by 16, municipal schools by 39 and board schools by 352, that is to say, out of a total increase of 532, 407 were schools under public management. There were at the beginning of the quinquennium two arts colleges for women, both under mission management. Two colleges for women have been opened in Madras since 1912, viz., the Queen Mary's College under Government management and the Women's Christian College which is a mission institution and has absorbed one of the existing mission colleges. The strength of the Government College in 1916–17 was 70 students and that of the Christian College 73. Both colleges are largely residential. The number of non-European secondary schools for girls rose from 35 in 1911–12 to 39 in 1916–17 and the total number of pupils from 5,495 to 8,121. The number of teachers in elementary schools for girls has increased from 3,796 in 1912 to 5,421. The percentage of trained teachers to the total number was 62 in 1912, but fell to 56 in 1917, showing that the supply had not kept pace with the increasing demand. The average number of pupils per teacher rose from 23 to 24. The expenditure in secondary and elementary schools for girls rose from Rs. 8·09 lakhs in 1911–12 to Rs. 13·90 lakhs, towards which public funds contributed Rs. 8·6 lakhs or 62 per cent, fees Rs. ·88 lakh or 6 per cent and other sources Rs. 4·42 lakhs or 32 per cent, the corresponding percentages for 1911–12 being 48, 7 and 45.

European Education.

400. Including the two industrial schools under the control of the Director of Industries, the total number of schools for Europeans and Anglo-Indians on the 31st March 1917 was 90 as against 85 at the beginning of the quinquennium. The total strength of the schools has increased from 7,189 to 8,415. It is satisfactory to note that the percentage of increase in the high school department is 31·2. Of the new institutions the most interesting is the St. George's Homes, Kodaikānal, which are maintained by private subscriptions raised both in England and in India and by liberal grants from Government. There are no European schools which provide a college education, Doveton College having closed its higher classes in 1912–13. There has been considerable improvement in the number of qualified teachers. Out of 670 teachers, 473 were fully qualified and only 64 had no certificate of any kind. The results of the European school examinations have been none too satisfactory but the percentage of success has fluctuated from year to year. The expenditure on European schools rose from Rs. 10·17 lakhs in 1911–12 to Rs. 14·55 lakhs in 1916–17. Of this amount Rs. 5·89 lakhs were provided from Provincial funds and Rs. 2·64 lakhs from fees.

Education of Muhammadans.

401. The number of Muhammadan schools increased during the quinquennium from 2,291 to 2,668 or by 16 per cent. Their strength rose from 109,039 to 142,628, or by 31 per cent against a 23 per cent rise in the previous quinquennium. In arts colleges the number of Muhammadan scholars has risen from 96 to 182 and in secondary schools from 5,507 to 7,088. The number of Government schools for Muhammadans rose from 60 in 1911–12 to 66 in 1916–17, while board and municipal schools rose from 520 to 846 and aided schools from 501 to 603. The private schools declined in numbers but increased in strength. There are now 6 secondary schools for Muhammadans as compared with 4 in 1911–12. The number of Muhammadan girls' schools rose during the quinquennium from 245 to 268 and their strength from 10,309 to 13,934. The development of education among the Mappillas continues, the number of schools and scholars having increased by 112 and 13,664 respectively. The expenditure in Muhammadan and Mappilla schools rose from Rs. 4·84 lakhs to Rs. 8·20 lakhs, towards which public funds contributed Rs. 5·59 lakhs or 68 per cent and fees Rs. ·78 lakh or 10 per cent.

Education of Panchamas.

402. The number of institutions chiefly intended for Panchamas rose during the quinquennium from 3,781 to 5,691 and their strength from 100,881 to 158,593. The total number of Panchama pupils in institutions

of all classes rose from 72,190 in 1911–12 to 120,607 in 1916–17. The number of Panchama pupils in secondary schools rose from 280 to 718. The expenditure in Panchama schools rose from Rs. 6·08 lakhs in 1911–12 to Rs. 8·74 lakhs, to which public funds contributed Rs. 4·8 lakhs or 55 per cent, fees Rs. ·24 lakh or 3 per cent and subscriptions and other sources Rs. 3·7 lakhs.

