Reference

M.R.O. 1—32 400—29-11-30

MADRAS RECORD OFFICE.

Government of Madras.

Public DEPARTMENT.

G.O. No.	904	Press ~~Mis.~~
Dated	5 — 4 —	1867

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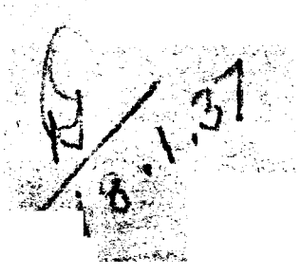


Read again the following papers :—

Revised Memorandum on the constitution of a Public Health Service for the Madras Presidency, by the Honourable R. S. ELLIS, C. B., recorded in the Military Proceedings, dated 5th May 1865, No. 1690.

Minute by the Right Honourable the President, dated 26th April 1868, and recorded in the Public Proceedings of 2nd July 1868, No. 790.

Proceedings of Government, Military Department, dated 29th July 1868, No. 2961.

Do. do. Public Department, dated 31st August 1868, No. 1076.

Read also the following papers :—

No. 9. Report of the Sanitary Commissioner, Madras. } (Here enter 10th October 1868, No. 1074A).

No. 10. From do. do. { (Here enter 31st October 1868, No. 1174A).

No. 10A. From the Acting Secretary to the Board of Revenue, to the Acting Secretary to Government, Revenue Department, Fort Saint George; dated Madras, 3rd February 1869, No. 736.

With reference to the Government Order, dated 31st August 1868, No. 1076, Public Department, I am directed to inform you that the registration of deaths in the Provinces was initiated in 1865, and that of births in 1868.

2. The returns are rendered monthly by the village Revenue Establishments, and are tabulated in the offices of the Collectors, where alone a small special establishment is maintained for the purpose. A general return from the Collectorate returns is prepared here. The accuracy of the village returns is tested by the Tahsildary establishment. Copies of the forms in use lately revised are appended.

3. The registration of births and deaths not being compulsory by law, the village officers are obliged to procure the necessary information, as they best can, from midwives, keepers of burial grounds, &c. Owing to the framework of society in our rural communities, no difficulty is experienced on this score, and in *Government villages* the returns may be made correct. More or less delay occurs in getting in the returns ; but this will cease when the work becomes more familiar, and its importance is appreciated.

4. In *Zemindary* villages the Government have no establishments. The Zemindars are obliged by law to maintain Village Curnums or Accountants ; but the registration of vital statistics is not one of the duties imposed by the law on these officers, and consequently they cannot be *compelled* to perform it. The utmost difficulty is experienced in getting in the returns for these tracts of country, aggregating about a fifth of the presidency, and their accuracy is generally questionable.

5. In *towns*, also, the present system is defective. Domestic events are not matters of notoriety, as in small village communities : the people are less amenable to the influence of the village officials, whose time, moreover, is more fully taken up

by their own duties. The Board lately referred to Collectors on the subject, and the replies received show a general conviction that special measures are necessary as regard both Zemindaries and Towns.

6. The system adopted in London, to which the Barrack and Hospital Commission point as a model for the presidency and large towns, is described by them to be as follows:—The city is divided into districts and sub-districts; each "district" has a Superintending Registrar; each "sub-district" a Registrar. The latter are supplied with a Register Book, in which each death is registered from information applied by some person present at the death, who is required to produce a medical certificate of the death. When the death is registered, the Registrar gives a burial certificate, without which the burial cannot take place, save in rare cases of urgency, when the Clergyman himself is bound under penalty to give notice to the Registrar.

7. Circumstances do not permit the adoption of this system, as regards the native population, even of large towns.

8. The measures which seem to the Board most necessary, at present, is the enactment of a law rendering the registration of births and deaths compulsory. Its main provisions would comprise the appointment of Registrars, to whom notice of such events should be given within a stated period, under penalty for omission; power to require medical men, midwives, clergymen, persons in charge of burial and burning grounds, and persons having similar means of knowledge, to report them to the Registrar; power to impose on Zemindars and their village officers the obligation of making such registrations; and penalties for making false returns and other offences.

9. The Act should be drawn so as to apply only to such towns, villages, and tracts of country as Government may from time to time ordain.

10. An Act of this nature would necessarily need to be applied with caution; but without such a law it seems to the Board hopeless to expect the establishment of a really effective system of registration. It would be unnecessary, as well as inexpedient, to apply such a law to our rural communities; and even as regards town limits, its operation for the first year or two should be limited to places where there is some Government Officer of experience and judgment to superintend its working. The system in force in England is not the growth of a year, and progress in India, owing to the prevailing ignorance of the masses, must necessarily be slow.

11. The Board have already made a similar suggestion, and Government remarked that the subject would be considered when the Municipal Act comes under revision.

12. The treatment of the subject as other than an Imperial one is to be deprecated. The Municipal Act applies only to a few towns, and Municipalities are not under sufficiently close control by Government to render their intervention in such a matter as collecting statistics desirable. The saving in cost will be very trifling, and certainly not enough to counterbalance the disadvantage of entrusting duties of

this nature to other than Government agency. Experience proves that in this country the most successful plan is for the Government to initiate, and when the system is thoroughly organized, and the people are familiar with it, gradually to transfer it to them.

13. The next necessity is the provision of a special establishment for the large towns. If the Government wish the work to be done well, they must be prepared here, as in England, to give reasonable remuneration to the Registrars. If an Act be passed and applied, as it has been proposed, the Divisional Officers would take the place of the Superintendent Registrars of London. They would require no special remuneration; but the Registrars (of whom there would seldom be more than one) should certainly receive a moderate allowance, and would need the assistance of one or two peons. Probably, for a monthly payment of 25 or 30 rupees, a Collector could, in every large town, secure the services of a competent person holding some office not occupying the whole of his time. It may be anticipated confidently that unless Government deal liberally—especially at the outset—success is hopeless. There are difficulties enough in the ignorance, apathy, and suspiciousness of the people, without superadding the *vice inertia* of gratuitous labour. An expenditure of probably not more than £5000 per annum, (including the £1026 for existing establishments,) would admit of fifty of the chief towns of the presidency being effectively worked; and this is a very moderate charge under the circumstances. The presidency comprises an area of 131,000 square miles; it contains nearly 55,000 villages; and its population, by the last census, was twenty-six-and-a-half millions.

No. 11. MINUTE by His Excellency the PRESIDENT, dated 23rd November 1868.

I have read the Report of the Sanitary Commissioner under date of October 10th with interest and satisfaction. It presents a summary of the sanitary measures which are in operation and contemplation in the presidency, and if we consider how imperfect are our sanitary agencies, and how inadequate are the funds at our disposal, the amount of work in progress and of work projected is not discreditable.

2. It may be conceded that the acts done in the Sanitary Department still bear but a small proportion to the counsel given. We have before us, however, the spectacle of practical development in several respects:—

(1.) The Municipal bodies are bestirring themselves. The towns are better cleansed. Projects are entertained for building, market-places, and for introducing water supply and drainage.

(2.) In Military cantonments the lines of the native troops are being enlarged and improved. A good system of conservancy has been introduced by carrying away the filth that was formerly interred on the spot. There is more general cleanliness and order. Wells are dug and trees are planted. The buildings for the English Soldiers are making rapid progress and offer, by their superior proportions and better light and ventilation, a gratifying contrast to the habitations of an earlier date.

(3.) The Collectors of the several districts, in cooperation with the Police and Medical authorities, have carried into effect, at the various seats of pilgrimage and popular fairs and festivals, a system of supervision and conservancy of which the good results are apparent in the absence of epidemic disease.

(4.) The Contagious Diseases' Act has been introduced into Madras. A Lock-Hospital has been formed. The women of the town have been registered and subjected to regular inspection and license.

(5.) The sanitation of Ootacamund has been made the object of special solicitude. Special grants have been made for sanitary works and for water supply. A strong force of convict labour has been brought to bear. The works are actually set on foot.

(6.) The Central Jails are well-advanced. They have already taken off a great portion of the surplus population of the District Jails. The District Jails are being gradually rebuilt or remodelled with reference at least to the requirements of physical health and labour. The Subsidiary Jails are being reformed under a general scheme for the execution of which a special grant has been made by the Supreme Government.

(7.) The General Hospital at Madras in its several branches, the Regimental Hospitals, and the provincial Dispensaries are all the scene of improvement.

(8.) The Native Alms House of Madras known as the Monegar Choultry, with its dependent hospitals for the miscellaneous sick and for lepers, offers a conspicuous example of sanitary amelioration. It has been transformed. The impulse given by Mr. Ellis, the benevolent supervision of Mr. T. G. Clarke and other Members of the Committee, the devoted attention of Dr. vanSomeren, and the liberal appropriations by Government have all contributed to this happy effect, the reality of which is demonstrated by a diminished death rate.

The Sanitary Commissioner is warranted in affirming, in the last paragraph of his report, that "the first fruits are being gathered." For a time the Sanitary Commission appeared to be a barren intelligence and agitation, but discussion, speculation, and advice have not been cast away; the Commission has become a practical agency, and Dr. Ranking may justly survey his harvest, however meagre, with complacency.

3. Having thus recognised the practical advance which has been made in the field of miscellaneous sanitary action, I may devote a few remarks to two projects which are in a state of elaboration :—

(1.) The institution of female nursing in the hospitals of the presidency.

(2.) The organization of a general system by which the benefits of sanitation and European medical treatment may be brought home to the mass of the population not living in Municipalities or Cantonments.

4. The plan of opening a school under European direction for the instruction of East Indian and native females in the treatment of the sick has been sanctioned by the Supreme Government, and an appropriation has been authorized for this purpose, which is unfortunately below the amount which this Government deemed requisite for the successful prosecution of the undertaking. The Inspector General has been requested to modify the larger scheme originally submitted by him so as to bring it within the compass of our pecuniary means. The Government will probably sanction the reduced establishment to begin with entertaining a hope that the proved usefulness of the institution may hereafter enable the Government of India to give it a larger measure of support. In the meantime if the institution could be lodged in a Government building, or in a building paid for by Government from some other source, the whole of the allowance provided by the Government of India would be available for current expenditure connected with salaries, board, and tuition.

5. The organization of a general scheme for imparting the benefits of sanitary and medical science to the mass of the village and rural population is a problem of difficulty both with reference to the means to be employed and to the source from which the necessary expenditure can be provided.

My views on this subject have been already submitted in a Minute under date of April 26th of the present year, which is under the notice of the Government of India. Since those opinions

had the benefit of reading the remarks of the Sanitary Commissioner. I have, however, seen no convincing reason to modify my previous impressions. On the contrary I should be disposed to give my project eventually a more decided development in a sense adverse to the advice of Mr. Ellis and Dr. Ranking. I express myself, however, with deference to the judgment of those gentlemen. The former speaks with authority for he possesses a special study and experience of sanitary matters besides a knowledge of the country in all its interests; the latter adds to both the weight of medical science. I submit my opinion, therefore, in the full conviction that due consideration will be given to those tendered by the Chief Secretary and the Sanitary Commissioner.

6. The radical difference between the Sanitary authorities and myself is that they deem it desirable to establish a centralized Sanitary Department at Madras, with the usual systematic executive and inspecting agents all over the country at once, while I would use and expand the existing machinery of Government gradually.

Dr. Ranking contemplates four Health Inspectors, one Sanitary Engineer, nineteen Health Officers of Districts, one hundred and fifty Taluq Inspectors, all working under the central authority of the Sanitary Commissioner at Madras.

I contemplate nineteen Health Officers of Districts, working under the Collectors, and a Sanitary Engineer. The Collectors would, however, send in their communications to Government through the Sanitary Commissioner, who would thus remain for the present the depositary of information respecting sanitary matters and the adviser of Government.

The necessity for the numerous and costly staff proposed by the Sanitary Commissioner is not demonstrated to me. Indeed I think that the institution of active influential agencies in the provinces obeying central impulse and authority and independent of the Collector is to be deprecated. Public health depends, with reference to causation, on many circumstances connected with rainfall, food supply, and pilgrimage; with reference to remedial and relief measures on local public works. The proper superior Sanitary Officer is, therefore, in my opinion, the functionary who is charged with the superintendence and administration of the district in all its social and material interests. In fact I would look forward to the time when the Sanitary Commissioner at Madras might be dispensed with. Far from aiming at the development of a distinct Sanitary service I would aim at its absorption. I would identify it with the general administration. The Sanitary Commissioner has, I believe, nearly done his work. The sanitary defects of the country have become matters of common notoriety, and they have been abundantly discussed and denounced. If anything remains to be discovered to Government can it not be done by the Inspector General of the Indian Medical Department, by the Deputy Inspectors General, by the Department of Public Works, by the District Health Officer through the Collector? What we want is not a deliberative or consulting officer so much as a good executive officer, a man who can not only suggest and design but execute remedial works—a Sanitary Engineer. He would probably, at no distant date, supersede the Sanitary Commissioner. It may be objected to me that in making the Collector the Chief Sanitary Officer of the District I entrust to him a duty of which he has no preparatory knowledge. I can only reply that the science of sanitation has been familiarly expounded by its learned authors in such a way that any sensible man may obtain a competent knowledge of it from books and common observation. There is nothing in sanitary science as there is in organic chemistry or the diagnosis of disease which requires patient study or scientific manipulation. A physician would be the best Sanitary Officer for the most part, but a Revenue Officer with the writings of the physician in his hands may do very well.

It will be remarked that the project which I recommend does not necessarily exclude the other. Both projects involve the nomination of a Health Officer in each district. Should experience prove that the subordination of the Sanitary Officer to the Collector was not productive of the good results which I anticipate there would be no difficulty in dissevering this connexion, in placing the Health Officer in direct correspondence with the Sanitary Commissioner, and in nominating the Inspecting Officers and the Taluq Overseers contemplated by Dr. Ranking's scheme.

7. It has been proposed that the projected Sanitary Establishment and the Schools of primary medical instruction which it is proposed to associate with the present Dispensaries, or with some of them, should be supported by a local cess in the form of a House-tax. I confess that I should deprecate the imposition of such a tax for this purpose. The people are already threatened with a cess for local irrigation repairs, and with another cess for primary instruction. The multiplication of these little imposts is vexatious. Even if the amount is insignificant the demand is galling. Besides a Sanitary cess would be a tax for a purpose which the people least appreciate. I would reserve the House-tax for another purpose. Nor does it seem to me that any new tax is requisite. Under my scheme a new Revenue Officer with sanitary duties would be appointed in each district involving an annual expenditure of about Rupees 45,000. The Sanitary Engineer would probably in the first instance be Major Tulloch, who would receive a moderate addition to his pay as an Engineer Officer, while the development of the Dispensaries as schools of medicine would be proceeded with gradually. To the last-mentioned branch of expenditure the Municipalities as at present constituted would contribute. It seems to me that the Imperial revenue may well bear a share of this prudent outlay, while it embodies a local tax, the tax on trades and professions, one which the Supreme Government stand committed to restore to the local Governments by a formal declaration made two years ago. It is to the License-tax that I eventually look for means to carry on sanitary improvements in the rural districts. That tax represents the old moturpha in a better form, and can, therefore, be levied all over this presidency in strict conformity with tradition and popular usage.

