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PROCEEDINGS OF THE PLAGUE COMMISSIONER.

(189)

~~Sent to Central press~~

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[Despatch Abstract.]

Circulars relating to plague

Ordering the printing of Certain ——— both in English & the [illegible]incipal Vernaculars for circulation and requesting [illegible] Wardens of the wards [illegible] indent on the Supdt [illegible]ired number

BACK PAPERS.

No.	Date.	No.	Date.

FURTHER PAPERS.

No.	Date.	No.	Date.

5·11·98.

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Proceedings of the Plague Commissioner,

MADRAS—1898.

Recd.	1898.	*Enclosures*
Regd.		*Spare copies*

Proceedings, No. 652, 11th November 1898.

NOVEMBER.

Circulars relating to Plague.

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Municipal Commission, Madras, to inden

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Proceedings—No. 652, dated 11th November 1898.

Three circulars relating to plague have been prepared in English and the principal vernacular languages * for general circulation among the people. One states briefly the plague rules and the policy of Government with regard to plague administration. This is intended for distribution chiefly among the village officers for their own information and guidance as well as for being explained to the villagers. Each village headman should be given two copies in all the districts in which plague cases have occurred or are likely to occur shortly, viz., Bellary, Kurnool, Anantapur, Cuddapah, North Arcot, Salem, Coimbatore, Nilgiris, Malabar, Canara and Chingleput. The second is a summary of the first and is intended for circulation among all persons who can read. A copy should be supplied to every house-holder in the districts bordering on Mysore and Hyderabad States. Copies of both the first and second circulars should also be freely distributed in the City of Madras. The third circular gives instructions to be observed before and after inoculation, and orders regarding its distribution have been issued in Proceedings No. 442, dated 27th October 1898.

* Tamil.	Malayalam.
Telugu.	Hindustani.
Canarese.	

2. All Collectors and the President, Municipal Commission, Madras, are requested to indent at once on the Superintendent, Government Press, for the required number of copies in English and the vernaculars. The Superintendent will keep in type the circular in all the languages and strike off and supply copies according to requirements.

M. HAMMICK,
Plague Commissioner.

To all Collectors (A—L).
,, the President, Municipal Commission, Madras.
,, the Superintendent, Government Press.
,, the Hon'ble M.R.Ry. P. Rajaratna Mudaliyar Avargal, Diwan Bahadur.
,, the Secretary to Government, Local and Municipal Department,
with copies of the circulars.

APPENDIX I.

Circular to Villagers.

The public are aware that a most dangerous disease known as the bubonic plague appeared two years ago in Bombay and subsequently in Poona and carried off several thousands of the population. The disease has since broken out in Hyderabad, in Hubli (Dharwar) and in Bangalore and is now advancing towards the borders of this Presidency. Several imported cases have already occurred in the Madura, North Arcot, Anantapur and Salem districts and might break out any moment in the Presidency Town. Its chief characteristics are fever attended with glandular swellings and a high rate of mortality. High fever is ushered in with shivering and, after two or three days of continuous fever, grandular swellings may appear in the groins of the leg, arm-pits or neck, or in all the three places. If the disease continues, the patient may vomit blood.

2. The disease is more dangerous than cholera and is very infectious. Once it takes root, it will be difficult to eradicate it. The best efforts of Government have accordingly been directed for some months past towards stopping, by every possible means, its advance into this Presidency. With this object, a careful examination of all passengers has been ordered to be made at selected stations on all the railways and along the main roads leading into the Presidency, and camps have also been formed for detaining and treating passengers suspected to be suffering from symptoms of plague.

3. All persons are allowed to pass freely as in ordinary times except—

(*a*) those suspected of plague,
(*b*) those suspected of arriving from an infected locality.

(*a*) Persons suspected of plague, with their families and attendants, are required to be detained at the frontier inspection stations for isolation and disinfection, until it is deemed safe to release them with passports.

(*b*) Persons suspected arriving from an infected area are examined at the frontier inspection stations and allowed to proceed on their journey on the following conditions :—

(1) At road frontier stations, they are provided with passports binding them to present themselves for daily inspection for the next ten days before the local authority, *i.e.*, the local medical officer or police station-house officer or village headman in any village where they may be, information of the issue of the passport being sent promptly by the officer in charge to the local authority of the place of destination.

(2) At railway frontier inspection stations, their tickets are punched with a special mark, if they have not been so marked before, and on arriving at the railway station where they intend to leave the train, they are furnished with passports by the station master or other officer appointed for the purpose, and intimation of the fact is sent to the local authority at the place of final destination.

4. Before persons arriving from an infected area are permitted to proceed on their journeys under passports as stated above, they may be disinfected if the Collector so orders. This is merely a process of cleaning the person and his clothing and will be resorted to only when necessary.

5. Persons coming from an infected area who appear to be likely to sicken to plague or spread infection of plague, whether by reason of their appearance, the dirty condition of their clothes, or the fact that they are travelling in gangs, or who belong to classes which are likely to disseminate the disease, or who seem likely not to be easily traced on arrival at their destination, or who are [illegible] to be depended upon to give information should plague occur among them after arriv[illegible] [illegible]stination, or for any other similar reason, may also be similarly detained under [illegible] special orders of the Collector.

6. The necessity for detaining persons for observation, or for requiring them to present themselves daily for inspection for ten days is due to the fact that me
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ble for ten days after a person leaves an infected area.

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7. All taluks situated on the borders of the Bombay Presidency and Hyderabad territory and also those adjoining the Bangalore district have been divided into convenient circles, and placed in charge of special plague inspectors and assistant inspectors whose duty it is to constantly and systematically patrol their circles in order to give the earliest possible information of a case of plague so that immediate action may be taken. They are required to report any pressing sanitary need to the District Medical and Sanitary Officer, and to check passports or passes in the case of persons arriving from an infected locality. Persons arriving without a passport or pass or who may be found to have broken its conditions may be detained by the plague inspector or any member of his staff and sent to the nearest medical officer for detention until he (the medical officer) is satisfied that there is no danger of such persons spreading infection.

Inspectors and assistant inspectors are also required to keep a record of all persons suffering from continuous fever for more than twelve hours and to arrange with the village headmen to have such persons inspected twice daily in view to find out if the case turns out to be one of plague.

8. The measures indicated above are absolutely necessary for protecting the people of the Presidency against the danger that is threatening them on all sides. These measures will no doubt entail a certain amount of hardship and inconvenience to persons going from place to place on business or pleasure, but considerations for individuals must give way to considerations for the good of the people at large. It is well known that on occasions of the outbreak of cholera or small-pox the people very often voluntarily enforce a sort of quarantine against persons coming from villages infected with those diseases, and it needs no argument to convince them that in dealing with a disease so much more infectious and dangerous as is the plague which is threatening this Presidency, similar precautionary measures should be enforced with all possible rigour. The leading men of every village should therefore make it their duty to watch all strangers coming into their village and give immediate information to the village munsif or to the nearest station-house officer, if they find reasons to suspect that the strangers have come from plague-infected tracts or are suffering from severe fever or symptoms of plague. Unless they willingly and cordially co-operate with the officers appointed for the duty and give prompt intimation of all suspicious cases coming to their knowledge, the best efforts of Government towards arresting this dreadful disease will become practically of no avail.

9. There are also certain sanitary precautions which the people should carefully observe on occasions like the present, if not at all times. Many diseases of the human body are due to filth, foul air, bad food, bad water, &c. These and other insanitary conditions probably pre-dispose to attack and foster the plague germ.

A.—Habitations.

(1) Every house should be thoroughly cleaned, that is, all manure, dirty water, washings of cattle stalls and collection of dirt of any description must be completely removed.

(2) Where the earth remains damp and foul after such removal, it should be dug up till dry and clean earth is reached.

(3) The old earth should be taken from the town and may be used as manure for the fields; new earth from a clean place should be laid down.

(4) The interior and exterior of houses should be white-washed. If persons cannot afford to do the outside, the inside at least should be white-washed.

(5) Bundles of clothing and other materials hanging from the beams or occupying in any other way the rooms in which persons sleep should be removed.

(6) Doors and windows should at all possible hours be left open so that free ventilation be obtained.

(7) If private latrines are used, they must be kept free from fæcal matter by removal at least twice daily.

(8) The drains leading from houses should be cleansed twice daily.

(9) Cess-pools and pits for receipt of urine of cattle should be emptied daily.

B.—Person.

(1) The body and clothing should be kept scrupulously clean. If delicate, ...ns should use warm, not cold, baths.

(2) The food should be plain, nourishing, and of good quality.

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(3) All vegetables or leaves or fruits, likely to cause diarrhœa, should be abandoned.

(4) All forms of drinking to excess, debauchery, late hours and exposure to wet and cold should be avoided.

(5) Cold cooked food should never be used. Care should be taken not to allow flies to settle upon food. Vegetables and leaves should never be eaten otherwise than after cooking. Before being cooked, they should be well washed in water that has been purified by boiling. Salt should be freely used with the diet; but, on the other hand, it must not be used in such unusual amounts as to excite uneasiness or looseness of the bowels.

(6) An inferior quality of water should not be kept in the house; only the cleanest available should be employed.

(7) Water for drinking purposes and for washing the mouth or eating and drinking vessels, and milk should be boiled before use.

(8) Persons with cuts or abrasions on their hands, feet or other exposed parts of the body should avoid attendance on plague patients; but if attendance is essential, the wounded parts should be covered and, on occasions of temporary withdrawals from attendance, the parts should be washed with disinfectants, which can be obtained from the sanitary staff on application.

10. It has been found from experience in other provinces that rats are a dangerous means of conveying infection. Every effort should therefore be made to destroy them in time.

11. Large sums of money have already been expended in carrying out Government's plague preventive measures, and if, in spite of all these precautions, the plague should unfortunately make its appearance in this presidency, the public may rest assured that the Government is fully prepared to meet it and prevent it at all cost from assuming an epidemic form. Should the disease unfortunately break out, it will be necessary to introduce an efficient system of house-to-house inspection in order promptly to detect all real or suspected cases; to segregate the sick and treat them in hospitals specially erected for the purpose; to cause evacuation of infected houses and localities, if need be; and to enforce general sanitary precautions, such as extensive cleansing of dwellings, freer admission of light and air, destruction or modification of insanitary buildings, improvement of drainage and conservancy, abatement of overcrowding, opening out of crowded localities.

12. Segregation of the plague-stricken and of the persons who have been in immediate contact with them is a fundamental precaution which is essential to the successful issue of any operations against the disease. It is the only effective means of preventing the spread of the infection and will be carried out with the strictest regard to the habits, feelings and prejudices of the different classes of the community. Those who may desire it will be permitted, and aided, to erect their own hospitals and their own segregation huts, in sites shown to them or selected by them and approved by the authorities. Friends and relations will be allowed to visit the patients and, if desired, to reside near them. They can have their own food and can bring their own doctors. Every arrangement will be made to respect the privacy of women. No particular mode of treatment will be forced upon any one, and women will, under no circumstances, be required to be examined by men. In cases where infected houses or localities are evacuated the inmates will be temporarily accommodated in some convenient place, and during their absence, their houses and such of their property as may be left behind will be taken care of by Government, and adequate compensation will be paid to poor people for articles destroyed by the sanitary authorities.

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arrange beforehand with the district authorities for sites for hospitals and segregation camps, and organise measures at once to keep every thing ready for erecting them without delay when necessity arises. Every assistance will be given them by the officers of Government.

14. Should plague break out in any village or town, passes will be freely granted by the plague authority or other officer authorised by the Collector to the people to pursue their usual occupations without hindrance. General passes will be given to agriculturists and others having occasion to make daily and frequent journeys by road, rail or boat from an infected area. Where it is necessary for the whole family to go and work in the fields, a single pass may be given for the family which may not be revoked, even should a case of plague occur in the family of the pass-holder. There must, however, be a separate pass for each person making a railway journey under a general pass. The passes will not cover residence outside of the infected area and will not cover journeys by rail unless that is expressly stated on them. Special passes will be freely given to persons who may wish to leave the infected area and reside elsewhere and may be granted for households, provided that the name and description of each person covered by the pass is entered therein. Before, however, these special passes are given, the plague authority will satisfy himself that no case of plague has occurred in the house of the applicant or in any adjacent house or among any of his relations or associates and may also require the disinfection of all clothes and other articles to be taken away.

15. As already stated, the sole object of Government is to prevent the importation of plague into the Presidency and promptly to check its spread and stamp it out, should it nevertheless appear. That object can only be fully attained if the people themselves, for whose benefit the regulations have been framed, loyally accept them and support the action of the authorities. They should not give way to unnecessary alarm nor allow themselves to be misled by false rumours. They should freely and promptly bring to notice of the taluk officers and others appointed for the special duty all cases in which they may be subjected to unnecessary inconvenience and annoyance.

16. There is one other point to which it is necessary to draw their special attention. They are aware from long experience that persons who have been vaccinated are less liable to attacks of small-pox than those who have not been vaccinated. Experiments made in Bombay, Poona, Calcutta and other places have also shown that persons inoculated with properly prepared plague serum, such as has been found by Mr. Haffkine, are less liable to attacks of plague than those not so inoculated. Not only is the percentage of attacks reduced but the rate of mortality is materially lessened. Government has, however, no intention to force the people to subject themselves to this inoculation. It will be left entirely to them to adopt the system or not.

Inoculated persons are allowed the following privileges :—

(*a*) They shall not be liable to detention at any railway or road observation camp when travelling, except for such period as may be required to disinfect their baggage and clothes, if those are considered suspicious.

(*b*) They shall not be liable to take out passports and present themselves daily for observation for ten days after arrival from a plague-infected place.

(*c*) Inoculated persons who have been living in an infected house or have otherwise been exposed to plague infection shall not be liable to be segregated, but may be required to evacuate the infected house and to have their clothes and personal effects disinfected. When, however, all the occupants of a house have been inoculated, neither the patients nor the other inmates of the house shall be required to be segregated, provided arrangements are made to the satisfaction of a Plague authority for the disinfection of the house and its contents, and for the prevention of the spread of plague to the neighbouring dwellings.

APPENDIX.

A.—Rules for Disinfection of Plague-infected Houses.

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uld on a … ut be permitted.

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III. Carefully collect after sprinkling the solution all dust and rubbish, remove out of doors and burn. Also burn all bedding and clothes of the patient and all torn and dirty rags, sacking, &c., lying about. This must be done out of doors.

IV. Steep all other clothing, bedding, sacking, bags, &c., whether in use at the time or not in 1·1000 perchloride of mercury solution for half an hour, thoroughly soaking all parts of each article. Next place them in a chattyful of water which is to be boiled for half an hour. Valuable articles which can neither be boiled nor disinfected should be exposed to the sun for at least eight hours.

V. Carefully flush (pump) 1·1000 perchloride of mercury solution in all parts of the rooms in the affected house, beginning above at the rafters and proceeding downwards to the floor. Especially flush out all crevices, clefts, niches, corners, bathing places, cooking places and latrines. The floor must be thoroughly soaked and especially at its junction with the walls. The door and lintels must be carefully mopped or flushed and also all boxes, almirahs, &c., in the room. The furniture should be disinfected first, then taken outside and placed in the sun to dry, and then the room disinfected. After being flooded with mercury solution, the floor, if of earth, should be dug up up to a depth of 4 inches and burnt by the kiln method.

VI. Thoroughly fill all gurrahs, cooking pots and pans, lotahs, &c., with boiling water and keep at the boil for half an hour, or with a weak solution of permanganate of potassium and leave for one and half hours. Then pour out and wash with ordinary water.

VII. All useless articles must be burnt. All rubbish burnt, whether within or without the affected house; the compound thoroughly cleaned up and the drains and latrines flushed out with water first and then washed with 1·1000 perchloride of mercury solution.

VIII. The houses directly adjoining must be hot lime-washed with chloride of lime at once and thoroughly cleaned.

IX. The affected house is not to be occupied for a week. On the day following the disinfection by perchloride of mercury, the outside and inside of the affected house including the floor and the ceiling must be hot lime-washed.

