

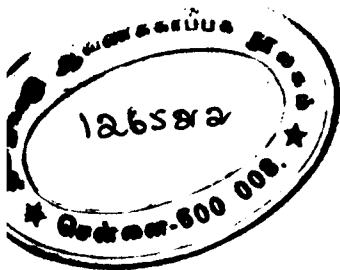
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NOTES

ON

SIR ARTHUR LAWLEY'S
ADMINISTRATION.

SECTION I.—PUBLIC, ETC.

1. ARCHÆOLOGY AND EPIGRAPHY.

1. When the Archæological Survey department was reorganized by the Government of India in 1906, this Presidency was provided with a Superintendent and with an Assistant Superintendent for Epigraphy. In view of the necessity and importance of the work of arranging and cataloguing the antiquities lying in the galleries and godowns of the Madras Museum, the Government of India were in November 1910 requested by Sir Arthur Lawley's Government to sanction the appointment of a temporary Assistant Archæological Superintendent to enable Mr. Rea to carry out the work, and Mr. Longhurst, Superintendent, Archæological Survey, Western Circle, was appointed to the post in August 1911.

2. A large amount of valuable work was done in both branches of the department during Sir Arthur Lawley's Governorship. In Archæology, important excavations were carried out, notably at the Amaravati stupa in the Guntūr district, at the buried Jain shrines at Danavulapad in the Cuddapah district, at Sankaram in the Vizagapatam district and at Ramathirtham near Vizianagram. The work of conservation also received considerable attention during the period and the total number of monuments now conserved amounts to over 500. The expenditure incurred on conservation and excavation from 1906-1907 to 1910-1911 exceeded a

lakh and a half. In the important and interesting field of Epigraphy nearly 3,000 stone inscriptions were copied during the period and impressions taken of 63 ancient copper plates.

2. CENTRAL RECORD OFFICE, MADRAS.

3. In March 1909, the new Record office building, the construction of which had been sanctioned by the Madras Government a few days before the arrival of Sir Arthur Lawley, was opened for use and all the old records of the Secretariat up to 1899 were transferred to it. This building consists of six blocks, and is intended to house not only the old records of the Secretariats, but also those of the Board of Revenue, High Court, Surgeon-General, Accountant-General and Paymaster of Carnatic Stipends as well as the English records of the Collectors' offices. With effect from the 15th April 1911, an officer of the Educational Service has been placed in sole charge of this Central Record office. The following publications were issued during the last five years :—

Fifteen volumes of "Selections from the Dutch Records", and one volume of "Danish Records," edited by Mr. A. Galletti, I.C.S.

Two volumes of "Country Correspondence" relating to the years 1740-1749 and 1800-1804, edited by the Hon'ble Mr. A. G. Cardew, C.S.I., I.C.S.

3. DECENTRALIZATION COMMISSION.

4. The Royal Commission on Decentralization visited Madras towards the end of 1907 and spent nearly a fortnight in taking evidence. Sir Arthur Lawley's Government furnished the Commission with a memorandum containing suggestions in regard to Decentralization in every branch of the administration. Referring to the matters dealt with in the Public department, His Excellency's Government urged that in applying a general policy laid down by the Government of India they should be granted a free hand as far as possible and that any

instructions issued to the Local Governments should be in general terms. A strong protest was made against interference with Local Governments by officers serving directly under the Government of India such as Directors-General and Inspectors-General, and it was contended that in the scientific departments, the Local Government should be free to make all appointments when suitable local officers are available and should not be required to consult the Government of India except when such officers cannot be obtained in the Presidency. This Government also expressed themselves against any far reaching alterations in the existing system of appeals. They considered that power might be taken to delegate the powers conferred by law on the Government of India or the Local Government as also to withdraw any delegation made, and were inclined to think that this could only be done by specific legislation. It was explained that in the matter of delegation by the Local Government to the Board of Revenue, Collectors and other subordinate officers, much had already been done, and in furtherance of the same policy Mr. Davidson was placed on special duty in February 1908 to report in what directions the principle might be further extended, and his recommendations were for the most part accepted by Government. As regards the transfers of officers, the Royal Commission was assured that they were not so frequent as was the case a few years earlier, during the last quinquennium, and Sir Arthur Lawley's Government has endeavoured so far as the exigencies of the services would permit to keep the number of transfers as low as possible.

In their report the Royal Commission gave due weight to the views expressed by Sir Arthur Lawley's Government and adopted the majority of their suggestions with regard to general policy but the final decision of the Government of India in respect of them has not been received.

In regard to pensions, proposals for the considerable delegation of powers to the Local Government were accepted by the Commission and, except in respect of the grant of gratuities from the compassionate fund, have been agreed to by the Government of India.

4. EMIGRATION.

5. The Committee appointed by the Government of India to enquire into the general working of the Assam Labour Emigration Act VI of 1901, visited Madras in 1906 and three of its members met the Hon'ble Sir Murray Hammick, the then Chief Secretary, representing the Madras Government, and discussed the working of the provisions of the Act. In their report on the subject the Committee strongly recommended the opening of the districts of Gōdāvari, Kistna, Guntūr and Nellore to *sardari* recruitment under Chapter IV of the Act, the repeal of Madras Act V of 1866, and the opening of the Agency tracts of Ganjām and Vizagapatam to recruitment. The first of these proposals had already been suggested by the Madras Government to the Government of India and the provisions of Chapter IV of the Act were accordingly extended to the districts of Gōdāvari (excluding the Agency tracts), Kistna, Guntūr and Nellore in 1908. In addition, the concessions which were previously made to a few Labour Recruiting Associations under section 91 (b) of the Act in respect of garden sardars working under their control in the districts of Ganjām and Vizagapatam were extended to the associations in the new districts. The proposal to repeal the Madras Labour and Emigration Act V of 1866 was also assented to. Sir Arthur Lawley's Government, however, deemed it unadvisable to legalise the operations of recruiters in the Agency tracts though there is evidence that, owing to the activities of garden sardaris whose homes were originally in the Agency tracts, a considerable amount of clandestine recruitment goes on. In 1910-11 there were six successful prosecutions under the Act, and Government has issued executive orders to the Magistrates of the districts concerned to see that recruiters licensed under the Act are not permitted, at the same time, to engage in free recruiting for Ceylon and the Straits which increases the facilities for evasion of the prohibition against recruitment for Assam in the Agencies.

6. There has been an increasing flow of emigration in recent years to British Colonies—particularly to the

Federated Malay States and the Straits Settlements in consequence of the expansion of rubber cultivation there, and in a lesser degree to Ceylon and Natal. The United Planters' Association have complained that the absence of restrictions upon emigration to Ceylon and the Straits has seriously affected the supply of labour available for plantations in South India, but the policy of Sir Arthur Lawley's Government has been consistently directed in the direction of non-interference with the free flow of labour to those colonies which are expressly excluded by statute from the scope of the Indian Emigration Act.

The high mortality among indentured and unindentured labourers on certain estates in the Federated Malay States, however, compelled the Governor in Council in 1909 to make representations to the Government of India in the matter, and the Federal authorities and the Straits Settlement Administration agreed to abolish the system of indentures as regards Indian labour and cancel the indentures already in force.

7. In May 1910 some eighty Indians, the majority of whom claimed to be connected by birth or descent with this Presidency, were deported to India by the Transvaal Government, and the leaders of Indian opinion requested Sir Arthur Lawley's Government to intervene on behalf of the deportees. In response to these representations while maintaining the view that public assistance should not be given to the deportees to enable them to return to South Africa and place themselves in renewed opposition to the Colonial authorities, the Madras Government issued orders for the provision of temporary relief to those who could show they were really destitute until they could find work for themselves. Upon the question at issue, which was of an Imperial nature they could not of course take independent or isolated action, but reported to the Government of India the wide-spread feeling of bitterness which the action of the Transvaal Government had provoked in the Presidency.

5. FINANCE.

8. The most important events of the administration of Sir Arthur Lawley from the financial point of view may be said to be—

(1) the changes in the financial arrangements subsisting between the Imperial and the Provincial Governments known as the Provincial Contracts or Settlements ;

(2) the changes in budget procedure consequent on the introduction of the constitutional reforms following on the Indian Councils Act of 1909 ; and

(3) the continuous development of the revenue and expenditure of the Presidency throughout the tenure of His Excellency's Governorship.

1.—PROVINCIAL SETTLEMENTS.

9. Sir Arthur Lawley assumed office at the end of the second year of the currency of the quasi-permanent settlement. This settlement was introduced in 1904 and marks an important stage in the process of decentralization of financial administration which was first introduced in the Viceroyalty of Lord Mayo, and which was subsequently developed and extended by Sir John Strachey and succeeding Finance Ministers. It is unnecessary here to describe in detail the origin and progress of the present system of provincial finance. It is purely an administrative measure as no separate fiscal spheres nor financial powers have been assigned to the Local Government by statute, their position in matters of finance being merely that of delegates of the Central Government. The essence of the arrangement is that certain services have been made over to the Local Governments for the estimated upkeep of which a certain amount of growing revenue is allocated to them. This revenue may be either less or greater in amount than the estimated cost of the Provincial services to be maintained. In either case the difference is made good by the payment of a fixed sum known as the fixed assignment, in the former case from the Imperial to the Local Government and in the latter *vice versa*.

10. Prior to the introduction of the quasi-permanent settlement, the contracts between the Imperial and the Provincial Governments were periodical, usually quinquennial, the terms of the contract being subject to revision. The defects of this system are described in the following extract from the Government of India Financial Statement for 1904-1905 :—

“(1) The periodical revisions interfere with the continuity of Provincial finance, and each revision involves a protracted and sometimes controversial discussion with the Local Governments.

“(2) A still more serious evil is that the system tends to encourage extravagance rather than economy. It has been described as a system of five years' budgets : and this definition indicates the root of the evil. Each Local Government is supposed to be free to enjoy the fruits of its economy, or of the successful nursing of its revenues. But in practice its term of enjoyment is limited to five years, or more correctly, to the last two or three years of the term of settlement, for during the earlier years it has usually little margin to spend. It is, therefore, under constant temptation to spend its money, not on carefully matured schemes of well-thought-out improvement, but on such as can be carried through before the close of the settlement, in order to leave as small a balance as possible for resumption at the impending revision.

“(3) The apportionment of revenue to the several Provinces has never been made on any definite or logical principle.”

The quasi-permanent settlement was designed to remedy these drawbacks.

11. In return, however, for the greater security granted to the Provincial Government in the possession of its revenues, the Imperial Government somewhat reduced the shares which this Government had previously enjoyed with regard to certain heads of revenue, *e.g.* :—the Provincial share under STAMPS was reduced from three-fourths to one-half and that under ASSESSED TAXES and FORESTS from one-half to one-fourth.

The result of this was that the amount of the growing revenues assigned to the Madras Government

fell short of the estimated cost of the Provincial services by no less than 59'66 lakhs which was made up by a fixed assignment from Imperial ; and in succeeding years this fixed assignment grew to the very large sum of 150 lakhs which was a third of the gross Provincial receipts. This undesirable state of affairs was remedied in 1908 when the settlement of 1904 was revised in the direction of giving the Presidency a share of growing revenues equal to the cost of the assigned services, the scope of which was also somewhat expanded, the following heads of expenditure being shared equally between Imperial and Provincial instead of the share of the latter being only one-fourth as before, viz., :—EXCISE, ASSESSED TAXES and FOREST. The head "42. IRRIGATION—MAJOR WORKS," which was wholly Imperial, was from 1st April 1908 divided equally between Imperial and Provincial. The share of the assigned revenue being now slightly in excess of Provincial needs, the former large fixed assignment from Imperial to Provincial was converted into a fixed assignment from Provincial to Imperial of 22'57 lakhs. At the same time to steady the receipts of this Presidency a guarantee was given by the Government of India that under no circumstances would the Provincial share of land revenue be less than 308 lakhs, any deficit in a particular year being made good from Imperial resources.

12. In the last year of His Excellency's administration a further step was taken in the development of Provincial finance, the quasi-permanent settlement being made permanent subject to the following conditions :—

(1) it shall not be subject to revision in the future except by way of commuting fixed assignments into growing revenue ;

(2) in case of serious famine the question of assistance from Imperial revenues will be duly considered by the Government of India ; and

(3) the Government of India reserve the right to call for assistance from Provincial revenues in case of serious embarrassment in their own finances.

At the same time partial effect was given to the recommendation of the Royal Decentralization Commission that future increases of Provincial resources might

be obtained by gradually provincializing heads now divided between the Supreme and Provincial Governments, for FOREST revenue and expenditure which had formerly been divided were made wholly Provincial.

13. The financing of famine expenditure had prior to 1st April 1907 been on no satisfactory basis. The liability for famine relief was Provincial unless and until the resources of the Local Government became so reduced that the Government of India had to step in and finance it. In 1907 a scheme was introduced with regard to the apportionment of famine expenditure between Imperial and Provincial under which Provincial funds are credited annually with a fixed sum of 2'50 lakhs subject to a maximum reserve of 25 lakhs. After this limit has been reached, the annual assignment will cease until the credit balance is reduced by actual famine expenditure. When famine occurs, the expenditure on famine-relief will be charged against the balance standing to the credit of the Local Government in the *pro forma* account. Should the expenditure exceed this amount, the excess will be charged to Imperial and Provincial in equal shares. If during a prolonged famine the Provincial share of expenditure thus limited should be so great as to reduce the Provincial balance below one-half of the prescribed minimum of 20 lakhs, the treatment of further famine expenditure will be a subject for special arrangement by the Government of India at the time.

II.—CHANGES IN BUDGET PROCEDURE CONSEQUENT ON THE INTRODUCTION OF CONSTITUTIONAL REFORMS.

14. In 1908, at the instance of Sir Arthur Lawley, steps were taken to associate the representatives of non-official opinion in the detailed preparation of the budget in order that the Government might have an opportunity of incorporating in the estimate for the coming year such suggestions and modifications as might commend themselves to Government. Accordingly an informal budget conference consisting of 8 official and 5 non-official members of the old Legislative Council was

convened on the 1st February 1908 and the first edition of the budget was laid before it for discussion and criticism. A similar informal conference was held in 1909. This procedure, which had the compliment of being copied in one or two other provinces, received statutory recognition when the Council Reforms were introduced and its place was taken by the Finance Committee constituted under the rules framed under the new Indian Councils Act.

15. The new budget procedure was framed by Sir Arthur Lawley's Government on liberal lines, for the whole "Draft Financial Statement" (the first edition of the budget for the ensuing year) is laid before the Committee in January of each year for consideration and submission of a report to Government indicating the changes the Committee recommends. The next stage is the presentation to the Legislative Council of the "Revised Financial Statement" (second edition of the budget), prepared after considering the proposals of the Finance Committee and any changes in the financial situation justifying alteration of figures. Members may then move specific resolutions which may be put to the vote. Lastly about the beginning of April the final edition of the budget is presented to the Council, when the members are at liberty to offer any observations on the budget but not to move any resolution.

III.—DEVELOPMENT OF PROVINCIAL REVENUE AND EXPENDITURE.

16. A table is appended which shows the yearly growth of revenue in the Presidency during Sir Arthur Lawley's term of office and the share of it retained for Provincial purposes, contrasted with the average annual receipts of the previous quinquennium. It will be seen that the process of recovery from the set-back of the period 1897-1901 due to famine and scarcity was continued throughout the period of His Excellency's administration. The increase in LAND REVENUE was due to the absence of the necessity for making large remissions as well as to the introduction of new settlement

rates in several districts. The decline in SALT REVENUE is due to progressive reduction in the duty on salt, which has stood at one rupee per maund since 1907 against Rs. 2-8-0 prior to March 1903. The growth of the consumption of salt has however been in inverse ratio to the decline in the revenue. The head which most reflects the increased prosperity of the Province is EXCISE. In spite of enhancement of duty and tree-tax and reduction in the number of shops, there has been a continuous development in the returns from this source. As remarked by His Excellency in his speech on the budget for 1909-1910 the predominant cause contributing to this result is the increased purchasing power of the agricultural and working classes due to agricultural prosperity.

Another feature which is noteworthy is the larger proportional share of the revenue raised in the Presidency which is now retained for Provincial purposes, due to the more favourable settlements which have been secured for this Presidency.

17. Another table shows the progress of Provincial expenditure for the same period. The continuous growth of the revenues has permitted the financing of improvements in nearly all the branches of Provincial administration. One direction in which largely increased expenditure has been incurred has been the raising of rates of pay in nearly all departments, particularly in the lower grades, to compensate for the increased cost of living at the present time. The minimum pay of the higher kinds of clerical service has now been raised to Rs. 20 per mensem.

Another step having the same object in view has been the grant of grain compensation allowance to all Government servants on a monthly pay of Rs. 30 and less—a concession which involves an annual expenditure of nearly 10 lakhs.

Special mention is necessary of the great increase of expenditure under "Charges in respect of collections." This is due to the assumption by Provincial revenues of the Ryotwari Village Service charges which were formerly met by the levy of a special cess on the ryots. of which they have been relieved since 1906.

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18. Some of the more important schemes for which funds have been found are—

(a) the constitution of two new districts (Rāmnād and Chittoor) and additional divisional charges ;

(b) the reorganization of the police in consequence of the recommendations of the Police Commission ;

(c) the creation of a third membership in the Executive Council ;

(d) the increase in the strength of the High Court Bench by two Judges ;

(e) the reorganization of the Indian Civil Service ;

(f) the reorganization of the Deputy Collectors' Service ;

(g) the revision of establishments of the Salt and Abkārī departments in accordance with the recommendations of the Excise Committee ;

(h) the improvement of the pay of officers in the Forest and Public Works departments and of the sub-assistant surgeons in the Medical department ;

(i) the increase in the number of the Professors in Arts Colleges ;

(j) the reorganization of training schools for mistresses ;

(k) the development of the Agricultural, Industrial and Veterinary departments and the creation of the Fishery department ;

(l) the grant of relief to local bodies by the waiving of certain contributions which were recovered from them, such as controlling and audit establishments in the Presidency town, supervision of primary schools, etc.

19. The introduction of the following schemes which have been approved by the Government awaits the sanction of the higher authorities :—

(1) the revision of taluk establishments ;

(2) the raising of the pay of Deputy Tahsildars and Stationary Sub-Magistrates ;

(3) the revision of clerical establishments in Sub-Registry offices ;

(4) the increase in Police armed reserves ;

(5) the establishment of model high schools in districts ;

(6) the reorganization of training schools for upper primary teachers ;

(7) the reorganization of the Indian and Provincial Educational Services.

In addition, large non-recurring subsidies have been given to local boards and municipalities, as well as to the Presidency Corporation and the Port Trust, amounting during Sir Arthur Lawley's Governorship to nearly 70 lakhs of rupees for various works of improvements, such as water-supply and drainage and harbour development.

20. During the period Sir Arthur Lawley has held office there has been a considerable growth in the provincial balances, which have increased from 88·09 lakhs in 1906-1907 to 155·82 lakhs in 1910-1911. Some misapprehension may exist as to the cause of the accumulation of these surpluses. It should be remembered that in addition to the reserve of 20 lakhs which the Government are bound to maintain, they received an initial lump grant of 50 lakhs with which to start the quasi-permanent settlement. This initial grant has been further swelled by supplemental grants in succeeding years for special objects on which the full expenditure has not yet been incurred. Sir Arthur Lawley's Government had on hand at the termination of his Governorship schemes the cost of which exceeds the available balances.

IV.—FINANCIAL DECENTRALIZATION.

21. When the Royal Commission upon Decentralization visited this Presidency in 1907, the more important suggestions made to the Commission by Sir Arthur Lawley's Government on the subject of financial decentralization were—

(1) that, in respect of services for which Provincial Governments pay, they should receive the powers then lately granted to the Government of India as regards the creation of appointments, and alteration in their emoluments ; the passing of additions to minor establishments up to a limit of Rs. 50,000 per annum ; and deputations and temporary appointments ;

(2) that the Local Government should be given a free hand in regard to the grant of conveyance allowances, house-rent and free quarters ;

(3) that the restrictions in respect of the creation, abolition, or alteration in the pay of a class or grade of officers should be done away with ;

(4) that the rulings in the Financial Codes should be relaxed with the object of investing the Provincial Government with the powers reserved to the Supreme Government in various *minor* matters, such as the transfer of an officer to foreign service, the receipt by Government servants of honoraria either from Government or from private bodies, and the like ;

(5) that, in the matter of the delegation of financial powers to heads of departments, the Local Government should be authorised to redelegate any power the delegation of which has not been restricted ;

(6) that the Local Government should be enabled to obtain money for large public undertakings, the amount being repaid with interest from Provincial revenues ; and that they should be invested with larger financial powers in regard to (a) Provincial and Divided heads and (b) the funds of District Boards ; and

(7) that enhanced powers should be given to the Local Government in regard to the sanctioning of loans required by local bodies.

The above suggestions were, with some exceptions and modifications, accepted by the Royal Commission and incorporated in their report. The Government of India have yet to make a final pronouncement as to many of these matters.

22. In regard to Provincial budgets the following suggestions were made to the Commission :—

(a) that the budgets might be submitted to the Government of India at a later date—about the beginning of February ;

(b) that the system adopted by the Government of India of making lump deductions under individual major heads with the object of securing greater accuracy should be abandoned as it occasions inconvenience ; and

(c) that the Local Government should be empowered to allot funds during the course of the year

from the Provincial balances up to some limit to be laid down by the Government of India.

None of these suggestions were accepted by the Commission. Under the new budget procedure the date of the submission of the budget has been advanced ; and of the remaining two suggestions the first has since been practically accepted by the Government of India.

23. The Madras Government have delegated to the authorities subordinate to them various minor financial powers which, without impairing control as to matters of essential importance, have tended to the reduction of correspondence of a routine character.

Principal sources of Revenue, Madras Presidency.

Heads of Account.	Average for 5 years from 1901-02 to 1905-06.		1906-07.		1907-08.		1908-09.		1909-10.		1910-11.*	
	Total amount realised in the Presidency and Provincial.	Amount credited to Provincial revenues.	Total amount (Imperial and Provincial).	Provincial.	Total amount (Imperial and Provincial).	Provincial.	Total amount (Imperial and Provincial).	Provincial.	Total amount (Imperial and Provincial).	Provincial.	Total amount (Imperial and Provincial).	Provincial.
I	2	3	4	5	6	7	8	9	10	11	12	13
Land Revenue	LAKHS. 572.97	LAKHS. 217.58	LAKHS. 628.87	LAKHS. 318.33	LAKHS. 627.23	LAKHS. 312.74	LAKHS. 637.01	LAKHS. 302.99	LAKHS. 649.15	LAKHS. 308.15	LAKHS. 660.82	LAKHS. 344.55
Salt	188.67	.59	143.38	...	122.53	...	106.20	...	106.74	...	108.00	...
Stamps	87.25	56.32	99.03	49.51	104.92	52.46	108.23	54.12	114.92	57.46	121.16	60.58
Excise	171.01	42.75	205.60	51.40	230.71	57.68	254.42	127.21	269.35	134.68	277.74	138.87
Customs	50.13	.52	55.21	...	64.09	...	68.52	...	60.66	...	72.81	...
Assessed Taxes	28.24	10.80	27.91	6.88	30.20	7.45	30.30	14.95	31.17	15.37	31.25	15.41
Forest	27.22	10.71	32.91	8.23	38.94	9.73	38.91	19.45	41.78	20.89	38.80	19.40
Registration	15.41	10.98	17.44	17.44	18.92	18.92	19.48	19.48	19.38	19.38	19.29	19.29
Other Sources †	49.28	40.74	48.27	38.96	49.90	39.40	56.89	43.95	56.19	42.37	59.64	44.72
Total	1,190.18	390.99	1,258.62	490.75	1,287.44	498.38	1,319.96	582.15	1,349.34	598.30	1,389.51	642.82

* Revised estimate in the case of purely Imperial heads, and Preliminary actuals in the case of Provincial Divided heads.

† This head represents receipts under other heads shown in the books of this Presidency excluding receipts under TRIBUTES, STATE RAILWAYS, &c., MILITARY WORKS and ARMY.

Principal heads of Provincial Expenditure, Madras Presidency.

	Average of 5 years 1901-02 to 1905-06.	1906-07.	1907-08.	1908-09.	1909-10.	* 1910-11.
1	2	3	4	5	6	7
Opening Balance	LAKHS. 52.85 { 83.30 to 4.79 }	LAKHS. 100.27	LAKHS. 99.82	LAKHS. 120.07	LAKHS. 132.74	LAKHS. 132.74
Charges in respect of collections (principally Land Revenue and Forest).	78.78	133.72	137.71	157.31	163.87	166.90
<i>Salaries and Expenses of Civil Departments—</i>						
(a) General Administration.	11.29	10.97	11.17	11.51	12.09	12.55
(b) Law and Justice.	61.56	64.38	65.28	71.15	71.86	74.32
(c) Police	49.88	58.17	64.49	73.73	74.13	80.34
(d) Education	21.48	22.83	26.79	37.39	37.90	39.86
(e) Medical	14.54	16.37	17.61	21.19	17.85	18.22
(f) Other heads	8.87	10.29	11.48	13.04	14.67	15.00
Pensions and miscellaneous Civil charges.	32.82	37.09	38.52	41.71	43.56	44.08
Famine Relief	.29	...	2.50	2.50	2.50	2.50
Irrigation	44.82	42.43	39.99	62.46	65.71	63.26
Civil Public Works	35.99	50.53	50.17	62.48	73.97	95.06
Other Charges and Adjustments.	14.50	31.79	33.12	7.43	7.52	7.65
Total Expenditure	374.82	478.57	498.83	561.90	585.63	619.74
Closing Balance	69.02	100.27	99.82	120.07	132.74	155.82

* Preliminary figures.

† Balance at the credit of the Ryotwari Village Service fund which was abolished on 1st April 1906.

6. INDIAN CIVIL SERVICE.

24. The outstanding features of His Excellency Sir Arthur Lawley's administration so far as they affect the Indian Civil Service and the Provincial Civil Service "listed" officers are —

(1) *The reorganization and regrading of the Indian Civil Service.*—The number of appointments in all classes and grades was increased; a new grade of District and Sessions Judge on Rs. 3,000 and of Collector on Rs. 2,500 were created; and Collectors and District Judges were in future to be borne on a separate list for purposes of appointment and promotion, officiating and substantive. The system of a personal grading, which hitherto applied only to Sub-Collectors, was extended to Collectors and District Judges also, so that no officer will in future ordinarily retain a lien on any particular local charge. One marked result of the reorganization has been to render the judicial line of the service more attractive than before.

(2) *The appointment of an Indian as a Member of the Executive Council.*—The enlargement of the Executive Council was quickly followed by the appointment thereto of the Maharaja of Bobbili. He held office only until January 1910 when he was succeeded by the Hon'ble Mr. Krishnaswami Aiyar, formerly a distinguished Vakil and Judge of the High Court.

(3) The post of Under Secretary to Government, "listed" as open to Members of the Provincial Service but hitherto not held by a member of that service, has been since 1910 filled by a Provincial officer.

7. JUDICIAL DEPARTMENT.

CIVIL COURTS.

25. The Governorship of Sir Arthur Lawley was marked by a general increase in the total volume of litigation throughout the Presidency but this was met by additions to the number of courts exercising jurisdiction.

Little notice is taken of the increase in the number of the subordinate courts, public comment being concentrated as a rule upon the High Court. It may be useful therefore to show what attention was paid by Sir Arthur Lawley's Government to the needs of the ordinary mufassal litigant.

In 1907, an additional Subordinate Judge's Court was established for the Tanjore district. During the next year, three new District Munsifs' Courts were created, one for the South Arcot district, one for the Coimbatore district and one for North Malabar. In the year 1910, a Subordinate Judge's Court was sanctioned for the purpose of affording relief to the District and Sessions Court of North Malabar and South Canara, as the state of files of the courts may from time to time require. On the formation of the new Rāmnād district on the 1st June 1910 from parts of the Madura and Tinnevely districts, a separate District Judge was appointed for it. In 1911, four additional District Munsifs' Courts were opened, one in the Rāmnād district, two in the South Arcot district, and one in the Salem district and a Subordinate Judge's Court was constituted at Coimbatore and the Subordinate Judge was also invested with the powers of an Assistant Sessions Judge. On the re-constitution of the North Arcot district in April 1911, a Subordinate Judge's Court was permanently established at Chittoor, and the powers of an Assistant Sessions Judge were conferred on the Subordinate Judge. Besides these permanent additions, temporary Courts of District Munsifs, Subordinate Judges and Additional Sessions Judges were brought into existence from time to time in districts where the pressure of work was great.

The additional permanent appointments of District Munsifs which were created were most of them in the lowest grade which thus became unduly inflated. Recognising this Sir Arthur Lawley's Government obtained the sanction of the Government of India to a regrading of the establishment with a view to securing a more satisfactory distribution. The position of the clerks in the Courts of District Judges, Subordinate Judges and District Munsifs was improved, by raising the minimum pay of the clerks to Rs. 20 per mensem.

CRIMINAL COURTS.

26. The principal measure taken by Sir Arthur Lawley's Government in the administration of Criminal Justice has been the extension of the system of Honorary Magistrates. The Royal Commission on Decentralization recommended the appointment of non-official gentlemen as Honorary Magistrates as a means of relieving the stipendiary magistrates of a portion of their work and of associating the people generally with the criminal administration of the country. Even prior to these recommendations Benches of Honorary Magistrates composed largely of non-officials had been in existence in this Presidency. These Benches dispose of a large number of petty cases arising chiefly in municipal towns, but they are not empowered to deal with any but trifling offences and the assistance they can render to the superior magistracy is, therefore, limited. Sir Arthur Lawley's Government felt that with the material available in pensioned officers of judicial experience, retired members of the legal profession and the great landholders it should be possible to constitute Benches with larger powers. They were also of opinion that a further step in the same direction might be taken by the appointment of Honorary Magistrates to sit singly. The first appointment was made within this year, a retired Indian District Judge being appointed a first-class Magistrate in the district of Kistna. District Magistrates have been asked whether there are in their districts retired officials of experience and gentlemen of position who may similarly be appointed honorary first or second class magistrates.

27. Hitherto there have been no Benches of Honorary Magistrates in the Presidency Town, but the Government of Sir Arthur Lawley have removed this long-standing anomaly by establishing two Benches and appointing some 30 gentlemen as Honorary Magistrates to serve upon them.

28. The status of the Second Presidency Magistrate underwent a change, and this appointment is now like those of the third and fourth magistrates included in the cadre of Deputy Collectors. The tenure of these appointments has been limited to three years.

HIGH COURT.

29. Twice during the period under review, once in 1907 and again in 1909, the personnel of the High Court was strengthened by the addition of a puisne Judge, and a further strengthening of the Bench is now engaging the attention of His Excellency's Government. At the same time the ministerial establishment of the Court was considerably strengthened and improved, one of the most recent additions being the creation of a second appointment of Assistant Registrar.

JAILS.

30. The administration of the Jail department during His Excellency Sir Arthur Lawley's régime was one of continued progress. In the course of his extensive tours, His Excellency never failed to visit the jail wherever there was one, and make himself acquainted with the health and general condition of the prisoners, as well as the internal management of the jail. During the last three years of his term of office, the subject of prison management was very much to the front in the debates of the Local Legislative Council and the numerous suggestions made by non-official members, particularly by the Hon'ble Mr. Kesava Pillai, received sympathetic treatment at the hands of His Excellency's Government.

31. Many important changes were introduced in the jail administration, not the least of which were those connected with sanitation. As a result chiefly of improved sanitation, better ventilation and the increased protection afforded to the prisoners from disease-carrying germs, the mortality in jails was kept down so low that, even after making all allowances for the absence of the very young and the very old among convicts, it was, as a rule, lower than that of the general population. The year 1910 saw the lowest death-rate ever recorded in the jails of this Presidency (viz., 14.5 per mille) and not a single jail returned a case of death from cholera or plague, though both epidemics were in some cases prevalent in adjacent towns. Structural improvements were carried out in jail buildings at Bellary and Palamcottah, a

mortuary was built outside the jail at Trichinopoly and a new hospital for dysentery patients was erected at Vizagapatam, while at Rajahmundry, where His Excellency found the hospital ill-ventilated, the wall round the hospital was replaced by a palisading so as to allow the air to circulate more freely. New wells were sunk wherever they were wanted and the existing wells were deepened. Drains were cemented to prevent any possible percolation of surface water and hydrants were provided to aid distribution and obviate hand-carriage. A new scheme of water-supply and distribution sanctioned for the Salem jail was brought into operation in 1910. Fly-proof kitchens were constructed at Vizagapatam and the Penitentiary and a new and improved cooking range was introduced at Rajahmundry.