8. The Report of the Sanitary Commission should be submitted to the Supreme Government with the minutes of the Members of this Government. The Government of India will thus act with a fuller knowledge of the sanitary works in progress in this presidency and of the opinions of the Members of Council. I do not, however, see that it is necessary to await the decision of the Government of India on the general question before instituting an inquiry into the best means of utilizing some, at least, of our provincial Dispensaries as popular Schools of Medicine. Whether the Supreme Government at present accepts or declines the proposal to this effect, which is supported by all parties to the present discussion, I cannot doubt that the measure will be adopted in one form or another hereafter. I would, therefore, suggest that a Committee be formed charged with the duty of preparing a report to the Inspector General of the Indian Medical Department on this subject, and I propose as Members of this Committee Dr. G. Smith, Principal of the Medical College, Dr. vanSomeren, Surgeon of the 1st District, and Native Surgeon Iyasamy Pillay now employed at Cuddapah.

(Signed) NAPIER.

No. 12. MINUTE by the Honourable A. J. ARBUTHNOT, dated 28th January 1869.

I agree generally in the views expressed by His Excellency the Governor in his Minute of the 23rd November, and especially in that part of it which dwells on the importance of placing the sanitary arrangements, like the other administrative arrangements of each district, under the Collector aided by a Health Officer. In regard to the provision of funds, (and sanitary improvements cannot be carried out free of cost,) while I concur with His Excellency in deprecating a multiplication of local cesses, I am disposed to think that it would not be difficult to provide in each district for those expenses which ought to be met from local taxation, such as the construction and repair of district roads, primary education, and the conservancy of towns and villages not under the operation of the Municipal Act by a single cess, which in the case of the agricultural classes might be levied in the form of a percentage on the revenue assessment, and in the case of the non-agricultural classes in the shape of a tax on trades, supposing the latter to be abandoned as a source of imperial taxation. If this were done the District Road Cess at present in force in this presidency would be blended in the general Local Cess.

2. I see no objections to the appointment of the Committee proposed by His Lordship at the close of his Minute.

(Signed) A. J. ARBUTHNOT.

Proceedings of the Madras Government, Public Department, 5th July 1869.

No. 13. ORDER THEREON, 5th July 1869, No. 904.

In compliance with the orders of Government, Surgeon Major Ranking, the Sanitary Commissioner, has, in the report above recorded, supplied the information required by the Right Honourable the Secretary of State in his despatch, dated 23rd April 1868, on the various points indicated, so as to show the progress made in sanitary improvement in India, since the subject first attracted the special attention of the Government of India.

2. The Secretary of State, in this despatch, inquires with reference to Military sanitation, first, what arrangements have been made for introducing into the Indian Medical Service the sanitary provisions contained in the regulations issued by Lord Herbert, under date the 7th October 1859, and which are contained at page 44 of the "Suggestions in regard to sanitary works required for improving Indian stations," published in 1864; second, how far it has been found possible to give effect to the recommendations made by Commanding Officers for removing causes of disease pointed out by Medical Officers in Barracks and Cantonments.

3. With reference to the first of these queries Government observe that complete uniformity of the system of Army Medical Statistics, observed by Medical Officers of the British Service in England and India, was enforced in the order of Government constituting the Sanitary Commission in this Presidency. But previously to this the duties of Medical Officers on the Indian Establishment had been assimilated to those of the Officers of the British Medical Service, (vide G. O. C. C., 24th October 1863). In the order just referred to, Medical Officers of the Indian Establishment were charged with the general sanitary supervision of the army, in addition to their professional duties as regarded the sick under their care.

4. All returns of the two Services have been rendered, as far as possible, identical, and the departmental orders in the Indian Medical Department have impressed upon the members of it the necessity of a strict adherence to the regulations laid down in Section 20 of the "Suggestions."

5. This Government has also sanctioned the preparation of a new Medical Code, which will comprise in it all of those regulations which are applicable to native troops, and to the various charges held by Medical Officers of the local service. Medical Officers of the British Medical Service are in India, as in England, bound to carry out the Regulations referred to in their entirety.

6. It is observed, with reference to the second question, that all recommendations made by Commanding Officers, for removing causes of disease pointed out by Medical Officers in Barracks and Cantonments, have invariably received immediate attention. When these recommendations involve a large expenditure they are usually referred to Special Committees, of which the Sanitary Commissioner is ordinarily a member.

7. It will also be observed, from the Appendix A of the Sanitary Commissioner's report, that, in the orders issued by this Government, abundant evidence is to be found that, practically, all matters of sanitation have been made the subject of Regulations binding upon the Officers of Government in the several departments under its control.

8. Indeed, such stress is laid upon the value of the "Suggestions" noticed in the despatch under notice, that this Government have ordered them to be reprinted and distributed to all departments interested, and especially to Administrative and Executive Officers of the Engineering and Medical Departments.

9. The attention of Government has since the creation of a Sanitary Commission (1864), and subsequently when the duties of this Commission were assigned to a single Officer the Sanitary Commissioner, been steadily directed to the following important measures of conservancy in cantonments, stations, and military buildings:—

(1.) *Drainage.*—The drainage of barracks, which had been much neglected, is undergoing a gradual improvement, and measures are being adopted to carry off rain water, which has been too often allowed to sink into the basements of buildings which have been thereby rendered damp and probably unhealthy. The provision of suitable channels had, however, been overlooked in the original construction of these buildings. The surface-drainage of several stations has been hitherto chiefly effected by natural means, but in certain cases open or closed, masonry-drains have been, or are now being, constructed to carry off surface-drainage to the nearest natural outfall. Subsoil-drainage has not yet been introduced; but this question is under the consideration of the Department of Public Works.

Sewerage.—This is chiefly effected by closed or open masonry-drains of brick or stone, but the former of these materials is found ill-suited for such a purpose; and the adoption of pipe-drains of well glazed-ware has been determined on for a portion of the Military station of Bangalore. This system has for some years been adopted with success in the town of Madras, and will probably be extended to other towns and stations.

(2).—*The disposal of sewerage* is necessarily regulated, to a considerable extent, by the nature of the system of conservancy adopted in Barracks, Hospitals, and other subsidiary buildings. The dry-earth system of conservancy has been universally introduced into all Military buildings, and may be emphatically pronounced to be generally a perfect success; in the few instances where it has failed to be entirely successful, this failure is due either to the difficulty of procuring earth of a suitable character, or sufficient in quantity to last during the prolonged monsoon rains of the Western Coast. In some instances, moreover, the old buildings which have been adapted for this system are with difficulty made suitable for it, but all new buildings which are ordered to be erected, are constructed specially for this system upon plans designed by the Sanitary Commissioner, or upon principles laid down by him. Self-acting apparatus are being introduced into all European Hospitals and Barracks, and promise effectually to promote the efficiency of the conservancy, and to limit, as far as possible, the increase of establishments. Dry-earth latrines for natives have also been introduced, and are to a certain extent used in Regimental lines. The expense of carriage involved in the system, which has prevented its extension will, it is hoped, be greatly reduced when the natives become aware of the value of poudrette as a manure. The water-carriage of sewerage is contempated for the city of Madras,

and in connexion with it the question of the utilization of liquid sewerage will have to be considered.

10. *Water supply.*—The Sanitary Commissioner's report gives, in detail, the present condition of matters regarding the measures taken for an abundant and pure water supply.

It is observed that considerable attention has been recently paid to this important subject, and it is hoped that when the system alluded to at page 9 of the Sanitary Commissioner's report has been carried out, a mass of information will be collected, which will prove of great value in enabling the authorities to secure, for troops and civil communities, the data for the selection of the purer sources of water supply. The conservancy of "*rain roof water*" has attracted the attention of Government.

11. Regarding the "*Principles of Barrack construction,*" the Sanitary Commissioner indicates, at page 12 of his report, the vast improvement which has been effected of late years in these buildings; and it is shown that, where new buildings have been erected, they have been built in general accordance with the principles inculcated in the "Suggestions in regard to sanitary works required for improving Indian stations." The large amount of expense involved in the immediate and full compliance with the "Conclusions" of the Government of India must, for a time, delay the complete elaboration of the various plans recommended by the War Office Committee in their "Suggestions;" but it is satisfactory, that, in so far as has been possible, the general principles of construction have been adopted, and that the health of the soldiers is no longer endangered by overcrowded and ill-ventilated barracks, while for the Non-Commissioned Officers, and for married men and their families, excellent accommodation is now provided.

12. In the improved construction of *Bath-rooms* and *Lavatories*, and in the institution of swimming-baths, the soldiers now find themselves provided with means of complete ablution, so essential to health and comfort in a tropical climate; in some respects, however, the fittings of the lavatories and bath-rooms, and the modes of replenishing swimming-baths, are capable of improvement; but this cannot be carried out until the water supply and the mode of its distribution are arranged upon a more satisfactory system than is now practicable. These matters will receive the most careful attention of Government.

13. *Cook-houses* have undergone a marked improvement during recent years: where the introduction of "ranges" has been effected, it has been followed by a considerable diminution in expenses for fuel, and by vastly improved cleanliness and thorough cooking of food; the improved construction of these buildings will also allow of intelligent European supervision, and the quality of food provided for the soldiers receives constant attention, and is satisfactory.

14. *Recreation rooms* and places of amusement have been provided for the soldiery, and separate buildings have, in many instances, been set apart for this purpose.

15. *Laundries.*—The desirability of introducing these establishments, as providing a means for the economic employment of native labour under the remunerated supervision of some of the wives of the soldiers, will receive early attention.

16. *Principles of Hospital construction.*—With reference to these buildings it is observed from the report of the Sanitary Commissioner that the "Conclu-

sions" of the Government of India regarding their construction are in general accord with the recommendations in the "Suggestions;" and that the number of beds provided for the sick, and the allowance of superficial area and cubic contents per bed, are such as to insure the healthful condition of sick wards to the fullest possible extent, not only for European, but for Native troops.

17. *Sanitary Police of Barracks, Hospitals, and Stations.*—The Regulations in force, both in the British and Indian Services, impose upon Regimental Military Officers the sanitary supervision of the barracks and lines of the men under their charge; while more comprehensive questions affecting the general health of the troops, or the general sanitary administration of the station, are entrusted to senior Medical Officers of position and experience.

18. The Rules and Regulations for Military Cantonments provide for the appointment of Sanitary Inspectors of Nuisances, who control the management of all slaughter-houses and markets within cantonment limits.

19. The bye-laws under Municipal and Cantonment Acts are full and comprehensive, and in accordance with the recommendations contained in the "Suggestions."

20. *Sanitary condition and Police of Native Lines.*—In scarcely any respect has there been a greater improvement effected, of late years, than as regards this subject. The lines of Native Regiments have been, in many instances, rebuilt as at Arcot, Kurnool, Madras, and in those stations where it was not absolutely necessary to rebuild the lines they have been much improved. The drainage of these places is not yet, however, completely satisfactory, and this and the water supply are still susceptible of considerable amelioration; and the attention of the Government will be carefully directed to this subject. The general conservancy of native lines is under the immediate control of the Quartermaster of the Regiment, and of the Medical Officer in charge, the latter being the Consultative, and the former the Executive, Officer.

21. *Precautions against Epidemic Disease.*—The Sanitary Commissioner's report indicates the general measures that have been taken for the prevention of epidemic disease, in Military stations and among troops when marching. There is before the Government very satisfactory evidence in the reports of the local officers from all parts of the Presidency that under due sanitary control, festivals and fairs have ceased to be, during the last five years, the cause of the origination and dissemination of epidemic disease. The control of pilgrimages, the management of fairs and festivals, and the introduction of the Contagious Diseases' Act, promise effectually to protect the health of the soldiers from the diseases which have hitherto so largely increased the death rate of the army and the numbers of invalids.

22. *Registration of Deaths.*—In the Sanitary Commissioner's report is detailed the system of registration which has been approved by Government, and which is in close accordance with that laid down in the "Suggestions."

23. As regards the subject of health of Towns and Civil Stations, the Secretary of State, in the despatch above recorded, desires information of the organization by which it is proposed, under the Medical Sanitary Inspector's supervision, to secure the health and cleanliness of towns and villages. In respect of the larger towns, in which Municipalities have been established, the Secretary of State inquires

the mode in which the Government ascertain that the Municipality of any given town performs its duty in protecting the public health, and what arrangements are proposed for attaining the same object in small towns and villages. Attention is also directed to paragraphs 32, 33, and 34 of the "Suggestions" in regard to sanitary works required for improving Indian stations, published in 1864, and a report is required as to the manner in which it is intended to provide for the execution of the duties therein indicated.

24. The question is also raised of the desirability of sending competent Engineer Officers to England to study the systems of drainage, water supply, sewerage, irrigation and other general sanitary improvements now in operation in this country.

25. The necessity of the introduction of a uniform system of registration of deaths, and a periodical census, is also urged upon the attention of the Government.

26. With reference to the suggestions of 1864, the Secretary of State desires to be informed what steps have been taken for giving effect, in each Presidency, to the recommendations contained in the suggestions; and reference is made to the possibility of a Manual, founded on the suggestions and the reports founded on them, of principles and instructions, being prepared by a competent officer, which would be of the greatest service to all officers employed in the Public Health Department.

27. In the Civil sanitary report submitted by the Commissioner, the information required in paragraphs 4, 5, 6, 7, and 8 of the Secretary of State's despatch is very fully afforded. It is shown in this report that, in all the more important towns, Municipalities have been formed with very considerable local funds at their disposal, and that marked progress has been made in such towns in inaugurating measures for the protection of the public health. By the submission, for sanction, of the Annual Municipal Budgets which exhibit the details of local taxation and expenditure, and by the Annual Reports required from each Municipality, the Government are able to exercise a very sufficient control over the Municipalities throughout the country. It has seldom been necessary for the Government to interfere with Municipal action, nor has there been any disposition on the part of the Municipalities generally, to evade the performance of their duties.

28. The introduction of a complete system of sanitary inspection throughout the country, more especially in the smaller towns and rural districts, the best method of providing funds for this purpose, and for the necessary sanitary works, the extension of the scope of the Civil Dispensaries, so as to popularize the European system of medicine, have all received the earnest attention of this Government, and their proposals on these subjects, which are fully described in the Sanitary Commissioner's report, paragraphs 12 to 15, have been submitted to the Government of India.

29. In the scheme which is described in the Minute of His Excellency the Governor, and forms part of the Proceedings of Government, dated 2nd July last, it is proposed to engage an officer specially acquainted with the latest improvements of sanitary engineering; and whether this scheme is approved by the Government of India, or some other is preferred, the Government have no doubt that special instruction in this branch of engineering is greatly needed by those Officers to whom will hereafter be entrusted the more important sanitary works in the densely-populated towns of this Presidency.

