

Local & Munl. (1898) Department.

MISCELLANEOUS.

G.O., No.

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[Despatch Abstract.]

Plague Hospitals & Camps

Instructions for the
Construction of Temporary

BACK PAPERS.

G.O.	No.	Department.	Date.	G.O.	No.	Department.	Date.

FURTHER PAPERS.

G.O.	No.	Department.	Date.	G.O.	No.	Department.	Date.

Order No. 629 P. mi-27 30-6-98

INSTRUCTIONS REGARDING CONSTRUCTION AND EQUIPMENT OF PLAGUE HOSPITALS AND PLAGUE CAMPS.

GENERAL DIRECTIONS.

The principle which should guide the choice of sites, the structure, and accessory arrangements of plague camps and hospitals are those dictated by the necessity for preventing the propagation of the plague bacillus. Plenty of sunlight, plenty of air-change due to free ventilation and perfusion, dryness of the soil and its freedom from contamination by any organic matter—more especially that derived from human excretions and secretions—conjoined with a pure water-supply, must therefore be important considerations when selecting a site for, and in subsequent management of, plague camps. Consequently, having regard to reasonable distances from the village affected, a site should be preferred well elevated, open to free access of wind and sun. The soil should be dry, and have a slope that will readily carry off surface water.

2. People will be permitted, and should be encouraged 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.

3. Patients removed to hospital may use, should they so elect, their own food and medicines. They may also be attended by such number of relations and servants as the medical officer in charge may think reasonable. All persons accompanying patients for purposes of rendering attendance shall reside within the precincts of the hospital and shall be subject to such rules as the medical officer may, from time to time, dictate.

4. In the interests of the patients, as well as of attendants, a *minimum* cubic space in closed wards of 2,000 feet is desirable; free ventilation is also necessary.

URGENT HOSPITAL HUTTING.

5. In dealing with the temporary isolation of one or two patients in fair weather, pending the erection of a more substantial building, any mode that may, in the judgment of the officer in charge, be considered to afford sufficient protection may be employed for making huts, provided not less than a superficial area of 12 feet square is secured per patient.

SEMI-PERMANENT HOSPITALS.

6. In the case of municipalities, and of special castes or classes of persons erecting private hospitals, it is advisable, where funds and time are available, that the floors should be impervious. This can be arranged for by the use above lime concrete of Cuddapah stone slabs cement pointed, or Portland cement plastering. In the event of impervious floorings being made, a small refuse water cistern should be constructed, in which the washings of the wards can be received in disinfectants.

7. The support of the structure may usefully be made of old rails, wooden beams, or rough-hewn jungle wood, according to resources available. The sides may be formed of bamboo matting, or, so long as the weight of the roof is not allowed to be upon it, the sides may be made of screen walls formed of single lines of brick in mud or mortar between the supports, the surface of the wall being maintained well white-washed. The roofing may be formed of corrugated iron covered with thatch to secure coolness, or may be made of thatch, hill grass, paddy or cholam straw, reeds and the like convenient material. The rectangular forms of hospitals described in paragraphs 11—14 should be followed.

TEMPORARY HOSPITALS.

8. A typical plague hospital should have all its surfaces smooth and non-absorbent, with the object of preventing ready adherence of organic matter of any description and of material containing plague microbes in particular, and of facilitating their ready removal by ordinary cleansing and disinfectants. This perfection cannot be obtained in making temporary hospitals, but these principles should be held in mind when choosing material and directing construction.

9. The basement should be not less than 9 inches in height. The flooring should be formed of gravel, or, failing this, red earth well rammed. Care should be taken to have a store of gravel at hand, so as to replace with facility portions of the flooring fouled by the sick.

10. In the case of rural areas or where hospitals are required quickly, the sides must usually be of bamboo matting. Where this is not available, cholam stalks or reeds run together in parallel lines, or, even small boughs of trees will, if interlaced, suffice. The roofing should be formed of the material in common use for huts of a superior class in the district concerned, and should be at a pitch of 45 degrees so as to throw off rain.

11. A single building should not be made for accommodating more than 20 patients; preferably, 10 patients should be the standard. Whether or not the patients should be accommodated in double rows will depend upon the nature of the material obtainable locally. As the amount of superficial or floor space per patient must not be less than 12×12 feet, the breadth of such a ward would be 24 feet, and for ten patients the length would be 120 feet. This would necessitate the use of beams, giving a span of 24 feet.

12. In many temporary rural plague hospitals, therefore, it may be found necessary to accommodate single rows of patients; allowing then sufficient room for convenient nursing, the breadth of the single rectangular ward should be not less than 16 feet, and the length 12 feet multiplied by the number of patients for whom the shed is intended.

13. The eaves should be 9 feet high. The side walls should extend up to $6\frac{1}{2}$ feet; above this height, the whole length of the shed should be open. The opening of $2\frac{1}{2}$ feet all round should, however, be protected by a thatched verandah extending to 5 feet from the ward walls, supported on poles 7 feet in height, and with the thatch projecting beyond the 5 feet to the extent of $2\frac{1}{2}$ feet; at regular intervals between each bed flap windows in each side wall of the shed 3×3 feet should be formed, so as to be exactly opposite each other.

14. Where it is difficult to obtain hutting material, and economy must be studied, the verandahs may be dispensed with. In this case, the opening between the eaves and the wall should be protected by flaps formed of matting throughout the length. These flaps should be supported on bamboo, so that, in the presence of rain, the interior shall be protected. The flap windows should also be omitted.