Aboriginal and Hill Tribes.

403. There were in 1916–17 213 schools for the boys of these tribes with 4,607 pupils. The total expenditure on these schools rose from Rs. 50,260 in 1911–12 to Rs. 58,932 in 1916–17, of which Provincial funds contributed Rs. 54,607, local funds Rs. 2,277 and fees Rs. 1,026. There were also 297 boys' schools and 5 girls' schools specially for members of criminal tribes and in these schools 14,351 pupils are studying.

Schools for the blind and for deaf mutes.

404. There are four schools for the blind in the Presidency. Both the boys' school and the girls' school at Palamcottah continued to do good work, and the pupils are enabled to support themselves after leaving school. There is also a school for deaf mutes at Palamcottah and another at Madras.

Private Institutions.

405. During the quinquennium the number of private schools fell from 5,193 with 127,179 pupils to 4,769 with a strength of 126,961. Of this number, 36 were Mactabs or Quran schools, 152 were Mulla schools for teaching Arabic and Persian, 7 were recognized Sanskrit colleges and 283 were Sanskrit schools.

Hostels.

406. There were 312 hostels for boys and 147 for girls in 1916–17 with a total of 22,753 boarders. The majority of these resident students were Indian Christians.

REFORMATORY SCHOOL, CHINGLEPUT. (1916.)

[*Statistics of British India, Part VI, Administrative and Judicial—Jails.*]

407. The average strength rose from 250 to 254 and the number of pupils at the end of the year including five boys under licence was 249. The number of pupils admitted during the year was 48 against 54 withdrawals. Pupils were admitted from all districts in the Presidency, excepting Anantapur, North Arcot, South Arcot, Chingleput, Guntur, Salem and the Nilgiris. 25 boys came from Tamil districts and 16 from Telugu. One pupil was admitted from Hyderabad. Of the 48 admissions, 23 were habituals, of whom 14 were sent after one previous conviction, 7 after two and 2 after three previous convictions. Of the 25 casuals, no less than 15 had committed serious offences and the remaining ten who were guilty of petty theft might perhaps have been let off with a warning. Of the 249 pupils on the rolls, 155 were sent for not less than five years, 18 boys whose age was 14 will have four years of training and 13 of 15 years of age will remain only for three years. The number of admissions from criminal classes only slightly decreased from 62 to 57, a high percentage in a school population of 249. The majority of the pupils are caste Hindus numbering 124, while the Muhammadans number 29. The rest is made up of 22 Panchamas, 13 Indian Christians and 4 Brahmans. Roughly speaking 70 per cent of the juveniles are in for theft through parental neglect or encouragement, while 30 per cent have committed serious offences which point to hereditary criminal tendencies. The number of cases of malaria is steadily declining, but the total admissions into hospital rose from 231 to 314 and the average daily sick from 8·1 to 9·12. The pupils continue to be re-vaccinated on admission and their weights are recorded monthly; there was a slight fall in the proportion of pupils who gained weight. The general conduct of the boys was good and the number of school offences decreased from 46 to 41. The number of boys not punished at all was 226 out of 249 and the number punished only once was 19. Discipline is made easy by the mark system and the award of good conduct badges which have a money value attached to them. The amount thus earned added to a share of the profits received