X. In cases where houses have no free ventilation, *i.e.*, at least two small windows and one big door for each room, windows and other ventilation holes must be made by knocking holes in the walls, removing broad stripes of tiles (not rafters) from the roof or taking off and burning the thatch of the roof.

N.B.—All persons engaged in disinfection work are to wear shoes covering the upper parts of their feet and to wash their hands and feet in 1·1000 perchloride of mercury solution on completion of their work and disinfect their clothes and persons in carbolic acid or phenyle solution.

B.—Directions for preparing solutions of Disinfectants.

I. Perchloride of mercury is the best chemical disinfectant known and should always be used. Reliable perchloride can be obtained from the Medical Stores, Madras.

II. It is best to issue this disinfectant to coolies as a solution, *since it is very poisonous.* The solution can be prepared as follows :—

Take a clean one-gallon bottle. Place half pound of perchloride of mercury and one pound of hydrochloric acid which increases its efficacy and half fill the bottle with water. Shake thoroughly and then gradually add repeated quantities of water until all is dissolved. A little common salt or ammonium chloride helps to dissolve the solution.

(This solution can readily be prepared if the materials are pure. If a large portion of the perchloride of mercury remains undissolved, it is probably very impure and practically useless.)

Colour the solution with a pinch of red ink powder to prevent any one drinking it and "label" "Poison."

Six ounces of this solution in an ordinary wooden bucketful of water (of nearly 20 pints capacity) gives a reliable solution of perchloride of mercury, of practically 1·1000.

III. Phenyle should be served out free. It is fairly cheap and harmless to animals. It must be diluted in the proportion of 24 lbs. of phenyle to 96 gallons of water.

IV. Potassium permanganate requires to be powdered to ensure rapid and complete solution. Half an ounce to an ordinary pailful of water will serve as a reliable disinfectant. When it loses its purple colour and turns brown, it is useless, having been decomposed. It is non-poisonous and is especially useful for purifying drinking-water and for other domestic purposes.

V. *Hot water.*—An easy and simple method of disinfection is readily at hand in most situations. Water heated to 127g F or above appears to destroy the vitality of the plague bacillus. This temperature can be borne by the hand for a few minutes only. Boiling water will therefore certainly destroy the bacillus. Floors and walls of houses, fixtures and furniture could be disinfected by pouring boiling water all over the surface.

VI. Chloride of lime possesses the merits of cheapness and great efficiency. It is not dangerous in any marked degree, to animal life. Quicklime is less efficacious. It is harmless and is readily obtained in most parts of the country.

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APPENDIX II.

Plague.

THERE appears to be considerable misapprehension amongst the ignorant masses regarding the measures taken by Government for the prevention and suppression of the plague and the orders issued regarding anti-plague-inoculation. The Government has no intention of forcing the people to subject themselves to inoculation. They will be free to get themselves inoculated or not as they please. Those who voluntarily allow themselves to be inoculated will not be subjected to any observation and will not be detained at any inspecting station unless they are attacked with the plague. The experiences gained in other provinces show that about 90 per cent. of the persons inoculated do not get the disease, and among the few that may be attacked the mortality is very small. Some two thousand persons in the town of Madras and several in and near Guntakal, in Bellary, in Ootacamund and in other places have been inoculated within the past few months and there has not been a single casualty amongst them. It is well known that persons who have been vaccinated are less liable to the attack of small-pox than those who have not been. Similarly, experience in Bombay, Poona, Hubli, and other places shows that persons inoculated with plague serum are less liable to the attacks of plague than those not so inoculated. Even if 50 per cent. of the persons inoculated escape the attack, the matter is well worthy of consideration. As already stated, however, inoculation will not be forced upon any one.

2. As regards the preventive measures adopted by Government there can be no question that, but for them, the plague would have broken out long ago in this Presidency and carried off several thousands of its inhabitants. This disease is so infectious and dangerous that a careful examination at selected centres, and their detention when need be, of all passengers coming from infected areas or suspected of suffering from symptoms of plague, is absolutely necessary for preventing the spread of the infection. If in spite of all these precautions the disease should unfortunately break out, it will be necessary to make house-to-house inspection in order promptly to detect all real or suspected cases and segregate the sick. It would be well if the people themselves undertake this. Unless the sick persons and those in immediate contact with them are promptly removed and segregated, the disease will spread from house-to-house and from village-to-village like a conflagration and the entire population will soon become a prey to it. It is incumbent, therefore, on the Government to do all in its power to save the masses from the ravages of this dreadful disease, and in carrying out the necessary measures to this end, it is inevitable that considerations for individuals must give way to considerations of the public at large. The measures, however, will be carried out with the strictest regard to the habits, feelings, and prejudices of the different classes of the community. Those who may desire it will be permitted and aided to erect their own segregation huts in sites selected by them and approved by the authorities. Half the cost will be paid by Government. Friends and relatives will be allowed to visit the patients and, if desired, to reside near them. They can have their own food and can bring their own doctors. No particular mode of treatment will be forced upon any one, and women will under no circumstances be required to be examined by males. In cases where infected houses are evacuated, the inmates will be temporarily accommodated in some convenient place, and during their absence their house and such of the property as may be left behind will be taken care of by Government, and adequate compensation will be paid to poor people for articles destroyed by the sanitary authorities. The Government has no wish whatever to interfere in any way with the burning or burial of the dead in accordance with the custom of each caste. Where bodies are buried they should be buried at least six feet below the surface.

3. A circular explaining briefly the nature and objects of the various rules framed by Government for combating with this disease has been sent to all village officers, and the public are requested to obtain copies of them, study them carefully and loyally support the action of Government. They should act like sensible men and should not allow themselves to be led away by all sorts of absurd and false rumours. If they have any grievances, they should represent them to the officers of Government and abide by their orders.

APPENDIX III.

Inoculation.

Persons desirous of being inoculated—

(1) May take an oil-bath a day or two before;

(2) if subject to constipation, it is as well to take a dose of a purgative or a laxative a few days beforehand;

(3) after inoculation, the diet should be simple and light; milk, conjee, sago, coffee, soda water, &c., might be taken freely with advantage;

(4) people sometimes suffer from faintness and giddiness after operation; this need cause no anxiety. The best remedy is to sit in a chair and stoop forward with the head between the knees. Soda water or strong coffee mixed with a little milk might be taken;

(5) if the arm inoculated gives much pain, bran or any other dry fomentation may be used and the arm should be supported by sling;

(6) inoculated persons should avoid exposing themselves until the fever entirely subsides; pain in the arm may continue for some days, but this need not prevent the ordinary work;

(7) for three or four days, even ordinary bath should be avoided; or if it is absolutely necessary, a sponge-bath should be taken in a closed room so that the person may not catch a chill; cold baths should be avoided;

(8) oil-bath should not be taken for eight or ten days after inoculation;

(9) no treatment is necessary for the fever which will subside by itself in two or three days. Head-ache, if present, may be treated by external application of menthol or ice or cold lotions, such as vinegar and water. Should, however, the fever rise high, the inoculated person would do well to seek the advice of a competent medical officer or send intimation to the nearest dispensary and not trust to quacks;

(10) sickness and nausea, when present, are best treated by a little iced soda water or soda water and milk mixed;

(11) sexual abstinence should be observed at least for two or three weeks;

(12) females will find it convenient to be inoculated a week or ten days before menses; they may be operated on one week after the period;

(13) persons with a weak heart or lungs and persons subject to hysterics, heart disease or nervous disability should get themselves carefully examined by a medical officer before they subject themselves to inoculation.

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Proceedings of the Plague Commissioner,

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[Appendices.

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Exd. C. M. Thumbuswamy

APPENDIX I.

Circular to Villagers.

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2. The disease is more dangerous than cholera and is very infectious. Once it takes root, it will be difficult to eradicate it. The best efforts of Government have accordingly been directed for some months past towards stopping, by every possible means, its advance into this Presidency. With this object, a careful examination of all passengers has been ordered to be made at selected stations on all the railways and along the main roads leading into the Presidency, and camps have also been formed for detaining and treating passengers suspected to be suffering from symptoms of plague.

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(*a*) Persons suspected of plague, with their families and attendants, are required to be detained at the frontier inspection stations for isolation and disinfection, until it is deemed safe to release them with passports.

(*b*) Persons suspected arriving from an infected area are examined at the frontier inspection stations and allowed to proceed on their journey on the following conditions :—

(1) At road frontier stations, they are provided with passports binding them to present themselves for daily inspection for the next ten days before the local authority, *i.e.*, the local medical officer or police station-house officer or village headman in any village where they may be, information of the issue of the passport being sent promptly by the officer in charge to the local authority of the place of destination.

(2) At railway frontier inspection stations, their tickets are punched with a special mark, if they have not been so marked before, and on arriving at the railway station where they intend to leave the train, they are furnished with passports by the station master or other officer appointed for the purpose, and intimation of the fact is sent to the local authority at the place of final destination.

4. Before persons arriving from an infected area are permitted to proceed on their journeys under passports as stated above, they may be disinfected if the Collector so orders. This is merely a process of cleaning the person and his clothing and will be resorted to only when necessary.

5. Persons coming from an infected area who appear to be likely to sicken to plague or spread infection of plague, whether by reason of their appearance, the dirty condition of their clothes, or the fact that they are travelling in gangs, or who belong to classes which are likely to disseminate the disease, or who seem likely not to be easily traced on arrival at their destination, or who are not to be depended upon to give information should plague occur among them after arrival at their destination, or for any other similar reason, may also be similarly detained under the special orders of the Collector.

6. The necessity for detaining persons for observation, or for requiring them to present themselves daily for inspection for ten days is due to the fact that medical officers have laid down ten days as the limit of safety, that is to say, infection is possible for ten days after a person leaves an infected area.

7. All taluks situated on the borders of the Bombay Presidency and Hyderabad territory and also those adjoining the Bangalore district have been divided into convenient circles, and placed in charge of special plague inspectors and assistant inspectors whose duty it is to constantly and systematically patrol their circles in order to give the earliest possible information of a case of plague so that immediate action may be taken. They are required to report any pressing sanitary need to the District Medical and Sanitary Officer, and to check passports or passes in the case of persons arriving from an infected locality. Persons arriving without a passport or pass or who may be found to have broken its conditions may be detained by the plague inspector or any member of his staff and sent to the nearest medical officer for detention until he (the medical officer) is satisfied that there is no danger of such persons spreading infection.

Inspectors and assistant inspectors are also required to keep a record of all persons suffering from continuous fever for more than twelve hours and to arrange with the village headmen to have such persons inspected twice daily in view to find out if the case turns out to be one of plague.

8. The measures indicated above are absolutely necessary for protecting the people of the Presidency against the danger that is threatening them on all sides. These measures will no doubt entail a certain amount of hardship and inconvenience to persons going from place to place on business or pleasure, but considerations for individuals must give way to considerations for the good of the people at large. It is well known that on occasions of the outbreak of cholera or small-pox the people very often voluntarily enforce a sort of quarantine against persons coming from villages infected with those diseases, and it needs no argument to convince them that in dealing with a disease so much more infectious and dangerous as is the plague which is threatening this Presidency, similar precautionary measures should be enforced with all possible rigour. The leading men of every village should therefore make it their duty to watch all strangers coming into their village and give immediate information to the village munsif or to the nearest station-house officer, if they find reasons to suspect that the strangers have come from plague-infected tracts or are suffering from severe fever or symptoms of plague. Unless they willingly and cordially co-operate with the officers appointed for the duty and give prompt intimation of all suspicious cases coming to their knowledge, the best efforts of Government towards arresting this dreadful disease will become practically of no avail.

9. There are also certain sanitary precautions which the people should carefully observe on occasions like the present, if not at all times. Many diseases of the human body are due to filth, foul air, bad food, bad water, &c. These and other insanitary conditions probably pre-dispose to attack and foster the plague germ.

A.—*Habitations.*

(1) Every house should be thoroughly cleaned, that is, all manure, dirty water, washings of cattle stalls and collection of dirt of any description must be completely removed.

(2) Where the earth remains damp and foul after such removal, it should be dug up till dry and clean earth is reached.

(3) The old earth should be taken from the town and may be used as manure for the fields; new earth from a clean place should be laid down.

(4) The interior and exterior of houses should be white-washed. If persons cannot afford to do the outside, the inside at least should be white-washed.

(5) Bundles of clothing and other materials hanging from the beams or occupying in any other way the rooms in which persons sleep should be removed.

(6) Doors and windows should at all possible hours be left open so that free ventilation be obtained.

(7) If private latrines are used, they must be kept free from fæcal matter by removal at least twice daily.

(8) The drains leading from houses should be cleansed twice daily.

(9) Cess-pools and pits for receipt of urine of cattle should be emptied daily.

B.—*Person.*

(1) The body and clothing should be kept scrupulously clean. If delicate, persons should use warm, not cold, baths.

(2) The food should be plain, nourishing, and of good quality.

(3) All vegetables or leaves or fruits, likely to cause diarrhœa, should be abandoned.

(4) All forms of drinking to excess, debauchery, late hours and exposure to wet and cold should be avoided.

(5) Cold cooked food should never be used. Care should be taken not to allow flies to settle upon food. Vegetables and leaves should never be eaten otherwise than after cooking. Before being cooked, they should be well washed in water that has been purified by boiling. Salt should be freely used with the diet; but, on the other hand, it must not be used in such unusual amounts as to excite uneasiness or looseness of the bowels.

(6) An inferior quality of water should not be kept in the house; only the cleanest available should be employed.

(7) Water for drinking purposes and for washing the mouth or eating and drinking vessels, and milk should be boiled before use.

(8) Persons with cuts or abrasions on their hands, feet or other exposed parts of the body should avoid attendance on plague patients; but if attendance is essential, the wounded parts should be covered and, on occasions of temporary withdrawals from attendance, the parts should be washed with disinfectants, which can be obtained from the sanitary staff on application.

10. It has been found from experience in other provinces that rats are a dangerous means of conveying infection. Every effort should therefore be made to destroy them in time.

11. Large sums of money have already been expended in carrying out Government's plague preventive measures, and if, in spite of all these precautions, the plague should unfortunately make its appearance in this presidency, the public may rest assured that the Government is fully prepared to meet it and prevent it at all cost from assuming an epidemic form. Should the disease unfortunately break out, it will be necessary to introduce an efficient system of house-to-house inspection in order promptly to detect all real or suspected cases; to segregate the sick and treat them in hospitals specially erected for the purpose; to cause evacuation of infected houses and localities, if need be; and to enforce general sanitary precautions, such as extensive cleansing of dwellings, freer admission of light and air, destruction or modification of insanitary buildings, improvement of drainage and conservancy, abatement of overcrowding, opening out of crowded localities.

12. Segregation of the plague-stricken and of the persons who have been in immediate contact with them is a fundamental precaution which is essential to the successful issue of any operations against the disease. It is the only effective means of preventing the spread of the infection and will be carried out with the strictest regard to the habits, feelings and prejudices of the different classes of the community. Those who may desire it will be permitted, and aided, to erect their own hospitals and their own segregation huts, in sites shown to them or selected by them and approved by the authorities. Friends and relations will be allowed to visit the patients and, if desired, to reside near them. They can have their own food and can bring their own doctors. Every arrangement will be made to respect the privacy of women. No particular mode of treatment will be forced upon any one, and women will, under no circumstances, be required to be examined by men. In cases where infected houses or localities are evacuated the inmates will be temporarily accommodated in some convenient place, and during their absence, their houses and such of their property as may be left behind will be taken care of by Government, and adequate compensation will be paid to poor people for articles destroyed by the sanitary authorities.

13. It may be noted here that in two districts of the North-West Provinces where the plague existed for a long time in an endemic form, the villagers learnt by bitter experience that evacuation of the plague-infected locality was their best chance

of escape, and it soon became a common practice with them to vacate the village immediately the plague appeared, and to camp on the hillsides or other safe places. It is desirable that each class or caste of persons in towns in this Presidency should arrange beforehand with the district authorities for sites for hospitals and segregation camps, and organise measures at once to keep every thing ready for erecting them without delay when necessity arises. Every assistance will be given them by the officers of Government.