15. Circular buildings may also be employed. These are economical, convenient for effective administration, and offer less obstruction to perfilation of camps than the rectangular form. The only difficulty in making this form is that the services of a blacksmith are required for the making of one part of the structure, viz., the bracket, on which rests the roofing. Thus, in making a circular shed of 25 feet diameter which will give 2,000 cubic feet per head for three persons, a palmyra or cocoanut palm tree is selected of 24 feet height. Of the tree, 4 feet may be sunk in the ground surrounded with concrete, or firmly packed with stone. Near the top of the centre pole is placed a circular iron bracket, which is secured by iron bands. On this, bamboos intended for the roofing are placed, each one having a projecting piece fastened to it at right angles. The bamboo or jungle wood posts used for the side walls supporting the external ends of the roofing should be 8 feet from the ground to the eaves. The walls should be formed of matting; 2 feet from the eaves, a space should be left in the side walls open throughout. Thatched roofing should be used in the ordinary manner. This should project 2 feet beyond the eaves, so as to protect the open space. The entrance door should have a special pent porch roof at right

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angles to the main roofing. Opposite the main door and at the two sides, the side matting may be made so as to form doors capable of being supported on bamboo props in fine weather, and closed during rain. The opening over the circular bracket should be guarded by a pent roof structure, having a space protected by its projection from entrance of rain. This forms an admirable ventilator. An intelligent village artizan ought also to be able to make two ventilators in the roof itself, which can be protected by bamboo matting flaps from entrance of rain. These can be made moveable by attaching strings, but the formation of these extra ventilators should not be attempted unless the requisite skill is available.

16. The internal surface of mat walls may be, and, after occupation by plague cases should be, whitewashed. Daubing with earth or cow-dung should be prohibited.

17. In the case of wards intended for Europeans, there should be approached by a small thatched covered verandah, a room having an impervious space of not less than $6' \times 10'$, that may serve as a bath-room. A cistern should be attached to catch waste water.

For natives, there should be formed bathing platforms for each sex. Where time will allow, the flooring (the and) cisterns to which waste water from them is led should be rendered impervious. Where time does not allow of these arrangements, the water should be led into a small excavation, which should be carefully disinfected at intervals. These bathing spaces should be protected so as to provide for decency.

18. A latrine should be provided for each sex. If time allows, the surfaces and receptacles should be of impervious material.

19. Huts at the rate of one for each patient for whom accommodation is provided should be supplied for the relations of the sick, who may choose to reside in the hospital camp, with the object of looking after the patients. A floor space of $10' \times 10'$ will usually suffice; a verandah of 5 feet should be attached. The front should have a blank space for ventilation of 9 inches breadth at the eaves. The verandah should project downwards sufficiently to allow of protection of the open space.

20. For every ten patients there should be erected huts for the accommodation of four superior and four inferior menial servants. These may be of the same character as for "relations," but without the verandahs.

21. If nurses are attached, quarters must be provided for them with a floor area of $12' \times 12'$ for each, with bath-room and cook-room attached. For each Hospital Assistant, accommodation of the same nature must be provided.

22. A cook-room, $12' \times 6'$, should be formed for the sick for the preparation of patients' food. This, as well as those for the hospital assistants and nurses, should be formed of corrugated iron so as to prevent the danger of their catching fire. A dead-house, measuring $20' \times 10'$, should be prepared, the side walls being formed of corrugated iron, if available, or the lower parts may be of wire-netting. In both cases, if corrugated iron cannot be procured, stone slabs or any other device may be used that will diminish in the one case the risk of fire and in the other, of animals entering.

23. Sheds for females should be separated by reasonable intervals from those occupied by males.

24. The general disposition of the hospital and of the buildings attached to it should follow the plan circulated with G.O., No. 256 P., dated 23rd March 1898.

EQUIPMENT OF HOSPITALS.

25. If "urgent hutting" or other method of isolation is used pending the arrival of the Ambulance Staff, the officer in charge should see that tarred mullays containing disinfectants for spittoons are used by the patient, and that solid and fluid excreta are suitably received, that soiled rags are burnt, and that special arrangements are made for the bringing of water to the patient, without the employment of any person likely to have been in contact with plague matter. On the arrival of the Ambulance staff, all requisites for hospital equipment as per appendix, except bazaar products, will be brought by it.

THE SUSPECT CAMP.

26. The object of this camp is to afford shelter to persons who it is suspected may be undergoing incubation of plague and whom it is determined to keep under observation so as to secure their isolation at the earliest moment in the event of an attack. This being so, it is evident that the camp should be arranged so that the shed occupied by a person eventually attacked may be destroyed or disinfected with the least practicable disturbance of sheds inhabited by the unaffected, and with the least expenditure. It follows that it is better to make each shed as small as compatible with the comfort of a single family, which may be taken as the unit. The average family consists of five souls. Where this is exceeded and, in consequence, overcrowding occurs, all male adults over 12 years of age should be provided with sleeping accommodation in huts separate from the family.