32. Sir Arthur Lawley's Government was not slow to recognise the evils of the association system in prison accommodation. As most of the jails of the Presidency were constructed on the association principle, it was obviously impossible to convert them all at once into cellular jails. A well-devised scheme of gradual extension of the cellular system was therefore put in hand and during the quinquennium the total cellular accommodation in the jails of the Presidency was increased from 3,518 to 4,173.

33. In view of the difficulties of providing for adequate supervision and the maintenance of discipline in small jails, the policy of concentrating prisoners in large central jails as far as practicable was also steadily pursued. Early in 1906, the District Jail at Nellore was abolished and a new sub-jail established in its stead, long-term prisoners being transferred to the Central Jail at Bellary. The Hill Jail at Russellkonda and the Mangalore Jail were similarly reduced to the status of sub-jails in 1908. The conversion of the Vizagapatam District Jail into a second-class Central Jail and the appointment of an Indian Medical Service officer thereto were sanctioned in 1910 and proposals have since been submitted with a view to raising the status of the Cannanore Jail to that of a first-class Central Jail, and the establishment of a new sub-jail at Madras was recently sanctioned in order to accommodate short-term

convicts and under-trial prisoners in the Presidency town. The question of remodelling the Penitentiary or abolishing it and building a new jail on another site, which had been under examination since 1902, was decided in 1908 in favour of its retention. The same year saw the closure of the old Criminal Leper Ward at Madras which had been so used since 1889 and a new Leper Jail was opened at Salem as an annexe to the Central Jail there.

34. By far the most interesting and far-reaching reform effected of recent years is perhaps the step taken for the reclamation of youthful criminals, who are ineligible by reason of their age for admission to the Reformatory School. With a view to prevent the corruption of youths by contact with more grown-up criminals and to give them some sort of intellectual and industrial training on systematic basis, the District Jail at Tanjore was set apart during 1909 solely for the confinement of adolescent prisoners between the ages of 16 and 21 and sanction was accorded to the concentration of such prisoners from all parts of the Presidency, therein. In the year following, the proposal to institute a course of instruction for these youths was approved and a special establishment of teachers and trade instructors was sanctioned and operations for training these boys were taken in hand.

35. The question of imparting elementary education to such adult convicts as wish for it has since been under consideration, and to begin with, the provision of facilities for instruction has been tentatively sanctioned in three select jails, viz., the Central Jails at Rajahmundry and Cannanore and the Penitentiary. It has been decided to teach reading, writing and arithmetic to any convict not over 30 years of age, who may express a wish to learn, and for the use of prisoners, simple books containing moral lessons and religious books of a non-sectarian type expounding the tenets of Christianity, Hinduism and Muhammadanism have been ordered to be placed in each jail library, as well as copies of the Bible, the Gita and the Koran.

36. On a reference from Government in 1908 the Inspector-General of Prisons, Lieutenant-Colonel

Macnamara, who had considerable experience in the matter of jail dietary, submitted an exhaustive report pointing out the evils of the sanctioned scale of dietary and suggesting a revised scale in its place. The elimination of meat, the increase in the quantity of pulses allowed, the periodic substitution of rice for ragi and a slight reduction in the quantities of salt and curry powder were the essential features of his scheme, in favour of which it was urged that it was at once more nutritious and more economical. While the arguments advanced by the Inspector-General appeared convincing, the Government did not consider it safe to introduce at once a radical change, as suggested. They appointed a committee composed of the Inspector-General, the Surgeon-General and the Sanitary Commissioner to investigate the question whether any alterations were advisable in the existing scale of diet to prisoners and to report their conclusions to Government. The committee entirely supported the views of the Inspector-General of Prisons and the new scale of diet was accordingly introduced experimentally in the Central Jails at Trichinopoly, Cannanore and Rajahmundry. Later on it was extended to the Central Jail at Coimbatore. The experiment which has now been in force for over more than three years has, on the whole, been favourably reported on, but the period is too short to admit of any definite conclusions being drawn as to the superiority of the new diet over the old. The experiment is being carefully watched, the Inspector-General being required to submit periodical reports to Government.

37. While doing so much for the good of the prisoners, His Excellency's Government were not unmindful of the interests of the ill-paid warders set to guard them. During His Excellency's tenure of office the warder establishment was reorganized and the pay of the various grades materially improved and the revision came none too soon, as owing to the general increase in the cost of living of recent years, it was becoming more and more difficult to secure suitable recruits. In addition to this, the pay of the subordinate medical establishment attached to jails was revised. Another matter which attracted His Excellency's attention was the inadequacy of the

emoluments of non-medical Superintendents of first-class Central Jails, who successfully memorialised Government on the subject, the scale of pay of first-class Superintendents being raised in 1909 from Rs. 600—50—850 to Rs. 600—50—1,000 per mensem.

38. The subject of jail manufactures in its relation to private commercial interests also came up for review in connection with a communication from the Government of India. The views put forward by His Excellency Sir Arthur Lawley's Government are still under the consideration of the Government of India, but it may be mentioned that the policy of this Government has always been in the direction of avoiding as far as possible unfair competition with commercial interests.

39. Several other minor, yet useful, reforms were introduced in the Jail department during the five years of His Excellency's administration of this Presidency; the most noteworthy among them were—

(1) the introduction of the audit of jail accounts by the Examiner of Local Fund Accounts;

(2) appointment of compounders in first-class central jails;

(3) introduction on the 1st January 1909 of revised remission rules in which the principal alteration made was the substitution of days for marks;

(4) increase in the ration of flour for penal diet from 12 to 16 ounces; and

(5) the increase in the rates of gratuity allowed to well-behaved convicts.

VILLAGE COURTS.

40. The condition of the village munsifs' courts engaged the special attention of His Excellency in Council. It is manifestly undesirable that the rural population should carry before the regular courts petty disputes which might well be settled summarily in their own villages. Moreover, the development of Village Courts, besides relieving the regular judiciary of the work of deciding petty disputes, must tend to produce a beneficial effect on the village organization. The improvement, therefore of the village tribunals and the maintenance and

extension of their popularity received the careful attention of His Excellency's Government. The importance of the village munsif's court as a factor in the administration of the country and the necessity of endeavouring in every way to promote its prestige and popularity was repeatedly impressed on District officers and they were urged to use their best endeavours to disseminate among the villagers a better knowledge of the provisions of the Village Courts Act and to take sufficient care to select proper persons for appointment as munsifs. The system of constituting Bench Courts under section 9 of the Madras Village Courts Act was extended in several districts, as it was considered that Village Courts would in this case be resorted to more freely. District officials were required to see periodically whether the lists of members of benches in the courts were revised and kept up to date. Collectors were asked to make it a point at jamabandi and while on tour to examine the returns of the Village Courts and to encourage the villagers to resort to them. Court fees leviable in Village Courts were also remitted.

8. MARINE DEPARTMENT.

41. In the Marine Department Sir Arthur Lawley's term of office will be chiefly remembered for the great improvement effected in the Madras Harbour. The original harbour works, which had been wrecked by the cyclone of 1881, were completed in 1896. Meanwhile the harbour had silted up considerably, and after much discussion in India and England, it was decided to close the existing open entrance on the east and to open another on the north-east corner protected by a break-water of 1,200 feet in length. The scheme was sanctioned in 1904 and in aid of it, the Secretary of State made a free grant of 20 lakhs of rupees from Imperial revenues and also sanctioned a loan not exceeding 40 lakhs at 4 per cent. interest. In 1908, the Port Trust Board brought forward a subsidiary scheme costing about 29 lakhs of rupees for the provision of minor

works, such as piers, sheds, equipment and communications in order to facilitate landing and shipping operations, and, as it was unable to meet the whole of this expenditure from its revenue balances within a reasonable period, Sir Arthur Lawley's Government obtained for it from the Government of India a loan of 7 lakhs at 4 per cent. interest, of which 2 lakhs were drawn in 1908-1909, 3 lakhs in 1909-1910 and 2 lakhs in 1910-1911. Thanks to the energy and professional ability of the Hon'ble Mr. Spring, the Engineer-Chairman of the Trust Board, the works have been almost completed, the new entrance having been brought into use on the 4th January 1910, and the port of Madras has now a harbour which is equipped with an up-to-date scheme of piers, lighthouses, cranes, roads, railways, sheds for goods, waiting rooms for passengers and other conveniences, and in which steamers can load and unload cargo in perfectly smooth water throughout the year except on the rare occasions on which a cyclonic storm is actually affecting the port. Among the improvements made may be mentioned the ship wharf of 343 feet on the south arm alongside which vessels of large tonnage can lie in 30 feet of water at low tide and a slipway which by means of a hydraulic capstan is capable of taking on her cradle at ordinary high tide vessels weighing up to 500 tons for scraping, painting and repair. It is hoped to construct ultimately ship quays on the entire 3,000 feet length of the harbour face. Towards this work the Government made a grant of 5 lakhs of rupees in 1910-1911 and a further grant of 6 lakhs has been made during the current year. In 1910 as a result of the facilities already afforded, the average period for which a vessel was detained in Madras decreased from 10·7 to 6·2 days in the case of the Clan Line and from 5·5 to 3·4 days in the case of the Hansa Line as compared with the average for the previous 4 years. The entire cost of the Madras Harbour up to March 1911 was 244·2 lakhs of rupees, including the 66 lakhs spent by Government on the old harbour that was wrecked in 1881.

42. Nor have the outports been neglected by Sir Arthur Lawley's Government. In Tuticorin, a new pier

was sanctioned in 1910 and is now under construction. A channel is also being dredged from the anchorage to the foreshore. A new pier has been sanctioned for Telli-cherry, but detailed estimates are not yet ready. In the case of Calicut the merchants desired a breakwater on the south beach and also a reinforced concrete pile jetty on the north beach to replace the present pier and their request was approved in March 1910, but they have since reconsidered their proposal and have asked for two piers instead of the breakwater. The matter is under consideration. A new lighthouse has been constructed at Cotta Point and incandescent oil burners have been substituted for argand burners in all the important lighthouses.

43. Among the minor administrative reforms carried out during His Excellency's period of office may be mentioned—

(1) the reduction of Coast Light dues with a view to afford relief to coasting vessels, (2) the revision of the scale of pay of lightkeepers with the object of securing the services of better men, (3) the issue of a separate set of boat rules for Cocanada, the curtailment of the limits of the port and the entertainment of a special patrolling staff for the prevention of thefts of cargo at that port, and (4) the issue of new rules for the maintenance of landing and shipping fees accounts, with a view to prevent loss of fees.

44. The trade of the Port of Madras which amounted to Rs. 16,61,07,877 in 1906-1907 rose to Rs. 17,93,97,860 in 1910-1911 and that of the minor ports from Rs. 22,48,77,328 in 1906-1907 to Rs. 28,08,42,625 in 1910-1911.

9. MEDICAL.

45. The history of medical administration during Sir Arthur Lawley's Governorship is a record of steady and continuous activity and progress. His Excellency has from the date of his assumption of office evinced a strong personal interest in the expansion of medical relief throughout the Presidency and in the improvement of the provision made for patients. He inspected almost

all the important institutions in the Presidency and the knowledge thus gained of the defects in existing arrangements has been of great value alike in initiating remedial measures and reforms and in dealing with proposals made by others.

46. The General Hospital, Madras, the chief State Institution in the Presidency and the largest hospital in the tropics, originated as an amalgamation of two formerly existing hospitals, viz., the Garrison Hospital and the old Naval Hospital. The hospital was used solely as a Garrison Hospital until the year 1859 but provision existed in it for the treatment of Indians also. In 1859 the building, which had then accommodation for only 192 patients was reconstructed, another wing being added to the ground floor and an upper storey being built. It is obvious that so old a building is not adapted to modern requirements. Some additions were made in 1906, the first year of His Excellency's administration, at a cost of Rs. 25,000; other minor improvements were carried out in 1908, and in the following year the construction of a new operation theatre at Rs. 21,500 was sanctioned. These additions, however, were not a satisfactory solution of the problem and in 1909 Sir Arthur Lawley's Government decided to appoint a committee composed of official and non-official gentlemen to consider the question of removing the Medical College and Hospital to a more suitable site in the bed of the Spur Tank. The recommendation of this Committee was somewhat general in its terms and a second committee had therefore to be appointed to consider the questions more fully. On the recommendation of the Director-General, Indian Medical Service, who visited the hospital at the close of 1909, Surgeon-General Benson was deputed to inspect the principal medical institutions in Calcutta. The second Committee by a majority decided against the removal of the College and Hospital to the site on the Spur Tank but advocated improvements to the existing buildings at a cost of Rs. 9.75 lakhs. The Committee's recommendations were generally approved by Government and detailed estimates are now under preparation. The hospital will also shortly be provided with a new and up-to-date steam laundry at a cost of Rs. 25,000.

47. The Government Maternity Hospital, which is believed to be the largest of its kind in the East, was thoroughly renovated and remodelled during Sir Arthur Lawley's administration. This institution, which was at first known as the Lying-in-Hospital was built in the year 1880, its first Superintendent being Surgeon-General Branfoot, under whom it had for many years a sphere of great and growing usefulness. The advance of gynaecological surgery, however, demanded improvement in the equipment while the growing popularity of the hospital called for an expansion of the accommodation. In 1907, electric lights and fans were installed at a cost of Rs. 28,000, and in the same year the construction of sterilizing rooms, and operation theatre, quarters for the Assistant Matrons, and a labour ward for infectious cases was sanctioned at a cost of Rs. 60,000. Other minor improvements such as the provision of passenger lifts, the construction of additional staircases and covered ways and of a compound wall were also ordered to be carried out. A new out-patients' dispensary has been built at a cost of Rs. 48,500. These improvements had the effect of increasing the accommodation in the hospital from 154 to 172 beds. The hospital, however, had still many defects. There was no office for the Superintendent, no duty rooms for the Subordinate Medical Officers nor sufficient accommodation for the nurses, while the school had no lecture rooms, no accommodation for students, and no laboratory or microscope rooms. These deficiencies were brought to the notice of Government by Lieut.-Col. Giffard, the Superintendent of the Hospital, who at the same time submitted a complete scheme of improvements that were needed. After personal inspection, His Excellency was satisfied of the necessity that existed for the improvements recommended by the Superintendent, and his Government sanctioned the carrying out of the scheme at a cost of nearly four lakhs of rupees. Among other matters, the scheme provides for the construction of a new school block to accommodate 100 students with demonstration theatre and a clinical and pathological laboratory, besides accommodation for students and Assistant Surgeons, and rooms for X-ray and sterilization.

of instruments. Provision has also been made for the construction of a new pavilion for ordinary and special patients, an office for the Superintendent, and for the acquisition and adaptation of a bungalow, to which Lady Lawley has consented to give her name, for the accommodation of the nurses. There will also be a new laundry on modern lines. The works are in progress and when completed will make this hospital one of the finest institutions of its kind in the world.

48. Considerable improvements were also effected in the Government Ophthalmic Hospital, Madras. A new out-patients' dispensary has been built at a cost of about Rs. 20,000 and additional wards to contain 60 beds for natives and 8 beds for Europeans have been constructed at a cost exceeding a lakh of rupees. The wards were opened by Her Excellency Lady Lawley at the beginning of 1911. Further additions to bring the hospital up-to-date, viz., the construction of a new septic theatre and wards for septic cases, office rooms and bacteriological and pathological rooms have recently been ordered to be executed. These are expected to entail an expenditure of more than a lakh of rupees.

49. The provision of a hospital to meet the wants of the inhabitants of North Georgetown which is one of the most densely populated parts of the city has been under the consideration of Government since 1895. The Native Infirmary, an institution under the control of the Directors of the Monegar Choultry, at present serves the purpose of a hospital for the people resident in that part of the city and the students of the Medical School, Royapuram, obtain clinical instruction there. The dispensary attached to it is maintained by the Corporation of Madras. The buildings in which the Infirmary is situated are, however, quite unsuited for the purpose of a hospital. In 1909 the Directors of the Monegar Choultry proposed that in view of the diminishing income and the growing expenditure of the institutions under their charge, the management of the institutions should be taken over by Government. The institutions were visited by His Excellency and the Members of his Council in the latter part of 1909. In view of the fact that the Corporation had undertaken to meet heavy

expenditure in connection with drainage and water-supply improvements to the city, it was decided that the Government should take over the management of the Native Infirmary but that the remaining institutions should continue under the control of the directors. A committee consisting of the Surgeon-General, the Superintending Engineer and the Surgeon of the 1st District, Madras, was appointed to advise as to the construction of a new hospital and dispensary. The additions and improvements recommended by the Committee which were approved by Sir Arthur Lawley's Government are estimated to cost about a lakh and a half of rupees. Steps are also being taken to vest the funds of the institutions in the Treasurer of Charitable Endowments.

50. The institutions in the mufassal also received liberal grants-in-aid from the Government of Sir Arthur Lawley. Many of the dispensaries maintained by local bodies were located in unsuitable rented buildings and towards the provision of better accommodation for such institutions, Government have sanctioned a grant of more than five lakhs of rupees. In addition, Sir Arthur Lawley's Government also undertook the construction at their own expense of new hospitals at Salem and Vellore at an estimated cost of about $1\frac{1}{2}$ lakhs. A grant of Rs. 40,000 has at the same time been promised to the Municipal Council, Coonoor, towards the construction of a new hospital at that place.

51. Nor were the claims of private and semi-private institutions overlooked. A donation of Rs. 50,000 was made to the endowment funds of St. Bartholomew's hospital at Ootacamund, and the United Free Church Mission, Madras, obtained a grant of Rs. 20,000 towards the construction of a new Women and Children's hospital at Tondiarpet.

52. Although there was no considerable increase in the number of medical institutions open to the public during the quinquennium, the annual number of patients treated rose by nearly 8 lakhs, while the expenditure on the maintenance of the State Public, Local Fund and Private aided institutions increased by $5\frac{1}{2}$ lakhs of rupees. One of the last acts of Sir Arthur Lawley's Government was to direct the examination of the subject of opening more

institutions in localities insufficiently provided with means of medical relief.

53. In the concluding months of Sir Arthur Lawley's Governorship, the question of improving the agency for affording medical relief to women was taken into consideration and it was decided that endeavours should be made, in co-operation with the Countess of Dufferin's Fund, (1) to obtain five lady doctors with European qualifications for charge of the more important hospitals for women and children, and (2) to offer inducements to women in this country to study for the M.B. and C.M. degree of the Madras University. A grant of Rs. 12,000 per annum will be made to the provincial branch of the Countess of Dufferin's Fund to enable it to provide 21 stipends for young women studying for the medical profession and to increase the salaries of medical women possessing higher qualifications when the local bodies are unable to do this without assistance.

54. A noteworthy event of His Excellency's administration was the establishment of a Pasteur Institute at Coonoor. It had long been recognised that a Pasteur Institute was required to provide for the needs of Southern India as persons bitten by rabid animals living at a great distance from Kasauli were not always able to reach the Institute in time for the treatment to be successful. While the question of establishing an institute was engaging the attention of the Government of Lord Ampthill, the Government of India in June 1903 intimated that His Excellency the Viceroy (Lord Curzon) had decided to allot out of a generous donation placed at his disposal by Mr. Phipps, an American citizen, a sum of one lakh of rupees towards the provision and equipment of a Pasteur Institute in the Madras Presidency. This timely offer was gladly accepted by this Government. Coonoor was selected as the place climatically most suitable for its location and building operations were begun under the direction of the Consulting Architect in 1905. The Institute was opened for treatment of patients by His Excellency Sir Arthur Lawley on April 25th, 1907, the expenditure incurred on the construction and equipment of the Institute over and above the original donation being met from Provincial funds.

55. The management of the Institute is vested in a committee composed of official and non-official gentlemen. His Excellency the Governor, Their Highnesses the Nizam of Hyderabad, the Maharajas of Mysore and Travancore and the Raja of Cochin are the Patrons of the Institute. The salary of the Director and the grade pay of the Assistant Director, both of whom are officers of the Indian Medical Service appointed by Government, are met from Provincial funds. The staff salary of the Assistant Director and the cost of the subordinate medical and clerical staff are paid out of the funds of the Institute. The Government make an annual contribution of Rs. 3,500 from Provincial funds towards the support of the institution and an equivalent amount is also contributed from Imperial funds. A sum of Rs. 1,000 is paid annually from Military funds towards the treatment of soldiers at the Institute. The Institute also receives contributions from the Governments of Bombay and Ceylon, from Native States adjoining the Presidency and from various local and municipal bodies. The Government have sanctioned the grant of concessions to Government servants and indigent persons not employed in public service to enable them to avail themselves of the treatment afforded at the Institute. The Institute is resorted to by patients even from such distant places as Burma, Ceylon, the Straits Settlements and the Federated Malay States and has been growing in popularity every year, the number of patients treated in 1910-1911 being 827 against 182 in 1907-1908.

56. Brief mention may be made of the principal reforms effected in the establishment of the Medical department during the quinquennium. Owing to the revision of the scale of pay of I.M.S. officers in 1905, the pay of the Surgeons of the Presidency districts and of certain officers serving in the General Hospital was increased. In the Government Maternity Hospital, the post of Lady Assistant Superintendent of the hospital was abolished and a junior officer of the Indian Medical Service was appointed Assistant Superintendent. This officer now lectures on midwifery to the junior students attending the Medical College. The pay and prospects of Assistant Chemical Analysers were improved, while the pay of the Chemical Examiner was assimilated to that

obtaining in other provinces. The Deputy Sanitary Commissioner was relieved of his lecturing duties on hygiene and bacteriology so as to give him more time to devote to his own legitimate duties. The designation "Hospital Assistant" was changed to that of "Sub-Assistant Surgeon" and an increased scale of pay was sanctioned with effect from 1st April 1910 at an extra cost of Rs. 28,000 per annum. The pay of compounders and midwives employed in Government, local fund and municipal institutions was also improved. The subordinate medical staff of the Presidency State hospitals was strengthened. Three appointments of Assistant Surgeons in the General Hospital have been created—two in connection with X-ray work and one for pathological work; while in the Maternity and Ophthalmic hospitals two additional appointments of Military Assistant Surgeons have been sanctioned to cope with the increased amount of work in those hospitals. Lastly, the nursing staff of the three Presidency State hospitals has been considerably strengthened. In connection with the improvement of X-ray work in the General Hospital, an Assistant Surgeon was specially deputed to England to study the latest developments of the subject. The question of improving the pathological work at the Presidency town by creating a full-time professorship in that subject is at present engaging the attention of Government. With a view to afford additional facilities for study to private medical practitioners, two new appointments of honorary surgeon and honorary physician in the Monegar Choultry and Royapettah hospitals have been created as an experimental measure.

57. In the last year of Sir Arthur Lawley's Governorship, the Medical College and the Medical schools were placed under the sole control of the Surgeon-General. Among the principal improvements in the Medical College may be mentioned the construction of new physiological and hygienic laboratories. The construction of a new pathological block has also been approved by Government. The strength of the staff in the Medical schools has been increased by the appointment of additional instructors in all the schools. With a view to

afford relief to the Chemical Examiner, a lecturer on physics has been appointed in the Medical College. Proposals for the further improvement of the Medical College were called for, but these had not been received when Sir Arthur Lawley laid down his office.

58. Lending libraries of medical books have, with the aid of liberal contributions sanctioned by Government, been established at the head-quarters of each district and these are reported to work satisfactorily. With a view of bringing the treatment of snake-bite by means of Sir Lauder Brunton's lancets into more general use, Government sanctioned the purchase, at a cost of Rs. 3,000, of 12,000 lancets and ordered their free distribution among Government servants and others. The work of the St. John's Ambulance association in the Presidency has also been encouraged by means of grants-in-aid.

59. The three Lunatic Asylums in the Presidency at Madras, Vizagapatam and Calicut have been improved at a cost of over 1½ lakhs of rupees during Sir Arthur Lawley's term of office. In the Lunatic Asylum at Madras, a recreation hall, a hospital for females and a block of 16 single rooms have been added. Improvements to the drainage of the Asylum are also to be shortly carried out at a cost of Rs. 50,000. To provide for the future extension of the Asylum, 39·14 acres of adjoining land have been acquired. A more liberal scale of diet was sanctioned for the Asylum at Vizagapatam in 1907.

60. The Government of Sir Arthur Lawley considered the advisability of extending the provisions of the Indian Lepers Act to this Presidency and came to the conclusion that, if it were so extended, it would be wise to make a beginning with the City of Madras. This matter was still under discussion at the close of Sir Arthur Lawley's Governorship. Two Leper Asylums—one at Madras and the other at Palliport near British Cochin—are maintained by Government. There are also some private asylums maintained by missionary bodies and, in view of the relief afforded to the poor class of sufferers at these institutions, Sir Arthur Lawley's Government sanctioned the payment of annual grants towards the maintenance of the institutions. In the case of some of them, liberal building grants were also

sanctioned. The treatment of leprosy by the Nastin method is being tried in the Leper Asylums at Madras and Palliport.

61. The Missionary Conference which met at Kodai-kānal in May 1910, drew attention to the increasing number of cases of tuberculosis especially among pupils attending schools in the Presidency and suggested that remedial measures should be taken to combat the disease. Shortly afterwards the Government of India in their letter No. 575, dated 1st June 1910, drew attention to the same subject and suggested for the consideration of this Government the establishment of sanatoria for the treatment of phthisis in the early stages of the disease. The subject was brought to the notice of the Honorary Secretaries of the Edward VII Memorial Fund and at a general meeting of the subscribers it was decided that the proceeds of the fund should be devoted towards the establishment of a hospital for consumptives with one or more sanatoria. Sir Arthur Lawley's Government promised to supplement the fund by a contribution from Provincial funds equal to the subscriptions raised. Proposals have been made to Government for the establishment of a hospital near Guindy or Pallāvaram and of a sanatorium at or near Coimbatore and the construction of these buildings will be commenced shortly. The South India Missionary Association proposes to establish a sanatorium at Madanapalle and the Government have promised to contribute a building grant equal to half the capital cost of construction subject to a maximum of Rs. 30,000 and an annual grant equal to half the cost of maintenance subject to a maximum of Rs. 10,000 per annum.

10. POLICE.

62. During His Excellency Sir Arthur Lawley's administration none of the departments of Government have undergone such radical administrative changes as

the Police department. The Police Commission submitted its report in May 1903, but the final orders of the Government of India were issued only in March 1905 and when His Excellency took his seat in March 1906, only the first steps towards reform had been taken.

63. At the time of the Commissioners' report, the Madras Police Organization formerly differed from that of the rest of India in two important features : the first was the large number of police stations, and the second, the absence of the rank of sub-inspector, all police stations being in charge of head constables, who conducted the investigation of offences under the supervision of a relatively large body of Inspectors on comparatively low pay. The essence of the Police Commission's reforms was to improve the investigating agency. The Madras Government agreed that this was of the first importance and created the rank of sub-inspector. But with the substitution of an officer on Rs. 50 to Rs. 100 a month and a horse allowance of Rs. 15 for a head constable, on Rs. 14 to Rs. 25 with a small charge allowance, it became clear that, for financial reasons, the number of police stations must be reduced. This necessity was greatly regretted, for it was recognised that many people would be deprived of that very easy access to the police which they had hitherto enjoyed. How much they appreciated this convenience and the protection afforded by the presence of a police force has been shown by the representations that have been made, in practically every case, against the abolition of police stations under the reallocation scheme. On the other hand, the public will now have the benefit of a higher class of investigating agency which, it is hoped, will go far to remove the abuses that formerly existed.

64. The following is a brief summary of the more important reforms which were effected during the last five years. The pay of the constabulary was raised from Rs. 7 and Rs. 8 to Rs. 8 rising to Rs. 11 by periodic increments with local allowances in certain districts ; the rate of daily travelling allowance has been doubled ; the provision of free quarters has been pushed forward ; fines have been abolished ; and a reserve was created for the purpose of supplying the places of men

absent on leave or under training. The cadre of head constables was revised. In consequence of the creation of the new grade of Sub-Inspectors, the position of the head constable underwent complete change. He will no longer be placed in independent charge of stations, and will only be employed on general duty at police stations under Sub-Inspectors, in charge of outposts and guards, and in the reserves. The direct recruitment of head constables was stopped and constables of long and approved service were appointed to this rank.

65. The most important part of the reform scheme, so far as the Madras Presidency is concerned, is, as already mentioned, the recruitment and training of Sub-Inspectors. Provision was made for 1,384 men. In order to obtain men of the right stamp the Matriculation examination and subsequently the Secondary School Leaving Certificate was fixed as the minimum educational qualification. Efforts were also made to enlist men with higher qualifications. Most of the Sub-Inspectors will be recruited direct but selected head constables may be promoted to not more than 15 per cent. of the vacancies.

It was obviously impossible to create an entirely new establishment of this character by a stroke of the pen, but recruitment was pushed on as rapidly as was feasible and the probationers were put through a course of training at the Vellore Police School, supplemented by a period of practical training at a police station. The full complement of these officers has now been obtained. The strong personal interest with which His Excellency watched the training and career of these young men is evidenced by the following extract from His Excellency's speech at Vellore on the 16th February 1911 :—

" I wish this afternoon just to say a word or two to the Sub-Inspectors who are here now. I want you, when you leave this school, not to think that your work will begin and end within the four walls of your office. I want you, if I may use an expressive phrase which was used to me by a distinguished Indian gentleman the other day,—I want you if you can *to get into the skins of the people over whose interests you will have to watch*. It means hard work, I know, it means uncongenial work in many cases ; it means constant

difficulty and constant disappointment. But if you want to win the confidence of the people of this country—and without that confidence as I said just now your work will be in vain—you must know the people with whom you will have to deal. That is the first thing that I would impress upon you. Then I want you if you can, to do all you can, no matter what criticisms you may read or hear spoken, to encourage the reporting of crime. I have observed during the past few years that because the amount of crime reported seemed to be on the increase, it was therefore inferred that the quality of the work of the Police force was less good than it had been.

“Now, I want you, if you can, to disabuse your mind of that wholly mistaken idea. One reason why crime has not been reported so fully in the past as it is to-day is because the people of this country had not confidence in the Police; and to my thinking—I speak of course as a layman—the fact that crime is more readily reported to-day than it was some years ago is an unmistakable and satisfactory proof, that the confidence of the people of this land is growing in the members of the force. And I would ask you not to be deterred by any criticisms which you may see regarding statistics of this nature. Another thing against which I would urge strongly upon is never to forget that a high percentage of detection does not necessarily imply good police work. I would rather by far that you failed over and over in detection than that you secured one single conviction by the concoction of evidence or any other miscarriage of justice. Please let me urge this upon you with all emphasis that you can remember what I say—I would rather see the number of detections diminish and the percentage of detection grow less than think that any single conviction should be obtained by miscarriage of justice. So I say to you, my young friends, if I may call you so, for, after all, we are both workers in the great task of administration, which is the noblest task upon which man may engage—I say to you, do your work even when there is none to see how you do it. Do that work honestly and be upright and above all be just. It is upon the foundation of justice that

our rule has been a success in this country and if it is to continue to be a success this foundation must be strengthened and not weakened. As I said just now, you and I are engaged each in his own sphere upon a great work, the work of governing this country. Let the foundation of all our work be honesty and justice. With these few words I wish you all well on the career in which you are about to embark, and I confidently hope that as the years go on, you will not fail each in his turn to add in some measure to the honour and fair name of the Police force to which it should be your pride to belong.”

66. The old European head constable was replaced by a better-paid class of Sergeants. The number of Inspectors was reduced, but their scale of pay was improved. These officers are now generally relieved of direct responsibility for the investigation of crime and their duties are mainly confined to inspection and supervision.

67. The higher grades of the service were also reorganized, the strength being increased and the pay raised. But the most important feature of the reform of the higher ranks was the creation of a superior Provincial police service of Deputy Superintendents, the recruitment being partly from the ranks of Inspectors, partly from other branches of the public service, and partly by direct appointment of young graduates. Out of the sanctioned strength of 40 officers, 33 were appointed up to the year 1911, and one of the last acts of Sir Arthur Lawley's Government was to direct the appointment of five more men, three by direct recruitment and two by promotion of select Inspectors.

68. It had long been recognized that the strength of the armed reserves was insufficient for the duties imposed on them and it was often impossible to get together even quite a small body of armed police on an emergency. Sir Arthur Lawley's Government accordingly fixed the force for each district at a strength which would admit of the maintenance of an “emergency force” ready at a moment's notice to deal with local disturbances or any other emergency. The armed reserves are now mobilized annually and are for the most part kept in an efficient state.

69. The City Police was also reconstituted. Under the old organization the Commissioner of Police was independent of the Inspector-General and a complete separation existed between the City and District Police. This arrangement did not conduce to systematic co-operation and was condemned by the Police Commission in accordance with whose recommendations the Commissioner of Police was placed under the general control of the Inspector-General of Police and graded as a Deputy Inspector-General. The Chief Superintendent's and four other Superintendents' appointments under the old scale were abolished. The city was divided into two divisions each under the charge of a Deputy Commissioner of the rank of a Superintendent of Police. An officer of the rank of Deputy Superintendent was appointed as Assistant to the Commissioner and the Intelligence Branch of the City Police was placed in his charge. The number of Sub-Inspectors was doubled, each station having two officers, a European and an Indian, the senior being the officer in charge. The European head constables were graded as Sergeants, and the pay of the constables was increased.