30. Considerable improvement has been effected in the preparation of the Mortuary Returns now furnished from every district of this Presidency, and the Board of Revenue are engaged, in communication with the Collectors, in perfecting these statistics.

31. The revision of the Municipal Law (Towns' Improvement Act) which is now in progress will also afford an opportunity for securing Returns of births and deaths from the principal towns of the Presidency, and a scheme has been submitted for the approval of His Excellency the Commander-in-Chief for obtaining similar returns from Military Cantonments. The question of a careful periodical census is also under the consideration of the Government.

32. The Sanitary Commissioner will report, at an early date, upon the best means of carrying into effect the proposal of the Secretary of State for the preparation of a Manual of principles and instructions for the use of Officers employed in the Public Health Department.

(Signed) R. S. ELLIS,
Chief Secretary.

No. 14. To the Secretary to the Government of India, Home Department, dated Fort Saint George, 5th July 1869, No. 905.

I am directed to acknowledge the receipt of the letter from the Secretary to the Government of India, No. 77, dated 6th July 1868, enclosing a Despatch from the Right Honourable the Secretary of State for India, No. 14, dated 23rd April 1868, (Sanitary,) and with reference to this correspondence, to enclose the Proceedings of the Madras Government of this date, No. 904, reviewing the reports of the Sanitary Commissioner which that officer was called upon to submit, with a view of affording to the Government of India and to the Secretary of State the fullest information on the progress in sanitary improvement made in this Presidency since the subject first attracted the special attention of the Government of India. Copies of the Minutes on this subject, recorded by His Excellency theGovernor and the Honourable A. J. Arbuthnot, are embodied in the Proceedings.

(Signed) R. S. ELLIS,
Chief Secretary.

Exd. J. Wright.

No. 1074A.

OFFICE OF SANITARY COMMISSIONER.
MADRAS, 10TH OCTOBER 1868.

FROM

THE SANITARY COMMISSIONER,
MADRAS,

To

THE CHIEF SECRETARY TO GOVERNMENT,
FORT SAINT GEORGE,

SIR,

In obedience to the instructions conveyed in the Order of Government in the Public Department No. 1076, of the 31st August, I have the honor to give expression to my views upon the points referred to in paragraphs 4, 5, 6 and 7 of the Despatch (No. 14, Sanitary), dated the 23rd April 1868, from the Right Honorable the Secretary of State for India.

2. I have also to acknowledge the receipt of Proceedings of Government in the Public Department of the 2nd July, containing correspondence and proceedings in relation to the organization of a system of general sanitary supervision of the country.

3. In the first paragraph of the "Despatch" to which my attention is directed, it is manifest that the Right Honorable the Secretary of State is most desirous to give effect to some system that shall carry the benefits of sanitary science to the rural districts, and under which the smaller towns and villages shall be brought within the circle of those sanitary improvements, that have been inaugurated, and with no inconsiderable success in the larger towns under the operation of the Towns Improvement Act (Madras) X of 1865.

4. But the Proceedings of this Government above alluded to, show conclusively the disinclination on the part of the Government of India to meet any part of the cost of a sanitary service of the nature required, from Imperial Revenues, and indicate that the whole of the expenditure, except under very exceptional circumstances, must be met from Municipal and Local Funds.

5. The institution of a Sanitary Department in connection with the Indian Council, and the recent appointment of Sanitary Commissioners with the Local Governments and Administrations under the Government of India, appear to indicate that the Right Honorable the Secretary of State acknowledges the necessity of, in a measure, debiting the cost of a Sanitary Department to the general revenues, and justifies the expression of the hope that he may also be induced to sanction "the organization," by which it is proposed under the supervision of those Commissioners, (or Medical Sanitary Inspectors as they are designated in the Despatch) to secure the health and cleanliness of towns and villages, being paid out of the same revenues.

6. The appointment of Provincial Sanitary Commissioners can in fact only be viewed as preliminary to a further extension of a public health service. It

Home 1869 Public.

From the Government of
Fort St. George.

Dated 5th July 1869.
R.

No.
Enclosures
Spare copies

D. No.
L. No. 905. Progs. D. No.

JULY.
Nos. 9—14.

Forwarding Proceedings of Government reviewing the reports of the Sanitary Commissioner showing the progress made in sanitary improvement in this Presidency since the subject first attracted the special attention of the Government of India.

is impossible that those Officers can, under a term of years, make that close inspection of the towns and villages within the Provinces under their supervision that is so essential to the spread of sanitation, and it will be necessary, sooner or later, to appoint a class of Inspectors or "Local Health Officers" to aid the Commissioners in the sanitary administration of their extensive ranges.

7. This view, the sub-division of the territories under this Government into a series of Sanitary Districts or Circles of Superintendence, has, I apprehend, been generally accepted by this Government.

8. The Memorandum by the Honorable Mr. Ellis, which obtained the support of the Governor in Council, although rejected by the Government of India, was based upon this principle, and the more recent Minute by the Right Honorable the President of the Council, Lord Napier, recognizes the same element as necessary to success, viz., the organization of a special Sanitary Agency in each District.

9. It certainly appears to be almost hopeless to expect to be able to extend the benefits of any system of sanitary supervision of towns and villages, without the creation of an organized and necessarily more or less costly staff of Inspectors. It is true that the introduction of Municipal Commissions into the larger towns will be the means of slowly bringing home to Native intelligence, the advantages of sanitary measures; and if these Municipalities could be extended to some of the second class towns, (say those having a population of 5,000 and upwards) conveniently located, so as to be centrally situated in relation to groups of smaller towns and villages, or which, from their importance as market towns, are frequently resorted to by the rural population, the example they would set, and the lessons they would teach, of the advantages of obedience to a few simple sanitary laws would, in course of time, but it is to be feared a very long time, lead the people to adopt of themselves, measures calculated to place their village communities under improved sanitary conditions.

10. If it be politic thus to extend the operation of the Municipal Act in the direction I have ventured to indicate, sanitary supervision of towns and villages, at the expense of local Municipal funds only, will become possible.

Existing Municipalities are so few that they exercise but small influence, if any, beyond their own immediate limits. They are, however, becoming daily of larger importance in the influence they exert upon the health of the troops cantoned at stations contiguous to them. This was an important object of their institution, and they are working satisfactorily; but any influence they may be expected to exert upon the sanitary condition of the mass of the people is so small that it must, I think, be admitted that if real progress is to be made, a special Sanitary Department must be entertained, and that this cannot be organized unless the Government of India is prepared to sanction some appropriation of the general revenues of the Empire, or the institution of a special cess.

11. Any attempt to give effect to a system at all approaching completeness for bringing home to the inhabitants of outlying towns and villages the benefits of a Sanitary Department through the Agency of existing functionaries, Civil or Medical, has beeen incontestibly shown by Lord Napier to be impracticable. Collectors, Magistrates, Officers of Police, Deputy Inspectors General of the Indian Medical Department and Civil Surgeons are fully occupied in their more legitimate duties. As regards the Medical Department, I can speak with some confidence. Civil Surgeons are undoubtedly so fully occupied that they can scarcely find time to give attention to the duties devolving upon them in association with the several Municipalities in which they hold office; while their absence could not be spared even for a day from the Head Quarter stations to which they are attached.

Public Health Schemes.

12. Two schemes for giving effect to a Public Health Service have been before this Government, one proposed by the Honorable Mr. Ellis, and which obtained the approval of Government, though negatived by the Government of India; the other recently advanced by His Excellency Lord Napier in his Minute of the 26th April 1868, and which was submitted for the information of the Government of India on the 2nd July 1868.

13. It is with considerable diffidence that I approach the subject of the relative merits of these schemes; but as I am instructed to submit to the Government an expression of my views upon the subjects referred to by the Secretary of State, and as the Proceedings of Government containing the whole antecedents of the question have been forwarded to me, I apprehend that it is expected of me to offer an opinion upon the measures that would, in my judgment, be best calculated to advance the object in view.

Mr. Ellis' Scheme.

14. The Honorable Mr. Ellis' scheme comprised the institution of a Public Health Department of which the Sanitary Commissioner was to be the official head. He was to be assisted in administering the duties of the Department by 4 Public Health Inspectors, 25 Local Health Officers of Military Stations in three classes and 15 Local Officers of Civil Stations and Towns. The scheme embraces, therefore, the sanitary supervision of Military Cantonments and Stations and some of the larger towns, but leaves the smaller towns and villages untouched. It is not altogether framed as I shall presently show, in accordance with the recommendations of the 'Royal Commission' as quoted at page 33 of the "Suggestions" to which the Secretary of State refers in his Despatch.

I do not think that any extension of a Public Health Service in the former direction, that is in Military Cantonments, is necessary.

Military stations sufficiently provided for.

The rules framed under Act I. of 1866, and the machinery by which those rules are to be worked fully provide for the efficient sanitation of all Military Stations. Towns also, already brought under the operation of the "Towns Improvement Act," may safely, I think, be left to themselves, inasmuch as that Medical Officers are members of every Municipal Board and are available for all the duties of Officers of health.

Extension necessary to smaller towns and villages.

15. I think then that any extension of a Public Health Service requires to be made in the Civil Department only, in the direction of towns and villages not yet brought within the sphere of municipal action, as appears to be clearly indicated in the Despatch under reference.

Some five months ago when putting together the materials for my Annual Sanitary Report, now going through the press, I passed this subject in review, and as I am desirous that the Government should know the opinion I then formed, before I was acquainted with the antecedents of the question as contained in the Proceedings of Government of the 2nd July last, and consequently before I had

any knowledge of the opinion formed by His Excellency the President of the Council and by the Government, I quote from that report as follows:—

Public Health Service.

"No further steps have been taken in this Presidency since the submission of the last Annual Report to give effect to the scheme proposed by the Honorable Mr. Ellis of a "Public Health Service" entrusted with the sanitary administration of the country. The recent appointment of additional Sanitary Commissioners to Provinces subject to the Government of India, indicates however that the necessity of extension of sanitary supervision of the country is fully recognized, and I hope that a scheme proposed by my predecessor for this Presidency may eventually be taken into favorable consideration. None of the new Sanitary Commissionerships affect this Presidency, and it is certainly very desirable that some extension should be given to sanitary supervision of the various districts under the Government of Madras.

"The several Municipal Commissions that have been established in many of the largest towns (a list of which is marginally shown) have given an undoubted impulse to works of sanitation, and will react to some extent upon the rural districts as the Civil functionaries exercising authority in such Municipalities, become more and more interested in an extension of a knowledge of the laws that govern and regulate the public health.

Adoni.	Conjeveram.	Mangalore.	Tanjore.
Bellary.	Coonoor.	Masulipatam.	Tellicherry.
Berhampore.	Cuddalore.	Mayaveram.	Tinnevelly.
Bimlipatam.	Cuddapah.	Munnargoody.	Trichinopoly.
Calicut.	Cumbum.	Negapatam.	Tuticorin.
Cannanore.	Dindigul.	Nellore.	Vellore.
Chicacole.	Ellore.	Ootacamund.	Vizagapatam.
Cocanada and Jugganakpore.	Guntoor.	Palamcottah.	Vizianagram.
Cochin.	Kurnool.	Palghaut.	Wallajapett.
Coimbatore.	Madras.	Rajahmundry.	
Combaconum.	Madura.	Salem.	

"But as Municipalities are only established in first class towns, the smaller towns and villages are left without any systematic sanitary supervision, and it is in this direction that the Health Officers proposed by Mr. Ellis will find such a wide field for the exercise of their important functions.

"As a State measure of large importance Mr. Ellis' scheme commends itself; while financially considered the annual cost (estimated at Rupees 1,08,000) may be accepted as very moderate, especially when viewed in relation to the incalculable benefits, the institution of such a health service will undoubtedly exercise upon the public health.

"The duties that would devolve upon the Public Health Officers (a better designation for the two grades of which would probably be "Sanitary Inspectors General" and "Sanitary Inspectors") have been laid down by Mr. Ellis, and are in general accordance with those proposed by the Sanitary Commissioner with the Government of India, in his Memorandum dated 17th January of the present year, the main difference being that, while Mr. Ellis proposes to make the Sanitary Commissioner not only the head of the Department of Public Health but Registrar General of births and deaths, Major Malleson would assign the latter Office to the Statistical Officer to the Inspector General of the Indian Medical Service.*

* In this Presidency there is no separate Statistical Officer to the Inspector General.

"It would appear that the first intention of the Government of India, was to designate the new Provincial Health Officers "Sanitary Inspectors General" which designation was subsequently changed to that of Sanitary Commissioner. It matters little what the designation of these Officers be; but I question whether they will be able to maintain that minute sanitary supervision of the extensive Provinces com-

mitted to their charge contemplated by the memorandum alluded to, without the aid of a subordinate staff of the nature indicated in Mr. Ellis' scheme, which is more comprehensive; but at the same time quite within the bounds of actual requirements.

"The only point upon which I am disposed to join issue with Mr. Ellis' is, the necessity for appointing Local Health Officers (Sanitary Inspectors) to Military stations. Under the new Cantonment Act I of 1866 the senior Medical Officer of every Military Station is a member of the Cantonment Board of Health under the designation of Sanitary Officer of the Cantonment.

"The class of Officers Mr. Ellis proposed to designate "Local Health Officers", I would attach to the Civil Department, to aid Collectors and Magistrates in maintaining the public health, leaving Military Cantonments to be administered entirely by Military authorities.

"Any extension in fact of the Public Health Service should be entirely, I think, in relation to the Civil community.

"I see however no objection to Mr. Ellis' proposal that Public Health Inspectors should have the privilege, in communication with the Military authorities, of inspecting Military buildings; but at the same time think that this right should be exercised only under special instructions from the Sanitary Commissioner, when in fact the latter Officer finds it necessary or convenient to delegate such duty to the Health Officer of any district. Within the limits of Municipalities, Local Inspectors might have full power; it is only within the precincts of Military buildings in Barracks and Hospitals that I would make inspections subservient to express orders from the Sanitary Commissioner himself."

16. The Government will thus see that I long since formed the opinion that any extension of sanitary supervision of the country should be in the direction of the rural districts. If this view be accepted, some modification of Mr. Ellis' scheme is necessary. Efficient supervision at the hands of educated Inspectors and Local Health Officers will, in my judgment, still be necessary.

In proposing that Military stations be excluded from the scheme, the Provinces of Mysore and Hyderabad and the Central Provinces will be without the circle of superintendence, leaving only the districts under the Government of Madras.

17. In order to determine the scale upon which Local Health Officers may be fixed, and the class of persons from whom they are to be selected it is necessary to refer to page 33 of the "Suggestions" to which the Right Honorable the Secretary of State directs the attention of Government, in paragraph 5 of the Despatch.

