

REVIEW MINUTE

BY

HIS EXCELLENCY THE RIGHT HON. THE GOVERNOR,
=

20TH SEPTEMBER 1886.



M A D R A S:

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REVIEW MINUTE BY HIS EXCELLENCY THE RIGHT HONORABLE THE GOVERNOR.

September 20, 1886.*

INTRODUCTION.

“Do not hope that there will ever be a republic of Plato. Let it suffice thee to improve things a little, and do not consider this result as a success of but moderate importance.”

These were the words which one of the wisest of earth's rulers, in the possession of what is commonly considered supreme power over about one-hundred-and-twenty millions of men, addressed to himself; and I know no better advice for one to take to heart who, stepping out of the Parliamentary life of Great Britain, suddenly finds himself in India, mainly responsible for the weal or woe of more than thirty millions of whom only a few hundreds belong to his own race.

2. The first impulse of such an one will often be to try to make the institutions amidst which he finds himself as like, as circumstances will permit, to those which he has left behind.

3. From that natural and generous error I was saved by various circumstances, amongst them by having formed, for more than five years, a portion of the machinery which connects the great paternal autocracy of India with the crowned democracy at home.

4. I determined, from the very first, neither to form nor to adopt any wide schemes, but to be content with carefully examining the condition of the Madras Presidency, with a view to introducing those practical improvements, to which I should eventually see my way.

5. Long before my first year of office was over, I took an opportunity of announcing publicly that this was my intention.

6. Speaking at Tinnevely on the 13th September 1882, I said:

“It only remains to thank you for all the good wishes, which you have expressed with regard to my administration. I trust that to the eye of the distant observer, which is attracted only by sudden changes and startling effects, it may appear utterly dull and uneventful; but I shall be disappointed if, when it is over, those who are brought into immediate contact with it are not able to say, amongst other things, that during its course the Presidency of Madras obtained the right of using, for her own urgent needs, a larger proportion of the taxation levied within her borders; that those of our departments which were not in a satisfactory condition, such as the Forest Department, had been put on a better footing; that the best men throughout our various services had, very early in the day, come to know that their work was watched with sympathetic interest at head-quarters; and that they were not reduced to hopelessness by seeing all the most influential positions bestowed, as a matter of course, upon meritless seniority.

“These are not very sensational ambitions, and the record of their fulfilment would no doubt read, even when recorded by the ablest pen, as if it were traced with opium upon sheets of lead,—a phrase which was, by the bye, originally used about the philosopher † who wrote the life of the statesman with whose spirit a wise ruler of this part of India would most, I think, desire to be filled, the life of Turgot.

“Of such good dulness, however, is woven the happiness of nations. I do not think one could anywhere find a district which more naturally raises such thoughts than this of Tinnevely,

* I have determined to complete this Minute now, rather than a week or two later, because the conferences between the Finance Committee and the Madras Government, which are about to take place, will form the commencement of a quite new period, with the circumstances of which it will not be for me to deal. May they be such as to give heartfelt satisfaction to all to whom the welfare of South India is dear!

† Condorcet.

for Bishop Caldwell, who has so well told its history, finds it necessary to fill pages upon pages with the events which occurred during the terrible period which preceded its passing under British rule, while he finds a paragraph or two quite enough to describe the unbroken progress and prosperity of the last eighty years. And why? because those eighty years have been years of profound peace, whereas before they began Tinnevely had never, from the beginning of time, known, as the Bishop very truly observes, eighty consecutive months, perhaps not even eighty consecutive weeks, of peace."

7. The object of this paper is to set forth what has been effected, and incidentally to indicate in what directions I should advance during the next few years, if I were beginning, not ending, my period of office.

8. On arriving then at Madras on the 5th November 1881, I set to work—

first, to carry on the ordinary business which had been left in a highly satisfactory condition by my Acting Predecessor Mr. Hudleston;

secondly, to become acquainted with most of the people through whom I had to work at the seat of Government;

thirdly, to visit, generally in the early morning, those public institutions in and near Madras, about which I was likely to hear most in the course of business.

fourthly, to fulfil the usual social duties of a Governor.

9. By the beginning of January 1882, I had made myself acquainted with those things at Madras which seemed most essential, and I started for the first of the eight tours which carried me, in somewhat under two years, through the twenty-two districts of the Presidency, as well as through most of the Native States with which we are closely connected.

10. In a very long Minute, published in the autumn of 1884, I narrated my principal experiences in these journeys, which occupied in all about a fourth part of my time between November 5th, 1881, and the same day of 1883. In this Minute I mentioned, I think, every request which the people had made to me in their very numerous addresses, stated what had been done with reference to each request, explained, where nothing had been done, the reasons for the attitude taken up by Government, and dwelt on the truth which had been brought home to me in the strongest manner that the thoughts of the best and most intelligent of our people were turned towards the extension of material prosperity, rather than to "dreamy" aspirations after political change, such as find an expression, from time to time, in publications which uninformed persons at a distance sometimes mistake for the opinion of India.

11. The Minute of which I speak was widely circulated, and I will not, save incidentally and perforce, retrace any of the ground which I traversed therein.

12. Since November 1883, I have travelled less, but I have nevertheless filled up a variety of gaps in my knowledge of the Presidency, which I should have been sorry to leave unfilled.

13. In this paper, however, I shall forsake the geographical arrangement, and deal with the matter which I have to treat, not by districts, but by subjects.

14. Any arrangement of the very miscellaneous topics which I have to pass in review, covering as they do the whole field of administration, must necessarily be artificial, and without logical sequence.

15. That being so, I do not know that I can do better than class them under the various Secretariats, through which papers connected with them usually reach the Government.

16. I will first then consider those matters which pass through the office of the Chief Secretary, turn next to those which belong to the Revenue Secretary, pass subsequently to those which are in the province of the Military Secretary, and then take, in order, those which are dealt with by the Chief Engineer and his lieutenants, who have charge, respectively, of Irrigation and Railways.

CHIEF SECRETARY'S DEPARTMENT.

FINANCE.

17. It might be inferred from the preceding paragraph that the Chief Secretary is charged with all those branches of administration which do not naturally group themselves under the heads of Revenue, Military, or Public Works, and the inference would be quite correct.

18. I may begin with Finance. Under that vitally important head, we have made few changes, and I need mention only one, but it is of the greatest moment.

19. I was at the India Office when Lord Mayo's Decentralisation scheme was started. The policy which prompted it appeared to me thoroughly wise, and I was glad to be able, as soon as I arrived in Madras, strongly to advocate with my honorable colleagues the acceptance in principle of the proposal which was made by the Government of India to carry that policy further.

20. The new Decentralisation scheme came into effect in the beginning of the financial year 1882-83, and various outstanding questions were settled to our advantage in a series of conferences which took place at Madras in November 1882 between this Government and Major (now Sir) Evelyn Baring, who went northward in the frame of mind in which I should like all Finance Ministers to leave this Province, declaring that he was "a wiser and a poorer man."

21. Our Land-revenue varies of course with the vicissitudes of the seasons, and although we have had no agricultural disasters, we have only in my time had moderately good years;* but in all the branches of the revenue which can be affected by improved administration, and on which the Decentralisation policy has been brought to bear, the most satisfactory results have been obtained, while better still will, I am sure, accrue if we are given a freer hand. Stamps, for example, brought in during the year 1885-86 four and-a-half lakhs more than in 1881-82, the year in which I arrived; while Forest brought an additional four lakhs; Excise, twenty-three and-a-half lakhs; and Registration, three and-a-half lakhs.

22. We raise one year with another in round numbers about 970 lakhs, but all, except some 236 lakhs, goes into the coffers of the Imperial Government, and only a very moderate portion of it returns in any shape directly to this Province.†

23. From the time of Major Baring's visit up to the spring of last year, things went relatively well with us, but wars and rumours of wars have worked cruelly against our interests in 1885 and 1886. We reduced our budget in 1885-86 by no less than 11½ lakhs, or nearly so, of Provincial funds, and had to forego an Imperial Expenditure within our borders of more than 13 lakhs; but I am convinced as well from experience as from *a priori* reasoning that the Decentralisation policy is wise, and should, when occasion serves, be pushed on.

24. The figures of 1885-86 appear to me eminently re-assuring.

25. Decentralisation arrangements, as hitherto worked, have been very one-sided. I make no sort of complaint of this. Perhaps it was inevitable until the bearing of the changes made five years ago upon Imperial and Provincial interests respectively were thoroughly understood.

26. It is, however, obviously desirable that decentralisation should be decentralisation, and that Provincial Governments should be allowed to manage Provin-

* The large figures of our recent land-revenue arise from our having set our face against the mischievous practice of allowing arrears to accumulate. The famine was accountable for many of these, but even before the famine they were much too high—over 62 lakhs. *Nous avons changé tout cela!* They are now under 22 lakhs.

† A statement lies before me giving in sterling at the old rate of Rs. 10 for the Pound the total amount raised and brought to account through our treasuries in 1881-82. That amount, including, of course, a vast number of receipts which have nothing to do with taxation, was in round numbers over £9,530,000, while in 1885-86, the total amount was over £9,960,000. The increase under purely revenue heads was even greater than the total would lead one to expect. That is not a bad result in a country where we are told by a certain school that revenue is wholly inelastic.

It must be remembered that just at the commencement of this period the salt tax was reduced by 20 per cent., and nearly all customs duties swept away.

Nor can the fact escape attention that it is owing largely to the Provincial Legislation of 1882 that the Salt Revenue has so nearly recouped itself for the diminution in taxation which was brought about by the wise action of the Supreme Government in that year.

cial Finance without interference. This will, I hope, be one of the results of the approaching conferences. Of course, no sane man would object to the Imperial Government appealing under circumstances, such as those which occurred last year and this, for some assistance of a pecuniary kind, and even, as last year, for very large assistance, but, under ordinary circumstances, Provincial Finance should go its own way.

27. We have not had as free a hand as I hope our successors may have, but irrefragable figures prove that we have largely increased the revenue by our management, while so far from having been extravagant in our expenditure, whereas we started at the beginning of the Provincial contract with a balance of something more than seventeen lakhs, we end the fourth year of the contract with a balance of thirty-five lakhs.

28. Such a result more than justifies the hopes which were cherished at the India Office five years ago of the excellent results likely to accrue to this Presidency from the financial decentralisation, which had not been then accepted by it, and justifies no less our anxious desire to carry into effect various administrative reforms which we could amply afford, even if they were not likely to be remunerative in a pecuniary sense, but which will, as we believe, be even pecuniarily remunerative.

29. Well as the arrangement of 1882 has worked for this Government, it has worked far better for the Government of India. It is, I think, safe to say that about 48½ lakhs of net revenue had, up to the end of the last financial year, found their way into its treasure-chest and some 36 into our own, thanks solely* to amended administration here. It is thought that, at the close of the present contract, the gain from that cause to the Imperial Government will be not much less than sixty lakhs. On these subjects I will not, however, venture to enlarge, because I do not know precisely what new arrangements the Supreme authorities may desire to make. Suffice it for me to bear my testimony to the success of the policy which they inaugurated, after consultation with us, five years ago.

GENERAL ADMINISTRATION.

30. Through the Department of the Chief Secretary pass likewise to Government nearly all the graver matters connected with the actual management of the country, all the more important papers relating to patronage, to the leave, promotion, and transfer of members of the Civil Service, and an endless stream of "personal questions." These "personal questions," very often insignificant in themselves, take up,—thanks to some peculiarities of our Indian system,—a quite unreasonable amount of time which had better be given to things more intrinsically important.

31. In distributing the patronage of Government, I have done my best to discourage the giving to seniority an altogether disproportionate weight, but like, I presume, most other Governors, I have found myself terribly hampered by the difficulty of disembarassing the services of inefficient persons.

32. The existing rules make it tolerably easy to deal with the grossest and most flagrant transgressions, although the process is tedious; but to get rid of a worthy man merely for being inefficient is a very labour of Hercules. When any investigation takes place at home into the Acts by which India is governed, it is to be hoped that careful inquiry will be made as to whether it would not richly repay the State compulsorily to retire incapable officers upon proportionate pensions.

33. This is only one of several important reforms which have suggested themselves to me in connection with the Civil Service, but it is the one which could be carried into effect with the least disturbance of existing arrangements.

34. I may be permitted perhaps to say that I think very considerable changes must be made ere long in the constitution of the Civil Service, and that the flower of native merit should be encouraged to a greater extent than is now done, to aspire to high places in it. This will necessitate a diminution in the number of European Covenanted Civilians, but let us beware how we thin their ranks

* I say "solely," for the *whole increase* of net revenue divided between Imperial and Provincial in these four years was just under 100 lakhs.

too much. If money were unlimited, I* would very largely increase the highly-educated Europeans in the Madras Presidency; but as money is not unlimited, I would be content to diminish the quantity, whilst taking the greatest possible care to improve the quality. If you cannot get first-rate young Englishmen at five-and-twenty to come to India for the inducements which you at present offer to youths, and of course you cannot, double your inducements, treble them if necessary, but get the very best trained ability that is to be bought for money. The more education of a certain kind spreads in India, the more necessary will it be that the educated class should be guided by men whose intellectual and moral pre-eminence they cannot avoid recognising. If ever the day comes when Britain cannot supply to India men entitled to govern by real superiority, then the hour of the British Raj will have struck, but unless Britain is entering on a period of *décadence*, which God forbid, that hour must be a long way off.

POLITICAL.

35. A very large number of papers come before Government in the Political Section of the Chief Secretary's office, but they are not, for the most part, of sufficient importance to be alluded to here.

36. We have endless questions about the pensions and commutations of pensions of unnumbered stipendiaries, great and small, with attempts every now and then to revive some hopeless claim rejected by previous Governments generations ago. All these occupy much time with scant result.

37. On the other hand, of real political, or, as we should say in Europe, diplomatic business, this Government has but little. Our relations with all our neighbours from the most important to the smallest have remained perfectly friendly during all my time; and I have been able to visit the Nizam, the Maharaja of Mysore, the late Maharaja of Travancore, the Raja of Cochin, the Raja of Sandur, the late Raja of Pudukóta, each in his own capital. No previous Governor had, I believe, ever entered the chief town of the interesting little State which is ruled over by our old ally the Tondiman.

38. The Nizam, the Maharaja of Mysore, the Ellaya Raja of Cochin (the Raja himself being an invalid), the late Raja of Pudukóta, the Nawab of Banganapalle, and the late Maharaja of Travancore have all come to see me at various places. The last-named brought the two Ranees to a Fancy Ball at Guindy, and I had the pleasure of presenting him in the Banqueting Hall at Madras with the insignia of the highest class of the Star of India.

39. A long series of troublesome boundary disputes between Cochin and Travancore were likewise examined by Mr. Hannynghton, the Resident, in the first year after my arrival, and finally adjudicated on by the Government of Madras.

40. Various judicial and legislative improvements have been introduced with our approval into Cochin; and a valuable forest has been leased by us from the Sandur State on terms advantageous both to it and to the Presidency.

41. By the death of the late Maharaja of Travancore, Southern India lost a Prince of rare accomplishment.

42. The last Raja of Pudukóta fell at one time under the displeasure of the Paramount Power; but I had the satisfaction long before his death of seeing the agreeable relations, which prevailed between this Government and his family, completely restored. Pudukóta has advanced considerably in recent years under the care of the experienced and able Minister whom we have now nominated Regent for the grandson of the late Raja, who is still a boy. I trust that he will grow up to be a credit to the Government with which his ancestors were so long connected.

43. These, I think, are the events connected with our native neighbours which dwell most in my mind; but the annual reports which we have received from those of them which are in immediate official relations with this Government, have uniformly told of quiet progress.

44. An active correspondence is constantly going on with the authorities at Pondichéry about many matters of common interest.

45. In February 1885, I visited officially the late Governor of the French Settlements in India, His Excellency Monsieur Richaud, and in December he gave me, in return, the pleasure of his company for several days at Madras.

46. Nothing could be more agreeable than all our business intercourse with that able man, and I found it highly instructive to compare notes with him as to the present and future of India.

ECCLESIASTICAL.

47. Little has occurred, outside the range of routine business, in the Ecclesiastical Department.

48. There was a good deal of talk, soon after I arrived, about the abolition of the so-called Church establishment in this country, but we lent no assistance to proposals which could not be carried into effect without raising most difficult and thorny questions about native religious endowments.

49. Minor reforms might doubtless be suggested, but their consideration lies outside the limits which I prescribe to myself in this document.

POLICE.

50. Our Police remains substantially the same force which was organised in 1859 by Sir William Robinson. It has been of great service in the interests of law and order. I remember before I came out, Mr. R. K. Puckle, who gave me much interesting information, told me that when he first went to Tinnevely a generation before, not a single night ever passed without a gang-robbery, accompanied by great atrocities. When in 1883 I was devoting special attention to the Police, I asked Colonel Cloete how many gang-robberies there had been in that district in 1882? The reply was "not one."

51. Mindful of old revelations connected with Madras, we take care to inquire into any cases where the allegation that confession had been extorted seems to be other than a "common form." Happily these have become exceedingly rare.

52. In these last years the Police have been relieved of their duties in direct connection with the Salt and Marine Departments.

53. Considerable attention has also been given to improving their arms, and in 1882 an Act was passed which enabled the Government to employ an additional Police force at the cost of the inhabitants in any town or district which was found in a disturbed state.

54. In 1883, a piece of gross carelessness nearly cost the life of a smart young officer. He was executing a dangerous duty unarmed, when his prisoners rose upon him and his companion. A circular was issued, ordering officers on duty in the districts, under ordinary circumstances, to carry revolvers. India is not a country in which even a temporary defeat of authority is convenient.

ARCHÆOLOGY.

55. Towards the end of 1881 Dr. Burgess, who was already employed by Bombay, was appointed Archæological Surveyor to this Government. Owing partly to his temporary loss of sight, partly to the small amount of time he has been able to give this Presidency, partly, perhaps, to other unexplained causes, the actual outcome of his labours has been as yet but very trifling, although it is understood that a large amount of materials has been accumulated which one day may eventuate in something useful to the Presidency.

56. What we most want is to have an intelligent and accurate account of the various objects of antiquarian interest scattered over our territory. Their name is Legion, but many of them still keep the secret of their history.

57. Long lists of ancient remains have been recently published under our authority in two volumes by Mr. R. Sewell, who has a most laudable interest in these matters.

58. Professor Oppert has continued with success his search for Sanskrit manuscripts, and published lists of those with which he has become acquainted in 1883 and 1885.

59. Four volumes of the Archæological Survey of Southern India have appeared, the last containing translations of many curious Tamil and Sanskrit Inscriptions by Pandit S. M. Natesa Shastri.

60. Quite recently we have recommended the appointment of Dr. Hultsch, an Austrian scholar well versed in the Dravidian tongues, to act as an Epigraphist.

61. Mr. Bruce Foote, who has been examining, at the suggestion of the Madras Government, which was put in motion by Professor Huxley, certain caves in the Banganapalle State with the result of discovering great numbers of animal remains, some of them of high scientific interest, assures me that a student of pre-historic Archæology would find a very mine of interest in our Ceded Districts.

62. Would we could attract hither persons to take up that and other branches of Archæology not as salaried servants of the State, but because they loved the study.

63. Everywhere they would find work ready to their hand. In spite of the labours of Sir Walter Elliot and many others, and in spite of the zeal of Dr. Bidie in the cause of our collection, even the coins of South India are but imperfectly known.

MUSEUMS.

64. To the Government Central Museum we have given very special attention, not only, or chiefly, because it is very popular with the native community as a "house of wonders," but because the enlightened care of Dr. Bidie and others have brought it into so good a state that very little is wanted to put it into a position to become in a few years what it ought to be, *i.e.*, a complete index to all the scientific and economic facts connected with the Presidency, which have already been observed and recorded.

65. With a view to putting it in that position, we obtained, when Dr. Bidie was called to even higher duties, the services of Dr. Thurston, a man experienced in the latest European systems of museum management.

66. In a few years, as I have said, our Central Museum will be a complete index to all the known facts about the Presidency; but, if the impulse recently given by the importation of so many men of high scientific merit is as great as I expect, it will take all Dr. Thurston's industry and energy to keep up with the acquisition of new facts from the eternal darkness.

67. In May last he submitted the report of his first official tour, which resulted in a variety of additions to the collections under his charge, and will, I trust, have many successors. An expedition to Paumben in the last few weeks has, I believe, been extremely successful.

68. In process of time, I hope that there will be small local museums in each of our districts,—*indices* to their several contents, as the Central Museum will be to the contents of all South India.

69. Thus far they should go and no further. Nothing is more unsatisfactory than a miscellaneous local collection,—a mere rubbish-heap of curiosities got together without any definite purpose.

70. Mr. Lawson is beginning a small collection at Ootacamund, which will doubtless be a good model for others to imitate.

71. It is to be hoped that ere long the Madras Museum may become the centre of an unofficial Academy of Sciences, which should, in the next century, extend its ramifications over all this part of the Peninsula.

ARCHITECTURE.

72. I do not think we have at all yet got, so to speak, on the right line with regard to our Architecture, though it would be a mistake to deny that there has been an advance since Lord Napier intervened for its improvement, and that a

great many very respectable edifices have been erected of late years in Madras and elsewhere.

73. The building which has satisfied my eye most is the Museum at Trivandrum, which was, I believe, built by Mr. Chisholm, our late Consulting Architect, but I have nowhere seen in this Presidency, nor out of it in India, any modern architectural efforts which gave me so much pleasure as the group of which the Mayo College at Ajmere is the centre, or much better still the lovely building at Jeypore, the work of Colonel Jacob, which bears the curiously inappropriate title of The Albert Hall.

74. I went in 1882 to see Tirumal Naick's palace at Madura. Lord Napier's project of saving and utilising that fine pile has been steadily acted upon.

75. In 1883 I visited Chandragiri, the mother of the fortunes of Madras, and steps have been since taken to keep it in ruinous repair and prevent decay going further.

76. A good deal has also been done under the advice of Major Cole, who visited this Presidency by direction of the Government of India, to arrest the progress of mischief at Vijaynagar and elsewhere.