for articles turned out in the workshop gives a boy on his discharge sufficient money to purchase tools and implements for a start in life. The total average annual earnings per pupil rose from Rs. 4–3–7 to Rs. 4–10–7 and the total earnings for the year increased from Rs. 1,076–14–6 to Rs. 1,160–13–1. The amount to the credit of the pupils is Rs. 1,455–14–0. Physical training forms part of the curriculum and the boys continue to take a keen interest in football, hockey and other games. The general education of the boys was continued with fair results. Twenty-three boys secured elementary school-leaving certificates. The following trades are taught: carpentry, weaving, blacksmith's work, metal-work, tailoring, masonry and market-gardening. The weaving department is equipped to train maistries and skilled hands, while the metal-work and blacksmith classes manufacture utensils in common use. The mason class attends to the annual repairs of the school. At the Government Technical examinations 40 candidates in all appeared and 36 passed with 9 in the first class. Excluding the cost of supervision, the industries all worked at a profit, and the net profit realized was Rs. 2,068–6–9. Of the 51 pupils discharged in the ordinary course during the year, 33 or 65 per cent are employed and following their trade. 70 or 49 per cent are following their trade out of 143 discharged during the three years previous to 1916. The number re-convicted was 22 or 14 per cent. Deducting sale-proceeds the net expenditure was Rs. 41,526–12–8 against Rs. 39,038–15–4 of the previous year.

MISCELLANEOUS. (1916–17.)

Government examinations.

408. A special examination under the Secondary School-leaving Certificate Board for the benefit of teachers who have failed in the Matriculation or the Upper Secondary examination was held during the year. 94 candidates including two females appeared. The total number of individual candidates registered for the three grades of technical examinations was 11,867. Of 14,617 subject candidates examined 6,523 were successful. There was an increase in the number of candidates examined in all the three grades, but there was a decrease in the percentage of passes for the intermediate and advanced grades. 165 candidates appeared for the competitive examination for the Civil Medical Pupil grade for which 75 vacancies were thrown open to competition. For the special tests 3,981 candidates in all registered their names; 3,176 presented themselves for examination and 1,264 passed. There were fewer entries and a larger number of passes as compared with last year. The receipts amounted to Rs. 1,99,175, while the expenditure was Rs. 1,67,393.

Special tests.

Finance.

Lawrence Memorial School. (1916.)

409. On 31st December 1916, there were on the rolls of the school 301 boys and 168 girls. Of these 12 boys and 12 girls were day scholars. There were 261 children awaiting admission, of whom 92 boys and 97 girls are the children of British soldiers serving or having served in India. The results obtained by the school in the Government examinations were satisfactory—7 boys and 9 girls passed the high school examination and 9 boys and 3 girls the middle school examination. 6 pupils gained Government scholarships. 21 boys entered the Telegraph Department during the year and three of them are already on active service. There were 127 members of the staff and pupils in the Nilgiri Volunteer Rifles. 5 masters and 18 boys have joined the Army direct from the school since the beginning of the war, while 140 old boys of the school are known to be serving in the war zone. The total receipts were Rs. 2,61,471, while the expenditure was Rs. 2,14,338.

School of Arts, Madras.

410. The number of pupils on the rolls on the 31st March 1917 was 86 of whom 17 were females, and the average attendance during the year was 207. In 1915–16 there were 283 students on the rolls and the average attendance was 201. The percentage of artisans was 44. The total number of scholarships tenable at the school is 92. During the year special efforts were made to develop the jewelry class, with considerable

success, in spite of the lack of expert supervision in some branches. The most popular branches of work are lacquer-work, engraving and wood-work. Considerable additions were made during the year to the library and museum. In the Government Technical Examinations 235 students appeared and 163 passed, as against 169 and 130, respectively, in 1915–16. 15 out of 18 candidates passed the examination for the Technical Teachers' Certificate. The cost of the school was Rs. 61,500.

LITERARY SOCIETIES.

411. *Vide* pages 239 to 241 of the Report on the Administration of the Madras Presidency during the year 1911–12.

LITERATURE AND THE PRESS. (1916–17.)

[*Statistics of British India, Part VII—Educational.*]

Public libraries. Connemara Public Library. University Library.