Under the Section (5) "*Officers of Health appointed for Civil duties in towns,*" the "very important" recommendation of the Royal Commission (No. 35), the text of which is given in the margin, is advanced; the appointment of Officers of health for Civil purposes to act for towns and districts, in the same way as Military "Sanitary Officers" act for stations, advocated; and the Secretary of State desires to be informed in what manner it is intended to provide for the execution of these duties. The agency through which sanitation is to be undertaken is defined to be "trained Medical Officers" and it appears equally contemplated that a Health Officer should be appointed to each *District* whose duty would be "to report on the whole subject to the local authority charged with executive duties for protecting the public health."

"That trained Medical Officers of Health be appointed to act in peace as in war in connection with the Presidency Sanitary Commissions."

The duties required of these Officers of Health, as laid down in the Section referred to, are manifestly of such a range as can only be performed by educated or trained Medical Officers of some grade.

18. The scheme then most in accordance with the recommendations of the Royal Commission as explained in the "Suggestions," is the appointment of Local Health Officers selected from the Medical Department (covenanted or uncovenanted) to each district under this Presidency, in connection with the Sanitary Commission; such Health Officers being the official advisers of the executive authorities (Collectors and Magistrates) in each district, corresponding with them upon all matters connected with the public health, and reporting periodically to the Sanitary Commissioner, as the official head of the department, the progress made, laying before him copies of all recommendations they may make to executive officers.

Mr. Ellis' scheme is consistent with this view of the case, except that it includes the appointment of Health Officers to military stations which, as I have already explained, I consider to have been met by the nomination of "Sanitary Officers" as members of all Cantonment Committees.

The duties of Health Officers are further explained under the next Section (6) "*Precaution against epidemic diseases*" and it is impossible after perusal of this section to arrive at any other conclusion than that the Health Officers must be selected from the Medical profession.

19. In addition to Local Health Officers who would be merely the official advisers of Collectors and Magistrates, it will, I think, be necessary to organize a staff of Inspectors in each district in numbers proportionate to area, number of towns and villages, and population.

These Inspectors I would appoint to certain groups or circles of villages, each circle to consist of such number of villages as the Health Officer, in communication with the Collector, may consider to be within the compass of efficient supervision. This class of men need not be highly educated. They would merely be required to know what are "nuisances," to spy them out, and report upon them, and might also be employed in removing them with such assistance as the Collector may place at their disposal.

The appointment of such "Inspectors of Nuisances" is clearly contemplated by Section 2 page 31 of the Suggestions, where their duty (I quote from page 31) is thus defined :—"In larger *districts** to report nuisances for removal by other Officers or to combine in his own person the inspectorial and executive functions."

20. The "Suggestions" then which the Right Honorable the Secretary of State considers "to constitute a good foundation for sanitary enquiry and work in India" fully justify my affirming that the public health of towns and villages is intended to be met by appointing a body of Medical Officers of Health in communication with the Government, through the Sanitary Commissioner, and in direct correspondence with Collectors and Magistrates, acting as their official advisers in all matters pertaining to the public health.

Lord Napier's scheme.

21. I now venture to touch upon Lord Napier's scheme, and this I do without reserve, as His Lordship has been considerately pleased to remove the difficulty and reluctance I naturally felt to comment upon his Minute.

* The italics are mine—J. L. E.

His Excellency's scheme comprises, 1st.—The nomination of a Sanitary Engineer, 2nd.—The appointment of Sanitary Inspectors to each district, and 3rd.—The development of the Civil Dispensaries as schools of instruction and education of the rising generation of Native doctors.

His Lordship's proposal to entertain the services of a special Sanitary Engineer, has my warmest approval. Drainage is the great want of the country. Absence of it is undoubtedly the main cause of the large amount of sickness and mortality that attaches to our troops and civil population.

I hail, therefore, with peculiar satisfaction, His Lordship's proposal to engage an officer skilled in the latest development of Sanitary Engineering; and if this portion only of Lord Napier's proposal gains the approval of the Supreme and Home Governments, a great advance will have been made toward the removal of the most active agent in the causation of disease (even amongst our troops, housed though they be in palatial barracks and cared for with the most anxious solicitude) malaria, which could be banished by careful attention to surface and sub-soil drainage, measures that have hitherto been entirely neglected in our Military Cantonments and Stations.

22. His Excellency's scheme in its second phase is consonant with the views expressed in the "Suggestions," since it contemplates the appointment of Sanitary Inspectors (Health Officers) to each District. It differs, however, in regard to the agency to be employed, although even here it may be made to fit in with those "Suggestions."

Lord Napier points to the Natives of India as being both on domestic, social, and religious grounds, best suited to the end in view, and proposes that men should be educated to the duties required of them. He considers that they would learn as quickly, would be more tractable, would have more local information, be more acceptable to their countrymen, and in some respects more settled and trustworthy than Europeans.

But if my view of the intentions of the Home Government in relation to the appointment of Health Officers be correct, the only class of Natives who are qualified to be Public Health Officers are the Native graduates of the Medical College, or if it be considered that so high a standard of education may not be necessary (although I by no means admit that it is not) a selection might be made from the ranks of the Native Subordinate Medical Establishment. The old class of 1st and 2nd Dressers have no doubt a very respectable amount of knowledge; but it hardly comes up to the standard advocated in the "Suggestions." If Native Agency then be employed, a class of men corresponding to existing "Native Surgeons" would be necessary as District Health Officers.

Believing, as I think I am justified in doing, that there is a disposition on the part of the Home Government, to give effect to the recommendations embodied in the "Suggestions," I am disinclined to advise the entertainment of a class of Health Officers, other than those who possess all the qualifications indicated in those "Suggestions."

23. But if Native agency, even of this nature, be employed, I think that supervision at the hands of European Health Officers of a superior class, as recommended by Mr. Ellis, will be necessary; and taking into consideration the extent of territory under the direct control of the Government of Madras, I do not think that

the number (4) proposed will be too many, even though Military stations be omitted from their supervision.

These Officers should be selected from the ranks of the covenanted or uncovenanted Medical Service; such selection being necessitated by the nature of the duties required of them as laid down in the "Suggestions" which, as I have before stated, point clearly to the nomination of Medical Officers.

I am not aware whether His Excellency the Governor, in proposing an educated or trained Native Agency, contemplates raising it from the ranks of the Medical Department, or of throwing the service open to Native graduates of the Medical College; but if I may judge from the range of duties His Lordship assigns to Sanitary Inspectors under his scheme, part of which is "to report upon the prevalence of maladies amongst men and cattle, and to complete the statistics of disease," I would infer that he does, as no other class of men would be equal to those duties.

In the subordinate grade of the Medical Department there are, I apprehend, some few who come up to the standard indicated; whether their services would be spared, is for the Inspector General Indian Medical Department to say.

24. In further elucidation of the views I have advanced, I give a sketch of the institution of a Public Health Service designed to act in towns and villages :—

1. Sanitary Engineer,
4. Inspectors of Public Health,
19. District Officers of Health,

A staff of "Inspectors of Nuisances" to be in charge of groups of villages, the numbers of each district to be fixed in communication with Collectors.

The duties of District Officers of Health are so clearly defined by Mr. Ellis in his Memorandum as to require no further illustration here. They would not however, under my scheme, have any thing to say to Military Cantonments and stations.

Development of Civil Dispensaries.

25. His Excellency the Governor's proposition to place the Civil Dispensaries upon a satisfactory footing, and to make them schools of instruction for the rising generation of Native Medical practitioners constitutes a most important element in the scheme, and, if carried out, will, in process of time, work an incalculable amount of good.

The subject did not escape me when preparing my Annual Report from which I quote as follows :—

Civil Hospitals and Dispensaries.

"The working of these charitable institutions in relation to the public health was not touched upon in last year's Report. They perform an incalculable amount of good in the alleviation of suffering and disease and are of inestimable benefit to the poor who resort to them. Prejudice undoubtedly exists amongst the better class of the community against admission within the walls of these institutions; but they are freely resorted to by even this class, as Dispensaries for out-door relief.

"The country is not yet however sufficiently advanced in civilization fully to appreciate the advantages of European medical and surgical skill or, perhaps I should rather say, that European Medical science has not been brought home to the masses residing at a distance from the larger towns in which these Hospitals are established.

"Since the Government withdrew from the entire control of these institutions, throwing them partly upon the charity of the people, making them in fact, in a measure, self-supporting (Government still finds the Medical attendant, medicines and medical and surgical appliances) some of them have languished, and have not at command, sufficient funds to enable the Committees of management to admit all applicants for in-door relief; but are compelled to restrict the number of in-patients, in many instances, to a very low figure. Certainly the more wealthy and well-to-do classes, have not given these institutions that support, the Government are justified in expecting. There are some very gratifying exceptions; but still the rule is as I have indicated. Native charity in fact finds expression in other ways. Hospitals for the sick are not the avenues through which to approach the Native mind in appeals for charity; but doubtless in time these institutions will find their way to their sympathies and be placed upon a better footing.

"In last year's Report the possibility of making them instrumental to the gradual education of the rising generation of Native doctors, to a point calculated to make them of practical use as agents for the introduction amongst the masses of a better appreciation of the benefit of European Medical science, was alluded to. No greater boon could be extended to the people than that of bringing to their doors, in every town and village, a rational system of medicine, and it is much to be desired that some scheme should be matured for making these provincial hospitals, schools of instruction."

26. This quotation sufficiently shows the importance I attach to the measure suggested by His Lordship which, if sanctioned, will inaugurate a new era in the medical annals of the country.

The possibility of establishing a systematic organization for affording medical aid and relief to the masses of the people, engaged the attention of Government so early as 1862 as noticed in the Proceedings of Government of the 10th of June 1867.

Dr. Mackenzie suggested the feasibility of introducing a system based somewhat upon the Punjaub plan, and Government directed Collectors to institute careful enquiries to ascertain whether the people generally would view with favor the adoption of a similar scheme, and could be induced to contribute, voluntarily, a cess to meet the expense of carrying it out. I am not aware that any reports have yet been received upon the subject.

If medical agency be employed in the Public Health Service of towns and villages, the important question of relief of sickness would go hand in hand with sanitation.

Native Hakeems might be educated at the Civil Dispensaries both as Sanitary Inspectors and Medical practitioners, and the appointment of Inspectors (under the designation of Inspecting Hakeem) to talooks or groups of villages, might be conferred upon the most deserving, and they would doubtless become a most valuable class of public servants, since in their relations to the people as alleviators of sickness and suffering, they would be in a position to bring home to the masses the necessity of abating those nuisances to which they would point as sources of the diseases they were called upon to combat.

27. If it be found practicable to raise the voluntary cess of $1\frac{1}{2}$ annas per house, per annum, the fund thus constituted would go a long way towards paying the cost of a sanitary establishment.

I may illustrate the point by the following statement. There are, by the last Census Returns 5,836,400 houses in the 19 districts into which this Presidency is divided. These houses at 1½ annas per house would yield Rupees 5,47,162-8-0. The cost of the Public Health Service, I have ventured to suggest, would be as follows:—

4 Public Health Inspectors at 1000 per mensem, per annum Rupees	48,000
1 Sanitary Engineer at 800	9,600
19 Health Officers of Districts at 200	45,600
156 Taluq Inspectors at 50*	93,600
Travelling expenses, Office allowance, &c., say	27,900
Total	2,24,700

This would leave a balance of Rupees 3,22,462-8-0 for the development of Civil Dispensaries and education of Native Hakeems as proposed by His Excellency the Governor. The incidence of the tax is so small, that even the poorest would scarcely feel it, while, when the benefits of the system are developed and brought home to the intelligence of the people, the more wealthy and well-to-do in the world may reasonably be expected to give more material aid.

28. The scheme certainly looks promising and encouraging, on paper, and the public health I humbly submit is as deserving of a special cess, as any other subject before the Government, not excepting education.

29. I now proceed to the consideration of paragraph 5 of the Right Honorable the Secretary of State's Despatch, in which he directs attention to pages 32, 33 and 34 of the "Suggestions", desiring "to be informed in what manner it is intended to provide for the execution of the duties therein indicated."

The pages referred to, discuss the following subjects :—

(*a.*) Duties of Sanitary Inspectors at stations, bazaars and Native towns.
(*b.*) Regulation of bazaars and Native dwellings.
(*c.*) Sanitary Police of Native Lines.
(*d.*) Officers of Health appointed for Civil duties in towns.
(*e.*) Precautions against epidemic disease.

30. The subject of the appointment of Officers of Health for Civil duties has been fully entered into ; the other questions refer mainly to Military Stations and Cantonments, and will be considered in the report on Military sanitation, now in course of preparation under the Orders of Government, in the Military Department, No. 2,961, of the 29th July 1868.

It will suffice here to say, in relation both to Military stations and Municipal towns, that the fullest provisions have been made in Act I of 1866 (Military Cantonment Act,) and Act X of 1865 (Towns Improvement Act) to give effect to all the recommendations advanced in the several Sections of the "Suggestions" referred to, and that Military and Municipal authorities possess the fullest powers necessary to the abatement of all nuisances and to the maintenance of the public health.

Precautions against Epidemic disease.

31. Under the head of "Precautions against epidemic disease" I may briefly state the measures that have been adopted in the Civil Department to prevent the occurrence of cholera at shrines, or on occasions of festivals or other large agglomerations of people that so often become the centres from which the disease spreads throughout the country.

* I have here assigned one Inspector to each Taluq.

In the Military Report, I shall state the measures that have obtained the approval of Government, and the orders that have been issued to protect the troops against the introduction of the pestilence from towns and villages adjacent to Cantonments.

Sanitary supervision of fairs and festivals.

32. The most earnest and unremitting attention has been given by the Government to the Sanitary supervision of fairs and festivals. In the last three years, every considerable agglomeration of the people has been brought under systematic sanitary control through the agency of Collectors of districts, the Police and the Medical Department. Funds have been liberally placed at the disposal of Collectors for carrying out all necessary measures of conservancy, rules for which have been drawn up in communication with the Sanitary Commissioner.

Report regarding the control of pilgrimages.

33. A report regarding the control of pilgrimages drawn up by a Committee of experienced Officers was submitted to Government on the 4th of December 1867, to which I need do no more than refer, as copies of it have already been sent for transmission to the Secretary of State. This was followed by a report upon the arrangements that should be made to give practical effect to the recommendations and suggestions of the International Cholera Conference, in which much of the same ground is gone over again, and later still, I submitted to Government a list of all the fairs and festivals held within the districts of this Presidency, with 'sketch' rules (that had previously received the approval of the Committee that drew up the Report last alluded to) for the conservancy of such fairs and festivals.

34. All of these Reports have been forwarded to the Secretary of State, and I need do no more here than refer to them and to the Proceedings of Government, in which the special measures that have been adopted at each festival to ward off disease, are fully detailed, in proof of the anxious solicitude and unremitting action that have been displayed by the Government in this most important question.