27. Each hut should afford an area of 12 feet in length by 10 feet in breadth. The roofing may be formed of any shape or material that can be conveniently obtained; but a plan having been adopted, it should be adhered to throughout the camp. Each hut should be 20 feet distant from its neighbour in the same line. Each line of huts should be 40 feet distant from its neighbour. Each line should consist of four huts; four such lines would form a block. Each block should be 60 feet distant from the neighbouring block. Blocks may be arranged in lines not exceeding two deep to any length desirable. If it be desired to make a second series of such blocks opposite to one already formed, an interval of 100 feet should be allowed. The second series of blocks should have huts *en echelon* with reference to those opposite to it. Where economy of space is desirable, the intervals may be reduced to one-half the measurements here suggested.

28. In places where, in consequence of want of funds or space, it is found impracticable to construct in accordance with Rule 27 separate detached huts, they may be replaced by large sheds, each containing twenty rooms in rows of ten arranged back to back. The rooms may be separated by partitions of matting, seven feet high, so that the space under the roof slope will be common to all the rooms. No windows are necessary and it will be enough to provide each room with a single door, two feet six inches in width.

29. Blocks should be distinguished by initial letters. These should be exhibited on boards placed in front of each. Each hut should have its number and block distinctly painted on a board, in white letters on black ground. The boards for huts should be large enough to allow the number of inhabitants to be shown in chalk letters.

30. No camp should contain more than 1,000 inhabitants. When more have to be accommodated, a distance of at least a quarter of a mile should be allowed between the camps. In this event, completely separate executive staffs should be provided for the respective camps.

31. The whole camp should be effectually fenced. Huts for the police guard should be placed in such position that the whole camp is under view.

32. Huts should be provided for the menial servants.

33. Attached to the "suspect" camp should be an observation ward. This should be built for accommodation of patients at the rate of 1 per cent. of suspects. The design should be in all respects as stated in paragraph 8 *et seq.* In this ward should be placed persons who having fever or other complaints simulating plague must await the decision of the medical officer before transport to the plague hospital.

HEALTHY CAMP.

34. The object of this camp is to provide shelter for the healthy and those not suspected of being subject to incubation. The structure as stated for the suspect camp would in all respects suit, except that no fencing need be employed. It would, however, rest with the officer responsible to use large huts for accommodation of several persons at a time, if it be found impossible to meet the demand for small huts on the family principle, on account of want of labour. In this case, sheds should be classed for males and females, respectively. Association in this manner is not likely

to be otherwise than distasteful except to the poorest classes, and should not be followed unless excessive expenditure or absence of the necessary labour at command requires it. Sheds on this system, preferably of the circular form described in paragraph 15, should be made. These sheds might be arranged in triangular form, so that the base of the camp is exposed to the prevailing winds.

35. Persons should be encouraged in the healthy camp to erect their own huts, but care should be taken that old material from unknown sources is not used in their erection. When persons build their own huts, the site must be carefully measured, and any attempt to exceed defined limits should be prohibited.

WATER-SUPPLY FOR HOSPITALS AND CAMPS.

36. The water-supply should be secured from a source reliable as to its purity. When open water-sources are used, care must be taken to prevent contamination by plague-infective matter borne on chatties, ropes or hands. The only way to secure this is to see that no person connected with the handling of plague patients or the disinfection of material, is allowed to have anything to do with the drawing of water or its distribution. In other words, specially-selected persons should be employed. If a stream or tank, the use of impervious platforms or special lifting apparatus designed so as to prevent contamination should be arranged for. Wells should be effectually covered in. Where pumps can be obtained and are suitable in respect to extent of lift required, these should be employed. If pumps are not employed, at least the water-source should have a special guard, and the water should be lifted by use of a metal bucket and light chain reserved for this purpose. The water thus lifted by any of these means should be stored in covered barrels provided with taps, or, still better, in iron cube tanks provided with taps. On no account should the promiscuous plunging of vessels into water-supplies by persons in camps and hospitals be permitted. At the same time, every facility for the observance of caste sentiments should be afforded by the employment of caste natives, wherever handling of vessels, &c., is unavoidable. In towns having public water-supplies, the extension to hospitals and camps of the supply by means of a temporary line of pipes is advisable.

37. Where open wells are unavoidably employed, disinfection by means of permanganate of potash at intervals of three days is desirable. In the case of tanks of such size that expense of using permanganate of potash must be regarded as undoubtedly excessive, the alum process should be employed either to the bulk if comparatively small, or to the breadth of 25 feet from the edge, if unmanageably large.

LATRINES IN CAMPS AND HOSPITALS.

38. In camps, one latrine should be provided for every block. If time permits, the surface should be made impervious. If this is not feasible and earthen flooring is unavoidable, it should be burnt over daily, and the earth should be renewed at intervals. In hospitals and suspect camps, all excreta should be received in impervious vessels, in which disinfectants are ready placed.

DISPOSAL OF CORPSES.

39. The clothes surrounding the corpse of a person dead of plague should be saturated with coloured perchloride of mercury solution—the necessity for so doing having been carefully explained to the relatives. Cremation is the preferable method of disposal, but great care should be taken before burning a corpse to ascertain whether there are caste or race objections to this being performed. If there be reasonable objection, the corpse should be buried not less than six feet deep. It is advisable to select a place for cremation in reasonable proximity to the plague hospital, so as to prevent corpses being carried through inhabited parts. If plague corpses are to be buried, the burial-ground should be specially selected by a medical officer after careful examination.

GENERAL SANITARY PRECAUTIONS.