70. The Railway Police were divided into two Superintendents' charges corresponding in the first instance to the two Railway gauges, but Sir Arthur Lawley's Government has recently altered each charge to correspond to the two Railway administrations. The whole force was placed under the control of the Deputy Inspector-General of Police, Criminal Investigation Department and Railways. A system of interchanging constables between the Railway police and the District police with a view to enable the former to gain a thorough knowledge of the bad characters of the district was lately introduced.

71. The Criminal Investigation Department was constituted to deal with crime of a specialized character and criminal organizations of more than local importance. The finger-print bureau was attached to the Criminal Investigation department.

72. Well organized training schools are to take the place of the old inefficient district schools. Two such schools were formed at Vellore and Vizianagram and the buildings for a third school at Coimbatore were nearly

completed before Sir Arthur Lawley vacated office, while those for a fourth school at Anantapur were about to be commenced. The training for Sub-Inspectors and probationary officers of higher rank is provided for in a Provincial Training school at Vellore.

73. The only reform which is still incomplete at the end of Sir Arthur Lawley's Governorship is the redistribution of police stations. This was necessarily delayed by the need for new buildings and the want of trained Sub-Inspectors, but it was carried out completely in five and partially in twenty districts and the work was being pushed on vigorously.

74. The effect of these reforms was to raise the annual cost of the department from Rs. 46,00,280 in 1905 to Rs. 80,08,771 in 1910. The charge is heavy but it is hoped that experience will prove that the money has been well spent. An improved stamp of investigating officer has undoubtedly been obtained—men of better education and of higher moral standard. The majority of them are lacking in experience but that is a fault which will soon be removed.

75. The attention of the Government was also directed to the working of the Village Police, which forms a very useful link between the people and the regular police. Owing to the abolition of the old system of village beat duty by the police on the recommendation of the Police Commission and the larger area attached to each police station under the reallocation scheme, the responsibilities of village officers have been increased and the attention of the police and the magistracy was repeatedly drawn to the importance of securing, by considerate treatment, the co-operation of village officers in the prompt reporting of crime. Any real improvement in the efficiency of the village police must necessarily be of slow growth but it is satisfactory to note that the work of these officers is reported to have generally improved.

76. The ghat talayaris employed for the prevention of dacoity on lonely roads over mountain passes, who were formerly under the Revenue department, were placed under the control of the Police Department, their designation being altered to "police talaiyaris" and they are reported to be doing good work. Steps were taken to

improve their position and efficiency by grants of small plots of ground, by allowing them the use of guns, and by the grant of rewards.

77. The necessity for freely granting rewards to the Subordinate Police was repeatedly impressed on Superintendents and District Magistrates. In the case of Sub-Inspectors and higher officers the principle of rewarding good work by advancement in the service in preference to pecuniary rewards was recognized and followed. It was at the same time distinctly laid down that the work of a police officer should not be judged by the success or failure of prosecutions nor by the percentage of cases detected but by the promptness of action, resource, and detective ability displayed by the officer. His Excellency's views on the subject are summarised in his own advice to the Sub-Inspectors at Vellore reproduced above.

78. The King's Police Medal instituted in 1909 was awarded to eight members of the force on the recommendation of His Excellency in Council. The object and value of this decoration as a reward for conspicuous service was thus described by His Excellency at Vellore when personally conferring the medals on certain recipients :—

“What I would specially urge on those recipients is never to forget that this is the King's medal, that it is a mark of Royal favour, a token of our King-Emperor's confidence and trust in their loyalty, their courage and sense of duty. And I am confident that they will be always worthy of the high honour which has just been conferred on them, and that, to use the words of the Royal warrant, they will preserve pure this honourable decoration.”

79. New forms for the registration and reporting of crime as well as for ledgering it were introduced and the application of the statistical tests to police work was explicitly forbidden. There was a slight increase in the number of cases reported and a rather marked decline in the percentage of detection. There is no doubt that the old class of head constables whose position has been lowered by the reorganization and who are no longer responsible for the investigation of crime are reluctant to help and in fact often mislead and obstruct the young

and inexperienced Sub-Inspectors. This was at an early date recognised as an almost inevitable concomitant of the reforms introduced into the department.

80. A system of interchanging constables between frontier stations of adjoining districts was introduced as an experiment in order that the police of each district might gain a knowledge of bad characters in adjoining districts. The experiment proved a success and steps were taken to extend it to all districts. With a view to ensuring co-operation between the Police forces of this Presidency and adjoining provinces and states periodical conferences of Police officers were also arranged. Considerable attention was paid to the watching of both wandering and permanent criminal gangs and the Criminal Investigation department did much useful work in this direction. Efforts were made in a few districts not without success, especially in the Ceded districts to induce criminal gangs to settle down as cultivators. Sir Arthur Lawley's Government have also been recently approached by the Salvation Army with proposals for the establishment of industrial settlements for ex-convicts and criminal gangs. The employment of patrols in plain clothes was also tried in certain localities. A special party was organized in the Madura district for the investigation and suppression of cattle theft and in this district as also in the Agency tracts of Ganjam, a system of branding the animals with a view to facilitate their identification in case of theft was introduced as an experiment. Operations for the control of criminal tribes have also been stimulated and systematized by the introduction of the Criminal Tribes Act of 1911.

81. The public peace was generally well maintained. The police arrangements during festivals and other occasions were satisfactory. The arrangements during the Mahamakham festival at Kumbakonam in 1909 and in connection with the Drivers' strike on the Madras and Southern Mahratta Railway in the same year deserve special mention. There was a rather serious riot at Villupuram in the South Arcot district in 1907 and two others occurred at Nambuthalai in the Madura district and Pamidi in the Anantapur district; all these were successfully dealt with by the Police. A serious

riot took place in the Guntūr district early in 1909 in connection with the Sivarathri festival at Kottapakonda and on this occasion the conduct of the Police was unfortunately anything but satisfactory. Several Police officers including the Superintendent were severely wounded by the rioters. In February 1910 a somewhat serious rebellion broke out in the Baster State of the Central Provinces and the prompt and vigorous help afforded by the Madras Police in successfully quelling the disturbance earned for them the encomiums of Sir Arthur Lawley's Government and the thanks of the Central Provinces Administration.

82. His Excellency's personal interest in the working of the department is shown by the following extract from his speech on the occasion of the presentation of the King's Police medals to certain members of the Police force on the 16th February 1911 at the Provincial Police Training school, Vellore:—

“Now, if I may, I would like to say a few brief words to the members of the Madras Police, not only those who are here to-day, but if possible I would also address myself to every member of the corps throughout the Presidency. You must forgive me if I detain you for a moment to touch on a purely personal matter. During the past five years that I have had the honour of being your Governor, I have travelled, often more than once, through every district in the Presidency. I have gone throughout the length and breadth of the land, at all times of the day and night and at all seasons of the year, sometimes by rail, sometimes by motor-car and sometimes by carriage, and wherever I have been the path has been made smooth and easy for me owing to the forethought, the patience and the care of the members of the Police force. I may seem, as I go by, to be heedless of them, and I would ask them, one and all, to believe that I am not unmindful of all that they have done for me; but, on the contrary, I appreciate very highly and I am deeply grateful for all the services which they have rendered to me personally and I am sincerely glad to have had this opportunity of expressing my feelings on the matter. And then I would like to say a word, only a brief word regarding the Police work in this country;

and in so doing I would address myself particularly to those younger members of the force who are embarking upon their career. What, I would ask you, is the object of the Police and what is demanded of them? In the first place, we demand of them efficiency; and by that of course I mean that every member of the force must be physically adapted for the work he has to do, that he must be trained, drilled and equipped, that he must be efficiently educated for the class of work which will fall to his share, that there must be organization in the corps and that there must be effective good supervision.

“We demand that crime should be well reported; and we demand that it should be well detected. Now all this may be achieved; but yet it will all be utterly of no avail unless the force manages to obtain and to keep the confidence of the people of the country. You may have as efficient and as capable a body of men as you please; but unless they make themselves familiar with the life of the people and unless, above all, they maintain a high standard of honesty and integrity—unless they achieve these things, their work will be in vain. So long as any Police force is an engine of corruption and oppression so long will it be an element of evil and not of good in the body politic. Now, what are the traditions of the Police force in India? I venture to quote what is said in the report of the Police Commission held some years back and the report deliberately set out the following words:—

“‘The Police Force is generally regarded as corrupt and oppressive.’

“That is a very grave charge to be brought against the Force, and I am glad to say that since those words were written—and that is nearly ten years ago—there has been—I can only of course answer for Southern India—a vast improvement. I believe I am justified in saying that during the past twenty-five years the quality of work done by the Police Force in this country has enormously improved, and that gives me an opportunity of testifying, if I may, to my recognition of the admirable services, which have been rendered by the officers of the Force, from the Inspector-General downwards, through the years which I have had the opportunity of judging of

this work. I believe that the Force is now far better than when that Commission published its report nearly ten years ago. I have every reason to believe that it is the earnest desire of every member of the Force to raise still higher the standard of honesty, honour and integrity and to add lustre to the fair name of the Force to which they belong."

II. POLITICAL DEPARTMENT.

83. The Political department is one of the departments directly under the charge of the Governor, and perhaps receives more of His Excellency's special personal attention than any other.

NATIVE STATES.

84. Of the five Native States over which His Excellency Sir Arthur Lawley, as Governor of Madras, had to exercise political control, the most important are Travancore and Cochin. The average annual revenue of the former is about 1 crore and 21 lakhs of rupees and that of Cochin about 40 lakhs. The next in order of importance is Pudukkōttai with an annual revenue of about 12 lakhs. The rulers of these three States are entitled to ordinary salutes of 19, 17 and 11 guns respectively, while a personal salute of two extra guns has been conferred, as a mark of distinction, upon the present Maharaja of Travancore and the Raja of Cochin. The remaining States, namely, Banganapalle and Sandūr, are small jagirs, the rulers of which are not entitled to salutes.

The administration of all these States has reached a comparatively advanced stage, and is for the most part modelled upon the methods of the British Government.

85. *Travancore and Cochin—General.*—There have been no changes of rulers in the States of Travancore and Cochin during Sir Arthur Lawley's tenure of administration. The present Maharaja of Travancore ascended the musnad in 1885, and the Raja of Cochin in 1895. Besides an official visit which His Excellency paid to

Travancore and Cochin early in 1907, he paid also a private visit to Cochin in October 1908 when he inspected the Forest Tramway of the State in the Company of His Highness the Raja.

86. *Disputes between Travancore and Cochin.*—By a curious arrangement each of these States possesses certain rights over some of the temples situated in the other's territory and many points of difference were settled in 1882 by an arbitrator appointed by Government with the consent of both the Darbars. During Sir Arthur Lawley's régime the Madras Government had to decide disputes between the two Darbars in respect of two temples known as the Perumanam and the Koodal-Manikkam temples, both situated in Cochin territory. In 1907 some differences arose between Travancore and Cochin in regard to the right claimed by the former for the supervision of the midday service in the Perumanam temple. The Government adjudicated the dispute and both the Darbars accepted the decision.

About the same time the Cochin Darbar disputed the right of a temple dignitary known as the Tachudaya Kaimal of Koodal-Manikkam devaswom to sue for rents due to the devaswom. The temple and a large portion of its properties are in the Cochin State, while the right of nomination of the Tachudaya Kaimal rests with the Travancore Maharaja. The Government gave a decision in this case also. The decisions in both cases rested on treaty obligations the interpretation of which rests with the Government.

87. *Popular Assembly of Travancore.*—With a view to afford the people an opportunity of expressing direct to the Darbar their wants and wishes and to enable the Darbar to learn at first hand how its measures affect the people, His Highness the Maharaja of Travancore constituted in 1904 a representative assembly under the designation of Sri Mūlam Popular Assembly. The rules regarding the constitution and conduct of the assembly were revised in 1910, and the Darbar, while reducing the number of members from 100 to 70, made special provision for the representation of planters, janmis and the mercantile classes. The Travancore State has also a Legislative Council established in 1888 which deals

with legislation except in matters affecting the relations between the State and the Paramount Power and subject to the concurrent right of the Maharaja to legislate of his own accord by proclamation on any matters without the intervention of the Council.

88. *Riot in Trivandrum.*—A riot of some magnitude occurred at Trivandrum, the capital of Travancore, in 1908 and 62 persons were prosecuted. All the accused were however acquitted by the High Court of Travancore who passed strictures on the conduct of the Police in connection with the case.

89. *Travancore Nayar Brigade.*—There is a brigade about 1,500 strong in Travancore commanded by British Military officers lent to the State for the purpose. In 1910 the men of the 1st Battalion of this brigade showed signs of insubordination and four sepoys who were the ringleaders were court-martialled and convicted.

90. *Diwans of Travancore and Cochin.*—Sir Arthur Lawley's Government were able to assist the Travancore and Cochin Darbars by lending the services of officials for the important post of Diwan. During the greater part of His Excellency's Governorship Diwan Bahadur P. Rajagopala Chariyar, C.I.E., has been the Diwan of Travancore, and Mr. A. R. Banerji, I.C.S., Diwan of Cochin. These gentlemen continue to hold their respective offices.

91. *Pudukkōttai—The Raja.*—The present Raja was entrusted with full powers of administration in 1899. He paid his first visit to Europe in 1898 and has since been a frequent visitor to that continent. In March 1908 the Raja went to Europe and on his return to India about the end of the year represented to Government that owing to ill-health he was not likely to reside in the State except for portions of a year during the next few years and proposed certain arrangements for carrying on the administration of the State during his absence. The Government of Madras finally decided that the administration should be placed in the hands of a council consisting of a Superintendent who was to be an officer of the Indian Civil Service lent by Government, the Diwan and the Chief Judge of the State. This arrangement still continues.

92. *Jagirs in Pudukkōttai.*—There were two important jagirs in the Pudukkōttai State known as the Western Palace jagir and the Chinna Aramanai jagir. These were assignments made by former rulers for the benefit of the junior branches of the family. The Western Palace jagir was resumed by the Darbar in 1881 owing to the indebtedness of the jagirdar and pensions were settled upon his family. The Chinna Aramanai jagir continued till 1904, when the jagirdar died and His Highness the Raja, with the approval of the Madras Government, resumed it and settled pensions upon the members of his family.

M.R.Ry. Balasubramania Raghunatha Ramachandra Tondiman Sahib, the eldest son of the late Chinna Aramanai Jagirdar, protested unsuccessfully against the resumption in a petition submitted to the Madras Government in 1908 and again in a memorial to the Secretary of State in 1910. He also recently petitioned Government regarding his claims against the Pudukkōttai Darbar in respect of certain private properties alleged to have been left by his father at the time of his death. The matter is under the consideration of Government. This member of the Raja's family was appointed an Honorary Assistant Collector in 1910.

Besides the two jagirs mentioned above there was a small jagir apparently sliced out of the State by former Rajas for the benefit of the Ranis. In 1899 the present Raja was allowed to enjoy the annual income from this jagir and from the accumulated surplus of the jagir fund an amount was set apart for his marriage expenses, His Highness enjoying the interest accruing from this fund until his marriage. Early in 1911, the Government of Sir Arthur Lawley approved of the Darbar's proposal to amalgamate the jagir with the State lands and to pay a sum of Rs. 18,000 per annum to the Raja until his marriage and to the Rani or Ranis after that event. The Pudukkōttai State has thus resumed all the jagirs.

93. *Pudukkōttai Representative Assembly.*—The Pudukkōttai Representative Assembly consisting of 18 elected and 12 nominated members, which was constituted in 1902, continued its useful work throughout Sir Arthur Lawley's Governorship.

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94. *Banganapalle*.—Nawab Saiyid Fateh Ali Khan, Bahadur, C.S.I., was the Nawab of Banganapalle from 1869 to 1905. In the beginning of 1905 the Government of Lord Ampthill found themselves reluctantly compelled, with the approval of the Government of India, to remove the Nawab temporarily from the administration of the jagir. The care of the State was entrusted to the Political Agent for Banganapalle and an officer of the Indian Civil Service was deputed as Assistant Political Agent to reside at Banganapalle and carry out the direct duties of the administration under the control of the Political Agent and the Government. Nawab Saiyid Fateh Ali Khan, Bahadur, died in April 1905 and his eldest son Saiyid Ghulam Ali Khan, Bahadur, was declared successor to the vacant gadi. The grant of a sanad to the new Nawab was, however, deferred and the administration continued to be conducted under the orders of the Government, steps being meanwhile taken to train the young Nawab for the administration of the jagir which was eventually to devolve upon him. Nawab Saiyid Ghulam Ali Khan, Bahadur, continued under tuition until December 1908 and during this period he acquired some aptitude in administration under the guidance of the Assistant Political Agent, Mr. J. C. Molony, I.C.S. At the end of 1908, Sir Arthur Lawley visited Banganapalle for the purpose of performing the function of restoring the jagir formally to the successor of Fateh Ali Khan. A darbar was held at Banganapalle on the 19th December, at which His Excellency, after delivering a most impressive speech, placed the Nawab on the gadi, and presented him with a sanad of his succession to the jagir and with a khilat consisting of a sword and cloths. Nawab Ghulam Ali Khan, Bahadur, has, since his installation, conducted the affairs of the State with discretion and has fully justified the confidence placed in him by Sir Arthur Lawley's Government.

95. *Sandūr*.—The smallest Native State under the Government of Madras is Sandūr. The present chief, who is a minor, receives his education at Newington together with the sons of leading zamindars and others who are under the guardianship of the Madras Court of Wards. During the minority of the Raja the

administration of the State is carried on by the Diwan subject to the control of the Political Agent. Nothing of importance occurred in connection with this State during Sir Arthur Lawley's time except the grant of a mining lease for manganese to the General Sandūr Mining Company, Limited, which has added materially to the revenues of the State.

96. *Political pensions*.—The political pensions which Sir Arthur Lawley had to deal with related to the Carnatic, Kurnool, Tanjore, Mysore (Hyder Ali and Tippu's families), Masulipatam, Golconda, Goomsur and Pal-konda families. There is nothing very important to be said with reference to the administration of these pensions, except that the separate appointment of a Paymaster on Rs. 250 per mensem for the Carnatic stipends was abolished with effect from the 1st April 1911 and the duties of the office are now discharged by the Collector of Madras. The chief pensioner in the Presidency is the PRINCE OF ARCOT. Sir Ghulam Muhammad Ali Khan, Bahadur, the fifth and present Prince of Arcot, succeeded to the title in 1903 on the death of his father, Sir Muhammad Munawar Khan at Delhi. He was a Member of the Madras Legislative Council from 1904 to 1906 and was created a K.C.I.E. in January 1909. He is at present a Member of the Imperial Legislative Council. The Prince is regarded as the chief representative of the Muhammadan community in the Presidency and is in receipt of pensions aggregating over Rs. 6,000 per mensem. In 1909, Sir Arthur Lawley's Government sanctioned the grant to the Prince of a loan of Rs. 15,000 without interest and repayable in easy instalments and a free gift of a like sum towards his marriage expenses. The residence (the Amir Mahal) provided for him by Government was improved in 1910 at a cost of about Rs. 30,000.

MISCELLANEOUS.

97. An event of some interest and importance which occurred during the administration of Sir Arthur Lawley was the cession to the British Government of the Laccadive Islands and Minicoy, a group of islands

about 7 square miles in extent and situated off the Malabar Coast. They formerly belonged to the head of the house of Cannanore known as the Adi Raja, but were sequestered by Government in 1875 for mismanagement and arrears of peshkash (revenue). The Collector of Malabar administered the islands after their sequestration subject to the control of the Board of Revenue and the Government. Negotiations continued for some time for the cession of the islands to the British, but the Cannanore Chiefs were not willing to accept the proposals made by Government. Finally, in 1905, Muhammad Adi Raja, who was the head of the Cannanore family of the time, agreed to cede the islands on condition of receiving an income of Rs. 23,000 per annum from the 1st July 1905. Muhammad Adi Raja died, however, before the deed of cession was actually executed, and his successor, Adi Raja Imbichi Bibi, agreed to abide by her predecessor's decision and executed the deed on the 15th November 1908. Besides granting a pension to the Cannanore family the Government remitted all arrears of peshkash due to Government on the date of execution and also allowed the family to hold certain lands on the mainland free from any payment of land revenue. The title of Sultan was also conferred upon the head of the family as an hereditary distinction.

12. POLITICAL MOVEMENTS.

98. His Excellency Sir Arthur Lawley assumed the administration of this Presidency at a time when political agitation was spreading through the entire country, and although, fortunately, the movement did not reach such proportions in Madras as elsewhere, the whole period of his Governorship has been marked by manifestations of unrest, exhibiting itself first in campaigns of seditious oratory, resulting, in some places, in riots of a more or less serious character, then in mischievous and inflammatory writings, whose influence was perhaps more subtle and widespread, and finally in the recent unhappy

outrage in Tinnevely—the murder, at Maniyachi station, on the 17th June 1911, of Mr. R. W. D'E. Ashe, Collector and District Magistrate.

99. Although there had been some public advocacy of "nationalist" views in Tinnevely in the latter half of 1906 and the early part of 1907 the campaign did not assume serious proportions until the arrival from Bengal of Babu Bepin Chandra Pal, in April of the latter year, gave a new impulse and direction to the nationalist party in Madras.

On his way from Calcutta to Madras he visited several towns in the Northern Circars where he delivered political lectures. His most important contribution to the cause of disaffection consisted of an exposition of the doctrines of "swaraj" or self-government which, according to him, was to be obtained by means of "swadeshi" and boycott, national education and the organization of the forces and resources of the people. Similar lectures were delivered in Madras City, in which G. Subramanya Aiyar and other agitators took an active part. These speeches were followed in this Presidency by an outburst of disloyal utterances in the press and of tirades against the Government delivered by disaffected lecturers in numerous towns and villages. In the Gōdāvari district Bepin Babu was received with much enthusiasm, especially by the students of the Rajahmundry College, who flocked to his meetings and on the day of his departure broke into open revolt against the college authorities and seceded from the institution to the number of nearly two hundred. About the same time several instances occurred in the Gōdāvari district of Europeans being jeered at and even assaulted. In Cocanada, the head-quarters of the district, the District Magistrate was greeted with shouts of "Bande Mataram" when he rode through the streets. These outbursts culminated on the 31st May 1907 in an attack on the European club at Cocanada by a large mob, which caused considerable damage to property. The proximate or ostensible cause of the outbreak was an assault committed a few hours before by the District Medical Officer on a boy who had shouted "Bande Mataram" at him and had otherwise insulted him. Order was

restored by the District Magistrate who proceeded promptly to the spot with all the police available. Fifty persons were prosecuted for participation in the riot, of whom 13 were convicted finally. An additional police force consisting of 83 men of all ranks was quartered in the town for six months.

100. In Madras city the visit of Babu Bepin Chandra Pal was followed by considerable activity in the spread of the new doctrines by several disaffected persons. Daily meetings were convoked on the South Sea Beach and the Moore Market to spread his doctrines. At first the number of those attending these meetings was insignificant, but the attendance rapidly increased to several hundreds of people, frequently ending in a procession to some public place in the course of which Europeans met with on the road were openly hooted at and hustled.

101. In July 1907, G. Subramanya Aiyar made a second lecturing tour in the Tinnevely district, and Chidambaram Pillai, on his return from Madras which he had visited partly for the purpose of collecting funds, resumed his campaign of political harangues in the same district.

In 1908, he was joined by B. Subramanya Aiyar, better known as Subramanya Siva, a native of the Madura district, and the two began a systematic course of public speaking, the avowed object of which was the attainment of "swaraj" by means of "swadeshi" enterprise and "swadeshi" volunteers. As a direct result of these speeches strikes broke out among the mill operatives in Tuticorin, and the attitude of the people towards Europeans generally and against those classes who were well disposed towards the Government became threatening. The local authorities, realizing the danger of the situation, instituted proceedings under the security sections of the Code of Criminal Procedure against the principal leaders of the seditious movement, Chidambaram Pillai and Subramanya Siva, and this led to serious disturbances of the public peace at Tuticorin and Tinnevely. In Tinnevely the mob invaded the C.M.S. College and the Munsif's Court, burnt the Municipal office, a police station and part of the post office and destroyed some

furniture in the hospital. The District Magistrate and the Superintendent of Police with all the police available were quickly on the scene, but the attitude of the mob was so threatening that the police were twice compelled to fire, killing four persons. At Tuticorin the Divisional Officer and the police were assaulted by the mob who did not disperse until fire was opened and several persons were wounded. The leading agitators (Chidambaram Pillai and Subramanya Siva) were prosecuted for offences under sections 124-A, 153-A and 505 of the Indian Penal Code and convicted and sentenced to imprisonment. A force of punitive police was quartered in the principal centres of agitation for six months.

102. The year 1909 was marked by the appearance for the first time in this Presidency of the anarchist's bomb. About a mile from Tenali in the Guntūr district, an infernal machine buried in the public path exploded and killed an unfortunate cooly who trod upon it. In connexion with this outrage three persons were arrested and tried on charges of murder and offences under the Explosive Substances Act. Two of them were acquitted but the third was convicted and sentenced to transportation for ten years for the less serious offence, the High Court setting aside the conviction on the count of murder.

103. The measures by which Sir Arthur Lawley's Government endeavoured to suppress the seditious movement in the Presidency consisted of applying the ordinary criminal law against overt acts of violence and disorder resulting from agitation, rather than by a repression of all utterances which might indicate discontent. The latter course might have confounded legitimate aspirations and a genuine seeking after a wider political life with positive incitements to disaffection and hatred towards all constituted Government. They judged it wiser to allow genuine grievances to find full utterance, in order that the real divergence of aim between such utterances and those of downright anarchism might be the more clearly manifested.

104. But freedom of speech had by this time shown such a tendency to develop into license and disorderly conduct that Sir Arthur Lawley's Government found

themselves compelled in 1908 to undertake a number of prosecutions for inflammatory writing and speaking. Proceedings were taken against the following nine persons :—

(1) Eithiraj Surendranath Arya, a member of the managing committee of the "Chennai Jana Sangam," an organization of the extremist party in Madras.

(2) G. Subramanya Aiyar, editor of the *Swadesa Mitran*.

(3) G. Harisarvothama Rao, proprietor of the *Swaraj* newspaper, Bezwada.

(4) B. Narayana Rao, editor of the *Swaraj* newspaper, Bezwada.

(5) P. Lakshminarayana, treasurer of the *Swaraj* newspaper.

(6) M. Srinivasa Aiyangar, editor of *India*.

(7) A. Krishnaswami Sarma, a "swadeshi" lecturer.

(8) L. Basavayya, manager of the "Swadeshi" stores, Bapatla, Kistna district.

(9) M. P. Tirumala Chari, proprietor of *India*.

105. The measures adopted by the Government of Sir Arthur Lawley for the suppression of the sedition drove a small band of extremists to take refuge in Pondicherry whence they have attempted to disseminate seditious literature throughout the Presidency. Steps were taken by Sir Arthur Lawley's Government to check this new form of mischievous activity, and the following newspapers and other publications which were issued from Pondicherry were proscribed under the Press Act :—

The *India*.

The *Suryodayam*.

The *Vijaya*.

"Kanavu," a pamphlet by Subramanya Bharati.

"Arilurupangu," a pamphlet by Subramanya Bharati.

106. The determination thus evinced to protect the credulity of the masses from the influence of an irresponsible but malicious group of malcontents, combined with the salutary restrictions imposed by the Press Act of 1910, had the effect of winning the more moderate agitators to the side of order and constitutional progress,

while the irreconcilable residuum of extremists were stripped of the disguise of pseudopatriotism behind which they had hitherto sheltered themselves, and, deprived of the support of misled moderates, were driven to carry on their work in a more secret and consequently a more restricted manner.

107. The close of Sir Arthur Lawley's administration thus finds the political atmosphere on the whole clearer, criticism of the measures of Government has become more reasonable and discriminating, while the forces of order and settled government are able to array themselves more definitely and single-mindedly against the extremist section, who are forced to employ the weapons of secret association and conspiracy to give effect to their nefarious projects.

13. REGISTRATION DEPARTMENT.

108. The operations of the Registration department advanced steadily throughout the period of Sir Arthur Lawley's administration and to cope with the growing work 40 new offices were opened. There is now one office for about every 290 square miles. An important reform was effected by Sir Arthur Lawley's Government in the amalgamation of sub-registry offices at headquarters with the office of the District Registrar, and thus setting free the latter to inspect subordinate offices more thoroughly than was formerly possible.

This measure has also enabled some economy to be effected in the direction of amalgamation of districts under a single Registrar. This is about to be carried out in the districts of Nellore and Guntūr, and Kurnool and Cuddapah, and in the Nilgiris and Coimbatore and Vizagapatam and Gōdāvari. The financial savings amount to Rs. 8,820 per annum.

109. Sir Arthur Lawley's Government created the appointment of Inspector of Registration offices in order to assist the Inspector-General in his greatly increased labours of supervision and inspection.

110. Other measures undertaken since 1906 for the improvement of the department were the regrading of

Sub-Registrars, so as to raise the number in the first three grades from 81 to 150, thus improving the prospects of the service, and the reorganization of the clerical staff in District Registrar's office at a cost of Rs. 24,960 per annum and in sub-registry offices at an extra cost of Rs. 70,000 per annum. The latter scheme, however, still awaits the sanction of higher authorities.

111. During the period of Sir Arthur Lawley's administration, very decided improvements have been effected in the methods of, and facilities for, registration and in the maintenance of registration records. The following may be mentioned:—

The revision of the Registration Manual; the precautions against fraudulent corrections and interpolation by the injunction to show all such in a foot-note to each page; the better provision for ensuring the accuracy of indexes of documents registered and the revision of the table of registration fees including in particular the lowering of fees for the registration of documents of small value. The establishment of Central Record offices to provide for the centralized custody of all documents more than fifteen years old was proposed, but the scheme when elaborated proved so expensive in the cost of construction of buildings that it has been decided, on reconsideration, to establish such Central offices only for groups of districts, amalgamated on the basis of a common vernacular, or in a single locality, viz., the Presidency town.

14. ROYAL PROCLAMATION OF 1858. CELEBRATION OF THE FIFTIETH ANNIVERSARY OF THE—

112. The fiftieth anniversary of the assumption of the Government of India by the Crown in 1858 was celebrated in this Presidency on the 2nd November 1908. All public offices were closed on that day. The King's message to the peoples and princes of India on the occasion was published in English and in all the vernaculars and copies of it were freely distributed. Government servants were permitted to take part in the loyal

celebrations and movements to which the occasion gave rise. In the Presidency town, the anniversary was celebrated by the offering of prayers in temples and mosques. About 12,000 poor people of all castes were fed on the occasion. His Excellency Sir Arthur Lawley was present at the feeding of the poor, and in the afternoon received an address at the Banqueting Hall from the citizens of Madras. Universal demonstrations of loyalty were made in all parts of the Madras Presidency, and innumerable messages were received by Government for transmission to His Majesty the King-Emperor, who was also graciously pleased to accept an address enclosed in a casket from the public of South India. As a mark of royal favour in commemoration of the jubilee, a bonus of one week's pay was granted to all permanent Government servants in India including the Police, State Railway employees and menials, whose pay did not exceed Rs. 50 a month.

SECTION II.—REVENUE.

15. AGRICULTURE.

113. The announcement made by the Government of India in the Financial Statement for 1905-1906 that a sum of 20 lakhs had been set apart for annual expenditure in India on the improvement of agriculture, marked a new epoch in the history of the Agricultural Department in this Presidency. A complete reorganization of the department was determined on and a scheme to this end was submitted to the Government of India who agreed that a separate Director of Agriculture, working under the Board of Revenue, should be appointed, and that an Agricultural Chemist, a Mycologist, an Entomologist and either a second Superintendent of Farms or an Assistant Economic Botanist should be added to the existing expert staff composed of the Government Botanist and a Superintendent of Farms. They also made a special grant of $1\frac{1}{2}$ lakhs per annum increased to 3 lakhs in 1906 in order to meet the increased expenditure. In 1906 the Director of Agriculture was appointed and in the same year the Principal of the Agricultural College, the Agricultural Chemist and two Deputy Directors of Agriculture joined the department. A Mycologist arrived last year and an Entomologist has since been sanctioned and is expected to arrive shortly. Two Indian Assistant Directors of Agriculture and a staff of managers and assistant managers for the various agricultural stations have also been employed.