412. The total number of readers during the year at the Connemara Library was 22,776 against 20,581 in 1915–16 and was higher than in any previous year. The number of standard works added to the library was 136 of which 101 were purchased and the rest presented. Dictionaries and other books of reference were in greatest request. The total number of readers at the University Library was 8,402 as against 6,456 in 1915–16 and 11,213 volumes were consulted as against 9,076 in the previous year. The privilege of taking books on loan from the Library against a deposit of Rs. 20 was claimed by 133 university readers as against 91 in 1915–16. A supplementary catalogue of books under authors' names brought up to the end of 1916 was published at the end of the year. The number of manuscripts acquired during the year by the Oriental Manuscripts Library was nearly 800 against 976 in the previous year. The search party was engaged in acquiring manuscripts for only six months of the year. During the latter half of the year, the party was, under the orders of Government, working in the Tanjore Palace Library in connexion with the cataloguing and valuing of the Sanskrit and Vernacular manuscripts there. There was a decrease from 2,062 to 1,462 in the number of visitors to the Library and from 3,810 to 3,183 in the number of manuscripts consulted by them. As usual, works on religion and poetry were most numerously consulted by visitors.

The Oriental Manuscripts Library.

Periodicals. (1916.)

413. There was a slight increase in the number of newspapers published in the Presidency, 211 being in existence at the end of the year. At the same time there was a fall in the number of subscribers to most journals, a notable exception being *New India*, the circulation of which rose from 8,000 to 8,500. The general tone of the press became much more virulent during the year, and there was a marked tendency to use freer and stronger language in referring both to political and general subjects. This state of affairs is probably due largely to the influence of *New India*, the tone of which was so violent as to call for repeated action on the part of Government. This freedom of language which was copied in Madras was generally deprecated by the journals of the mufassal. Nine newspapers failed to start publication and three presses failed to open owing to the demand of security. Formal warnings were conveyed to seven editors of journals. The security deposited by the New India Printing Works was forfeited in August under the Press Act, but the press was allowed to continue work on furnishing a larger security.

Registration of books. (1916.)

414. Notwithstanding the effects of the war, there has been an increase in the total literary output: 2,564 books and 1,765 periodicals were registered as against 2,462 books and 1,818 periodicals in the preceding year. Books published in the vernacular formed a little less than two-thirds of the total publications; 786 books were published in English and other European languages and 125 in Indian classical languages. The

language distribution was almost the same as in the past year; two languages—German and Badaga—were not represented, but Guzarati found a place in this year's table in lieu of Marathi. As usual, religion apart from philosophy occupied the first place, while the other subjects maintained their respective positions during the year, the only exception being politics, on which subject the number of publications rose from 11 in 1915 to 58. One of the best books of the year was "Pallava Antiquities" by Professor G. Jouveau Dubreuil, which is a work of considerable merit and discloses the amount of useful materials available in South India for historical and archæological research; another English work of note is "Sir Rabindranath Tagore" by K. S. Ramaswami Sastri. As many as 422 works or a little more than 10 per cent of the total seem to have been designed for educational purposes against 377 in the preceding year. The moral tone of the publications registered was on the whole satisfactory.

ARTS AND SCIENCES. (1916–17.)

Government Museum. Visitors.

415. The number of visitors to the Museum during the year under review was 754,316 as compared with 804,431 in 1915–16. As usual Kannu Pongal (16th January) was the day on which the Museum was attended by the largest number of visitors.

Buildings.

416. The detailed plans and estimates for the proposed extension on the southern side of the new building have been approved and the work of construction is in progress. While this additional space will do much to relieve the congestion of exhibits, the difficulty of finding room for recent accessions is increasing in other sections of the Museum and more particularly in the zoological section.

Museum demonstrations.

417. The demonstrations to pupils of the higher classes of high schools in Madras City were continued from November to March. The total number of pupils who attended the demonstrations was 2,355. A series of 10 demonstrations conducted by the Superintendent was given to 210 teachers in Madras schools.

Economic and Botanical.