77. Under recent arrangements the Archæological Surveyor to the Government of India will have the duty of advising this Government with regard to the ancient buildings, which require the attention of the Public Works Department, with a view to prevent the destruction of what still exists.

78. Personally, I am averse to anything that could properly be called *restoration*, but scattered over this vast country there are numbers and numbers of buildings which should, so far as our means will permit, be saved from the wind, the rain, the peepul and the other powerful agencies, which make war in the service of time against the works of man.

THE MADRAS MANUAL.

79. In the year 1882, complaints reached my ear from persons of high authority that the *bureaux* of the Government of India found it very difficult to get from any existing works full and accurate information about our affairs. This seemed to me a great and real evil. If Western Europe formed a single empire and Neapolitan administrative arrangements were liable to be overhauled in their minutest details by a number of gentlemen, however able and distinguished, who resided at Christiania or Warsaw, it would be highly desirable that these should be supplied with some full and accurate repository of information, from which they might obtain a general knowledge of the matters with which some of those, whose arrangements they had to overhaul, had been for years and years intimately acquainted.

80. We met accordingly more than half-way the wishes which were expressed, and Dr. Maclean's admirable book, of which two large volumes have been published while a third is in the course of preparation, yields, I venture to say, to nothing of the sort that has been produced in India.

RECORDS.

81. The state of our Record-room and Records recently came before us. Neither could be pronounced in any way satisfactory, and we have set on foot an examination of them which will, I trust, result in an increase of space, a better arrangement, more careful supervision and the publication of such portions of our older official documents as are at once really valuable, and up to this time unknown to the public.

EDUCATION.

82. Writing in 1875 I said : *

"I believe that the most important thing you can do for education in India at present is to throw as much weight as you can into the Scientific as against the Literary scale. You are in great danger of raising up, especially in Bengal, an educated prolétariat, with no ambition,

* Notes of an Indian Journey, Macmillan, London.

except to enter Government offices, become teachers, or write for newspapers. It is infinitely important that you should multiply the as yet altogether trifling number of natives of India who know anything about the material world by which they are surrounded, and the still smaller number who can turn what knowledge they have of it to practical use. Infuse, I say, into your higher education a very large proportion of Scientific, and especially Technical, knowledge,—that seems to me the first thing to do; spread the net of primary education wider,—that seems to me the second thing to do; extend and improve your higher education,—that seems to me the third thing to do. The last two are being done, and will be done more and more. I wish I saw more general attention given to the first."

83. These are precisely the three main lines on which we have moved in the period under review.

84. *Bearing in mind the paramount importance of the first*, we have re-organised the School of Arts, bringing out Mr. Havell from South Kensington, and more recently an instructor to help him. At the same time the buildings of the school have been improved, and scholarships established. The greatest possible care is now taken to preserve all that is good in Native Art. There could be no more grievous mistake than to let go that cardinal principle.

We have remodelled the Civil Engineering College under the advice of our engineering experts.

We have sanctioned grants for sending able young men to Europe, with a view to their obtaining the instruction calculated to make them more skilful teachers in various branches of industry.

We have developed the Agricultural College.

Last, but not least, we have started a great scheme of Technical and Industrial examinations in almost every sort of art and handicraft, which is likely to take root at present in South India.

These examinations cover such high subjects as Hydraulics, Applied Mechanics, Heat, Light, Geology and Physiography, but do not omit Carpet-weaving, Paper-making, Tailoring, Tanning-leather or Lace-making.

Each subject has its appropriate Syllabus, so that a youth can see at a glance what he is expected to know, and with each Syllabus is given away an admirable little paper containing general remarks concerning the object and method of teaching Science.

A carpentry class attended by Under Graduates has been opened at the Rajahmundry College, and in consequence of the Chapter recently added to the Grant-in-Aid Code dealing with Technical education, in a highly liberal spirit, Industrial Schools are being started all over the Presidency.

85. *Impressed with the great desirability of the second*, we have spread the net of primary education much wider.

The attendance in our primary schools at the end of March 1880 was under 248,000. At the same date in 1885, it had risen to above 395,000. On March 31st of this year it stood at 417,371.

We have also tried to enlist in the good work the co-operation of local bodies by relieving them of certain other imposts, on the understanding that they would take over the direct management of nearly all primary and some secondary education.

86. *Nor have we at all neglected the third.*

Early in 1882, the University of Madras gave to the Natural Sciences an improved position. As soon as the examining body had adopted that wise policy, we re-arranged the Presidency College establishment, and created a Professorship of Biology, which has been filled by Dr. Bourne. At the same time we made to the most important institution, which competes with the Presidency College, a special grant for a similar Professorship, which has been filled by Dr. Henderson. The two other first-grade Government colleges, Kumbakonam and Rajahmundry, have been provided with teachers and appliances for giving instruction in Experimental Physics and Chemistry, up to the B.A. Standard. Previous to 1875 there was not one college in the Presidency, either Government or aided, in which these two Sciences were taught. Now they are taught in all colleges but one.

The extension of the Natural Sciences in all these branches is *the* great desideratum in our Higher Education,

It has other defects which only time, and not the direct intervention of Government, can cure ; but I said what I had got to say on that subject in my Convocation Address as Chancellor of the University on the 25th of March in this year, and this Minute will be long enough without repetitions.

87. Other important, though not quite so vital, matters have also engaged our attention. Education has, for example, been made more self-supporting, the fees being raised to a moderate and reasonable extent amongst those classes which can afford to pay, while increased liberality has been shown to the schools maintained for the poorest classes in the advanced parts of the country as well as to those amongst the wild tribes.

88. We have steadily extended female education, and the number of girls now under instruction is much greater than it was when I arrived.

To this increasingly momentous subject Mrs. Grant Duff has, as is well known, given as much or more attention than any of her predecessors.

Most of the proposals of the Education Commission as to female education were already in force in Madras before it reported ; but we have recently, in accordance with its suggestion, called on our Director of Public Instruction to report to us about the progress made in providing suitable text-books for girls' schools, and have in various other ways complied with their wishes. We consider that female education has not yet arrived at such a position as would make it right for Government to withdraw from its direct management.

89. Much attention has been given to the training of superior teachers, and the University, taking the same view of the subject as the Government, has created a diploma for knowledge of, and skill in, the best methods of imparting instruction.

The Government Normal School, now the Teachers' College, has been re-organised on a more liberal scale, and for the first time a Graduate of one of the great English Universities has been placed at its head.

90. Very special care has been given to the educational wants of Europeans, Eurasians and Muhammadans. The last of these classes of the population is a subject of constant and friendly watchfulness to the Government of Madras. The love of intellectual effort is not in the blood of our Muhammadans as it is in that of the Brahmins, and they find it extremely difficult to accommodate themselves to a state of things in which the sword is no longer "the king of the pen." We await with interest the report of a Commission lately created, which may point out to us some new method by which we can make the gates of the temple of knowledge more accessible to them.

91. The deplorable want of education in the Mappilla community having been brought to our notice, we directed last year that the matter should be carefully looked into, and the proposals now sanctioned will have, it is believed, the result of doubling ere long the expenditure on Mappilla schools. The District Board of Malabar will be bound to spend at least Rs. 10,000 a-year upon them, irrespective of what it may receive for that purpose from Provincial Funds. Quite recently one of our Muhammadan Statutory Civilians, Mr. Mir Shujaat Ali, has done himself credit by calling our attention to the backward state of education in the Amindivi islands, and we have acted upon his suggestions.

92. For some time previous to my arrival at Madras, a rather bitter controversy had been going on between those who desired that the higher education should be given in Government Institutions, and those who considered that aided institutions were a fitter agency.

It was envenomed by the old quarrel between secular and religious teaching—between those who wished simply to impart the positive knowledge of the West and a section of the powerful Missionary body.

It is hoped and believed that the labours of the Commission appointed in 1882 by the Imperial Government, and the anxious care shown by the Government of Madras to bring about a *modus vivendi* between the belligerent parties have been attended with excellent results.

93. During the contest the late Maharaja of Travancore addressed to me a singularly able letter, in which he hit various blots in our system, *inter alia* our neglect to educate the nobility of the land.

I would fain see this attempted, but to effect it on an adequate scale would take much time. Individual instances of great proficiency amongst our magnates are not wanting; but there are whole regions in this Presidency where the idea of educating their sons has never penetrated the intelligence of men of great possessions and ancient name.

This is a real political evil. These are the powerful individualities who should stem the tide of Nihilism which is only too likely to assail India in the twentieth century, and in the month of April last we told the Director of Public Instruction to send forward proposals for establishing a special school for their benefit. In my judgment, if we were, as is generally admitted, right to begin the higher education of the natives, it would be very wrong to withdraw from it till we had set it in a good way. Up to recent times we have given it a wrong direction; we have made it Literary rather than Scientific, and have trained too many of our youths to be sophists rather than philosophers; disputers rather than men of business.

94. When the time has come to begin to withdraw, I would commence with those subjects to which the native turns with enthusiasm, and which he will provide for himself without Government aid. Every anna that can be thus saved should go to teaching those natural sciences and industrial arts without proficiency in which South India will always be poor and behind hand.

95. Scientific and Industrial, not primary, education should be the gainer by our eventual withdrawal from a portion of the higher teaching. The future of primary education is, I consider, already assured.

96. On no account, however, would I give up teaching Natural Science and History in our Government Institutions till I saw these branches of knowledge taking root among the people. They have not begun to do so yet.

97. We have recently asked the Secretary of State to allow us to improve the organisation of the Engineering College, with a view to enabling it to educate Mechanical Engineers, to give special means of instruction to persons who seek employment under railway officials, as well as other employers of labour, and generally to promote technical education as far as may be found practicable.

MARINE.

98. To a province which has so immense a coast-line,—*the sea-beat province of India*,—Maritime affairs must always be of very great interest. Our ports are endless, but unhappily they are almost all as bad as they are numerous. Over all of them presides the Marine Department, whose head bears the humble and altogether inadequate title of Port officer.

99. In addition to the ports, he has the general charge of all the lighthouses, is the principal adviser of Government as to Marine matters, and has miscellaneous functions in great variety.

100. One of the first visits which I paid, upon arriving at Madras, was to the Harbour, which had been commenced on the strong recommendation of my excellent predecessor Lord Hobart. I found it rapidly advancing to completion, and all the persons, more especially connected with the works, were in the highest spirits.

101. Within a week from that time a cyclone, by no means of extraordinary violence, but accompanied by a greater disturbance in the sea than the amount of wind fully explained, burst over Madras, and dashed all the more exposed portions of the works to pieces.

102. Then followed a long period of uncertainty and anxious correspondence. Would the Supreme authorities think it desirable, after this terrible experience, to attempt to create a harbour at Madras at all? If so, on what terms would they do so, and what method of construction would be followed? All these matters were discussed and re-discussed, but at length the great work was resumed under the able direction of Mr. Thorowgood, to whom, more than to any other person, will accrue the honour if our Harbour is ever a real success.

103. The plan upon which it is being built did not commend itself entirely to some of us on the spot, but the Secretary of State took the opinion of the very greatest harbour authorities of the day.

104. Some one told me before I came here that one of the first ceremonies at which I should have to assist was the declaring the Harbour finished. I trust that honour will fall to my immediate successor, and that the advantages to the Presidency of its completion may be as great as any which Lord Hobart and the other early friends of the project ever contemplated.

105. The legislation necessary for making over the Harbour to a Trust has been completed, and the Board took office on the first of June.

106. Any one who looks at a map of the Madras sea-board would think that there are a great many places where fair or even good harbours might be made, with immense advantage to the community, and even the tourist, who saw certain places under certain conditions, would probably come to the conclusion that the Government was very apathetic.

107. Alas ! Alas ! when these likely spots are carefully examined, it is found that the hopes which their first appearance raises are very apples of Sodom.

108. First we may take Kundapur. To one looking from the sea in good weather, it would seem that an easy bar was to be crossed, and that access would be found by doing so to a fine deep lagoon ; but as I learned to my cost in October 1885, a very small boat could not cross this attractive-looking lagoon without a pilot, except under the penalty of grounding on the shallows, and no trade that the place could ever have would repay any expenditure there.

109. Further south comes Mangalore, an important town, where, however, the wild proceedings of its two rivers, no less than of the sea, would make any considerable expenditure a mere waste of money.

110. Calicut and Beypore were once, it would seem, far better ports than they are, but for harbour works they now present no facilities.

111. Next comes Cochin, and undoubtedly in the Cochin lagoon there is a very deep hole. To turn that hole into a harbour would however make, we are advised, three-quarters of a million sterling look very foolish, and what return could be expected even upon a fraction of that sum ?

112. Besides, our chief adviser in Marine matters has pointed out in an excellent paper, that no prudent commander would like to have less than 10 feet between his keel and the bottom of the sea, even in an ordinary ground-swell, let alone in such seas as prevail on our West Coast during the monsoon ; while outside Cochin there is a mile and-a-half of shoal water in which no engineering operations undertaken with however little regard to expense could clear and keep open a passage for ships of any size.

113. Further south comes Quilon in the Native Staté of Travancore. There, I think, a good harbour might be made, but it would obviously be of no great importance to Madras.

114. Then, there is the much-talked-of Paumben Passage. Well, let any one make it who likes, provided he does not insist upon my being a shareholder. If any combination of millionaires thought fit to do so, they would confer no doubt a trifling benefit upon the town of Madras, provided always they did not care to earn any dividend.

115. Nature is not less unkind to us all up the East Coast, so far as harbours answering the requirements of large ships are concerned. At Cuddalore the unfavourable conditions of Mangalore are repeated.

116. At Pondichéry our French neighbours are talking of making a harbour, and on the application of the late Governor of the French Settlements in India, we gave every help to the Engineer whom they sent to make inquiries at Madras.

117. Nothing I fear but local patriotism could make any one hope much from expenditure at Masulipatam. The state of affairs at Cocanada seems more hopeful, at least for the present, and we have done all in our power by legislation and otherwise to assist the mercantile community there.

118. Vizagapatam flatters to deceive. It looks, at first sight, as if a safe and excellent harbour might be made under the Dolphin's Nose, but the inquiries we set on foot gave results no more cheerful than those we made at Cochin.

119. We hope and think that the pier at Gopalpur will be, if it can be completed at a moderate cost, of very considerable service to the trade of Ganjam, which contains no place where a good harbour could be constructed. I have known people imagine that the Chilka Lake, the vast sheet of water which lies on the borders of that district and Bengal, might be turned into a great harbour, but that is a mere delusion. It is gradually silting up, and will in time become a sandy plain like Madras. No human power could prevent this, and no place could be less suited for a harbour of refuge, even if such a harbour were wanted so near Calcutta.

120. Into every one of the ports I have mentioned and a great many more have we inquired since I came here; for the improvement of Indian harbours interested me as far back as my India office days; and I heard, of course, a great deal about the very natural aspirations of various localities whilst travelling up and down the land for the purpose of coming to know, as soon as possible, about these aspirations and other things which can be studied neither on the banks of the Cooum nor at the foot of Dodabetta.

121. We have given of late increased attention to our lighthouses, but in the inspection of these, as well as of our ports and in numerous other ways, we suffer most cruelly from not having a vessel at our command.

122. A very considerable sum of money, far more than is wanted, lies ready for application to the supply of this great want, and it is hoped that a correspondence which may have the result of giving us a free hand in a matter so essential to efficient administration is approaching its close.

THE OBSERVATORY.

123. Feeling very much dissatisfied with the constant accumulation of materials in our Observatory, which were never published, and were thus lost to the scientific world, we at length insisted that observation must be made subordinate to publication, and the result has been that some little progress has been made in turning to profit the great store of facts which has been piled up by Mr. Pogson and his predecessors. The works published by him up to this time, since the orders of Government alluded to were issued, have been the following:—

Telegraphic Longitude determination in India;
Madras Magnetical Observations, 1851—1855;
Singapore Magnetical Observations, 1841—1845;

And another instalment is overdue.

124. A proposal to do away with the Madras Observatory has been frequently discussed, but such a course would seem most unadvisable. An observer in the southern part of this Presidency should be able to do work which can be done neither at the Cape, nor at Melbourne, nor, so far as I am aware, at any Observatory in the world. If any change is to be made, and unless publication goes on far more rapidly in the hands of the present observer than it has hitherto done, I consider that a change will be necessary, I would re-organise the establishment, give the new Astronomer more assistance, get the most modern instruments, and establish a smaller Observatory at Kodaikānal on the top of the Pulney Hills.

125. Our Meteorological Department, the work of which like that of all other departments has been rapidly increasing, has been transferred from the Observatory to another building, and the work prospers under the able guidance of the highly intelligent lady who presides over it.

EMIGRATION.

126. My experience at the Colonial Office, where the attention given to the protection of immigrants into the possessions which are managed by that department is minute and incessant, led me to feel but imperfect sympathy with the hesitations which I found prevailing about allowing our people to pass freely to the Straits Settlements. After some correspondence between the Government of India and ourselves, certain officers were sent to inquire into all disputed points upon the spot. In consequence of their report, the Straits Settlements Emigration Act of 1877 was

repealed, and the Straits Government, in its turn, passed an Ordinance for further regulating the immigration of labourers.

127. It is to be hoped that the system now in force will work to the mutual advantage of all concerned. That abuses should not occur from time to time in the management of any labour traffic, it is almost hopeless to expect; but abuses must be great to outweigh the obvious advantages which accrue to a labourer who passes to a colony in which arms are wanted, from some of the districts of Tanjore, where the density of the population is equalled, I apprehend, in few agricultural districts of the civilised world.

128. *Migration* to all parts of British India, to Ceylon, and to Burma is completely free, while permission was given three years ago to recruit *emigrants* for British Guiana, Dutch Guiana, Trinidad, Jamaica, Grenada and Fiji, as it had been given before my time to recruit for Mauritius and other places. In the same year we received a visit from Colonel Mitchell, Colonial Secretary of Natal, and we gave him what help we could.

129. In truth, however, the question of emigration is but a small one, in so far as this Presidency is concerned. Our people move little, even in times of famine, and those who do soon return. Excluding mere visitors from neighbouring districts, it is probable that 99 per cent. or thereby are now living where they were born.

At the time of the Census of 1881, it was calculated that in the ten previous years the balance of loss on migration, emigration and immigration was under 23,000 souls.

Of those who expatriate themselves migrants up to say 63 per cent. (for we have no absolutely reliable figures) go to Ceylon, mainly from the southern districts, while perhaps 22 per cent. go, chiefly through the northern port of Cocanada, to British Burma. The emigrants proper make up only 15 per cent., even if we include those who go to the Straits Settlements.

The following remarks taken from the "Statistical Atlas of India" published this year, are worth attending to:

"The emigration which takes place from India, though comparatively insignificant in its effect in relieving the over-crowded tracts of the country, is of advantage in enriching the cultivating classes and enabling them to spend more capital on their cultivation. It is true that a considerable quantity of waste land is available in India, but the absence of capital, save in exceptional cases like that of Assam, renders its cultivation a matter of difficulty, and emigration to it unprofitable. In the Colonies where a fertile soil and a generally well-distributed rain-fall renders the opening up of fresh country remunerative, capital is forthcoming, and the difficulty to be met is want of labour. This difficulty India can, and to a great extent does, supply; and it is a matter of some importance that Indian labour should establish itself in the Colonies before the competition of Chinese labour-supply renders its establishment difficult, if not impossible."

Quite recently Porto Novo has been used as a port of embarkation for the Straits Settlements, and we have made the Sub-Magistrate there an Emigration Agent, while Colonel Fischer has been made Emigration Commissioner.

Information has also reached us that a native passenger traffic is going on between Negapatam and Sumatra, mainly, it would seem, in the interest of the Deli settlement in that Island, which has become so important in the tobacco trade, and we have directed inquiries to be made with regard to a practice which might easily lead to illegal acts.

MUNICIPALITIES AND LOCAL FUND BOARDS.

130. Long before the famous resolution of the late Viceroy in Council as to Local Self-Government, great progress had been made in this Presidency towards giving to the population at large a great share in the management of purely local affairs.

131. We had, in the early summer of 1882, forty-eight Municipalities and thirty-two Local Fund Boards.

132. It was imagined in some quarters that these bodies were so worked as to leave only a nominal, not a real, control to the people. That may have been so in some cases, but the constant tendency was for over-worked European officers to leave as much as they could to Native hands,

133. The following extract from a letter to a friend, written by me on June 23rd, 1882, will give, I think, a fair idea of the results of our old system under favourable conditions:—

* * * * *

“I can perhaps put the true state of the case most clearly before you by taking that one of our districts, viz., Tanjore, with reference to which I am in a position to supply the best information, and which shows perhaps better than any other the results obtained by the plans on which this Government has been working.

“In Tanjore, then, we have five municipalities, every one of which is under ordinary circumstances presided over by a Native, and all of which are almost exclusively composed of Natives.

“The Collector is *ex-officio* chairman of all of them, and occasionally presides over the meetings of the outlying ones when he is on circuit.

“I take by preference the budget of the most obscure of these municipalities, Mannargudi, and I find that the municipal authorities of that comparatively unimportant place raised in the year 1880-81 a revenue of about Rs. 24,000 by—

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|-------------------------------------|-------------------------------------|
| (1) Rates on houses and lands ; | (7) Assignments by Government ; |
| (2) Taxes on Arts ; | (8) Contribution from Local Funds ; |
| (3) Taxes on vehicles and animals ; | (9) Fines and Fees ; |
| (4) Tolls ; | (10) Endowments ; |
| (5) Licenses ; | (11) Miscellaneous ; |
| (6) License-tax ; | (12) Advances recovered. |

They spent the revenue upon—

- (1) Public Works, including roads, buildings, sanitary arrangements, and so forth ;
- (2) Education ;
- (3) Hospitals, vaccination, registration, medical college, and conservancy ;
- (4) Miscellaneous purposes, lighting, watering roads, &c. ;
- (5) Supervision and management ;

while at the end of the year, they had to the good nearly Rs. 6,000, having begun it with about Rs. 4,500.

“I have before me a most elaborate report from the Vice-President, who is a Native of the name of Kanchi Balaji Rao, going all through the items of receipt and expenditure in the most careful manner, and giving the most minute details about even the smallest matter.