Abatement of Venereal Disease.

35. Measures that have been taken, or are about to be taken, to abate the prevalence of venereal disease in the Civil department must be briefly alluded to.

Contagious Diseases Act 14 of 1868.

36. The Contagious Diseases Act 14 of 1868 is about to be introduced into the Presidency town. 'Rules,' under clauses 2,5,11 and 21 of that Act have been framed by a Committee and have met the approval of the Government of India, and the necessary establishment has been sanctioned.

The introduction of the Act into Madras it is hoped is merely preliminary to its extension to all large towns, especially to sea-port towns contiguous to Military stations.

By a recent enactment* also the Government of India have made it possible for the expenses connected with Lock Hospitals to be borne by Municipal funds, which may be looked upon as indicative of a desire to extend the advantages of those institutions to the Civil population.

* Bill No. 18 of 1868.

37. The question whether the costly works of drainage and water supply referred to under Sections 1 and 2 of the 'Suggestions' can be carried out, and in what way the cost shall be provided, I am not in a position, neither is it in my province, to reply to.

Paragraph 5 of Despatch.

38. In regard to paragraph 6 of the Despatch, the Government some time since sent Captain Tulloch, R. E., to England, in view to his making himself fully acquainted with the system of drainage, water-supply, and sewerage, practised in England, while Lord Napier's proposition to obtain the services of a competent Sanitary Engineer, further anticipates the views of the Right Honorable the Secretary of State. Whether it is advisable that a larger number of officers of the corps of Engineers should be sent Home to study these questions, I beg to leave for the consideration of the Government.

Paragraph 6 of Despatch.

39. The question of the utilization of sewage appears by recent news from England to have been further advanced. Separation by subsidence of the organic fertilizing constituents, has been effected by Messrs. Sillar and Wigner of Manchester, by whose process it is said "that as much as 80 per cent. of the ammonia in the sewage is extracted and a manure produced which is worth fully £3-10*s.* per ton; while the water flowing off is clean and apparently thoroughly purified." Sir William Denison, Chairman of the "River Commission" is said to have witnessed the process in detail.

Utilization of Sewage.

Should the advantages of the process be confirmed, it may be advisable that an officer be deputed to make himself practically acquainted with it.

40. Registration of deaths which constitutes the subject-matter of paragraph 7 of the Despatch has been in operation in the different districts of this Presidency since 1865. Mortuary returns are regularly furnished through Collectors and tabulated in my Office. These returns are, however very crude and imperfect, as must necessarily be the case under the existing conditions of the country. They are, however, I think, capable of improvement. The population is returned *en masse*; while the deaths are distributed amongst the two sexes. But in the recent census, the results of which were communicated to me by the Revenue Board, the population has been rendered not only by sexes but by nationalities under the three heads of Christians, Hindoos, and Mahomedans. The Mortuary returns would, therefore, be rendered much more valuable if the deaths could be recorded for the two sexes under the different sections of the community above noted. I have put myself in communication with the Board of Revenue upon the subject, in view, if possible, to the adoption of a better system from January 1869.

Registration of deaths in the Mofussil.

41. At Madras itself, both births and deaths are registered, and the amended Municipal Act provides for a census being taken; but it has not yet been done, neither is the new system of registration working satisfactorily. Fewer deaths are recorded by "Registrars" than are reported by the Conicopolies under the old system, who are still retained as a check upon the Registrars. Registration is largely evaded. The subject has recently been brought prominently to the notice of the President of the Municipal Commission. It is very advisable that the census ordered by the Act should be undertaken: all is now guess work. I beg to recommend this subject to the attention of Government.

Registration at Madras.

In regard to registration of deaths in Military Cantonments, I recently submitted a plan, for the consideration of His Excellency the Commander-in-Chief, which is further alluded to in my report upon Military Sanitation.

In Military Cantonments.

Existing Municipalities in the Mofussil might, I think, be made the means of obtaining more accurate returns of mortality, if registration of deaths was enforced.

In existing Municipalities in the Mofussil.

One of the tables given in the 'Suggestions' (page 40) is for registration of deaths in all public institutions; and I think such registration might be introduced with advantage. As all institutions of this kind are under recognised medical care, reliable certificates of death in the form given at page 36 could be transmitted direct to the Sanitary Commissioner for tabulation and submission to Government. I leave this subject also for the consideration of Government.

In public institutions.

42. In paragraph 4 of the Despatch under reference, the Right Honorable the Secretary of State desires to be informed of the mode in which the Government satisfies itself, that the municipality of any given town performs its duty in respect to the maintenance of the public health. I am not aware what rules the Government have laid down to ensure their being kept acquainted with the progress made in sanitary measures further than through the annual reports and statements of expenditure. I would, however, suggest for favorable consideration, that the different Commissions might be called upon to submit annually a brief sanitary report drawn up by the Medical Member of the Board, and signed by the President and Members as evidence of their acceptance of its accuracy; appending to it such Minute or Minutes as may be necessary to show reasons for not carrying out the recommendations that may have emanated from their sanitary adviser.

Working of Municipalities in respect to the public health.

Annual sanitary progress reports suggested.

Annual reports of this nature have been sanctioned in connection with Military Cantonments, and might, I think, be advantageously extended to municipal towns.

43. I have now, I think, touched upon all the points referred to in paragraphs 4, 5, 6, and 7 of the Despatch; but I may be permitted to allude to measures that have been sanctioned by the Government, and are in progress of execution, bearing upon the health and welfare of certain towns and localities in which the state of the public health necessitated action.

44. The important station of Ootacamund has, on several occasions, engaged the earnest attention of Government. The reputation of this sanitarium has been for some years on the wane owing to the neglect of all sanitary precautions. It was hoped that, when in 1865 it was placed under Municipal law, some improvement would result; but it was found to be beyond the powers of the infant municipality to cope with evils, the result of long years of sanitary neglect. It became, therefore, necessary for the Government to institute an inquiry upon the existing condition of the station and the means necessary to be adopted to remove conditions of insalubrity that had been reported by the Senior Medical Officer. This duty devolved upon me, and my report was forwarded to Government on the 23rd May 1868.

Measures taken by Government in relation to the health of towns.

Ootacamund.

In that report the necessity for immediate action was urged, the inability of the Municipal Commission to deal with the evils that had been for years growing up within the station was advanced, and the Government, fully and readily admitting the claim the station had to consideration, sanctioned an advance of Rs. 20,000 as a grant-in-aid, and offered a loan of Rupees 40,000, with which sum the Commissioners will be able to remedy existing evils and to restore the sanitarium to its pristine healthfulness.

But independent of these measures of ordinary conservancy, the Government have also sanctioned, at a considerable outlay, of the general revenues, a water project, by which a pure supply will be brought to every house from regions far above the possibility of pollution; large impounding reservoirs being formed in two localities, one destined to supply the north and the other the south side of the station.

Further, a sheme for reclaiming the head of the lake, a large swamp or marsh, into which all the sewage of the Native town finds its way has also been sanctioned, and the work has been commenced. But this is not all. A scheme of sewerage by water carriage has been submitted by Captain Tulloch of the Engineers, and is under consideration, by which it is proposed to convey all the sewage by an intercepting sewer to the distant end of the lake, discharging it into a natural ravine. It is just possible that the measures that have been recently sanctioned for the improvement of the drainage and conservancy of the bazaars may render this costly scheme unnecessary.

Kurnool.

45. The sanitary condition of the town of Kurnool, in which much sickness has prevailed both amongst the troops and civil community, has also engaged the attention of Government. In 1867* the Honorable Mr. Ellis, then Sanitary Commissioner, submitted a report upon that station in which he graphically depicted the insanitary state of the town, bringing at the same time to notice that the limited income of the municipality would be utterly inadequate to institute a complete system of drainage, to widen the streets, to erect suitable market places, slaughter houses, and public latrines, and to distribute and protect the supply of water. The Government called for reports and estimates of the probable expenditure necessary to remedy the evils brought to notice. The duty was assigned to a Special Committtee, who submitted a rough estimate of Rupees 95,000 for levelling the old walls of the town, and for a system of sewerage and drainage. On the 20th of June last, the Government passed the following order upon the recommendations of the Committee.

* Proceedings of Government 22nd May 1867.

"The suggestions of a Committee of the Municipal Commission of Kurnool for the improvement of the sanitary condition of that town appear to the Government to be well calculated to remedy the defects of conservancy which, it is feared, may have exercised some degree of influence in the propagation of the severe sickness which has of late prevailed there. His Excellency in Council is fully disposed to recognise the claim which Kurnool, as the present seat of the chief Revenue and Judicial Officers of the district, and as the location of a Native garrison, has upon the State for assistance in carrying out such measures of sanitary improvement as may be necessary for the security of the public health, and he will be prepared to take into consideration the propriety of addressing the Government of India for a grant-in-aid to the Municipality for that purpose, on more complete plans and estimates being submitted.

"2. These papers will therefore be forwarded to the Superintending Engineer of the 3rd Division, whose attention is called to Proceedings No. 3603, dated 21st November 1867, and, in continuation of the orders there given, he is directed to place himself in communication with the Municipal Commissioners of Kurnool, and, in conjunction with them, to prepare and submit all the necessary plans and estimates in full detail."

Nurses for Hospitals.

46. Amongst other subjects that have engaged the attention, and received the support, of the Government in the Sanitary Department may be mentioned the institution of a corps of nurses for the public hospitals.

Doctor Mackenzie's Scheme.

In January of the present year, Dr. Mackenzie, the Inspector General of the Indian Medical Department, addressed the Government, suggesting the introduction of an improved system of nursing, by obtaining from England a qualified Lady Superintendent, and a small number of trained head nurses, and by opening a training school for the education, as nurses, of the inmates of our Female Military and Civil Orphan Asylums.

In the communication referred to, Dr. Mackenzie entered somewhat at length into the organization and working of the Nurses' institute (if I may so term it), but which I need not recapitulate here. Suffice it to say that it was proposed first to introduce the system into the female hospitals only, leaving its extension to male hospitals for future consideration.

Trained male nurses recommended.

It was further advanced that in the face of all the difficulties in this country of introducing female nurses into hospitals for *males*, Military or Civil, that it would be found a more practicable scheme to train Native *males* for this purpose; and this view Dr. Mackenzie supported by a reference to the opinion of the late Sanitary Commissioner and the Physician of the General Hospital. Native males, it is advanced, make "good sick-tenders, are light handed, gentle, quiet in their movements, patient, easily taught, stronger than women, and not so easily fatigued, give no trouble about food, are especially useful in cases of insanity and delirium, and if well trained under a head nurse would furnish a staff of most efficient 'nurses.'"

Favorably viewed by Lord Napier.

His Excellency the President in Council minuted upon the letter. He admitted that "the time is approaching when an improved system of nursing by respectable female agency may be introduced with advantage into this Presidency;" alluded to the improvements recently made in the organization and administration of the hospitals of the Presidency town; touched upon the measures in progress for the better accommodation of the sick among the female population; referred to improvements introduced into the Lying-in-Hospital; to the establishment of Lock Hospitals, and to the general progress made in the important system of the whole Presidency which, it was pronounced, "would soon be rendered worthy of Government and conformable to the requirements of the age, if the exertions of Medical Officers were supported by a class of nurses properly trained for this duty."

Lord Napier proposed that there should be procured from England, through the instrumentality of Miss Nightingale, a Lady Superintendent and four head nurses, and that 24 probationers or pupils should be placed under their training; thus

giving some expansion to Dr. Mackenzie's scheme, who proposed three head nurses only.

In regard to the question of the employment of female nurses in male hospitals, His Lordship offered no positive opinion ; but considered that it would be necessary "to feel our way," but his leaning is evidently towards female nursing even in male hospitals.

In conformity with the views expressed in the Minute, a letter was addressed to the Secretary to the Government of India in the Home Department, under date the 8th May last, for the favorable consideration of the Government of India.

The annual expense of the scheme was estimated at about Rupees 25,000, and the first expenses attendant upon the passage and outfit of the Lady Superintendent and four nurses, stated at Rupees 8,000.

A letter would also appear to have been transmitted to the Secretary of State, for on the 5th of August a despatch dated 30th June was read,* in which the Right Honorable the Secretary of State signified his readiness to give the proposal his best consideration when placed in possession of the views of the Government of India.

* Proceedings of Government, 5th August 1868.

Government of India unfavorable to the scheme.

The reply from the Under Secretary to the Government of India, under date the 5th June 1868, is found in the Proceedings of Government of the 13th August. It is unfavorable to the scheme, and this Government is referred to the "Calcutta plan," by which private charity, aided by a grant from the State, supplies female nurses both to the "General and Medical College Hospitals," as more efficient and economical. This letter was accompanied by a voluminous correspondence, by which it is shown that the institution at Calcutta, known as the "Lady Canning's Nurse Institution," though opened under most favorable circumtances has lately manifested a tendency to decline in usefulness, from a falling off of the private subscriptions and donations, and that it was in consequence compelled to solicit aid from Government.

The Government of Madras in their reply under date the 13th August advanced that it is hopeless to appeal to the Madras public in aid of funds for a similar institution in this Presidency ; and again urgently and earnestly pleaded that their proposal as contained in the Chief Secretary's letter of the 8th May, may obtain the sanction of the Governor General in Council. To this reference no reply has as yet been received.

47. The advantages of trained female nurses as a part of the administrative staff of every large hospital are so fully admitted, that I have nothing to add to the remarks that have fallen from Dr. Mackenzie and the President of the Council, Lord Napier. Efficient nursing is as essential to the well-doing of many cases of sickness as medical treatment. Indeed, in some cases, moreso, life and death often hanging upon the timely administration of stimulants and nourishment, the adhibition of which must necessarily be left in the hands of attendants or nurses.

Woman is, for wise purposes, especially endowed with those capacities of heart, sympathy with suffering, untiring unselfishness, and self-denying vigilance, that make up the sum of good nursing. It is not too much to say, that under the existing system of administration of our hospitals, many lives are lost that might otherwise be saved to the State. I asssert this deliberately after extended experience in military and civil hospitals.

48. This leads me to touch upon the subject of trained *male* attendants for our military hospitals instead of nurses.

Without detracting from the merits Dr. Mackenzie has attributed to Native male attendants, there is one qulification, and that an important one, in which they are notoriously deficient, the ability to keep awake. So long as the sick man is wakeful and constantly calling for aid, Native attendants do well enough ; but in instances where the patient lies in a state of drowsy listlessness as in the concluding stages of many diseases, cases in which the restorative must be presented to him and without which the breath of life will insensibly pass away, in such instances, the Native with the best intentions *will* fall asleep. It is proverbial that he cannot keep awake, and such is my experience. I could re-call numberless instances in which the strictest injunctions had been given to Native attendants, the necessity for vigilance and the regular adhibition of restoratives being fully ex ed, in which, nevertheless, I have found them asleep at critical periods. When in charge of European troops, I frequently visited hospitals to see critical cases during that most important period of the 24 hours, from midnight to daydawn, and almost invariably found the attendant asleep. This inability to keep awake, unless actively employed, is the great drawback in the employment of the Native as an attendant upon the sick. If, therefore, males must be employed for this duty in Military Hospitals, I would advocate a system somewhat upon the model of the "Army Hospital Corps," soldiers of good character being trained to the duties of nurses.