14. Should plague break out in any village or town, passes will be freely granted by the plague authority or other officer authorised by the Collector to the people to pursue their usual occupations without hindrance. General passes will be given to agriculturists and others having occasion to make daily and frequent journeys by road, rail or boat from an infected area. Where it is necessary for the whole family to go and work in the fields, a single pass may be given for the family which may not be revoked, even should a case of plague occur in the family of the pass-holder. There must, however, be a separate pass for each person making a railway journey under a general pass. The passes will not cover residence outside of the infected area and will not cover journeys by rail unless that is expressly stated on them. Special passes will be freely given to persons who may wish to leave the infected area and reside elsewhere and may be granted for households, provided that the name and description of each person covered by the pass is entered therein. Before, however, these special passes are given, the plague authority will satisfy himself that no case of plague has occurred in the house of the applicant or in any adjacent house or among any of his relations or associates and may also require the disinfection of all clothes and other articles to be taken away.

15. As already stated, the sole object of Government is to prevent the importation of plague into the Presidency and promptly to check its spread and stamp it out, should it nevertheless appear. That object can only be fully attained if the people themselves, for whose benefit the regulations have been framed, loyally accept them and support the action of the authorities. They should not give way to unnecessary alarm nor allow themselves to be misled by false rumours. They should freely and promptly bring to notice of the taluk officers and others appointed for the special duty all cases in which they may be subjected to unnecessary inconvenience and annoyance.

16. There is one other point to which it is necessary to draw their special attention. They are aware from long experience that persons who have been vaccinated are less liable to attacks of small-pox than those who have not been vaccinated. Experiments made in Bombay, Poona, Calcutta and other places have also shown that persons inoculated with properly prepared plague serum, such as has been found by Mr. Haffkine, are less liable to attacks of plague than those not so inoculated. Not only is the percentage of attacks reduced but the rate of mortality is materially lessened. Government has, however, no intention to force the people to subject themselves to this inoculation. It will be left entirely to them to adopt the system or not. ~~They will be assured, however, that segregation will not be enforced in the case of persons who voluntarily allow themselves to be inoculated.~~

Inoculated persons are allowed the following privileges:—

(Here enter extract marked in red ink in G.O. No 1423 P dt 8-11-97
Copy attached)

APPENDIX.

A.—Rules for Disinfection of Plague-infected Houses.

I. Sprinkle 1·1000 perchloride of mercury solution on the floor and in all corners to "lay" the dust. No brushing of walls or floor should on any account be permitted. This is a most dangerous proceeding and likely to spread infection.

II. Open all windows and doors and allow free ventilation.

Collect after sprinkling the solution

III. Carefully ~~sweep up~~ all dust and rubbish, remove out of doors and burn. Also burn all bedding and clothes of the patient and all torn and dirty rags, sacking, &c., lying about. This must be done out of doors.

IV. Steep all other clothing, bedding, sacking, bags, &c., whether in use at the time or not in 1·1000 perchloride of mercury solution for half an hour, thoroughly soaking all parts of each article. Next place them in a chattyful of water which is to be boiled for half an hour. Valuable articles which can neither be boiled nor disinfected should be exposed to the sun for at least eight hours.

V. Carefully flush (pump) 1·1000 perchloride of mercury solution in all parts of the rooms in the affected house, beginning above at the rafters and proceeding downwards to the floor.

Especially flush out all crevices, clefts, niches, corners, bathing places, cooking places and latrines. The floor must be thoroughly soaked and especially at its junction with the walls. The door and lintels must be carefully mopped or flushed and also all boxes, almirahs, &c., in the room. The furniture should be disinfected first, then taken outside and placed in the sun to dry, and then the room disinfected. After being flooded with mercury solution, the floor, if of earth, should be dug up up to a depth of 4 inches and burnt by the kiln method.

VI. Thoroughly fill all gurrahs, cooking pots and pans, lotahs, &c., with boiling water and keep at the boil for half an hour, or with a weak solution of permanganate of potassium and leave for one and half hours. Then pour out and wash with ordinary water.

VII. All useless articles must be burnt. All rubbish burnt, whether within or without the affected house; the compound thoroughly cleaned up and the drains and latrines flushed out with water first and then washed with 1·1000 perchloride of mercury solution.

VIII. The houses directly adjoining must be hot lime-washed with chloride of lime at once and thoroughly cleaned.

IX. The affected house is not to be occupied for a week. On the day following the disinfection by perchloride of mercury, the outside and inside of the affected house including the floor and the ceiling must be hot lime-washed.

X. In cases where houses have no free ventilation, *i.e.*, at least two small windows and one big door for each room, windows and other ventilation holes must be made by knocking holes in the walls, removing broad stripes of tiles (not rafters) from the roof or taking off and burning the thatch of the roof.

N.B.—All persons engaged in disinfection work are to wear shoes covering the upper parts of their feet and to wash their hands and feet in 1·1000 perchloride of mercury solution on completion of their work and disinfect their clothes and persons in carbolic acid or phenyle solution.

B.—Directions for preparing solutions of Disinfectants.

I. Perchloride of mercury is the best chemical disinfectant known and should always be used. Reliable perchloride can be obtained from the Medical Stores, Madras.

II. It is best to issue this disinfectant to coolies as a solution, *since it is very poisonous.* The solution can be prepared as follows :—

Take a clean one-gallon bottle. Place half pound of perchloride of mercury and one pound of hydrochloric acid which increases its efficacy and half fill the bottle with water. Shake thoroughly and then gradually add repeated quantities of water until all is dissolved. A little common salt or ammonium chloride helps to dissolve the solution.

(This solution can readily be prepared if the materials are pure. If a large portion of the perchloride of mercury remains undissolved, it is probably very impure and practically useless.)

Colour the solution with a pinch of red ink powder to prevent any one drinking it and "label" "Poison."

Six ounces of this solution in an ordinary wooden bucketful of water (of nearly 20 pints capacity) gives a reliable solution of perchloride of mercury, of practically 1·1000.

III. Phenyle should be served out free. It is fairly cheap and harmless to animals. It must be diluted in the proportion of 24 lbs. of phenyle to 96 gallons of water.

IV. Potassium permanganate requires to be powdered to ensure rapid and complete solution. Half an ounce to an ordinary pailful of water will serve as a reliable disinfectant. When it loses its purple colour and turns brown, it is useless, having been decomposed. It is non-poisonous and is especially useful for purifying drinking-water and for other domestic purposes.

V. *Hot water.*—An easy and simple method of disinfection is readily at hand in most situations. Water heated to 127g F or above appears to destroy the vitality of the plague bacillus. This temperature can be borne by the hand for a few minutes only. Boiling water will therefore certainly destroy the bacillus. Floors and walls of houses, fixtures and furniture could be disinfected by pouring boiling water all over the surface.

VI. Chloride of lime possesses the merits of cheapness and great efficiency. It is not dangerous in any marked degree, to animal life. Quicklime is less efficacious. It is harmless and is readily obtained in most parts of the country. ~~Carbolic acid is not recommended, as it is a weak germicide, its efficient strength being but 1 in 50.~~

APPENDIX II.

Plague.

THERE appears to be considerable misapprehension amongst the ignorant masses regarding the measures taken by Government for the prevention and suppression of the plague and the orders issued regarding anti-plague-inoculation. The Government has no intention of forcing the people to subject themselves to inoculation. They will be free to get themselves inoculated or not as they please. Those who voluntarily allow themselves to be inoculated will not be subjected to any observation and will not be detained at any inspecting station unless they are attacked with the plague. The experiences gained in other provinces show that about 90 per cent. of the persons inoculated do not get the disease, and among the few that may be attacked the mortality is very small. Some two thousand persons in the town of Madras and several in and near Guntakal, in Bellary, in Ootacamund and in other places have been inoculated within the past few months and there has not been a single casualty amongst them. It is well known that persons who have been vaccinated are less liable to the attack of small-pox than those who have not been. Similarly, experience in Bombay, Poona, Hubli, and other places shows that persons inoculated with plague serum are less liable to the attacks of plague than those not so inoculated. Even if 50 per cent. of the persons inoculated escape the attack, the matter is well worthy of consideration. As already stated, however, inoculation will not be forced upon any one.

2. As regards the preventive measures adopted by Government there can be no question that, but for them, the plague would have broken out long ago in this Presidency and carried off several thousands of its inhabitants. This disease is so infectious and dangerous that a careful examination at selected centres, and their detention when need be, of all passengers coming from infected areas or suspected of suffering from symptoms of plague, is absolutely necessary for preventing the spread of the infection. If in spite of all these precautions the disease should unfortunately break out, it will be necessary to make house-to-house inspection in order promptly to detect all real or suspected cases and segregate the sick. It would be well if the people themselves undertake this. Unless the sick persons and those in immediate contact with them are promptly removed and segregated, the disease will spread from house-to-house and from village-to-village like a conflagration and the entire population will soon become a prey to it. It is incumbent, therefore, on the Government to do all in its power to save the masses from the ravages of this dreadful disease, and in carrying out the necessary measures to this end, it is inevitable that considerations for individuals must give way to considerations of the public at large. The measures, however, will be carried out with the strictest regard to the habits, feelings, and prejudices of the different classes of the community. Those who may desire it will be permitted and aided to erect their own segregation huts in sites selected by them and approved by the authorities. Half the cost will be paid by Government. Friends and relatives will be allowed to visit the patients and, if desired, to reside near them. They can have their own food and can bring their own doctors. No particular mode of treatment will be forced upon any one, and women will under no circumstances be required to be examined by males. In cases where infected houses are evacuated, the inmates will be temporarily accommodated in some convenient place, and during their absence their house and such of the property as may be left behind will be taken care of by Government, and adequate compensation will be paid to poor people for articles destroyed by the sanitary authorities. The Government has no wish whatever to interfere in any way with the burning or burial of the dead in accordance with the custom of each caste. Where bodies are buried they should be buried at least six feet below the surface.

3. A circular explaining briefly the nature and objects of the various rules framed by Government for combating with this disease has been sent to all village officers, and the public are requested to obtain copies of them, study them carefully and loyally support the action of Government. They should act like sensible men and should not allow themselves to be led away by all sorts of absurd and false rumours. If they have any grievances, they should represent them to the officers of Government and abide by their orders.

APPENDIX III.

Inoculation.

Persons desirous of being inoculated—

(1) May take an oil-bath a day or two before;

(2) if subject to constipation, it is as well to take a dose of a purgative or a laxative a few days beforehand;

(3) after inoculation, the diet should be simple and light; milk, conjee, sago, coffee, soda water, &c., might be taken freely with advantage;

(4) people sometimes suffer from faintness and giddiness after operation; this need cause no anxiety. The best remedy is to sit in a chair and stoop forward with the head between the knees. Soda water or strong coffee mixed with a little milk might be taken;

(5) if the arm inoculated gives much pain, bran or any other dry fomentation may be used and the arm should be supported by sling;

(6) inoculated persons should avoid exposing themselves until the fever entirely subsides; pain in the arm may continue for some days, but this need not prevent the ordinary work;

(7) for three or four days, even ordinary bath should be avoided; or if it is absolutely necessary, a sponge-bath should be taken in a closed room so that the person may not catch a chill; cold baths should be avoided;

(8) oil-bath should not be taken for eight or ten days after inoculation;

(9) no treatment is necessary for the fever which will subside by itself in two or three days. Head-ache, if present, may be treated by external application of menthol or ice or cold lotions, such as vinegar and water. Should, however, the fever rise high, the inoculated person would do well to seek the advice of a competent medical officer or send intimation to the nearest dispensary and not trust to quacks;

(10) sickness and nausea, when present, are best treated by a little iced soda water or soda water and milk mixed;

(11) sexual abstinence should be observed at least for two or three weeks;

(12) females will find it convenient to be inoculated a week or ten days before menses; they may be operated on one week after the period;

(13) persons with a weak heart or lungs and persons subject to hysterics, heart disease or nervous disability should get themselves carefully examined by a medical officer before they subject themselves to inoculation.

Registration B

Government {1898} of Madras.

LOCAL AND MUNICIPAL.

Recd.	} *1898.*	*Enclosures*
Regd.		*Spare copies*

G.O., &c., Nos. 1423, 1423-A P., 8th November 1898.

NOVEMBER.

Plague Regulations.

Agreeing with the Plague Commissioner regarding certain concessions to be made in the case of inoculated persons and amending the —, and ordering the publication of a notification in the Fort St. George and all District Gazettes.

GOVERNMENT OF MADRAS.

LOCAL AND MUNICIPAL DEPARTMENT.

Read—again the following papers :—

G.O., No. 837 P., dated 17th August 1898.

Abstract.—Ordering the publication of a notification framing a regulation under the Epidemic Diseases Act relaxing the rules regarding segregation in the case of persons in good health who have been inoculated with M. Haffkine's prophylactic.

G.O., No. 1023 P., dated 7th September 1898.

Abstract.—Communicating to Collectors and others, for information and guidance, letter of the Government of India issuing subsidiary instructions with regard to plague administration.

Read—also the following papers :—

From the Plague Commissioner, Madras, dated 17th October 1898, No. 218.

Abstract.—Recommending that inoculated persons may be exempted from the ten days' observation required under the passport rules, and that a completely inoculated household should be free from all segregation even though a member of the family be attacked with plague.

Telegram from the Postmaster-General, Madras, dated 14th October 1898.

Abstract.—Representing the inconvenience he and his establishment are put to in consequence of the passport system, and suggesting the exemption of inoculated persons from the operation of the passport rules.

Order—No. 1423 P., dated 8th November 1898.

The Government agrees with the Plague Commissioner and resolves to amend the Plague Regulations accordingly. The following notification will be published in English and in the vernaculars in the Fort St. George and all District Gazettes :—

NOTIFICATION.

Under the provisions of the Epidemic Diseases Act, III of 1897, and in supersession of Notification No. 728, *Fort St. George Gazette*, dated 6th September 1898, Part I-A, page 262, His Excellency the Governor of Fort St. George in Council is pleased to frame the following Regulation and to direct that it shall be inserted as Regulation 31 in Notification No. 897, published in the *Fort St. George Gazette*, dated 18th December 1897, Part I, pages 1583–1589, and as Regulation 21 in Notification No. 898, published in the *Fort St. George Gazette*, dated 18th December 1897, Part I, pages 1589–1593 :—

The provisions of these Regulations in regard to segregation do not apply to persons who hold certificates that they have been inoculated by M. Haffkine's process, provided such certificates bear a date not earlier than six months previously. Such persons shall be entitled to the following privileges :—

(*a*) They shall not be liable to detention at any railway or road observation camp when travelling, except for such period as may be required to disinfect their baggage and clothes, if those are considered suspicious.

See next page.

print (a), (b) & (c) on page 6 of Appendix to Progs No 652

(*b*) They shall not be liable to take out passports and present themselves daily for observation for ten days after arrival from a plague-infected place.

(*c*) Inoculated persons who have been living in an infected house or have otherwise been exposed to plague infection shall not be liable to be segregated, but may be required to evacuate the infected house and to have their clothes and personal effects disinfected. When, however, all the occupants of a house have been inoculated, neither the patients nor the other inmates of the house shall be required to be segregated, provided arrangements are made to the satisfaction of a Plague authority for the disinfection of the house and its contents, and for the prevention of the spread of plague to the neighbouring dwellings.

The inoculation certificate shall be in the following form :—

Plague Inoculation [Royal Arms] Certificate.

[Counterfoil.]
No.
Name
Father's name
Street / Village
Town / Taluk
District
Date
Initials of operator.

No.

CERTIFIED that , father's name , resident of Street / Village, Town / Taluk, District has been inoculated by me, and that his thumb-mark was at the time impressed before me.

Space for left thumb-mark.

Signature and designation.