418. Two tours were made by the Herbarium Keeper, one to Travancore and the other to the Kistna district. They resulted in numerous additions to the economic and botanical sections and a number of new photographs were added to the series illustrating growing plants and the methods of manufacture adopted in the case of various economic products.

Marine Aquarium.

419. The total number of visitors at the Aquarium during the year under review and the amount realized in entrance fees were 106,641 and Rs. 3,795 against 105,670 and Rs. 3,769 in the previous year. The general health of the fish continued to be good.

Meteorology.

420. The thermometer shed at Koraput was completed and opened for observations. The usual repairs were executed at all observatories except three. The chief work of the office was as usual the publication of the Madras daily weather report and the Presidency rainfall returns. Rainfall returns were received from 497 stations as against 498 in the previous year, one station in Trichinopoly district having been closed. No less than 98 per cent of the rain-gauges in the Presidency were inspected by district officers, a fact which largely accounts for the very satisfactory state of rainfall registration. The total cost of the Meteorological department was Rs. 13,449, of which Rs. 3,738 was spent on observatories in the Presidency and the remainder on the head office.

Astronomy. (1916.)

421. At Kodaikānal the record of solar activity was maintained as in former years excepting that direct photographs of the sun were not obtained. Spectroheliograms of the sun's disc in calcium light were obtained on 329 days and of prominences at the limb on 310 days. Photographs of the disc in hydrogen light were secured on 258 days. At Srinagar direct photographs of the sun on a large scale were obtained on 119 days and spectroheliograms, mostly in hydrogen light, on 223 days

under very favourable conditions. The sunspot records show an increase of solar activity compared with the year 1915 and the number of new groups observed rose from 198 in 1915 to 278 in 1916. The mean daily area of prominences on the other hand fell from 5·28 square minutes in 1915 to 3·70 square minutes in 1916. The Grating spectrograph has been employed for studying solar line displacements compared with terrestrial spectra and for photographing the spectra of Venus in order to determine the wave-length of the solar lines reflected by the planet from a face of the sun turned 90° or more from the earth. A continuous registration of earthquake disturbances is made with a Milne Seismometer and 81 earthquakes were recorded during the year. The Magnetic Observatory formerly working under the Survey of India was transferred to the Meteorological Department on 1st August. The photographic records and absolute eye observations were continued as in former years. At Madras the only astronomical observations made are those necessary for the maintenance of an accurate time service for the whole of India. The time gun at Fort St. George failed on 30 occasions out of 732, giving a percentage of success of 96. Owing to the shifting of the instruments from the old Port Office to the new Signal Station the dropping of the semaphore was suspended from 1st January to 22nd February. During the remaining part of the year the semaphore failed on 13 occasions; on ten of these it was dropped correctly at 2 p.m. The 4 p.m. roll of signals was sent and received at the Central Telegraph Office, for distribution over India, correctly on every day.

CHAPTER VIII.

ARCHÆOLOGY. (1916-17.)

[*Annual Report of the Archæological Department Southern Circle, Madras, for the year 1916–17; G.Os. No. 1177, Home (Education), dated 12th September 1917, and No. 1035, Home (Education), dated the 10th August 1917.*]

Archæology.

422. There was no excavation work during the year under review. Rs. 23,793 were spent on conservation out of Rs. 27,000 sanctioned in the budget. The principal work under this head was the repairing of the old fort at Gingee, where there is still some work to be done. In all 119 works of maintenance and repair were carried out. Seven cases of treasure-trove were reported for opinion as to the desirability of Government acquiring the treasure under the Act and a number of metal images were thus obtained for museum purposes. A number of photographs and drawings of the interesting remains at Udayagiri in the Nellore district and Guntupalli in Kistna were prepared and published, and eleven applications for photographs were received from the public. During the year there have been 38 additions to the Standard List of Ancient Monuments. The cost of the establishment was Rs. 19,267.

Epigraphy.