“If putting aside the question of election, against which I have not a word to say, but which has nothing to do with Mr. —’s observations, this is not *real* as distinguished from *formal* local self-government, I do not know what the phrase means.

“The various documents which I have mentioned have, indeed, all passed under the review of the President of the Municipal Commission, in other words the Collector, who submitted them to this Government, which in its turn made some observations on the facts put before it. I gather, however, from your letter that nothing is further from your wish than to put an end to the careful *supervision* of local self-government ; so these reviews will not be held in any way to establish Mr. —’s contention that our Madras local self-government is of a merely *formal* character.

“We ride our municipalities with a very light hand, agreeing with the Government of India Resolution of October 21st, 1881, in paragraph 9 of which it is observed that it would be hopeless to expect any real development of self-government if local bodies were subject to check and interference in matters of detail.

“We agree, I say, with this observation, and we endeavour to act in accordance with it,

* * * * *

“I turn now to our Local Fund Boards, which *administer*, but have not hitherto *raised*, their own revenues. In the district of Tanjore we have two,—one exercising jurisdiction over the western, the other over the eastern part of the district. The first of these is located at Tanjore, and has thirty-three members, seventeen of these are Government officials, eight of the seventeen being Natives. Of the remaining sixteen, fifteen are Natives, and one is the European engineer in the service of the Local Fund Board.

“The receipts of the Tanjore Local Fund Board in 1879-80 amounted to Rs. 3,90,503 derived from—

- | | | |
|---------------------|--|-------------------|
| (1) Road Fund, | | (3) General Fund, |
| (2) Endowment Fund, | | |

“The road fund was raised by two-thirds of the land-cess levied on the assessment of land, from a pound fund, from dues paid for the right of fishing, and from tolls.

“The endowment fund was derived from the proceeds of ~~rest~~-houses endowed under Native rule.

“The general fund consisted of the remaining third of the land-cess, receipts from avenue clippings, school fees, receipts from travellers’ bungalows, &c.

"The expenditure in the year to which I am alluding amounted to about Rs. 3,06,000.

"The road fund was spent on Public Works of all kinds,—repair of buildings, new roads, and, above all, in connecting outlying villages with highways, some 46,000 rupees being applied to that last purpose alone; and 684 miles of road previously existing were kept in good repair.

"The endowment fund provided food gratis for great numbers of pilgrims according to ancient custom, and, in harmony with more modern views, supported two boys' schools, one girls' school, and seven dispensaries.

"The general fund went partly to Public Works, partly to education, sanitation, and other good objects.

"*Inter alia*, I may mention that during the year a School of Midwifery was established, and midwives sent all over the country. Ten dispensaries were maintained, at which over 1,200 *in* and over 30,000 *out*-patients were relieved.

"Nor was education neglected. The Board's Inspecting Schoolmaster examined 142 schools, containing 2,586 pupils.

"Large sums were spent in vaccination, and the exertions of Mr. Forster Webster, the then Collector, and our present Revenue Secretary, were mentioned with high approval by the Sanitary Commissioner with the Government of India.

"I will not tease you with the details of the Negapatam Local Fund Board, which, as I stated, presides over the eastern portion of the district, but the same sort of results have been attained, having regard to the fact of its being smaller and less wealthy. The Local Fund Board is presided over by a Native Deputy Collector, and has been worked entirely by Natives, the Collector occasionally, and only occasionally, attending the meetings.

"I am assured that no part of the Tanjore district is unrepresented on these Boards.

"Now putting aside the question of election, and bearing in mind that we ride our Local Boards, as I said we did our municipalities, with a light hand, is this real or only 'formal' self-government?

"As to the phrase that the Local Boards are here regarded as institutions still in their 'infancy,' I apprehend that institutions which are only eleven years old may fairly enough be described as still in their infancy, even in an age of such breathless change as our own.

"With regard to the word 'restraint,' I should have preferred to see 'guidance' or 'assistance' substituted for it; but I ask you, after reading the above, to say whether the administrative powers of the Local Fund Boards in Madras have hitherto been 'extremely limited in character, and have not as yet been properly utilised as a means of training the people in the independent management of their own local affairs.'

"Again, I hope you will not accept without inquiry the statement contained in the 3rd paragraph of the letter that it is 'practically impossible for the non-official members of the committees to be of any real use.' That assertion may be quite correct, but it is susceptible of proof, and cannot be decided by a dogmatic statement. Of my own knowledge I cannot affirm or deny it; but am positively assured by men whom I can thoroughly trust, and who are intimately acquainted with the working of these committees that their non-official members *are* of real use."

* * * * *

134. So much for the state of things I found: now for that which I leave.

135. As soon as the new policy with regard to local self-government was announced from Simla, we set to work loyally to second the views which had found favour with the Viceroy in Council.

136. Our first step was to appoint a committee, with instructions to report (1) what was the actual state of local self-government in the Presidency; (2) how the system which prevailed could be best extended.

137. In the end of 1882 it reported; while in the spring of 1883, we passed orders on its report, appointing a second committee to draft as well a Municipal as a Local Boards Bill upon the lines which we had laid down, and in general accordance with the views of the first committee.

138. This second committee drafted two Bills, which were sent up to Government, and by Government laid before the Legislative Council, from which they emerged in April 1884, and received eventually the sanction of the Supreme authorities.

139. Then rules for countless matters of detail had to be framed under them, and the new, or rather renovated, machine began to work.

140. Bearing in mind the brief summary which I have given above as to what *was*, and remembering that the scope of the authorised alterations is extending from

week to week, the reader will, I think, have no difficulty in gathering their nature from the following paragraphs :—

- (1) Municipalities have become more numerous. We have now fifty-five, excluding Madras ; others which fulfil the conditions laid down by the new law may soon be added to these.
- (2) The Collector is no longer *ex-officio* chairman of Municipal Boards in his district. He guides them, if necessary, *ab extra*. Thirty-nine municipalities already elect their chairmen.
- (3) Half the members of these Boards used to be officials nominated by Government. Government can now only nominate officials up to the proportion of one-fourth.
- (4) Election is being much more largely substituted than heretofore for nomination in constituting Municipal Boards, and the franchise has been extended to many more electors in places where it had been introduced before the new Act.
- (5) Municipalities have been divided for electoral purposes into wards, so as to help small communities, Muhammadan and other, to a fair representation.
- (6) The control of municipal authorities over education has become far greater.
- (7) They have far larger powers than formerly as to vaccination and sanitation. In ten municipalities vaccination has been declared compulsory.
- (8) Municipal accounts, formerly imperfectly audited in the several localities, are henceforth to be audited by more skilled and responsible persons.

Thus far I have been speaking only of district municipalities,—municipalities, that is, other than that of Madras.

141. The Madras Municipality is now governed by an Act of its own, which passed through the Legislative Council in 1884. Its administration is vested in a President, two Vice-Presidents and thirty-two other commissioners. The President is a salaried officer, frequently a member of the Covenanted Civil Service ; the Vice-Presidents, of whom one who is an engineer manages public works while the other looks after financial affairs, are also salaried. Of the thirty-two commissioners, twenty-four are elected by the inhabitants, and the rest are appointed by Government.

142. The Municipality of Madras controls the whole of the “Province *not* covered with houses,” upon which stands the ramblingest of cities, extending over seven-and-twenty square miles, and containing only something over 400,000 people, upon whom the incidence of local taxation is only Rs. 1-13-0 a head.

143. It has been a hard struggle to make the ends meet, and I am very sorry not to have been able,—thanks to the heavy demands made upon us by the deplorable necessities of the Imperial Exchequer with which we most deeply sympathize,—to give the Municipality much more direct help.

144. In 1884, however, before our first troubles came upon us, we were able to make it a grant of Rs. 86,000, and, if the exigencies of Imperial Finance permit, we shall, I hope, be allowed to give out of our Provincial balance a still larger sum this year.

145. The Municipality has exerted itself in a most creditable manner, both with regard to drainage and water-supply ; but the first is a terribly costly business on account of the vast surface to be dealt with, and of the fact that much of the land lies below or near the level of the sea. I once saw it stated in a paper drawn up by grave and official persons at home that “the wealthy mercantile community of Madras could do it all.” I murmured as I read those words, “O ! for an hour of King John !”

146. There are now twelve sewage farms, which are worked at a slight profit. Both the Cooum and the Buckingham Canal are much cleaner than they were five years ago, while another important step in the interest of public health, has been taken by making vaccination compulsory, and placing it, as well as conservancy, under a health officer.

147. Turning now to Local Fund Boards, nearly all parts of the Presidency are, under the new Act and its corollary rules, arranged as follows:—

- (1) Each district has a district Board, with a President and twenty-four or more members.
- (2) The district is divided into taluks or counties, the local affairs of which are managed by taluk Boards, each of which consists of a President and twelve or more members in subordination to the district Board.
- (3) The taluks are subdivided into small local areas, embracing one or more villages, and styled Unions. These last are managed by committees of five or more members called punchayats, who act as the agents of the taluk Board in sanitation and such matters.

148. This organisation is, of course, still incomplete, though large numbers of members have already entered on their duties, but it is steadily extending, and will, no doubt, be extended as circumstances permit over the whole country, though in the most backward tracts it can only be extended very gradually.

149. It is all too early yet to say whether the new system will work well or not; but we have been anxious by not attempting to force it where it was unacceptable, or obviously premature, to avoid provoking re-action, and so courting disappointment.

150. All the members of the Local Board organisation are, at this moment, either *ex-officio* members, or appointed by Government; but the Act provides that members of district Boards may be elected by the taluk Boards out of their own number; and again that members of taluk Boards may be elected by the punchayats, tax-payers and inhabitants of the taluks, while the members of the punchayats themselves may be elected by the tax-payers and inhabitants of the Union.

151. It is intended that as soon as the net-work of taluk Boards is complete, they shall be allowed to begin to elect one or more representatives to the district Boards.

152. The Collector is *ex-officio* President of the district Board and the Divisional Officer of the taluk Board, but the Act allows of Presidents being elected, and elected in time they doubtless will be.

153. Under the old system half the members of a district Board might be officials. Now only one-fourth may have that character.

154. Under the old system, as will have been seen above, Local Boards administered the funds levied on their account by the Government. Now they are allowed to levy any of the taxes which are permitted under the Act by which they are constituted.

155. Formerly, the Local Boards were supervised by the Board of Revenue. Now they are supervised directly by Government, the intention being that they should be relieved of a great deal of unnecessary control, and be allowed to swim without corks, although not permitted absolutely to drown themselves.

156. Under the old arrangements their accounts were audited by the Accountant-General at Madras. Now skilled persons travel about and audit them upon the spot, thus enabling their members to watch the finance, each of his own Board, much more closely than heretofore.

157. There is probably nothing in the Acts or in the rules made under them, which would not have been introduced into our arrangements bit by bit, even if the resolution of the late Viceroy in Council about local self-government had never appeared. One force which was constantly acting in that direction was, as I have observed, the ever-increasing pressure on the time of the European officials and their principal native subordinates. Every year the desire of the people for careful and rapid administration gets more pronounced. We are expected to provide a first-rate European system in return for an Asiatic revenue. The thing cannot be done. It is then manifestly wise, wherever it is possible, to enlist the assistance of the population in the management of the million details of town and village-life, highly-skilled employés of the Government withdrawing more and more into the position of advisers, but holding reserved powers to intervene and prevent intolerable disaster.

158. It is, I fear, a mistake to suppose that the zeal for local self-government is as yet very burning. Some of the people like the sound of the phrase, but when they realise that it means giving a great deal of time to matters which concern them only as members of a community, that it does not mean pay, and that "kinless loons" of Europeans are ready to prevent their playing all too much into the hands of fellow-castemen and relations, zeal is apt to grow a trifle cold.

159. It is clear, however, from considerations which have nothing to do with the "enthusiasm of humanity," or any large and wide-reaching theories, that more arms must be engaged in dragging forward the lumbering car of local improvement. Several generations of steady work are wanted before India can be brought up in many respects to a civilised level; and I think no better plan could be devised for giving a long pull, a strong pull, and a pull all together than that which has now been inaugurated here.

MEDICAL.

160. In the Medical Department the only changes which I need mention have been the following:—

161. The Civil Surgeon in each district has been made a sanitary officer, and has had thrown upon him the duty of advising the Presidents of Municipalities and of Local Fund Boards in all matters affecting medical and sanitary arrangements.

162. He has further been provided with an assistant who takes off his hands some of his former duties.

163. Very gradually, as I pointed out in my recent address as Chancellor of the University of Madras, the Brahmins are taking to medicine. It would be a vast boon to the community if that most intelligent class of men were to devote itself more largely to a profession, the improvement and extension of which is perhaps the very greatest want of modern India.

164. A caste and gosha hospital has, mainly through the exertions of Mrs. Grant Duff, been set on foot for the medical assistance of those ladies who are at once of too high rank to go to ordinary hospitals, and too poor to be treated at their own homes. The Raja of Venkatagiri, the Maharaja of Vizianagram and a number of great personages have come forward in the most liberal manner to help this scheme, which will provide relief for a very numerous and a very suffering class. A site has been assigned for the hospital in the Chepauk Park.

165. Steps have been taken by Mrs. Grant Duff to promote, as far as is possible, Lady Dufferin's great scheme for medical assistance to the women of India at large.

166. A number of reforms, alike in the Civil and in the Military Subordinate Medical Establishments, have given considerable satisfaction to the persons immediately concerned, and some of them have been of no small advantage to the public service.

167. The Acting Surgeon-General with the Government of Madras reports to me as follows:—

"Whether for the grade of Assistant Surgeon, Warrant Medical Officer, or Civil Apothecary, the Madras Presidency not only incurs no expense on account of preliminary training, but insists on the L.M.S. degree as the lowest professional standard for eligibility. It is not too much to say that this standard of medical qualification demanded from Medical subordinates, whether practising their profession in Military hospitals, or in the remotest Civil hospitals of the country, must have the most beneficial results on medical practice and be a great boon to the people."

168. It is hardly credible, but too true, that there existed till recently no teacher of Dentistry in the Presidency of Madras, and that there was no specialist in that branch in the service of Government. This great want has been recently supplied, and if the officer appointed does his duty, we should soon have a fair supply of respectable dentists.

169. There is a marked increase of interest in vital statistics amongst the more intelligent part of the population. In municipalities they begin to see that the registration of births and deaths is not a mere piece of European fussiness. In villages they have hardly yet got so far as that.

170. Street conservancy has made very good progress, as any traveller can see, while the protection of the water-supply of towns begins to attract serious attention. The Acting Surgeon-General, however, observes with truth: "The good effects of these changes will not become apparent for some time, because registration has been so imperfect in the past and as it improves the mortality, although actually less, will appear greater. Also improvement must extend to the individual dwelling before ameliorations of the kind noticed can make much impression on public health. The population also is too dense in many quarters of towns, and must be spread out." In some districts sanitary associations have been started among the villagers, and nearly all municipalities are now willing to undertake the conservancy of private dwellings for a small fee.

171. We have recently, at the suggestion of Dr. Bidie, who was Sanitary Commissioner before he became Acting Surgeon-General, sanctioned the sanitary inspection of schools, where it was sadly wanted, and should produce very great good.

172. In July last we passed an order approving the proposal made by Dr. Bidie in the following paragraph:

"To render the town population healthier, the Sanitary department must for years to come carry on an unceasing crusade against over-crowding as well as other sanitary evils, and I think that a better understanding as to what has been done would be attained if a systematic sanitary survey of all the chief towns were carried out. Instead of a Sanitary Commissioner, as at present, being required to visit and casually inspect a number of places in the course of the year, it would be better for some time to come if he made a thorough survey of a few towns annually, noting in detail all their defects and requirements. This plan was found very effectual in the earlier days of the Sanitary department in the case of military cantonments, and would be equally valuable with respect to towns."

173. Altogether the retrospect of the five years, so far as medical and sanitary affairs are concerned, is not unsatisfactory; but I am painfully aware that we are only at the beginning of a good time in this respect, and that many things are still tolerated, and must be tolerated, on which a more enlightened age will look back, as on practices characteristic of a period of barbarism.

174. One of the next reforms that will have to be considered is the appointment of a Sanitary Engineer to advise local authorities.

JUSTICE.

175. The working of our Criminal procedure has been made better by the issue of orders that when a person accused of murder appears too poor to engage an advocate for his defence, the Court shall appoint one.

176. The law previously existing as to cruelty to animals was modified and slightly improved by an Act of 1885; but the better opinion seems to be that the country is unhappily not yet sufficiently advanced to make it possible to treat this subject in a complete or satisfactory way.

177. Orders were issued in 1884, with the object of making punishments in certain cases of infanticide less severe.

178. In 1883, the practice of trial by Jury was considerably extended.

179. We complied, of course, with the wishes of the Government of India, as announced in 1882, with regard to prison manufactures; but can hardly boast to have solved better than others the almost insoluble problem how to find work for our prisoners without *more or less* competing with outside industry. The complaints made as to this by the Prison authorities were numerous, and from their point of view very difficult to answer; but the decision of the Supreme authorities, which was communicated to us in the month of May, has put an end, by an arrangement which should meet the views of all reasonable people, to a great deal of administrative perplexity.

180. Passing to Civil Justice, I may notice several changes of moment, viz., the raising in 1884 of the jurisdiction of Village Munsifs; the authorisation, in 1882, of new rules for the preservation and destruction of records; the redistribution, in 1884, of the Judicial staff with a new grading and scale of pay for the

Uncovenanted Judicatory, ranging from First-Class Sub-Judges at Rs. 800 per mensem down to Fourth-Class District Munsifs at Rs. 200 per mensem. This was accompanied by the re-organisation upon intelligible principles of all the establishments of the Courts.

181. I may add that proposals tending to diminish the work, and increase the efficiency, of the High Court have been submitted to the Government of India.

LEGISLATION.

182. In the Legislative Department there has been a great deal of activity, though no one can be less favourable than I to making legislative changes in India without a proved necessity.

183. Most of the Acts which have been passed, are noticed under other heads. Here I will only remark that, although the manner in which our Bills are drawn by gentlemen who have had absolutely no special training, fills me with admiration, slips do, and must, in the nature of things occur. I should like to see us provided with a well-paid officer trained under some master of the art of drafting, who should be responsible for all our Bills, and further employed in the work of an Under-Secretary. Several of the Secretariats are undoubtedly over-worked.

REGISTRATION.

184. In 1882, the department which deals with the Registration of Assurances was re-organised, more pay was given, smaller commissions allowed, and more rapid promotion secured. Since that time facilities have been given for effecting registration for revenue purposes simultaneously with the registration of assurances.

185. Under the careful superintendence of Mr. Hamnett, this branch of administration has prospered exceedingly. The comfort of the people is very greatly increased, a sense of secure possession, which some highly-enlightened countries might well envy, is being engendered, while the income of the community is greatly benefited and is likely to be more and more benefited for years to come.

THE THREE AGENCY TRACTS.

186. There are few parts of the Presidency which would, I think, have interested me more, if I had had the requisite leisure, than the three Agency Tracts connected with the Godávári, the Vizagapatam, and the Ganjam districts. Travelling, however, is very slow in these roadless regions, besides being out of the question, except at certain periods of the year; and I had to content myself with seeing many of their inhabitants, Khonds, Savaras and what not, in more or less accessible places.

187. It was feared at one time that the Kalahandi disturbances (in connection with which Madras officers did such good service) would pass into our territory, but this did not happen, and the wild tribes have given us extremely little trouble, nor will they, I think, much trouble our successors if care is taken to insist upon intelligent officials using all available opportunities for *touring about them, and seeing things with their own eyes*. If this had been carefully attended to, our predecessors would not have had to deplore the Rumpa *rumpus*, which almost assumed the dimensions of a little war.

188. Before 1882, we had not any one whose duty it was to reside during the greater part of the year in the Rumpa region. The appointment of a Civilian to do this and several changes in the same direction, both in Godávári and Vizagapatam, were sanctioned in consequence of a report made to Government just at the time of my arrival by Mr. Carmichael, who was then a Member of Council, and had been sent some months previously to examine into the causes of the outbreak.

189. Some recent disturbances in Vizagapatam have emphasised the necessity of more superintendence in its wilder regions, and I hope before I leave India to have an opportunity of consulting with Mr. Turner at Madras about this and other matters.

190. In 1885, we heard that the Párvatipur Jail was over-crowded, and inquired the reason. We found that the authorities did not think themselves justified in sending the hillmen down to the sea-board, which seems to act upon their constitutions as deleteriously as do their fastnesses upon the health of the inhabitants of the plains. It became necessary accordingly to enlarge the jail at Párvatipur, and Mr. Grimes, who inspected it this spring, has given me a good account of it.

191. The greatest benefit which we have been able to confer upon the most out-of-the-way part of the Presidency was the opening of the great Pottinghi road,—a noble piece of engineering, on which between three and four thousand men were employed when I passed along it early in 1883.

192. In these wild regions the destruction of tigers is quite an important function of the administration. For years back, a reward of a hundred rupees has been paid for the slaughter of every tiger in Vizagapatam and of every man-eater in Godávári and Ganjam; but in 1883-84, these creatures became so very active in the Vizagapatam Agency that we were obliged to double our rewards in that country.

193. The result has been that, while, in 1884, 114 persons were killed there by tigers, only 56 were killed in 1885.

194. I may notice in this connection the curious paper which deals annually with the ravages of wild animals in the territories presided over by this Government.

195. In 1884, two hundred and fifty-five people were killed by tigers and other dangerous quadrupeds in the Madras Presidency, while in 1885 there were only 140; but, on the other hand, 119 persons died of snake-bite in the first of these years, and 148 in the second.

196. A prodigious number of cattle, sheep, goats, and other domesticated animals are destroyed every year, mainly by panthers, at whose door the death of no less than 6,713 head of cattle alone was laid in 1885. There seems much reason to suspect the accuracy of the figures in many districts. It is hardly credible that panthers should have destroyed in the same year 3,177 head of cattle in South Canara, while they were satisfied with 14 in Kistna, 12 in Bellary, 6 in Trichinopoly, and 5 in Chingleput.