114. It was decided in 1905 that the old Agricultural College at Saidapet near Madras was altogether unfit to be the Central Institute of the reorganized department. The soil was poor and sandy; the area available did not exceed 30 acres and was shut in by public roads on one side with occupied ground beyond and by the river on the other. After careful enquiry Coimbatore was selected as the most suitable place at which to place a college and farm which should be the centre of

agricultural education and research. Since then buildings for the college and quarters for the staff have been constructed at a total cost exceeding eight lakhs. Over 450 acres of land have been purchased for the Central farm attached to the College which is situated at a distance of about 3 miles from the Coimbatore Railway station. The buildings were completed and the college was formally opened by Sir Arthur Lawley on 14th July 1909 and the first batch of trained students have this year passed out of the college. At the Central farm important experimental work has been carried on, and the college and farm together now form a worthy central institute of agricultural research.

115. The Saidapet College failed largely because it could attract none but persons seeking Government employment. With the foundation of the Coimbatore College, a new departure in policy has been made. Care is taken to admit not men whose sole object is Government employ, but members of the land-holding classes who are likely to put their training to practical use in after-life. No scholarships are given and no specific promise of employment in Government service is held out. Yet no difficulty is experienced in filling the college with a satisfactory class of students able to benefit by the teaching imparted, and the results of the annual examinations conducted by outside examiners show that this teaching is thorough and well-planned.

116. Side by side with this educational work, research work is being carried on by the experts of the department. Soils are analysed; experiments in selection of seed are conducted and manures are investigated. Thus the Agricultural Chemist has been engaged in the seeking of a proper artificial substitute for the "patimannu" or old village side earth, long the chief manure for the paddy fields in the Kistna district but now threatening to fail as the supply cannot keep pace with the increased demand arising from the spread of irrigation. Experiments have gone far to determine the chemical manures most suitable to the various soils in the delta and the ryots have begun to realise the possibilities opened up by these researches and a firm of manure manufacturers has decided to open depots in the district for the sale of

manures. The scientific knowledge of the Mycologist was unfortunately only too soon requisitioned for practical work as he had scarcely arrived in the country when he was called in to diagnose and prescribe for a most serious outbreak of palm disease in the Gōdāvari and Kistna districts. A series of careful experiments enabled him to ascertain the method by which the disease was spread and thus put him in a position to suggest means by which it might be combated. A special establishment is now at work under his instruction endeavouring to eradicate the pest.

117. Besides the direct educational work of the college and the research work of the specialists, the Government are endeavouring to improve agriculture by the establishment of agricultural stations. In each of the more important distinctive agricultural tracts a separate station is to be established. At every such farm the agriculture of the tract will receive special study. New varieties of crops and new agricultural methods will be studied and tested. Then if they are found suitable to the circumstances of the tract, they will be put before the cultivators.

118. In pursuance of this policy seven agricultural stations have been started in addition to the Central farm at Coimbatore, while two more farms—one in the Tanjore district and the other in the Vizagapatam district—will shortly be opened. The results already achieved by these farms are considerable. The sugar-cane of this Presidency was poor, its yield of sugar low and its liability to disease great. In its place, the department has successfully introduced the red Mauritius cane which is almost immune from disease and gives a yield of jaggery 50 per cent. above that obtainable from the local cane. These Mauritius canes have already been gladly accepted by the ryots in Gōdāvari, Kistna and South Arcot and are beginning to take root in Malabar. Not less important has been the improvement effected in the cottons of the Presidency especially in Tinnevely where the pure Karunganni variety has, under the advice of the department, been adopted by the ryots in the greater part of the cotton-growing area of the district. This cotton is commercially far more valuable than that which it replaced, and the improved

quality of cotton in this tract has already attracted the attention of the cotton dealing firms. Besides the search for improved varieties of crops, the department has concerned itself with the introduction of better agricultural tools and better agricultural methods. Improved ploughs, seed drills, the use of green manure and above all the method of "single planting" of paddy, have not only been shown by the department to offer great possibilities of economy in cultivation but have in many areas been accepted by the ryots. There is perhaps no department of Government whose relations with the ryots are pleasanter and easier; and the extent to which the confidence of the ryot has already been won is shown by his willingness to lend his land to the department for experiments.

16. CINCHONA.

119. In the Cinchona department the last five years have witnessed a considerable extension of manufacturing operations and a somewhat important decision in regard to future policy. The amount of quinine issued from the Government factory which only amounted to 3,344 lb. in 1891-92, 5,908 lb. in 1896-97, 11,978 lb. in 1901-02, and 17,446 lb. in 1905-06 rose during the last official year of Sir Arthur Lawley's administration to 27,686 lb. To meet this increasing demand for quinine, larger quantities of bark than could be supplied by the Government plantations were required. These were obtained for a time by purchase from the owners of private estates in Southern India but in 1906, *i.e.*, in the first year of Sir Arthur Lawley's administration, local supplies began to fail and the Government had then to solve the difficult problem of how to obtain the large quantities of bark required without appreciably increasing the cost of the quinine to the consumer. The extension of the Government plantations was the remedy which would at first sight appear appropriate but it was found that while it would be several years before the requisite quantity of bark could be obtained from such extensions, it was unlikely that the quantity of the bark would be such as to enable the Government to supply

the people with quinine at cheap rates which is what the Government of India and the Secretary of State have in view. Owing to the advantages in respect of soil and climate which the Java cinchona grower possesses, it is uncertain whether any cinchona in Southern India can successfully compete with Java bark, and certainly not cinchona grown on the Nilgiris. Accordingly Sir Arthur Lawley's Government after mature consideration recommended to the Government of India the adoption of a policy the main outline of which is to maintain the existing plantations and to improve them as far as careful seed selection and intensive cultivation allow and at the same time to purchase bark in the Amsterdam market or elsewhere as may be found most suitable and stock it at the factory, until a sufficient reserve has been accumulated to render the department secure against any combination to raise prices.

120. In 1909 it was decided, following the example of the Government of Bengal, that the packets of quinine which are entrusted to all postmasters for sale at a nominal price (3 pies each) to the public should in future contain 10 grains instead of 7 grains, the price remaining unaltered. The number of packets, each consisting of 102 powders, sold in the five years ending 1910-11 through the agency of postmasters amounted to 75,121 against 70,456 in the five years ending 1905-1906 and in view of the increased contents of each packet it is evident that a much larger quantity of quinine is thus made available to the public than was the case in preceding years.

121. Large quantities of the alkaloids known as febrifuge were being either specially manufactured from red barks at the Nedivattam factory or obtained as a by-product in the manufacture of quinine. The issues of febrifuge which in the earlier years averaged 3,500 lb. per annum amounted towards 1908-1909 to only about 1,500 lb. As the stock in hand of these alkaloids was sufficient to last for more than 25 years and as, owing to the low price of quinine, it was no longer necessary to manufacture a cheaper but inferior drug, Government decided to abandon the extraction of febrifuge until a fresh demand for it arose and to facilitate the disposal of the stock in hand by reducing its price from Rs. 10 to Rs. 5 a pound.

122. The sanction of the Secretary of State was obtained in 1910-1911 to the appointment of a manufacturing chemist for the Cinchona department in order that expert advice and assistance might be available in respect to the processes of manufacture, but it has not yet been possible to find a suitable person for the appointment.

17. CIVIL VETERINARY DEPARTMENT.

123. The history of the Civil Veterinary department during the quinquennium has been one of steady progress in all directions. A brief review of the past history of the department will show the great advance achieved during His Excellency's administration. It was only in 1900 that this Government decided to establish as an experimental measure a few veterinary dispensaries and to obtain qualified men for the charge of these dispensaries from other provinces. The attempt having proved fruitless, the Government in 1902-1903 accepted the suggestion of the Government of India to open a veterinary institute in this Presidency for training men suitable to be Veterinary subordinates. This institute, now named the Veterinary College, was opened in October 1903 but it was not till October 1905 that the college was provided with proper buildings and staff. In the meantime the proposal to start veterinary dispensaries had to be held in abeyance owing to the paucity of trained hands, and up to the beginning of 1906 there were only 6 dispensaries and 11 Veterinary Assistants in all in the Presidency. In 1905 a scheme had been drawn up for the reorganization of the Veterinary department which contemplated the eventual provision of 82 dispensaries in the Presidency and the appointment of three Deputy Superintendents, 15 Inspectors, and 132 Veterinary Assistants. This scheme received the sanction of the Secretary of State in 1907. Thus it will be seen that when His Excellency took up the reins of Government, the Veterinary College was in its infancy, very few veterinary hospitals and dispensaries were in existence and the supply of trained veterinarians was very defective.

124. The main lines on which progress has been effected in the department during the five years covered by this memorandum have consisted in the opening of veterinary hospitals and in the provision of more Veterinary Assistants, as trained men from the local college became available. There are at present 23 veterinary hospitals in the Presidency maintained by Government, local or private bodies. The selection of places at which veterinary dispensaries are to be opened depends mainly on local considerations but preference is generally given to those centres where the local bodies are willing to contribute towards their maintenance. The success which has attended the department has brought about a change in the attitude of the public towards its operations as will be seen from the readiness with which some of the local bodies have consented to maintain dispensaries of their own and the willingness in most cases with which the ryots have submitted their cattle for inoculation.

125. The Madras Veterinary College was opened in October 1903, but the first term actually commenced in January 1904. The first year of His Excellency's administration witnessed the passing out of the college of the first batch of students. Seventy-five students have up to this time come out of the college successful and of these 49 have been appointed to the department and many of the rest have taken appointments under Native States and local bodies. In 1909 the Government sanctioned the creation of a Bacteriological Laboratory for the college. Much difficulty has, from time to time, been felt in obtaining suitable candidates for the college. In order to obviate this, Government have provided a considerable number of scholarships, two being reserved for graduates. To make the department more attractive, the Veterinary Assistants, besides the pay of their respective posts, which are all pensionable, are allowed when in independent charge of dispensaries and hospitals, whether maintained by Government or by local boards and municipalities, a local allowance of Rs. 10 per mensem each and while so employed, they are also provided with free quarters or granted a house-rent allowance in lieu thereof. The Veterinary Assistants in charge of

hospitals are also permitted to take private practice. All the Assistants deputed to work at hill stations are also granted local allowances.

126. Up to 1909 there was only one Imperial officer in the department, viz., the Superintendent, and he was in charge of both the executive and educational branches of the department, but in that year a second officer was permanently posted to this Presidency and he was appointed Principal of the College, thus setting free the Superintendent for the work of supervision and control of the daily increasing work of the executive staff in the Presidency.

127. Since the reorganization of the department and the supply of trained veterinarians from the college, much important work has been accomplished, the chief item being the introduction of inoculation against rinderpest which has been successfully carried out and the opposition which the Veterinary Assistants had at first to encounter is gradually disappearing. The number of cattle inoculated against rinderpest in recent years is as shown below :—

1906-07	...	...	...	...	...	11,043
1907-08	...	...	...	...	...	28,788
1908-09	...	...	...	...	...	48,257
1909-10	...	...	...	...	...	46,952
1910-11	...	...	...	...	...	21,080

Although the statistics of cattle diseases are not very accurate, there is good reason to believe that the efforts of the Veterinary department are having effect, and that the great decrease in mortality from rinderpest during late years is to be attributed to this cause. In connection with this inoculation work the Government have recently resolved to keep a reserve stock of serum at the King Institute, Guindy, and arrangements are being made to this effect.

128. These improvements in the working of the Veterinary department have necessarily cost money. In 1905-06 the total expenditure of the department was only Rs. 65,069-4-6 which rose to Rs. 1,33,237-10-1 in 1910-1911, but the outlay will be well repaid if it succeeds in providing the agricultural interest, the chief industry of the country, with an efficient and adequate veterinary service.

18. CO-OPERATIVE MOVEMENT.

129. The Co-operative Credit Societies Act, 1904, was passed into law in March 1904 and the first Registrar of Co-operative Credit Societies in this Presidency was appointed in the following July. The movement was still in an infant stage when Sir Arthur Lawley assumed the Governorship of Madras in March 1906, there being then in existence only 27 societies with a working capital of 1·08 lakhs of rupees. In only 11 districts had any society been registered. Since then the movement has shown a very remarkable and rapid development.

130. At the end of June 1911 there were in working order 30 urban and 560 rural societies, besides one union society and 5 central societies, or a total number of 596 societies with a working capital of over 49 lakhs of rupees. In every district in the Presidency (except Anjengo) co-operative credit societies are now in existence. During the fasli year ending June 1911 the receipts of all the societies amounted to Rs. 61·74 lakhs and their disbursements to Rs. 61·40 lakhs and it is a marked feature of these transactions that, while the societies repaid to Government Rs. 4,805 borrowed by them during previous years, absolutely no advances were taken from Government during the year, the societies no longer requiring Government aid and being able to finance themselves. The increasing benefits to the agricultural community afforded by these institutions, apart from the encouragement of the habits of thrift, self-help, and punctuality amongst a large population, are illustrated by the fact that during the year 1910-1911 alone the members of the societies obtained nearly 19 lakhs of rupees in loans of which less than a lakh was borrowed for such unproductive purposes as ceremonies and litigation, the rest being required for productive purposes or to meet necessary expenditure. In some districts such as Anantapur, Chingleput and Salem the movement has attained a large measure of success and popularity. There are 122, 118 and 76 societies respectively in those districts benefiting 163, 184 and 206 villages. In his report for the year ending June 1910 the Registrar observed, "We have arrived at a stage

when our difficulties are not to induce people to form societies but to select from among the applications voluntarily presented. Over 600 applications are pending enquiry." When the Registrar was first appointed in 1904 his chief duty was to expound in the districts the advantages of the co-operative method, but so rapid has been the spread of the movement that this missionary attitude is no longer necessary and his task has now developed into the far harder one of guiding the popular enthusiasm in sound and safe channels.

131. The Registrar has for his assistance two Deputy Collectors and a considerable staff of auditing Inspectors. The audit which is conducted by these officers is one of the most important contributions which Government has made and continues to make towards the success of the movement. It is evident that the success of the movement depends largely on the care with which the accounts are kept and supervised, and the existence of a Government audit furnishes some guarantee that this is achieved.

132. The policy of Government in connection with these societies has been to allow the utmost freedom to organizers in each case to start their society on such lines as appeared to them suitable, provided that the rules framed did not contravene the Act in any essential matter. The result was that the societies formed at the beginning were by no means of a uniform type. Some were of the Raiffeisen model with unlimited liability and gratuitous service from the managing body. Some were not constituted on the basis of unlimited liability but a reserve liability was imposed on each member for the common debt so as to afford security to those who lent money to the societies. A third class of societies restricted the liability of the members to their paid-up share capital. Some societies were framed on the model of the "Nidhis" of Southern India. A fifth type is represented by distributive credit societies and a sixth by a productive credit society of artisans. The general tendency has of late been mostly in favour of the unlimited liability. The capital of these credit societies consists of share capital contributed by the members and

deposits received from members or non-members or loans from other societies or from central banks. Loans are given to members only within certain prescribed limits and for useful purposes on the security of immovable or moveable property or on the joint and several responsibility of the applicant and two other sureties who must be themselves members. The interest paid by the societies on borrowed money does not exceed $7\frac{1}{4}$ per cent. per annum, while the interest charged on money lent varies from $7\frac{1}{2}$ to 10 per cent., the prevailing rate being $9\frac{3}{8}$ per cent. or $1\frac{1}{2}$ pies in the rupee per mensem. Although these rates of interest are still high, the operations of the co-operative credit societies have considerably affected the rates previously prevailing and it is said that in some villages money-lenders have given up business.

133. Besides these rural and urban societies, there are, as already stated, five central banks whose main object is to raise capital for the purpose of granting loans to the credit societies. The chief of these, the Madras Central Urban Bank, has already secured a large measure of success and has a working capital of over 12 lakhs of rupees, derived mainly from fixed deposits. By means of this and similar banks the problem of financing the rural societies has been to a great extent met, and no financial aid from Government is required. In 1910 a beginning was also made in the direction of securing a federation of village societies into local unions and the registration of the Uttaramallur Union was sanctioned. The object of this union is chiefly to inspect the accounts of the societies affiliated to it and recommend grant of loans to them from the central banks.

19. CUSTOMS.

134. The trade of the Presidency has increased steadily during the period of Sir Arthur Lawley's administration. It rose from Rs. 36,32,40,861 in 1905-06 to Rs. 48,03,73,250 in 1910-11, the increase being mostly under foreign trade. The total customs revenue of the Presidency (imports and exports) excluding refunds and

drawbacks rose from Rs. 43,37,468 in 1905-06 to Rs. 68,39,573 in 1910-11.

135. Apart from the reforms introduced at the instance or under the orders of the Government of India, viz., the creation of an Imperial Customs service and the formation of a separate audit section for the audit of the Customs accounts, the chief measure adopted during Sir Arthur Lawley's administration for facilitating the conduct of work by merchants has been the reorganization of the establishments of the Madras Custom House and particularly the appointment of two additional Appraisers for the Custom House. So long as goods landed at the port were being stored in the Customs sheds close to the office of the Collector of Customs and his appraising staff, a staff of six Appraisers was found sufficient. Circumstances however since changed owing to the construction of a new import shed by the Madras Port Trust in their own premises in the beach at a distance from the Customs treasury and office and by the storage of goods in this shed, and it was found in 1908 that, if the appraising staff was to help the mercantile community to clear their goods expeditiously, it should be increased by two.

136. Another very important reform introduced during the quinquennium is the transfer of the control of the outports and land customs stations from the officers of the Salt and Abkari department to the Collector of Customs, Madras. When the amalgamation of the Salt, Abkari and Customs department in 1900 was ordered, it was thought that the work of the establishments at the outports and land customs stations could be more systematically supervised by the superior officers of that department and that the free transfers of officers from Customs to Salt and Abkari and *vice versa* which the amalgamation would facilitate would tend to make the administration of the outports more efficient. Owing, however, to the peripatetic nature of the duties of the controlling officers of the Salt and Abkari department, and to their lack of acquaintance with technical points in customs work, this system of control over outports was not found to be altogether successful. A scheme was accordingly prepared and introduced, with

the sanction of the Government of India with effect from the 1st April 1910 for placing the executive administration of the outports under the control of the Collector of Customs, Madras, although the establishment still forms part of the Salt and Abkari department and so enjoys the advantages in the way of recruitment and promotion that accrue to it as part of a large department. The Collector of Customs or one of his trained assistants now inspects every outport and land customs station except a few that are both unimportant and inaccessible once in each half-year. Intermediate inspections, inspections of the smaller ports and land customs stations and disposal of the numerous petty matters which it is not necessary or desirable to refer to Madras are being done by five trained Inspectors of Customs who have been given each a certain number of the outports and land customs stations. References on doubtful points of customs law are made to the Collector of Customs, Madras, as it should, and a great improvement in the certainty and uniformity of customs decisions has resulted.

137. It is also worthy of notice that during Sir Arthur Lawley's administration a native Chamber of Commerce called the South India Chamber of Commerce has come into existence in Madras City.

20. DEPUTY COLLECTORS' CADRE. REVISION OF THE —.

138. Under Sir William Meyer's scheme for the regrading of the various services, sanctioned by the Secretary of State in 1909 a new grade of Deputy Collectors on Rs. 800 was created with effect from 1st April 1910, and the number of appointments in the Deputy Collectors' cadre was raised to 94. This number provided only for the regular divisional and treasury charges and for such extraneous appointments as those of Presidency Magistrates and Assistant Secretary to the Commissioners of Land Revenue and did not include any reserve for leave vacancies or for special temporary

appointments. These vacancies and temporary appointments were filled by temporary promotions from the subordinate revenue service and the average number of such acting and temporary appointments in the last grade which were created to supplement the sanctioned strength of the service was much larger than it should be in comparison with permanent cadre of the Deputy Collectors' service, with the result that an officer appointed to act as Deputy Collector was seldom confirmed in the last grade on Rs. 250 until he had acted for 4 or 5 years. After he had been confirmed in that grade, he had to serve another 4 or 5 years before he could rise to the sixth grade on Rs. 300 and was thus over 10 years without any advance of pay. The pay of a First-grade Tahsildar was also Rs. 250 per mensem, and if the officer appointed to act as Deputy Collector was already a First-grade Tahsildar, the period that elapsed before he obtained any advance of pay was even longer. As few men were appointed to act as Deputy Collectors under the age of 40, and many at 45 and upwards, it was obvious that the prospects of enhanced pay before the age of 55 were small, and it was in the opinion of Government prejudicial to efficient administration that an officer should spend 10 to 15 years on the same pay, first as Tahsildar and then as acting and permanent Deputy Collector in the last grade. After careful consideration the Government decided to recommend to the Government of India that the Deputy Collectors' cadre should be increased so as to make it self-contained, the increase being equal to the average number of acting and temporary appointments hitherto created to fill leave vacancies and special temporary duties. In making this increase proportionate additions were made to all grades throughout the service. The scheme has been sanctioned by the Government of India and the Secretary of State and has just been brought into force. The cadre now consists of 137 appointments. Every officer appointed to the grade of Deputy Collector will in future be on probation for two years and will not be confirmed unless he has shown himself thoroughly fit, but the prolonged uncertainty which has hitherto been the lot of an acting Deputy Collector will no longer arise.

21. DISTRICT, DIVISIONAL AND TALUK CHARGES. TERRITORIAL REDISTRIBUTION OF —

139. It had long been recognised that some of the Madras districts were too large and the work they involved too heavy for a single District officer and that the creation of additional districts to afford relief was a necessity. The same remark applied to several of the divisions and taluks which were overwhelming alike in area, population and revenue. In 1902 Sir William Meyer was placed on special duty to examine the best methods of relief, and in 1903 he submitted proposals for the constitution of three new districts, sixteen additional divisions and seventeen fresh taluks. That portion of the scheme which involved the creation of the new district of Guntūr and the redistribution of the areas included in the Gōdāvari, Kistna and Nellore districts was introduced in 1904, and early in 1910 the sanction of the Secretary of State was received to the introduction of the remainder of the territorial changes proposed in Sir William Meyer's report. In view of the fact that both the Collectors of Madura and Tinnevely and the District Judge of Madura were in urgent need of relief it was decided to constitute the new Rāmnād district with effect from the 1st June 1910, the head-quarters of the district being temporarily located at Madura. The four districts of Cuddapah, North Arcot, South Arcot and Salem were reconstituted into five districts (the new district being known as Chittoor) on 1st April 1911. A new District Court has also been established at Rāmnād and two new District Medical and Sanitary Officers have also been appointed for the two new districts, the Civil Surgeoncy of Chittoor being abolished. The cost of the scheme excluding the expenditure on buildings has amounted to nearly seven lakhs of rupees a year. The scheme of redistribution has now been completely introduced with the exception of the formation of one taluk in the Ganjām district. It is a matter for congratulation that almost in every case the redistribution has been greeted with public approval and that nowhere has there been any hitch in the introduction of the rather complex changes involved.

140. In addition to the process of redistribution carried out in pursuance of Sir William Meyer's proposals, the Bunder taluk of the Kistna district and the Tenali taluk in the Guntūr district have been split up as these taluks were found to be too heavy for any Tahsildar to cope with. The Bunder taluk was divided into the Bunder and Divi taluks with effect from 1st October 1907, and the Tenali taluk was separated into the Tenali and Repalle taluks with effect from 1st July 1909. A new division was also constituted in the Madura district with effect from 1st July 1910 as it was found that Sir William Meyer's proposals would not give sufficient relief to the Divisional officers in that district.

141. Among other minor changes may be mentioned the constitution with effect from 1st July 1906 of a new Anjengo district comprising the enclaves of Anjengo and Tangasseri formerly attached to the district of Malabar and the placing of the new district under the jurisdiction of the Resident in Travancore and Cochin. In view of the difficulties experienced by the Central Provinces administration in administering the three taluqas of Nugur, Albaka and Cherla the language of which is Telugu, those taluqas were transferred to the Madras Presidency and made part of the Gōdāvari district with effect from the 1st July 1909.

142. When His Excellency Sir Arthur Lawley assumed charge there were in this Presidency 23 districts, 89 divisions, and 160 Tahsildars' charges, whereas there are now 26 districts, 101 divisions, and 178 Tahsildars' charges.

22. ESTATES LAND ACT.

143. The most important agrarian enactment which has been passed in the Local Legislative Council during the years under review is the Madras Estates Land Act which was intended to define the rights of tenants, or, as they are termed in the Act, ryots, in proprietary estates in relation to the landholders, and to place the whole law of landlord and tenant in such estates on a more satisfactory footing and remove doubts and difficulties which had arisen in regard to Madras Act VIII of 1865.

144. The Permanent Settlement Regulation XXV of 1802 and Patta Regulation XXX of 1802 were intended to keep intact "the rights and privileges of the cultivating ryots who though they possess no positive property in the soil have a right of occupancy so long as they cultivate to the extent of their usual means and give to the circar or proprietor, whether in money or kind, the accustomed portion of the produce." But the terms "proprietary right" or "proprietary possession" used in the preamble to the Regulation XXV of 1802 were construed as conveying to the zamindars the full rights of property in the estates settled under the Regulation and as abridging the rights of the cultivators proportionately. To correct this notion, Regulation IV of 1822 was passed which declared that it was not intended by the Regulations of 1802 "to define, limit, infringe or destroy the actual rights of any description of landholders or tenants." The rights of ryots were not however authoritatively defined in any Regulation passed by the legislature and were left to be inferred in each case from the local custom and practice. The effect of this was that as time went on the courts, swayed by the English law of landlord and tenant, adopted the view that the landholder could raise the demand on his tenants and eject them if the enhanced rate was not paid. Soon after Madras Act VIII of 1865 became law, the High Court held in 1870 in a suit for ejection on a refusal to pay an increased rate of rent that the landholder possessed the absolute right to put an end to the tenancy at the end of the fasli year, unless the condition that the tenant was to hold at the same rent as that previously paid was proved to exist either by force of general custom or by positive law and was a part of the contract of the tenancy. The High Court also observed that neither the Rent Recovery Act nor the Regulations operated to extend a tenancy beyond the period of its duration secured by the contract creating it. This decision threw the onus of proving the possession of occupancy right on the tenant. The Board of Revenue almost immediately expressed the apprehension that this decision would result in the eviction of most of the ryots and the Government ordered enquiry to be

made as to the extent to which the apprehended results had been realized.

145. As a result of this enquiry a committee was appointed in 1882 to draft a bill to deal with the situation but little progress was made until 1898, when a bill modelled on the lines of the Bengal Tenancy Act was framed and after being subjected to much discussion and criticism was submitted to the Government of India in 1903. They approved the main principles of the Bill but desired that specific provisions for the enhancement of rent should be inserted and the Estates Land Bill was finally introduced into the Legislative Council in 1905. The complexity of the measure and the importance of the interests concerned necessitated very careful examination and thorough discussion but the Bill was finally passed into law in 1908.

146. The three main principles secured by this Act are: first, the recognition of the ryot's occupancy right which is declared heritable and transferable: second, the securing for the ryot a fair and equitable rent: and third, the protection and conservation of the domain in which he may exercise his occupancy right. The Act distinguishes between ryoti land and the private land of the landholder, limits the application of unfettered contract as a mode of settling the relations between the landholder and the ryot, defines the circumstances in which the rent can be enhanced or reduced and secures for the ryot the benefit of his improvement and immunity from the exaction of illegal cesses and the right to have the rent in kind where it prevails commuted into money rent. The Act also definitely makes the landholder responsible for the maintenance of irrigation works. The Act has also benefited the proprietor in a variety of ways. The rent is declared to be the first charge on the ryot's holding. The proprietor is given the right to enhance rent on the ground of a rise in prices, a right formerly explicitly denied by the courts. The annual exchange of patta and muchilika is no longer compulsory and a patta partially but not entirely correct is now enforceable to the extent for which it is correct. The remedies provided for recoveries of arrears of rent are ampler and more drastic than anywhere else in India. The Act also

23. EXCISE.

provides for the survey of estates, the preparation of a record of rights and the settlement of rent.

Referring to the apprehension which had been felt by the zamindars as to the effect of the Bill, His Excellency the Governor, at the close of the discussions on this Bill in the Legislative Council, observed:—

“I sincerely hope that the fears which they entertain as to the effect of this measure will prove to have been exaggerated. As to the machinery which we have set up, the Honourable Members, no doubt, with some right on their side think that, probably at the beginning, the machine will creak in the working. I hope that our officials, when they attend to the working of the machine, will never forget the oil-can and that they will endeavour to make the machine run as smoothly and as easy as possible. I feel confident that, if it should prove that readjustments of the machinery are necessary and further legislation is required to correct errors in the existing Bill, a timely adjustment will be made by the Government of the day.”

147. The Act came into force on the 1st of July 1908 and its working has since been closely watched by Government. Its introduction was followed by a considerable increase in litigation, landlord and tenant being alike anxious to ascertain their exact position and rights under the new law, but there is as yet no reason to believe that this mass of litigation will be an enduring feature in the working of the new Act. Once the effect of its provisions has been ascertained, the landholder and tenant may be expected to transact their business without excessive resort to the courts.

148. At the end of 1910 the Madras Landholders' Association made representations to the Government regarding the working of certain provisions of the Act. Those representations were carefully considered and the Government, while declining to reconsider the underlying principles of the Act to which the Madras Landholders' Association were not yet reconciled, found cause to enquire further into certain matters in which the Act appeared capable of improvement.

149. The period of $5\frac{1}{2}$ years during which Sir Arthur Lawley has held the office of Governor of Madras has been marked by the carrying out of a thorough examination of the excise policy of the Presidency in the light of the report of the Excise Committee appointed by the Government of India in 1905 and of the Government of India's orders on that report. Perhaps the most important reform which has resulted from this examination has been the thorough revision of the numbers and sites of liquor shops, the establishment of Standing Committees in municipal areas to settle the number and location of shops, and the large reduction in the number of shops which has followed. In mufassal municipalities the committees consist of the Collector or the Divisional officer, the Chairman of the municipality and the Superintendent or Assistant Superintendent of Police or some other Police officer appointed by the District Superintendent of Police, while in Madras city the Committee is composed of the Collector, the President of the Corporation and the Commissioner of Police. In non-municipal areas no committees have been appointed, but Collectors have been generally required to consult the local Abkari, Police and Revenue officers, Railway authorities and large employers of labour and also to consider the representations made by District and Taluk Boards.

150. As a result of the recommendations made, the number of shops has been reduced as follows:—

(a) Country Liquor shops in * excise tracts—
from 10,114 in 1908–1909,
to 9,091 in 1909–1910;
to 8,846 in 1910–1911; and
to 8,676 in 1911–1912.

(b) Toddy shops in tree-tax areas—
from 18,506 in 1907–1908 †,
to 17,137 in 1908–1909;
to 16,191 in 1909–1910; and
to 15,796 in 1910–1911: and

* Excluding Gunupur which was brought under the contract distillery system on 1st April 1910 and the Banganapalle State.

† Toddy year commencing from October.

- (c) Shops for sale of foreign liquor—
 from 194 in 1907-1908,
 to 115 in 1908-1909;
 to 91 in 1909-1910; and
 to 88 in 1910-1911.

Instructions have also been issued that the sites of newly proposed shops should be published in the District Gazettes six months before the commencement of the lease so as to give to the public timely notice and give an opportunity to bring forward possible objections. Collectors have also been instructed to see that copies of the lists of shops with sites which are published in the District Gazettes are communicated formally and in time to Taluk and District Boards and to Local Committees and Municipal Councils in order to allow of any representations that those bodies might wish to make being received and considered before the sales.

151. The position of the Agency tracts in the matter of liquor shops has received special consideration. In the Agency tracts, excepting Chodavaram, Polavaram and Yellavaram divisions of the Gōdāvari agency, the number of arrack shops has been reduced from 1,019 in 1908-1909 to 640 in 1911-1912, while in the three divisions of the Gōdāvari agency referred to, the number of shops has been reduced from 139 in 1908-1909 to 95 in 1910-1911 and the number of stills from 77 to 7.

152. In addition to these special measures for the reduction in the number of shops, every endeavour has been made to put a check on consumption by enhancement of taxation. During the quinquennium under review the rate of excise duty on country spirits has been raised twice in the South Canara and Malabar districts, first from Rs. 2-9-9 to Rs. 3-2-0 per proof gallon in 1908-1909 and again to Rs. 3-12-0 in 1910-1911. In Ganjām and Vizagapatam it has been raised once, namely, from Rs. 3-2-0 to Rs. 4-6-0 in 1908-1909. In Cuddapah, Anantapur, Bellary, Kurnool, Gōdāvari,

Kistna, Guntūr, Nellore, Chingleput, North Arcot, South Arcot, Tanjore, Trichinopoly, Madura, Tinnevely, Salem and Coimbatore, it was raised from Rs. 4-6-0 to Rs. 5 either in 1906-1907 or 1907-1908 and in all but the first four districts there was a further enhancement to Rs. 5-10-0 in 1909-1910. Similarly the rates of tree-tax on trees tapped for toddy have been enhanced almost throughout the Presidency during the period under review and, in respect of some of the districts (Ceded districts, Kurnool, Chingleput, North Arcot, South Arcot, Tanjore, Trichinopoly, Madura, Tinnevely, Salem and Coimbatore) there have been two enhancements during the five years. At the same time stringent restrictions have been imposed on the grant of occasional licenses for the sale of liquor at fairs and festivals, the sale of strong country spirits of the strength of 20° u.p. has been absolutely put a stop to and the sale of liquor by and to children below the age of 14, has been prohibited. The closing hour of liquor shops in Madras town has been fixed at 9 P.M. as in mufassal areas instead of at 10 P.M. as hitherto, and last, though not least, the system of disposal of toddy shops in Madras town and in the Saidapet taluk on fixed fees has been abolished and has been replaced by the auction system of sale.