Dated

Note.—This certificate exempts the holder from segregation, from detention when travelling, and from ten days' observation under the passport rules. It does not, however, exempt him from liability to evacuate an infected house, except in the case where all the occupants of the house have been inoculated, or to have his clothes disinfected when travelling. The certificate is valid for a period of six months.

(True Extract.)

H. TREMENHEERE,
Secretary to Government.

To the Plague Commissioner.
,, all Collectors (A—L).
,, the Surgeon-General.
,, the Sanitary Commissioner.
,, the President, Municipal Commission, Madras.
,, the Superintendent, Government Press.
,, Translators to Government.
,, Political Department.
,, Marine Department.

Endorsement—No. 1423-a P., dated 8th November 1898.

Copy forwarded to the Government of India.

H. TREMENHEERE,
Secretary to Government.

Exd. J. Henricus.

Proceedings of the Plague Commissioner,

MADRAS—1898.

Proof for approval

Recd. } 1898. *Enclosures*

Regd. *Spare copies*

Proceedings, No. 652, 11th November 1898.

To. Please correct and strike off copies of this portion only and send copies for signature as early as possible tomorrow

15/11/98

NOVEMBER.

Sign copies 26.
Spare copies 800.

Circulars relating to Plague.

Ordering the printing of certain — both in English and the principal vernaculars for circulation, and requesting Collectors and the President, Municipal Commission, Madras, to indent on the Superintendent, Government Press, for the required number of copies.

PROCEEDINGS OF THE PLAGUE COMMISSIONER.

Proceedings—No. 652, dated 11th November 1898.

Three circulars relating to plague have been prepared in English and the principal vernacular languages * for general circulation among the people. One states briefly the plague rules and the policy of Government with regard to plague administration. This is intended for
distribution chiefly among the village officers for their own information and guidance
as well as for being explained to the villagers. Each village headman should
be given two copies in all the districts in which plague cases have occurred or
are likely to occur shortly, viz., Bellary, Kurnool, Anantapur, Cuddapah, North
Arcot, Salem, Coimbatore, Nilgiris, Malabar, Canara and Chingleput. The second is
a summary of the first and is intended for circulation among all persons who can read.
A copy should be supplied to every house-holder in the districts bordering on Mysore
and Hyderabad States. Copies of both the first and second circulars should also be
freely distributed in the City of Madras. The third circul r gives instructions to be
observed before and after inoculation, and orders regarding its distribution have been
issued in Proceedings No. 442, dated 27th October 1898.

* Tamil.
Telugu.
Canarese.
Malayalam.
Hindustani.

2. All Collectors and the President, Municipal Commission, Madras, are requested
to indent at once on the Superintendent, Government Press, for the required number
of copies in English and the vernaculars. The Superintendent will keep in type
the circular in all the languages and strike off and supply copies according to
requirements.

M. HAMMICK,
Plague Commissioner.

To all Collectors (A—L).
,, the President, Municipal Commission, Madras.
,, the Superintendent, Government Press.
,, the Hon'ble M.R.Ry. P. Rajaratna Mudaliyar Avargal, Diwan Bahadur.
,, the Secretary to Government, Local and Municipal Department,
with copies of the circulars.

[Appendices.

Exd. C. M. Thumbuswamy

PROCEEDINGS OF THE PLAGUE COMMISSIONER.

No. 652, dated 11—11—1898.

Read—

ask Press to
Print at once
& send copies for
signature by tomorrow.
Send copy complete for
& [illegible] it
printing before [illegible]
12
11/11

Order:—

× Tamil
Telugu
Canarese
Malayalam
Hindustani.

note -
Please see Mr. R. Mudaliar's letter below. It is difficult to estimate how many copies will be required.

Three circulars relating to plague have been prepared in English and the principal vernacular languages× for general circulation among the people. One states briefly the plague rules and the policy of Government with regard to plague administration. This is intended for distribution chiefly among the village officers for their own information and guidance as well as for being explained to the villagers. Each Village Head man should be given two copies in all the districts in which plague cases have occurred or are likely to occur shortly. viz Bellary Kurnool, Anantapur, Cuddapah, N. Arcot Salem. Coimbatore, Nilgiris, Malabar S. Canara & Chingleput. The second is a summary of the first and is intended for circulation among all persons who can read. A copy should be supplied to every house holder in the Dts bordering on Mysore and Hyderabad States. Copies of both the first and second Circula circulars should also be ~~circulated~~ ~~to~~ freely distributed in the City of Madras. The third circular gives instructions to be observed before and after inoculation & orders regarding its distribution have been issued in G.O. No 442/27-10-98.

2. All Collectors and the President M.C. Madras are requested to indent at once on the Supdt Govt Press for the required no of copies in English and the vernaculars. The Supdt will keep in type the circular in all the languages and strike off and supply copies according to requirements.

11/11/98

To ~~the~~ All Cllrs (A-L)
the President M.C. Madras
" Supdt Govt Press
the Hon Mr R. Ry P. Rajarathna
Mudaliar Avl. Diwan Bahadur
Secy to Govt, L & M Dept, with
copies of the circulars.

11/11/98

Registration

CIRCULAR ~~TO VILLAGERS~~.

The public are aware that a most dangerous disease known as the bubonic plague appeared two years ago in Bombay and subsequently in Poona and carried off several thousands of the population. The disease has since broken out in Hyderabad, in Hubli (Dharwar) and in Bangalore and is now advancing towards the borders of this Presidency. Several imported cases have already occurred in the Madura, North Arcot, Anantapur and Salem districts. Its chief characteristics are fever attended with glandular swellings and a high rate of mortality. High fever is ushered in with shivering and, after two or three days of continuous fever, grandular swellings may appear in the groins of the leg, arm-pits or neck, or in all the three places. If the disease continues, the patient may vomit blood and blood may also be discharged from the nose, the mouth, the bowels and mixed with urine. The swellings may become gangrenous and bleeding may occur from them; death may be ushered in by convulsions, delirium, insensibility, &c.

^ and the disease might break out at any moment in the Presidency Town.

This is very rare, & not at all characteristic. Sentence may be omitted

2. The disease is more dangerous than cholera and is very infectious. Once it takes root, it will be difficult to eradicate it. The best efforts of Government have accordingly been directed for some months past towards stopping, by every possible means, its advance into this Presidency. With this object, a careful examination of all passengers has been ordered to be made at selected stations on all the railways and along the main roads leading into the Presidency, and camps have also been formed for detaining and treating passengers suspected to be suffering from symptoms of plague.

3. All persons are allowed to pass freely as in ordinary times except—

(*a*) those suspected of plague,
(*b*) those suspected of arriving from an infected locality.

(*a*) Persons suspected of plague, with their families and attendants, are required to be detained at the frontier inspection stations for isolation and disinfection, until it is deemed safe to release them with passports.

(*b*) Persons suspected arriving from an infected area are examined at the frontier inspection stations and allowed to proceed on their journey on the following conditions:—

(1) At road frontier stations, they are provided with passports binding them to present themselves for daily inspection for the next ten days before the local authority, *i.e.*, the local medical officer or police station-house officer or village headman in any village where they may be, information of the issue of the passport being sent promptly by the officer in charge to the local authority of the place of destination.

(2) At railway frontier inspection stations, their tickets are punched with a special mark, if they have not been so marked before, and on arriving at the railway station where they intend to leave the train, they are furnished with passports by the station master or other officer appointed for the purpose, and intimation of the fact is sent to the local authority at the place of final destination.

4. Before persons arriving from an infected area are permitted to proceed on their journeys under passports as stated above, they may be disinfected if the Collector so orders. This is merely a process of cleaning the person and his clothing and will be resorted to only when necessary.

5. Persons coming from an infected area who appear to be likely to sicken to plague or spread infection of plague, whether by reason of their appearance, the dirty condition of their clothes, or the fact that they are travelling in gangs, or who belong to classes which are likely to disseminate the disease, or who seem likely not to be easily traced on arrival at their destination, or who are not to be depended upon to give information should plague occur among them after arrival at their destination, or for any other similar reason, may also be similarly detained under the special orders of the Collector.

6. The necessity for detaining persons for observation, or for requiring them to present themselves daily for inspection for ten days is due to the fact that medical officers have laid down ten days as the limit of safety, that is to say, infection is possible for ten days after a person leaves an infected area.

7. All taluks situated on the borders of the Bombay Presidency and Hyderabad territory and also those adjoining the Bangalore district have been divided into convenient circles, and placed in charge of special plague inspectors and assistant inspectors whose duty it is to constantly and systematically patrol their circles in order to give the earliest possible information of a case of plague so that immediate action may be taken. They are required to report any pressing sanitary need to the District Medical and Sanitary Officer, and to check passports or passes in the case of persons arriving from an infected locality. Persons arriving without a passport or pass or who may be found to have broken its conditions may be detained by the plague inspector or any member of his staff and sent to the nearest medical officer for detention until he (the medical officer) is satisfied that there is no danger of such persons spreading infection.

Inspectors and assistant inspectors are also required to keep a record of all persons suffering from continuous fever for more than twelve hours and to arrange with the village headmen to have such persons inspected twice daily in view to find out if the case turns out to be one of plague.

8. The measures indicated above are absolutely necessary for protecting the people of the Presidency against the danger that is threatening them on all sides. These measures will no doubt entail a certain amount of hardship and inconvenience to persons going from place to place on business or pleasure, but considerations for individuals must give way to considerations for the good of the people at large. It is well known that on occasions of the outbreak of cholera or small-pox the people very often voluntarily enforce a sort of quarantine against persons coming from villages infected with those diseases, and it needs no argument to convince them that in dealing with a disease so much more infectious and dangerous as is the plague which is threatening this Presidency, similar precautionary measures should be enforced with all possible rigour. The leading men of every village should therefore make it their duty to watch all strangers coming into their village and give immediate information to the village munsif or to the nearest station-house officer, if they find reasons to suspect that the strangers have come from plague-infected tracts or are suffering from severe fever or symptoms of plague. Unless they willingly and cordially co-operate with the officers appointed for the duty and give prompt intimation of all suspicious cases coming to their knowledge, the best efforts of Government towards arresting this dreadful disease will become practically of no avail.

9. There are also certain sanitary precautions which the people should carefully observe on occasions like the present, if not at all times. Many diseases of the human body are due to filth, foul air, bad food, bad water, &c. These and other insanitary conditions probably pre-dispose to attack and foster the plague germ.

A.—Habitations.

(1) Every house should be thoroughly cleaned, that is, all manure, dirty water, washings of cattle stalls and collection of dirt of any description must be completely removed.

(2) Where the earth remains damp and foul after such removal, it should be dug up till dry and clean earth is reached.

(3) The old earth should be taken from the town and may be used as manure for the fields; new earth from a clean place should be laid down.

(4) The interior and exterior of houses should be white-washed. If persons cannot afford to do the outside, the inside at least should be white-washed.

(5) Bundles of clothing and other materials hanging from the beams or occupying in any other way the rooms in which persons sleep should be removed.

(6) Doors and windows should at all possible hours be left open so that free ventilation be obtained.

(7) If private latrines are used, they must be kept free from fœcal matter by removal at least twice daily.

(8) The drains leading from houses should be cleansed twice daily.

(9) Cess-pools and pits for receipt of urine of cattle should be emptied daily.

B.—Person.

(1) The body and clothing should be kept scrupulously clean. If delicate, persons should use warm, not cold, baths.

(2) The food should be plain, nourishing, and of good quality.

(3) All vegetables or leaves or fruits, likely to cause diarrhœa, should be abandoned.

(4) All forms of drinking to excess, debauchery, late hours and exposure to wet and cold should be avoided.

(5) Cold cooked food should never be used. Care should be taken not to allow flies to settle upon food. Vegetables and leaves should never be eaten otherwise than after cooking. Before being cooked, they should be well washed in water that has been purified by boiling. Salt should be freely used with the diet; but, on the other hand, it must not be used in such unusual amounts as to excite uneasiness or looseness of the bowels.

(6) An inferior quality of water should not be kept in the house; only the cleanest available should be employed.

(7) Water for drinking purposes and for washing the mouth or eating and drinking vessels, and milk should be boiled before use.

(8) Persons with cuts or abrasions on their hands, feet or other exposed parts of the body should avoid attendance on plague patients; but if attendance is essential, the wounded parts should be covered and, on occasions of temporary withdrawals from attendance, the parts should be washed with disinfectants, which can be obtained from the sanitary staff on application.

10. It has been found from experience in other provinces that rats are a dangerous means of conveying infection. Every effort should therefore be made to destroy them in time.

11. Large sums of money have already been expended in carrying out Government's plague preventive measures, and if, in spite of all these precautions, the plague should unfortunately make its appearance in this presidency, the public may rest assured that the Government is fully prepared to meet it and prevent it at all cost from assuming an epidemic form. Should the disease unfortunately break out, it will be necessary to introduce an efficient system of house-to-house inspection in order promptly to detect all real or suspected cases; to segregate the sick and treat them in hospitals specially erected for the purpose; to cause evacuation of infected houses and localities, if need be; and to enforce general sanitary precautions, such as extensive cleansing of dwellings, freer admission of light and air, destruction or modification of insanitary buildings, improvement of drainage and conservancy, abatement of overcrowding, opening out of crowded localities.

12. Segregation of the plague-stricken and of the persons who have been in immediate contact with them is a fundamental precaution which is essential to the successful issue of any operations against the disease. It is the only effective means of preventing the spread of the infection and will be carried out with the strictest regard to the habits, feelings and prejudices of the different classes of the community. Those who may desire it will be permitted, and aided, to erect their own hospitals and their own segregation huts, in sites shown to them or selected by them and approved by the authorities. Friends and relations will be allowed to visit the patients and, if desired, to reside near them. They can have their own food and can bring their own doctors. Every arrangement will be made to respect the privacy of women. No particular mode of treatment will be forced upon any one, and women will, under no circumstances, be required to be examined ~~by men.~~ In cases where infected houses or localities are evacuated the inmates will be temporarily accommodated in some convenient place, and during their absence, their houses and such of their property as may be left behind will be taken care of by Government, and adequate compensation will be paid to poor people for articles destroyed by the sanitary authorities.

Segregation in their own camping [illegible]

13. It may be noted here that in two districts of the North-West Provinces where the plague existed for a long time in an endemic form, the villagers learnt by better experience that evacuation of the plague-infected locality was their best chance

of escape, and it soon became a common practice with them to vacate the village immediately the plague appeared, and to camp on the hillsides or other safe places. It is desirable that each class or caste of persons in towns in this Presidency should arrange beforehand with the district authorities for sites for hospitals and segregation camps, and organise measures at once to keep every thing ready for erecting them without delay when necessity arises. Every assistance will be given them by the officers of Government.

14. Should plague break out in any village or town, passes will be freely granted by the plague authority or other officer authorised by the Collector to the people to pursue their usual occupations without hindrance. General passes will be given to agriculturists and others having occasion to make daily and frequent journeys by road, rail or boat from an infected area. Where it is necessary for the whole family to go and work in the fields, a single pass may be given for the family which may not be revoked, even should a case of plague occur in the family of the pass-holder. There must, however, be a separate pass for each person making a railway journey under a general pass. The passes will not cover residence outside of the infected area and will not cover journeys by rail unless that is expressly stated on them. Special passes will be freely given to persons who may wish to leave the infected area and reside elsewhere and may be granted for households, provided that the name and description of each person covered by the pass is entered therein. Before, however, these special passes are given, the plague authority will satisfy himself that no case of plague has occurred in the house of the applicant or in any adjacent house or among any of his relations or associates and may also require the disinfection of all clothes and other articles to be taken away.

15. As already stated, the sole object of Government is to prevent the importation of plague into the Presidency and promptly to check its spread and stamp it out, should it nevertheless appear. That object can only be fully attained if the people themselves, for whose benefit the regulations have been framed loyally accept them and support the action of the authorities. They should not give way to unnecessary alarm nor allow themselves to be misled by false rumours. They should freely and promptly bring to notice of the taluk officers and others appointed for the special duty all cases in which they may be subjected to unnecessary inconvenience and annoyance.