197. As to Bellary, I well remember being informed at Sandur that a few days before I was there, a panther jumped on the back of a letter-carrier, tore open his bag and disappeared into the jungle, whether with or without the letter which he presumably desired to possess himself of my informant did not say.

198. So enterprising an animal would himself, one would think, have accounted for more than 12 head of cattle in a year.

199. Great care should, I think, be taken to let the amount of the rewards offered in each district be generally known, and they should always be punctually paid.

200. I found the following characteristic entry in an official report made to the Collector of Ganjam in April 1884 by an intelligent young officer, Mr. Mounsey :—

“At the present moment almost all traffic up the Kalingia ghat is stopped by a man-eating cheetah, which has taken more than three-quarters of the live-stock of one village and some five or six men. You have now sanctioned provisionally a special reward of Rs. 100 for this animal. So I hope it will soon be destroyed. The number of wild beast skins brought for reward is now very large compared to what it was. Giving the full amount sanctioned has induced the Khonds to take the risk (to them) of killing any of their ancestors who may have taken the form of cheetahs, and traps are made for them all over the Chinna Kimedi and Bodogodo Maliahs; this is quite a new thing.”

LITERATURE.

201. Frequent applications are made to this Government to patronize books more or less connected with the Presidency, and a pretty long list of those, the sale of which we have assisted in the last five years, lies before me.

202. I think, however, that in a paper like this I need only mention (1) the Konkani Dictionary by the Rev. Father Maffei, S.J.,—a highly accomplished

philologist belonging to the Catholic Mission at Mangalore, who had previously published a grammar of the same language of which good authorities think very highly.

203. Konkani, which is a dialect of Mahratti, is the mother-tongue of the Catholic Christian population of South Canara, and of many Brahmins there. We thought ourselves justified accordingly in bearing half the expense of the first edition, the Bombay Government agreeing to pay the other half, as Konkani is largely spoken in what *was* alas! our, and *is* their, district of North Canara.

204. Shortly afterwards the Protestant Mission in the same district asked us to give similar assistance to them in publishing a Tulu Dictionary by Mr. A. Männer. Tulu being the language of about 425,000 people in South Canara, we had no difficulty in complying with their request.

REVENUE DEPARTMENT.

AGRICULTURE.

About 75 per cent. of the population of this Presidency depends directly or indirectly upon agriculture for its livelihood.

2. This population rapidly increases, and vast quantities of land have been taken into cultivation in the last generation to meet the increasing demand for food. It stands to reason, however, that the best land should be occupied first, and there is very little really good land remaining to be added to the arable soil, although there are vast regions that may be made indirectly useful to the peasant of the future, for timber, pasture, and many other things.

3. If, then, our cultivation cannot become much more *extensive*, it should become more *intensive*. Primitive husbandry will no longer avail. It did well enough in England in the days of Queen Anne, when an acre produced, it is affirmed, our present Indian average, say, eleven bushels of grain. Now the average yield in England is said to be about twenty-eight, while the very highest farming has produced thirty-nine.

4. Having these or like facts in their minds, and being disposed to give the peasant credit for doing the best he can with the means at his disposal, successive Governments of Madras have, for the last twenty years, been giving much attention to the introduction of a more scientific system of agriculture, not for a moment believing that methods good for the Lothians or the vale of Aylesbury would be efficacious here, but persuaded nevertheless that something was to be learned from the best European authorities. Acting upon this idea, they created, amongst other things, some time ago, a Government Farm and School of Agriculture at Saidapet on the banks of the Adyár.

5. When I arrived, I found the Saidapet Farm under the care of Mr. Robertson, the author of an excellent little Manual of Indian Agriculture, which is well, and should be better, known. Mr. Robertson, however, had to serve two masters, for he was also head of the Agricultural College, and in 1884, he was transferred to the Education Department.

6. In 1885, it was considered that the Saidapet Farm had done its work, and, as a piece of ground where the soil was little better than pure sand could never be a commercial success, it was thought well to cease to cultivate the greater part of it, but to keep a small portion as an appendage to the college, to be used for making the students practically as well as theoretically acquainted with their subject.

7. Mr. Robertson reports favourably of the young men now attending his classes, and many of his pupils have got employment in various parts of India. I have employed one of them myself at Guindy, and have every reason to be satisfied with him.

8. In 1882, we were enabled to extend our field of action, for the Government of India determined to constitute a Department of Agriculture, and invited our co-operation. They further sent down Mr. Buck to confer with us. He came to stay with me at Ootacamund, and as this Government was delighted to meet him more than half way, preliminaries were very soon settled. Ere long we recalled into existence the office of Director of Revenue Settlement, which had been most reluctantly abolished owing to the financial pressure of 1879, and combined with it the duties of Director of Agriculture. The chief of these are—

- (1) analysis of districts with reference to famine protection ;
- (2) agricultural experiments, including farms and the introduction of agricultural improvements ;
- (3) collection of agricultural statistics.

9. All these have been carefully attended to, but of course the department has had to suffer as all Indian departments have, from frequent changes which the privileges of our officials as to pay, promotion, and leave make inevitable, while the still-unsettled arrangements for the improved conduct of business by the Board of Revenue have been another disturbing element.

10. The first of these, the importance of which was brought into relief by the terrible events of the last decade, was commenced with Kurnool. An analysis of its agricultural situation has been prepared, and the Assistant Director of Agriculture has been for some time travelling in the district, for the purpose of checking the information already before Government, and extending it.

11. Preparation has been made for beginning a thorough examination of the agricultural position of Bellary and Anantapur; but in this work as in many others the misfortunes of Imperial finance have kept us back.

12. As to the second, much has already been done at Saidapet, and very slowly and gradually the work there commenced is bearing fruit.

13. Already in various parts of the country improved implements seem to be finding favour, and I had occasion lately in visiting Shiyáli to speak with approval of the work done there by a gentleman of the locality, Mr. Krishnasawmy Mudaliyar. I wish we had two or three such centres of agricultural intelligence in every district of the Presidency.

A young man connected with the Tinnevely district, Mr. Swami Aiyengar, has been doing useful work by demonstrating the merits of improved ploughs.

We are about to commence experiments in the Godávári and Kistna districts for the purpose of ascertaining whether lands which have been bearing rice too long cannot be made to give, under moderate irrigation, excellent crops of other cereals.

14. The collection of commercial statistics will, like the supervision of village records, probably fall under the Director of Revenue Settlement; but a good deal of that work is done for the present by the Board of Revenue. He has, however, recently arranged for the publication in the course of each year of certain agricultural statistics, viz., four forecasts and four condition, and outturn, reports, with regard to the leading food-grains of the Presidency, so that we shall know the area sown each year as compared with the average of the previous five years; then later, how the crops are going on, and still later, what has been the actual result of the year's agricultural operations, so far as these are concerned.

A steady pressure will have to be kept up until district officers thoroughly appreciate the importance of punctuality and accuracy in these returns.

15. No one can move much about Southern India without seeing that cattle are of the most enormous importance to the population. In some exceptional tracts, he may be gratified by the appearance of the animals, but in most they are undersized, weakly, and have to fight during a considerable portion of the year, a very hard battle to live at all.

16. It would be infinitely desirable to get the peasantry to grow more fodder-crops. It would be no less desirable to get them to prevent the indiscriminate herding together of all animals, young and old, to the great deterioration of the breed.

17. No heroic remedies can, however, stop the existing evils, which can only be dealt with by the filtering down of sane ideas. A generation hence, many parts of the country where the presence of cattle now is a real evil, will, when the operations of the Conservator have advanced and the woodland has got ahead, form admirable grazing grounds. And if it turns out that silos can be profitably worked in many districts, as they certainly can in some, the problem of keeping the cattle well-fed and healthy through the terribly trying hot months, will have been solved.

18. Mr. Lawson reports that in the Nílگیرis the troublesome weed *Bidens glabra* is, after being treated in a silo, devoured by his cattle, and His Excellency the present Commander-in-Chief, who has given very great attention to silos, is of opinion that even the prickly-pear can, by the same treatment, be made most acceptable to animals.

19. An intelligent Civilian once observed to me, speaking of this plant: "On the plains it is our only forester;" and I have learnt to appreciate the truth of his observation over a large portion of the Presidency. Nevertheless, there are vast quantities of it which are simply mischievous.

20. Our attention was called in 1882 to the great amount of cattle-disease that prevailed. We appointed accordingly Mr. Mills to be our Veterinary Inspector, and inaugurated a scheme for the training of a class of persons to travel about and give their services to sick cattle up and down the land. Each of our districts, save Madras, will be provided with such an officer in the course of the present financial year. Nearly at the same time the Veterinary Hospital was declared to be an Infirmary for the treatment of animals which had been ill-used.

21. We were not allowed to make Mr. Mills' appointment permanent, but it has recently been renewed for two years, and he has published a valuable treatise upon Cattle-diseases, which is being translated into the chief vernaculars.

22. Early in 1883, an Agricultural Exhibition was held at Madras. I was travelling at the time in the Northern Circars, and did not attend it; but the results were encouraging, and it has been proposed to hold another Exhibition for the Presidency in 1888, as well as to have local exhibitions in various parts of the country from time to time.

23. The traveller in these regions, when he sees small unhappy-looking cattle picking up a scanty livelihood amongst the rocky wastes, which nature evidently meant to be covered with trees, will often be inclined to think that our cattle are too numerous, but that is far, indeed, from being the case. Mr. Robertson points out that Belgium possesses 569 head per square mile, and calculates ours at 104 per square mile.

24. Hides form a large article in our exports; but why can we not work up our own hides? The admirable Cawnpore leather shows what might be done. I have been told that the market value of those we send away is diminished by the absurd custom of scoring their unfortunate wearers with frightful patterns, whether for health, luck, or beauty.

25. In the spring of this year, having been consulted by the Government of India about the destruction of certain birds, we took an opportunity of strongly supporting the views laid before us by Dr. Bidie and Mr. Davison, as to the deplorable slaughter of many, which, by destroying insects, are of paramount importance to the agriculturist. Not a few of these have very attractive plumage, and are amongst the most persecuted creatures in the Peninsula.

26. This Presidency should do far more than it does in the production of sugar. Mr. Minchin's great works at Aska are most creditable to him, and I think he would say that the Government has, since I had the pleasure of visiting him in 1883, done what it could to assist his honorable efforts. When I landed at Gopaulpore, I found that he had carefully thought over and noted down all he had to put before me with regard to his own affairs and those of the Ganjam district. Nothing was left to the chance of conversation wandering in this direction or that, but all stated clearly and briefly. That is the way I like to have business done.

27. In some parts of the country the people are taking kindly to the Beheea sugar-mills, which are cheap and easily mended, but it is still the day of small things.

28. I would fain be more hopeful about the future of Madras silk properly so called * than I am; but the attempts I have seen at its successful manufacture have not been very exhilarating. A group of French gentlemen in Madras are trying to make something of our wild Tusser silk †.

29. Tobacco is largely cultivated, and the outcome ought to be highly satisfactory; but in no part of the country do the people seem to understand the most approved methods of curing. We are sending out a man to learn these in Java, and propose to employ him both in the Godávári district and in the South.

* The produce of *Bombyx Mori*.

† The produce of a variety of species.

30. Throughout the land I should like to see a greater variety of crops. We have in all our low grounds too much rice. One of these days some mysterious disease will attack that staple, and there will be a horrible disaster.

31. I have often in my mind a passage which I once quoted in a speech soon after my arrival in this country from a report of the American Department of Agriculture for 1878 :

“A contrast of the condition of our people with a portion of the inhabitants of the great Chinese Empire, where hundreds of thousands have perished miserably, because of the failure in certain sections of the rice-crop on which alone they depended for subsistence, enforces most emphatically the wisdom of insisting upon a diversity of agricultural products. The Department of Agriculture has for one of its leading objects the introduction of all the productions of the earth that can be grown in any part of our country, and to encourage by every means that diversity of production which is at once the safety and the wealth of the nation.”

32. To extend the growth of wheat or maize, to advocate the South Indian three Fs, *i.e.*, fuel-trees, fruit-trees and fodder-crops, however, would be stigmatised, I suppose, as a waste of time by some of our advanced reformers, who care for nothing but barren or mischievous changes in political machinery.

33. Alas! alas! the day when India can afford amusements of that kind is far off. The urgent question is how to provide a comfortable existence for her millions, and that can only be done by anxious attention to a thousand details each of little enough account, if it stood alone :

“The world is wide; these things are small;
They may be nothing; but they are All!”

PLANTING.

34. Indian Governments have been sometimes blamed for not welcoming with enthusiasm the English capitalist. Madras is not open to that reproach.

35. Every encouragement is given to the English capitalist to settle and to cultivate in those districts of the Presidency where the climate makes this possible. The planters on the Nilgiris and elsewhere have in the last five years met with special consideration; but the mischief is that the English *capitalist* won't come.

36. There never was a truer maxim than that “the first duty of a landlord is to be rich.” If he has not other means, it is idle to attempt to cultivate land in India or in any country I have heard tell of, with a reasonable hope of success.

37. No good-natured “concessions” on the part of Government can do anything more than stave off the inevitable. They are too often only a cruel kindness.

38. I once said to a friend “How do the — s get on with their estate?”

“Excellently,” was the reply, “their father gives them the money to work it.”

“And what return does he get,” I rejoined.

“Oh, the return he gets is that one of them periodically returns to him.”

C'est magnifique mais ce n'est pas le commerce!

39. What we above all things want in the Nilgiris and [similarly-situated tracts is the English capitalist, who will buy his estate without needing to mortgage any part of it, retaining enough money to live upon, and to work it to the very best advantage, without ever having recourse to the money-lender, while he gives as much of his personal attention to planting as he would give, if he meant to succeed in any other profession. Such men will be able to tide over bad years, and sooner or later may do fairly well, while those who count upon a succession of good years will certainly be disappointed, however much Government may do for them.

WELLS.

40. Sir James Caird remarks: “that next to judicious railway extension, the safest outlay of public money in India would probably be found in the increase of wells for irrigation.” I agree with this view, and am not sure whether I would not in some districts put the wells before the railways.

41. More than thirty years ago, the principle long recognised in this Presidency that no improvement caused by digging a well should be taken account of with a view to enhance the assessment when the time for re-assessment came round, was solemnly re-affirmed. No question then could arise as to a well sunk in dry ground by private persons causing any increase of assessment; but there were from time to time questions as to the status of wells. In 1883, we decided a whole mass of these in favour of the peasantry. There were also numerous cases of wells being dug under Government irrigation works and apparently drawing their supplies from the percolation of water from those works. Five years ago it was the practice to assess wells, which were quite close to tanks, under the impression that they took away water from those tanks. This subject was brought before us also in 1883, and we came to the conclusion that the percolation of the water had less influence on the tanks than had been supposed, and that the peasant was entitled to make what use he could of it just as if his well had been sunk in dry ground.

42. Lest, however, our view should turn out to be erroneous, it was eventually determined that the rule of exemption from extra charge should be made experimentally for three years, and should be restricted to cases where the usual supply of water from the tank failed while the crop was on the ground.

43. It is unlikely that wells will be dug under tanks, except in cases where the supply frequently fails, for tank irrigation is far less burdensome to the peasant than well irrigation, which involves heavy labour.

44. It is, however, in those parts of the country where tanks are not available that I most desire to see well irrigation extended, but the practice spreads slowly. Our people do not take as kindly to wells as is the case in the North, probably from the cause alluded to in the last paragraph.

45. We now give every possible facility to the impecunious peasant to dig a well. In districts peculiarly liable to drought (Bellary, Cuddapah, Anantapur and Kurnool), loans for this purpose are granted up to a maximum of Rs. 750 at 3 per cent. interest, and repayment may extend over thirty-five years. Half the loan is given before the work is commenced, and the balance when it is finished. The land irrigated by the well and the well itself are hypothecated to the State; and the annual charge on account of the loan is paid with the land-revenue, and cannot exceed 5 Rs. per acre,—a sum far below what was the usual assessment of well lands in by-gone days. In all districts loans for the construction of wells may be obtained under the ordinary Land Improvement Loan Rules, under which the rate of interest is $6\frac{1}{4}$ per cent., subject to reduction by Government in special cases. In these rules exceptional concessions are however made in the case of loans for well-sinking; the minimum limit (Rs. 100) of the amount of loan ordinarily allowable, not applying and the time for repayment being specially extended.

46. It remains to be seen whether the very liberal rules that have recently been brought into force will have the desired effect. Last year, before the new rules appeared, we sent skilled persons into the Anantapur district to assist such peasants as desired to dig wells, but without much acceptance. This is unfortunate, for a single failure to find water often discourages a whole neighbourhood, and skilled assistance is just what is wanted.

47. With respect to ordinary Land Improvement Loans, as well as with regard to wells, we have simplified, as far as possible, the conditions and the preliminary inquiries, having regard to those changes in the old and far too rigid system which were proposed by the Famine Commission.

48. We have also framed rules under Act XII of 1884 regulating loans for agricultural purposes other than land improvement, and for relief of small land owners suffering from distress due to special causes. No interest is charged in the latter case; in the former the rate is $6\frac{1}{4}$ per cent., but the interest may be reduced or remitted for sufficient reasons. The loans in these two cases may amount to Rs. 1,000 and Rs. 200 respectively.

49. I confess I do not see how, with any sort of justice to the community at large, things could be made easier for the peasant.

50. Our rules, under the Imperial Land Improvement Loans Act XIX of 1883 and under the Imperial Agriculturalists Loans Act, seem to cover every kind of advance that can reasonably be made to the cultivator, not only for permanent improvements, but for the purchase of seed-grain, for ploughing stock, for the rebuilding of houses or huts destroyed by fire or flood.

MINOR IRRIGATION WORKS.

51. Great as is the need for the extension of well-irrigation, it is not, and probably never will be, the usual kind of irrigation in the Madras Presidency.

52. For ages our people have been accustomed to depend mainly upon tank-irrigation, tanks being artificial lakes or ponds, sometimes small and shallow, sometimes of immense size and depth. About the larger tanks I shall have occasion to speak lower down. In the present connection, I shall refer only to what are known as the minor irrigation works, *i.e.*, to tanks which, with rare exceptions, irrigate less than 200 acres, and which are under the charge of the Revenue, not of the Public Works, Department. Comparatively small as these are, their number makes them of vast importance.

53. I was not then surprised to find during my earlier tours that the state of the Minor Irrigation works was much in the mind of the people.

54. Many of them were originally planned with little consideration. Scattered over an immense extent of country, they could not be easily looked after by a Government department, while, at the same time, the old customary village labour or kudimaramut had fallen into desuetude. This state of affairs led to great inconvenience to the peasants and entailed a grievous loss to the community at large, enormous sums having constantly to be remitted by the Revenue authorities on account of failure of irrigation.

55. Some little improvement might, we thought, be effected by handing over the very smallest of these works to the peasantry, and, as an experiment, tanks irrigating ten acres and under in the district of Cuddapah, known as *the* subdivision, the region, *viz.*, of which Madanapalle is the capital, were actually handed over.

56. Evidently, however, such a course could not be taken with the thousand and thousand tanks scattered over the country, until they had been put by a body of thoroughly-skilled engineers into perfect order and properly connected with each other.

57. This was the object of the Tank Maintenance Scheme, which was carefully framed in 1882, discussed with Sir E. Baring in the November of that year, and accepted by the Government of India.

58. If it is not interfered with, we shall eventually have one complete division in each of the circles into which the Presidency is divided for Public Works purposes. The expenditure on this will rise by yearly increments till it reaches ten lakhs per annum, and very well invested money it will be.

59. All those portions of the Province which have to be dealt with fall into 103 river-basins, and the work was begun in the basin of the Vaigay which lies in the district of Madura, where there are more tanks than in any part of the Presidency. In 1884, a second tank division began operations in Chingleput, and in 1885 a third got to work in Kurnool.

60. The officers of the Tank Divisions will merely examine the tanks, state what ought to be done with them, and map those of every river-basin. The executive officers of the ordinary Public Works divisions will carry their plans into effect.

61. It is obvious that a scheme like this will require a good many years for its completion, but when it is completed we shall have not only an accurate record of the catchment areas and capacity for irrigation of every one of our river-basins, together with plans and estimates for bringing all the Minor Irrigation Works therein up to the highest state of efficiency; but we shall have most of them actually

in that condition. Twenty years should see the work done, and it is thought that it need not cost more than 185 lakhs.

62. As, however, it is out of the question that the better should be allowed to kill the good, or even the pretty good, we have given to all Collectors small establishments, in order that they may be able to do such ordinary repairs to the Minor Irrigation Works as do not require professional supervision.

63. Already the effect of our having done so is apparent in a smaller loss to the general community upon remissions, while there can be no doubt that the peasantry have also largely gained.

64. It was proposed at one time to revive by law the kudimaramut system, and a Bill for this purpose had advanced to the stage of Select Committee. It was, however, withdrawn in the spring of 1884 after communication with the Government of India, certain financial concessions having been made to this Presidency by that Government, on the understanding that this course would be followed.

SURVEY AND SETTLEMENT.

65. I have sometimes met amongst English people with a strange idea that the Director of Settlement is a kind of ogre, who is always enhancing the demands upon the peasantry; and the wildest possible statements are made, alike in good and in bad faith, as to what our settlements really are. I have seen it stated in an official document, not, I need hardly say, drawn up in Madras, that our settlements are made by the Revenue Inspectors! and a man of the highest eminence informed the Secretary of State in 1879 that "in Madras there may be a fresh assessment every year"!!!

66. Whole oceans of ink have been expended, and will continue to be expended, for the next few thousand years, by persons who have persuaded themselves that that or this system of land-holding is universally the best. Into none of these questions is it my business to enter. The system which has long prevailed in the most important parts of the Madras Presidency is the system by which the Government is in direct relations with the peasant,* and by which certain of its officers receive from him the Government assessment on his land, just as a Scotch factor or agent receives the landlord's rent.

67. It is, therefore, infinitely desirable that every man should know exactly what amount of land he is cultivating, what kind of land he is cultivating, and what he has got to pay to the Government.