153. The consumption of country spirits in the excise tracts of the Presidency during the quinquennium under review and in the two years preceding it has been as follows :—

					PROOF GALLS.
1904-1905	...	...	...	...	1,272,007
1905-1906	...	...	...	...	1,221,819
1906-1907	...	...	...	...	1,410,844
1907-1908	...	...	...	...	1,566,944
1908-1909	...	...	...	...	1,707,136
1909-1910	...	...	...	...	1,511,570
1910-1911	...	...	...	...	1,538,475

It will be seen that in spite of the measures above described, there was a steady rise in consumption in the first years of the quinquennium, but this has latterly been checked, presumably by the enhanced duty and other measures taken by Government. It must, however, be recognized that the growth of consumption to a great

extent depends on causes which are beyond State control. So long as the agricultural community is flourishing and money is abundant among the labouring classes, increased consumption can hardly be expected to be altogether prevented.

154. Statistics of consumption of toddy in the tree-tax areas of the Presidency are not available, but making a rough calculation from the number of trees tapped for fermented toddy, it is observed that the quantity consumed which in 1905-1906 was 104.1 million gallons fell to 101.4 millions in 1906-1907 and although it rose to 105.8 millions in the next year there has since then been a gradual decline, the quantity for 1910-1911 being 102.4 millions.

155. Chief among the reforms introduced during the period under review in respect of foreign liquor have been the enhancement of the fees for wholesale and retail licenses and the bringing under excise control of the sale of medicated wines. With the view of restricting the competition of cheap imported spirits with country spirits, minimum sale strengths have also been fixed for all kinds of foreign liquor except denatured spirits. As a result of these reforms and of the enhancement of the tariff rate of duty, and of the closure of a large number of taverns, there has been a decline in the imports of foreign liquor.

156. The administration of the revenue derived from hemp drugs and opium received equal attention and various measures were adopted to check their consumption.

Hemp drugs.—The duty on ganja and bhang which from 1898-99 remained at Rs. 4 and As. 8 respectively per seer was raised to Rs. 5 and Re. 1 respectively from 1st April 1906. From 1st April 1910 the duty on bhang was increased again to Rs. 2 per seer and from the 1st April 1911 there was a further enhancement of duty on ganja to Rs. 7-8-0 per seer and on bhang to Rs. 3 per seer. Steps have also been taken to suppress the cultivation of the hemp plant in the Agency tracts and to prevent the smuggling of ganja therefrom and to effect a considerable reduction in the number of shops

opened for the sale of the drug. At the same time the sale, possession and transport of cocaine and allied drugs and medicated preparations thereof have been brought under more effective control.

Opium.—In order to facilitate the detection of opium-smuggling in this Presidency, the import of Malwa opium on Government account was discontinued with effect from 1st April 1908 and Bengal opium was issued instead. The number of opium shops which at the end of 1905-1906 stood at 1,211 had been reduced to 955 in 1911-1912. Issue prices have also been raised from time to time and the limit of private possession has been reduced from 3 tolas to 1 tola. The consumption of opium which had increased from 38,356 seers in 1906-1907 to 47,073 seers in 1908-1909 fell as a result of these measures to 44,926 seers in 1909-1910 and 41,035 seers in 1910-1911. The opium rules have been extended to the drugs known as morphia and codeine. Strict measures have also been taken from time to time to check the growth of the opium-smoking habit, and, pending the adoption of measures for the absolute prohibition of the practice in public or semi-public dens and in private premises, orders have been issued to the Commissioner of Police, Madras, to enforce strictly the provisions of sections 35 and 37 of the Madras City Police Act III of 1888 in so far as opium-smoking dens in the city are concerned. The limit of possession of smoking preparations has also been reduced from 1 tola to $\frac{1}{2}$ a tola.

157. The Excise revenue has increased from Rupees 191.14 lakhs in 1905-1906 to Rs. 277.73 lakhs in 1910-1911, a growth which, as the facts already given sufficiently prove, is to be attributed rather to enhancement of taxation than to increased consumption.

24. FISHERIES.

158. The question of the development of the Fisheries of this Presidency engaged the attention of this Government for many years commencing from about 1870 but nothing definite was done until 1905, the year prior to the commencement of Sir Arthur Lawley's term of office. In that year a preliminary survey of the fisheries was begun by Sir F. Nicholson who had very kindly placed his services at the disposal of Government for the purpose. Sir Frederick Nicholson found that, though round the extensive coast line of Southern India and especially on the West Coast, the seas are well stocked with fish, the fishing industry had been inconsiderable, the methods employed were of the most primitive description, the boats were small and incapable of either going out any distance from the shore or of remaining long out at sea, the nets were of limited capacity and the methods of curing abominably bad.

159. The Government then arranged to depute Sir F. Nicholson to examine modern fishery conditions in other countries and after a tour of enquiry and observation in Japan, America and Europe Sir F. Nicholson submitted an interesting and valuable report in which he made proposals for the development of the fisheries of Southern India. In pursuance of his recommendations the Government then decided to create a Fisheries department of which Sir Frederick Nicholson was appointed Honorary Director. An experimental marine station was opened at Ennore on the East Coast in 1908, the object being to demonstrate to the local fishermen the need for adopting improved catching methods such as larger boats and more powerful nets and to instruct them in the method of producing sound and wholesome food firstly by keeping fish alive up to shore in live wells, chests or cars and secondly by properly treating dead fish on the boat, in the curing factory and on the way to the market.

160. Experience however showed that Ennore was not a suitable site for an experimental station. Being near Madras which offers a ready market for all fresh fish, the supply of fish to the experimental station was limited.

There was also insufficiency of labour and want of interest due to the poverty of the local fishermen and to the absence of any local curing industry. A new station was accordingly opened at Cannanore in 1909 and numerous experiments have been conducted there in both catching and preserving fish. The manufacture of fish oil and guano has also been tried with much success. Government have lately sanctioned the opening of a new factory at Tanur where experiments in the manufacture of fish oil and guano with suitable machinery and plant will be conducted on a larger scale.

161. In 1908 Mr. James Hornell, formerly in the employ of the Ceylon Company of Pearl Fishers, was engaged as a Marine Assistant to Sir Frederick Nicholson. On his recommendation the Pearl and Chank fishing operations on the East Coast have been transferred from the control of the Port officer, Tuticorin, to that of the Fisheries department. Mr. Hornell has made a careful and exhaustive examination of the pearl fisheries belonging to this Presidency and has submitted a report containing many practical and valuable suggestions which are being carried out. He has also submitted proposals for the development of the chank fisheries, chief among them being the provision of a motor boat for the towing of canoes, the introduction of facilities in the gauging of shells, the grant of bonuses to divers and the buoying of chank beds. Mr. Hornell also started towards the close of 1910 an Oyster Culture farm on the Pulicat lake on the East Coast on about an acre of land. From the results so far obtained, this industry promises to become a most profitable and successful one. He has also submitted proposals for the establishment of Marine fish farms in the Presidency on the lines of those at Arcacheon and on the Commacchio Lagoons in Europe.

162. Lastly, Sir F. Nicholson has laid before Government proposals for the establishment of a combined Aquarium and Marine Biological station on the Marina at Madras which will form a centre for the instruction of students in Marine Biology and provide a head-quarters for the Fisheries department. The proposals have been referred to a committee of educational and technical experts for elaboration and report.

163. While the development of marine fisheries has thus received attention, the question of improving the fresh water fisheries of the Presidency has not been neglected. Attention was first drawn to the depletion of the stock of fish in the larger rivers which rise in the Nilgiri district, especially in the Bhavāni river which had at one time been heavily stocked with such fine edible fish as the masher, murrel, carnatic carp and labeo, due to the wasteful methods of destruction practised by natives during the hot weather when the rivers are full of small fry. A Piscicultural Expert was accordingly appointed in 1906, at first for a period of one year and subsequently for a further term of five years with a view to stock the principal streams of the Nilgiris with rainbow trout and such other fish as might be found suitable, to investigate and report on the measures to be taken to check the indiscriminate slaughter of fish in the upper waters of the larger rivers within the Nilgiri district, to study the other inland waters of the Presidency, and to make experiments regarding the culture of carp and other fresh water fish.

164. Much useful work has been done by Mr. Wilson, the Piscicultural Expert, in these directions. The introduction of trout into the rivers of the Nilgiri district has been a complete success. A consignment of trout ova was obtained from New Zealand, the fry were hatched in hatcheries at Avalanche on the Nilgiris and in due course the fish have been turned out into the rivers. There they have shown satisfactory growth so that it was possible to open the trout fishing to the public with effect from 1st September 1911 in certain specified rivers on the Nilgiris. Measures have also been taken to put a stop to the wholesale and wasteful destruction of fish in the Bhavāni and Moyar rivers which flow round the base of the Nilgiri Hills. Rules have been made under the Fishery Act to prohibit dynamiting and other improper methods of destruction and to create a close season, and a staff of watchers has been appointed to enforce these regulations.

165. Other important works undertaken by Mr. Wilson have been the construction of a 'hilsa' hatchery in 1909 at the Lower Coleroon anicut, the conveyance of

many thousands of fertilised "hilsa" ova to the Ponnani river on the West Coast, and the establishment of a fish farm at Sunkesula on the Kurnool-Cuddapah Canal for the purpose of stocking with fish the tanks and channels fed by it and certain tanks in the Salem, Bellary and Kurnool districts. Stocking operations have already commenced in respect of some of these tanks and the work of construction of the fish farm at Sunkesula is nearing completion. Proposals are also under consideration for the establishment of a fish farm in the Nellore district below the Kanigiri reservoir in order to supply fish to the several big reservoirs in the same district.

25. FORESTS.

166. The area of reserved forests and reserved lands has remained practically unaltered during the quinquennium, having been 19,585 square miles in 1905-1906 and being 19,612 square miles in 1909-1910. The selection and reservation of forests in the Madras Presidency, except in regard to possible protection of zamindari forests, is almost complete and the work now to be done consists in developing the resources of the forests which have already been reserved. The few reservations that now take place generally have the object of improving forest boundaries or relate to small enclosures within the reserves which were excluded at the original forest settlement but which have since been abandoned by their owners or have been acquired on payment of compensation by Government in the interests of forest working. Of late years, special care has been taken to see that wherever possible the boundaries of any newly constituted reserves do not approach within half a mile of inhabited village-sites and that sufficient land is left for the exercise of communal privileges by the villagers and for cattle-grazing and extension of cultivation. Further whenever it was considered desirable in the public interests to reserve a new area, sanction was not accorded for such reservation unless the extent of land taken up was not less than one square mile.

167. An interesting experiment has been inaugurated during the last year in the direction of giving the people increased control over some of the smaller forests. In several cases, blocks of forest land of sufficient size, fairly well stocked and capable, if properly managed, of supplying the reasonable requirements of the village or villages to which they are assigned at least in the matter of fuel and, if possible, of grazing, have been made over to the charge of the villagers to be managed as village forests. It is too soon to say whether this experiment will be successful but it is hoped that it will do something to interest the villagers in forest matters.

168. An immense amount of attention has been devoted to the difficult and important question of grazing. While it has not yet been possible to arrive at any final decisions as to the practical steps to be taken to reconcile the interests of forest conservation with those of the village grazier, yet much has been done to remove individual cases of hardship which have come to the notice of His Excellency the Governor in the course of his tours. Wherever such cases have been thus discovered, or have been brought to light by means of petitions, the most careful enquiry has been made and all possible measures taken to remove any causes of complaint.

169. In order to guard against the possibility of hardship arising through the action of Forest officers in dealing with grazing offences in forests, it has been decided to lay down a fixed scale of fees to be charged for the composition of such offences. Directions have also been given that cases which involve large sums of money, complicated cases in which it is doubtful whether a conviction can be secured and cases which show deliberate criminal intention should not as a general rule be compounded and that compounding should ordinarily be restricted to simple and clearly proved cases in which no malicious wish to do injury is apparent.

170. Every endeavour has been made to meet the needs of the people in the matter of supplies of grass and of wood for ploughs and other agricultural implements. The necessity for the careful and considerate investigation of all local forest grievances, for the close control of forest

subordinates and for the avoidance of unnecessary acts of harshness has been impressed on Forest officers. The concession of certain communal privileges to the villagers in unreserved waste lands has been continued and these privileges have been extended by the discontinuance of the practice of selling babul pods grown on unreserved lands, the amount of revenue thus surrendered averaging Rs. 35,500 per annum.

171. The question of the supply of fuel to the public in towns and to villagers has also received constant attention. Owing to the abolition of the unregulated permit system and to the want of properly trained contractors to replace the old permit-holders, the Forest department has been forced to take up the work of felling and selling firewood. But this is liable to take up too large a proportion of the time of the Forest officers and it has accordingly been laid down that the ultimate aim of the department should be to substitute the system of felling and sale through contractors for the departmental method, the Forest department retaining only so many depots as may be necessary to prevent "corners" and combinations among contractors and consequent artificial enhancement of prices. The Forest department has been directed to dispose of its produce as near the forests as possible. So far, considerable difficulty has been experienced in finding contractors fit and willing to take over the work in the coupes and depots but renewed efforts are now being made to attract suitable contractors by the offer of larger contracts.

172. The forests in the Parlākimedi Maliahs of the Ganjam district were being destroyed by the unrestricted exercise by the hill tribes of the practice of shifting cultivation locally known as "podu". After careful enquiries, it has been decided that it would be unwise to introduce the ordinary methods of forest administration, and with the sanction of the Government of India a special officer has been appointed in order to deal with the jungle people and endeavour gradually to induce them to abandon their wasteful method of cultivation. Steps have also been taken to protect the forests in the other Agency tracts of the Ganjam district, viz., Ponda-khol, Chokkapad and Chandragiri. The Thumbamutta

which was resumed by Government in 1910 has also been brought under regular forest conservancy. Action has also been taken for the protection of the forests in the zamindari which forms the catchment area of the river which irrigates Government lands lower down.

173. There has been a steady increase of both revenue

	Revenue.	Expenditure.	
	RS.	RS.	
1905-06 ...	30,36,892	23,16,731	
1906-07 ...	34,50,733	25,86,566	
1907-08 ...	38,58,026	28,23,433	
1908-09 ...	38,86,296	29,85,358	
1909-10 ...	41,84,203	33,84,927	

and expenditure during the period, and this growth of revenue and expenditure has been attained without any overworking of the forests. The outturn of timber and fuel during 1909-1910 was 25,124,626 c.ft. against 23,913,211 c.ft. in 1904-1905. The capital outlay sunk in communications, buildings, demarcation, plantations and other permanent improvements has nearly doubled during the period.

	RS.	
1905-06 ...	5,36,883	
1906-07 ...	5,34,609	
1907-08 ...	5,83,333	
1908-09 ...	7,08,289	
1909-10 ...	9,26,053	

174. The Subordinate Forest Service was found to be insufficient for the needs of the department and it has been strengthened in all the grades. It has long been recognised that the number of controlling officers also was too small for proper forest administration. Hardly any progress could be made in the preparation of working plans, several of the forest charges were too heavy to be managed by a single officer, and the areas under the charge of the Conservators were too large to admit of effective control. Proposals were accordingly sent up to the Government of India and the Secretary of State for the reorganization of the controlling Forest service and these proposals received the sanction of the Secretary of State in January 1911. One notable feature of them is the fact that while the strength of the Imperial service has been reduced from 32 to 31, that of the Provincial service has been increased from 21 to 39, thus giving full effect to the declared policy of His Majesty's Government to foster the larger employment of indigenous agency in the administration of the forests. The number of Conservators was also increased from 3 to 4. Another important reform

) effected during Sir Arthur Lawley's tenure of office is the improvement of the pay and prospects of the Provincial Forest Service by the introduction of the time-scale system of pay under which an officer starts on Rs. 250 per mensem and can rise to Rs. 850 per mensem.

175. In 1906, the Government of India abolished the vernacular classes in the Forest school (now college) at Dehra Dūn for the training of Deputy Rangers, Foresters and Guards and left it to Local Governments to take such steps as might be necessary for the training of these men. In pursuance of this policy, the Forest Training school at Coimbatore for Deputy Rangers and Foresters, in which the instruction was imparted in English, was abolished and in its place two vernacular Forest Training schools, one in Tamil and one in Telugu, for Foresters and Guards alone have been ordered to be held from time to time. The training is wholly practical. The schools have given good promise of useful results.

176. The Imperial Forest College at Dehra Dūn has for some time been unable to find accommodation for all the students sent for training from this Presidency, and the number of men trained at Dehra Dūn has been insufficient to meet the annual requirements of a growing department. The forests near Dehra Dūn, 30 degrees north of the equator, differ so considerably from those in the plains of Madras, from 20 to 25 degrees further south, that training imparted in the Himalayas was not wholly suitable for men whose duties were to lie in Madras. Further, the prospect of having to undergo training at Dehra Dūn, where the Madras student found himself almost in a foreign country, deterred many possible applicants for the post of Ranger from entering the department and made recruitment difficult. For all these reasons it has been found necessary to establish a separate Forest College for the training of Rangers and Deputy Rangers in this Presidency. Coimbatore has been selected as being the most suitable centre of forest education and the proposal to establish a Forest College there has received the sanction of the Secretary of State this year. Plans and estimates for the buildings are under preparation and it is hoped to open the institution before long.

26. INCOME-TAX.

177. The Revenue* under this head continued to

		LAKHS, RS.
* 1905-06	...	25'9
1906-07	...	27'3
1907-08	...	29'6
1908-09	...	29'6
1909-10	...	30'5
1910-11	...	30'9

increase steadily. It was Rs. 25'9 lakhs in the year prior to Sir Arthur Lawley's administration and, rising to Rs. 27'3 lakhs in the first year of his administration, amounted to Rs. 30'9 lakhs in 1910-11. The bulk of the revenue, nearly 70 per cent., was contributed by the tax under Part IV, *i.e.*, all sources of income other than salaries, pensions, annuities and gratuities, companies' profits, and interest on securities, and the decreasing percentage †

	† Percentage of objection petitions to total number of assesseees under Part IV.	Percentage of revision peti- tion to total number of assesseees under Part IV.
1903-04 ...	44'65	7'0
1904-05 ...	39'51	5'8
1905-06 ...	37'94	5'2
1906-07 ...	34'68	4'9
1907-08 ...	34'88	4'5
1908-09 ...	32'89	4'1
1909-10 ...	33'23	4'2
1910-11 ...	32'71	4'2

of objection and revision petitions to the total number of assesseees under this part during the quinquennium affords fair evidence that assessments have been fixed with increased care and moderation. District officers have also been particularly warned to check any tendency they may notice on the part of assessing officers to bring under the present lowest class of assessable income, *viz.*, Rs. 1,000—1,250 the incomes of men who by reason of Act XI of 1903 ought to escape taxations. Owing to the exemption, which that Act created, of incomes below Rs. 1,000 from liability to taxation, the number of persons who come under the Act is now extremely small in relation to the population of the Presidency, the total number of assesseees under Part IV being only a little over 30,000 in a population of 41 millions.

27. INDUSTRIES.

178. In order to promote the industrial development of this Presidency, a scheme was submitted in 1905 to the Government of India and was sanctioned on a temporary basis both by that Government and by the Secretary of State, wherein it was proposed to create a separate department to deal practically with the promotion of industries by experiment and advice, as well as with the imparting of theoretical instruction in technical schools and colleges and to place this department under an officer to be styled the Director of Industries and Technical Education. Mr. A. Chatterton, B.Sc., who was selected as the first Director of Industries, had already introduced the aluminium industry into the Presidency and had then taken up the question of introducing the chrome method of tanning, the improvement of the hand-loom industry and the development of irrigation by pumping under power supplied by oil-engines. During the next four years Mr. Chatterton carried on work on these lines with marked success, and, in spite of the limited means at his disposal, succeeded in producing results of considerable value. He demonstrated successfully the possibility of treating leather by the chrome-tanning process and the tanning business grew to such proportions that it was ultimately possible to hand it over to private enterprise as a going concern and for a sum of money representing practically all that Government had invested in the enterprise. The task of improving the position of the hand-loom weaver, though it had not produced equally favourable results, had drawn public attention to the subject and had elicited various improvements both to the loom and its appliances. It had also shown that economy in warping and other operations could be effected if the weavers adopted joint working. Mr. Chatterton also succeeded in training a staff of workmen capable of using boring tools for the purpose of reaching subterranean water which could be profitably raised for irrigation by the agency of pumps driven by internal combustion or other types of engines. The value of Mr. Chatterton's advice and assistance was so well recognized that the ryots eagerly availed themselves

of his services, and in order to place some check on such applications the Government found it necessary to direct that this part of his work should no longer be performed gratuitously but that each applicant should be required to pay fees in accordance with a graduated scale.

179. The satisfactory results achieved by Mr. Chatterton in these directions convinced His Excellency Sir Arthur Lawley of the desirability of enlarging the scope of his work and in order to determine the lines on which action should be taken, a conference of gentlemen either concerned or interested in the conduct of the chief industries of the Presidency was summoned and met in September 1908. The deliberations of the conference took shape in a series of 68 resolutions of very great value. On the cardinal question whether State intervention is desirable or necessary in fostering industrial development in a country in which private industrial effort has hitherto been spasmodic or practically non-existent, the conference was of opinion that, subject to certain restrictions which it laid down, the Government might undertake to pioneer the introduction of new industries or industrial processes for the purpose of training students or apprentices or for demonstrating that such industries would be commercially successful. In addition to formulating the principles on which the Department of Industries should work, the conference submitted a comprehensive series of resolutions specifying in detail the various directions in which industrial development should be fostered. The most important of these were the transfer of industrial institutions from the control of the Educational department to that of the Director of Industries, the formation of a Bureau of Industrial information and an Industrial Museum, the establishing of weaving institutions under the superintendence of experts in textile manufacture approximately similar in character to the Manchester or Bradford Textile schools, the employment of a dyeing expert to report on the state of the dyeing industry and to consider the question of establishing one or more trade dyeing schools on the lines of the Leeds and Bradford Colleges, and the establishment of a leather trade school under the supervision of a leather expert.

180. The scheme for the establishment of a separate department of industries on a permanent basis was submitted for the sanction of the Secretary of State in March 1909, and his orders were received in the autumn of 1910. Lord Morley, while sympathising with the Conference and the Madras Government in their anxiety for the industrial development of the province, was unable to agree to the pioneering of new industries by State agency or to the creation of a separate department of industries. His objections did not, however, extend to the establishment of a Bureau of Industrial Information or to the dissemination from such a centre, of intelligence and advice regarding new industries, processes or appliances, provided that nothing was done calculated to interfere with private enterprise. He accordingly sanctioned the appointment of a special officer to be styled the Superintendent of Industrial Education to supervise and extend industrial education in the Presidency and the creation of the appointments of dyeing, weaving and leather experts. Mr. Chatterton was appointed Superintendent of Industrial Education. The dyeing and leather experts have also since been appointed and they are now engaged with the task of preliminary investigation. Meantime the question of the policy to be adopted in regard to the industrial development of the country is still under consideration and a further representation has been addressed to the Secretary of State on the subject.

181. One of the chief purposes of the Department of Industry during its existence was the introduction of chrome-tanning. It had been asserted previously that the climate of Madras was too hot to enable the chrome method of tanning to be successfully introduced. But Mr. Chatterton's experiments soon showed that this was contrary to fact. Starting first with the supply of leather suitable for the making of water buckets for use in drawwells, Mr. Chatterton afterwards proceeded to manufacture leather suited for boots, shoes and many other articles. A tannery for chrome-tanning was established at Sembiam near Madras, and the leather produced achieved so much popularity that the sales which in 1904-1905 were only of the value of Rs. 4,779 had

by 1908-1909 increased to the value of Rs. 1,01,409. Towards the end of 1910, the Government considering that enough had been done to demonstrate the possibility of chrome tanning in Southern India and in view of the fact that a chrome-tanning company had been started in Mysore, sold the factory at Sembiam and withdrew from further interference with the tanning industry.

182. The improvement of the position of the hand-loom weaver also occupied the attention of the department of industries. In 1906, a small hand-loom factory was established at Salem with the object of introducing the factory system among the weavers, and of improving the preparatory processes such as warping and sizing, so as to increase the ratio of profit. Experiments were also made with various types of loom, the superiority of the fly-shuttle loom being easily demonstrated. Weaving contests and exhibitions of weaving appliances were held from time to time and proved to be a valuable method of bringing home to the weaving community the advantages of improved appliances. The factory system, however, proved unpopular. The weavers preferred to continue their hereditary practice of working in their own homes assisted by their women and children and disliked being subjected to the discipline and regular hours of a factory. Difficulty has also been found owing to the poverty, ignorance and conservatism of the weaving class in inducing them to co-operate in the purchase or manufacture of warps or in any other respect. Towards the end of the year 1910, the factory at Salem was closed. But it has been proposed to create a larger and more effective factory at Madura where the weaving community is more advanced and more numerous. With the sanction of the Secretary of State, it is proposed to import a weaving expert to hold charge of this institution, and to provide in it for a thorough technical instruction in the industry.

183. The Industries department has also carried on an extensive and important work in connection with the development of irrigation by pumps driven by oil-engines. In this, as in other matters, the initiative came from Mr. Chatterton. He conducted as early as 1902 a series of important experiments in various pumping

stations in the Presidency. The result has been a considerable extension of irrigation supplied by pumps driven by internal combustion engines. Upwards of a hundred installations are now in existence and this method of water-supply for irrigation purposes is still extending. Lakhs of rupees have been devoted to the erection of pumping plants and where water in sufficient quantity has been found, the financial returns have been most encouraging. This method of irrigation at once attracted the attention to the question of subterranean water-supply. Towards the end of 1906, a Deputy Collector accompanied by a boring party was placed on special duty in the Chingleput district to promote the construction of wells. In January 1908, the work was taken over by the Pumping Branch of the Department of Industries, and a very large number of borings were carried out with the result that an extensive underground water-supply was discovered in the Courtilliyar basin. Borings made in connection with the installations of oil-engines elsewhere disclosed the presence of other large underground sources of water-supply especially in the Palār and in the Pennār basins.

Accordingly in February 1909, the extension of boring operations to other districts was sanctioned and by the end of 1910 boring operations had been extended throughout the Presidency. By supplying the ryot population with the tools necessary for the conduct of boring, the department has greatly reduced the risks, and increased the incentives, connected with the sinking of wells, a matter of great moment in extensive tracts of the Presidency. The department also furnished expert and disinterested advice as to the best types of machinery, and especially of motor driven pumps to be purchased. The latest figures available are those for the period ending with 30th June 1910. They show that up to that date the department had dealt with 189 applications relating to the establishment of pumping installations and had 75 such applications pending, and that it had carried out 717 well-boring operations and had in hand 294 applications for further borings. It is estimated that the pumping installations erected up to 31st March 1910 were supplying irrigation for 25,000 acres and the

figures up to date must be considerably higher. The above remarks show the wide field of usefulness open to the department in the matter of giving expert advice in respect of machinery generally and of pumping and boring apparatus in particular. The Secretary of State's orders regarding the Department of Industries did not affect the operations of the pumping and boring section and this section continues to do much useful work.

28. IRRIGATION.

184. The minor irrigation works (*i.e.*, works irrigating less than 200 acres) which are entrusted to the control of the Revenue department have received careful attention. The powers of the Revenue Divisional officers and Collectors to sanction estimates for repairs to these works were increased in 1908 from Rs. 500 and Rs. 1,000 to Rs. 1,000 and Rs. 2,500 respectively. The allotment and expenditure on the upkeep of the works during the quinquennium has been as follows:—

			Allotment.	Expenditure.
			RS.	RS.
1906--1907	...	...	8,63,199	7,64,723
1907--1908	...	...	8,97,059	8,24,337
1908--1909	...	...	8,17,419	7,63,215
1909--1910	...	...	7,11,231	6,38,301
1910--1911	...	...	6,97,031	5,61,668
Average of four years ending				
1905--06	...	...	7,54,699	6,99,519

An enquiry is now being made by the Board of Revenue under the orders of Government as to whether any revision of establishment or change of method of distributing funds is required for the better maintenance of these works.

185. The most important measure that has been carried out during the quinquennium in connection with irrigation has been the framing of an Irrigation Bill to consolidate and amend the Irrigation Law of this Presidency. The need for such an Act was first noticed by the Indian Famine Commission of 1880 who observed that "there are several particulars as to which the absence of

"an express enactment has produced evils of a very serious nature." In 1898 attention was again drawn to the matter in connection with the question of preparing a record of irrigation rights in the Tanjore delta and the Board of Revenue was requested to make a report on the nature and extent of the legislation required to define the State's authority to control irrigation to the best advantage for the public good. Finally the Report of the Irrigation Commission of 1901--1902 laid stress upon the necessity for an irrigation law in this Presidency.

186. In 1905 a specially selected officer was placed on special duty to draft a bill and the bill he prepared was submitted to the Government of India in October 1906, but was returned in order that public opinion regarding its provisions might be obtained. The bill was accordingly published for public criticism in 1908 and after full consideration of the opinion thus elicited the bill was again revised thoroughly and submitted to the Government of India with whom it is now. Its main features are similar to those of the Irrigation Acts in force in other provinces of India. It gives power to the Government to declare by notification their intention to control or use any source of water-supply for irrigation purposes and thereafter to use or control the use of the water, paying compensation for all substantial damage so caused. It also invests the Government with general power to control water-supply and irrigation works, and to make or alter water courses. It contains full provisions as to the award of compensation for damage caused by the exercise of the powers conferred by the Act, and provisions as to offences in regard to irrigation and the penalties that may be imposed therefor. The bill is thus an attempt to give satisfactory form and authority to those rights which the Court's decisions have already recognized as residing in the Secretary of State for India in Council and to codify, on the lines followed in other Presidencies, the Irrigation Law of Madras.

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29. LAND IMPROVEMENT AND AGRICULTURAL LOANS, 1906-1910.

187. The system of making loans to ryots for agricultural or land improvement purposes has made decided progress during the quinquennium. In 1907, in order to ensure that applications for loans were scrutinised and disposed of with increased promptitude and that accounts were correctly and accurately kept, Collectors were authorized to entertain, in anticipation of sanction, additional temporary establishment for the special work of attending to loan applications in accordance with a sliding scale, which allows clerks, Revenue Inspectors, Deputy Tahsildars and Tahsildars to be employed in accordance with the number of applications for loans received and pending. The money limits up to which Tahsildars and other local officers are empowered to sanction loans without reference to higher authority have also been raised and all classes of such officers have been instructed to disburse loans, whenever practicable, during their tours, direct to the borrowers in the villages. In 1906 a Special Deputy Collector was for the first time appointed in Chingleput and Coimbatore for the sole purpose of dealing promptly with applications for loans in those districts, while, in order as far as possible to prevent the loans taken by ryots from being wasted on unsuccessful wells and obtain a survey of the sub-soil resources of the tract, two boring parties were organized and made to work under the Deputy Collector. In 1908 another Special Deputy Collector was temporarily appointed for about a year to promote the demand for loans in tracts in which they had not been generally taken such as Nellore, Guntur and the Ceded districts. He was instructed to visit villages, to explain to the ryots the advantages of the Government system of loans and to see that all applications for loans were promptly and expeditiously disposed of. The result of these measures is shown in the large increase in the total amount of State funds advanced to ryots. The total amount of loans disbursed during the five years ending 1909-10 was Rs. 35.16 lakhs as compared with 18.21 lakhs in the previous five years, showing that the amount of State aid thus granted has nearly doubled.

Out of the 35.16 lakhs disbursed in the five years ending 30th June 1910, no less than Rs. 8.81 lakhs were devoted to the construction or repair of wells, of which 6,600 capable of irrigating about 30,000 acres are reported to have been built or repaired with the money thus advanced by Government. It is obvious that this furnishes a substantial measure of protection against scarcity in years of defective rainfall while enabling the ryot in all years to grow more valuable crops than would be possible on land not supplied with well irrigation.