40. When disinfection of a person is to be effected, all clothing should be removed in a shed protected from public view. If women are treated, a female attendant only should be present. Any useless rags should be burnt. The clothing

should be removed, and be plunged into a wooden tub containing a solution (1—1,000) of perchloride of mercury, and be allowed to soak for 30 minutes. It should then be removed, washed in the ordinary manner, and dried in the sun with free exposure to the air. Suitable clothing for temporary use should be provided. When the disinfected clothing is ready for use, the whole body should be carefully cleansed with soapnut; but preferably, soft soap should be employed. If the latter be used, it should be explained to the person that soft soap is made from vegetable oils, but its use should not be insisted on. Except as to method of disinfection of clothing, as to which special rules have been issued, the same procedure should be pursued at stations where disinfection by steam is practised.

41. The treatment of a person before admission to the healthy camp shall be as laid down in paragraph 36. But, in the case of the suspect, the persons may be required to throw over the body, after careful cleansing, a solution of phenyle in the proportion 1—100. A bath of plain water may be used subsequently.

42. Bathing of patients admitted to hospital should be conducted only under orders of the medical officer responsible. The method of disposal and disinfection of clothing just described will, however, be applicable.

CAMP STAFFS.

43. Subordinate Superintendents of camps should be appointed as held requisite by the officer responsible. No subordinate charge should be for a larger population than 1,000.

CONSERVANCY STAFF.

44. One toty of each sex and one sweeper should be appointed for every 300 inmates of the suspect and health camps. For every 12 servants of the menial conservancy staff, one peon should be employed.

CONSERVANCY ARRANGEMENTS.

45. At each camp and hospital, an incinerator should be made. Any native mason who has seen a country "chunam kiln," will be able to make an incinerator of mud and brick or stone, sufficiently well for the purpose. They should be circular structures 4 feet in internal diameter at the bottom and 3 feet at the top*. Openings should be left at the bottom for vents. In these, all rubbish, rags, and other destructible matter collected from the camp site should be burnt daily. If the plague hospital is attached to a large town, it is well to obtain a field "Silchar incinerator." If such an incinerator is possessed, all excreta from the suspect camp and hospital should be burnt in it.

46. All excreta from the hospital and suspect camp having been received on disinfectants should be buried in pits not less than 5 feet deep in a locality well removed from habitations and water-supplies. Excreta from the healthy camp should be treated in trenches of the ordinary breadth and depth, that is, not exceeding 18 inches, but quick lime should be added freely to the trench contents.

47. Care should be taken to see that no slops are thrown on the ground in any camp. In the suspect camp and plague hospital, all waste water other than that from the kitchen should be received in open tarred dhobie tubs, in which disinfectants are already placed. Their contents should be removed at regular intervals to trenches at a suitable distance from the camp. In the case of the healthy camp, the inhabitants should be required to transport all slops to trenches specially prepared for the purpose.

BAZAARS.

48. Arrangements should be made in the proximity of each camp for the maintenance of bazaars. Only dealers having the written authority of the officers in charge of the camp should be permitted to ply their trade. It should be seen that these persons are not inhabitants of affected villages. If the number of persons segregated is not so large as to demand the opening of a special bazaar, the officer in charge should make such arrangements compatible with sanitary requirements as will prevent inconvenience to the inmates.

* In rainy weather these can be provided with corrugated iron covers with protected smoke vents.

PRECAUTIONS IN HOSPITALS.

49. Bottles of lysol or phenyle, and solution of perchloride of mercury should always be placed beside conveniently arranged basins for the washing of the hands of medical officers, nurses and attendants, respectively. It is better not to dry the hands with towels after disinfection.

50. All excretions and secretions and rags soiled with them should be received into vessels already containing disinfectants. Promiscuous spitting in the wards should be specially prohibited—all sputa should be carefully received into small tarred *mullays* or earthen receptacles having disinfectants in them. Soiled mats should be burnt; soiled clothing should be steeped in perchloride solution directly it is removed from hospital. Soiled patches of flooring should be disinfected with perchloride solution, and be replaced by fresh material.

51. Clothes used during duty in wards and disinfection should be exposed to sun action as soon as the person has fulfilled duty. Before washing, they should be soaked in perchloride of mercury solution. Menial servants in wards and disinfectors should be provided with shoes during work.

APPENDIX.

The following equipment should be maintained for a ten-bed hospital. It should be possible to transport all articles with the Ambulance Staff when proceeding to an infected locality:—

SANITARY EQUIPMENT.

Soapnut	..	..	..	..	..	..	..	lb.	10
Soft soap	..	..	..	..	..	..	..	"	10
Perchloride of mercury	..	..	..	..	..	..	..	"	100
Commercial sulphuric acid	..	..	..	..	..	..	..	"	30
Do. hydrochloric acid	..	..	..	..	..	..	..	"	30
Phenyle	..	..	..	..	..	..	..	"	60
Permanganate of potash	..	..	..	..	..	..	..	"	3
Chinese pumps	..	..	..	..	..	..	..	"	5
Slippers (native), pairs	..	..	..	..	..	..	..	"	50
Tins, kerosine-oil, 125°	..	..	..	..	..	..	..	"	6
Half-casks (wooden tubs)	..	..	..	..	..	..	..	"	8
Galvanized iron buckets	..	..	..	..	..	..	..	"	6
Pain brushes	..	..	..	..	..	..	..	lb.	4
Black paint (ready made)	..	..	..	..	..	..	..	"	10
Red paint	..	..	..	..	..	..	..	"	5
Whitewashing brushes, country	..	..	..	..	..	..	..	"	50
Mops	..	..	..	..	..	..	..	"	20

MEDICAL STORES.