68. The first of these questions necessitates an accurate survey, and that is carried into effect by the *Survey* Department. This is a very slow process. It has been going on since 1858, and will go on for some years more, although it will be quickened by the contemplated handing over of the topographical survey to the Imperial Government, our department only retaining the Revenue Survey. It is the second of these with which the peasant is concerned, the first being applicable to zemindari estates and other tracts of country, not to the peasant's fields.

69. The questions relating to Survey, which have come before Government since the end of 1881, have been mainly as to whether certain districts which are peculiarly circumstanced should be surveyed. These are Tanjore, Malabar and Canara. We came to the conclusion (1) that in none of these were there sufficient reasons against their being settled like the other nineteen districts; (2) that very great inequalities prevailed in their present assessment; (3) that in order to be satisfactorily settled, they must be surveyed. Accordingly two of them (Tanjore and Malabar) are now under survey.

70. In 1882 our attention was called to the disappearance of boundary marks, and orders were given to have them periodically inspected. It was then discovered that there was no machinery for levying the cost of repairing boundary marks, and this want was supplied in 1884 by legislation.

* It is not generally known how large a part of this Presidency is held by Zemindars. I wonder how many people outside its limits are aware that one of these, the Maharaja of Jaipur, has an estate which covers 11,526 square miles, is therefore larger than the island of Sicily, and much larger than all the cultivated land in Egypt. This nobleman pays to a cruel and exacting Government about £1,500 a-year!

71. A variety of causes having led to the Survey Department not being as strong as we could wish, a plan for its re-organisation was adopted by this Government, and is now before the higher authorities.

72. The staff, which acts under the general supervision of the Director of *Settlement*, gives the greatest possible attention to finding out the real agricultural value of each field.

“As the term of re-assessment approaches,” observes Sir James Caird, “great anxiety is felt by the cultivators, and many expedients are resorted to with the view of preventing a rise.”

Of course! The South Indian peasant, like most other people, likes to get his own at least.

His object is to represent his field to be as inferior as possible, and to try to have his assessment fixed as low as he can. When, however, it is once fixed, no change takes place in the assessment of each field for thirty years; but the peasant is absolutely free to keep the land he had at the beginning of the settlement, or to add to that land, or to diminish it, provided always he pays the exact amount, supposed to be half the value of the net produce, which has to be paid on the land he actually holds. What that land is, is ascertained and recorded every year by the Collector on tour. The Collector has also power, subject to certain rules and checks, to remit the assessment due for lands in cases of agricultural misfortune; but he has no power whatever to raise the assessment, and subject to the payment of his assessment, the peasant is absolute proprietor. He is not a tenant of the Government in any sense, and may sell or mortgage his land to any one, if only the assessment be paid.

73. I may here permit myself a digression to explain the phrase “*half the net produce*.”

This is the Government or general community share in *theory*.

The Government or general community share in *practice* is something quite different.

74. In order to arrive at it, the gross estimated yield of the land is converted into money at a fixed rate.

75. The non-Indian reader would probably imagine that this rate is that at which the peasant will presumably sell his produce. Not at all! It was till last year the rate at which he *would* presumably *have* sold his produce between 1845 and 1864, long, that is, before the great rise took place, which has so materially affected the purses of all people in India, who live on fixed incomes, and so immensely benefited the cultivator.

76. In the case of all new settlements, the gross produce is now to be valued with reference to the average amount which the peasant would have sold it for, during the twenty years previous to the settlement which is being made, excluding famine years; because if they were included, the calculation would of course be less favourable to the peasant.

77. At this moment, however, more than half the districts of the Presidency remain, and will for many years remain, under the old system, which, as I have pointed out, is quite extravagantly favourable to the peasantry.

78. The first process which follows the conversion of the gross estimated yield into money is to deduct from the amount thus arrived at ten per cent., being the expense the peasant is supposed to be at in bringing his produce to market. The result is called the commutation rate.

79. This rate is then applied to the peasant's land, and the value of his gross produce is estimated at, say, Rs. 1,000.

80. The next process is that from the said Rs. 1,000 is deducted on an average twenty per cent. for vicissitudes of season and unprofitable areas, such as paths, &c., in spite of which deduction, it must be remembered that whenever a really bad season comes, remissions of assessment are made right and left.

81. From the gross value of the produce, presumably Rs. 1,000, thus reduced by 20 per cent. and made Rs. 800, is then deducted a very liberal allowance, too variable to be expressed by a per-centage, for the expenses of cultivation,

The amount remaining is called the "net produce."

82. As a matter of fact, the Government share, "half the net produce," is a time-honoured conventional form of expression for something between a fourth and a fifth at the utmost of the real net produce of 1886.

83. But to return. I said that the peasant might sell or mortgage his land to any one if only the assessment be paid. No less an authority than Sir James Caird would abolish all his rights and make him a mere tenant of the Government, because he uses his present liberty to get into debt; but surely that would be a very harsh proceeding.

84. Only eight districts were entirely settled when I arrived, and even in the earliest settled of these a revision of the settlement could not take place till 1892. No question then as to what should be done in such a case has come before the Government in my time; but had it done so, our bias would certainly have been in favor of making as little change as could be made in the demand on the peasant, without doing injustice to the community as a whole. The notion of taxing the improvements made by private expenditure would have been scouted, but the general community should certainly receive some return for the value added to the peasant's field by the improved administration, irrigation, and railways for which *it* has paid, while the steady increase in the money value of what the peasant produces should also be considered.

85. Four districts have been settled during my tenure of office, and three more are in the course of settlement; but few changes worth recording in a brief document like this, have been made since we again called into existence the Director of Settlement. The machine has worked as we expected it to work, with little friction.

86. Some attempts which we made to shorten the process of settlement have not turned out altogether satisfactory; but other efforts are being made for the attainment of the same object.

THE INAM COMMISSION.

87. The Director of Revenue Settlement and Agriculture is also Inam Commissioner, but that office, once very heavy and important, now gives comparatively little work, and we have made no changes with respect to it. In its day the Inam Commission has dealt with some 6,750,000 acres which were held on defective or doubtful titles, with the result of a gain to the Revenue of more than eighteen lakhs per annum and great comfort to the persons concerned, who amount to between two and three million.

88. It is worth observing *à propos* of the wild proposals that are sometimes made for turning all the land in the Presidency into freehold, that, although the holders of Inams were permitted, in a vast number of cases, to do this by redeeming the quit-rent at twenty years' purchase, hardly any of them have taken advantage of the permission. Why should they be content with five per cent. when, as Dr. Maclean aptly points out, they can get twelve per cent. on perfectly good security? The enormous return which a native of this country, who knows what he is about, can obtain for his money, is one of those things which should be constantly kept in view by Englishmen who think or write about India. It is a governing fact, influencing our affairs in a thousand ways.

LAND-REVENUE.

89. If agriculture were not, for numerous other reasons, many of which have been made apparent in the preceding paragraphs, the most important of all our interests, it would be so from the fact that out of it arises far the largest portion of our revenue.

90. The average current demand on account of land-revenue for the four years which ended on the 30th June 1885, is put by the Accountant-General at a little under four hundred and fifty lakhs and-a-half; but the last of the four years was a very bad one, and our land-revenue on an average of years may be taken at a little higher than this figure.

91. Of this sum the lion's share goes of course to the Imperial Government. Thus out of our 474 lakhs in 1883-84, we received for our own provincial purposes, including various adjustments, 138 lakhs; out of 437½ in 1884-85 we received 131½ lakhs; while in 1885-86, we should, out of nearly 479 lakhs, receive 141 lakhs or thereabouts. These sums, which come to us under our five years' contract, as modified after Major Baring's visit in 1881, represent more than half of the whole of our income, which the exigencies of the Empire allow to be spent for our provincial services.

92. It follows, then, that it is of vital importance to us that the branches of the administration which have to do with the land-revenue should be in a very high state of efficiency.

93. Various methods by which they might be improved have been forced on my attention by the experience which I have obtained as Governor; but this is not the place to discuss such of these as belong to the sphere of the higher authorities at the India Office and elsewhere. I will speak merely of the changes, small for the most part but, as I hope, not injudicious which, being within the power of this Government to make or to recommend, have been made or recommended since November 1881.

BOARD OF REVENUE.

94. In this Presidency the work of the Collectors and of the Revenue officers who are subordinate to them has been for many years superintended, as everybody knows, by the Board of Revenue. Strong representations were made to me before I left England, that it would be desirable to supersede this body by Commissioners such as those who discharge similar duties in Bombay. I came to the conclusion, however, that there was no case for such a revolutionary change. The Board of Revenue dates from a period when communication was slow, and the amount of work done by our civil officers incomparably smaller and simpler than is now the case. All that was wanted appeared to me to be to substitute a procedure suited to modern exigencies for an antiquated and easy-going one. Necessity had, indeed, compelled the alteration of many old practices connected with the Board by its own authority; but it was high time that things should be put upon a more stable footing, and to that end, an Act was passed which came into force on the 1st of June 1883. The reform thus inaugurated will be carried further, when certain proposals which we have made to the Supreme authorities have been accepted.

THE COVENANTED AND STATUTORY CIVIL SERVICE.

95. Immediately under the Board of Revenue come the Collectors and other members of the Covenanted Civil Service.

96. We have introduced no changes worth mentioning here into the arrangements which I found in force connected with the members of the Covenanted Civil Service, except in so far as they have been affected by our adding one more district to the twenty-one which existed five years ago. Bellary, which was about exactly the size of Belgium, has been divided into two, and Anantapur has become the twenty-second of our districts.

97. Other considerable changes in existing arrangements, such as the grading of Collectors and a further increase in the number of districts have been long discussed, but as they have not yet passed into the region of accomplished facts, I say nothing about them.

98. We have made certain changes as to our Statutory Civilians. The old plan of nominating them which I inherited was wholly unsuited to the circumstances of this Presidency, and when we were left free to apply other methods, we, on one occasion, selected a young man to be recommended to the Government of India, by a combination of competition and nomination; while, on another,

we selected an older candidate who had already distinguished himself in the Uncovenanted service. This gentleman we put at once into the grade of Acting Head Assistant Collector.

99. My personal view is that both of these methods are good, and that both might be used from time to time, though, on the whole, I prefer the second. To the system of selecting Statutory Civilians, by *purely* open competition, or to the idea of giving their nomination to any authority other than Government, I am strongly opposed.

100. I have carefully watched the working of Competitive Examination ever since it was introduced as a means of recruiting the services in India and in England. The result of my observation is, that while it is far the least bad method of recruiting those inferior branches of the public service, over the nominations to which it is simply impossible for the head of a department to exercise personal control, it is not an ideal or heaven-descended method for any purpose, and a very indifferent one for the selection of persons who are to occupy offices so responsible that the Secretary of State or other high officer should not fill them up without having a personal opinion as to the qualifications of the candidates. I should like to see every high appointment which is now made the subject of competitive examination, left the subject of it, and would even add some to which it is not now applied until after nomination; but in examining for all the highest appointments, the *duty of the examiners should, I think, cease with the announcement of a class list according to the practice familiar at Oxford*. From this class list of men intellectually nearly on a level, the appointing officer should have a right to select whom he pleased, having regard to character, birth, manner, appearance, health, public services of relatives and indeed anything he thought fit. Where a very large number of candidates have to be selected, as in the examinations at home for the Covenanted Civil Service, there might be great practical difficulties in the way of doing this, but it would be the best method of getting Attachés, Clerks in the Colonial Office, the Foreign Office and in the Treasury, where only one or two vacancies have to be filled up at a time, and where the head of the department may, and ought to, give his most careful attention to getting the best men possible.

101. This view found favour with the Madras Government when it had, in 1885, to select a Statutory Civilian who had not been tried in the public service. Out of the candidates who came forward, the Examiners selected a small class list, and from it the Government, for reasons which seemed to them good, made their choice.

DEPUTY COLLECTORS, TAHSILDARS, SUBORDINATE REVENUE ESTABLISHMENTS.

102. Passing below the Civil Service, commonly so called, we arrive at the very important class of Deputy Collectors. In 1883, we raised their number and increased their pay.

103. Below them come the Tahsildars. Their position also seemed to us to require improvement, and we laid our views before the Viceroy in Council, but they were not thought to be correct.

104. Much attention has been paid to improving the quality of our Uncovenanted Revenue officers. Considerable advantages have been given to graduates and even to men who have passed the First in Arts Examination, with a view to enrolling them in the Revenue Service, and more care has been taken than formerly that Revenue officers should be better acquainted with the special subjects, accounts, elementary surveying, and so forth, with which, in their respective positions, they are called upon to deal.

105. The state of the Subordinate Revenue Establishments, no less than that of the Tahsildars, attracted our attention, and Mr. Garstin was deputed to submit a scheme for their revision. His scheme was submitted to this Government and generally approved, but it involved a large increase of expenditure, and up to this time, although the Government of India has accepted our views in principle, the state of the general finances has not allowed it to permit us to carry our wishes into effect.

MISCELLANEOUS CHANGES CONNECTED WITH LAND-REVENUE.

106. In a Presidency which extends over so many degrees of latitude and longitude, where climates, crops and seasons are so various, it is almost impossible to devise a system for the payment of the revenue which will suit every case. We have done our best to meet various complaints by a new set of rules, the principle of which is that the peasant should be called upon to pay his land assessment only after, but not too long after, he has reaped his crop. It is believed by those most conversant with this extremely intricate subject, that the plan now proposed will suit the convenience of the great majority; but the question is not finally settled.

107. Intimately connected with this matter is that of the payment of interest on the arrears of land-revenue. We have altered the old practice with regard to this, which was thought to worry the people without bringing in any great amount of money. It is now settled that, except in certain carefully-defined cases, interest in arrear shall not begin to be charged until the end of the revenue year.

108. It was found again that the Rent Recovery Act of 1864 led to some results inconvenient to the agricultural population, in that it made the sale of land for arrears, which was necessarily conducted by subordinate Revenue officers, final. By an Act, passed in the year 1884, we provided that no such sale should be final until it was confirmed by the Collector.

109. The village establishment in the Nilgiris was till lately altogether inadequate. The whole position, indeed, of that district was anomalous. Now it has been turned into an ordinary collectorate, and by Act I of 1883 the provisions of Act IV of 1864 have been extended to it, under which a cess may be levied for the remuneration of the village servants and officers.

110. The first requisite for the due realisation of the State demand and for the systematic collection of agricultural statistics is well-kept village accounts. The revision of the existing system of account, initiated thirty years ago, is a work that has long engaged the attention of the authorities and has now at last been brought to a conclusion by a special committee appointed in 1884. The new forms of account will be brought into use in 1886-87.

WYNAAD ESCHEATS.

111. In the year 1787, there ruled in the Wynaad a small potentate, known as the Pychee Raja. His dominions excited the envy of his neighbour Tippoo Sultan, who conquered them. When Tippoo, in his turn, was conquered by the British, and his territories were divided, the Wynaad fell to us, but the Pychee Raja did not approve of this arrangement, and fought for his own hand. He was overcome in 1806, and his possessions declared to be forfeited. The forfeiture, however, was only very partially carried into effect; certain cultivated lands were seized, but a great number of forests and wild tracts were left for many years as a sort of no-man's land. In these all kinds of claims to rights grew up, and neither the Government nor anybody else knew exactly how they stood. In 1859, a number of these claims were recognised as valid by prescription, but a great many were still involved in uncertainty. In 1882 we came to the conclusion that this state of things had lasted long enough, and determined that there should be a complete survey with an arrangement of titles, based on a fair recognition of anything that could be considered a reasonable claim.

112. For this purpose a special officer of ability was appointed, Mr. Castle Stuart; and he has also been charged with the Revenue Settlement of the Wynaad,—a duty very germane to his investigations into the “Wynaad escheats.” The escheat settlement will be finished this year.

FORESTS.

113. One of the first matters to which the India Office called my attention, after I had been appointed Governor of Madras in the summer of 1881, was the

state of the Forests in South India, and the Revenue Department there placed before me the correspondence with regard to them which had then recently taken place. I soon saw that the tangle into which things had got could only be unwound, not by further writing, but by personal communication, and, before I left England, I learned that Lord Ripon shared my opinion.

114. Arrangements were accordingly made for Dr. Brandis, whose acquaintance I had formed in Germany in 1865, to meet me at Madras, and he was one of those who welcomed me when I alighted from the train on November 5th.

115. We very soon got to business. Dr. Brandis was indefatigable in his journeyings, giving his whole mind and his vast store of experience to our affairs. The land-revenue experts, and others, who were appointed to confer with him, lent their aid with a will, and the result was that, before he left us early in 1883, a substantial agreement had been arrived at between all interests concerned, and the *legislation* as well as the *administration* of the Madras Forests had been placed upon an entirely new footing.

116. The leading ideas which guided our action were these—

- I. Madras has no coal. She must then look forward, even when the Singareni field is opened up, to using a prodigious amount of wood for fuel.
- II. Madras, the land of artificial irrigation, is exceptionally dependent upon a good distribution of her rainfall. Whether, or not, trees have the power of attracting rain, I have myself no doubt that they have an immense deal to do with its distribution, and there are wide regions of the Presidency now denuded, which cannot be left so without imminent danger of agricultural disaster.
- III. But, in regulating the proper proportion of trees, care must be taken neither to sacrifice the present to the future, nor the future to the present. If we have too many trees, we sacrifice the cultivator and grazier of the XIXth century to those of the XXth. If we have too few, the cultivator and grazier of the XXth century will be, in many districts, simply non-existent.

117. We believe that, under the system which we have adopted, the golden mean is likely to be attained, but no system can be properly worked without good sense and a conciliatory spirit on the part of those who work it.

118. The anxious desire of the Government in, and since, the great changes of 1882-83, has been *to make it as easy as possible for Collectors and Forest Officers to unite their efforts for the general good of the country, discouraging any tendency to emphasize unduly the interests, either of to-day, or of to-morrow.*

The Forest Department is really a portion of the Revenue Department in its wider sense, but although it is very desirable that it should show, as it does, a good balance at the end of the year, that is not the first consideration. The first consideration is the health, wealth, and comfort of the people.

119. Of the subjects dealt with in the new Forest Act, that is by *legislation*, the most important were the arrangements made for the selection of Reserved Forests and for the management of the far less important Reserved Lands.

120. *Reserved Forests* are those which, it is intended, so far as we can foresee at present, should be always kept as the permanent forests of the State, reserved, that is, to be (a) a storehouse of the Timber and Forest produce required by the country at large for the benefit of the whole people, not merely of those who dwell close to them; and (b) as guardians of the heads of streams and protections against the worst evils of drought.

For a considerable time all pasturing must be prevented in many parts of these forests, save under most exceptional circumstances, otherwise the young shoots and seedlings, which are to be the trees of the future, will never grow up at all; but, so far from pasturing being forbidden to all time, these Reserved Forests will, when once the young growth has got above the reach of mischief from animals, and reproduction is not actually in progress, be very largely used for pasture.

Of course, in constituting them, the greatest respect has been, and will be, shown to all proved *rights*, for the ascertaining of which an elaborate machinery

has been provided. At the same time, great care is taken, when long-continued customary *privileges* as distinguished from rights have been exercised, to deal as tenderly with them as we can.

121. *Reserved Lands* are lands belonging to Government, whose constitution as permanent Forests of the State is not proposed, but whose temporary management as woodland has been recommended by the Collector and the Conservator of Forests. They are areas which it is not thought desirable, anyhow for the present, to devote to cultivation, except under yearly leases, and, on them, pasture and other *privileges*, even the cutting of trees, are allowed at present to a great extent, but certain valuable trees, which would otherwise be recklessly destroyed (I have heard, for instance, of Satin-wood, *Chloroxylon Swietenia*, being used for Railway Fuel !) may not be cut without *special permission*.*

122. Out of these Reserved Lands, the Collectors have been ordered to set apart, wherever necessary, what may be called *Village Forests*, while Fuel and Fodder Reserves as well as areas for Stock breeding will gradually be formed. Unreserved lands, that is, woodland belonging to Government, which is not either Reserved Forests or Reserved Lands, will also be largely employed in the formation of Village Forests.

In the Village Forests, the peasantry will be allowed, except as regards the very valuable trees just alluded to, to work their will, but it will be steadily kept before them that, if they choose to destroy these sources of timber and other good things without taking any care for the morrow, they cannot be allowed to fall back upon the general forest property of the community without payment. Every encouragement will be given to them to take care of their Village Forests in the hope that these may eventually be converted into something akin to the Forests which have proved so valuable to the Communes of France.

The merest common sense requires the restrictions which we maintain. We did not step in to conserve the Indian Forests an hour too soon ; and large parts of the country would, if we had not done so, have soon become uninhabitable deserts.

123. Taking thought for the morrow is not a characteristic of the people with whom we have to deal, and it is but too possible that the day may arrive when the Village Forests having disappeared and the Reserved Lands having been much denuded, the Reserved Forests will be the mainstay of the country and about the most popular institution in it.

124. In rearranging the *administration*, the points most attended to were—

- (1) The simplification of the system, which had hitherto prevailed.
- (2) The bringing, as already mentioned, of Collectors and Forest Officers into closer, better defined, and more harmonious relations.
- (3) The strengthening the *personnel* of the service, by importing good recruits from outside.
- (4) The increasing its numbers,—a process which can, I am sure, be carried further with much advantage, alike to the revenue and to general efficiency.
- (5) The encouraging higher scientific attainments amongst the general body of our Forest Officers.
- (6) The division of the Presidency, for Forest purposes, into two great charges, arduous, no doubt, but not wholly unmanageable.

125. Leaving on one side the question as to how far the Forest Department should communicate directly with Government, or should communicate with it through the Board of Revenue,—a question which will be better approached after a longer experience of the present, no doubt, rather cumbrous arrangement,—what seems now most desirable is to move steadily along the lines already traced, making as few changes as possible and encouraging our Forest Officers of all degrees to get thoroughly acquainted, each with his own charge. Instances are, I am afraid, far from uncommon of men who do not know their way, without a guide, through the forests they are supposed personally to supervise. All that must be put an end to, and we should also in time be able to dispense with the services of the sort of

* Special permission is required for the felling of "reserved" trees even on "unreserved" lands.