49. I may be here permitted to pay a passing tribute to the soldier as an attendant upon a sick comrade. Nurse, in the true acceptation of the term, from want of special training, he is not ; but he is thoughtful, kind, and vigilant, and, according to my experience, and I have had a large share of duty with European troops, to be implicitly trusted to carry out directions, if the nature and importance of his duties are clearly explained to him. To give him, however, an interest in his work he should be a friend of the sick man and not, as is the case in some regiments, merely told off for the duty according to a regular roster.

50. The question of female nursing in our Military Hospitals is undoubtedly surrounded by many difficulties ; but I do nct consider them formidable or insuperable.

If a woman respects herself, the soldier will also respect her. It is not, I apprehend, contemplated utilizing nurses in general wards ; the wards for instance set apart for venereal cases or for ordinary trivial ailments, do not require their ministration. They would be out of place in the one case, and unnecessary in the other. It is only in grave cases of disease where strength has to be supported by vigilant administration of restoratives and by those ministrations that woman only is thoroughly fitted to undertake, that the trained nurse will find her vocation. Such cases will generally be segregated from the mass of patients ; so that nurses need not necessarily be brought much into contact with the general sick.

In all European Military Hospitals, General or Regimental, a 'nurse' is borne upon the establishment. She is, however, supposed to be more a midwife, than a nurse and finds her duties only in the women's ward.

Nurses properly trained and conversant with the duties of lying-in-wards (but not necessarily diplomaed midwives) would, I think, find most useful occupation in Military Hospitals and be of inestimable assistance to the Medical staff. In every Regiment or battery there would, I apprehend, be readily found women willing to undergo the necessary course of training to fit them for their responsible duties. Two women for a Regiment of Infantry, Cavalry and a division of Artillery, and one for a single Battery or wing of a Regiment would, I think, suffice. The salary at present given to soldiers' wives acting as hospital nurses in female wards is too small, however, to attract the class of women desirable; but for a salary of Rupees 25 a month, I believe that eligible women of good character, would come forward in sufficient numbers, especially if granted a small stipend during their pupilage. Apart from the consideration of humanity, I believe that the employment of trained nurses, in our Regimental Hospitals, will save some valuable lives and more than repay the State for the outlay upon their salaries.

I recommend this proposition of the education, and employment of soldiers' wives in our Regimental Hospitals, in connection with, and as a graft upon the scheme now before the Government. The wife of a soldier in any Regiment or Battery will, I believe, be more acceptable to the sick and conduce more to discipline than the introduction of strangers.

51. Having touched with as much conciseness as possible upon the principal questions bearing upon the public health of this Presidency, that have engaged the attention of Government, I may be permitted to say, in conclusion, that the sanitary future of the country is promising, and that it only awaits the development of a scheme, by which the number of the larger towns under municipal law may be increased, and rural districts be brought under the supervision of an organized Public Health Department, to be all that the most earnest advocate of the cause of sanitation can reasonably desire under the present condition of native society and civilization.

The first fruits of the measures that have been adopted in the control of fairs and festivals; in the sanitation of the larger towns under Municipal, and of Military Cantonments under Military law; in the introduction of the "Contagious Diseases Act" into the Presidency town; and in the various sanitary improvements that have been commenced throughout the country, are now being gathered, and may reasonably be expected to increase a hundred fold when the whole country is placed under organized sanitary supervision.

I have the honor to be,
Sir,
Your most obedient Servant,

J. L. Bowring.

Sanitary Commissioner for Madras.

Madras 1868 Govt
Public

dispatch with
Hon: Govt &
papers regard
to thereon.

From
The Sanitary Commissioner
Madras
No 1074 A

L/10
R/1 & Oct.
No 1900

Expresses his views on the
points noticed in the Despatch
of the Secy of State of 23 April
last regarding Sanitary
improvement in India

PUBLIC DEPARTMENT.

No. 905

FROM

THE HONORABLE R. S. ELLIS, C. B.,
Chief Secretary to the Government of Fort Saint George,

TO

THE SECRETARY TO THE GOVERNMENT OF INDIA,
HOME DEPARTMENT.

SIR,

I am directed to acknowledge the receipt of the letter from the Secretary to the Government of India, No. 77, dated 6th July 1868, enclosing a Despatch from the Right Honorable the Secretary of State for India, No. 14, dated 23rd April 1868, (Sanitary,) and with reference to this correspondence, to enclose the Proceedings of the Madras Government of this date, No. 904, reviewing the reports of the Sanitary Commissioner which ~~were required from that officer~~, with a view of affording to the Government of India ~~...~~ to the Secretary of State the fullest information on the progress in sanitary improvement made in this Presidency since the subject first attracted the special attention of the Government of India.

I have the honor to be,
Sir,
Your most obedient Servant,

FORT SAINT GEORGE,
5th April 1869.

Chief Secretary.

Public

Home 1869 Dept.

[ ]

From Government of Fort St. George.

Dated July 5 } No.
R. Enclosures
spare copies

D. No.

No. 905 Progs. { D. No.

Nos 9–14

7 Nos 80 of 1870.

Forwarding Thos. of Govt. [redacted] returning the reports of the Sanitary Commrs showing the progress made in Sanitary improvement in this Presidency the subject first at attracted the special attention of Govt

No. 736.

From A. MACGREGOR, Esq., Acting Secretary to the Board of Revenue,

To the Acting Secretary to Government, Rev. Department.

SIR,

WITH reference to the Government Order, dated 31st August 1868, No. 1,076, Public Department, I am directed to inform you that the registration of deaths in the Provinces was initiated in 1865, and that of births in 1868.

2. The returns are rendered monthly by the village Revenue Establishments, and are tabulated in the offices of the Collectors, where alone a small special establishment is maintained for the purpose. A general return from the Collectorate returns is prepared here. The accuracy of the village returns is tested by the Tahsildary establishment. Copies of the forms in use lately revised are appended.

3. The registration of births and deaths not being compulsory by law, the village Officers are obliged to procure the necessary information, as they best can, from midwives, keepers of burial grounds, etc. Owing to the frame-work of society in our rural communities, no difficulty is experienced on this score, and in *Government villages* the returns may be made correct. More or less delay occurs in getting in the returns; but this will cease when the work becomes more familiar, and its importance is appreciated.

4. In *Zemindary* villages the Government have no establishments. The Zemindars are obliged by law to maintain Village Curnums or Accountants; but the registration of vital statistics is not one of the duties imposed by the law on these Officers, and consequently they cannot be *compelled* to perform it. The utmost difficulty is experienced in getting in the returns for these tracts of country, aggregating about a fifth of the Presidency, and their accuracy is generally questionable.

5. In *towns*, also, the present system is defective. Domestic events are not matters of notoriety as in small village communities: the people are less amenable to the influence of the village officials, whose time, moreover, is more fully taken up by their own duties. The Board lately referred to Collectors on the subject, and the replies received show a general conviction that special measures are necessary as regards both Zemindaries and towns.

6. The system adopted in London, to which the Barrack and Hospital Commissioners point as a model for the Presidency and large towns, is described by them to be as follows:—The city is divided into districts and sub-districts; each "district" has a Superintending Registrar; each "sub-district" a Registrar. The latter are supplied with a Register Book, in which each death is registered from information supplied by some person present at the death, who is required to produce a Medical Certificate of the death. When the death is registered, the Registrar gives a Burial Certificate, without which the burial cannot take place, save in rare cases of urgency, when the Clergymen himself is bound under penalty to give notice to the Registrar.

7. Circumstances do not permit the adoption of this system, as regards the Native population, even of large towns.

8. The measures which seem to the Board most necessary at present, is the enactment of a law, rendering the registration of births and deaths compulsory. Its main provisions would comprise the appointment of Registrars, to whom notice of such events should be given within a stated period, under penalty for omission; power to require Medical men, Midwives, Clergymen, persons in charge of burial and burning grounds, and persons having similar means of knowledge, to report them to the Registrar; power to impose on Zemindars and their Village Officers the obligation of making such registrations; and penalties for making false returns, and other offences.

9. The Act should be drawn so as to apply only to such towns, villages, and tracts of country, as Government may from time to time ordain.

10. An Act of this nature would necessarily need to be applied with caution; but without such a law, it seems to the Board hopeless to expect the establishment of a really effective system

of registration. It would be unnecessary, as well as inexpedient, to apply such a law to our rural communities; and even as regards town limits, its operation for the first year or two should be limited to places where there is some Government Officer of experience and judgment to superintend its working. The system in force in England is not the growth of a year, and progress in India, owing to the prevailing ignorance of the masses, must necessarily be slow.

11. The Board have already made a similar suggestion, and Government remarked that the subject would be considered when the Municipal Act comes under revision.

12. The treatment of the subject as other than an Imperial one is to be deprecated. The Municipal Act applies only to a few towns, and Municipalities are not under sufficiently close control by Government to render their intervention in such a matter as collecting statistics desirable. The saving in cost will be very trifling, and certainly not enough to counterbalance the disadvantage of entrusting duties of this nature to other than Government agency. Experience proves that, in this country, the most successful plan is for the Government to initiate, and when the system is thoroughly organised, and the people are familiar with it, gradually to transfer it to them.

13. The next necessity is the provision of a special establishment for the large towns. If the Government wish the work to be done well, they must be prepared here, as in England, to give reasonable remuneration to the Registrars. If an Act be passed and applied, as it has been proposed, the divisional Officers would take the place of the Superintendent Registrars of London. They would require no special remuneration; but the Registrars, (of whom there would seldom be more than one,) should certainly receive a moderate allowance and would need the assistance of one or two Peons. Probably, for a monthly payment of 25 or 30 Rupees, a Collector could, in every large town, secure the services of a competent person holding some office not occupying the whole of his time. It may be anticipated confidently that unless Government deal liberally—especially at the outset—success is hopeless. There are difficulties enough in the ignorance, apathy, and suspiciousness of the people, without superadding the *vis inertia* of gratuitous labor. An expenditure of probably not more than £5,000 per annum, (including the £1,026 for existing establishments,) would admit of fifty of the chief towns of the Presidency being [illegible], and this is a very moderate charge under the circumstances. The Presidency comprises an area of 131,000 square-miles; it contains nearly 55,000 villages; and its population, by the last census, was twenty-six and a half millions.

I have the honor to be,
Sir,
Your most obedient servant.

Acting Secretary.

REVENUE BOARD OFFICE,
Madras,
3rd February 1869.

To the Secretary to Government,
with forms A. and B.

Exd. F. R. Bantleman.

41

Proceedings of the Madras Government, Public Department,

April 1869.

Read again the following papers :—
Proceedings of Government, Military Department, dated 29th July 1868,
Do. do. Public Department, dated 31st August 1868.
Read also the following papers :—
From the Sanitary Commissioner, Madras.
(Here enter 27th November 1868, No. 2132).
Report from do. do.
(Here enter 10th October 1868, No. 1074A).

ORDER THEREON, 5th April 1869, No. 904.

In compliance with the orders of Government, Surgeon Major Ranking, the Sanitary Commissioner, has, in the report above recorded, supplied the information required by the Right Honorable the Secretary of State in his Despatch, dated 23rd April 1868, on the various points indicated, so as to show the progress made in sanitary improvement in India, since the subject first attracted the special attention of the Government of India.

2. The Secretary of State, in this Despatch, inquires with reference to Military sanitation, first, what arrangements have been made for introducing into the Indian Medical Service, the sanitary provisions contained in the regulations issued by Lord Herbert, under date the 7th October 1859, and which are contained at page 44 of the "Suggestions in "regard to sanitary works required for "improving Indian stations," published in 1864; second, how far it has been found possible to give effect to the recommendations made by the Commanding Officers for removing causes of disease pointed out by Medical Officers in Barracks and Cantonments.

3. With reference to the first of these queries Government observe that complete uniformity of the system of Army Medical Statistics, by Medical Officers of the British Service in England and India, was enforced in the order of Government constituting the Sanitary Commission in this Presidency. But previously to this the duties of Medical

Officers on the Indian Establishment had been assimilated to those of the officers of the British Medical Service, (vide G. O. C. C., 24th October 1863). In the order just referred to, Medical Officers of the Indian Establishment were charged with the general sanitary supervision of the Army, in addition to their professional duties as regarded the sick under their care.

4. All returns of the two Services have been rendered, as far as possible, identical, and the departmental orders in the Indian Medical Department have impressed upon the members of it the necessity of a strict adherence to the regulations laid down in Section 20, of the "Suggestions."

5. This Government has also sanctioned the preparation of a new Medical Code, which will comprise in it all of these regulations, which are applicable to Native Troops, and to the various charges held by Medical Officers of the local service. Medical Officers of the British Medical Service are in India, as in England, bound to carry out the Regulations referred to in their entirety.

6. It is observed, with reference to the second question, that all recommendations made by Commanding Officers, for removing causes of disease pointed out by Medical Officers in Barracks and Cantonments, have invariably received immediate attention. When these recommendations involve a large expenditure they are usually referred to Special Committees, of which the Sanitary Commissioner is ordinarily a member.

7. It will also be observed, from the Appendix A of the Sanitary Commissioner's report, that, in the orders issued by this Government, abundant evidence is to be found that, practically, all matters of sanitation have been made the subject of Regulations binding upon the Officers of Government in the several departments under its control.

8. Indeed, such stress is laid upon the value of the "Suggestions" noticed in the Despatch under notice, that this Government have ordered them to be reprinted and distributed to all departments interested, and especially to Administrative and Executive Officers of the Engineering and Medical Departments.

9. The attention of Government has since the creation of a Sanitary Commission (1864), and subsequently when this merged into a single Officer the Sanitary Commissioner, been steadily directed to the following important measures of conservancy in Cantonments, stations, and Military buildings.

(1.) *Drainage.*—The drainage of barracks, which had been much neglected, is undergoing a gradual improvement, and measures are being adopted to carry off rain-water, which has been too often allowed to sink into the basements of buildings which have been thereby rendered damp and probably unhealthy. The provision of suitable channels had, however, been overlooked in the original construction of these buildings. The surface drainage of several stations has been hitherto chiefly effected by natural means, but in certain cases open or closed masonry drains have been, or are now being, constructed to carry off surface drainage to the nearest natural outfall. Subsoil drainage has not yet been introduced, but this question has been referred to the Department of Public Works.

Sewerage.—This is chiefly effected by closed or open masonry drains of brick or stone, but the former of these materials is found illsuited for such a purpose; and the adoption of pipe drains of well glazed ware has been determined on for a portion of the Military station of Bangalore. This system has for some years been adopted with success in the town of Madras, and will probably be extended to other towns and stations.