423. Considerable progress has been made with the preparation of *South Indian Inscriptions* of which Part V of Volume II was issued and another part is in the press. During the year under review 462 villages were inspected and 668 stone inscriptions and 24 copper-plate records were examined and transcribed. Detailed epigraphic surveys were undertaken in the taluks of Ambāsamudram (Tinnevelly district), Guntūr and Madakasīra (Anantapur district). Stone inscriptions examined during the year mostly consist of Pandya epigraphs from the south and some are dated in the reigns of the Chola-Pandya viceroys. The Telugu inscriptions supply some further information about the local chiefs who ruled as Kakatiya subordinates in the Telugu country. A few of the records belong to the ruling family of the Kakatiyas and of these latter the one of greatest interest is that of Queen Rudramba found at Malkapuram in the Guntūr district. This inscription records the founding of a college and a maternity hospital. The Kanarese records are in general too fragmentary to be of great use, but some are of historical value, belonging as they do to the early Pallava-Nolumba and Chalukya periods. Considerable interest attaches to the 24 copper-plates examined during the year, especially those which record genealogies of the Eastern Chalukya kings.

CHAPTER IX.

MISCELLANEOUS.

ECCLESIASTICAL JURISDICTION.

424. *Vide* pages 244 to 246 of the Report on the Administration of the Madras Presidency during the year 1911–12.

ECCLESIASTICAL. (1916–17.)

Church of England.

425. The Bishop of Madras was absent on leave for six months from the 29th April 1916, the Venerable the Archdeacon being in charge. The Most Reverend the Metropolitan of India and Ceylon paid his metropolitical visitation from the 31st January to the 15th February 1917. The services of five chaplains were placed at the disposal of the Government of India in the Army Department for active service. Owing to the shortage of chaplains on the establishment, the Government of India sanctioned the appointment of two missionaries as temporary chaplains. At the close of the year there were in all 258 clerks in Holy Orders officiating under the licences of the Bishop of Madras and the Bishop in Tinnevelly and Madura. During the year one European was ordained deacon by the Bishop of Madras, while the Bishop in Tinnevelly and Madura ordained four deacons, all Indians. The Bishop of Dornakal ordained two deacons and six priests, all of whom were Indians. Five clergymen were licensed to officiate in the Diocese of Madras and seven in the Diocese of Tinnevelly and Madura. The alms and other devotions of the people offered through clergymen ministering to English congregations during the year amounted to Rs. 1,52,464.

Voluntary contributions.

Church of Scotland.

426. At the close of the year, the permanent Presidency Senior Chaplain and one Junior Chaplain being on leave, the establishment of the Church of Scotland consisted of three chaplains, namely, the two Senior Chaplains of the churches of St. Andrew at Madras and Bangalore, and one Junior Chaplain at St. Andrew's church, Secunderabad.

STATIONERY. (1916–17.)

Stationery.

427. The value of the stock with the Superintendent of Stationery at the beginning of the year 1916–17 was Rs. 8,08,563 (English stores Rs. 5,26,664 and Indian stores Rs. 2,81,899) against Rs. 9,28,120 (English stores Rs. 6,21,676 and Indian stores Rs. 3,06,444) in 1915–16. The total value of stores received during the year amounted to Rs. 6,48,217 (English stores Rs. 2,38,785 and Indian stores Rs. 4,09,432) against Rs. 8,16,485 (English stores Rs. 3,23,950 and Indian stores Rs. 4,92,535) in 1915–16. The total value of issues amounted to Rs. 7,39,480 (English stores Rs. 3,17,011 and Indian stores Rs. 4,22,469) against Rs. 9,36,042 (English stores Rs. 4,18,962 and Indian stores Rs. 5,17,080) in 1915–16. The value of stationery debited to Local Funds, etc., and of stationery issued on payment amounted to Rs. 16,066 against Rs. 19,079 in 1915–16. The value of the closing balance of stores for the year was Rs. 7,17,300.

THE GOVERNMENT PRESS. (1916–17.)

Finance.