Forester who, asked in the middle of a piece of woodland, "what is that?" replies by informing the querist that "it is a tree" or "a shrub."

126. The Forest is clearly one of those departments in which it would be infinitely desirable to employ as many natives as possible, from the lowest to the highest grades.

As yet, however, it is by no means a favourite department with them. This is no doubt partly owing to the Revenue line being much better paid, and I should like to see this inequality speedily removed. The chief reason, however, is, one which it will take a longer time to get over, the disinclination, viz., of such of the natives as have book-learning to engage in out-of-door pursuits, and the fact that very few of them take to those studies which lead up to forestry.

I trust that the efforts recently made by this Government, and which will, I hope, be continued for long years, to give a more scientific and practical direction to our Higher Education, may gradually cure this evil. Meantime, it would be well if we could be supplied with a better European agency. I cannot learn that the majority of the young men, who have been recently sent out to us from England, have that enthusiasm for their profession which is absolutely necessary to success in it. Whether it would be well to raise the limit of age, or to make other, and what, changes in the course of training now in vogue, are questions which must be discussed and settled, not in this country, but at home.

127. I should very much like, if it had been possible, to have obtained for this Presidency the honor of having, once for all, set at rest the question as to the precise effect of forests on the distribution of the rainfall. I have no sort of doubt about their great usefulness in that behalf, but what is wanted is the kind of experiment which will carry conviction even to the most sceptical. Such an experiment Dr. Brandis urged me to institute, and the *res dura*, the want of funds, combined with the *regni novitas*, the want of a sufficiently complete administration, have alone prevented Government complying with his wish. We had gone so far at one time as even to have selected in our own minds a young Engineer * officer for this work; but he, alas, was fated to die far away from Madras in a combat with barbarians. I trust the idea may yet be carried into effect. Each Province in India, or any other country ruled by a civilised power, has its duties to science.

128. One question of considerable interest to scientific Foresters was, I am glad to say, worked out in 1882-83 by Mr. Hutchins, whose services were lent to us by the Mysore Government,—the rate of growth and timber production of *Eucalyptus globulus*, which is so conspicuous a feature on the Nilgiri plateau, and of *Casuarina equisetifolia*, which clothes so many of the once barren sand dunes along our coast. I have just received from Mr. Hooper, one of our own Forest Officers, a most interesting account of the journeys which he has made during his furlough, with a view to gain experience in the Forests of many lands.

CINCHONA, HORTICULTURE, BOTANY, ECONOMIC PLANTS, &c.

129. It well may be that in some far off future the English may have the fate of the Portuguese, and that their most enduring monuments, in many parts of the Peninsula, may be the plants which they brought to India from other climes.

130. Not the least important of these will be the various species of the genus *Cinchona*, although these have not, like the "Promotion nut" (*Anacardium occidentale*) of their predecessors, shown any capacity in India for fighting, unaided by man, the battle of life.

131. The story of the introduction of these precious trees by Mr. Clements Markham and others is well known. The Nilgiri plantations remained for many years under the charge of an intelligent gardener. After his death they were placed for a time under the Forest Department, but that arrangement was not one that could last; and in 1883, Mr. Lawson, formerly Professor of Botany at Oxford, and in charge of the exquisite garden which stretches along the bank of the Cherwell close to the bridge which Macaulay has described in a famous passage,

* Captain Romilly, killed in the Soudan.

came out to take charge of our *Cinchona*, as well as of all the Government gardens on the Nilgiris.

132. The time had arrived when a great number of important questions were ripe for examination by a trained botanist and a trained quinologist. Ere long accordingly we added to our establishment Mr. Hooper, who had worked under Dr. Koppeschaar at the Hague, and came out possessed of all the latest learning on his subject.

133. Mr. Lawson soon saw that considerable changes in management were wanted on all the estates, and set himself to make them.

134. First, with the assistance of Dr. Trimen of Ceylon, the plantations were carefully inspected, and some alarming doubts, which had been raised by Mr. Cross about the value of many of our trees, set finally at rest.

135. Thereafter, a great number of trees which had done their work were cut down, and fine healthy shoots are now springing from them.

136. Then, a considerable acreage in and near Naduvatam, which had gone or was going to ruin, was taken in hand, and is being replanted.

137. Further, the Cupræa bark from New Granada, a species of *Rimijia*, a genus nearly allied to *Cinchona*, was sown, and will, it is hoped, give fair results, while the same is hoped of the *Cinchona Santa Fé* and *Carthagena*.

138. The growth of the various species of *Cinchona* at different elevations, and the amount of their respective yield are also being carefully watched; while the diminution in the cost incurred in looking after our *Cinchona* estates, since Mr. Lawson took charge of them, is as remarkable as the increased efficiency which has characterised his management.

139. One of the objects to which Mr. Hooper has turned his attention since his arrival has been the production of a preparation of *Cinchona* alkaloids, closely resembling that known as De Vrij's liquid extract. This he has succeeded in producing to the satisfaction of the Medical Department at an astonishingly low price,* and the problem now is to try to get it spread amongst the people. Time and patience will be required for this, though there are some very encouraging symptoms; but fever is in South India so terrible a scourge that ignorance and prejudice will eventually be sapped by interest. Mighty in deed must be the political reform which would be worthy to be named with this in the promotion of true well-being.

140. As I have elsewhere† pointed out, we want a class of practitioners intermediate between the really skilled persons turned out by our medical schools and the Vythians who have still such a hold upon the people. This want was much in the mind of the late highly-intelligent Maharaja of Travancore, and I have read an excellent private letter of his upon the subject.

141. We still hear at intervals the wish expressed that Government would divest itself of its *Cinchona* plantations in the supposed interest of private trade. To do this *prematurely* would be to take a very false step; but a very large part of the Government *Cinchona* plantations will, it is to be hoped, soon be devoted to preparing the cheap febrifuge to which I have just alluded. I need hardly say that the amount of the *Cinchona* even now put on the market by this Government, is as compared with what is produced by private growers in India, Ceylon and elsewhere altogether insignificant.

142. Mr. Lawson also, soon after his arrival, began greatly to improve the Government Gardens at Ootacamund, and to give them a more markedly botanical character by carefully naming the very numerous and valuable collection of plants, which are scattered about over the large area of beautifully broken ground which they cover. He gave no less care to the gardens at Coonoor as well as at Burliar, and laid, by endless plant-hunting in every interval of leisure, the foundation of a very fine herbarium at Ootacamund.‡

* We expect to be able to sell a bottle containing eight doses of five grains each, for one anna, which represented I may mention for the English reader, three halfpence, when the rupee was at par.

† Address to the University of Madras, 1886.

‡ His own already very considerable collection has been supplemented by many of Wight's plants sent from Kew, and I was happy, before leaving the Hills, to see them all comfortably lodged.

143. At length the moment came for the establishment of a botanical department. Sir Joseph Hooker and Mr. Thiselton Dyer lent their invaluable assistance, the Secretary of State agreed to our proposals, Mr. Lawson was satisfied to undertake new duties for a very slightly-increased remuneration, and the reproach was taken away from this Government that it did nothing systematic for the encouragement of either scientific or economic botany, for which Ceylon, Jamaica, and so many other less important British dependencies do so much.

144. When the arrangements now in progress are entirely completed, Ootacamund, which is a particularly good climate for preserving dried plants, will contain the principal herbarium of the Presidency, but a typical collection will be left in Madras, and other collections will, doubtless, as civilisation extends, be formed in other important centres.

145. In time, too, new botanical gardens will be created, with a view to making experiments to which the climatic conditions of the existing gardens do not lend themselves. The public spirit and intelligence of the rulers of some of the neighbouring States, such as Travancore (exceptionally well situated for botanical experiments) will, I doubt not, one day be enlisted in the same good cause.

146. We have received from Kew not only a great deal of guidance during the last five years, but also many seeds, such as the following. I mention only plants of economic value, not those which are merely ornamental, or interesting to the botanist alone:—

<i>Erythroxylon coca.</i>	<i>Cinchona Santa Fé.</i>
<i>Rhus vernicifera.</i>	„ <i>Carthagena.</i>
„ <i>succedanea.</i>	<i>Rimijia Purdieana.</i>
<i>Ceratonia siliqua.</i>	<i>Ipomoea chrysorhiza.</i>
<i>Quillaja saponaria.</i>	<i>Ullucus tuberosus.</i>
<i>Arracacia esculenta.</i>	

I found *Erythroxylon coca* established in one or two places; but the immense medical value of the plant was quite unknown in 1881. It has been very gratifying to me to find that it can be so readily multiplied here, and that as Mr. Hooper and Dr. Drake-Brockman have proved, the alkaloid produced from the plant in Madras is as efficacious as that which is produced from it when grown in South America.

Arracacia esculenta and *Ullucus tuberosus* are both food-plants. The former is an important article of diet in the higher regions of Northern South America in spite of its near alliance to our familiar hemlock. The other is related to the *Basella* or Indian spinach, and comes from the Bolivian and Peruvian Andes. Both seem likely to succeed at Ootacamund.

Ipomoea chrysorhiza is a New Zealand form of the Polynesian sweet potato, which is well spoken of, and is certainly palatable.

Rhus vernicifera gives the valuable Japan lacquer; *Rhus succedanea*, the Japan wax; *Ceratonia siliqua* is the Caruba so important in Sicily; *Quillaja saponaria* is a Chilian tree, rich in a vegetable soap.

The others have been already alluded to.

147. Another benefactor has been Mr. Thomas Hanbury, whose collections of living plants at La Mortola, not far from Mentone, are amongst the most remarkable in Europe. One cannot now walk through the gardens at Ootacamund without seeing many traces of his friendly co-operation.

148. I have kept up a very close correspondence with Kew from the time I arrived in this Presidency, and have done what little I could to repay, by sending thither very large quantities of seeds,—the debt which every British dependency owes to that magnificent and supremely Imperial institution.* So slight was the connection between it and Madras before 1881, that I do not think any single

* Berlin, Cintra, Christiania, Upsala, Orotava in the Canaries, Cambridge in Massachusetts, the Island of Grenada and Mauritius are a few of the widely-scattered places to which our Madras seeds have found their way within the last five years.

It often happens that, just from their very commonness, things do not get forwarded to the great botanical centres in Europe from the tropical countries. I recently found that they wanted at Kew the *Palmyra*; the Custard apple which appears so often on our breakfast tables; and last, but not least, the very handsome but ill-used tree which goes through life under the name of *Odina Wodier*, that is, if I translate it correctly, the worthless worthless one.

person connected with the Royal Gardens at all knew what was the ordinary vegetation, cultivated or indigenous, in the neighbourhood of that city.

149. I have also had very careful lists made by that most devoted botanist, Mr. R. Hollingsworth, of the plants in the Park of Government House, Madras, and at Guindy, while to the collections at both places I have added,— thanks to the kindness of Dr. King of Calcutta, Mr. Gamble and others,—a large number of species.

150. The Government has not had it in its power,—owing again to the pecuniary difficulties of the Imperial Treasury,—to do quite as much as it could have wished to help so valuable an institution as the Agri-Horticultural Society of Madras, excellently managed by Mr. Steavenson and others; but it contrived to enable the Society to lay the foundation of a botanical library, and I have no doubt subsequent and wealthier Governments will be able to do more.

151. A great deal of miscellaneous, horticultural, agricultural, and vegetable economic information has been circulated in these recent years by the Government, and we have introduced the practice of sending every scrap of intelligence of that kind to Kew, where it is utilised for the general advantage of the whole of Oceana, and of many broad lands which do not belong to our Political System.

152. Mr. Morris, now of Kew, but recently of Jamaica, lately informed me that the Pepper which was under the intelligent superintendence of Mr. Ross, C.S., transmitted, a year or two ago, through Kew from Tellicherry, to that island, has succeeded perfectly. Considering the immemorial antiquity of the Malabar Pepper trade, it is strange that it remained for our generation to make this gift from the East to the West.

FAMINE.

153. But however great may be the attention given by this Government to Agriculture, to Forestry, and to the other agencies by which the material prosperity of the people can be increased, it must always lay its account with the possibility of famine in those tracts which are most affected by a failure in the rainfall depending upon causes still most imperfectly understood, and lying far outside the sphere of human effort.

154. I have happily had no occasion to deal with any great calamity of this kind. Inundations have in these last years given us more trouble than droughts. In 1884, however, the south-west monsoon was very light, and we passed many anxious hours in consequence; while in 1885, Relief Works had actually to be opened and kept open for some time in Bellary and Anantapur; but heavy rains fell in the early autumn, and very justifiable alarms were transmuted into gratitude for an unusually abundant harvest.

155. Warned, nevertheless, by the terrible events of the last decade, we have taken every precaution in our power; we have put forth a Famine Code prepared by a Committee whose labours our present Chief Secretary did much to put into its present shape, and which has been taken as a model for other parts of India; we have been instant in season, and perhaps some critics might say out of season also, in urging on irrigation and railway works. Nay, I think I may say that almost every second section of this paper shows that the recommendations of the Famine Commission have been carefully pondered and acted upon in the higher spheres of our administration.

156. While we have done what we could to put our successors in a position to commence the next battle with famine under far more favourable conditions than those under which our predecessors had to fight, we have not forgotten the interests of those who suffered in the great calamity of the years 1876, 1877, and 1878. Enormous sums due by the peasantry to the Government, as trustee for the people of India at large, have been written off—more than twenty-nine lakhs since 1881, but, at the same time, the demand for years of fair prosperity after the famine has been enforced.

157. In addition to this, we have allowed persons who, under the stress of the famine, had relinquished their lands, or had lost them by not paying their assess-

ment, to recover them upon easy terms. About 70,000 acres have been thus given back.

158. It is a gratifying circumstance, and one which has not attracted sufficient attention, that no sooner was the famine over than the cultivated area passed by 50,000 acres the limits it had had before the famine, and the land-revenue sprang up to 8 lakhs over the average at which it stood before that sad event.

VARIETY OF INDUSTRIES.

159. Agreeing entirely with the wish of the Famine Commissioners to extend and vary the industries of India, we have given much attention to the best way in which this could be done. It is a road on which it is very easy to go wrong, for nothing is more fatal than to bolster up industries which can be better carried on elsewhere. The principle of the division of labour requires that Manchester should do for India what she can do for India better and cheaper than India can do it for herself, and that India should do for Manchester a similar good turn.

160. With a view to aid in finding out what our people can really do to the best advantage in the way of arts and manufactures, this Government has lent all its influence to get the Presidency thoroughly well represented at the various Exhibitions that have taken place during the last five years.

161. Further, it has considered that it ought to give all the assistance it could to filling up the gaps in our knowledge as to what articles of economic value within our borders have not been sufficiently developed, and what arts practised in this place or that, up and down the land, are not adequately known.

162. Various measures bearing upon this have been, or will be, touched upon under other heads, but I may allude here to the tours which are, under our orders, taken now every year by the head of the School of Art (the last of which resulted in a very interesting report on the Northern Circars) and to the appointment of a Government Mineralogist to follow up with the economic objects the scientific work of the Geological Survey. This gentleman has been engaged for some time in various parts of the country, but has still to win his spurs.

163. Finding that the Geological Survey of the Presidency, although entrusted to the very able hands of Mr. Bruce Foote, was progressing very slowly, we applied to the Government of India to send us a second Geological explorer. They have, I am happy to say, complied with our request, and we trust he will get to work ere long in Vizagapatam.

164. I am afraid that the people of South India will never be able to compete with the Japanese in producing articles, at once pretty and inexpensive, for the European market. The moment a demand arises for any of our art manufactures up goes the price, and the industry gets strangled as an industry for the many.

165. I am of opinion, however, that a good deal of valuable work would be done here, if persons of taste would unite in clubs for the purpose of getting objects of art executed by some of the scattered families, which, provided they receive a good deal of money while "exhausting time and encroaching upon eternity," can still turn out very beautiful things. Such clubs would fulfil, and in a better way, the function that was once fulfilled by native courts in some parts of the country where courts no longer exist, while, if the idea were once taken up by leading people, many of the courts which still exist would redouble, or more than redouble, their efforts in this direction.

GOLD, DIAMONDS, PEARLS, IRON AND COPPER.

166. There prevailed in 1881 a good deal of dissatisfaction with regard to our gold-mining leases. That dissatisfaction appeared to this Government not to be unfounded, and in 1882 we made them, as well as our rules about searching for other metals, much more liberal. The first tour I made after my arrival was in the Wynád, and I retain the opinion which I formed then, viz., that there is a good deal of gold there. All that has happened is merely an illustration of the German proverb "One may buy gold too dear."

167. We adopted also in 1882 the same policy with reference to diamonds which we adopted in the case of metals; and we hoped by encouraging the careful search that was crowned with such excellent results in South Africa to revive an ancient Madras industry; but as yet scant success has attended the efforts of the diamond-digger in those districts whence came the Kohinoor and the Regent. I have been assured, however, on good authority, that more diamonds are still found in this Presidency than are ever heard of by us. This is likely enough, low as are now the rates for mining. It is the old story of the brooms. The victory remained with the enterprising citizen who stole them ready made.

168. In 1884, Mr. Thomas, Senior Member of the Board of Revenue, and well known as a man of Science, was sent to collect information with regard to the causes of the failure during recent years of our pearl fishery on the coast of Tinnevely. He applied himself to this congenial task with great energy, and furnished us with a very interesting report, which was sent home to the Secretary of State, and communicated to Dr. Day, who very much agreed with Mr. Thomas's conclusions.

169. From recent inquiries made by Mr. Thomas, there seems to be good reason to expect that my successor, more fortunate than I, will be able to report a great and successful fishery. I trust within the next few days to inquire into this matter on the spot.

170. Speaking at Yercaud in 1883, I pointed out that Salem must be in time the centre of a great iron industry, but that it is idle to *force* the development of a country. The splendid iron of that neighbourhood will not be profitably worked on an adequate scale,* until the forests have been attended to for a generation, and until the pressure upon them has been taken off to some extent by connecting the Singareni coalfield with Bezwada by rail.

171. Something is to be hoped, too, from the development of the copper deposits in the Nellore district, which are situated very conveniently with reference to the Buckingham Canal.

SALT.

172. The second largest head of revenue raised in this Presidency is that which is derived from salt. From that source alone accrued in the year 1884-85 nearly 138† lakhs. Of that amount, however, the merest fraction came to the Madras Government; not a rupee, indeed, from salt proper, but a little from the rent of salt warehouses and other miscellaneous receipts. About 137½ lakhs went straight into the Imperial treasury.

173. For some time before I came out, the state, alike of our salt administration, and of our salt legislation, had been admittedly far from good.

174. On my voyage from England I had the advantage of the company of Mr. Bliss, who had been appointed Salt Commissioner in 1878, and had already developed very well-thought-out plans for an improved law and an improved system of official management. With these I was made acquainted, and, as soon as Mr. Bliss had returned to work, the new administrative system was inaugurated, while an Act, which had been long on the anvil, was considered and passed.

175. Under the new arrangements the whole force employed in connection with the salt revenue was placed under the undivided control of the Commissioner. Establishments were strengthened, and honesty secured by adequate pay, while a number of persons of ability were induced to join the department. The organisation was completed in 1885.

176. The Presidency, including Orissa, the supervision of the salt administration of which province has recently been entrusted to the Madras Salt Department, is now divided into three great charges, each under a Deputy Commissioner.

* NOTE.—I have myself seen iron smelted at Coimbatore by a process which must go back to the very dawn of the Iron Age, and have had it manufactured at Salem into steel, which is own cousin to the Alhinde of Middle Age Spain, nay even to the steel which the Greeks imported in the days of the Periplus, *i.e.*, in the end of the second or the beginning of the third century A.D.

† In the year lately closed, it will be about 140 lakhs.

Below him, come several Assistant Commissioners, each having power over a definite area, and every one of these areas is, in its turn, divided into circles, with an Inspector over each.

177. I explained the object of the new legislation by a few words which I used in the end of 1882, and which I here reproduce:—

“Its main objects were, *first*, to define the word ‘salt,’ so as to include swamp, or spontaneous, salt, giving, at the same time, a corresponding extension to the definition of the word ‘manufacture;’ *secondly*, to improve the salt revenue by giving additional powers for its protection. The necessity for legislation arose partly from the vast saline deposits in the soil of many of our districts, which enabled the population to manufacture large quantities of bad salt, without paying any duty,—an arrangement unfair to other tax-payers, because it exempted a great number of persons from making any contribution at all to the exigencies of the State which protects them, and partly from the utter inadequacy of the means which previously existed for repressing offences in regard to salt. Existing circumstances called a year ago for a distinct and stringent law, but were equally imperative in demanding that that law when obtained should, as Mr. Hudleston expressed it in the Statement of Objects and Reasons prefixed to the Bill, be worked ‘with lenient regard for the circumstances of the poor, and with a merciful regard to the temptations to which they were exposed.’ ”

178. About the time our Salt Act passed, came into force the new Imperial legislation with regard to the salt duty, which fell in this Presidency from Rs. 2½ to Rs. 2 per maund, the salt maund being equal to lbs. 82¾.

179. Meanwhile, a set of causes, into which I need not enter, had tended to make the Home authorities desire to substitute for the old monopoly system (under which the manufacturers handed over to Government all the salt they made at certain prices fixed for each locality, while Government stored and sold the salt) an excise system, under which the manufacturers themselves sell the salt, paying the regular duty and certain other charges to Government. This system is very rapidly extending, and has now covered nearly the whole country, but it has not had the effect, which some persons expected from it, of improving the quality of salt sold, and this is a matter to which the attention of Government should be increasingly directed.

180. A great deal has been done since 1881 to encourage the fish-curing industry,—a subject which was naturally not without its interest to one who had so long sat for Cullen, Banff, Macduff, and Peterhead.

181. In 1881-82, 1,719 tons of fish were cured, under the system of issuing salt free of duty to curing yards established along the Coast. In the first ten months of 1885-86, 21,448 tons were cured, and the outturn of the whole year will probably reach 27,000 tons. To those who know what curing (?) with earth-salt meant, this will represent a great boon to the health of the population.