					Land Improve-ment Act. Rs. (lakhs.)	Agri-cultural Loans Act. Rs. (lakhs.)	Total. Rs. (lakhs.)
Fasli	1315	(1905-06)	...	...	3.61	2.67	6.28
"	1316	(1906-07)	...	...	2.65	2.19	4.84
"	1317	(1907-08)	...	...	3.57	4.02	7.59
"	1318	(1908-09)	...	...	4.42	5.52	9.94
"	1319	(1909-10)	...	...	2.91	3.60	6.51
Total					17.16	18.00	35.16
Previous 5 years					10.13	8.08	18.21

30. LAND REVENUE POLICY.

188. Although the general outlines of the administration of the land revenue have long been fixed under the orders of the Government of India and the Secretary of State and have undergone but little change of late years, important developments in one or two directions have taken place during His Excellency Sir Arthur Lawley's tenure of the office of Governor of Madras. Perhaps the most important of these relates to the system under which the charge for water is levied upon irrigated land entered in the Government accounts as "dry". When land possesses an assured supply of water, it is usually entered in the Government accounts as "wet," a consolidated charge which covers the use of the water supplied being made. But there are considerable areas for which a constant supply of water is not available. These areas are classed as "dry", the assessment being based upon the quality of the soil and upon the assumption that

un-irrigated crops will be grown. When, however, water is supplied for irrigation, a separate and additional charge is made for the water. Hitherto this charge which is levied under a statutory enactment (Madras Act VII of 1865) has taken the form of a fixed and uniform rate, irrespective of the quality of the soil for which the water is used, this rate being Rs. 4 per acre for water from first-class sources and Rs. 3 per acre for water from second-class sources; half these rates being charged if a second crop is raised. It is evident that this system of making a fixed and uniform charge for water, though possessing the merit of simplicity, places the worse soils at a disadvantage as compared with the better soils. In order to remove this objection and to adapt the charge for water to the productive quality of the soil, a fresh method was introduced during the year 1906-1907. This method is to treat the difference between the dry and wet assessment of the soil as representing the value of the water supplied. Thus a good soil which, if classed as wet, would pay Rs. 9 an acre may, if classed as dry, be assessed at Rs. 3 an acre. In that case, the water-rate would be Rs. 6. In the case of an inferior soil assessed at Rs. 4 an acre if it were classed as wet and at Re. 1 an acre if it were classed as dry, the water-rate would be Rs. 3 an acre. Although this system, which is known as the differential water-rate system, has certain obvious advantages, it also involves considerable complexity in accounts, especially in relation to the charge to be made for water supplied for the irrigation of dry crops. It has accordingly been introduced only as an experimental method and is at present in force mainly in those districts which have been recently resettled, viz., Ganjam, Nellore, Kurnool, Cuddapah, Chingleput and Coimbatore. The same system is also in force in the deltaic tracts of Gōdāvari, Kistna and Guntūr. The practical effect of the working of the system in these districts is being watched in order to determine whether the advantages of the system outweigh its disadvantages and whether it should be extended to the rest of the Presidency or whether the fixed water-rate system elsewhere in force should be adhered to.

189. A second experiment of some importance which has been introduced and is still in progress relates to the question of remission of assessment on lands which receive their supply of water from precarious sources of irrigation. The rules hitherto in force have laid down that no remission can be claimed on registered wet land unless the land has been left waste or the crop totally lost either through deficiency or excess of water due to causes entirely beyond the ryot's control. If a ryot cultivated dry crops instead of wet crops, he could claim no remission of the fixed wet assessment. Still less could he obtain any remission of assessment if he left the land waste unless it was clearly proved that there was no supply of water at all. It has, however, been found that in those tracts of the Presidency where rainfall is uncertain, there are many tanks and other sources of irrigation which receive small supplies of water sufficient to raise an irrigated dry crop in years in which the water-supply would be insufficient for a paddy crop. On the other hand, it is unlikely that a ryot would, in his own interests, leave the land waste or would cultivate irrigated dry crops instead of paddy if there were an adequate supply of water. Acting on this assumption, an experiment has been introduced in the districts of Kurnool and Cuddapah as well as in certain taluks of Cuddapah lately transferred to Anantapur and Chittoor districts, under which it is possible for a ryot to claim remission on lands under precarious sources of irrigation even though the land is left waste or when dry crops are raised instead of wet crops. It is thus left to the ryot to determine what crop he will raise or whether he will raise a crop at all. It is too soon to decide whether this experiment will succeed, that is, whether the ryot can be trusted through motives of self-interest to raise a crop whenever there is a sufficient supply of water and to raise the more valuable crop, paddy, when there is enough water for that crop. The experiment is, however, an interesting one and if it is proved to be successful it may be extended to the other parts of the Presidency.

190. Various other questions connected with the land revenue administration have received much attention during the quinquennium. Rules have been framed

under Madras Act VII of 1865 to regulate authoritatively the additional charge which may be made for water which is taken from a Government source of irrigation without permission or contrary to the orders of the appropriate Government officer. It has also been ruled that holders of land registered as single crop wet land are free to cultivate their single crop at any season of the year, but if they postpone cultivation until late in the year, they run the risk of water not being available during the latter part of the year and in that case they have to pay the assessment although they may not have been able to raise a crop at all. Rules have also been issued regarding the charge for water to be made in the case of *dufasal* crops, that is, crops the cultivation of which lasts for more than six months. Power has been given to the Jamabandi officer, that is, the Divisional officer making the annual settlement of the revenue, to dispense in special cases with the submission of written applications for remission and to condone delays in the submission of such applications, it having been represented that the previously existing rule which insisted that no remission could be granted at all (except with the sanction of the Board of Revenue) unless a written application had been put in before a fixed date caused unnecessary hardship in many cases. By the amendment of the rule which is here referred to, the Jamabandi officer has been given full discretion to deal with all such cases in accordance with the equity of the matter.

31. REVISION OF ESTABLISHMENT OF COLLECTORS' AND DIVISIONAL OFFICES AND IMPROVEMENTS IN THE POSITION OF REVENUE SUBORDINATES.

191. During the special duty on which he was deputed in 1902, as above mentioned, Sir William Meyer formulated proposals not only for the redistribution of territorial charges but also for the reorganization of

the establishments of Collectors' and Divisional offices. These proposals, with some slight modifications, have since received the sanction of the Secretary of State and have been given effect to, the main features of the scheme being as follow :—

(1) Collectors' offices have been grouped into four classes according to the amount of work and to other local conditions and a suitable scale of establishments has been allotted to each group of districts. The old scale of establishment in Collectors' offices was to a great extent uniform and made no sufficient allowance for the divergent conditions of different districts.

(2) The scale of establishments for Divisional offices has been revised in a similar manner in accordance with the work to be done and according as the divisions are in charge of I.C.S. officers or of Deputy Collectors.

(3) In view of the steady rise in the cost of living and the difficulty of getting qualified men on lower pay, the lowest rate of pay for a clerk in Collectors' and Divisional offices has been raised from Rs. 15 to Rs. 20 per mensem.

192. In order to enable young men of good education to enter the service of Government at a higher stage and so to avoid the corrupting effects of service in the lowest ranks, the Revenue Clerical service has been divided into two parts, an upper and a lower division. It is now possible for an Indian graduate to enter on a salary of Rs. 35 per mensem thus avoiding the long period of service on Rs. 15, 20 and 25 which used to be necessary. While provision has thus been made for the better educated recruits, care has been taken to safeguard the interests of those now in the service by reserving a proportion of the higher appointments for them.

193. Another important reform in regard to Revenue establishments which has been carried out during the quinquennium has been the grant of travelling allowance to Revenue Inspectors and Deputy Tahsildars. Hitherto Revenue Inspectors and Deputy Tahsildars in this Presidency were not entitled to any travelling allowance for journeys made within their ordinary jurisdiction, their pay having been originally fixed so as to

include the cost of travelling. In consequence of the rise in the cost of living and locomotion, this ceased to be any longer the case and on the recommendation of Government the Government of India in 1908-1909 sanctioned the grant of travelling allowance to Revenue Inspectors at the rate of eight annas per diem and to Deputy Tahsildars at the rate of twelve annas per diem for every day spent on tour. The concessions were given effect to from the 1st April 1908 in the case of Revenue Inspectors and from the 31st July 1909 in the case of Deputy Tahsildars.

194. A scheme for raising the pay of Deputy Tahsildars and Sub-Magistrates as well as a comprehensive measure for improving the pay and prospects of Taluk establishment have been prepared and forwarded for the sanction of the Government of India and the Secretary of State.

32. SALT.

195. The large reduction in the duty on salt which has been carried out of late years dates for the most part from before the commencement of Sir Arthur Lawley's tenure of office as Governor of Madras, but the last reduction, viz., from Rs. 1½ to Re. 1 a maund, took effect from 20th March 1907 and the effect of these measures on the consumption of salt in this Presidency has been gradually appearing during the last five years:—

Consumption of Salt.

	...	...	...	MAUNDS.
1902-1903	...	...	...	9,325,866
1903-1904	...	...	...	10,047,214
1904-1905	...	...	...	10,312,493
1905-1906	...	...	...	10,095,502
1906-1907	...	...	...	10,636,648
1907-1908	...	...	...	11,116,235
1908-1909	...	...	...	11,298,567
1909-1910	...	...	...	11,406,759
1910-1911	...	...	...	11,648,950

The total increase in consumption between 1902-1903 and 1910-1911 has thus amounted to 2,323,084

maunds or about 25 per cent., and when distributed on the figures of population furnished by the census of 1911 the consumption per head has gone up from 16.10 lb. in 1901-1902 to 18.88 lb. in 1910-1911 or by about 17½ per cent. in ten years.

196. While the reductions of duty have, on the one hand, resulted in increased consumption, they have, on the other hand, by removing much of the incentive to illicit practices, been the cause of bringing about a remarkable decrease in salt crime. In the year following

	Persons.
1902-1903	... 5,245
1903-1904	... 2,375
1904-1905	... 2,341
1905-1906	... 2,500
1906-1907	... 992
1907-1908	... 336
1908-1909	... 211
1909-1910	... 173
1910-1911	... 133

the first reduction of duty, the number of persons involved in salt crime fell by 53 per cent. or to less than half the figure of the previous year. After the second reduction of duty the number still further declined till in 1906-1907 it was less than one-fifth of what it had been in 1902-1903. Since the third reduction the decline in salt crime has been so great that the total number of persons concerned in such offences has averaged only 153 in the last two years or about 3 per cent. of the figure ten years before. This striking diminution in offences against the salt law must be regarded as one of the most satisfactory and beneficent results of the reduction in the salt duty inaugurated by Lord Morley.

197. A matter which has received considerable attention during the past quinquennium has been the improvement of the quality of the salt manufactured in this Presidency. Much has been done in this direction in the past but during the quinquennium under review special arrangements were made to carry out experiments in improved methods of manufacture and storage, including irrigation by direct flow. These experiments were undertaken for the purpose of testing the suitability to Southern India of some of the methods and practices of the Italian Salt department which Mr. H. A. B. Vernon, I.C.S., the permanent Secretary of the Board of Revenue, in the Separate Revenue department observed while he was on leave in Europe. The results of the experiment conducted on a small scale having been so far successful,

the Government have recently sanctioned the construction of a model saltern where the improved methods will be tried in a thorough and exhaustive manner on a large scale.

198. While the extended consumption of salt and the improvement in its quality have engaged the energies of the Salt department during the years under review, the interests of the officials employed on this work have not been forgotten. In 1906 an important improvement was effected in the pay and prospects of Assistant Commissioners, a higher grade on Rs. 1,000 per mensem being created and the pay of the third grade being made progressive from Rs. 500 to Rs. 800. More recently four appointments of Probationary Inspector have been created to enable candidates of a class suitable for ultimate promotion to the grade of Assistant Commissioner to be specially recruited. An increased allowance of Rs. 50 per mensem has been granted to Assistant Inspectors placed in charge of Inspectors' Circles in lieu of Rs. 25 per mensem previously paid. The pay of the lowest grade of Sub-Inspectors has also been raised from Rs. 30 to Rs. 40 and the numbers in the higher grades in that class have been increased. The minimum pay of clerks in the department has been fixed at Rs. 20 per mensem and the pay of head clerks of Factory Circles has been raised from Rs. 25 to Rs. 30, and in various other respects the prospects of the hardworking and deserving officials connected with the administration of the Salt Revenue have been improved.

33. SEASON AND ECONOMIC CONDITIONS.

199. The quinquennium has happily been free from famine or any serious scarcity and has been marked by no abnormal economic conditions. The rainfall has on the whole been favourable though some small areas have suffered from insufficient or unseasonable rains. In parts of the Bellary district the rainfall was so untimely and unevenly distributed in 1908 that there was much decrease of cultivation and the crops gave a

poor outturn, but the only relief needed was the postponement of the collection of land revenue in the affected villages until the next harvest season and this relief was given. In parts of the Ganjām district, especially in those portions of the Peddakimedi zamin-dari and the Berhampur taluk which are inhabited by Khonds and Savaras the rainfall was in defect from September to December 1907 and in the early part of 1908. The Khonds were, however, provided with employment by being engaged to dig wells for the improvement of village drinking water-supply, funds being advanced to them through the village headmen as the works were executed, and for a short time up to September 1908 gratuitous relief was given for the support of the families of those who were engaged in cultivation. But these relief operations were on a very small scale and did not continue beyond the stage of "observation." Except in these limited and isolated localities, the country has in general enjoyed agricultural prosperity. The cropped areas have been above the normal in each year except 1909-1910, during which year there was a slight deficiency (0.30 million acres). In spite of the favourable agricultural conditions, the prices of all the staple food-grains have ruled high, having risen from 20 to 30 per cent., between 1905-1906 and 1908-1909. In 1909-1910, some reaction occurred, but this has been wiped out to a great extent by the short rainfall in the current year. This tendency to higher prices was not confined to this Province and did not solely depend upon local conditions. The Government of India have recently started an enquiry into this question which is one of great complexity. As these high prices of food-grains have been combined with fairly favourable harvests, the land-holding classes have largely benefited and even the landless labourers have shared in the general agricultural prosperity. The labourers who are employed in raising the richer industrial crops, such as ground-nut are no longer content with the traditional rate of wages and have successfully demanded a rise. Others have found in factories and planters' estates an opportunity for earning a fair competency, while in many tracts the labourer has

become accustomed to the idea of emigrating to seek a fortune. The example of their successful fellows has not been altogether without an influence on the ordinary agricultural coolies. There are indications that the labouring classes are gradually asserting a claim to greater independence and claiming a share in the increased prosperity of the ryots. A census of wages taken in 1908 shows, so far as it can be relied on, that there has been a general advance in the rates of wages. About 20 years ago the late Diwan Bahadur S. Srinivasa Raghava Aiyangar in his "Forty Years' Progress of the Madras Presidency" stated that the average payment of unskilled labour was then As. 3 per diem in towns and As. 2 per diem in rural tracts. The census of 1908 showed that the average figures are now As. 4 to 5 in towns and As. 3 to 4 in rural tracts, an increase of from 50 to 100 per cent.

200. The only classes likely to be prejudicially affected by the advance in prices are those in receipt of fixed money salaries. In order to relieve the pressure among these classes the Government have sanctioned the grant of grain compensation to the lower paid classes and have raised the salaries of others. Some of these measures have already been noticed and further measures are under contemplation.

34. SETTLEMENT.

201. The original settlement of all districts in the Presidency had been completed before the opening of the year 1906 and future operations are of the nature of a revision of settlement rates or resettlement. The question had therefore to be decided as to the principles on which such resettlements should be conducted.

202. The answer given by the Government to this question was that variations in prices of food-grains should be the principal factor to be regarded in revising the assessment on the land. So far as classification of soils, cultivation expenses and similar matters are concerned, the results of the old settlement were accepted as far as possible and a general percentage enhancement was applied where the rise in grain prices justified it.

Reclassification of soils was restricted to cases where it was necessitated by a great development of irrigation or by gross errors in the old settlement.

203. Thus at the resettlement of Salem, Nellore, Tinnevely and Coimbatore, reclassification was almost unknown, while in Chingleput it was restricted to cases of gross error. In four taluks of the Kurnool district, wet lands were reclassified mainly in the interests of the ryots with the result that an actual decrease in land revenue followed. In Ganjām and in parts of Cuddapah and Kurnool, the construction of the Rushikulya channels and the spread of irrigation under the Kurnool-Cuddapah Canal had so altered the face of the country as to necessitate reclassification of soils in some taluks.

204. But, though variations in prices were the governing factor in the revision of the land assessment, regard was also had to the effect which a sudden enhancement of charge must have on people who had grown accustomed to the existing rates. It was considered undesirable to exact the full increase which the grain prices would have justified and there have been few cases in which the Government did not decide to forego a large share of the enhancement to which the rise in prices entitled them. Thus in Nellore though the rise in prices justified an enhancement of five annas in the rupee, on dry lands, four taluks were exempted altogether from enhancement which in no taluk exceeded three annas in the rupee. In Chingleput where the rise in the prices of paddy would have warranted an enhancement of 45 per cent. on wet lands, the sanctioned percentage enhancement of assessment was limited to 15 per cent. on wet. Again in Tinnevely a rise of 43 per cent. in the price of paddy was followed by an enhancement of $12\frac{1}{2}$ per cent. only in the assessment on wet lands.

205. Since 1905-1906 resettlement has been carried out over an area of 20,000 square miles and so general has been the rise in the price of grains and the increase in the prosperity of agriculture that in spite of the leniency with which the resettlements have been made the growth in the land revenue of the Presidency due to the resettlements carried out since 1905-1906 has amounted to about Rs. 11,00,000 per annum.

35. STAMPS.

<i>Receipts.</i>			
Year.			LAKHS. Rs.
1905-1906	...	...	93'86
1906-1907	...	...	99'05
1907-1908	...	...	104'90
1908-1909	...	...	108'28
1909-1910	...	...	114'91
1910-1911	...	...	121'15
<i>Charges.</i>			
1905-1906	...	...	4'99
1906-1907	...	...	4'56
1907-1908	...	...	5'20
1908-1909	...	...	5'45
1909-1910	...	...	5'37
1910-1911	...	...	5'80

206. The *receipts* under this head which amounted to Rs. 93'86 lakhs in 1905-1906, rose to Rs. 121'15 lakhs in 1910-1911, while the *charges* under this head which amounted to Rs. 4'99 lakhs in 1905-1906, were Rs. 5'80 lakhs in 1910-1911.

The steady increase of revenue from stamps in the period under review is evidence of the growing prosperity of the country.

36. SURVEY AND LAND RECORDS.

207. The future of the Madras Survey department came under consideration in 1903. It was found that little or no original survey of Government land remained to be done, but it was anticipated that some 25,000 sq. miles of zamindari tracts would eventually require to be brought under the cadastral survey. Besides this, the records of the survey of Government lands were in many districts so defective either through original errors or through subsequent neglect that a more or less complete resurvey was inevitable. In other districts though the position was less unsatisfactory, yet a special Land Records staff was clearly needed to rectify errors and bring up to date the neglected record of changes before the ordinary District staff could be expected to take over the work of maintaining the survey records.

It was then anticipated that it would be possible to complete the necessary resurveys by the year 1911 when the work remaining would be the survey of the zamindari tracts and the maintenance of the corrected land records. Thus a reduction in the strength of the department about that date was in contemplation.

But experience showed that the hopes entertained in 1903 were too sanguine. It was found that more

resurvey had to be done than was originally foreseen, while the pace at which resurvey could be carried out had been overestimated. To ensure the thoroughness of the survey, special Revenue staffs were organized to work in advance of each survey party and furnish it with a more accurate record of the existing ownership of the land than had previously been attempted. Thus though about 10,000 sq. miles have been resurveyed since 1906 and though a beginning has been made of the survey of zamindari tracts, yet it has become necessary to postpone all idea of reducing the strength of the department till 1917-1918.

Meanwhile the Land Record staff has taken up its work of correcting and bringing up to date the survey records in those districts where a complete resurvey has been judged unnecessary and of organizing a system of maintenance which will avert the recurrence of the necessity for resurveys.

SECTION III.—LOCAL AND MUNICIPAL.

37. LOCAL SELF-GOVERNMENT.

208. During Sir Arthur Lawley's régime there was no alteration in the law relating to the constitution and functions of local boards which continued to be regulated by the Madras Local Boards Act, 1884. A material advance was, however, made with the extension of local self-government, notably as regards the matter of electoral privileges.

The first definite step in this direction was the issue in September 1908 of orders authorizing *all* sub-district boards—or as they are locally styled taluk boards—to appoint their vice-presidents by election from among their own number. This privilege had previously been confined to four districts.

209. Shortly prior to this the attention of His Excellency's Government had been directed by the Government of India to the questions whether the qualifications required of electors and candidates for seats on local boards were sufficiently high and whether it was not desirable to introduce some system of class representation. Sir Arthur's Government definitely opposed the formation of separate electorates composed of classes arranged according to religion or occupation in life, and they considered it unnecessary to effect any change in the case of district boards, half the members of which were already elected by the representatives of taluk boards, while with regard to union panchayats they were of opinion that it was premature to introduce any system of election. In the case of taluk boards, however, they intimated their intention of inaugurating a scheme of election having as its basis a franchise formed on the amount of land revenue and income-tax paid. In pursuance of this resolve (which incidentally retained the safeguard of nomination for a sufficient number of seats to secure the adequate representation of the interests of Government and of important minorities unable to return candidates of their own) a preliminary notification was published inviting an

expression of public opinion in the matter. After consideration of the response which this elicited a detailed draft scheme was promulgated for further criticism. This provided for the creation of electoral circles and the election of one-third of the maximum strength of taluk boards throughout the Presidency except in a few backward areas. After examination with reference to further criticisms received the scheme was finally approved and brought into operation in July 1909. In the light of the practical experience of the two following years and with reference to a suggestion embodied in the recommendations of the Royal Commission on Decentralization His Excellency's Government resolved to enhance the proportion of elective members on these bodies from one-third to one-half, and detailed proposals for the re-constitution of electoral circles and the re-distribution of elective seats were called for in July 1911, and subsequently embodied in a draft notification issued in the end of September 1911, which it is proposed to confirm with effect from January 1912 after a sufficient opportunity has been allowed for public criticism.

210. With reference to a resolution moved in the Legislative Council early in the year two taluk boards were in September 1911 permitted as an experimental measure to elect their own presidents and enquiries were simultaneously initiated with a view to gauge the feasibility of appointing unofficial members to hold the office of president in the case of selected taluk boards; according to the previous practice the officer in charge of the revenue division conterminous with the local jurisdiction of the taluk board had invariably been *ex-officio* president.

211. Another resolution of the Legislative Council led in August 1911 to an advance from the position taken up by Government in 1908 and it was decided as a tentative measure to extend the system of election to not more than one union panchayat in each district situated preferably at the head-quarters of a revenue division. A draft set of rules giving effect to this decision and limiting the proportion of elective seats to one-fourth of the maximum strength of each panchayat was published for criticism in September with the anticipation that this change in system might be given practical effect early in 1912.

212. In connection with the recommendations of the Royal Commission on Decentralization the general policy pursued in regard to the administration of local funds underwent a comprehensive scrutiny, the result of which was embodied in a despatch addressed to the Government of India in July 1911, the details of which cannot be made public pending the reply received from that authority, though it may be stated in general terms that His Excellency's Government have advocated material extensions of the powers at present enjoyed by local boards. Consideration is now being devoted to the question which of the various reforms proposed can properly be introduced without awaiting an expression of the views of the Government of India. It may be added that during Sir Arthur's régime numerous delegations of a minor character have been sanctioned and the policy of decentralization has never been lost sight of.

213. A special feature of the control exercised over local boards was the attention devoted to the financial position of these bodies. Emphasis was laid upon the need for economy and retrenchment in charges of a recurring nature in order to ensure that expenditure of that character should be kept within the normal income; while, on the other hand, care was taken to point out cases in which lack of energy or want of foresight had led to undesirable accumulations of surplus funds, which might with advantage have been devoted to outlay of a non-recurring description.

214. In addition to advice as to the administration of their funds local boards received substantial pecuniary contributions from the revenues of the State. The chief subsidy so given was a special assignment of 14 lakhs per annum sanctioned by the Government of India and intended primarily for outlay upon the construction and maintenance of roads and bridges. This was supplemented by substantial grants from Provincial and Imperial funds aggregating in 1910-11 to upwards of nine lakhs, the main objects in view being the improvement of educational facilities, sanitation (including water-supply) and the construction of medical buildings.

215. These liberal grants-in-aid have gone a long way towards improving the system of communications, which

forms perhaps the most important charge of local boards, but even with the enhanced resources thus placed at their disposal they have not found it possible to provide adequately for the building of bridges. Not only are many new bridges required, but where floods have caused destruction or material damage financial considerations often prevent the requisite re-construction or repair. With a view to meet this difficulty Sir Arthur's Government in August 1911 intimated their desire to come to the aid of district boards in the matter and called for specific applications for assistance towards the execution of works of this nature.

216. Mention may also be made of the special attention devoted to the planting and maintenance of avenues for which systematic provision has been made by the adoption of the principle that the annual expenditure under this head shall not ordinarily fall below the average receipts from avenues during the preceding quinquennium.

217. Sir Arthur's Government were anxious to pursue a forward policy in the matter of the construction of district board railways and various schemes of railway construction have been under consideration, but only one of these has actually materialized, viz., a branch line connecting Bezwada with Masulipatam, which was opened for traffic by His Excellency in February 1908, having been financed by the Kistna District Board with the aid of a Government loan of 18½ lakhs. The other projects on hand have been in abeyance pending settlement of the terms upon which the South Indian Railway Company will undertake the construction and working of branch lines. This troublesome question has formed the subject of protracted discussion with special reference to proposed lines in the Tanjore district connecting Nidamangalam with Mannargudi and Tirutturaippundi with Vedaranniyam. It was originally anticipated that the decision arrived at in this case would furnish a form of agreement applicable to other branch lines, but in September 1911 the negotiations reached a stage which made it plain that this anticipation was erroneous, and a small committee was then appointed for the purpose of drafting a model agreement suitable

for general application. Advice was also tendered to the Tanjore District Board in regard to terms which should be finally offered to the South Indian Railway Company. That advice has been accepted and proposals will shortly go to the Company, which, it is hoped, will lead to the early commencement of construction work.

218. The period of Sir Arthur's Governorship was marked by material changes in the educational operations of local boards. In the first place, in pursuance of the revised Educational rules issued in July 1906 the standard of establishment and the scale of pay in board elementary schools were materially strengthened and improved. Secondly, the system of giving grants to schools on the result of examinations was abolished and all local fund schools were excluded from the scope of the new Grant-in-Aid Code promulgated in 1906. The salary and fixed grant systems were also abolished and schools for general education were divided into secondary and elementary institutions, the former comprising schools the main object of which is to afford a higher general education leading up to a collegiate course or qualifying for admission to the lower grades of the public service and the latter schools in which the bulk of the pupils are unlikely to continue their studies beyond an elementary stage. The aid given to the former class became almost wholly payable from Provincial funds, while the latter (including elementary schools for girls) received assistance from local boards so far as the funds at their disposal admitted. Under the new system the assistance to private elementary schools took the form of a combined capitation and staff grant, the amount payable being liable to enhancement or reduction according as the general condition of the school showed an improvement or the reverse at the annual inspection. Aid of this character was facilitated by Provincial grants disbursed in the first instance through the agency of local boards, though in 1909-10 it was decided to make such payments directly without the intervention of any intermediate agency. In the same year local boards were relieved of all charges on account of the staff of supervisors employed in connection with elementary schools.

219. Under the head of sanitation local boards have since 1908 benefited materially by the recurring subsidies received from Provincial and Imperial funds, but no sanitary schemes of great magnitude have actually been carried out in rural areas. Among the items under investigation mention may be made of water-supply projects in the districts of Chingleput, Chittoor, Guntūr, Nellore and Rāmnād, drainage schemes in Chingleput, town extensions at Hōsūr in the Salem district and Kollegal in Coimbatore and comprehensive proposals for the provision of additional village sites in the deltaic tracts of the Rāmachandrapuram taluk of the Gōdāvari district.

220. There has been a slight advance in the number of local fund hospitals and dispensaries accompanied by a considerable addition to the number of patients under treatment and the housing and equipment of medical institutions have been materially improved. There has simultaneously been an expansion in the arrangements for veterinary relief for which some provision is now made in ten districts as compared with two at the commencement of Sir Arthur Lawley's régime.

221. Finally, it may be mentioned that the re-constitution of districts in 1910 incidentally led to the creation of two new district boards, viz., Chittoor and Rāmnād and thirteen taluk boards, administrative bodies which, for the most part, came into being with effect from 1st April 1911.

222. At the commencement of Sir Arthur Lawley's tenure of office the sole enactment regulating the functions of mufassal municipalities was the Madras District Municipalities Act, 1884. This Act had undergone general revision and amendment in 1897, but since then a variety of defects in the existing law had been brought to notice, while the gradual development of municipal administration had established the necessity for the introduction of supplemental provisions. A draft Bill embodying the changes deemed necessary was accordingly prepared in 1906, but while this measure was still under consideration the Royal Commission upon Decentralization was appointed and as the scope of its enquiries indicated that further material amendments of the law

would probably prove requisite, the further progress of the Bill was held in abeyance pending final decisions upon the numerous recommendations formulated by the Commission. It was, however, found necessary to amend the Act in certain minor respects. In connection with the execution of a scheme for the drainage of the town of Ootacamund which was being carried out by the Public Works department owing to the inadequacy of the municipal engineering staff, a suit was instituted against the Government on the ground that the officers employed had no legal power to enter upon private property for the purpose of carrying out drainage or water-works. The courts held that their entry constituted trespass and in view of this decision immediate legislation became necessary in order to give the requisite legal powers to Government officers engaged on municipal projects of this character. The opportunity was taken to invest with similar powers persons appointed under sections 36 and 37 of the Act to execute work properly devolving upon a municipal council in cases of emergency or where the council concerned has made default in the performance of its duties. A clause was also embodied in the Bill conferring upon municipal chairmen enhanced powers to prevent the wastage of water supplied by special schemes, experience having shown that the existing provisions of the law furnished an inadequate means of control. The Bill embodying these amendments was introduced into the Legislative Council in November 1909 and passed into Law as the Madras District Municipalities Act Amendment Act, 1909.

223. A legislative measure of more importance, though limited in its local scope, was the Bill which subsequently became the Madras Hill Municipalities Act, 1907. This originated from the circumstance that the ordinary municipal law furnished no sufficient check against the growth of insanitary and otherwise objectionable buildings in the municipality of Ootacamund. The difficulty which had there been experienced served as the starting point for a comprehensive examination of the special requirements of hill municipalities. Some of these it was found possible to meet by the

passing of by-laws, but in other cases legislation was necessary. It was originally intended to take this up in connection with the general revision of the Madras District Municipalities Act, 1884, but such postponement was rendered impossible by the advent of plague in Ootacamund and Coonoor and the increasing pressure of population upon the circumscribed areas of these hill towns, which not only necessitated more extensive sanitary precautions but also brought prominently to notice the need for increasing the funds available for municipal administration, which were admittedly insufficient notwithstanding substantial subventions from the general revenues of Government. The Act passed applies primarily to the three municipalities of Ootacamund, Coonoor and Kodaikānal, but power has been taken to extend its provisions to any other municipality which may in future be constituted in a hill station. It provides (i) for the levy of enhanced taxation should necessity arise, (ii) for the regulation of buildings and (iii) for the control of the supply of milk and dairy produce and the prevention of the adulteration of articles of food and drink. The maximum limits of the tax on buildings and lands and the water and drainage tax were raised from $8\frac{1}{2}$ and 8 per cent., respectively, of the annual value to 10 per cent., and a separate scale of fees for the taxation of motor vehicles was introduced, while a special lighting tax was authorized at a rate not exceeding 3 per cent. of the annual value of buildings and lands, leviable however only when the agency of lighting is gas or electricity. The building regulations were re-modelled on the lines of the provisions embodied in the Madras City Municipal Act, 1904, with the chief object of preventing congestion and the erection of insanitary structures; specific approval of the site is prescribed before a new building can be put up and the onus of proving that a building and its site conform to specified requirements is definitely cast upon the builder.

224. The recommendation of the Royal Commission on Decentralization led to a general examination of the field of municipal administration, the outcome of which cannot be set out in detail at this stage as the conclusions

arrived at by Sir Arthur Lawley's Government are still under the consideration of the Government of India. It may be observed, however, that some of the reforms advocated by the Commission had been anticipated in Madras and that the delegation to local officers of powers statutorily exercisable by the Governor in Council is a principle which was steadily kept in view during Sir Arthur's time. Action is now being taken to extend decentralization in various directions where the measures contemplated are within the powers of the Local Government and not of such a nature as to render it necessary to await the views of the Government of India.