428. The total receipts amounted to Rs. 77,550 against Rs. 81,243 last year. The fall is due to a decrease in the chargeable work and in the sale of Acts and books. The total expenditure was Rs. 4,93,253 against Rs. 5,37,506, a decrease of Rs. 44,253 due chiefly to reductions in printing orders, particularly for forms, and to smaller purchases of plant.

Chapter IX MISCELLANEOUS

Publications.

429. The sales of Acts and books amounted to Rs. 38,457 against Rs. 39,256 in 1915–16, while the sales by agents exceeded those of the previous year by Rs. 1,197. Acts and books to the value of Rs. 77,682 were issued free against Rs. 56,453 in the previous year, the increase being due to the supply of costly publications such as the Madras Code, etc.

Printing and binding.

430. The number of standard pages printed during the year was 274,919 against 296,391 in the previous year, while the cost per page was higher at the Central Press and the Penitentiary Branch and lower at Mount Road and Ootacamund Presses. The number of impressions was 118,578,300 against 148,705,718 in 1915–16. The cost per 1,000 impressions increased in all four presses as a result of smaller demands and the general average per unit for Madras was As. 14-2. The total debits against binding for all the presses amounted to Rs. 1,20,287 against Rs. 1,28,920 in the preceding year and the decrease in expenditure was due to a number of books being bound in cheaper kinds of materials.

Miscellaneous.

431. The additions to the plant cost Rs. 15,512. The output of the type foundry was 43,818 lb. of type, 14,135 lb. of stereos and electros, 27 punches and 119 matrices, while the expenditure was Rs. 2,499 less than last year. The cost of rubber stamps, pads, etc., supplied was Rs. 3,159, representing a rise of 5½ per cent, this being the only head showing any increase compared with the actuals of 1915–16. The number of copies of forms indented for during the year was approximately 133 millions or 72 millions less than in 1915–16.

District presses.

432. The value of the work done by district presses, including the Branch Press at Ootacamund, was Rs. 2,76,052 in 1914–17 against Rs. 2,79,689 in the previous triennium. There was an increase of Rs. 13,758 under cash receipts and a decrease of Rs. 5,282 under charges. The increase under cash receipts was mainly due to the large income derived from private advertisements published in the District Gazettes in Guntūr, North Arcot, South Arcot, Tanjore, Madura and Coimbatore.

THE CHEMICAL EXAMINER'S DEPARTMENT. (1916.)

[*G.O. No. 196, Local and Municipal (Medical), dated 5th May 1917; Statistics of British India, Part VI, Administrative and Judicial—Medico-legal Investigations.*]

Medico-legal investigations.

Human Poisoning.

Animal Poisoning.

433. The amount of the work done during the year shows a large increase in miscellaneous analyses and a slight decrease in medico-legal cases. There were 197 cases of suspected human poisoning as compared with 194 in the previous year. The percentage of detections was 46·7 against 46·9 in 1915. The principal poisons detected in their order of frequency were arsenic, mercury and atropine. Convictions were obtained in ten cases which recovered and two which were fatal. There were 88 cases of animal poisoning and 62 animals were reported to have been killed. The percentage of detections was 59. Arsenic continued to be the poison most commonly used.

Stains.

434. Two hundred and fifty-five cases were investigated for blood or seminal stains and the number of articles examined was 908. The percentage of detections was 71·5. Four hundred and sixty specimens of stains concerned in 176 cases were sent to the Imperial Serologist. Of these specimens 400 were found to be due to human blood. 102 convictions resulted from the 208 cases instituted.

General Analyses.

435. 1,582 general analyses were made against 502 in 1916. The work was largely for the Customs Department, but 121 analyses were undertaken for private parties.

CHARITABLE INSTITUTIONS. (1916–17.)

General.