16. There is one other point to which it is necessary to draw their special attention. They are aware from long experience that persons who have been vaccinated are less liable to attacks of small-pox than those who have not been vaccinated. Experiments made in Bombay, Poona, Calcutta and other places have also shown that persons inoculated with properly prepared plague serum, such as has been found by Mr. Haffkine, are less liable to attacks of plague than those not so inoculated. Not only is the percentage of attacks reduced but the rate of mortality is materially lessened. Government has, however, no intention to force the people to subject themselves to this inoculation. It will be left entirely to them to adopt the system or not. They will be assured, however, that ~~segregation will not be enforced in the case of persons who voluntarily allow themselves to be inoculated, nor will they be detained at Railway Camps.~~ They will be liable however to vacate infected houses.

A certificate of inoculation will

Except the holders unless attacked by plague from Segregation & from detention when travelling

APPENDIX.

A.—Rules for Disinfection of Plague-infected Houses.

I. Sprinkle 1·1000 perchloride of mercury solution on the floor and in all corners to "lay" the dust. No brushing of walls or floor should on any account be permitted. This is a most dangerous proceeding and likely to spread infection.

II. Open all windows and doors and allow free ventilation.

III. Carefully ~~sweep up~~ all dust and rubbish, remove out of doors and burn. Also burn all bedding and clothes of the patient and all torn and dirty rags, sacking, &c., lying about. This must be done out of doors.

Collect after sprinkling the Solution.

IV. Steep all other clothing, bedding, sacking, bags, &c., whether in use at the time or not in 1·1000 perchloride of mercury solution for half an hour, thoroughly soaking all parts of each article. Next place them in a chattyful of water which is to be boiled for half an hour. Valuable articles which can neither be boiled nor disinfected should be exposed to the sun for at least eight hours.

V. Carefully flush (pump) 1·1000 perchloride of mercury solution in all parts of the rooms in the affected house, beginning above at the rafters and proceeding downwards to the floor.

Especially flush out all crevices, clefts, niches, corners, bathing places, cooking places and latrines. The floor must be thoroughly soaked and especially at its junction with the walls. The door and lintels must be carefully mopped or flushed and also all boxes, almirahs, &c., in the room. The furniture should be disinfected first, then taken outside and placed in the sun to dry, and then the room disinfected. After being flooded with mercury solution, the floor, if of earth, should be dug up up to a depth of 4 inches and burnt by the kiln method.

VI. Thoroughly fill all gurrahs, cooking pots and pans, lotahs, &c., with boiling water and keep at the boil for half an hour, or with a weak solution of permanganate of potassium and leave for one and half hours. Then pour out and wash with ordinary water.

VII. All useless articles must be burnt. All rubbish burnt, whether within or without the affected house; the compound thoroughly cleaned up and the drains and latrines flushed out with water first and then washed with 1·1000 perchloride of mercury solution.

VIII. The houses directly adjoining must be hot lime-washed with chloride of lime at once and thoroughly cleaned.

IX. The affected house is not to be occupied for a week. On the day following the disinfection by perchloride of mercury, the outside and inside of the affected house including the floor and the ceiling must be hot lime-washed.

X. In cases where houses have no free ventilation, *i.e.*, at least two small windows and one big door for each room, windows and other ventilation holes must be made by knocking holes in the walls, removing broad stripes of tiles (not rafters) from the roof or taking off and burning the thatch of the roof.

N.B.—All persons engaged in disinfection work are to wear shoes covering the upper parts of their feet and to wash their hands and feet in 1·1000 perchloride of mercury solution on completion of their work and disinfect their clothes and persons in carbolic acid or phenyle solution.

B.—Directions for preparing solutions of Disinfectants.

I. ~~Perchloride of mercury is the best chemical disinfectant known and should always be used. Reliable perchloride can be obtained from the Medical Stores, Madras.~~

II. ~~It is best to issue this disinfectant to coolies as a solution, *since it is very poisonous*.~~

~~The solution can be prepared as follows:—~~

~~Take a clean one-gallon bottle. Place half pound of perchloride of mercury and one pound of hydrochloric acid which increases its efficacy and half fill the bottle with water. Shake thoroughly and then gradually add repeated quantities of water until all is dissolved. A little common salt or ammonium chloride helps to dissolve the solution.~~

~~(This solution can readily be prepared if the materials are pure. If a large portion of the perchloride of mercury remains undissolved, it is probably very impure and practically useless.)~~

~~Colour the solution with a pinch of red ink powder to prevent any one drinking it and "label" "Poison."~~

~~Six ounces of this solution in an ordinary wooden bucketful of water (of nearly 20 pints capacity) gives a reliable solution of perchloride of mercury, of practically 1·1000.~~

III. Phenyle should be served out free. It is fairly cheap and harmless to animals. It must be diluted in the proportion of 24 lbs. of phenyle to 96 gallons of water.

IV. Potassium permanganate requires to be powdered to ensure rapid and complete solution. Half an ounce to an ordinary pailful of water will serve as a reliable disinfectant. When it loses its purple colour and turns brown, it is useless, having been decomposed. It is non-poisonous and is especially useful for purifying drinking-water and for other domestic purposes.

V. *Hot water.*—An easy and simple method of disinfection is readily at hand in most situations. Water heated to 127g F or above appears to destroy the vitality of the plague bacillus. This temperature can be borne by the hand for a few minutes only. Boiling water will therefore certainly destroy the bacillus. Floors and walls of houses, fixtures and furniture could be disinfected by pouring boiling water all over the surface.

VI. Chloride of lime possesses the merits of cheapness and great efficiency. It is not dangerous in any marked degree, to animal life. Quicklime is less efficacious. It is harmless and is readily obtained in most parts of the country. ~~Carbolic acid is not recommended, as it is a weak germicide, its efficient strength being but 1 in 50.~~

(Signed) H. THOMSON, M.B., D.PH., Surgeon-Major,
Ag. Sanitary Commissioner.

How many copies of each should be printed

5/11

My dear Sir

As requested in your letter of the 31st Oct, I send you herewith 10 copies of your circular on plague to householders ~~and copies~~ for forms of being ~~[illegible]~~ translated into the vernaculars.

5/11 [illegible]

Note The copies will come this evening from the Press

II

PLAGUE.

THERE appears to be considerable misapprehension amongst the ignorant masses regarding the measures taken by Government for the prevention and suppression of the plague and the orders issued regarding anti-plague-inoculation. The Government has no intention of forcing the people to subject themselves to inoculation. They will be free to get themselves inoculated or not as they please. Those who voluntarily allow themselves to be inoculated will not be subjected to any observation and will not be detained at any inspecting station unless they are attacked with the plague. The experiences gained in other provinces show that about 90 per cent. of the persons inoculated do not get the disease, and among the few that may be attacked the mortality is very small. Some two thousand persons in the town of Madras and several in and near Guntakal, in Bellary, in Ootacamund and in other places have been inoculated within the past few months and there has not been a single casualty amongst them. It is well known that persons who have been vaccinated are less liable to the attack of small-pox than those who have not been. Similarly, experience in Bombay, Poona, Hubli, and other places shows that persons inoculated with plague serum are less liable to the attacks of plague than those not so inoculated. Even if 50 per cent. of the persons inoculated escape the attack, the matter is well worthy of consideration. As already stated, however, inoculation will not be forced upon any one.

2. As regards the preventive measures adopted by Government there can be no question that, but for them, the plague would have broken out long ago in this Presidency and carried off several thousands of its inhabitants. This disease is so infectious and dangerous that a careful examination at selected centres, and their detention when need be, of all passengers coming from infected areas or suspected of suffering from symptoms of plague, is absolutely necessary for preventing the spread of the infection. If in spite of all these precautions the disease should unfortunately break out, it will be necessary to make house-to-house inspection in order promptly to detect all real or suspected cases and segregate the sick. It would be well if the people themselves undertake this. Unless the sick persons and those in immediate contact with them are promptly removed and segregated, the disease will spread from house-to-house and from village-to-village like a conflagration and the entire population will soon become a prey to it. It is incumbent, therefore, on the Government to do all in its power to save the masses from the ravages of this dreadful disease, and in carrying out the necessary measures to this end, it is inevitable that considerations for individuals must give way to considerations of the public at large. The measures, however, will be carried out with the strictest regard to the habits, feelings, and prejudices of the different classes of the community. Those who may desire it will be permitted and aided to erect their own segregation huts in site selected by them and approved by the authorities. Half the cost will be paid by Government. Friends and relatives will be allowed to visit the patients and, if desired, to reside near them. They can have their own food and can bring their own doctors. No particular mode of treatment will be forced upon any one, and women will under no circumstances be required to be examined by males. In cases where infected houses are evacuated, the inmates will be temporarily accommodated in some convenient place, and during their absence their house and such of the property as may be left behind will be taken care of by Government, and adequate compensation will be paid to poor people for articles destroyed by the sanitary authorities. The Government has no wish whatever to interfere in any way with the burning or burial of the dead in accordance with the custom of each caste. Where bodies are buried they should be buried at least six feet below the surface.

3. A circular explaining briefly the nature and objects of the various rules framed by Government for combating with this disease has been sent to all village officers, and the public are requested to obtain copies of them, study them carefully and loyally support the action of Government. They should act like sensible men and should not allow themselves to be led away by all sorts of absurd and false rumours. If they have any grievances, they should represent them to the officers of Government and abide by their orders.

(Signed) M. HAMMICK,
Plague Commissioner.

I

2 Standing

CIRCULAR TO VILLAGERS.

The public are aware that a most dangerous disease known as the bubonic plague appeared two years ago in Bombay and subsequently in Poona and carried off several thousands of the population. The disease has since broken out in Hyderabad, in Hubli (Dharwar) and in Bangalore and is now advancing towards the borders of this Presidency. Several imported cases have already occurred in the Madura, North Arcot, Anantapur and Salem districts. Its chief characteristics are fever attended with glandular swellings and a high rate of mortality. High fever is ushered in with shivering and, after two or three days of continuous fever, grandular swellings may appear in the groins of the leg, arm-pits or neck, or in all the three places. If the disease continues, the patient may vomit blood and blood may also be discharged from the nose, the mouth, the bowels and mixed with urine. The swellings may become gangrenous and bleeding may occur from them; death may be ushered in by convulsions, delirium, insensibility, &c.

2. The disease is more dangerous than cholera and is very infectious. Once it takes root, it will be difficult to eradicate it. The best efforts of Government have accordingly been directed for some months past towards stopping, by every possible means, its advance into this Presidency. With this object, a careful examination of all passengers has been ordered to be made at selected stations on all the railways and along the main roads leading into the Presidency, and camps have also been formed for detaining and treating passengers suspected to be suffering from symptoms of plague.

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(*a*) Persons suspected of plague, with their families and attendants, are required to be detained at the frontier inspection stations for isolation and disinfection, until it is deemed safe to release them with passports.

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5. Persons coming from an infected area who appear to be likely to sicken to plague or spread infection of plague, whether by reason of their appearance, the dirty condition of their clothes, or the fact that they are travelling in gangs, or who belong to classes which are likely to disseminate the disease, or who seem likely not to be easily traced on arrival at their destination, or who are not to be depended upon to give information should plague occur among them after arrival at their destination, or for any other similar reason, may also be similarly detained under the special orders of the Collector.

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7. All taluks situated on the borders of the Bombay Presidency and Hyderabad territory and also those adjoining the Bangalore district have been divided into convenient circles, and placed in charge of special plague inspectors and assistant inspectors whose duty it is to constantly and systematically patrol their circles in order to give the earliest possible information of a case of plague so that immediate action may be taken. They are required to report any pressing sanitary need to the District Medical and Sanitary Officer, and to check passports or passes in the case of persons arriving from an infected locality. Persons arriving without a passport or pass or who may be found to have broken its conditions may be detained by the plague inspector or any member of his staff and sent to the nearest medical officer for detention until he (the medical officer) is satisfied that there is no danger of such persons spreading infection.

Inspectors and assistant inspectors are also required to keep a record of all persons suffering from continuous fever for more than twelve hours and to arrange with the village headmen to have such persons inspected twice daily in view to find out if the case turns out to be one of plague.

8. The measures indicated above are absolutely necessary for protecting the people of the Presidency against the danger that is threatening them on all sides. These measures will no doubt entail a certain amount of hardship and inconvenience to persons going from place to place on business or pleasure, but considerations for individuals must give way to considerations for the good of the people at large. It is well known that on occasions of the outbreak of cholera or small-pox the people very often voluntarily enforce a sort of quarantine against persons coming from villages infected with those diseases, and it needs no argument to convince them that in dealing with a disease so much more infectious and dangerous as is the plague which is threatening this Presidency, similar precautionary measures should be enforced with all possible rigour. The leading men of every village should therefore make it their duty to watch all strangers coming into their village and give immediate information to the village munsif or to the nearest station-house officer, if they find reasons to suspect that the strangers have come from plague-infected tracts or are suffering from severe fever or symptoms of plague. Unless they willingly and cordially co-operate with the officers appointed for the duty and give prompt intimation of all suspicious cases coming to their knowledge, the best efforts of Government towards arresting this dreadful disease will become practically of no avail.

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(3) All vegetables or leaves or fruits, likely to cause diarrhœa, should be abandoned.

(4) All forms of drinking to excess, debauchery, late hours and exposure to wet and cold should be avoided.

(5) Cold cooked food should never be used. Care should be taken not to allow flies to settle upon food. Vegetables and leaves should never be eaten otherwise than after cooking. Before being cooked, they should be well washed in water that has been purified by boiling. Salt should be freely used with the diet; but, on the other hand, it must not be used in such unusual amounts as to excite uneasiness or looseness of the bowels.

(6) An inferior quality of water should not be kept in the house; only the cleanest available should be employed.

(7) Water for drinking purposes and for washing the mouth or eating and drinking vessels, and milk should be boiled before use.

(8) Persons with cuts or abrasions on their hands, feet or other exposed parts of the body should avoid attendance on plague patients; but if attendance is essential, the wounded parts should be covered and, on occasions of temporary withdrawals from attendance, the parts should be washed with disinfectants, which can be obtained from the sanitary staff on application.

10. It has been found from experience in other provinces that rats are a dangerous means of conveying infection. Every effort should therefore be made to destroy them in time.

11. Large sums of money have already been expended in carrying out Government's plague preventive measures, and if, in spite of all these precautions, the plague should unfortunately make its appearance in this presidency, the public may rest assured that the Government is fully prepared to meet it and prevent it at all cost from assuming an epidemic form. Should the disease unfortunately break out, it will be necessary to introduce an efficient system of house-to-house inspection in order promptly to detect all real or suspected cases; to segregate the sick and treat them in hospitals specially erected for the purpose; to cause evacuation of infected houses and localities, if need be; and to enforce general sanitary precautions, such as extensive cleansing of dwellings, freer admission of light and air, destruction or modification of insanitary buildings, improvement of drainage and conservancy, abatement of overcrowding, opening out of crowded localities.

12. Segregation of the plague-stricken and of the persons who have been in immediate contact with them is a fundamental precaution which is essential to the successful issue of any operations against the disease. It is the only effective means of preventing the spread of the infection and will be carried out with the strictest regard to the habits, feelings and prejudices of the different classes of the community. Those who may desire it will be permitted, and aided, to erect their own hospitals and their own segregation huts, in sites shown to them or selected by them and approved by the authorities. Friends and relations will be allowed to visit the patients and, if desired, to reside near them. They can have their own food and can bring their own doctors. Every arrangement will be made to respect the privacy of women. No particular mode of treatment will be forced upon any one, and women will, under no circumstances, be required to be examined by men. In cases where infected houses or localities are evacuated the inmates will be temporarily accommodated in some convenient place, and during their absence, their houses and such of their property as may be left behind will be taken care of by Government, and adequate compensation will be paid to poor people for articles destroyed by the sanitary authorities.