225. Only one new municipality, namely, Tenali, was created during His Excellency's régime, but in the municipalities already in existence the scope of local self-government was widened by numerous extensions of the franchise, the proportion of elective seats on various councils being enhanced, while in one case the members were conceded the privilege of electing their own chairman. Towards the close of 1907 the Government of India invited attention to the low qualifications prescribed in the case of both electors and candidates and suggested the introduction of a system of class representation. Sir Arthur's Government admitted the necessity of enhancing the prescribed qualifications, but deprecated any class representation, deeming it preferable to retain the existing system according to which the qualifications of voters and candidates are dependent on the ownership of real property, the payment of specified taxes, the receipt of pensions and salaries of a defined amount and the possession of University degrees. A special officer was deputed in 1908 to revise the electoral rules and a press *communiqué* was issued formulating tentative proposals and inviting expressions of opinion from representative members of the Indian community. The rules as revised in response to this invitation were published for further criticism in October 1909 and gave rise to much adverse comment, chiefly on the score that the qualifications proposed were unnecessarily high. This aspect of the case consequently came once more under examination and with a view to a final decision detailed statistics were called for regarding the probable

numbers of voters and candidates under varying scales of qualifications. These are still being received and when their compilation and scrutiny have been completed, the electoral rules will be recast in accordance with the conclusions arrived at.

226. During the past quinquennium there have been comparatively few enhancements of municipal taxation, except for the purpose of financing large water-supply or drainage schemes. But municipal revenues have developed generally owing largely to the policy of insisting on the periodical revision of the valuations of property which form the basis of the principal assessments, a process ordinarily carried out through the agency of selected Government officers unconnected with local affairs and therefore in a position to carry out such revisions in an impartial and independent manner. As a result of this measure and other contributory factors the aggregate ordinary income of municipalities excluding loans and special grants has risen from 32·37 lakhs in 1905-06 to 40·70 lakhs in 1910-11.

227. The changes introduced in the educational operations consequent upon the promulgation of the new Grant-in-Aid Code and the revision of the educational rules to which reference has been made *supra* in the paragraphs relating to local boards equally affected the educational institutions under municipal control. The establishments of elementary schools were reorganized and where the resultant outlay involved too heavy a strain, relief was afforded to the municipal councils concerned, in the first instance, by subsidies towards municipal education and latterly by the transfer to Provincial funds of the responsibility for giving grants-in-aid to private schools in municipal areas. The management of secondary schools by municipal bodies has been attended in general with but a qualified measure of success and the contemplated establishment of model Government schools will incidentally involve the transfer to State control of several institutions of this grade. Proposals to that end are now under the consideration of the Secretary of State.

228. The sanitation of municipal areas has derived substantial benefit during the past three years from the

share allotted to the larger towns out of the special recurring assignment of 3.50 lakhs per annum sanctioned by the Government of India, a grant-in-aid which was largely supplemented by contributions from the Provincial surplus in 1909-10 and succeeding years. In distributing subsidies of this character preference has been given to schemes for the removal of congestion in crowded towns drawn up on lines approved by the expert sanitary advisers of Government and carried into execution in a gradual and systematic manner as rapidly as financial limitations permit. To supplement remedial action of this character instructions have recently been drawn up—though not yet actually circulated—with a view to prevent the growth of congestion in the future. Liberal assistance from Provincial funds has also been granted for the purpose of facilitating the introduction of schemes of protected water-supply. Projects of this description have either been already carried out or are nearing completion in the towns of Berhampur, Bezwada, Gudiyāttam, Nellore, Periyakulam, Salem and Vellore and are under introduction in Chidambaram, Kodaikānal, Negapatam and Vizianagram, while 17 other water-supply schemes are now under investigation. Extensive improvements have also been undertaken in Cocanada, Conjeeveram, Cuddapah, Dindigul, Guntūr, Tanjore, Tirupati and Trichinopoly, towns where water-works were in existence before Sir Arthur Lawley assumed office. In order to maintain efficient scrutiny of the quality of water supplied and to bring to light any signs of deterioration, arrangements have been made for the chemical and bacteriological analysis of samples of pipe water.

229. Under the head of drainage the only important project actually carried out relates to the town of Ootacamund, where a scheme, which according to the latest estimates should cost 5.14 lakhs, has for some time been under execution, the amount expended up to the 31st March 1911 being 4.46 lakhs, the whole of which has been contributed by Provincial funds. The investigation of projects for the drainage of Madura, Negapatam, Srirangam and Trichinopoly has, however, reached a stage so advanced that it should be possible to commence construction work in the near future. The first of these

schemes which is now under the consideration of the Sanitary Board is of great magnitude, the estimated cost being upwards of 20 lakhs.

230. Assistance of a not less liberal character has been given towards the construction of important medical buildings. Mention may, in particular, be made of the Coimbatore hospital, the Chester Hospital at Dindigul, the Queen Alexandra Hospital for Women and Children at Salem and the Viziangram dispensary, while proposals for the building of large hospitals in Bellary, Coonoor and Salem on similar terms have already received the approval of Sir Arthur's Government. His Excellency personally laid the foundation stone of the hospital at Coonoor, which will be known as the Lawley Hospital. Apart from the special subsidies in aid of the institutions already mentioned, grants from the Provincial surplus have been distributed since 1907-1908 for the purpose of constructing minor medical buildings including quarters for medical subordinates.

231. A subject which has constantly engaged the attention of Sir Arthur's Government has been the repression of encroachments upon municipal roads. Where necessary, councils have been enjoined to arrange for town-surveys and required to fix the regular line of streets. For this purpose definite instructions have been drawn up and the services of Government officers have been freely lent for the actual conduct of surveys, a proportion of the cost of which being defrayed from Provincial funds. Several municipalities have already taken advantage of the assistance so given, and though the removal of encroachments temporarily causes discontent in individual cases, there is no doubt that the public in general derive substantial benefit from the policy pursued.

232. The executive and clerical staff employed by municipal councils has undergone constant revision, and there has been a general improvement in the scale of remuneration and prospects of promotion, while a further inducement designed to attract more efficient subordinates has been created by the introduction of the system of provident funds which are now in force in no less than 42 towns.

233. The law relating to the constitution and functions of the Corporation of Madras had been completely

revised and consolidated in 1904 ; and during Sir Arthur Lawley's term of office the only amendments made were of a comparatively unimportant character. In 1907 a provision was inserted empowering the Local Government with the concurrence of the Corporation to appoint an engineer, without limit as to salary, for the purpose of executing or supervising engineering schemes of a special character ; the necessity for this measure arose in connection with the water-works and drainage projects. Again, in 1911 minor changes were carried out legalizing, (i) the farming out of the collection of license fees for the slaughter of animals, (ii) an increase in the scale of taxation of motor vehicles, (iii) the exemption from assessment of bicycles belonging to volunteers serving in cyclists' sections, and (iv) the prescription of educational qualifications as a condition of service under the Corporation.

234. The recommendations of the Royal Commission on Decentralization led to a general examination of the system of municipal administration and if the proposals which were submitted by Sir Arthur's Government in his last month of office meet with the approval of higher authority, the City Municipal Act will shortly require revision on drastic lines. In accordance with the view expressed by the Royal Commission and with the assent of the Corporation itself it has been proposed to apply to Madras substantially the same system of administration as that enforced in the city of Bombay, where municipal affairs are under the general control of a body of members under the presidency of an elected chairman but the executive authority vests in a nominated official commissioner enjoying extensive statutory powers. Under this arrangement the extent to which supervision and control is exercised by the Local Government is much less than has hitherto been the practice in Madras and the changes contemplated involve decentralization of an extensive character.

235. The past quinquennium has been marked by a systematic and general improvement of the administrative agencies employed by the Corporation. Almost every branch of the administration has at one time or another come under reorganization. The Revenue department

which had fallen to a low state of efficiency was in 1908 placed in the hands of a Government official of special capacity, whose report showed that the municipal estimates of property for rating purposes had not kept pace with the actual increase in market values, that various items had escaped taxation, that individual taxes were not developed to a proper extent and that much loss of revenue was caused by the inefficiency and dishonesty of the subordinate staff and by the defective arrangements for their supervision. The reforms proposed in the report were substantially accepted by the Corporation and received the approval of Government. Their introduction has since been justified by the material development of the Corporation revenues and a very great improvement in the work of collection, which has now reached a high standard. The health department was reconstituted with the object of separating the conservancy and sanitation branches and the appointment of an additional assistant health officer incidentally relieved the Health officer himself of much routine work and enabled him to devote more time to the localization and identification of diseases. Definite system was introduced in regard to the maintenance of the Corporation workshop and stores, which were constituted the charge of a special officer in receipt of substantial emoluments. Attention was also devoted to the improvement of what is known as the "general" department and to the introduction of effective methods for the arrangement and safe custody of the Corporation records. Finally, a definite code of instructions entitled "the Corporation Code" was drawn up for the guidance of municipal employees in every department of the administration and with a view to raise the standard of efficiency rules were framed fixing specific educational qualifications for all appointments other than menial posts.

236. Among the public works carried out or in progress during the quinquennium mention may be made of the Napier Bridge at the spot where the river Cooum meets the Marina, which was reconstructed at an aggregate cost of some 3.38 lakhs with the aid of a Government contribution of half that amount, of the Corporation offices which are now nearing completion

and will, it is estimated, involve a total outlay of upwards of six lakhs, of the reconstruction of the Royapetta Hospital, also nearly completed, at an estimated cost of 2.46 lakhs and of a central slaughter-house built in 1908 from which meat is now distributed throughout the City in specially constructed vans. Another project, which though not yet commenced, is of sufficient importance to merit special mention is a small-pox hospital, the establishment of which has long been under consideration and is likely to reach the stage of construction in the near future.

237. In the department of education the Corporation has chiefly confined its efforts to the grant of aid to private elementary schools, but in 1909 a special committee was appointed for the purpose of examining the accommodation available for these institutions and considering the question whether municipal revenues should not contribute further towards education. The deliberations of this body resulted in the recommendations (i) that the Corporation should, during the following decade, arrange to build 40 elementary schools at a cost including equipment not exceeding Rs. 10,000 for each institution, and (ii) that the schools so built in each year should be taken over and maintained by the Corporation with effect from the following year so as to serve as model institutions. These recommendations were accepted by the Corporation and approved by Government and the carrying out of the programme has been commenced in 1911. The financial burden, which its execution involves, will be materially lightened by the undertaking of Government to relieve the Corporation of all responsibility for paying teaching grants to private institutions during the next ten years.

238. A sanitary measure of some importance which was accepted by the Corporation at the instance of Government consisted in the entire replacement of the contract system of conservancy by departmental arrangements. Another successful sanitary reform is the recent installation of small incinerators for the disposal of street refuse and other rubbish, which when thus treated are utilized for the filling up of pits, hollows and small tanks likely during the rainy weather to become breeding

grounds for anopheline mosquitoes. During the last two or three years special attention has been devoted to the opening up of congested areas by running new roads through crowded quarters, widening narrow streets and linking up blind lanes with main thoroughfares. Simultaneously with operations of this character action has been taken to provide the inhabitants dispossessed with suitable house-sites in other localities, while blocks of model buildings have been constructed according to approved designs for the occupation of the poorer classes. The registration of vital statistics is another sanitary topic which has come under consideration with special reference to the need for improving the diagnosis of the causes of mortality. This object has been facilitated by the appointment of medical subordinates as registrars. When the City Municipal Act was revised and consolidated in 1904 provision was made for the exercise of a larger measure of control over the sale of food and drugs and for the prevention of adulteration. But though the municipal executive has, especially of late, been more active in this direction, it has not yet been found possible to give full effect to the new provisions of law. The first step to be taken is the fixation of definite standards in respect of each article of food. These standards are being determined at the King Institute at Guindy and when fixed will serve as a basis on which to investigate the existence of adulteration by analysis in a special municipal laboratory now under construction.

239. It remains to refer to the water-supply and drainage schemes, both of which were during Sir Arthur's régime placed under the control of a special engineer selected on the recommendation of the Secretary of State, who took charge of his duties in December 1907. In regard to water-supply a scheme had already been drawn up by an officer appointed for the purpose in 1904 and placed under the supervision of the Sanitary Engineer. His proposals, which were accepted by the Sanitary Board and administratively approved by Government in April 1906, received final sanction after further technical scrutiny in March 1907. The estimated cost of the scheme is 23.60 lakhs and the main features consist of (i) the conveyance of water from the Red Hills lake to

Madras City in a closed masonry conduit, (ii) the filtration of the supply so received at Kilpauk and (iii) arrangements in the immediate vicinity of the filter-beds by which it is pumped up into a large elevated tank and thence distributed by gravitation throughout the City. These works are now in progress though the rate of their construction has not been as rapid as could have been desired owing chiefly to the difficulty of securing efficient contractors.

240. Prior to the advent of the special engineer it was deemed necessary to examine the adequacy of the existing distributary system and the preliminary scrutiny led to the deputation of an officer to draw up a complete scheme for the purpose of regulating the supply and preventing the waste of water. The scheme designed by this officer is now undergoing revision at the hands of the special engineer and according to the latest information the approximate cost of the improvement is estimated at 20 lakhs.

241. A project for the provision of an underground system of drainage had been sanctioned in 1897 at an estimated cost of 31·81 lakhs, subsequently raised by the Corporation Engineer to 48·65 lakhs, but in consequence of radical defects in the design brought to light by the Sanitary Engineer in 1906 construction work was brought to a stand-still pending decision as to the extent to which it was necessary to reconstruct sections already laid down, and instructions were simultaneously issued for the preparation of detailed estimates for the drainage of the Tondiarpet quarter on the lines suggested by the Sanitary Engineer. When the special engineer arrived and investigated the state of affairs, his conclusion was that the existing system was generally in a most unsatisfactory condition, that an extensive regrading of the existing sewers would probably be necessary and that in the meantime all that could be done was to make arrangements for the improvement of the pumping plant, the exclusion of silt and storm-water from the sewers and the introduction of an efficient system of flushing and cleansing. Effect has since been given to these suggestions, and the Tondiarpet drainage scheme having been definitely sanctioned in 1910, it was decided to apply the principles

upon which that scheme is based to all future drainage works throughout the City. The special engineer is now engaged in the preparation of comprehensive plans covering the whole area in issue. Construction work has, however, made a substantial advance in Georgetown and Rāyapuram, the most important item being the progress made with the Law College and Rāyapuram pumping stations upon which will depend the drainage of Georgetown.

242. Towards the execution of these large schemes of water-supply and drainage the Corporation has received substantial assistance from Government. Apart from sums lent on easy terms, outright grants to the aggregate amount of some 30 lakhs have been disbursed, the total cost according to the latest estimates being roughly placed at 180 lakhs. The question whether the Government should not itself assume direct responsibility for the control of construction work came under consideration during the last year of Sir Arthur Lawley's Governorship. The Corporation preferred a request to that effect in December 1910, but coupled this application with an implied limitation couched in the following terms:—

“The Corporation trusts that accurate estimates will be made and that the works will be completed within the estimated cost and without recourse to any fresh or additional taxation and handed over to the Corporation in a working condition on completion.”

After devoting careful consideration to this resolution the Governor in Council expressed his regret that he could not accede to the wishes of the Corporation in view of the limitations suggested. As an alternative it was proposed by legislation or otherwise to create a special commission or body of trustees for the purpose of financing and carrying into execution comprehensive arrangements for the drainage and water-supply of the City. But this proposal having been rejected by the Corporation, it was decided not to disturb the existing arrangements, under which expert advice and financial assistance are freely given by Government but the actual construction work is carried out by the special engineer and his staff under the orders of the Corporation itself.

38. SANITATION.

243. A special feature of the sanitary administration of the Madras Presidency as compared with most of the other Indian provinces is to be found in the circumstance that both in rural and urban areas the control of sanitation vests almost entirely in local bodies which are expected to meet the requisite expenditure from their own resources supplemented by Imperial and Provincial grants. They also receive expert advice from the District Medical and Sanitary Officers, the Inspector of Vaccination, the Sanitary Commissioner, the Sanitary Engineer and the Sanitary Board.

244. In the end of 1907 suggestions were made by the Government of India in regard to the general improvement of the sanitary services and the development of the existing establishment on lines calculated to bring it up to modern requirements. Owing to the position occupied by local bodies in Madras Sir Arthur Lawley's Government was unable to accept the main proposal, viz., that a Provincial sanitary service should be created consisting of health officers and sanitary inspectors. They concurred, however, in the desirability of appointing special health officers in the larger towns of the character already employed by the Corporation of Madras and the Madura municipality and expressed approval of the policy of placing special sanitary assistants of the rank of assistant surgeon at the disposal of district boards. But it was pointed out that full effect could not immediately be given to these reforms owing to financial limitations. Sanitary inspectors, it was observed, were already largely employed in municipal areas and also in some of the more important local fund unions and the existing arrangements in this respect were deemed to be adequate. His Excellency in Council heartily endorsed the remaining suggestion made by the Government of India, viz., that additional deputy sanitary commissioners should be appointed, and applied for the services of two officers of this grade for the purpose of assisting the Sanitary Commissioner in his local inspections, from which much practical advantage is derived. This application still awaits the orders of the Government of India.

245. When Sir Arthur Lawley assumed office only five districts employed rural health officers, or "sanitary assistants" as they are styled. In 1906 the number was increased to seven at which figure it remained stationary until 1910-1911 when two of the appointments were abolished on financial grounds. In that year the adequacy of this agency came under special examination with the result that divergent opinions were expressed as to its utility. Finding that the adverse criticisms received were, for the most part, based on the want of system in the method of employing sanitary assistants Sir Arthur's Government came to the conclusion that it would be a mistake to abolish these appointments and in January 1911 promulgated a set of rules specifically defining and regulating the duties of sanitary assistants in such a way as to ensure that the best use should be made of their services. With a view to increase the efficiency of this class of officers the Government had in 1909 approved of their undergoing a special course of instruction in hygiene and minor sanitary engineering. In 1910 a similar test was prescribed for the lower grade of sanitary inspectors. This examination, which is compulsory at the end of every five years' service, is immediately preceded by a course of practical and theoretical training held at the Medical College, Madras, during the annual summer vacation. In view of the higher qualifications demanded and of representations made by the Sanitary Commissioner as to the insufficiency of the emoluments ordinarily drawn by sanitary inspectors and assistant sanitary inspectors a model scale of pay was framed in June 1911 and commended for adoption to all municipal councils. This recommendation has in numerous cases been accepted, and has led to a material improvement in the position and prospects of the sanitary staff employed in municipal areas.

246. The Sanitary Board is merely an advisory body the function of which is to approve, modify or disapprove plans and estimates relating to sanitary works. It consists of the Chief Engineer as President with the Surgeon-General and the Secretary to Government in the Local and Municipal Department as members. In

1908 the Government of India suggested that the Sanitary Commissioner and the Sanitary Engineer should be appointed members of the Board together with one or two Indians, preferably non-officials. This recommendation, however, was not adopted, it being pointed out that the invariable practice of the Board was to obtain the opinions of the Sanitary Commissioner and the Sanitary Engineer before passing final orders on the schemes submitted to it, while the introduction of any Indian element appeared unnecessary in view of the fact that the functions of the Board were merely advisory and any addition to the number of members was likely to render it unwieldy and to retard the disposal of business. The volume of work coming before the Sanitary Board was lightened in 1910 by the issue of orders enhancing from Rs. 1,000 to Rs. 2,500 the minimum limit of estimated cost above which sanitary projects require the approval of the Board prior to execution. An important part of its duties consists in the revision of standard plans. It has recently been engaged with the scrutiny of a complete series of type-designs for hospitals, dispensaries and accessory buildings in rural areas, which should be ready for issue at an early date together with detailed plans and specifications, thus materially facilitating progress with the construction of medical buildings of a character commensurate with modern requirements.

247. A prominent feature of the administration during Sir Arthur Lawley's régime has been the introduction of the system of granting special subsidies to local bodies in aid of sanitation. Primarily such assistance consists of an annual assignment of $3\frac{1}{2}$ lakhs made available by the Government of India, but this has been supplemented to such an extent by special contributions from Provincial and Imperial surpluses that in the four years 1908-12 upwards of 27 lakhs have been placed at the disposal of district boards and municipal councils. These sums are mainly devoted to schemes for the opening up of congested areas, the acquisition and laying out of town extensions, the formation of conservancy lanes and the improvement of water-supply. They do not cover large projects for the improvement of water-supply or drainage, which in the case of

municipal areas usually form the subject of special assistance, one-half of the cost being contributed from Provincial funds, while the balance, if need be, is lent on easy terms to the council concerned.

248. Schemes of the latter character are ordinarily initiated on the recommendation of the Sanitary Commissioner and the nundergo investigation at the hands of the Sanitary Engineer. Some idea of the volume of work which this involves may be gathered from the statement that in the programme of operations approved for the year 1911 no less than 58 schemes were included, of which 33 related to proposals for the improvement of water-supply and 25 to drainage projects. Of these all but seven were in municipal areas, the excluded items appertaining to small towns under the control of local boards. It has been recognized that this programme is too extensive to permit of its being worked out in its entirety during the year, but temporary arrangements have been made for the assistance of the Sanitary Engineer pending a thorough reorganization of the investigating staff employed under that officer. When the schemes which he prepares have received the approval of the Sanitary Board and the sanction of Government, they are ordinarily executed by the Public Works department, though in exceptional circumstances the supervision of works is entrusted to the Sanitary Engineer himself.

249. In connection with the topic of water-supply mention may be made of proposals, which have now reached an advanced stage, for the establishment of experimental filters at Guindy, the object of which is to subject to practical tests under skilled supervision the efficiency of the various systems of filtration actually adopted or recommended for adoption.

250. Shortly before His Excellency Sir Arthur Lawley assumed office, the Government of the Madras Presidency had issued a comprehensive review of the local system of plague administration with reference to an exhaustive report submitted by a selected officer of the Indian Civil Service. At that period the part played by the rat-flea in the dissemination of plague had not been definitely established and the view accepted was

that in bubonic cases the chief cause of infection was the entry of the plague bacillus through abrasions in the skin. It was recognized that the destruction of rats was an important remedial measure, but inoculation was regarded with but qualified approval and stress was chiefly laid upon the use of disinfectants, particularly perchloride of mercury, izal and chloride of lime, the wholesale unroofing of houses and the enforcement of the passport system for the purpose of ensuring the earliest possible intimation of the occurrence of a case of plague in localities hitherto not infected. In October 1906 the Mufassal Plague Regulations were revised and consolidated with reference to the policy then approved, the only relaxation of importance relating to the question of the segregation of persons brought into contact with imported cases. A distinction was drawn between the pneumonic and bubonic varieties of plague, segregation of contacts being prescribed as the rule in the former and treated as an exceptional procedure in the latter case. In December 1906 special reports were required regarding the measures taken to destroy rats and to ascertain whether or not they were infected with plague. In January 1907 a revised edition of the Plague Inspector's Manual was published and in the following September special action was taken to secure the co-operation of the people with measures for the repression of plague by circulating vernacular translations of letters on the subject from His Majesty the King Emperor and His Excellency the Viceroy. In October this step was followed up by the publication of a resolution embodying the preliminary conclusions of the scientific commission appointed in 1905 to investigate the causation of plague. This constituted the first definite pronouncement that the vehicle of contagion is the rat-flea and indicated the possibility of contracting expenditure on disinfection and the advisability of concentrating attention on the value of inoculation as a means of counteracting the effects of the bites of infected fleas. These conclusions led as a natural consequence to the grant of special privileges to the holders of inoculation certificates, who were granted exemption from the passport rules for a period of nine months instead of four, and

to the issue of special instructions as to the most effective method of destroying rat-fleas, the disinfectant commended for the purpose being an emulsion of kerosine-oil. The rules were further relaxed by the abolition of the disinfection of ordinary articles of merchandise, the unroofing of human habitations and the burning of infected houses except in the case of temporary structures of no value. In 1909 the Mufassal Plague Regulations were again revised and republished, the stringency of the passport rules being simultaneously lessened by reducing the period of observation from ten to seven days. The medical examination of passengers arriving by sea was also discontinued, whatever the port of origin, except in cases where the vessel by which they travelled was actually infected with plague, and other minor relaxations of the marine plague rules were sanctioned; the regulations dealing with this branch of the administration were revised and re-issued in June 1910, the opportunity being taken to bring them into strict accordance with the decisions embodied in the Paris Sanitary Convention of 1903. In 1911 public attention was invited to the efficiency of the sun as a disinfecting agent and instructions were issued as to the proper method of employing this agency for the destruction of fleas in clothing and bedding. With a view further to promote resort to inoculation, particularly in cases where the wholesale evacuation of an infected area has been directed, orders were issued permitting the re-occupation of evacuated buildings when all the members of the household have undergone inoculation. The payment of subsistence allowance was with the same object sanctioned to indigent persons temporarily incapacitated from earning their livelihood by the indisposition resulting from the operation.

251. The foregoing account of the outlines of the plague policy followed during the period of Sir Arthur Lawley's Governorship indicates that the main idea underlying it was a desire to enlist the co-operation of the people and to relax the stringency of preventive measures to the utmost degree considered safe. More concrete evidence of the sympathetic attitude of the Government is to be found in the substantial assistance from Provincial funds given from time to time to local

bodies, particularly municipalities, whose resources were depleted by expenditure on plague. This assistance was, in addition to the relief afforded by the free grant of the services of officers of superior grades deputed for plague duty and of all police establishments employed on plague work and by the general adoption of the principle that in so far as distinct classification is possible local funds shall be exempt from all charges connected with the inspection, observation, segregation and medical treatment of travellers by sea or land.

252. At the close of Sir Arthur's administration a section of the Plague Research Commission was at work in the Madras Presidency, being engaged on the working of a scheme devised with the object of determining—

(a) why certain towns have escaped infection up to the present,

(b) why others have only recently been attacked, notwithstanding the period during which the disease has been established in India,

(c) why others, though the subject of severe attacks on one or two occasions, have since escaped with immunity, and

(d) why plague has been persistently present in some towns for years together but in a form of unusual mildness.

253. These problems, it may be said, constitute the special features of plague in the Madras Presidency, together with the circumstance that in rural areas it is the frontier districts adjoining the Nizam's Dominions and Mysore which have suffered most severely. As compared with other provinces and with its own record in previous years, the Madras Presidency may be regarded as having enjoyed a fortunate degree of immunity from plague during the period of Sir Arthur Lawley's Governorship, the reported numbers of seizures and deaths being approximately 33,500 and 25,500 as against 70,600 and 55,700 during the preceding quinquennium.

254. Malarial fever constitutes the chief cause of mortality in the Presidency of Madras and the attention of local bodies has repeatedly been drawn to the character of preventive operations necessary, such as —

(a) the filling up or draining of pools and the killing of mosquito larvæ by kerosine-oil,

(b) the carrying out of minor drainage works adapted permanently to relieve subsoil and surface water obstacles, and

(c) the treatment of the inhabitants with quinine.

Advice of this character was specially reiterated by Sir Arthur Lawley's Government in December 1907 and the instructions then issued were supplemented in June 1911 by the issue in English and the principal vernacular languages of a specially prepared "Lesson on Malaria" with a view to its circulation among the population in general. While the multiplication of anopheline mosquitoes is facilitated by wet cultivation, His Excellency in Council recognized the impracticability of the ideal plan of prohibiting such cultivation in the neighbourhood of human habitations, but in March 1908 an order was passed based upon this ideal and designed to prevent wet cultivation from being newly introduced in the immediate proximity of dwelling houses. For this purpose it was laid down that a dry zone, ordinarily 50 yards in width, should be fixed round village-sites, that no new irrigation work should be constructed so as to affect this area, that no Government water should be supplied for the irrigation of any dry land within it and that no such dry land should be subsequently registered as wet. A much more important step, the consequences of which are likely to be far-reaching, was taken in March 1911 when with reference to the conference which met at Simla in October 1909 Sir Arthur's Government resolved to create a special Malaria Board consisting of the Forest Member of the Board of Revenue as president and the Sanitary Commissioner and a senior medical officer as members. The first function of this body will be to make a critical examination of the vital statistics of the province with the object of ascertaining local variations in the prevalence of malaria and the areas which may be regarded as typical for the purpose of further test and investigation. For this purpose a special staff under the control of a commissioned medical officer will be entertained in the first instance for a period of six months. Actual investigation work will then be taken up and in

the light of orders passed in September 1911 the first scheme of practical work will relate to a tract of country immediately to the north of the City of Madras in the neighbourhood of Ennore where the exceptional prevalence of malaria is believed to be a dangerous source of infection to the population resident in the Presidency town. Apart from investigation work the staff sanctioned on account of this scheme will be entrusted with the actual destruction of the breeding places of anopheline mosquitoes.

255. The attention of His Excellency's Government was early in 1911 drawn to the exceptional prevalence of cholera in Tanjore, and the Sanitary Commissioner was directed to proceed to that district in order to investigate the outbreak and to submit a special report as to the remedial measures possible. The report received was published for general information in May 1911 together with a Government Order embodying comments on the Sanitary Commissioner's proposals and indicating in some detail the nature of the policy which should be pursued with reference to epidemics of cholera.

256. The first year of Sir Arthur Lawley's administration witnessed the tentative introduction of a scheme for placing the work of the vaccination department on a more efficient basis. Compulsion had previously been restricted to municipal towns and isolated villages and the agency employed was generally underpaid, while the arrangements for verification of the results of the operations performed were radically defective owing to the circumstance that the operator himself was allowed to record the result in the first instance. Under the "trial scheme" as it was called, which was applied in the first instance to the entire district of Chingleput and to selected taluks in Madura and North and South Arcot, the qualifications and pay of the vaccinators were substantially enhanced, they were required to undergo a special practical course of vaccination work and the duty of inspecting cases and verifying results was transferred to deputy inspectors touring in the wake of the vaccinators. Simultaneously with these improvements in the agency employed vaccination and the registration of births were declared

compulsory. The area covered by this scheme has not been materially expanded since 1906 and owing partly to the untrustworthiness of the statistics available it is difficult to say with certainty by what measure of success the experiment has been attended, but in the opinion of those best qualified to judge it has been justified, and proposals for the extension of the scheme to other districts throughout the Presidency are now under the consideration of the Governor in Council. It may be observed, however, that notwithstanding the element of compulsion the registration of births has been so incomplete and in other respects so unsatisfactory that it has been decided for the present not to insist upon compulsion in this matter when vaccination itself is made obligatory.

257. The supply of lymph upon which the Presidency depends is manufactured at the vaccine section of the King Institute at Guindy. Notwithstanding various improvements introduced in the working of this section during 1906 and the establishment of a reserve stock of prepared vaccine in 1909, the experience of the year 1910-11 proved that the supply available was inadequate to meet emergencies and indicated that the quality of the lymph underwent deterioration to a serious degree during the hot weather months. To remedy these defects the Government sanctioned the supply of a refrigerator and cold storage plant, which it is hoped will be in working order before the hot weather of 1912. They also approved the establishment of a special depôt in a convenient district for the purpose of collecting calves and bringing them into proper condition before being utilized as a means of producing vaccine.

258. No account of the history of sanitation during the past quinquennium would be complete without some reference to the useful work done in the King Institute of Preventive Medicine. Apart from the vaccine section to which reference has just been made, the staff of this institution, which during Sir Arthur's term of office received an accession in the shape of an assistant director recruited from the Indian Medical Service, has carried out a quantity of valuable scientific research. In addition to the bacteriological work which has grown

to such an extent as to necessitate the provision of further accommodation--just sanctioned--the Institute has since 1908 proved of special value in connection with the arrangements made for the analysis of samples taken from the water-supplies of municipal towns, jails and other places.

SECTION IV.—EDUCATIONAL

39. EDUCATION.

259. The history of the Educational department during the quinquennium of His Excellency's administration presents a record of steady development. The total number of public educational institutions conforming to departmental standards, whether managed by Government, by public bodies or by private individuals, rose from 22,411 to 24,967 and the number on their rolls from 839,910 to 1,051,966, while the aggregate expenditure on education, direct and indirect, advanced simultaneously from 93·7 to 119·4 lakhs, and the ratio of scholars to the population of school age improved in the case of boys from 28·9 to 34·7 and in that of girls from 5·4 to 6·8 per cent.

260. University and collegiate education in this Presidency developed materially in consequence of the operation of the Indian Universities Act, 1904, which came into force about the end of 1904 and modified the constitution of the University of Madras in important respects. In pursuance of the provisions of this enactment the University appointed in 1905 a representative commission under the presidency of the Director of Public Instruction for the purpose of carrying out a systematic inspection of all affiliated colleges and the report of this commission together with the recommendations of the Syndicate of the University was submitted to Government shortly after Sir Arthur assumed office. The report was necessarily critical in character, but much of the criticism was of a constructive nature indicating, where possible, the appropriate remedies for the defects found in the system of management, the composition of the staff, the efficiency of the teaching and the educational aims of the various colleges inspected.