Our attention has been recently called by Dr. Bidie to the Norwegian method of preserving fresh fish with boracic acid, and we propose to try whether it is suited to this climate.

182. No one could have held the position of Under-Secretary of State for India without having had the question of the salt-tax frequently brought before him. The first thought of every one, who looks at Indian finance, is that it is a bad tax, and should be got rid of. When, however, he has gone through all the taxes that have been proposed in place of it, he is very apt to come to the conclusion at which I arrived at the India Office, that although some heaven-born financier may one day suggest something better, that wonder-worker has not yet appeared.

183. As Governor of Madras, it has been no part of my duty to consider whether the salt-tax was good or bad, but only to watch its incidence, and to see that the large contribution raised by means of it in this Presidency for the general purposes of India should be raised with the minimum of inconvenience to the people immediately under my charge.

184. I trust this is the case. One sometimes hears complaints that the law is occasionally worked with harshness, but no one could be more averse to any unnecessary harshness than is the head of the department, and the magistracy is naturally, and not improperly, jealous of departmental power. I hope and believe that the Government will firmly repress all attempts to evade the law, without using more severity than is absolutely necessary for that purpose.

185. Our population is not rich, but a tax which raises, on an average, 6 annas and 2 pies, say, about a franc, per head per annum, cannot be called excessive; it is not a high price at which to buy freedom from violence, and the poorest of our people, those who, if not defended by the strong arm of the law, would be for the most part slaves, hardly make any other contribution to their own protection.

ABKÁRI.

186. I pass now to Abkári (Anglicé Excise), a head of revenue which is divided between the Imperial Government and that of Madras.

187. Excise, like customs, duties are of course an evil, but in most communities of the modern world they are a necessary evil, and the problem which we, in common with our neighbours, have got to solve is to make them as little of an evil as circumstances will permit.

188. The principle which this Government accepted, accordingly, in the recent revision of its excise duties was that it ought to get the maximum of revenue out of the minimum of consumption, or, in other words, that it should force up taxation as high as it would go, without bringing the smuggler or the illicit distiller on the scene, and further that it should oblige him to disappear from the scene where he was already upon it.

189. To help us to carry this principle into effect, we were fortunate in having in the Secretariat, Mr. H. E. Stokes, a gentleman who had given a most unusual amount of attention to the difficult subject of our liquor laws, about which few, save specialists, know anything.

190. The intoxicants of home manufacture consumed in this Presidency are of two kinds: the first is the fermented juice of four of our common palms, *Phoenix sylvestris*, *Borassus flabelliformis*, *Cocos nucifera*, and *Caryota urens*, otherwise known as the wild date, the palmyra, the cocoanut, and the sago-palm.*

191. In 1881, the monopoly, both of the manufacture and sale of toddy, was, for the most part, farmed out by taluks or counties.

192. In this arrangement we have made no wide and material change, except by generally reducing the size of the farms, so as to have, at least, two farms in each county, the object being to encourage small capitalists to compete, in order that the Government, as representing the tax-payers at large, may get more, and the trader less, of what the consumer pays. Where possible, we have also raised the minimum price, at which this kind of intoxicant is sold.

193. By a recent Act, however, we have taken power to supersede the farming system by a tax on each palm-tree tapped, and by a license-fee upon shops. This system will come into operation in some selected localities in October of this year.

194. The second kind of intoxicant made here is a spirit which is *usually* distilled from palm jaggery, that is, coarse palm-sugar, though in some parts of the country the flower of *Bassia latifolia*, rice, cane-sugar and toddy, are used.

195. Five years ago, we had two methods of taxation for this kind of spirits,—the farming system, and the excise system. The farming system is still continued in a few backward districts. Under it, manufacture is practically unrestricted, and the combined rights of manufacture and sale are put up to auction for certain defined tracts. Nothing has been done as to this system, except that the tracts in which it prevails have been reduced in area, and that the farming of toddy and of other spirits have been separated in some parts of our West Coast districts.

196. The second system which I found in force, for the taxation of the kind of intoxicant of which I am now speaking, was known as the excise system; and with regard to it very considerable changes have been made. Under this system the rights of manufacture and sale were sold together. Manufacture was restricted to a distillery in each district and duty paid on the issues, the monopoly being knocked down to the person who guaranteed the largest minimum revenue.

* It is not the real Sago-palm of commerce.

197. This plan had the advantage of simplicity, but it had great disadvantages. The wealthy renters confined their attention to populous tracts. At first sight, this might seem likely rather to be agreeable, than otherwise, to a Government which does not desire to encourage intemperance. Unfortunately, it merely meant that the illicit distiller was free to invade the regions which his legitimate rivals neglected. The large size of the farms prevented competition, for only the great capitalist could think of undertaking them, and the Government was accordingly obliged to put up with a very minimum revenue.

198. In the year 1884, all this was altered. In most parts of the country, the monopoly of manufacture was separated from the monopoly of sale. The farms were made much smaller, so as to bring minor capitalists to the front, and the tax was raised so as to divert as much as possible from the pocket of the lover of alcohol into the pocket of the general tax-payer, or his receiver the Government.

199. The charge made is divided into two parts,—one payable at so much per gallon, when the liquor leaves its distillery or warehouse, and the latter payable in the shape of a sum, determined by public auction and paid, not for the right of making, but for the right of selling. Each man who bids more than the rest obtains the right to sell in the whole or part of a county. In this tract, he may select his own retail dealers, subject to the pleasure of the Collector, who sees that there are not too many of them, and that they are respectable; but, in the more important towns, the retail dealer acquires the right of sale direct from the Government, the middleman being entirely dispensed with.

200. In some tracts known as monopoly-supply tracts, the vendor is obliged to buy from the persons who have bought the right to distil from the Government; but in most parts of the country, we have introduced a plan of allowing any respectable person to distil liquor, or to have a store for the same on payment of a moderate license-fee, *plus* duty on the issues. This licensed personage can only sell to the vendor who has bought the right of sale from Government, but the vendor has no corresponding obligation. He, if outside a monopoly tract, may buy where he pleases. Hence these tracts are known as *free-supply tracts*,—a clumsy enough name, for it led lately to an impression in certain quarters that we had some happy regions where a paternal Government supplied liquor free of cost, or nearly so.

201. Another change has been the introduction of a far more efficient system of prevention. The *abkâri* revenue used to be guarded simply by the police, which had quite enough to do without that additional work. Now we have put it under the Salt Commissioner, and are increasing the force at his command.

202. Of course, this change costs money, and will soon cost more, but the returns are immensely greater than the expenditure. In the year 1881-82, the *abkâri* revenue was Rs. 60,15,476. In the year 1885-86, it will reach probably Rs. 81,00,000.

203. In the year 1886-87, it will probably not be quite so high, for there will be a loss of about Rs. 1,75,000 (accompanied, however, by a corresponding decrease of expenditure) caused by the abandonment of the system under which the Government monopolised the wholesale arrack-supply of the Town of Madras.

204. To recapitulate. We have tried, and with considerable success, to raise the price of spirits, to suppress illicit practices, and to get rid, as far as circumstances at present permit, of the middleman. We expected from this policy an increasing revenue, to be expended for the general good of the country, and, as will be seen, our expectations have been already to a very great extent realised. We do not anticipate from it an increase to intemperance. The consumption of spirits has, indeed, recently fallen by $9\frac{1}{2}$ per cent. Certain classes of the people *will* drink alcoholic liquor. The only question is whether they are to be supplied under a system which left enormous profits to the trade, or under a system which intercepts the major part of these profits for the common good.

CUSTOMS.

205. The amount realised for the Imperial revenue from Customs duties in this Presidency is but small, and this Government has nothing to do with the policy

under which they are raised or lowered ; but we did, as in duty bound, all we could towards the diminution of the expense of Customs establishments, which was made possible by the fiscal legislation of 1882.

206. Speaking at Salem in the March of that year, I said : “ All classes alike will be benefited by the abolition of so many Customs duties by Major Baring’s epoch-making budget,—a budget which puts India, in one most important respect, in a more favourable and a more honourable position than any country in the world, not excepting the United Kingdom.”

207. The historians of the twentieth century will, if that policy is not reversed, point to that budget as having conferred one of the greatest boons which has ever been conferred upon the Indian consumer.

208. Persons interested in making the Indian community at large find *them* in profits, will, of course, very naturally take a different view ; but even they or their successors will eventually be gainers by having their labour diverted into channels where they can defy competition, instead of remaining in channels, where it could only prosper by the Government arbitrarily forbidding the general community to buy in the cheapest market, and insisting upon its paying what is neither more nor less than a tax for the producer’s benefit.

POTTERY.

209. The Famine Commissioners very properly called attention to the manufacture of glass and pottery, as being highly desirable industries for this country. For glass we have not been able to do anything, but there is a small local industry in Tanjore, which might perhaps be fostered.

210. Our School of Art already produces very good pottery, more or less like that of Vallauris, and not long ago Mr. Hooper reported to me that he had examined some Kaolin, which had only a small trace, one per cent. I think, of iron in it, and appeared a very promising material for porcelain. There are other Kaolin deposits conveniently situated for industrial purposes in the Mysore territory.

FIBRES.

211. We have given a good deal of attention to the various fibres in which this Presidency is so rich, and which will one day be a great source of wealth to the country.

212. For the present, however, the cost of carriage, or the want of appropriate machinery for dealing with this or that product, keeps many excellent fibres out of the market.

213. The time cannot fail to come when such plants as *Helicteres Isora*, which covers the slopes of so many of our hills, and the ubiquitous Mudar, *Calotropis gigantea* of the plains will contribute not a little to the prosperity of regions which they already adorn.

214. I am happy to think that, although the last-named very beautiful plant was grown at Hampton Court as far back as the seventeenth century, it first attained that floral apotheosis,—a place in the Botanical Magazine,—through some seeds of it having been sent by me to Kew, where they produced flowers in 1885.

LAND-HOLDING OF MADRAS CIVILIANS.

215. This subject would appear not to have attracted the attention of this Government until the time of Mr. Hudleston, and the old rules connected therewith had evidently slipped too much out of sight.

216. In June 1881 my Acting Predecessor took it up, while I continued and emphasized his policy.

217. The following orders, which have been issued since the subject was first brought to my notice by him, by Mr. Webster, and others in the spring of 1882, contain the regulations now in force, which will, I hope, be strictly observed :

“ G.O., 1st December 1882, No. 1357, Revenue.
 „ 5th February 1883, „ 16, „
 „ 16th June 1885, „ 1380, Public.
 „ 30th October „ „ 2530, „ ”

218. No doubt a vast amount of spiteful nonsense has been talked and written about the sins, in the matter of land, of that very honorable body of men—the Madras Civil Service; but I am sure all its members will see that to transgress, ever so little, the rules about land-holding, is a sad mistake, and one which enables its enemies to heap upon it all manner of false accusations.

MILITARY DEPARTMENT.

I pass now to the Military Department in which there have been a variety of changes, the principal, but only the principal of which, I will mention.

2. Even of these, some require, in a document of this kind, only the barest notice, because they were carried into effect under the direct orders of the Government of India, and in no way illustrate the ideas with reference to Military matters which have ruled the spontaneous action of this Government during the last five years.

3. Foremost in this class was the reduction of the Madras Native Army by eight regiments. The effect of that was that all from the 34th to the 41st inclusive were disbanded; that the strength of the remaining corps was raised from 600 to 720, and an extra officer added to each regiment retained. Then came the amalgamation of our Ordnance Department with the Ordnance Departments of the other two Presidencies under a Director-General, with the centralised control of our Remount Depôt; and a similar policy was later followed with reference to the Transport branch of the Commissariat Department. This last we had organised as a local service in 1882, providing for the mobilisation of a force of 5,000 fighting men by a single telegram to each station.

Finally, I may mention under this head the substitution of the station hospital system for the regimental hospital system at such stations of the Madras Army as are garrisoned by British troops.

4. Passing to matters which were initiated here, I may allude to the changes in the dress of the Native Army which were proposed to this Government by Sir Frederick Roberts, and which have tended not only to increase the soldierlike appearance of the sepoy, but to add to his comfort and efficiency.

Next may come the improvement that has been effected in the class of servants employed in the hospitals of the Native Army.

Thirdly, I may mention the fact that it has now been determined to allow the Native soldier to construct and maintain his own "lines," Government giving him sufficient assistance in money to enable him to provide proper accommodation for himself and his family.

Fourthly, we have transferred the troops, who were at Vizagapatam, to the more healthy station of Vizianagram, and got rid amongst other unsuitable places of the far northern station of Dorunda, which, by a strange anomaly, we used to garrison.

Fifthly, we have turned two Madras Regiments, the 1st and 4th, into Pioneers with their own good will.

Sixthly, we have approved and encouraged the employment of pensioned sepoys as peons in the public offices.

Seventhly, we have increased considerably the Volunteer Force. A company of Mounted Infantry has been added to the Madras Volunteer Guards and a second battery to the "Duke's Own" Volunteer Artillery, while the formation of six new Volunteer Corps has been sanctioned with companies at eight different places up country. Two important Railway Corps have also been embodied with companies at the chief stations along the Madras and Southern India lines.

Eighthly, we have relieved our friends at Bombay, by no means to our own disadvantage, by taking over the Belgaum district.

Ninthly, a good deal has been done for the coast defences of Madras by the completion and arming of the new batteries; but more will, I trust, be accomplished ere long. This important subject has been steadily kept before the higher authorities by this Government.

5. Much more important, however, than any actual changes has been the new spirit which has been infused into the Madras Army by its having been placed in

1881 under a Commander who had earned a great name in the field, and who had a reputation to keep up and extend. The relations between Sir Frederick Roberts and this Government were from first to last of the most friendly and intimate description, and I know from himself that he felt that we had given him every possible support.

6. He greatly favoured the excellent practice of having small and inexpensive Camps of Exercise, and collected at Bangalore, in the beginning of 1884, a large force for the purpose of learning what can only be taught when considerable bodies of men are massed together.

7. At the Review which closed the proceedings, the Commanders-in-Chief of the Northern, Western and Southern Armies were present together, for the first time, so far as I am aware, in our history.

8. Sir Frederick Roberts was extremely desirous to use the days of peace to prepare for the sudden exigencies of war. I may quote with reference to that subject two paragraphs from my Christmas Minute of 1882 :

"Several highly important circulars tending to the improvement of our military position in any and all eventualities were issued by the Commander-in-Chief with the fullest concurrence of the Government. Their general object was to direct Officers Commanding Divisions and Districts to complete and bring up to the present time all information of a military nature connected with the country immediately under their charge and the regions closely adjoining thereto ; to encourage all, and more especially the younger members of the service, to take every proper opportunity of moving about during the cool season, making it a practice to note all topographical details likely to be of use on service ; to study the language and customs of the people as well as to have a personal knowledge of all those who have most influence among them ;* to direct officers in high command to fix upon sites which might, in case of war, be available for the shelter of non-combatants ; in other words, to take, in these times of profound peace, every possible precaution lest war, however improbable it may look now, should ever find us napping.

"The saying, so often and so vilely misused, '*Si vis pacem para bellum*,' is admirably wise if it be understood in its true sense. That nation understands and follows it which, husbanding its material resources and wasting as few men as it possibly can in the enforced idleness of barracks, or in the creation of unnecessarily huge masses of war *matériel*, is boundlessly rich in systematised knowledge with regard to every country in which it may be called to operate, and possesses a cut and dried plan for every eventuality,—a plan which is unceasingly reconsidered and re-adapted to changing exigencies. They are most likely to be calm in danger who, like William the Silent, have 'trembled in repose.'"

9. It was doubtless greatly owing to Sir Frederick Roberts' habit of travelling perpetually about and seeing things for himself that our troops have borne their arms so well wherever they have been employed in the last five years. During that time, besides doing much garrison work in many foreign places and occasionally supporting the Civil power, they have taken part in the Egyptian campaign, in the fighting before Suakim, in assisting our neighbours of the Central Provinces to repress the Kalahandi disturbances, and have fought with great distinction, as everybody knows, in Burma. Our responsibility for affairs in that country virtually ceased when Sir Harry Pendergast took possession of Mandalay, and the ex-king had been shipped off to Madras. Since those events occurred, every thing of importance in Burma has been directed by the Government of India and its subordinate agents. Quite recently Sir Herbert Macpherson, with a large staff, has been instructed to proceed to Mandalay and to take charge of the extensive operations which it is proposed to undertake for the repression of the brigandage which has broken out on so large a scale. The Madras Army will be used to a considerable extent for that purpose ; but this Government will have nothing to do with the conduct of the necessary measures of repression, though of course it will expedite in every possible way the transmission of men and *matériel* to the scene of action. Dr. Irvine, our Surgeon-General, and Colonel Hawkes, the head of our Commissariat, will, I feel confident, admirably conduct their share of the business, while the presence of our Commander-in-Chief, assisted by so many Madras officers, renders it certain that our Army will have all those opportunities of distinction which should justly fall to its share.

10. The Conservative Administration was not less kind to Madras than were their predecessors, sending to us another officer, whose name has been much before

* Attention was recalled to this subject in 1885, and it should never be lost sight of.

the world, who has the keenest possible interest in the welfare of our Army, and who may be depended upon to do all that indefatigable zeal and ability can do for its honour and advantage.

11. It would be out of place in a paper of this kind to go into any controverted matters; but it is only right to say that I have formed a very distinct opinion with regard to the efficiency of the Madras Army *for all those purposes* which are germane to its history and circumstances*, and I have taken good care that my opinion on that subject should be clearly and fully set before those authorities who had a right to ask for it.

* What those purposes are will be clearly seen from an excellent paper drawn up a few weeks ago by our Adjutant-General, Brigadier-General Elles. It may be hoped that this document will become the *Vade Mecum* of all our young officers.

A useful little sketch of the history of my Bodyguard was recently printed by its late Acting Commandant, Captain Lawford. I am ashamed to say that I did not know that it had taken part in Fitzgerald's famous charge at Sectabuldee.

PUBLIC WORKS DEPARTMENT.*

When bringing forward the Indian Financial Statement in 1869, I said :

“There are two reproaches often brought against Indian administration which effectually neutralise each other. The one is that enough is not done to improve the magnificent estate which we possess in the East, and the other is that India lives quite up to her income, and is always borrowing a little. The position, however, of the Indian Government is precisely the position of a country gentleman who, with a moderate immediate income, has a large and very improvable property on which it is distinctly right for him to make improvements of two kinds,—improvements which, I suppose, the country gentleman would class in his accounts as improvements not bearing interest, and improvements bearing interest. The first of these are what we call in India “Public Works Ordinary,” and the second are what we call “Public Works Extraordinary.” Under the first of these heads, the country gentleman would class cottages, roads and other improvements which he made for the general benefit of his estate, but not as directly and immediately remunerative. And we class under it in India precisely the same kind of things,—as roads, improved barracks for our troops, and, in short, all ameliorations which will improve our general position, but will not give direct, obvious, palpable returns for our money.

“Till recently it has not been the custom of financiers in India to draw a sufficiently broad line between these two very different kinds of expenditure, but a peremptory order was sent out by my Right Honorable friend opposite directing that henceforward only irrigation works, State railways, and what are known as the Special Fund Works of Bombay, shall be considered as Extraordinary.”

2. The classification now in vogue is somewhat different. We speak of Ordinary, of Productive, and of Protective Works.

3. The Madras Government has, of course, a great many of each kind to attend to, but perhaps the most convenient division that I can adopt, in a paper like this, is one on somewhat different lines, into namely :

- (a) Buildings, roads, and general improvements, none of which would fall under either Productive or Protective ;
- (b) Irrigation, which would be divided under Ordinary, Productive and Protective ;
- (c) Railways, which would fall entirely under Productive and Protective.

4. A great many of the matters which would have to be noticed under ‘a,’ such as the Madras Harbour, the Cochin Harbour, the Potinghi ghaut road, &c., &c., have found a place in other portions of this Minute, and I need only notice here :

- (1) The opening up of the Wynaad by means of good roads. This was a subject to which my attention was called when I visited that part of the country in January 1882, but the at least temporary collapse of the gold and the great depression of the planting industry have made it, if not of less importance, at least of less urgency than was then the case. After much consultation we decided that the first step to be taken was to improve the through line from Vayitri to Calicut.

An estimate, amounting to more than three lakhs of rupees, was sanctioned for that purpose, and the work is proceeding satisfactorily, while a further estimate of above four lakhs has been sanctioned for work to be done between Vayitri and Gúdálúr.

- (2) I may notice the carrying into effect of some works for the protection of Masulipatam in ordinary storms. To protect that place against such calamities as occurred in 1864, when the sea rushed for many miles inland and 30,000 persons lost their lives, would be impossible.
- (3) Telephones have been introduced for official purposes, both at Madras and at Ootacamund.
- (4) Very considerable additions have been made to the buildings of the School of Art, with a view to supplement the educational policy of the Government with reference to arts and indus tries already alluded to.

* With reference to this as well as to the two following heads I would call special attention to my Minute of November 5th, 1884, where a vast number of matters connected with Public Works, Irrigation and Railway to which I cannot allude in these pages, found an appropriate place.