(2).—*The disposal of sewage* is necessarily regulated, to a considerable extent, by the nature of the system of conservancy adopted in Barracks, Hospitals, and other subsidiary buildings. The dry-earth system of conservancy has been universally introduced into all Military buildings, and may be emphatically pronounced to be generally a perfect success; in the few instances where it has failed to be entirely successful, this failure is due either to the difficulty of procuring earth of a suitable character, or sufficient in quantity to last during the prolonged monsoon rains of the Western Coast. In some instances, moreover, the old buildings which have been adapted for this system are with difficulty made suitable for it, but all new buildings which are ordered to be erected are constructed specially for this system upon plans designed by the Sanitary Commissioner, or upon principles laid down by him. Self-acting apparatus are being introduced into all European Hospitals and Barracks, and promise effectually to promote the efficiency of the conservancy, and to limit as far as possible the increase of establishments. Dry-earth latrines for natives have also been introduced, and are freely used in Regimental lines and to a certain extent in Towns where Municipalities have been formed. The expense of carriage involved in the system, which has prevented its extension will, it is hoped be greatly reduced when the natives become aware of the value of poudrette as a manure. The water-carriage of sewage is contemplated for the city of Madras, and in connexion with it the question of the utilization of liquid sewage will have to be considered.

10. The Sanitary Commissioner's report gives, in detail, the present condition of matters regarding the measures taken for an abundant and pure water supply.

It is observed that considerable attention has been recently paid to this important subject, and it is hoped that when the system alluded to at page 9 of the Sanitary Commissioner's report has been carried out, a mass of information will be collected, which will prove of great value in enabling the authorities to secure, for troops and civil communities, the data for the selection of the purer sources of water supply. The conservancy of "*rain roof water*" has attracted the attention of Government, [redacted]

11. Regarding the "*Principles of Barrack construction,*" the Sanitary Commissioner indicates, at page 12 of his report, the vast improvement which has been effected of late years in these buildings; and it is shown that, where new buildings have been erected, they have been built in general accordance with the principles inculcated in the "Suggestions "in regard to sanitary works required "for improving Indian stations." The large amount of expense involved in the immediate and full compliance with the "Conclusions" of the Government of India must, for a time, delay the complete elaboration of the various plans recommended by the War Office Committee in their "Suggestions;" but it is satisfactory, that in so far as has been possible the general principles of construction have been adopted, and that the health of the soldiers is no longer endangered by overcrowded and ill-ventilated barracks, while for the Non-Commissioned Officers, and for married men and their families, excellent accommodation is now provided.

12. In the improved construction of *Bath-rooms* and *Lavatories*, and in the institution of swimming baths the soldiers now find themselves provided with means

of complete ablution, so essential to health and comfort in a tropical climate; in some respects, however, the fittings of the lavatories and bath-rooms, and the modes of replenishing swimming baths, are capable of improvement; but this cannot be carried out until the water supply and the mode of its distribution are arranged upon a more satisfactory system than is now practicable. These matters will receive the most careful attention of Government.

13. *Cook Houses* have undergone a marked improvement during recent years: where the introduction of "ranges" has been effected, it has been followed by a considerable diminution in expenses for fuel, and by vastly improved cleanliness and thorough cooking of food; the improved construction of these buildings will also allow of intelligent European supervision, and the quality of food provided for the soldiers receives constant attention, and is satisfactory.

14. *Recreation rooms* and places of amusement have been provided for the soldiery, and separate buildings have, in many instances, been set apart for this purpose.

15. *Laundries.*—The desirability of introducing these establishments, as providing a means for the economic employment of native labor under the remunerated supervision of some of the wives of the soldiers, will receive early attention.

16. *Principles of Hospital Construction.*—With reference to these buildings it is observed from the report of the Sanitary Commissioner that the "Conclusions" of the Government of India regarding their construction are in general accord with the recommendations in the "Suggestions;" and that the number of beds provided for the sick, and the allowance of superficial area and cubic contents per bed, are such as to insure the healthful condition of sick wards to the fullest possible extent, not only for European, but for Native troops.

17. *Sanitary Police of Barracks, Hospitals, and Stations.*—The Regulations in force, both in the British and Indian Services, impose upon Regimental Military Officers the sanitary supervision of the barracks and lines of the men under their charge; while more comprehensive questions affecting the general health of the troops or the general sanitary administration of the station, are entrusted to senior Medical Officers of position and experience.

18. The Rules and Regulations for Military Cantonments provide for the appointment of Sanitary Inspectors of Nuisances, who control the management of all slaughter-houses and markets within Cantonment limits.

19. The bye-laws under Municipal and Cantonment Acts are full and comprehensive, and in accordance with the recommendations contained in the "Suggestions."

20. *Sanitary Condition and Police of Native Lines.*—In scarcely any respect has there been a greater improvement effected, of late years, than as regards this subject. The lines of Native Regiments have been, in many instances, rebuilt as at Arcot, Kurnool, Madras, and in those Stations where it was not absolutely necessary to rebuild the Lines they have been much improved. The drainage of these places is not yet, however, completely satisfactory, and this and the water supply are still susceptible of considerable amelioration. And the attention of the Government will be carefully directed to this subject. The general conservancy of native lines is under the immediate control of the Quarter Master of the Regiment, and of the Medical Officer in charge, the latter being the Consultative, and the former the Executive, Officer.

21. *Precautions against Epidemic Disease.*—The Sanitary Commissioner's report indicates the general measures that have been taken for the prevention

of epidemic disease, in Military stations and among troops when marching. There is before the Government very satisfactory evidence in the reports of the Local officers from all parts of the Presidency that under due sanitary control, festivals and fairs have ceased to be, during the last five years, the cause of the origination and dissemination of epidemic disease [illegible]. The control of pilgrimages, the management of fairs and festivals, and the introduction of the Contagious Diseases' Act, promise effectually to guard the soldiers from the danger of epidemic disease.

22. *Registration of Deaths.*—In the Sanitary Commissioner's report is detailed the system of Registration which has been approved by Government, and which is in close accordance with that laid down in the "suggestions."

23. As regards the subject of health of Towns and Civil Stations, the Secretary of State, in the despatch above recorded, desires information of the organization by which it is proposed, under the Medical Sanitary Inspector's supervision, to secure the health and cleanliness of towns and villages. In respect of the larger towns, in which Municipalities have been established, the Secretary of State inquires the mode in which the Government ascertain that the Municipality of any given town perform its duty in protecting the public health, and what arrangements are proposed for attaining the same object in small towns and villages. Attention is also directed to paragraphs 32, 33, and 34 of the suggestions in regard to sanitary works required for improving Indian stations, published in 1864, and a report is required as to the manner in which it is intended to provide for the execution of the duties therein indicated.

24. The question is also raised of the desirability of sending competent Engineer Officers to England to study the systems of drainage water supply, sewage, irrigation and other general sanitary improvements now in operation in this country.

25. The necessity of the introduction of a uniform system of registration of deaths, and a periodical census, is also urged upon the attention of the Government.

26. With reference to the suggestions of 1864, the Secretary of State desires to be informed what steps have been taken for giving effect, in each Presidency, to the recommendations contained in the suggestions; and reference is made to the possibility of a Manual, founded on the suggestions and the reports founded on them, of principles and instructions, being prepared by a competent officer, which would be of the greatest service to all officers employed in the Public Health Department.

27. In the Civil sanitary report submitted by the Commissioner, the information required in paragraphs 4, 5, 6, 7, and 8 of the Secretary of State's Despatch is very fully afforded. It is shown in this report that, in all the more important towns, Municipalities have been formed with very considerable local funds at their disposal, and that marked progress has been made in such towns in inaugurating measures for the protection of the public health. By the submission, for sanction, of the Annual Municipal Budgets which exhibit the details of local taxation and expenditure, and by the Annual Reports required from each Municipality, the Government are able to exercise a very sufficient control over the Municipalities throughout the country. It has seldom been necessary for the Government to interfere with Municipal action, nor has there been any disposition on the part of the Municipalities generally, to evade the performance of their duties.

28. The introduction of a complete system of sanitary inspection throughout the country, more especially in the smaller towns and rural districts, the best

method of providing funds for this purpose, and for the necessary sanitary works, the extension of the scope of the Civil Dispensaries, so as to popularize the European system of medicine, have all received the earnest attention of this Government, and their proposals on these subjects, which are fully described in the Sanitary Comissioner's report, paragraphs 12 to 15, have been submitted to the Government of India.

29. In the scheme which is described in the Minute of His Excellency the Governor, and forms part of the Proceedings of Government, dated 2nd June last, it is proposed to engage an officer specially acquainted with the latest improvements of Sanitary Engineering; and whether this scheme is approved by the Government of India, or some other is preferred, the Government have no doubt that special instruction in this branch of Engineering is greatly needed by those Officers to whom will hereafter be entrusted the more important sanitary works in the densely-populated towns of this Presidency.

30. Considerable improvement has been effected in the preparation of the Mortuary Returns now furnished from every district of this Presidency, and the Board of Revenue are engaged, in communication with the Collectors, in perfecting these statistics.

31. The revision of the Municipal Law (Towns' Improvement Act) will also afford an opportunity for securing Returns of births and deaths from the principal towns of the Presidency, and a scheme has been submitted for the approval of His Excellency the Commander-in-Chief for obtaining similar returns from Military Cantonments. The question of a careful periodical census is also under the consideration of the Government.

32. The Sanitary Commissioner will report, at an early date, upon the best means of carrying into effect the proposal of the Secretary of State for the preparation of a Manual of principles and instructions for the use of Officers employed in the Public Health Department.

Chief Secretary.

Public Department

5th Dy

Memorandum for Orders.

In a letter from the Secretary to the Government of India, Home Department (Sanitary) dated Simla 6th July 1868, forwarding Madras Government 31st August 1868 a copy of a Despatch from the Secretary of State, relative to the progress made in Sanitary improvement in India, was forwarded to this Government with a request that His Excellency the Governor in Council would favor the Government of India with a full expression of his views on all the points noticed by

by the Secretary of State in connection with this subject.

The despatch of the Secretary of State deals with the Sanitary improvement of India, under the two headings of Military and Civil sanitation.

Paras 4, 5, 6, 7 of the despatch relate to the latter, and with reference to these the despatch was sent from the Public Department, to the Sanitary Commissioner for the expression of his views on the points raised in these paras.

A reference was also made to the Board of Revenue on the subject of introducing the system of Registration of deaths into the towns of this Presidency.

The Sanitary Commissioner requested me to let him read the papers relating to sanitary questions which had from time to time been before the Government. This request seemed to me very reasonable; as, if he was to describe the action which had been taken by this Government to carry into effect the suggestions in regard to sanitary works required for improving Indian stations, published in 1864, it was necessary that he should describe both what has actually been effected and what has been proposed by the Madras

Madras Government.

It will be perceived from the Sanitary Commissioner's report that he describes certain proposals which are still before the Government of India, such as His Excellency the Governor's scheme for a Public Health Service, and the propagation of the introduction of Nurses into the Presidency hospitals, and questions which decided by this Government, have still to receive the sanction of the Government of India, such as the sanitary improvement of the stations of Coonoor, Cannanore and Kurnool and the town of Ganjam.

I am not sure whether this is officially correct, or whether the Sanitary Commissioner should have confined his remarks to what has actually been done. This, as Madras has no separate Sanitary Budget, and has only reached the stage at which proposals for an executive Sanitary Agency, and for a few sanitary works, are being made, would have rendered the civil portion of the Sanitary Commissioner's report exceedingly bald, and it seemed better that he should be enabled to include in his Report, which will be transmitted to the Secretary of State, the action of the Government of Madras since 1864 in the direction of Sanitary Administration.

I think so

A.P.A.

D.

Dr. Rankings report has been kept standing in the Government Office, and if the course which he has followed at my suggestion is not approved this report can be recast. The report itself contains, I believe, every thing that can afford the information required by the Secretary of State. As the opinion of the Governor in Council is requested on the points noticed in the Secretary of States despatch, the Members of Government may wish to record minutes upon these points and upon the other questions discussed in Dr. Rankings report.

The Military part of

of the Secretary of States despatch has been separately reported upon by Dr. Ranking and will be disposed of in the Military Department. I have put up all the papers to which Dr. Ranking refers in the Report now circulated.

P.C.

a mi a boy.

It will be better
to communicate to
have two despatches
on which to frame
Council to replies
one letter in the Public
Department.

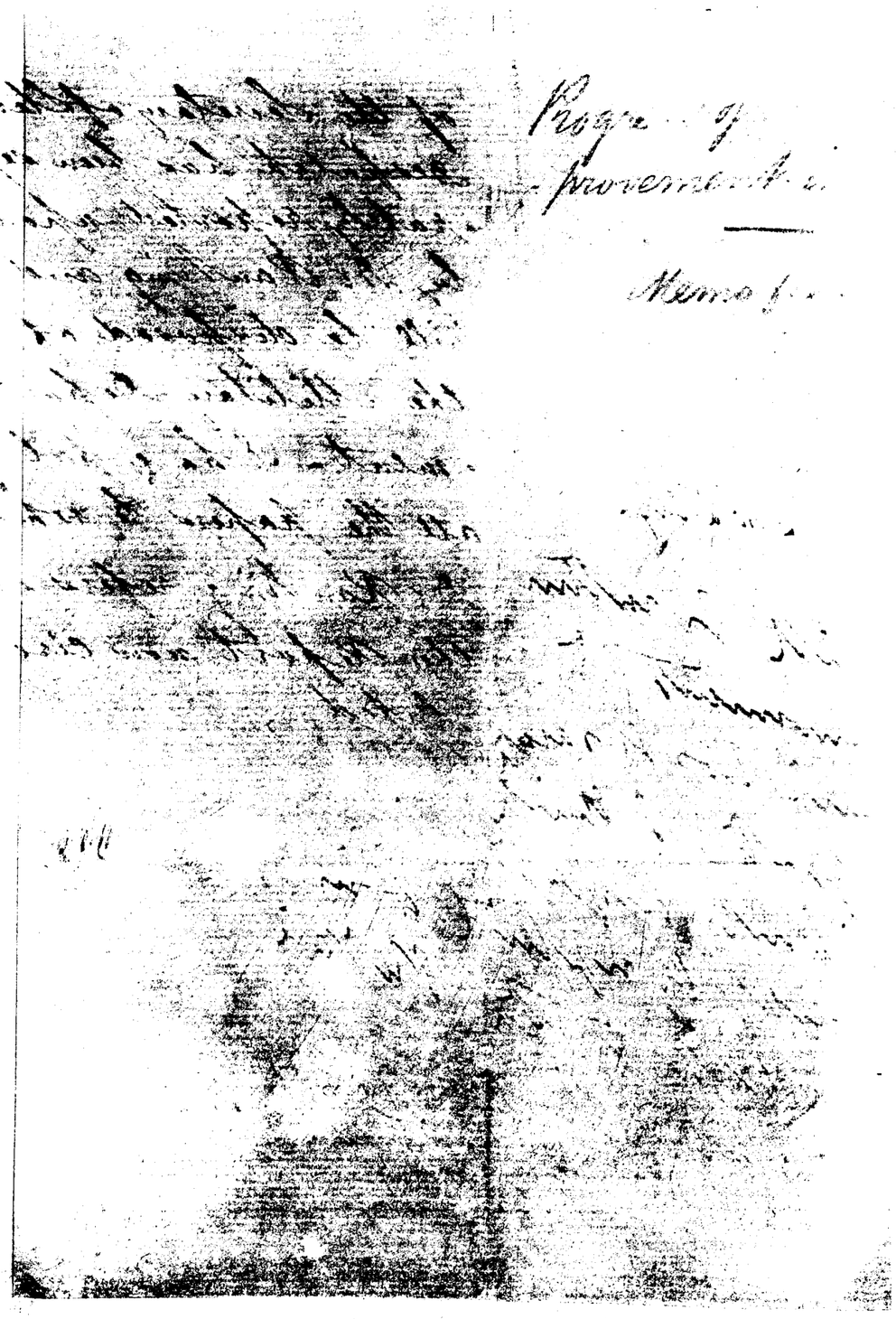
J. A.