261. An additional impetus was given to the advancement of collegiate education by the promulgation of a new set of regulations formulating the relations of the

University with affiliated colleges, the courses of study to be pursued by candidates for degrees and the examinations therefor, which were framed by Government under the powers conferred by section 26 (2) of the Indian Universities Act and published in December 1906. The scheme of studies and examinations previously in force was considered to be open to several objections, and there was a growing feeling that the old Intermediate or F.A. course had too little connection with the high school curriculum on the one hand and the degree course on the other, and that the B.A. course, while perhaps too ambitious for the student of average ability, was not an adequate test of the proficiency of the students of first-rate capacity. Further, it was held that the University curricula did not lay sufficient emphasis on the importance of English, a sound working knowledge of which is, in the case of an Indian student, the only avenue to a liberal education. The new regulations were aimed primarily at remedying these defects and the result has been (i) the creation of two B.A. courses, the first an honours course of at least three years' duration from the Intermediate examination and the second a pass course of two years' duration; (ii) the more intimate connection of the Intermediate course, which covers a period of two years from matriculation, with the degree course by permitting the candidate to restrict his studies to subjects which he can continue to the degree stage; and (iii) the assignment of a more prominent place in the scheme of studies to the English language. A genuine effort was made to improve affiliated colleges so as to bring them up to the standard required by these regulations and to remedy the specific defects pointed out by the commission of inspection. These measures have not only contributed to reform the tone and character of existing colleges, but have at the same time operated to bring about the closure of inefficient institutions which were unable for some cause or other to conform to the regulations.

262. Other changes of importance which were effected during the period were—

(i) the promulgation of regulations providing for the maintenance of discipline in colleges.

(ii) the remodelling of the course of studies for the degree of Licentiate in Teaching,

(iii) the introduction of a scheme for the grant of titles in oriental learning,

(iv) the passing of regulations regarding the establishment of University lectureships in the honours courses and the institution of research studentships, and

(v) the formation of a University library.

263. University reorganization made necessary very considerable additions to the staff and equipment of the affiliated colleges. It was decided that of the Government colleges only that at the Presidency should take up the new honours courses, and its development has been a specially striking feature of Sir Arthur Lawley's administration. Six professors and seven assistant professors have been added to the staff and the buildings and equipment have been very greatly improved. The other Government colleges have undergone similar but less extensive improvements and liberal grants-in-aid have been given to collegiate institutions under private management, among which the Madras Christian College and the St. Joseph's College at Trichinopoly may be mentioned as having responded with conspicuous success to the demands made upon them by the new courses.

264. The re-modelling of the L.T. course necessitated the reorganization of the Teachers' College at Saidapet. This has involved the absorption into it of the Government Training College at Rajahmundry, very considerable additions to its staff and enhancement of salaries, an increase in the number of students and a complete re-modelling of the system of training. To provide for the extension of the scope of its activities the buildings until lately occupied by the Agricultural College have been placed at its disposal, and it now comes nearer than any other institution in the Presidency to the ideal of a residential college.

265. Shortly after Sir Arthur Lawley assumed the office of Governor the new Educational Rules and a revised Grant-in-Aid Code introducing momentous changes in the character and scope of the secondary and elementary

schools throughout the Presidency were brought into operation. The old distinctions between lower and upper primary, and between lower and upper secondary schools were done away with and institutions for general education were divided into two classes, namely, elementary and secondary, separate sets of rules being applied to each of these classes. Under the former class are included schools intended for the elementary education of the masses, that is, for children unlikely to continue their education beyond the primary stage, where the medium of instruction, which terminates with the seventh standard, is the vernacular of the pupils, though English may be taught from and above the fourth standard. The rules for the recognition of this class of schools are simple and elastic and permit adaptation to local conditions under the guidance of the inspecting officers. Secondary schools are intended for boys who are likely to go to a college, into business, or into the lower grades of the public service. Methods of assessing grants-in-aid have been radically altered. The last vestiges of payment by results to elementary schools have disappeared, such schools being now aided in proportion to the number of teachers and pupils. In colleges and secondary schools the grants are no longer calculated as a proportion of the salary paid to teachers, but on what is necessary to supplement the funds provided by managers. The rules have also been modified with a view to simplify the relations of the Government and the Educational department with local bodies. The schools maintained by the latter have been removed from the operations of the Grant-in-Aid Code, but they are when necessary subsidized by Government for educational purposes.

266. The sharp differentiation of elementary and secondary education mentioned above was intended to initiate a comprehensive reform of the latter. The next step was the institution of secondary school-leaving certificates. This represents an attempt to give a more practical form to secondary education, thus removing the reproach that the education in secondary schools was little more than a process of "cramming" confined to the limited number of subjects

required for the Matriculation examination. Holders of secondary school-leaving certificates are eligible for admission to the public service and to the University course, the latter object having been secured by a University Regulation authorizing the registration as matriculates of certificate-holders considered by heads of colleges to be competent to pursue a University course. They are also entitled forthwith to enter schools of a professional or technical character unconnected with the University. The scheme was so devised as to embrace a wider range of studies than the Matriculation examination and to furnish some guarantee not merely that a student has reached a certain standard of proficiency but also that he has undergone a definite course of study in a recognized secondary school and during the period so spent has conducted himself in a satisfactory manner. To this end the secondary school-leaving certificates take into account the school work done by the pupil from the fourth form upwards under a system by which marks are assigned for each subject and a record is also kept of the results achieved at a public examination conducted by a Board of which the Director of Public Instruction is the President. The scheme was introduced with effect from 1st January 1910, and has already had a marked effect on both the breadth and the efficiency of school work.

267. The next step in the reform of secondary education will, it is anticipated, be the establishment of model schools, a scheme for which has been submitted to the Secretary of State. This has for its object the maintenance of a few Government secondary schools in such a state of efficiency that without entering into competition against established private schools they may serve as models for imitation, particularly as providing a wider range of studies than is commonly afforded by aided schools. Simultaneously with the creation of these model institutions it is intended by liberal grants-in-aid to assist other secondary schools towards attaining the standard which they will set.

268. Until recent years the training of teachers in this Presidency was of an almost entirely technical

character. It was considered that the ordinary schools should give the prospective teacher all the general education necessary and that nothing was required to fit him for his duties but a course of professional instruction and some practice in teaching. Experience, however, proved these ideas to be erroneous, especially in the case of lower elementary teachers. With a view therefore to reform the methods of training a scheme was submitted to the Government of India in 1904 the main features of which were proposals—

(i) to extend the course of training for elementary teachers from one to two years ;

(ii) to make a general education the mainstay of the curriculum ; and

(iii) to convert the practising schools into model schools equipped with a complete staff.

After protracted discussion, these proposals received the sanction of the Secretary of State in 1907 and the scheme was introduced with effect from the 1st September of that year.

269. This was the first move towards the reform of the training schools. Their complete re-constitution engaged the anxious consideration of Sir Arthur's Government with the result that a scheme has recently been approved providing for a comprehensive reorganization of all training institutions, under which the existing normal schools will be replaced by fourteen elementary, ten higher elementary training schools and six secondary training classes attached to selected secondary schools or preferably to secondary departments of Arts colleges. The pay and prospects of the teachers in these schools will be greatly improved and their increased efficiency should make up for some diminution in their number. It is anticipated that they will be able to train 1,140 teachers each year, of whom 100 are intended for secondary schools, 240 will be employed as higher elementary teachers and 800 as elementary teachers of the lower grade. This supply together with some 560 teachers trained in aided training schools should go far to meet the immediate demand for elementary teachers.

270. The expansion of elementary education is perhaps the most momentous question which has of late

been to the fore. In 1906 and 1907 a definite step was taken towards the geographical extension of this grade of instruction by the establishment of new schools in villages hitherto unprovided with facilities for education and the provision of buildings at State cost. More recently a recurring grant of 1.60 lakhs a year has been assigned to local boards in order to enable them to open and maintain schools in villages where no schools exist at present, and a subsidy of 1.25 lakhs has been distributed to the same bodies for the construction of elementary school buildings. Moreover, a working-plan for the expansion of elementary education during the next five years has been drawn up, which, if approved and continued, should greatly accelerate the breaking down of illiteracy. Sir Arthur Lawley's Government did not view the Hon'ble Mr. Gokhale's Elementary Education Bill with favour. In their opinion compulsion, especially of a partial character, was premature unless and until practical experience had proved it difficult to fill established schools, a stage which has certainly not yet been reached in the Presidency of Madras. As it seemed to them, therefore, the policy most likely to be attended with success consisted in the framing of a definite financial programme providing for the expansion of elementary education by substantial recurring grants from Imperial and Provincial funds increasing annually in arithmetical progression.

271. Though the Law College at Madras had been working as a full-time institution since 1902, it was not until 1907 that on the recommendation of Sir Arthur's Government it was definitely placed on a permanent basis. The inadequacy of the staff attracted attention towards the end of 1910, when proposals for its improvement were submitted to the Government of India orders on which have not yet been passed.

272. The premier technical and industrial institution in the Presidency is the College of Engineering, Madras. In 1904 a committee was appointed to consider the requirements of this college in the matter of accommodation and laboratories, the necessity for the revision of the syllabus of studies and the curriculum and other connected questions. After prolonged deliberation the committee made various recommendations which were

substantially accepted by Sir Arthur's Government in 1906 and embodied in the revised rules of the college issued in March 1907. Among the changes sanctioned may be noted the institution of a probationary class for military students, the revision of the qualification for admission to the engineer class by substituting the First Examination in Arts for the B.A. degree examination, and the extension of the college courses from two to four years. In the matter of accommodation the committee considered that in view of the existing need for more laboratory and residential accommodation and the impossibility of extending the buildings on the present site it was expedient to remove the college to a more suitable location. It was accordingly decided to remove the college to Guindy, outside the municipal limits of Madras, where an extensive site has been secured for the construction of an entirely new building with the necessary workshops and laboratories, hostels for the students and residences for the principal and professors. Pending removal to this site the expansion of the college has been checked and its work has unavoidably been restricted by the want of adequate accommodation. But the curricula and courses of studies for the several classes have already been materially altered to suit modern requirements and provision has incidentally been made for instruction in electrical engineering.

273. The only institution in which any artistic training is given in this Presidency is the Government School of Arts at Madras. This school has also an industrial side, and until 1905 that branch was especially in evidence owing to the extensive operations carried on in aluminium-ware, wood-work, textile fabrics and chrome leather. In 1904 the question of the complete reorganization of the school was taken up and orders were passed in 1905 limiting the scale of industrial operations and defining in general terms the lines on which the school should in future be conducted. The scope of the teaching was restricted to (i) pure design and (ii) design as applied to industries such as metal-work, the lacquer-trade and wood-carving, and the commercial side of the school was confined to very narrow limits. Pending the selection of a qualified superintendent this reorganization was not

fully carried out until after Sir Arthur had assumed charge as Governor. A superintendent was appointed towards the close of 1907 and in 1908 other important changes were introduced in the constitution and working of the school, while in the following year the staff was completely reorganized. These measures, it is gratifying to record, have been productive of very satisfactory results.

274. In 1908 Government summoned a conference of gentlemen interested in the conduct of the chief industries of the Presidency in order to determine the lines on which industrial development should proceed. This conference recommended among other things

(i) the employment of a dyeing expert to report on the state of that industry and to advise on the question of the establishment of one or more trade dyeing schools on the lines of the Leeds and Bradford colleges;

(ii) the establishment of weaving institutions of a character similar to the Manchester and Bradford textile schools; and

(iii) the opening of a leather trade school in Madras.

In pursuance of these resolutions a dyeing and a leather expert have since been appointed with the sanction of the Secretary of State and they are now engaged with the task of preliminary investigation. A scheme for the enlargement and reorganization of the Madura Technical Institute, which was taken over by Government from the Madura District Board in 1910, is also under consideration. The main features of this project are the formation of weaving, technical and mechanical departments and the establishment of a tinctorial laboratory.

275. The difficulty of securing the services of qualified women teachers has been and is still a great obstacle to any real progress with the education of the Indian girl. To meet this difficulty Sir Arthur's Government have recently obtained sanction for the reorganization of the existing training schools for mistresses and the establishment of two new schools, one in Rajahmundry and the other in Mangalore, for the training of Telugu and Canarese female teachers. In addition to the Presidency Training School for Mistresses where teachers

knowing English are trained, there will shortly be six Government training schools, two for Tamil, one for Telugu, one for Canarese and two for Muhammadan women. In view of the growing demand for the higher education of girls in the Madras City and in other parts of the Presidency, arrangements have recently been made to secure the development of the small secondary institution attached to the Presidency Training School for Mistresses into a complete secondary school comprising classes from the infant to the fourth standard and from the first to the sixth form and to provide it with an independent and adequate staff. The standard of the Government Girls' school at Cannanore and of the model school attached to the Government Training School for Mistresses at Coimbatore will also be raised to the upper secondary grade. These increased facilities for the higher education of girls and for the training of female teachers should go far to meet a genuine public want and prove productive of fruitful results in the future.

276. The education of Muhammadans and especially of Muhammadan girls received the sympathetic consideration of Sir Arthur's Government. As a result of his first tour in the Coimbatore and Salem districts, His Excellency was led to examine the question of improving and generally reorganizing the Government Muhammadan girls' schools with special reference to the strength and remuneration of the staff employed therein. These enquiries led to additions to the establishments designed to meet actual requirements, a graduated scale of salaries higher than that allowed for teachers in Hindu girls' schools was introduced, and the payment of capitation allowances to trained teachers was inaugurated in all Muhammadan girls' schools without reference to the number of standards in them. Among the other steps taken to improve Muhammadan education mention may be made of the opening of new Government schools for the education of Muhammadan girls in Mylapore, Mangalore, Trichinopoly and Satyamangalam, and the reorganization of an institution for the training of Muhammadan female teachers transferred from Gunnerbid to Guntur.

277. The education of the aboriginal and hill tribes, such as the Khonds, Jatapus, Savaras, Panos and Koyas,

who dwell in the Agency tracts of Ganjām, Vizagapatam and Gōdāvari, was sympathetically watched by His Excellency's Government and elementary schools were opened in places where a genuine demand existed. In order specially to encourage education among the Koyas, a system of scholarships was introduced and the supply of books and slates free of cost has been sanctioned as an experimental measure. Special aid was also given towards the construction of a building for a school for the blind at Palamcottah.

278. The most important event in connection with European education was the introduction of a new Code of Regulations for European Schools. This Code came into force on 1st April 1906 after which date European schools were constituted into a different class enjoying special conditions of recognition and aid. An important feature of the new Code is the liberality of the scale upon which grants-in-aid are calculated, a change which expanded the State expenditure on European education from 1½ lakhs in 1905-06 to nearly 2¼ lakhs in 1909-10.

279. Among other measures adopted during the period of Sir Arthur's Government mention may be made of the revision of the curricula and syllabus of studies, the introduction of a scheme for the conduct of a written examination for the grant of teachers' certificates under the Code of Regulations for European Schools and the constitution of a board for the conduct of the high and middle school and scholarship examinations contemplated by the Code.

280. Liberal aid has also been given towards the extension and improvement of the Lawrence Asylum. On inspecting this institution in 1906 His Excellency noticed many structural defects in the buildings and was particularly impressed with the need that existed for additional accommodation. In consultation with the Asylum Committee a comprehensive scheme was accordingly drawn up providing for such alterations and improvements as were considered necessary and a grant of Rs. 57,000 was made by Government towards their execution. The most important addition to be made to the building is the construction of a new chapel, the foundation stone of which was laid by Sir Arthur on the 5th October 1911.

281. The chief administrative changes affecting the cadre of the educational service during Sir Arthur Lawley's régime were the addition of two appointments in the Indian Educational Service to the inspectorate, the assignment of an assistant inspector to each district, the constitution of a subordinate education service the transfer of the agencies for the supervision of elementary schools employed by district boards and municipal councils to the direct control of the Educational department. The last of these measures was very necessary both to bring the supervisors, on whose efforts the spread of elementary education largely depends, under the immediate control of the department and to improve the quality of the men recruited. It was brought into effect from the 1st March 1909, and the change has unquestionably enhanced the efficiency of the inspecting staff, which is now organized on a systematic basis. The circle inspectors have general supervision over the inspection of secondary schools, the assistant inspectors control—each in his district—elementary education and advise local bodies, the sub-assistant inspectors inspect elementary schools with a view to grants-in-aid and the supervisors are immediately responsible for the improvement of existing elementary schools and the opening of new ones.

SECTION V.—LEGISLATIVE.

40. LEGISLATION.

282. An account of the more important legislative enactments passed during the governorship of Sir Arthur Lawley will be found in other sections and it is proposed here merely to indicate the chief changes in the legislative machinery which took place during His Excellency's tenure of office.

283. In anticipation of the system of finance committees subsequently placed on a definite basis by the passing of the Indian Councils Act, 1909, unofficial members of the Legislative Council were in 1908 admitted to consultation in regard to the details of the budget proposals formulated by the Local Government, a special conference being held for the purpose in the course of which a variety of suggestions and criticisms were made to which due consideration was given before the budget estimates assumed the final form in which they came before the Legislative Council as a whole for the customary annual discussion in public. This procedure was designed in order to facilitate the thorough scrutiny of the Government programme of expenditure and to meet the criticism that unofficial members of the Legislative Council had no effective say in the framing of the budget since its provisions were not made available for discussion until after they had received the final *imprimatur* of the Government of India with the result that the annual budget debate necessarily assumed an academic character.

284. The constitution and scope of the Legislative Council underwent other radical changes when on the 15th of November 1909 the Indian Councils Act came into operation. In accordance with the regulations framed under that enactment the number of additional members exclusive of the Advocate-General who holds

his seat *ex-officio* was increased to 42, of whom 19 are elected as follows :—

	Member.
(i) By the Corporation of Madras	1
(ii) By the University of Madras	1
(iii) By the municipal councils and district and taluk boards	8
(iv) By the zamindars	2
(v) By the landholders other than zamindars	2
(vi) By the Muhammadan community	2
(vii) By the Madras Chamber of Commerce	1
(viii) By the Madras Trades Association	1
(ix) By the planting community	1

The remaining 23 members are nominated by His Excellency the Governor and it is prescribed by rule that not more than 16 may be officials. When addressing the first meeting of the enlarged Council in January 1910, Sir Arthur Lawley referred in the following terms to the change in its constitution :—

“Then I should like, if I may, to say a few words as to the composition of this Council, for this is a subject which has been of great public interest and which in my opinion is one of very great importance. In doing so, I think I may with advantage recall the words of Lord Morley in the House of Lords at the end of the year 1908, when he sketched the policy to be adopted in this country and stated the objects which he had in view in introducing these changes. These objects were enumerated in his speech as being, in the first place, an increase in the number of councillors; in the second place, an extension of the elective system; in the third place, an endeavour to ensure the representation of different classes and different interests; fourthly, the repeal of the prohibition which debar members of the Council from moving resolutions and dividing the Council upon financial questions; fifthly, the granting of power to discuss matters of public interest and to make recommendations to the Government; and finally, the doing away with the official majority.

“I think it will be proved that, in Madras at all events, effect has been given to the principles which underlie this scheme of constitutional reform. . . . It is something of an experiment and I am surprised to see just now that there is a tendency to decry its magnitude and belittle its importance, but I venture to think that Lord Morley was right, when he said that in these changes there was the opening of a great chapter in the history of British responsibility.

“That this Chamber will not fail to realize and fulfil its obligations and responsibilities, I have no doubt whatever.”

At the last meeting of the Council over which he presided His Excellency referred to the forecast which

he had made and justly claimed that it had not proved in any way erroneous. The spirit and tone of the debates had done much, he observed, to enhance the dignity and the honour of the Council and while the actions of the Government had in almost every field been subjected freely to analysis and criticism, he felt bound to express his high appreciation of the way in which unofficial members of the Council had one and all shown themselves to be imbued with a single-hearted desire to help and not to hinder the progress of good government.

285. The additions to the strength of the Council rendered it incumbent to provide extended accommodation and for this purpose it was resolved to construct a new council chamber on the site of the old banqueting hall forming part of the secretariat buildings in Fort St. George. In the design and building of this chamber Sir Arthur took the keenest personal interest and though it has not been possible for His Excellency himself to hold a session in the new buildings, they are so nearly approaching completion that they should be ready for use at the first meeting of the Council to be convened by his successor in office. In addition to a spacious hall for the purposes of debate the buildings comprise a library, private rooms for the use of members of the Executive Government and the Secretary to the Council and tiffin rooms for Indian members of the Council specially arranged with reference to questions of caste. Both internally and externally the architecture is worthy of the subject. In order to preserve some measure of historical continuity the facade comprises massive pillars of stone which formed part of the pre-existing buildings and in the 18th century travelled as the spoils of war to Pondicherry and were subsequently brought back to their original habitat as a trophy of victory over the French.

286. In the rules for the conduct of business at meetings of the Council it has not as yet been found necessary to make any alterations of importance, though mention may be made of one minor change designed to save unnecessary waste of time. It was formerly the practice when dealing with interpellations to read

aloud each question and answer. Owing, however, to the large number of such interpellations it was decided in lieu of this procedure to place printed copies of the questions and answers at the disposal of each member half an hour before the President takes his seat. When the meeting commences the consecutive numbers of the questions are read out so as to allow each interpellator an opportunity, if he so desires, of putting supplementary questions.

287. In order to assist unofficial members of the Council to follow the course of the administration Sir Arthur's Government ordered that they should be supplied free of cost and without application with the *Fort St. George Gazette* and copies of all published reports of the various branches of the administration of the Presidency and of all printed papers placed on the Editors' Table.

41. TRANSLATORS' DEPARTMENT.

288. With a view partly to raise the standard of the vernacular translations of Acts of the Legislature, official rules and manuals and incidentally to improve the machinery for collecting information regarding the tone of the vernacular press, the staff of Tamil, Telugu, Malayalam and Canarese Translators was reconstituted with effect from January 1910. These establishments now form a single self-contained department controlled by the Secretary to Government in the Legislative department and it is proposed to house them in the Secretariat buildings close to the Council Chamber as soon as the requisite accommodation can be provided.

SECTION VI.—PUBLIC WORKS.

42. PUBLIC WORKS DEPARTMENT— INVESTIGATION OF PROJECTS.

289. Nine projects amounting to Rs. 39,14,000 were sanctioned and others are under consideration. The largest of them, the Tungabhadra, estimated at nearly 17,00,00,000 of rupees, has been laid aside for the time being in favour of the productive Kistna and Cauvery Reservoir schemes.

290. A special Superintending Engineer was appointed in 1909 in connection with the reinvestigation of these. An estimate for the latter of Rs. 3,85,00,000 was prepared and submitted to the Government of India. It provides for a masonry dam of unusual size to impound 80,000 million cubic feet, and a new canal 90 miles long taking off at the Grand anicut. The irrigation provided for consists of 325,000 acres to be brought under cultivation (more than twice the area of Middlesex), 75,000 of second crop in the same area and an extension of 70,000 in the delta.

291. As regards the Kistna Reservoir Project, a new and promising site for the dam was found at which the water could be impounded at a reasonable cost. The works include a large masonry dam and a canal irrigating over 600,000 of acres (nearly the area of Dorset) in the Guntūr district. This protects an area very liable to drought. Questions of great engineering interest were involved in the investigation, the principal being the method of dealing with the immense floods and the quantity of silt brought down by them. Provision has had to be made for surplusing 1,100,000 cubic feet per second (three times the flood discharge of the Nile at Assouan) and for passing the high silt-bearing floods straight through the reservoir and impounding only the clear water after their subsidence. The estimates for the project amount to Rs. 8,33,64,000 and are about to be submitted to the Government of India.

292. An idea of the magnitude of these two schemes may be obtained by comparing them with the great Assouan reservoir whose construction attracted general attention a few years ago. Their dams are respectively 99 and 126 feet higher, while their capacities are twice and four times that of the Assouan lake.

293. *Tank Restoration Scheme.*—An important change was introduced into the method of conducting the investigation and reconstruction of old and abandoned tanks. Hitherto investigation had been carried out by detached survey parties, the construction being part of the work of the regular divisions. As a result of the enquiries of the Irrigation Commission a new scheme was drawn up, in which four new divisions were formed for the purpose of investigation and construction. The result has been an increase in the area investigated and the number of estimates prepared. Owing to the scarcity of labour great difficulty is experienced in making the execution of works keep pace with the preparation of estimates.

43. PUBLIC WORKS—IRRIGATION.

294. From the earliest times the Madras Presidency has depended to a great extent on its irrigation works for its prosperity. A continuous policy of extension and expansion has been pursued until at the present time there are 71,50,000 acres under irrigation, while the great delta systems of the Gōdāvari, Kistna and Cauvery, and the Periyār are world-famous. During the period under review, construction and investigation were pushed on vigorously, the two most important works brought to completion being the Nagavalli and Divi schemes, while in the Tungabhadra, Kistna and Cauvery reservoirs, projects of unusual size and interest have been investigated. These and other smaller works will be described briefly under their various classifications.

295. Three new *Protective Works* were sanctioned and are now under construction. Of these the Mopad project, whose revised estimate is Rs. 26,00,000 is the most interesting on account of the height of its earthen

dam. It is hoped that a great portion of the Nellore district which is particularly liable to drought will be protected by this work.

296. Under the head *Productive* the most important work is the Divi Pumping project. This is the first pumping installation on a large scale ever introduced into India and is still one of the biggest of its kind in the world. The project provides for the irrigation of 50,000 acres in Divi island (at the mouth of the Kistna) by pumping direct from the Kistna, which near its mouths forms a natural storage of water, remaining fresh until December each year. The works consist of a pumping installation situated at the head of the island, the water being drawn from both branches of the river through a loop channel. Seven Diesel oil-engines of 160 h.p. each, coupled direct to 39 inches centrifugal pumps, raise the water through a maximum lift of 15 feet to the main canal. The supply is measured by passing through two Venturi meters, which at the time of their construction were the largest in the world. They are built of steel and reinforced concrete, with entrance and throat diameters of 10 feet and 6 feet (nearly). The head works and principal distributaries took about 2 years to complete, and the extension of cultivation has been equally rapid having reached a maximum of 24,000 acres two years after the opening.

297. The Nagavalli project, sanctioned in 1905, was nearly completed in the period. The works consist in a regulator of 9 spans of 40 feet each across the Nagavalli river, a head sluice and distributary channels commanding about 24,000 acres. The project has been estimated to cost Rs. 18,16,300 and from the latest reports of its working its success appears to be assured.

298. In the *Gōdāvari and Kistna systems* no new works of any great size were constructed, but important work was done in block levelling the whole cultivable area and preparing large scale maps from which the level of every field is readily obtained. So useful have these maps been found that it is proposed to have them prepared at once for the Cauvery and Periyār systems. The principal canals have been systematically gauged with a view to determining the duty at which the delta

irrigation is being worked. It is recognised that the ultimate area has now been nearly attained, and that further extensions can only be made if the present works are brought to a state of maximum efficiency; with this object the various distributaries and drainages are being examined, and put into thorough working order, and the wasteful palmyra spouts used for so long in the Gōdāvari are being replaced by permanent pipes and masonry sluices.

299. In the *Periyār system* improvements have been carried out in the reservoir in the form of a new regulator of 10 spans of 36 feet. The full lake level has been raised by 8 feet, increasing the capacity by 2,361 million cubic feet to a total of 15,660 million cubic feet. The cutting through the watershed between the lake and tunnel has been widened and deepened so as to permit full supply to be let down for irrigation at any lake level besides increasing the available supply.

300. *Rain and flood gauges.*—The importance of having accurate records of rainfall and floods is now fully recognised. The data they provide are essential to the preparation of irrigation schemes. Rain gauges are maintained at a very large number of stations all over the Presidency; and at each of the principal anicuts the floods are carefully gauged, the results being sent to the Chief Engineer's office where they are checked, compared and put on record.

44. PUBLIC WORKS ORGANIZATION, ETC.

301. The annual expenditure by the department has increased remarkably in the last few years. In 1909-1910 it amounted to 132.19 lakhs and in 1910-1911 to 132.98 lakhs, whereas in 1899-1900 it was only 83.6 lakhs—an increase amounting to nearly half a crore in ten years. The system which had prevailed undisturbed for many years was not adapted to cope satisfactorily with this large expansion of work and His Excellency's attention was early directed to the necessity for the adoption of some measures which would prevent delays in the execution of works and repairs, would ensure due

regard for economy, and would secure co-ordination with the other departments of Government. His Excellency also devoted much attention to obtain improvement in the method of preparing the budget. The Chief Engineer's time was found to be so much occupied with the scrutiny of plans and estimates at head-quarters and with his secretarial duties that he was unable to devote as much time as desirable to touring throughout the Presidency for the purposes of inspecting works, of giving advice regarding their execution and the preparation of plans and estimates and of carrying out his duties as head of the department.

302. A small committee was first appointed to make proposals for the consideration of the Government. Since their report has been received, the problem of improving the administration of the department has received the unremitting attention of the Government and various proposals have been from time to time considered. The following are the principal measures which have been carried out.

The Chief Engineer's duties fall under three main heads: (1) He is the head of an important department; (2) he is a Secretary to Government; (3) he is the highest technical authority and technical adviser to Government on engineering questions in the Presidency.

Measures have been adopted to mitigate the tendency of his duties under the second and third heads to interfere with the proper discharge of his duties as head of the department.

As regards the secretarial duties, a temporary Deputy Secretary to Government has been sanctioned in order to relieve the Chief Engineer of some of his less important duties as Secretary and to prevent the accumulation of papers in the Secretariat during his absence from head-quarters on tour.

To ensure as far as may be that the Chief Engineer shall not have to deal with projects which could well be left to officers subordinate to him, the power of Superintending Engineers has been enhanced and their drawing offices have been strengthened. In technical matters the policy aimed at may be summarised as decentralization of control as regards details combined with centralization

of control as regards the general policy and rules of design. Superintending Engineers were empowered to accord technical sanction to detailed plans and estimates for works which are not expected to cost more than Rs. 2,500; this limit of cost has been raised to Rs. 20,000 and it has been left to the Chief Engineer to decide in the case of any work expected to cost more than Rs. 20,000 and not more than Rs. 50,000 whether the Superintending Engineer may be permitted to accord technical sanction to the detailed plans and estimates.

303. In addition to the reorganization and strengthening of the Superintending Engineers' drawing-offices, the Upper Subordinate establishment has been strengthened and improved and some territorial re-distribution of charges has been effected including the formation of an additional Superintending Engineer's circle.

Rules have also been framed which it is believed will lead to closer co-ordination both in the Secretariat and in the districts between the Public Works department and other departments.

While the Chief Engineer has been in this manner relieved of some of his technical work, his own office has been reorganized so as to give him greater facilities for dealing with such technical matters as may come before him. The Chief Engineer's office now includes a properly organized technical section with an Engineer in charge and an architectural section in charge of a qualified Architect who is the Consulting Architect to Government. The Sanitary Engineer who was formerly included in the Local and Municipal department of Government has now been placed under the orders of the Chief Engineer; while the recently-appointed Electrical Inspector has his office in the same building as the Chief Engineer and is available to advise the latter as an expert in electrical matters. To provide accommodation for these various branches of the Chief Engineer's office large additions have been made to the buildings in Chepauk.

The measures which have been adopted have already led to a remarkable improvement in the execution of work and their effects will probably be more apparent in the future.

45. ROADS AND BUILDINGS.

304. The outlay on buildings, communications, and miscellaneous public improvements under the head "Provincial—Civil Works (Original Works)" has steadily increased, the expenditure in the quinquennium ending 1910-11

	RS.
1906-1907 ...	26,35,006
1907-1908 ...	28,03,765
1908-1909 ...	27,44,096
1909-1910 ...	31,16,509
1910-1911 ...	35,17,322

being Rs. 1,48,16,698 (as shown in the margin) as against Rs. 1,00,42,411 in the previous quinquennium, while the contributions rose from Rs. 15,65,021 to Rs. 18,39,279.

The following are among the more important works which were undertaken under "Communications":—

(1) the construction of a bridge over the Indravati river in the Vizagapatam district on the road from Jeypore to the boundary of the Central Provinces, at an estimated cost of Rs. 3,67,000, towards which the Maharaja of Jeypore has agreed to contribute $1\frac{1}{2}$ lakhs of rupees. This bridge will open up communication with the fertile and populous taluk of Nowrangpur;

(2) the bridges over the Cauvery and Coleroon at Trichinopoly, forming an important link of communication between Madras and the southern districts, and the ghat road from Kuruvanuth to Kumili, which is the only means of communication from Madura to Periyar and Travancore were taken over by the Public Works department from the respective district boards;

(3) the old Napier Bridge over the Cooum on the Beach road at Madras has been replaced by an entirely new structure;

(4) the construction of a road to connect Kodai-kānal with the plains *via* "Law's trace", at an estimated cost of Rs. 5,65,000, towards which the Madura District Board has agreed to pay one lakh of rupees.

The quinquennium was marked by special attention to sanitary works. Various water-supply and drainage schemes were undertaken by the Public Works department on behalf of local corporations, and the Sanitary Engineer's staff was strengthened to cope with the increased work.

305. His Excellency has taken special interest in hospitals with the result that the principal Government

46. RAILWAYS.