- (5) We have given great attention to the improvement of the water-supply for the Bangalore cantonment, and a most troublesome subject we have found it. A scheme has within the last few weeks been submitted to the Government of India.
- (6) We have greatly beautified Madras by, amongst other things, improving the Chepauk Park, laying out in gardens the banks of the Cooum River, throwing a bridge across the Buckingham Canal close to the Senate House, and turning the rather dismal Beach of five years ago into one of the most beautiful promenades in the world. From old Sicilian recollections, I gave in 1884 to our new creation the name of the Marina; and I was not a little amused when walking there last winter with the Italian General Saletta, he suddenly said to me "On se dirait à Palerme."
- (7) Nor have we neglected our summer capital. The lake which threatened to become a real danger to the population has been purified by drawing an intercepting sewer between it and the town; many objectionable buildings have been removed; the great line of communication from Mettupálaiyam to Gúdalúr has been taken over from the Local Fund Board by the Public Works Department; a most beautiful new drive has been opened from Fern Hill to Lovedale; and the roads which, when I first came in 1882, made one sigh for General Wade, have,—thanks to Colonel Sankey, Colonel Shaw-Stewart, Mr. Burrows and their subordinates,—been put into admirable order.
- I have very much upon my mind the improvement of the water-supply, and it has been taken in hand.
- (8) A good deal of useful work in the way of preservation has been done not only at Vijainagar but at the far-famed, ill-named Seven Pagodas, and, since I visited them in 1885, measures have been taken to prevent the quarrying which was exposing to considerable risk that interesting and enigmatic group of buildings.
- (9) During the tenure of the office of Chief Engineer by Colonel Shaw-Stewart, very special attention has been given to the improvement and multiplication of civil buildings throughout the Presidency. The British station of Anantapur with offices and residences for a Collector, Forest Officer, Police Officer, and Doctor, although the city boasts its antiquity, is virtually a new creation.
- When I was there in 1882 there was little of all this, save a very indifferent taluk cutcherry and the forlorn bungalow once occupied by Sir Thomas Munro, which will still be utilised for public purposes.
- Among the more important new buildings I may mention—
- The Law Courts at Calicut, which have cost nearly a lakh of rupees ;
- A new Ophthalmic Hospital at Madras, which has cost about the same ;
- Very great improvements to the Public Works offices at Madras also accounting for about a lakh ;
- A High School at Chittore, which cost Rs. 45,000 to say nothing of a huge but necessary expenditure upon the improvement of our jails ;
- The Government offices at Ootacamund, which reached about the same figure.
- (10) We were anxious to get rid, if possible, of the Public Works Workshops at Madras, both because they cost more than we liked, and because we desired to fall in with the policy of the Government of India and encourage "private enterprise." In vain, however, we invoked that wayward spirit from the vasty deep. "Private enterprise" knew better, or thought it knew better, than to risk itself, and we are falling back perforce upon the old ways.
- (11) There have been a variety of administrative changes, of which it may be enough to mention—
- (a) The division of the whole Presidency into six Circles, each under a Superintending Engineer, and the arrangement of the establishment so as to be capable of almost indefinite expansion or contraction, without putting the whole machine out of gear,

- (b) The sanction of a great variety of projects for Public Works Ordinary, so that they could be set about at any moment, if money were forthcoming. A great source of waste in the event of relief works having to be resorted to in this or that part of the country is thus eliminated.
 - (c) The issue of a complete Code of Instructions for the guidance of Public Works officers, in case of famine.
 - (d) The bringing into harmony of our system of accounts with that which is used by the Government of India.
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IRRIGATION DEPARTMENT.

I pass now to such portions of the great subject of the utilisation of our water-supply as have not been treated under the head of Revenue.

2. The conservation and extension of our larger tanks and channels, as well as of those already mentioned, is a constant subject of anxiety to the Madras Government. If the rains are at all too heavy, we tremble lest this or that great reservoir may burst, or this or that anicut give way;* if they are at all too light, we begin to look anxiously at the price of grain. Not a Council passes, throughout the year, without the omissions or commissions of the clouds being brought pointedly before us.

3. I proceed to notice the principal changes in our aquatic affairs, which have taken place since my arrival.

4. In 1882, the Madras Irrigation Company's Canal passed under the immediate care of this Government, and we received orders that it was to be classed as "Productive." I trust that, at some far off period, it may deserve the credit which that epithet conveys to the non-Indian mind. We have been doing our utmost to increase its productiveness, but the Madras Government had nothing to say to its creation; and it must not for a moment be confounded with those noble and emphatically productive irrigation works of which we are proud.† Since it came into our hands, it has changed its name, and is now called the Kurnool Canal. We have lowered the rates of water-tax upon it, in the hopes that the peasantry will convert their land from dry into wet, and we have handed over the navigation to private speculators.

5. The capital of this undertaking stands in our books at over one hundred and seventy-five lakhs, and the utmost net return that we have yet realised from it has been about Rs. 82,000 to the bad.

6. A great desideratum for this Presidency would be the construction of irrigation works in our Famine Zone, and some large projects of this kind have even been mentioned in Parliament. Nor is there any doubt that such could be constructed if means were boundless, and if a return for the money of the general Indian community sunk for the Bellary peasant were no object.

7. It is the impossibility of getting any adequate return that kills such gigantic schemes as that known as the Tungabhadra Irrigation Project.

8. Our experts consider that, on the larger project which has been proposed, there would have to be an expenditure of from one and-a-quarter to one and-a-half million sterling, and that the return would be like that of the Madras Irrigation Canal of unhappy memory, viz., something to the bad.

9. Colonel Hasted believes that a smaller project which he has worked out might cost fifty lakhs, irrigate 30,000 acres in Bellary, and return about 3 per cent. The day may come when such expenditure will be possible; but at present the Government of India cannot even give us money to begin the Periyár Project, which will irrigate some 109,000 acres, and pay about 9 per cent.

10. In Cuddapah and Anantapur, both within the Famine Zone, some smaller projects are held in readiness to be constructed as famine works, if the sad necessity for such things shall arise, and the same is the case in Salem.

* And no wonder, the Godávari, not an ill-conducted river by any means, came down past Dowlaishwaram the other day, some four miles broad, and some twenty-nine feet deep. Never had it risen so high in human memory.

† It may be mentioned perhaps that *our* great productive irrigation works are paying of clear profit *after* providing interest at 4 per cent. :

Godávari	above 6½ per cent.,
Kistna	nearly 7 per cent.,
Cauvery	above 7 per cent.,
Pennér	nearly 3 per cent.,
Srivaikuntham	about 1½ per cent.,

to say nothing of the vast indirect benefits which they are bringing to the whole of India.

11. I shall always deeply regret that it was not my lot to see the beginning of the works for the Periyár Project above mentioned. I have taken the keenest interest in this undertaking, have seen all the preliminary difficulties got rid of, and hope my successor will see it far advanced.

12. In 1882 a new temporary division was formed to push on the project works in the central portion of the Godávári Delta. Already, by the end of March 1885, more than 93,000 acres were irrigated there, and more than 122,000 will ultimately be reached by the fertilising waters.

13. Meanwhile, the permanent divisions have gone on extending irrigation in the eastern and western portions of the delta.

14. The general result of the extension of the works as hitherto reported has been in these last-mentioned localities that out of 490,000 acres, which will eventually be irrigated, 435,000 acres have been taken up for irrigation, and 426,000 acres have been effectively irrigated.

15. Only second in importance to the works on the Godávári are those in the Delta of the Kistna. For them, too, a temporary division was constituted in 1882, and the work accomplished up to this time has been thus summarised by the head of the Irrigation Department :

“The opening out a navigable canal with the necessary locks and weirs to the Uppateru, which forms a second direct line of water-communication with the Godávári Delta ; the commencement of another connecting line ; the improvement of the main canal, supplying this portion of the delta ; and the excavation of several new drains. A considerable extension of irrigation is expected from these works, and has already commenced.

“The works in the Eastern and Western Deltas have, at the same time, been steadily pushed on.

“The general result of the extension of the works has been that out of 475,000 acres, the ultimate area of irrigation, 311,000 acres have been taken up for irrigation, and 309,000 acres have been effectively irrigated.”

16. A similar policy was pursued with regard to the Cauvery and Vennár Regulators immediately below the Grand Anicut. They were begun in February 1882, and are now virtually completed. I trust to be able to visit them in a few days from this time. These works, the estimate for which is upwards of seven lakhs, are built near the head of the large rivers, which supply the whole of the irrigation in the Tanjore Delta, upwards of 900,000 acres, and together form the largest supply sluice in the world. They will facilitate the distribution of water, and also control the floods, thereby, it is hoped, preventing much loss of revenue which has hitherto been unavoidable in years of either scanty or excessive rainfall.

17. The great Sungum Anicut above Nellore, begun in October 1881, and involving an expenditure of twenty-nine lakhs, has been all but completed.

18. Colonel Hasted reports that “the large reservoirs have been nearly finished, and the distributing channels are expected to be finished next year. Extension of irrigation has commenced, and it is anticipated that shortly 94,000 acres will be watered by the works.”

19. When I wrote my Minute of November 1884, the Rushikulya Project, an important protective work, which will irrigate 120,000 acres in Ganjam, had been sanctioned by the Secretary of State.

20. In spite of great difficulties in getting labour, fair progress is reported.

21. In November 1884 a cyclone of tremendous violence (for it blew at the rate of forty-nine miles an hour while that which ruined our Harbour blew only at the rate of thirty miles an hour) rushed from the south-west up the whole length of the great artificial lake at the Red Hills, which supplies Madras with water, and dashed its north-eastern barriers into fragments.

22. The repair of the frightful mischief thus caused has occupied much time, but was satisfactorily completed this spring.

23. It is thought that by lowering the level three feet, and giving a larger means of escape to the water, the occurrence of a like catastrophe will be prevented,

24. We have had working, from time to time, several divisions for the investigation of new projects expected to be productive or protective. By these has been carried on the inquiry into the best means of improving the Kalingaroyen Channel, so important to Coimbatore; into the most eligible plan for constructing a reservoir on the Bhaváni, into the regulating the irrigation from the Lower Coleroon; and into the reduced Tungabhadra Project, of which I have spoken above.

25. As to a number of smaller irrigation works, it may be enough to refer to my Minute of 1884 already alluded to.

26. In 1882, a variety of Madras productive irrigation projects were in a sort of Mahomet's coffin condition,—the Government of India and the Secretary of State refusing to sanction them till they had more complete information.

27. Now every one has been sanctioned, viz., the

Godávári,		Srivaikuntham, and
Kistna,		Barur Projects.
Pennér,		

The first three of these are amongst the greatest irrigation works in the world.

28. In 1884, we passed the River Conservancy Act for the purpose of preventing the widespread calamity often caused by the selfish action of individuals in forming and removing constructions in or near river-beds.

29. It will be first brought into action in the districts where it is most wanted, Godávári and Kistna, and the necessary surveys are proceeding.

30. Passing from canals of irrigation to those of navigation, I may mention that I have always felt the keenest interest in the improvement of the salt-water Buckingham Canal, and nothing but the *res angusta* at Calcutta and Simla prevents our spending more upon it. As a matter of fact, we have been spending upon it about three lakhs a-year, half of that being a grant from the Government of India under Protective, and half being from our own Provincial Funds. We have still an unspent balance, on the estimate, of over twenty lakhs.

31. Up to 1883, a most inconvenient system prevailed under which separate licenses were issued to navigate the Godávári system of canals, the Kistna system of canals, and the East Coast or Buckingham Canal. Now, one license entitles a vessel to pass right down the whole of the long water-way from Cocanada to near Cuddalore. This great public convenience has, however, still to justify itself financially.

32. Another line of communication, which I should like to see much improved, is on the opposite side of the country between Cochin and Hosdroog on the way to Mangalore. With regard to that, we have made a beginning by sending Colonel Ross Thompson to examine and prepare estimates, along the section from Cochin to Calicut. This he has done, and in that part of the West Coast Canal we shall receive a good deal of help from the Cochin Government.

RAILWAY DEPARTMENT.

A good deal of progress has been made in the last five years towards that extension of our railway system, which, when combined with irrigation, forms the strongest guarantee we can have against the dire effects of agricultural calamity.

2. The Madras line, drawn in a manner which is explained by the political and military theories of thirty years ago, had, amongst other misfortunes, that of terminating at Beypore, a hopeless spot upon a forlorn road-stead, exposed to the joint caprices of an angry sea and a not less angry river.

3. Only seven miles off lay the great and historic mart of Calicut. To this point we determined, with the permission of the Secretary of State, to extend the line. The difficulties to be surmounted in the way of bridging between Beypore and Calicut are very considerable, but they should be all overcome before the end of 1887.

4. A few months ago the Secretary of State also agreed to let the Madras line run a short branch to the important town of Palghât,—a matter to which we attached some importance.

5. Another and far larger project, which we have had very much at heart, has been the formation of a railway from Bezvâda across the Nellamallai range and through the heart of the Famine Zone to Guntakal, the point whence a branch of the Madras line goes off to Bellary, through which the Mahratta system of lines is reached. The length of this railway will be about two hundred and seventy-nine miles, and as it is already far advanced, it should easily be completed in the days of my successor. That done, the great harvests of the Kistna Delta could be poured, at short notice, into the very centre of that portion of the country which is likely to suffer most from a failure of the rain.

6. The branch of the Madras line above mentioned will be worked by the Southern Mahratta Company, which will lay down a third rail for metre-gauge traffic, so that there will be no break from sea to sea.

7. The same good office, which will be effected by the Bellary-Kistna line for the Ceded Districts will be done for a country rather further south, and not less exposed to peril from drought, by the line from Nellore to Tirupati which will tap the delta of the Pennér. This also is far advanced. The protective work, however, of these railways will not be completed until the Bezvâda line is extended to Hindupur, and the Nellore line to Dharmavaram. The working survey and estimate of the Hindupur extension have been submitted.

8. The preliminary survey for the extension to Dharmavaram, over a distance of one hundred and sixty-six miles, has been made, as have also surveys of lines from Villupuram to Vellore, and Palghât to Dindigul, each to be about 110 miles in length.

9. The first of these will be of very great importance, more especially when the link between it and the other metre-gauge lines is formed across North Arcot to a point near Damalcheruvu.

10. The line from Palghât will open out a country which is at present in a very isolated condition.

11. Negotiations have been carried on through the whole of my time with persons who have desired to bring a railway up the Nilgiri Hills, and on two occasions it has seemed that they were satisfied with the terms accorded by Government, but thus far they have always failed in getting together the requisite funds.

12. A preliminary survey has also been made for a line from Porto-Novo to Salem, and another line is being surveyed from Madura to Paumben.

13. The South Indian Railway has been doing well since it returned to a lower scale of third-class fares, but it is very unfortunate in crossing near the sea the whole drainage of a vast region of hilly country which receives the full force of the North-East Monsoon. The destruction wrought in 1884 was quite terrible, and has led to the adoption of an expedient, justifiable only under such exceptional circumstances—that namely the flood-waters should be allowed to flow over, not under, the line in the worst deluges, communication being, of course, interrupted for a time.

14. Both the passenger and goods traffic of the Madras Railway have gone on improving, while greater attention has been paid of late to punctuality, but many a long year will pass before it pays its way,—thanks, as many think, to the original error of alignment, and as far as commercial purposes are concerned, to the fact that we have nothing like the wheat trade of the North to pass along it. Still the net revenue has increased in the last five years by 12 lakhs; the dividend earned has risen from 1·82 to 2·85 per cent.; the number of passengers has greatly increased, while the tonnage of goods carried is half as much again as it was.

15. The Volunteer movement has been well and increasingly supported by the employés both on the Madras and the South Indian lines.

16. The comfort of the third-class passengers is now much more attended to than was formerly the case. Care is taken to prevent the oppression of low caste by high caste, and means are provided for giving education to the children of those who work the lines, or seeing that they avail themselves of schools already existing.

17. There being good hope that a line would be constructed from Májavaram to Mutupet by the District Board of Tanjore, an Act was passed at our suggestion by the Government of India to facilitate such a transaction, and corollary steps are being taken by our own Legislative Council.

18. There has been a good deal of communication between the Travancore authorities and ourselves about the extension of the railway from Tinnevely to Trivandrum. The southern route would be far the least expensive, but there are considerations which commend to the Maharaja's Government the shorter line across the wild mountain regions, in which lies Camp Gorge.

19. Communications lately received from the Government of India lead us to believe that the line from the Singareni coal-field to Bezvada will soon be commenced, and we have directed our officers to give every assistance to the engineers who are to make the survey. The completion of this railway ought, I think, to contribute very much to the prosperity of the town of Madras.

20. An Act to provide for the prevention of injury to Railways from the escape or overflow of water from Irrigation works, situated upon the lands of Zemindars or other landholders, was passed last April.

GENERAL.

In the autumn of 1885, we sent a circular to all Collectors, directing them to forward to head-quarters a list of those improvements which they conceived might, given a normal condition of the finances, be carried into effect in their respective districts within six years.

2. The replies will convey to my successor the views of their authors upon a variety of important points, and give him, in addition, some insight into the character and tendencies of many of his leading officials.

CONCLUSION.

Such then, briefly and generally stated, are the chief administrative changes which have been made during the last five years in Madras. I trust that, to impartial critics who understand the real needs of this country, they may appear to have been in right directions; while I think that this record of them will give readers in England a better idea of the sort of work which is performed by the Indian Provincial Governments, in the second last decade of the nineteenth century, than they could elsewhere obtain.

2. I know that my Minute of November 5th, 1884, has been of some little use in that way, both at home and in foreign countries.

3. I trust the document which I am now concluding may produce the same kind of effect upon the same kind of reader.

4. I am not without hope, too, that it may be of service to the collective Government. "One event blots out another," and changes of policy sometimes take place quite insensibly merely from things being allowed to slip out of sight. This is peculiarly the case in India, where every five years there is a complete revolution in the *personnel* by which business is carried on. Much of the "jerkiness" that has been observed in our administration comes not from one Governor deliberately electing to move on lines different from those on which his predecessor moved, but simply from his having no means of authentically knowing on what lines his predecessor did move. It is surely much better that he should know this. His knowing it will not prevent him adopting, if he think fit, an entirely different system.

5. However that may be, certain it is that I could not have drawn up this paper nor taken my share in the changes which it records, without the most cordial and intelligent co-operation from all branches of the Secretariat and from many officers outside it,* a few, but only a few, of whom have been incidentally named in its pages. To each and all of them I return my most sincere thanks.

6. There are, I believe, some Europeans, even in India, who would fain inflict, upon the people amidst whom they dwell, all the institutions which have been found to be "blessings" in the West, under circumstances wholly unlike those with which we have to deal in this country. They are very welcome to their opinions; but I do not share them, and I fear that they and their disciples, who, because they knew me to be a Liberal in English politics, jumped to the conclusion that they would find me a "viewy" innovator in India, have had some disappointments. They were well warned however.

7. In my farewell speech to my old constituents in September 1881, I was careful to point out what I considered to be the real difficulties of Indian Government.

* From no one more than Mr. Tremenheere.

8. After some observations upon affairs on the North-West frontier, I said :

"The real difficulties are how to govern on European principles with an Asiatic revenue ; how to enable a soil which has been unscientifically managed for ages to support a population which is rapidly growing under the British peace ; how to bring the Natives (to many of whom we are giving a very high education) more into our system of government than has yet been done ; how enormously to extend elementary education ; how to pour the ideas of the West into the East without causing revolutionary ferment, or destroying good which we cannot replace ; how to attract ever more and more capital to a country which sorely needs the expenditure of capital ; how, in short, to make the most (not primarily for our own sake, but for the sake of the people who dwell there) of the noble estate which Providence has placed in our hands in Southern Asia : these are the real difficulties of our task. And they are aggravated by the fact that in the nature of things our knowledge must be imperfect. It is a knowledge which has always been increasing for more than a hundred years ; but after all, human faculties are limited, and the vast Continent of India is governed by a mere handful of Europeans. In that portion of India, which is about to pass under my charge, there are a great many districts, presided over each by a single British official. One of these districts is about as big as thirteen of the smaller English counties. How much can the local British Providence see with his own eyes and hear with his own ears in so vast a field of action ? The real difficulties are then, as you will readily see, internal difficulties. And there are quite enough of them.

* * * * *

"For myself, I shall have no temptation to devote any part of my attention to those Asiatic (as distinguished from Indian) subjects, which have in former days interested me as a matter of political speculation, as much as most men. My work will be of a purely administrative kind, and my efforts will mainly be directed to give as great an impulse as I can to all the multifarious good influences at work in a country which has been well called the most Indian part of India,—a country larger than the British Isles, and inhabited by over thirty millions of people. I am sure I shall have your best wishes in so gigantic and so deeply interesting a task."

9. Nor were these opinions then stated for the first time. As far back as 1869 I had occasion to sum up in a single paragraph my ideas as to our chief duties in India. I quoted it when speaking here about the middle of my period of office, and I now quote it once more as briefly indicating the limits within which nearly all my work as Governor has been advisedly confined :

"What, then," I said, "are our duties there ? They are far too numerous to detail ; but the chief are, I think, these : to keep the peace among two hundred millions of men ; to raise the material prosperity of the regions subject to our rule to a point to which they could not possibly have attained while split up amongst countless petty rulers, even if all these petty rulers were as virtuous as that princess whom Sir John Malcolm described as goodness personified ; * to pit the intelligence and science of the West against those terrible natural calamities which are the scourge of that portion of the earth's surface ; to curb rivers ; to cleanse towns ; to lead waters through the desert ; to make famines as rare as they have become in Europe ; to extend geographical and scientific research through every corner of India, and, as occasion serves, through all those countries adjacent to India, for the exploration of which its rulers have facilities not shared by other men ; to raise the standard of justice and administration ; to impart all Western culture that can be expected to flourish on Indian soil ; to make a royal road for every inquirer who wishes to collect whatever of value to mankind at large has, through countless ages, been carved on stone, or stamped on metal, or recorded in manuscripts, or handed down by tradition throughout Southern Asia ; to offer to the youth of Britain their choice of a variety of careers, by all of which, in return for good work done to the Natives of India, which those Natives of India cannot in the present stage of their history do for themselves, an early and honorable independence may be won far more easily than in this country of over-crowded professions and fierce competition ; to increase the riches of the world by developing, to the fullest possible extent, the resources of one of its most favored portions ; and to hold in no spirit of narrow monopoly, but from the mere necessity of the case, the keys of the gates by which the greater portion of that wealth flows out to bless mankind ; to give all other nations an example how a strong race should rule weaker ones : these are some of the principal objects which are within our reach, and towards the attainment of which we are steadily advancing."

10. Other *lustra* may bring other duties, as they certainly will bring to the helm of affairs in this Presidency many persons, who will fulfil those which I have enumerated with an amount of ability to which I can lay no claim ; but I am well assured that they will never bring to the great office which I am soon to vacate, any one who is more attached to India and its inhabitants, or more anxious to promote their best interests, according to his lights.

over to Stuart
M. E. GRANT DUFF.
Lphinstone

* Ahalia Bai of Indore.