Chentsu cots	..	..	..	..	..	..	..	No.	15
Date mats	..	..	..	..	..	..	..	"	30
Cumblies	..	..	..	..	..	..	..	"	15
Pillow-cases	..	..	..	..	..	..	..	"	15
Carpets	..	..	..	..	..	..	..	"	30
Native clothing, men	..	..	..	..	..	..	..	"	15
Native clothing, women	..	..	..	..	..	..	..	Pairs.	2
Slippers for ward coolies	..	..	..	..	..	..	..	"	2
Copper dekchas, large size, for boiling clothing	..	..	..	..	..	..	..	No.	1
Frying pan	..	..	..	..	..	..	..	"	6
Iron enamel cooking-pots	..	..	..	..	..	..	..	"	3
Zinc buckets	..	..	..	..	..	..	..	"	1
Firewood axe	..	..	..	..	..	..	..	"	1
Kitchen knife	..	..	..	..	..	..	..	"	2
Iron kettles	..	..	..	..	..	..	..	"	1
Hanging meatsafe	..	..	..	..	..	..	..	"	2
Hanging lamps	..	..	..	..	..	..	..	"	4
Hurricane lanterns	..	..	..	..	..	..	..	"	2
Portable tables	..	..	..	..	..	..	..	"	2
Portable chairs	..	..	..	..	..	..	..	"	1
Time-piece	..	..	..	..	..	..	..	"	1
Folding screens	..	..	..	..	..	..	..	"	12
Bed-head ticket frames	..	..	..	..	..	..	..	"	50
Temperature charts	..	..	..	..	..	..	..	Set.	1
Zinc dressing trays	..	..	..	..	..	..	..	"	2
Large jars (old arrack) for disinfectants	..	..	..	..	..	..	..	No.	2
Hand-basins for disinfectants	..	..	..	..	..	..	..	"	1
Washstand with basin complete	..	..	..	..	..	..	..	"	4
Lotion bowls	..	..	..	..	..	..	..	"	7
Bed-pans	..	..	..	..	..	..	..	"	1
Ice box	..	..	..	..	..	..	..	"	6
Pewter or enamel urinals	..	..	..	..	..	..	..	"	
Earthen pots and mullays as required.	..	..	..	..	..	..	..	"	

FOR NURSES.

Camp portable dining table	..	..	..	..	..	..	..	No.	1
Camp portable side table	..	..	..	..	..	..	..	"	1
Chairs	..	..	..	..	..	..	..	"	2
Easy-rohairs	..	..	..	..	..	..	..	"	2
Hanging meatsafe	..	..	..	..	..	..	..	"	1
Box with lock and key for stores	..	..	..	..	..	..	..	"	1

* Articles marked with an asterisk are intended for ambulance staffs; for stationary hospitals, the amounts should be reduced or the articles be omitted at the discretion of the indenting officer.

APPENDIX.

The following equipment should be maintained for a ten-bed hospital. It should be possible to transport all articles with the Ambulance Staff when proceeding to an infected locality:—

SANITARY EQUIPMENT.

Soapnut	..	..	..	..	..	..	..	..	lb.	10
Soft soap	..	..	..	..	..	..	..	..	"	10
Perchloride of mercury	..	..	..	..	..	..	..	..	"	100
Commercial sulphuric acid	..	..	..	..	..	..	..	..	"	30
Do. hydrochloric acid	..	..	..	..	..	..	..	..	"	30
Phenyle	..	..	..	..	..	..	..	..	"	60
Permanganate of potash	..	..	..	..	..	..	..	..	"	3
Chinese pumps	..	..	..	..	..	..	..	..	"	5
Slippers (native), pairs	..	..	..	..	..	..	..	..	"	50
Tins, kerosine-oil, 125°	..	..	..	..	..	..	..	..	"	6
Half-casks (wooden tubs)	..	..	..	..	..	..	..	..	"	8
Galvanized iron buckets	..	..	..	..	..	..	..	..	"	6
Paint brushes	..	..	..	..	..	..	..	..	lb.	4
Black paint (ready made)	..	..	..	..	..	..	..	..	"	10
Red paint	..	..	..	..	..	..	..	..	"	5
Whitewashing brushes, country	..	..	..	..	..	..	..	..	"	50
Mops	..	..	..	..	..	..	..	..	"	20

MEDICAL STORES.