436. Excluding dispensaries, there were 3,076 charitable institutions in the Presidency, with an income of 14·05 lakhs of rupees, 92 garces of paddy and 26 muras of rice. Of these institutions, 2,017 were maintained

entirely by means of subscriptions and donations from the general public and endowments in land and money, the total receipts from these sources amounting to Rs. 7·33 lakhs. 340 institutions were supported by Government at a cost of Rs. 1·62 lakhs and 108 were maintained at a cost of Rs. 2·50 lakhs partly by Government and partly by the public. The maintenance of the remaining 611 institutions, costing about Rs. 2·60 lakhs, devolved wholly or in part on local bodies. The funds of the institutions were devoted to various objects. In all, 1,940 institutions were intended to provide travellers with accommodation and, in many cases, with food and other supplies. Of these, 1,087 were exclusively for Hindus, 42 for Muhammadans, 6 for Europeans and Eurasians, while the remaining 805 were not restricted to any particular class. 391 institutions were maintained for the relief of paupers. There were 662 institutions exclusively devoted to giving help to Brahmans and Byragis. There were also 7 institutions for orphans, two for Rajput children and two for the support of lepers, the blind and the deaf. The total number of persons aided during the year at all the charitable institutions exceeded 11 millions.

Monegar Choultry, etc. (1916-17.)

437. Two institutions formerly controlled by the Board of Directors of the Monegar Choultry Charities have been handed over to official management: the Native Infirmary is now the Government Royapuram Hospital, and Raja Sir Ramaswami Mudaliyar's Lying-in Hospital has been taken over by the Madras Corporation. It has been decided to use the small income of the Foundling Hospital to endow eight beds in the children's wards of the Royapuram Hospital. There remain under the active control of the Board of Directors the Monegar Choultry and the Raja of Venkatagiri's Choultry. In the former institution the average daily number of inmates again showed a considerable decline—58·41 to 49·74. The average number of inmates in the chronic wards rose from 21·67 to 31·15. The balance to the credit of the charity on the 31st March 1917 was Rs. 5,872. The Raja of Venkatagiri's Choultry has no separate staff, but one-third of the general establishment of the Monegar Choultry is debited to its funds. The daily average of in-door paupers declined to 15·97 and that of out-door paupers (receiving $\frac{3}{4}$ lb. of rice daily) to 103. On the 31st March 1917 the institution had a balance of Rs. 1,041.

Triplicane Langerkhana. (1916-17.)

438. The receipts of the Triplicane Langerkhana, including an opening balance of Rs. 536 amounted to Rs. 5,595. The daily average number of paupers who received help from the institution was 203 as compared with 189 in the preceding year. There were two female Mussalman paupers in receipt of money doles, but one of them died during the year.

MUHAMMADANS IN THE SERVICE OF GOVERNMENT. (1916–17.)

439. On 1st April 1917, there were 8,355 Muhammadans employed in the superior service of Government. This is 210 less than last year's figure. 575 Muhammadans were admitted into service during the year, the majority as usual entering the police. The next highest figures were 12 in the Forest department and the same number in the Law Courts. Of the total number employed 11 held posts with an annual salary of Rs. 5,000 and above, 40 drew from Rs. 2,500 to Rs. 5,000, 103 Rs. 1,000 to Rs. 2,500, 253 Rs. 500 to Rs. 1,000, and 709 drew from Rs. 250 to Rs. 500. The number earning from Rs. 120 to Rs. 250 rose from 1,981 in 1915-16 to 7,192 owing to the raising of the scale of pay of police constables. Consequently the number earning less than Rs. 120 fell from 5,807 to 47. Although the percentage of Muhammadans to the total population of the Presidency was only 6·6, Muhammadans occupied ·42 per cent of the number of posts in the lowest grade, and 24·35 per cent in the next grade above. Excluding the lowest grades the percentage of Muhammadans in other posts stood at 11. There were 6,749 Muhammadans employed in the Police department, 463 under Law and Justice, 330 in the Land Revenue and 231 in the Educational deparment. In no other department were more than 200 Muhammadans employed.

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32064