Minute by H.E. the President

I have read the report of the Sanitary Commissioners under date 30th October with interest and satisfaction. It presents a summary of the Sanitary ~~Inspection and Intelligence~~ measures which are in ~~progress~~ in the Presidency and if we consider how imperfect are our Sanitary Agencies and how inadequate are the funds at our disposal the amount of work in progress and of work projected is not discreditable.

II It may be conceded that the acts done in the Sanitary Department still bear but a small proportion to the promises given but before us, however, the spectacle of practical development in several respects.

(1) The Municipal bodies are bestirring themselves. The Towns are better cleansed. Projects are entertained for building market places, ~~and~~ for introducing water supply and drainage.



(2) In Military cantonments the lines Habitations of the native troops are being enlarged and improved. A good system of conservancy has been introduced by carrying away the filth that was formerly interred on the spot. There is more general cleanliness and order. Wells are deep and trees are planted. The buildings for the English soldiers are making rapid progress and offer by their superior proportions and better light and ventilation a gratifying contrast to the habitations of an earlier date.

(3) The Officers of the Sanitary Districts, in cooperation with the Police and Medical authorities, have carried into effect at the various seats of Municipalities and Important Jails and stations a system of supervision and conservancy of which the good results are apparent in the absence of epidemic disease.

(4) The Contagious diseases act has been introduced into Madras. A Lock hospital has been formed. The women of the town have registered and subjected to regular inspection and license.

(5) The Sanitation of Coimbatore has been made the object of special solicitude. Special grants have been made for sanitary works and for water supply. A strong force of convict labour has been employed on the works are actually set on foot.

(6) The Central Jails are well advanced. They have already taken off a great portion of the surplus Population of the district jails. The District Jails are being gradually rebuilt or remodelled with reference at least to the requirements of Physical health and labour. The subsidiary jails are being reformed under a general Scheme for the execution of which a Special grant

has been made by the Supreme Government.

(7) The General Hospital at Madras, in all its branches, the Regimental Hospitals, the Provincial Dispensaries are all the scene of improvement.

(8) The Native Alms House of Madras known as the Monegar Choultry, with its dependent hospitals for the miscellaneous sick and for lepers, offers a conspicuous example of Sanitary ~~improvement~~ amelioration. It has been transformed. The impulse given by Mr Ellis, the benevolent superintendent of Mr. D. G. Clarke and other members of the Committee, the devoted attention of Dr. Van Someren, the liberal appropriations by Govt. have all contributed to this happy effect, the reality of which is demonstrated by a diminished death rate. —

The Sanitary Commissioner is warranted in affirming in the last Paragraph of his report that "the first fruits are being gathered". In a time the Sanitary Commissioner appeared to be a barren intelligence and agitation but its unfruitful speculation and advice has not been cast away, the Commission has become a practical agency and Dr. Ranking may justly survey his harvest, known meagre, with complacency.

III. Having thus recognized the practical advance which has been made in the field of miscellaneous Sanitary action I may state a few remarks to those projects which are in a state of elaboration.

(1) The constitution of Boards of Visitors in the Hospitals of the Presidency.

(2) The organisation of a general system by which the benefits of sanitation and European Medical treatment may be brought home to the Mass of the population not living

in Municipalities or Cantonments. —

IV. The plan of opening a School under European direction for the Instruction of East Indian and native females in the treatment of the Sick has been sanctioned by the Supreme Government and an appropriation has been authorised for this purpose which is unfortunately below the amount which this Government deemed requisite for the successful prosecution of the undertaking. The Director General has been requested to modify the larger scheme originally submitted by him so as to bring it within the compass of our pecuniary means. The Government will probably sanction the reduced establishment to begin with entertaining a hope that the proved usefulness of the institution may hereafter enable the Government of India to give it a larger measure of support. In the meantime if the Institution could be lodged in a Government building or in a building ~~founded~~ hired for Government by some other source the whole of the allowance provided by the Govt. of India would be available for ~~the current costs of the establishment~~ current expenditure connected with Salaries, board and tuition.

V. The organisation of a general scheme for imparting the benefits of Sanitary and medical Science to the masses of the village and rural population is a problem of difficulty both with reference to the means to be employed and to the source for which the ~~enterprise~~ expenditure can be provided.

My views on this subject have been already submitted in a Minute under date of April 26th of the present year which is under the notice of the Government of India. Since those Minutes were recorded my observation of the Country has been enlarged by another journey and I have had the benefit of reading the ~~Remarks~~ of the Sanitary Commissioner. I have, however, seen no reason to modify my previous suggestions on the contrary I should be disposed to give my support eventually

a more detailed development in a sense adverse to the views of Mr. Ellis and Mr. Ranking. I refer myself however with deference to the judgment of those gentlemen. The former speaks with authority for he has taken a special study and experience of sanitary matters, besides a knowledge of the country in all its interests; the latter adds to this the weight of medical science. I submit my opinion therefore in the full conviction that due consideration will be given to those tendered by the Chief Secretary and the Sanitary Commissioner.

VI. The radical difference between the Sanitary authorities and myself is that they deem it desirable to establish a centralized Sanitary Department at Madras with the usual systematic executive and inspecting agents all over the Country at once, while I wish to use and expand the existing machinery of government gradually.

The Ranking establishes four Health Officers, one Sanitary Engineer, nineteen Health Officers of districts, one hundred

69 F.

and fifty Taluk Inspectors, all working under the central authority of the Sanitary Commissioner at Madras.

I contemplate ~~four hundred~~ nineteen Health Officers of Districts, working under the Collectors, and a Sanitary Engineer. The Collectors would however submit their communications to Government through the Sanitary Commissioner who would thus remain in the present the depositary of information respecting Sanitary matters and the advisor of government.

The necessity for the numerous and costly staff proposed by the Sanitary Commissioner is not demonstrated to me. Indeed I think it is demonstrated to me that the institution of active influential agencies in the provinces depends on the impulse and authority of independent of the Collector is ~~to be~~ neglected. Public health depends, with respect to causation on many circumstances connected with rain fall, food supply and Police, with respect to remedial and relief measures on local Public works the Police Officer Sanitary officer is therefore in any District the functionary who is charged with the ~~direction~~ and administration of the

District in all its social and material interests. In fact I would look forward to the time when the Sanitary Commissioner at Madras might be dispensed with. For how aiming at the development of a District Sanitary Service I would aim at its absorption. I would identify it with the general administration. The Sanitary Commissioner has, I believe, nearly done his work. The Sanitary defects of the country can become matters of common notoriety. They have been abundantly discussed and determined. If any thing remains to be discovered the Government can not be done by the ~~Deputy Inspectors~~ Sanitary General Medical Department, by the Deputy Inspectors general, by the department of Public works, by the District Health Officer through the Collector. What we want is not a deliberative or consulting officer so much as a good executive officer, a man who can not only suggest and design but execute remedial works. a Sanitary Engineer the would probably at no distant

date supersede the Sanitary Commissioner. It may be objected to me that in making the Collector the Chief Sanitary Officer of the District I entrust to him a duty for which he has no preparatory knowledge. I can only reply that the Science of Sanitation has been so familiarly expounded by its learned authors in such a way that any sensible man may obtain a competent knowledge of it from books and common observation. There is nothing in Sanitary Science as there is in organic Chemistry or the diagnosis of disease which requires patient study or scientific manipulation. A Physician would be the best Sanitary officer for the most part, but a revenue officer with the writings of the Physician in his hands may discovery well.

It will be remarked that the project which I recommend does not necessarily exclude the Municipalities. Both projects involve the nomination of a Health Officer in each District. Should experience show that the subordination of the Sanitary Officer to the Collector

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was not productive of the good results which I anticipate there would be difficulty in dispensing this connection, in placing the Health officer in direct connection with the Sanitary Commissioners & in removing the inspecting officers and the 2 clerks now[illegible] entertained by Dr Rankin's Scheme. –

VII. It has been proposed that the proposed Sanitary Establishment and the 2 clerks of pumping Medical instruction that it is proposed to associate with the present Dispensaries, or with some of them should be supported by a local cess in the form of a House Tax. I confess that I should deprecate the imposition of such a tax for this purpose. The people are already threatened with a local cess for local irrigation works & with another cess for pumping instruction. The multiplication of these little imposts & vexations when if the amount is insignificant the demand is galling

Besides a Sanitary cess would be a tax for a purpose which the people least appreciate I would reserve the House Tax for another purpose. Nor does it seem to me that any new tax is requisite. Under my scheme a new revenue officer with Sanitary duties would be appointed in each district involving an annual expenditure of about £ 45.000., the Sanitary Engineer would probably in the first instance be Major Pollock who would receive a moderate addition to his pay as an Engineer Officer, while the development of the Dispensaries as schools of medicine would be proceeded with gradually. 2. The latter branch of expenditure the Municipalities as at present constituted would contribute It seems to me that the Imperial Revenue may well bear a share of this prudent outlay while it controlles a local tax the tax of Trades and Professions, one which the Supreme Government stand committed to restore to the local governments by a formal declaration made two years ago. Viz the Licence tax

that I gratefully look for means to carry
on Sanitary improvements in the
rural districts. That testimonials
the old Metropolitan Letter from and
can therefore be levied all over the
Presidency in strict conformity with
tradition and hitherto usage. —

VIII. The report of the Sanitary
Commissioner should be submitted to the
Supreme Government with the remarks
of the Members of the Government. The
Government of India will thus act
with a fuller knowledge of the Sanitary
works in progress in this Presidency
and of the opinions of the Members of
Council. I do not, however, see that
it is necessary to await the decision
of the Government of India on the
general question before instituting
an inquiry into the best means
of intelligence some, at least, of
your provincial Dispensaries as Schools

of Medicine. Whether the Supreme
Government at present accedes to the
proposal to this effect which is supported
by all parties to the present discussion
I cannot doubt that the measure will
be adopted in one form or another
hereafter. I would therefore suggest
that a Committee be formed charged
with the duty of preparing a Report
to the Inspector general, Indian
Medical Department, on this subject,
and I propose as Members of this
Committee Dr. G. Smith, Principal
of the Medical College, Dr. Van
Someren Surgeon of the 1st district
and Native Surgeon Iyasawmy Pillay
now employed at Muddapah.

Napier

Ghuddy Pack. November 23d
1868.

I agree generally in the views
expressed by H. E. the Governor, in
his minute of the 23d November last
especially in that part of it which re-
gards as the principal object of planning the
sanitary arrangements, like the other

It appears from the Report submitted by the Sanitary Commissioners relative to the subjects noticed in the Despatch from the Secretary of State, 23 April 68, information should have been furnished only in respect of what has been done for the general sanitary improvement of the country. It should have reported with their proposals in which our duty, to advise to measures which, though suggested & proposed, have from various causes not yet been carried out.

It therefore seems from the Report might hopefully be contented, if practicable, at present.

In our duty to offer observations from the Report founded on the Despatch above alluded to, I would point to what has been actually completed for the sanitation of towns and the suppression of disease in them, & recommend:- and I would express the opinion that in regard to towns - both the larger towns - and suburban (autonomous) districts some appears at present to be wanting.

In respect of the smaller towns and villages it seems to be expedient that municipal measures with such as may, for their improvement, and that if it be determined to attend to cleanse them & set them straight, the Boards of Guardians be prepared to sanction a special Sanitary Establishment, somewhat in the form

Received
Privy Council Office
28 JAN 1869

administrative arrangements of each District under the Collector and Sub-Collector. In regard to the provision of funds (and sanitary improvements cannot be carried out [illegible] without money) there is no difficulty in [illegible] a multiplication of local cesses. I am disposed to think that it would not be difficult to provide in each District for those expenses which ought to be met from local taxation, such as the construction & repair [illegible] and the maintenance of [illegible] by a single cess, through the machinery of the Municipal Act of the Agricultural cesses might be levied in the form of a percentage on the Income Tax assessment and in the case of the non-agricultural classes in the shape of a tax on houses, supposing the latter to be abandoned as a source of imperial taxation. If this were done the Establishment at present in [illegible] would be [illegible] and the Sanitary Commissioners would be [illegible] Local Govt.

I have the opinion to be &c. of the Committee of Council on Education

of Mal-Administration was once submitted for their approval, but rejected. -

I cannot think the Local Govt. expends any unbecoming or unfeeling in the direction of Sanitary measures. What is really wanted is money & the means of mending what is declared to be defective & bad. - The native inhabitants of the small towns & country villages are not yet sufficiently enlightened to appreciate the difference between filth and cleanliness in their dwellings, clothes and habitations. They have looked for purification last, to the sun & the monsoon rains as powerful purifiers, and if just stirred up by the agency created by the modernized ideas of the West, would still be content to let sun & monsoon act as they have ever done - They will not understand a call for payment of purification and [illegible] visiting an odious & filthy town being less dirty than they now are -

In regard to the registration of deaths, they will be similarly heedless. The introduction of a system for ensuring correct returns of the mortality prevailing throughout the Bombay Presidency, will not be a difficult matter - but it will unfortunately involve an increase to the Establishment working under every Mamlatdar in the country & that means increase of unproductive expenditure.

1 Jany 68.

W.H.

Govt. of Madras. 1869

Public

From

The Sanitary Commr.

Dated July 5th

Recd. Encl.

G.O. 5 July 1869, No. 904.

Nos. 4 - 9 - 14

Reviewing the reports of the Sanitary Commr. showing the progress made in Sanitary improvements in the Presidency since the subject attracted the special attention of the Govt. of India.