Chentsu cots	..	..	..	..	..	..	..	..	No.	15
Date mats	..	..	..	..	..	..	..	..	"	30
Cumblies	..	..	..	..	..	..	..	..	"	15
Pillow-cases	..	..	..	..	..	..	..	..	"	15
Carpets	..	..	..	..	..	..	..	..	"	30
Native clothing, men	..	..	..	..	..	..	..	..	"	15
Native clothing, women	..	..	..	..	..	..	..	..	"	15
Slippers for ward coolies	..	..	..	..	..	..	..	..	Pairs.	2
Copper dekchas, large size, for boiling clothing	..	..	..	..	..	..	..	..	No.	2
Frying pan	..	..	..	..	..	..	..	..	"	1
Iron enamel cooking-pots	..	..	..	..	..	..	..	..	"	6
Zinc buckets	..	..	..	..	..	..	..	..	"	3
Firewood axe	..	..	..	..	..	..	..	..	"	1
Kitchen knife	..	..	..	..	..	..	..	..	"	1
Iron kettles	..	..	..	..	..	..	..	..	"	2
Hanging meatsafe	..	..	..	..	..	..	..	..	"	1
Hanging lamps	..	..	..	..	..	..	..	..	"	2
Hurricane lanterns	..	..	..	..	..	..	..	..	"	4
Portable tables	..	..	..	..	..	..	..	..	"	2
Portable chairs	..	..	..	..	..	..	..	..	"	2
Time-piece	..	..	..	..	..	..	..	..	"	1
Folding screens	..	..	..	..	..	..	..	..	"	1
Bed-head ticket frames	..	..	..	..	..	..	..	..	"	12
Temperature charts	..	..	..	..	..	..	..	..	"	50
Zinc dressing trays	..	..	..	..	..	..	..	..	Set.	1
Large jars (old arrack) for disinfectants	..	..	..	..	..	..	..	..	No.	2
Hand-basins for disinfectants	..	..	..	..	..	..	..	..	"	2
Washstand with basin complete	..	..	..	..	..	..	..	..	"	1
Lotion bowls	..	..	..	..	..	..	..	..	"	4
Bed-pans	..	..	..	..	..	..	..	..	"	7
Ice box	..	..	..	..	..	..	..	..	"	1
Pewter or enamel urinals	..	..	..	..	..	..	..	..	"	6
Earthen pots and mullays as required.	..	..	..	..	..	..	..	..	"	

FOR NURSES.

Camp portable dining table	..	..	..	..	..	..	..	..	No.	1
Camp portable side table	..	..	..	..	..	..	..	..	"	1
Chairs	..	..	..	..	..	..	..	..	"	2
Easy-chairs	..	..	..	..	..	..	..	..	"	2
Hanging meatsafe	..	..	..	..	..	..	..	..	"	1
Box with lock and key for stores	..	..	..	..	..	..	..	..	"	1

* Articles marked with an asterisk are intended for ambulance staffs; for stationary hospitals, the amounts reduced or the articles be omitted at the discretion of the indenting officer.

Spirits of Wine, methylated	..	..	..	..	..	..	..	1
Zinc Oxide	..	..	..	..	..	..	..	1
Soda Salicylas	..	..	..	..	..	..	..	4
Tincture Nucis Vomicae	..	..	..	..	..	..	oz.	4
Liquor Strychnia	..	..	..	..	..	..	..	1
Liquor Hydrargyri Perchloride	..	..	..	..	..	..	lb.	1
Spirits Ammonia Aromatici	..	..	..	..	..	..	..	4
Magnesia Sulphatis	..	..	..	..	..	..	..	1
Spirits Aether Nitrosi	..	..	..	..	..	..	..	2
Quinine Sulphatus	..	..	..	..	..	..	oz.	1
Acid Nitric Hydrochlor. dil.	..	..	..	..	..	..	lb.	6
Ammonia Chloride	..	..	..	..	..	..	oz.	1
Potassi Bicarbonas	..	..	..	..	..	..	lb.	8
Spirits Chloroform	..	..	..	..	..	..	oz.	2
Cerri Oxalat	..	..	..	..	..	..	..	2
Liniment Terebinthinæ	..	..	..	..	..	..	lb.	1
Phenacetin	..	..	..	..	..	..	oz.	5
Lysol	..	..	..	..	..	..	lb.	

to a plan ^{of the hospital}, and the Sanitary
Comm. was accordingly orally
requested by the Secy to draw up
a description with suitable
instructions. There was some delay
on the part of the Sanitary Comm.
in complying with the request
and the Adm. Manual Regulation
was issued without either the plan
or the description, the portion of
the Appendix in red ink being
omitted. The description was
received subsequently and after
being printed was submitted to Mr.
who noted on it on the 18-3-98.
As Dr. Baunerman was then
shortly expected to return from
Bombay, the Asg. Secy kept
the paper back in order to
consult him. After his return
to Madras, the draft was returned
to Dr. King with D.O. of 3-5-98 with
a request to revise it in consultation
with Dr. Baunerman. Dr. King
has now made certain alterations
and returned the instructions. A
copy showing ^{in red ink} the alterations made
him is submitted - 7 May 1898.
Copy, a few notes are
made

T 220

A

made. The instructions as
finally passed may be inserted
in the Hoque Manual now under
preparation. It would be a
waste of stationery to issue them
also as a G.O. It may
be added here that the Govt.
of India having taken objection
to the instructions contained in
Appendix A (referred to above),
~~the appendix has been~~ the
Regulations have been amended
by omitting the appendix
altogether, and it has been
decided to issue departmentally
all instructions regarding the
erection of plague camps &
hospitals - vide G.O. No 330 P
of 14-4-98.

8/7

Long
10/7/98

H.M.

I have made a few alter-
ations & additions

BS
14/6/98

Now issue as
per notes
18/6/98

The above note ex-
plains the case clearly.

The draft Instructions
as revised (please see proof
sheet M) may, as suggested
at A, be now inserted in

The Plague Manual

S.A.
14/6



note

Revised para 2

The purpose of this has been at removed to hospital may use, so select their own food and medicines. embodied in the G.O. on the first also be attended by such number of Indian Resolution announcing and servants as the medical officer in principles of plague administration may think reasonable. All persons

Long 10/6

Loss of. is all very well in a closed building with brick walls roof. But can't be used when the walls are new and in course of construction through which the wind can pass.