13. It may be noted here that in two districts of the North-West Provinces where the plague existed for a long time in an endemic form, the villagers learnt by better experience that evacuation of the plague-infected locality was their best chance

? bitter

of escape, and it soon became a common practice with them to vacate the village immediately the plague appeared, and to camp on the hillsides or other safe places. It is desirable that each class or caste of persons in towns in this Presidency should arrange beforehand with the district authorities for sites for hospitals and segregation camps, and organise measures at once to keep every thing ready for erecting them without delay when necessity arises. Every assistance will be given them by the officers of Government.

14. Should plague break out in any village or town, passes will be freely granted by the plague authority or other officer authorised by the Collector to the people to pursue their usual occupations without hindrance. General passes will be given to agriculturists and others having occasion to make daily and frequent journeys by road, rail or boat from an infected area. Where it is necessary for the whole family to go and work in the fields, a single pass may be given for the family which may not be revoked, even should a case of plague occur in the family of the pass-holder. There must, however, be a separate pass for each person making a railway journey under a general pass. The passes will not cover residence outside of the infected area and will not cover journeys by rail unless that is expressly stated on them. Special passes will be freely given to persons who may wish to leave the infected area and reside elsewhere and may be granted for households, provided that the name and description of each person covered by the pass is entered therein. Before, however, these special passes are given, the plague authority will satisfy himself that no case of plague has occurred in the house of the applicant or in any adjacent house or among any of his relations or associates and may also require the disinfection of all clothes and other articles to be taken away.

15. As already stated, the sole object of Government is to prevent the importation of plague into the Presidency and promptly to check its spread and stamp it out, should it nevertheless appear. That object can only be fully attained if the people themselves, for whose benefit the regulations have been framed loyally, accept them and support the action of the authorities. They should not give way to unnecessary alarm nor allow themselves to be misled by false rumours. They should freely and promptly bring to notice of the taluk officers and others appointed for the special duty all cases in which they may be subjected to unnecessary inconvenience and annoyance.

16. There is one other point to which it is necessary to draw their special attention. They are aware from long experience that persons who have been vaccinated are less liable to attacks of small-pox than those who have not been vaccinated. Experiments made in Bombay, Poona, Calcutta and other places have also shown that persons inoculated with properly prepared plague serum, such as has been found by Mr. Haffkine, are less liable to attacks of plague than those not so inoculated. Not only is the percentage of attacks reduced but the rate of mortality is materially lessened. Government has, however, no intention to force the people to subject themselves to this inoculation. It will be left entirely to them to adopt the system or not. They will be assured, however, that segregation will not be enforced in the case of persons who voluntarily allow themselves to be inoculated.

APPENDIX.

A.—Rules for Disinfection of Plague-infected Houses.

I. Sprinkle 1·1000 perchloride of mercury solution on the floor and in all corners to "lay" the dust. No brushing of walls or floor should on any account be permitted. This is a most dangerous proceeding and likely to spread infection.

II. Open all windows and doors and allow free ventilation.

III. Carefully sweep up all dust and rubbish, remove out of doors and burn. Also burn all bedding and clothes of the patient and all torn and dirty rags, sacking, &c., lying about. This must be done out of doors.

IV. Steep all other clothing, bedding, sacking, bags, &c., whether in use at the time or not in 1·1000 perchloride of mercury solution for half an hour, thoroughly soaking all parts of each article. Next place them in a chattyful of water which is to be boiled for half an hour. Valuable articles which can neither be boiled nor disinfected should be exposed to the sun for at least eight hours.

V. Carefully flush (pump) 1·1000 perchloride of mercury solution in all parts of the rooms in the affected house, beginning above at the rafters and proceeding downwards to the floor.

Especially flush out all crevices, clefts, niches, corners, bathing places, cooking places and latrines. The floor must be thoroughly soaked and especially at its junction with the walls. The door and lintels must be carefully mopped or flushed and also all boxes, almirahs, &c., in the room. The furniture should be disinfected first, then taken outside and placed in the sun to dry, and then the room disinfected. After being flooded with mercury solution, the floor, if of earth, should be dug up up to a depth of 4 inches and burnt by the kiln method.

VI. Thoroughly fill all gurrahs, cooking pots and pans, lotahs, &c., with boiling water and keep at the boil for half an hour, or with a weak solution of permanganate of potassium and leave for one and half hours. Then pour out and wash with ordinary water.

VII. All useless articles must be burnt. All rubbish burnt, whether within or without the affected house; the compound thoroughly cleaned up and the drains and latrines flushed out with water first and then washed with 1·1000 perchloride of mercury solution.

VIII. The houses directly adjoining must be hot lime-washed with chloride of lime at once and thoroughly cleaned.

IX. The affected house is not to be occupied for a week. On the day following the disinfection by perchloride of mercury, the outside and inside of the affected house including the floor and the ceiling must be hot lime-washed.

X. In cases where houses have no free ventilation, *i.e.*, at least two small windows and one big door for each room, windows and other ventilation holes must be made by knocking holes in the walls, removing broad stripes of tiles (not rafters) from the roof or taking off and burning the thatch of the roof.

N.B.—All persons engaged in disinfection work are to wear shoes covering the upper parts of their feet and to wash their hands and feet in 1·1000 perchloride of mercury solution on completion of their work and disinfect their clothes and persons in carbolic acid or phenyle solution.

B.—Directions for preparing solutions of Disinfectants.

I. Perchloride of mercury is the best chemical disinfectant known and should always be used. Reliable perchloride can be obtained from the Medical Stores, Madras.

II. It is best to issue this disinfectant to coolies as a solution, *since it is very poisonous.* The solution can be prepared as follows :—

Take a clean one-gallon bottle. Place half pound of perchloride of mercury and one pound of hydrochloric acid which increases its efficacy and half fill the bottle with water. Shake thoroughly and then gradually add repeated quantities of water until all is dissolved. A little common salt or ammonium chloride helps to dissolve the solution.

(This solution can readily be prepared if the materials are pure. If a large portion of the perchloride of mercury remains undissolved, it is probably very impure and practically useless.)

Colour the solution with a pinch of red ink powder to prevent any one drinking it and "label" "Poison."

Six ounces of this solution in an ordinary wooden bucketful of water (of nearly 20 pints capacity) gives a reliable solution of perchloride of mercury, of practically 1·1000.

III. Phenyle should be served out free. It is fairly cheap and harmless to animals. It must be diluted in the proportion of 24 lbs. of phenyle to 96 gallons of water.

IV. Potassium permanganate requires to be powdered to ensure rapid and complete solution. Half an ounce to an ordinary pailful of water will serve as a reliable disinfectant. When it loses its purple colour and turns brown, it is useless, having been decomposed. It is non-poisonous and is especially useful for purifying drinking-water and for other domestic purposes.

V. *Hot water.*—An easy and simple method of disinfection is readily at hand in most situations. Water heated to 127g F or above appears to destroy the vitality of the plague bacillus. This temperature can be borne by the hand for a few minutes only. Boiling water will therefore certainly destroy the bacillus. Floors and walls of houses, fixtures and furniture could be disinfected by pouring boiling water all over the surface.

VI. Chloride of lime possesses the merits of cheapness and great efficiency. It is not dangerous in any marked degree, to animal life. Quicklime is less efficacious. It is harmless and is readily obtained in most parts of the country. Carbolic acid is not recommended, as it is a weak germicide, its efficient strength being but 1 in 50.

(Signed) H. THOMSON, M.B., D.PH., Surgeon-Major,
Ag. Sanitary Commissioner.

III

48 Sandies.

APPENDIX.

Inoculation.

Persons desirous of being inoculated—

(1) May take an oil-bath a day or two before ;

(2) if subject to constipation, it is as well to take a dose of a purgative or a laxative a few days beforehand ;

(3) after inoculation, the diet should be simple and light ; milk, conjee, sago, coffee, soda water, &c., might be taken freely with advantage ;

(4) people sometimes suffer from faintness and giddiness after operation ; this need cause no anxiety. The best remedy is to sit in a chair and stoop forward with the head between the knees. Soda water or strong coffee mixed with a little milk might be taken ;

(5) if the arm inoculated gives much pain, bran or any other dry fomentation may be used and the arm should be supported by sling ;

(6) inoculated persons should avoid exposing themselves until the fever entirely subsides; pain in the arm may continue for some days, but this need not prevent the ordinary work ;

(7) for three or four days, even ordinary bath should be avoided ; or if it is absolutely necessary, a sponge-bath should be taken in a closed room so that the person may not catch a chill; cold baths should be avoided ;

(8) oil-bath should not be taken for eight or ten days after inoculation ;

(9) no treatment is necessary for the fever which will subside by itself in two or three days. Head-ache, if present, may be treated by external application of menthol or ice or cold lotions, such as vinegar and water. Should, however, the fever rise high, the inoculated person would do well to seek the advice of a competent medical officer or send intimation to the nearest dispensary and not trust to quacks ;

(10) sickness and nausea, when present, are best treated by a little iced soda water or soda water and milk mixed ;

(11) sexual abstinence should be observed at least for two or three weeks ;

(12) females will find it convenient to be inoculated a week or ten days before menses ; they may be operated on one week after the period ;

(13) persons with a weak heart or lungs and persons subject to hysterics, heart disease or nervous disability should get themselves carefully examined by a medical officer before they subject themselves to inoculation.

Plague

There appears to be considerable misapprehension amongst the ignorant masses regarding the measures taken by Government for the prevention and suppression of the Plague ~~and the orders issued regarding anti-plague-inoculation~~. The Government has no intention of forcing the people to subject themselves to inoculation. They will be free to get themselves inoculated or not as they please. Those who voluntarily allow themselves to be inoculated will not be subjected to any observation and will not be detained at any inspecting station unless they are attacked with the Plague.

(1) Half the cost will be paid by Govt

The experiences gained in other ~~the~~ Provinces shows that about ninty per cent of the persons inoculated do not get the disease and among ~~even~~ the few that may be attacked the mortality is very small ~~generally get it in a mild form~~. Some two thousand persons in the Town of Madras and several in and near Guntakal in Bellary, in Ootacamund and in other places ~~(near Bellary)~~ have been inoculated within the past few months and there has not been a single casualty amongst them. It is well known that persons who have been vaccinated are less liable to the attack of small-pox than those who have not been. Similarly, experience in Bombay, Poona, Hubli, and other places shows that persons inoculated with plague ~~Haffkine's~~ serum are less liable to the attacks of plague than those not inoculated ~~than others~~. Even if fifty per cent of the persons inoculated escape the attack the matter is well worthy of consideration ~~worthy considering~~. As already stated, however, inoculation will not be forced upon any one.

(2)

2. As regards the preventive measures adopted by Government, there can be no question that but for them, the Plague would have broken out long ago in this Presidency and carried off several thousands of its inhabitants. This disease is so infectious and dangerous that a careful examination at selected centres and their detention when need be, of all ~~the~~ passengers coming from infected areas or suspected of suffering from symptoms of plague, is absolutely necessary for preventing the spread of the infection. If inspite of all these precautions the disease should unfortunately break out, it will be necessary to make house-to-house inspection in order promptly to detect all real or suspected cases and segregate the sick. It would be well if the people themselves undertake this. Unless the sick persons and those in immediate contact with them are promptly removed and segregated, the disease will spread

(3)

from

from house-to-house and from village-to-village like a conflagration and the entire population will soon become a prey to it. It is incumbent, ~~on~~ therefore, on the Government to do all in its power to save the masses from the ravages of ~~the~~ this dreadful disease, and in carrying out the necessary measures to this end, It is inevitable that considerations for individuals must give way to considerations of the public at large. The measures, however, will be carried out with the strictest regard to the habits, feelings, and prejudices of the different classes of the community. Those who may desire it will be permitted and aided to erect their own segregation huts in

④ sites selected by them and approved by the authorities. Half the cost will be paid by Government. Friends and relatives will be allowed to visit the patients and if desired, to reside near them. They can have their own food and can ~~try~~ bring their own doctors. No particular mode of treatment will be forced upon any one and women will under no circumstances be required to be examined by males. In cases ~~when~~ where infected houses are evacuated, the inmates will be temporarily accomodated in some convenient place and during their absence their house and ~~each~~ such of the property as may be left behind will be taken care of by Government and adequate compensation will be paid to poor people for articles destroyed by the sanitary authorities.

⑤ 3. A circular explaining briefly the ~~notion~~ nature and objects of the various rules framed by Government for ~~competing~~ combatting with this disease has been sent to all village officers and the public are requested to obtain copies of them, study them carefully and loyally support the action of Government. They should act like sensible men and should not allow themselves to be led away by all sorts of absurd and false rumours. If they have any grievances, they should represent them ~~peacefully~~ to the officers of Government and abide by their orders. ~~Any attempt to defy constituted authority will be promptly followed by condign punishment.~~

The Government has no wish whatever to interfere in any way with the burning or burial of the dead in accordance with the custom of each caste. Where bodies are buried they should be buried at least six feet below the surface.

⑥

s/. M. Hammick

PLAGUE.

THERE appears to be considerable misapprehension amongst the ignorant masses regarding the measures taken by Government for the prevention and suppression of the plague and the orders issued regarding anti-plague-inoculation. The Government has no intention of forcing the people to subject themselves to inoculation. They will be free to get themselves inoculated or not as they please. Those who voluntarily allow themselves to be inoculated will not be subjected to any observation and will not be detained at any inspecting station unless they are attacked with the plague. The experiences gained in other provinces show that about 90 per cent. of the persons inoculated do not get the disease, and among the few that may be attacked the mortality is very small. Some two thousand persons in the town of Madras and several in and near Guntakal, in Bellary, in Ootacamund and in other places have been inoculated within the past few months and there has not been a single casualty amongst them. It is well known that persons who have been vaccinated are less liable to the attack of small-pox than those who have not been. Similarly, experience in Bombay, Poona, Hubli, and other places shows that persons inoculated with plague serum are less liable to the attacks of plague than those not so inoculated. Even if 50 per cent. of the persons inoculated escape the attack, the matter is well worthy of consideration. As already stated, however, inoculation will not be forced upon any one.

2. As regards the preventive measures adopted by Government there can be no question that, but for them, the plague would have broken out long ago in this Presidency and carried off several thousands of its inhabitants. This disease is so infectious and dangerous that a careful examination at selected centres, and their detention when need be, of all passengers coming from infected areas or suspected of suffering from symptoms of plague, is absolutely necessary for preventing the spread of the infection. If in spite of all these precautions the disease should unfortunately break out, it will be necessary to make house-to-house inspection in order promptly to detect all real or suspected cases and segregate the sick. It would be well if the people themselves undertake this. Unless the sick persons and those in immediate contact with them are promptly removed and segregated, the disease will spread from house-to-house and from village-to-village like a conflagration and the entire population will soon become a prey to it. It is incumbent, therefore, on the Government to do all in its power to save the masses from the ravages of this dreadful disease, and in carrying out the necessary measures to this end, it is inevitable that considerations for individuals must give way to considerations of the public at large. The measures, however, will be carried out with the strictest regard to the habits, feelings, and prejudices of the different classes of the community. Those who may desire it will be permitted and aided to erect their own segregation huts in site selected by them and approved by the authorities. Half the cost will be paid by Government. Friends and relatives will be allowed to visit the patients and, if desired, to reside near them. They can have their own food and can bring their own doctors. No particular mode of treatment will be forced upon any one, and women will under no circumstances be required to be examined by males. In cases where infected houses are evacuated, the inmates will be temporarily accommodated in some convenient place, and during their absence their house and such of the property as may be left behind will be taken care of by Government, and adequate compensation will be paid to poor people for articles destroyed by the sanitary authorities. The Government has no wish whatever to interfere in any way with the burning or burial of the dead in accordance with the custom of each caste. Where bodies are buried they should be buried at least six feet below the surface.

3. A circular explaining briefly the nature and objects of the various rules framed by Government for combating with this disease has been sent to all village officers, and the public are requested to obtain copies of them, study them carefully and loyally support the action of Government. They should act like sensible men and should not allow themselves to be led away by all sorts of absurd and false rumours. If they have any grievances, they should represent them to the officers of Government and abide by their orders.

(Signed) M. HAMMICK,
Plague Commissioner.

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(Signed) M. HAMMICK,
Plague Commissioner.

INDIAN TELEGRAPHS. Monthly Number.

To (Office) Telephone | From (Office) message

Words.	Day.	Hour.	Minute.	Official Instructions.
	5	16	17	

To (Person) A. S. to Plague Comr

From (Person) Supt Govt Press

The 12 copies of Plague circular will be sent from Press at half past four please arrange to receive the copies

Sen
5-11-98

64 Word Form.

F. C 2.

Recd. from I.N. At Hrs. Mts. by

Sent to I.N. At Hrs. Mts. by

Telegraph Master.

Local & Munl. (1898) Department.

D.O.
~~CURRENT~~ No. 118

From M. R. Ry. P. Rajaratnam
Mudaliyar Dewan Bahadu
Madras.

Order

No.

Dated 6-7-1898
Received 8-7-1898
Registered 8-7-1898.
Enclosures
Spare copies.

SUBJECT.

Stating that he has sent reply to D.O. regarding Plague Regulations

BACK PAPERS.

G.O.	No.	Department.	Date.

FURTHER PAPERS.

G.O.	No.	Department.	Date.

D. O. No. 118

Registration Department,

Madras, 6th July 1898.

SECRETARY TO GOVERNMENT * LOCAL & MUNICIPAL DEPARTMENT *
8 JUL 1898

Dear Sir,

As promised in my note of yesterday I send separately my reply to your D.O. regarding Plague Regulations. From a casual conversation I had with you on the subject after the Legislative Council meeting of the 13th May last, I was under the impression that a reply was not immediately called for and I therefore wished to have a private meeting of some of my friends who are in a position to give useful information as to the best methods of carrying out the Regulations without causing much annoyance to the people and ascertain their views. Most of those whom I wished to consult were unfortunately absent

absent from Madras and returned only a few days ago and I have had no time to meet them as yet.Hence the delay (which I regret)in replying to your D.O. I was anxious to draw up and submit for approval a circular in the vernacular for publication in every village that is threatened or infected with Plague,explaining clearly the nature and object of the various measures adopted by Government.A circular of this kind written in simple,intelligible style (not in the high flown language usually adopted by Government Translators)would,I think be of material help in making the people clearly understand the intentions of Government and in removing all causes for absurd misapprehensions.I explained my views to Mr.Viraraghavachariar co-editor of the Hindu and asked him to draft a circular in the vernacular,but he has not been keeping good health and I am now busy with my Administration report.

Yours sincerely

To

J.H.A.Tremenheere Esquire,
Ootacamund.

Local & Munl. (1898) Department.

D.O.

CURRENT No. 121

From M. R. Ry. P. Rajaratnam
Mudaliyar Dewan Bhdr.
Madras

No.

Dated 8-7-1898
Received 9-7-1898
Registered 9-7-1898.
Enclosures
Spare copies.

This wont do. Ask Gov. Press whether it has copies
11 7 98

SUBJECT.

Requesting to be supplied with copies of all the translations issued in connection with the Plague Regulations

~~rder~~

Dear Sir

In reply to your letter of the 8th instant, I regret to say that no file of the translations of the Plague Regulations is kept in ~~this~~ my office. The translations have been ~~printed~~ published in the Dt. Gazettes, and any Coll. will be able to supply you with copies in case you find them to be not available at the Govt Press, Madras. A popular translation such as that which you suggest will be very useful.

Yours sincerely

11/7/98

BACK PAPERS.

G.O.	No.	Department.	Date.

FURTHER PAPERS.

G.O.	No.	Department.	Date.

1

D.O. No. 121

Registration Department.

Madras, 8th July 1898.

P. What can be sent

977

Dear Sir,

I wrote to the First Assistant in the Local Fund Department to send me copies of all the translations issued in connection with the Plague Regulations, but he tells me that none are available here. I shall feel obliged if you could send me a file of the translations from the Ootacamund office if convenient. It would be most useful to prepare a Circular in the Vernaculars explaining the advantages of inoculation, the results of the experience gained in other parts of India as detailed in Monsieur Haffkine's recent lectures, the exemption from evacuation of houses and the segregation of their inmates that is conceded to all who submit to inoculation etc. I forgot to mention this in regard to 6d [illegible]

Yours sincerely

To

J.H.A.Tremenheere Esquire

Ootacamund.

Government Press,
MINT BUILDINGS, MADRAS,

15th July 1898.

Dear Sir,

Referring to your D. O. of the 12th instant, I have to inform you that I have this day supplied to the Inspector-General of Registration a complete set of the Vernacular translations of the plague notifications therein referred to as is detailed below. The Tamil translations of the notifications nos. 163 (erroneously marked as 745) and 181 have not yet been passed

by the Translator for Striking.
A copy of each of them will
be Supplied when ready.

Yours faithfully
C. Fisher
Dy. for Supt

Notifn. no 897, 898, 169, 170, 444, 185 } in Tamil, Telugu Malayalam and Canarese.
181 & 163 in all the above vernaculars except Tamil.

marine 743

To
The 2nd Assistant,
Local and Mupl. Dept.
Cot G.

D.O. No 43 P, d/21-7-1898

Dear Sir

~~I reply to~~ your D.O. of the 8th instant regarding translations of Plague Regulations. I asked the Supdt. Govt. Press, to supply you with a complete set, and he writes that he has sent you all the translations except the translations in Tamil of the Marine Regulations. He will ~~send~~ send these to you as soon as they have been passed by the Govt Translator.

With regard to your suggestion to issue a circular in Vernaculars for circulation among the people, the Govt thinks that a literal translation of all the rules is hardly needed, and that a short summary in a colloquial style will be best. The Government will ~~be~~ feel greatly obliged if you can undertake to ~~bring out~~ make ~~this~~ such a summary. All necessary papers will be supplied to you.

H. T. 21 7 98

To the Honble M.R.Ry. S. Rajarathnam Mudaliar Avargal Diwan Bahadur

"A literal translation will hardly be needed. A shortish summary in a colloquial style will be best"

(Initialled) H.W.B.
" A.E.H.

Despd 23-7-1898.

[illegible] 20/7

Local & Munl. (1898) Department.

~~CURRENT~~ D.O. No. 145 P

From M. R. Ry. P. Rajaratnam Mudaliyar Dewan Bahadur. Madras

No.

Dated 9-8-1898

Received 11-8-1898

Registered 11-8-1898

Enclosures 1

Spare copies.

~~Order~~

To the Sanitary Commissioner unofficially for favour of checking the portion of the draft circular regarding to Sanitary measures, and adding a para about disinfection.

J F Tremenheere
Secy to Government

Lms
18/8/98

To the Secy to Govt, L&M. Dept.

Returned. Section on Sanitation checked – para on disinfection enclosed for approval

W. Thomson
Surg Major
S. Sanitary Commt

Madras
20th Aug. 98

SUBJECT.

Submitting for approval a circular in English explaining briefly the nature and object of the various precautionary measures adopted by Govt.

Recd 22/8

19/8/98

BACK PAPERS.

G.O.	No.	Department.	Date.

FURTHER PAPERS.

G.O.	No.	Department.	Date.

D.O. No. 145-P.

Registration Department.

Madras, 9th. August 18[illegible]

SECRETARY TO GOVERNMENT
11-AUG-1898
LOCAL & MUNICIPAL DEPARTMENT

SA

Dear Sir,

Before undertaking the preparation of a summary of the plague rules in the vernacular languages of the Presidency as desired in your D.O. of the 21st. Ultimo, I thought it best to prepare and submit for the approval of Government a circular in English explaining briefly the nature and object of the various precautionary measures adopted by Government and the instructions issued on the subject. I have accordingly prepared the enclosed memorandum showing in a convenient form all the rules which it would be useful to publish for the information of the people generally. If this is approved, I shall prepare a free translation

lation of it in simple colloquial style and send it to the Government Press to be printed. Mr. Beauchamp to whom I happened to show it thinks that a "few hints about treatment and disinfection" might be added so as to make the circular complete and most useful to the public. He tells me that Dr. Lawries' Hyderabad rules contain some useful instruction~~s~~ regarding disinfection. If his suggestion is approved, I request that the necessary addition may be made in the draft circular at the Ootacamund office as I have not been able to get a copy of Dr. Lawries' rules. I am preparing another Circular explaining the duties and responsibilities of the village officers and shall send

---

send it in a few days for approval.

I do not know how many copies of a the Circular you wish to be printed in Tamil and in Telugu. I would suggest that from ten to thirty copies should be distributed in each village and a few hundreds of copies in each town, in all the districts now under 'observation'. Every householder able to read might be given a copy. A sufficient number should also be kept in reserve for further distribution. I request that the necessary instructions may be issued to the Superintendent, Government Press.

Yours sincerely
P. Rajaratna Mudaliar

P.S.
The memorandum
is sent in a separate cover.

Local & Munl. (1898) Department.

D.O.

CURRENT No. 158

From M. R. Ry. P. Rajaratnam
Mudaliyar Dewan Bahadu

Order

No.

Dated 20-8-1898
Received 22-8-1898
Registered 22-8-1898
Enclosures
Spare copies.

SUBJECT.

Sending a short circular drawing the attention of village office to the Plague Rules and to th duties and responsibilities imposed upon them.

BACK PAPERS.

G.O.	No.	Department.	Date.

FURTHER PAPERS.

G.O.	No.	Department.	Date.

D.O. No 15-8

Registration Department,
Madras, 20th. August *1898.*

SECRETARY TO GOVERNMENT
22 AUG. 1898
LOCAL & MUNICIPAL DEPARTMENT

Dear Sir,

I send herewith a short Circular drawing the attention of village officers to the Plague rules embodied in the memorandum (already sent to you) and to the duties and responsibilities imposed upon them. As soon as these are approved and returned, I shall have the translations made and printed.

Yours truly
P. Rajaratnam

Recd 10/10/08

Send to [illegible]
7/10

No 300

Office note

The Hon M.R.Ry P. Rajaratna Mudaliar's memorandum and the office draft are forwarded to the Plague Comsr for information and disposal, with reference to his remark on Dr King's 24° suggestion on the Madras Plague Preventive scheme

H. Tremenheere
Secretary to Govt

Desp.
6/10/08

Registration Department,

Madras, 2/11/1898.

Dear Sir

I have already taken it upon myself to translate the sentence so might it as to mean that the boon will not be revoked in regard to other members of the family, but the English list can also be altered accordingly. Please therefore let me know, directly y

of definite information
when Mr Hammick
might be expected.
I have many things
to speak to him about
Plague matters.
In the instructions
regarding disinfection proposed to be
appended to the Circ
there is an apparent
discrepancy between
paras 1 & III. In para 1
it is said the brushing
of walls & floors should be
avoided as it is most

dangerous & is likely to
spread infection. In
para III, it is ordered that
all dust from [illegible]
carefully swept &c. -
I can see the point of
the difference but the
sentences as they stand
are not consistent
with each
other & must
be modified.
Would you please
let the Sanitary
Commr to suggest
the necessary modification
or ~~ask~~ refer the matter

is Incompetent &

to the players come.
It would not be better
for me to put my
own construction in
translating the songs

Yours

Nagaratnam

Registration

Madras, 31st October

Dear Sir

I prepared the enclosed circular a few days ago to send to you, but as ~~you~~ I hear that you are not likely to come back to Madras for some days I send it on by post. The circular already approved and translations of it are being printed is too long to be read by all classes of people. A brief one like that now sent would be more useful.

been given prominence to
the question of inoculation
as the mass of the people in the
mofussil appear to have
most absurd notions on
the subject. Apparently it is
that has led to the recent
rioting. The ~~next~~ ~~[illegible]~~ point is
about detention & segregation.
A short circular upon
these two points ~~might be~~
placed in the hands of
every villager might serve
to remove the existing misapprehensions
to a considerable extent.

to Trichi

Registration D

Madras, 31st Octr

Dear Sir

I prepared the enclosed circular a few days ago to send to you, but as ~~you~~ I hear that you are not likely to come back to Madras for some days I send it on by post. The circular already approved and translations of it are being printed is too long to be read by all classes of people. A brief one like that now sent would be more useful.

If the Draft is approv
returned to me with such
corrections as may be
deemed necessary I
shall have it translated
without delay.

Yours truly

P.S.

In view of the attitude
of the people would it not be
better to let the sanitary
& plague officers not-
use permanganate of potassium
for purifying wells or other
sources of water. [illegible]

Village house holders
while Rajapatram
~~Longer~~ paper will be
given to each Village
Officer — Please
see it is translated
& printed urgent

6 XI 9
4

want
this brief paper
translated into
Tamil & Telugu
& printed -
The proofs shd be
sent to Mr
Rajakattam for
corrections. This
will be given to each

Registration Department,

Madras, 10/11/ 1898.

Dear Sir

Please find encl. from the Commissioner & inform the Supt Govt Press how many copies of the circulars herewith sent (marked Nos I, II & III) should be struck off in the various languages.

I This is the big circular. Every village official should have 4 or 5 copies. vide last para of cir no II.

You should find out the no. of villages in Tamil & Telugu dists in all the affected Dists & those bordering & then the no. of circulars, allowing for a reserve of say 2000 copies in Tamil & Telugu

Re II. I suggested that a copy of the small circular should be given to every householder who is able to read. A number of copies should also be distributed in the Madras town.

III For the town of Madras we shall probably want about ten or twelve thousand, say 2000 in English & 5000 each in Tamil & Telugu. It should be given freely to people who may get themselves inoculated one copy to each head of a family.

Probably another ten thousand in Tamil & ten thousand in Telugu would be suff.

I cannot say how many copies of the Malayalam, Canarese

and Hindustani Circular
will be wanted. Probably
5000 copies each of Teloogoo
& Canarese and some
20000 of the Hindustani circ
no II would be suffict.

Yours

500—15-10-98.

No. ....

Office of Plague Commissioner,

Madras, Nov 4th 1898.

Dear Rajaratnam

I think all appendix A. had better stand – but only the last four rules of appendix B – If you will get the appendices printed accdg it will do –

I have ordered your skeleton paper to be printed & circulated

Yours Sincerely

W Hammett

J. & M. Dept.
500-[illegible]7 3-08.

NOTE FOR THE Secy

This file was returned from the Secy's house last night without the draft. The draft is not found in the Office and it is requested it may be kindly returned if it is with the Secy & it has been passed.

Secy 14/8/08

I am keeping it a day or two. It is too full

H 15/8/08

I thought it would be best to give all information which would interest the public, especially the English knowing section. As regards translations, portions may be omitted.

Secy 22/8/08

They can read the Rules in the newspapers

L

INDIAN TELEGRAPHS. Monthly Number.

Code Class.

To (Office) Telephone message	From (Office)

Words.	Day.	Hour.	Minute.	Official Instructions.
	16	15	35	

To (Person) Personal Asst to Plague Comr	From (Person) Supdt Govt Press

Please let me know how many spare copies of Proceedings No 652 d/ 11-11-98 should be struck off.

16-11-98

From Personal Asstt Plague Comr

To Superintendent Govt Press

Your telephone just received. Please, strike off 800 copies of Pro no 652 d/ 11-11-98

16/11/98

64 Word Form.

F. C. 58

Recd. from LN. At Hrs. Mts by

Sent to LN. At Hrs. Mts by

Telegraph Master.

G C P—No. 788 T—11-6 97—[illegible]

CIRCULAR TO VILLAGERS.

The public are aware that a most dangerous disease known as the bubonic plague appeared two years ago in Bombay and subsequently in Poona and carried off several thousands of the population. The disease has since broken out in Hyderabad and in Hubli (Dharwar) and is now advancing towards the borders of this Presidency. Its chief characteristics are fever attended with glandular swellings and a high rate of mortality. High fever is ushered in with shivering and, after two or three days of continuous fever, grandular swellings may appear in the groins of the leg, arm-pits or neck, or in all the three places. If the disease continues, the patient may vomit blood and blood may also be discharged from the nose, the mouth, the bowels and mixed with urine. The swellings may become gangrenous and bleeding may occur from them; death may be ushered in by convulsions, delirium, insensibility, &c.