ND

note

The following may be added to the "This minimum is not applicable to temporary structures with walls of mud or other similar material covered by screens through which the air can freely circulate."

Long 15/6

The Plague Manual

S.A.
14/6

note The correction made in Rule 45 by the Sanitary Committee (vide copy attached to the current) does not seem to read well

king
10/6 I have altered the his wording slightly
S.A.
11/6

by arranged

(or can them acceptables)

40. One toty of each sex and inmates of the camps. For every peon should be employed.

CONSER

41. At each camp and hospital mason who has seen a country "ch" of mud and brick or stone, sufficient structures 4 feet in internal diameter should be left at the bottom for vermin. Instructible matter collected from the hospital is attached to a large town. If such an incinerator is possessed should be burnt in it.

42. All excreta from the hospital disinfectants should be buried in removed from habitations and water be treated in trenches of the ordinary inches, but quick lime should be added.

43. Care should be taken to see that camp. In the suspect camp and in the kitchen should be received in a already placed. Their contents should be a suitable distance from the camp. should be required to transport all

PREC

44. Bottles of lysol or phenyl always be placed beside convenient officers, nurses and attendants, res towels after disinfection.

45. All excretions and secretions into vessels already containing disinfectants be specially prohibited—all sputa, mullays having disinfectants in the should be steeped in perchloride of mercury patches of flooring should be disinfected fresh material.

46. Clothes used during duty should be sun action as soon as the person is soaked in perchloride of mercury. Infectors should be provided with

(6) The following equipment should be possible to transport all when proceeding to an infected locality

- Soapnut
- Soft soap
- Perchloride of mercury
- Commercial sulphuric acid
- Do. Hydrochloric acid
- Phenyl
- Chinese pumps
- Slippers (native), pairs
- Tins, kerosine-oil, 125°
- Half casks (wooden tubs)
- Galvanized iron buckets
- Paint brushes
- Black paint (ready made)
- Red paint
- Whitewashing brushes, count
- Mops

* Articles marked in ambulance staffs for be removed on the arrival in district offices.

? t

Chensu cots
Date mats
Cumblies
Pillow-cases
Carpets
Native clothing, men
Native clothing, women
Slippers for ward coolies
Copper dekchas, large size, for b
Clothing
Frying pan
Iron enamel cooking-pots
Zinc buckets
Firewood axe
Kitchen knife
Iron kettles
Hanging meatsafe
Hanging lamps
Hurricane lanterns
Portable tables
Portable chairs
Time-piece
Folding screens
Bed-head ticket frames
Temperature charts
Zinc dressing trays
Large jars (old arrack) for disin
Hand basins for disinfectants
Washstand with basin complete
Lotion bowls
Bed-pans
Ice box
Pewter or enamel urinals
Earthen pots and mullays as req

Camp portable dining table
Camp portable side table
Chairs
Easy chairs
Hanging meatsafe
Box with lock and key for stores
Table lamp
Dinner table cloth
Table napkins
Vegetable dishes
Pudding dish
Soup plates
Meat plates
Tumblers
Spoons
Knives
Tea-pot
Coffee-pot
Cups and saucers
Sugar-basin
Butter-pot
Portable cots with beds, pillows
Sheets
Counterpanes
Blankets
Portable washstands with enamel
Zinc baths

Commodore	..	..	..
Chamber-pots	..	..	..
Candle-stick	..	..	..
Hurricane lamp	..	..	..

For M

Cots (bed and pillow)			
Washstand (complete with ena			
Towel rack	..	..	..
Table	..	..	..
Chair	..	..	..

Dis

Portable shelf for drugs and ap			
Box with lock and key for poi			
Dispensary table	..	..	..
Writing table	..	..	..
Chair	..	..	..
Wash stand (complete with en			
Towel rack	..	..	..
Towels	..	..	..
Tin kettle	..	..	..
Books and stationery, as requi			

MEDICAL

Small pocket dressing-case	..		
Gum elastic catheters	..		
Hypodermic syringe	..		
Enema syringes	..		
Two-ounce syringes	..		
Sponges	..		
Ice bladders	..		
Ice bags	..		
Waterproof sheets	..		
Pestle and mortar	..		
Glass rod	..		
Roll of sticking plaster	..		
Bandage cloth	..		
Flannel	..		
Carbolic soap	..		
Lint	..		
Cotton wool	..		
Tow	..		
Linseed	..		
Spirit lamp	..		
Test tubes	..		
Urinometer	..		
Nitric acid	..		
Liquor potassæ	..		
Febling's solution	..		
Drainage tubing	..		
Scales and weights, with spe			
Dispensing bottles	..		
Corks	..		
Draught glasses	..		
Large pewter measure			
One ounce and one minim			
Slab	..		
Spatulas	..		
Large mixture bottles			
Clinical thermometers			
Jars for disinfectants			