2. The disease is more dangerous than cholera and is very infectious. Once it takes root, it will be difficult to eradicate it. The best efforts of Government have accordingly been directed for some months past towards stopping, by every possible means, its advance into this Presidency. With this object, a careful examination of all passengers has been ordered to be made at selected stations on all the railways and along the main roads leading into the Presidency, and camps have also been formed for detaining and treating passengers suspected to be suffering from symptoms of plague.

3. All persons are allowed to pass freely as in ordinary times except—

(*a*) those suspected of plague,
(*b*) those suspected of arriving from an infected locality.

(*a*) Persons suspected of plague, with their families and attendants, are required to be detained at the frontier inspection stations for isolation and disinfection, until it is deemed safe to release them with passports.

(*b*) Persons suspected arriving from an infected area are examined at the frontier inspection stations and allowed to proceed on their journey on the following conditions :—

(1) At road frontier stations, they are provided with passports binding them to present themselves for daily inspection for the next ten days before the local authority, *i.e.*, the local medical officer or police station-house officer or village headman in any village where they may be, information of the issue of the passport being sent promptly by the officer in charge to the local authority at the place of destination.

(2) At railway frontier inspection stations, their tickets are punched with a special mark, if they have not been so marked before, and on arriving at the railway station where they intend to leave the train, they are furnished with passports by the station master or other officer appointed for the purpose, and intimation of the fact is sent to the local authority at the place of final destination.

4. Before persons arriving from an infected area are permitted to proceed on their journeys under passports as stated above, they may be disinfected if the Collector so orders. This is merely a process of cleaning the person and his clothing and will be resorted to only in exceptional cases.

5. Persons coming from an infected area who appear to be likely to sicken to plague or spread infection of plague, whether by reason of their appearance, the dirty condition of their clothes, or the fact that they are travelling in gangs, or who belong to classes which are likely to disseminate the disease, or who seem likely not to be easily traced on arrival at their destination, or who are not to be depended upon to give information should plague occur among them after arrival at their destination, or for any other similar reason, may also be similarly detained under the special orders of the Collector.

6. The necessity for detaining persons for observation, or for requiring them to present themselves daily for inspection for ten days is due to the fact that medical officers have laid down ten days as the limit of safety, that is to say, infection is possible for ten days after a person leaves an infected area.

7. All taluks situated on the borders of the Bombay Presidency and Hyderabad territory have been divided into convenient circles, and placed in charge of Special plague inspectors and assistant inspectors whose duty it is to constantly and systematically patrol their circles in order to give the earliest possible information of a case of plague so that immediate action may be taken. They will also report any pressing sanitary need to the District Medical and Sanitary Officer, and will also check passports or passes in the case of persons arriving from an infected locality. Persons arriving without a passport or pass or who may be found to have broken its conditions may be detained by the plague inspector or any member of his staff and sent to the nearest medical officer for detention until he (the medical officer) is satisfied that there is no danger of such persons spreading infection.

Inspectors and assistant inspectors are also required to keep a record of all persons suffering from continuous fever for more than twelve hours and to arrange with the village headmen to have such persons inspected twice daily in view to find out if the case turns out to be one of plague.

8. The measures indicated above are absolutely necessary for protecting the people of the Presidency against the danger that is threatening them on all sides. These measures will no doubt entail a certain amount of hardship and inconvenience to persons going from place to place on bus iness or pleasure, but considerations for individuals must give way to considerations for the good of the people at large. It is well known that on occasions of the outb eak of cholera or small-pox the people very often voluntarily enforce a sort of q arantine against persons coming from villages infected with those diseases, and it n eeds no argument to convince them that in dealing with a disease so much more inf ectious and dangerous as is the plague which is threatening this Presidency, similar p recautionary measures should be enforced with all possible rigour. The leading men of every village should therefore make it their duty to watch all strangers coming into their village and give immediate information to the village munsif or to the nearest s tation-house officer, if they find reasons to suspect that the strangers have come from plague-infected, tracts or are suffering from severe fever or symptoms of plague. Unless they willingly and cordially co-operate with the officers appointed for the duty and give prompt intimation of all suspicious cases coming to their knowledge, the best efforts of Government towards arresting this dreadful disease will become pr actically of no avail.

9. There are also certain sanitary preca tions which the people should carefully observe on occasions like the present, if not a all times. Many diseases of the human body are due to filth, foul air, bad food, ba water, &c. These and other insanitary conditions probably pre-dispose to attack and foster the plague germ.

A.—H bitations.

(1) Every house should be thoroughly leaned, that is, all manure, dirty water, washings of cattle stalls and collection of di rt of any description must be completely removed.

(2) Where the earth remains damp an d foul after such removal, its hould be dug up till dry and clean earth is reached.

(3) The old earth should be taken fr
for the fields; new earth from a clean pla

(4) The interior and exterior of ho
cannot afford to do the outside, the inside

(5) Bundles of clothing and othe
occupying in any other way the rooms in

(6) Doors and windows should at al
ventilation be obtained.

(7) If private latrines are used, they
removal at least twice daily.

(8) The drains leading from houses s

(9) Cess-pools and pits for receipt of

B.—

(1) The body and clothing should
persons should use warm, not cold, baths.

(2) The food should be plain, nourish

(3) All vegetables or leaves or fr
abandoned.

(4) All forms of drinking to excess,
and cold should be avoided.

(5) Cold cooked food should never b
flies to settle upon food. Vegetables a
than after cooking. Before being cooked,
has been purified by boiling. Salt should
other hand, it must not be used in such
looseness of the bowels.

(6) An inferior quality of water sh
cleanest available should be employed.

(7) Water for drinking purposes an
drinking vessels, and milk should be boile

(8) Person with cuts or abrasions on
the body should avoid attendance on plagu
the wounded parts should be covered and,
attandance, the parts should be washed
from the sanitary staff or application.

10. It has been found from experi
dangerous means of conveying infection.
destroy them in time.

11. Large sums of money have alread
ment's plague preventive measures, and if,
should unfortunately make its appearance
assured that the Government is fully pre
from assuming an epidemic form. Shou
will be necessary to introduce an efficie
order promptly to detect all real or suspect
them in hospitals specially erected for the
houses and localities, if need be; and to en
extensive cleansing of dwellings, freer a
modification of insanitary buildings, impro
ment of overcrowding, opening out of cro

---

m the town and may be used as manure
, should be laid down.

es should be white-washed. If persons
t least should be white-washed.

materials hanging from the beams or
hich persons sleep should be removed.

possible hours be left open so that free

must be kept free from fœcal matter by

uld be cleansed twice daily.

rine of cattle should be emptied daily.

erson.

e kept scrupulously clean. If delicate,

g, and of good quality.

ts, likely to cause diarrhœa, should be

bauchery, late hours and exposure to wet

used. Care should be taken not to allow
leaves should never be eaten otherwise
hey should be well washed in water that
e freely used with the diet; but, on the
sual amounts as to excite uneasiness or

ld not be kept in the house; only the

for washing the mouth or eating and
before use.

heir hands, feet or other exposed parts of
patients; but if attendance is essential,
n occasions of temporary withdrawals from
ith disinfectants, which can be obtained

ce in other provinces that rats are a
Every effort should therefore be made to

been expended in carrying out Govern-
n spite of all these precautions, the plague
in this presidency, the public may rest
red to meet it and prevent it at all cost
the disease unfortunately break out, it
t system of house-to-house inspection in
d cases; to segregate the sick and treat
purpose; to cause evacuation of infected
orce general sanitary precautions, such as
mission of light and air, destruction or
ement of drainage and conservancy, abate-
ded localities.

12. Segregation of the plague-strick
immediate contact with them is a fundam
successful issue of any operations against
of preventing the spread of the infection
regard to the habits, feelings and prejudic
Those who may desire it will be permitte
and their own segregation huts, in sites
approved by the authorities. Friends a
patients and, if desired, to reside near the
bring their own doctors. Every arrangem
women. No particular mode of treatment
will, under no circumstances, be required
infected houses or localities are evacuated
dated in some convenient place, and dur
of their property as may be left behind w
adequate compensation will be paid to
the sanitary authorities. In special cases,
will be permitted to be segregated in she
vacate their houses to be disinfected.

13. It may be noted here that in t
where the plague existed for a long time i
better experience that evacuation of the pl
of escape, and it soon became a common
immediately the plague appeared, and to
It is desirable that each class or caste of
arrange beforehand with the district autho
tion camps, and organise measures at on
them without delay when necessity arises.
the officers of Government.

14. Should plague break out in any v
by the plague authority or other officer a
pursue their usual occupations without h
agriculturists and others having occasion to
rail or boat from an infected area. Where
and work in the fields, a single pass may
revoked, even should a case of plague occ
must, however, be a separate pass for each
general pass. The passes will not cover re
not cover journeys by rail unless that is
will be freely given to persons who may
elsewhere and may be granted for househol
of each person covered by the pass is enter
passes are given, the plague authority wi
occurred in the house of the applicant or
relations or associates and may also requir
articles to be taken away.

15. As already stated, the sole objec
tion of plague into the Presidency and pr
should it nevertheless appear. That objec
themselves, for whose benefit the regulati
and support the action of the authorities.
alarm nor allow themselves to be misled b
promptly bring to notice of the taluk office
all cases in which they may be subjected t

16. There is one other point to which
tion. They are aware from long experie
are less liable to attacks of small-pox t

n and of the persons who have been in
ntal precaution which is essential to the
e disease. It is the only effective means
nd will be carried out with the strictest
of the different classes of the community.
, and aided, to erect their own hospitals
hown to them or selected by them and
d relations will be allowed to visit the
. They can have their own food and can
nt will be made to respect the privacy of
will be forced upon any one, and women
be examined by men. In cases where
e inmates will be temporarily accommo-
ng their absence, their houses and such
ll be taken care of by Government, and
poor people for articles destroyed by
e sick and the other inmates of the house
s in their own compounds, provided they

o districts of the North-West Provinces
an endemic form, the villagers learnt by
gue-infected locality was their best chance
practice with them to vacate the village
mp on the hillsides or other safe places.
ersons in towns in this Presidency should
ities for sites for hospitals and segrega-
e to keep every thing ready for erecting
Every assistance will be given them by

llage or town, passes will be freely granted
thorised by the Collector to the people to
ndrance. General passes will be given to
make daily and frequent journeys by road,
it is necessary for the whole family to go
e given for the family which may not be
r in the family of the pass-holder. There
person making a railway journey under a
dence outside of the infected area and will
xpressly stated on them. Special passes
ish to leave the infected area and reside
s, provided that the name and description
d therein. Before, however, these special
l satisfy himself that no case of plague has
n any adjacent house or among any of his
the disinfection of all clothes and other

of Government is to prevent the importa-
mptly to check its spread and stamp it out,
can only be fully attained if the people
ns have been framed loyally, accept them
They should not give way to unnecessary
false rumours. They should freely and
s and others appointed for the special duty
unnecessary inconvenience and annoyance.
it is necessary to draw their special atten-
e that persons who have been vaccinated
n those who have not been vaccinated.

It may not be
needed in
regard them

Order complete.
Letter only.
Order complete with Letter.

Experiments made in Bombay, Poona, Cal tta and other places have also shown that persons inoculated with properly prepar plague serum, such as has been found by Mr. Haffkine, are less liable to attacks of ague than those not so inoculated. Not only is the percentage of attacks reduc but the rate of mortality is materially lessened. Government has, however, no intention to force the people to subject themselves to this inoculation. It will be t entirely to them to adopt the system or not. They will be assured, however, th segregation will not be enforced in the case of persons who voluntarily allow then elves to be inoculated.

APPE DIX.

A.—Rules for Disinfectio f Plague-infected Houses.

I. Sprinkle 1·1000 perchloride of mercury lution on the floor and in all corners to "lay' the dust.

II. Open all windows and doors and allow free ventilation.

III. Carefully sweep up all dust and rub sh, remove out of doors and burn. Also burn all bedding and clothes of the patient and all rn and dirty rags, sacking, &c., lying about. This must be done out of doors.

IV. Steep all other clothing, bedding, sack g, bags, &c., whether in use at the time or not in 1·1000 perchloride of mercury solution for h f an hour, thoroughly soaking all parts of each article. Next place them in a chattyful of wate which is to be boiled for half an hour.

V. Carefully flush (pump) 1·1000 perchlori of mercury solution in all parts of the rooms in the affected house, beginning above at the r fters and proceeding downwards to the floor. Especially flush out all crevices, clefts, niches, co ners, bathing places, cooking places and latrines. The floor must be thoroughly soaked and esp ially at its junction with the walls. The door and lintels must be carefully mopped or flushed and also all boxes, almirahs, &c., in the room. The furniture should be disinfected first, then t ken outside and placed in the sun to dry, and then the room disinfected.

VI. Thoroughly fill all gurrahs, cooking p s and pans, lotahs, &c., with boiling water and keep at the boil for half an hour, or with a we solution of permanganate of potassium and leave for one and half hours. Then pour out an wash with ordinary water.

VII. All useless articles must be burnt. A l rubbish burnt, whether within or without the affected house; the compound thoroughly cleaned up and the drains and latrines flushed out with water first and then washed with 1·1000 perchlor le of mercury solution.

VIII. The houses directly adjoining must b hot lime-washed with chloride of lime at once and thoroughly cleaned.

IX. The affected house is not to be occupie for a week. On the day following the disinfection by perchloride of mercury, the outside nd inside of the affected house must be hot lime-washed.

X. In cases where houses have no free venti ation, *i.e.*, at least two small windows and one big door for each room, windows and other ventil tion holes must be made by knocking holes in the walls, removing broad stripes of tiles (not ra fters) from the roof or taking off and burning the thatch of the roof.

N.B.—All persons engaged in disinfection ork are to wear shoes covering the upper parts of their feet and to wash their hands and feet in ·1000 perchloride of mercury solution on completion of their work and disinfect their cloth s and persons in carbolic acid or phenyle solution.

B.—Directions f r Disinfection.

I. Perchloride of mercury is the best chem cal disinfectant known and should always be used. Reliable perchloride can be obtained from he Medical Stores, Madras.

II. It is best to issue this disinfectant to oolies as a solution, *since it is very poisonous.* The solution can be prepared as follows :—

Take a clean one-gallon bottle. Place half ound of perchloride of mercury and one pound of hydrochloric acid, and half fill the bottle with ater. Shake thoroughly and then gradually add repeated quantities of water until all is dissolv d.

(This solution can readily be prepared if th materials are pure. If a large portion of the perchloride of mercury remains undissolved, it is p bably very impure and practically useless.)

Colour the solution with a pinch of red ink owder to prevent any one drinking it and "label" "Poison."

Six ounces of this solution in an ordinary oden bucketful of water (of nearly 20 pints capacity) gives a reliable solution of perchloride of ercury, of practically 1·1000.

III. Phenyle should be served out free. It oisonous, corrosive and must be diluted as directed.

IV. Potassium permanganate requires to powdered to ensure rapid and complete solution.
Half an ounce to an ordinary pailful of wat will serve as a reliable disinfectant. When it
losses its purple colour and turns brown it is u seless, having been decomposed.

V. *Hot water.*—An easy and simple m thod of disinfection is readily at hand in most
situations. Water heated to 127g F or abo appears to destroy the vitality of the plague
bacillus. This temperature can be borne by e hand for a few minutes only. Boiling water
will therefore certainly destroy the bacillus. oors and walls of houses, fixtures and furniture
could be disinfected by pouring boiling water ll over the surface.

(Signed) H THOMSON, M.B., D.PH., Surgeon-Major,
Ag. Sanitary Commissioner.

TES
Order complete.
Letter only.
Order complete with Letter.

First copy sent to Press.

Returned for signature.

Despatched in print.

Number of copies required.
- Order complete.
- Letter only.
- Order complete with Letter.

5

Read again No. 189 Dated

Current No.

Enclosures to C. No.

B.—

A = Print in full.
B = Not to be printed.
P = Print abstract only.
Q = Print heading only.