Acid Boracic	..	..	..
" Carbolio	..	..	..
" Gallic	..	..	..
" Hydrocyanic	..	..	..
" Sulphuric	..	..	..
Ammonia Bromide	..	..	..
" Carbonas	..	..	..
Aqua Distillata	..	..	..
Argenti Nitras	..	..	..
Bismuth Subnitras	..	..	..
Cafeine Citras	..	..	..
Camphor	..	..	..
Cocaine Hydrochloras	..	..	..
Extractum Belladonna	..	..	..
" Ergot Liquid	..	..	..
Tincture Ferri Perchloridum	..	..	..
Glycerine	..	..	..
Gum Acacia	..	..	..
Hydrargyri Perchloridum	..	..	..
" Subchloridum	..	..	..
Iodoform	..	..	..
Liniment Camphor	..	..	..
" Iodi	..	..	..
Liquor Arsenicalis	..	..	..
" Ammonia	..	..	..
" Epispaticus	..	..	..
Oleum Anethi	..	..	..
" Menth. Pip.	..	..	..
Potassi Citras	..	..	..
" Iodid	..	..	..
Pulvis Ipecac.	..	..	..
Tincture Digitalis	..	..	..
Pulvis Ipecac. Co.	..	..	..
" Jalap Co.	..	..	..
Santonine	..	..	..
Soda Bicarbonas	..	..	..
Tincture Aconite	..	..	..
" Cardamom Co.	..	..	..
" Cinchona Co.	..	..	..
Hammamalis	..	..	..
Tincture Hyosciami	..	..	..
" Iodi	..	..	..
" Opii	..	..	..
Unguentum Hydrargyri	..	..	..
" Simplex	..	..	..
Vaseline	..	..	..
Spirits of Wine, methylated	..	..	..
Zinc Oxide	..	..	..
Soda Salicylas	..	..	..
Tincture Nucis Vomica	..	..	..
Liquor Strychnia	..	..	..
Liquor Hydrargyri Perchloride	..	..	..
Spirits Ammonia Aromatici	..	..	..
Magnesia Sulphatis	..	..	..
Spirits Aether Nitrosi	..	..	..
Quinine Sulphatus	..	..	..
Acid Nitric Hydrochlor. dil.	..	..	..
Ammonia Chloride	..	..	..
Potassi Bicarbonas	..	..	..
Spirits Chloroform	..	..	..
Cerri Oxalat	..	..	..
Liniment Terebinthinæ	..	..	..
Phenacetin	..	..	..
Sysol	..	..	..

S.O. No 13 P 43-578

Dear Dr. King

I ~~return~~ ^{send you} a proof copy
of your ^{draft} instructions regarding
Plague Hospitals and Camps.

The H.M. has made some notes
on it. & I think we had
better consult Baunerman before
issuing it. He may have
some suggestions to make. It
would be well too if it ^{could} be
considerably
curtailed.

H.T.
25-98

Long
28/4/98

Despo
7/5/98

Keep a copy of this report
H.M. notes & report
properly
2/5/98

Local & Munl. (1898) Department.

CURRENT No. 853 P.

From *The Sanitary Commissioner
for Madras*

Order

No. 1253/5

Dated 4-6-1898

Received 6-6-1898

Registered 6-6-1898

Enclosures

Spare copies.

SUBJECT.

Instructions
Stating that the ~~rules~~ ^{instructions} regarding
plague hospitals and camps
have been revised in the
spirit of the remarks made
by Sir Henry Bliss K. C. S. I.

BACK PAPERS.

G.O.	No.	Department.	Date.
"	330, 330A	P	14-4-98
"	429	P	4-5-98
"	331	P. mis	15-4-98
"	256	P	23-3-98
"	99	P. mis	28-2-98

FURTHER PAPERS.

G.O.	No.	Department.	Date.

2. Patients remove ~~with~~ us, should they so select, the medicines, They may also be attended by ~~servants~~ servants as the in charge may think reasonable. All anying patients for purposes of ~~rande~~, shall reside within the precincts of the hall be subject to such rules as the Medical from time to time dic -
tate.

16 390 for 2 patients - (G.O. 998 d/28-7-97)
The rough built, the inmates are practically in the open air & the air space is unlimited.

As usual, he & the other 390 or 400
for too much perfect

1813/98

Grant Road Hospital Bombay, where 401
to were admitted between 4th March & 15th
1897, the flooring was ~~of earth~~ beaten down
laid with a layer of lime and the lime renewed
monthly. Expert medical opinion declared the
ing to be proof against the life of *pleuro bacilli*
(107. Gatacre's report). Dr. Bannerman &
General have recommended that the ward floors
& impervious (G.O. 2448 h d/6-1-97)

/Hume & Co

choice of sites, the structural details are those dictated by the bacillus. All other details of the structure are those dictated by the requirements of the plague. The plague will present difficulties in its recognition and diagnosis. The absence of the microbe. The undisturbed earth cover found in the floor is like. Plenty of surface dryness of the soil is especially that of a pure water-supply for, and in subsequent distances from to free access of readily carry off such as of attendants, a ventilation is also necessary.

L. HUTTING.

of one or two patients in fair weather, building, any mode that may, in the end, afford sufficient protection may be than a superficial are a of 12 square feet

HOSPITALS.

special castes or classes of persons are funds are available, that the floors for by the use above lime concrete of cement plastering. In the event of the water cistern should be constructed lined in disinfectants.

may be made of old rails, wooden beams, sources available. The sides may be the weight of the roof is not allowed the walls formed of single lines of brick surface of the wall being maintained lined of corrugated iron covered with that, hill grass, paddy or cholam straw, rectangular forms of hospitals described

all its surfaces smooth and non-adherence of organic matter of any microbes in particular, and of facilitation and disinfectants. This perfection is, but these principles should be held in construction.

2. Patients remove ~~from~~ us, should they
so elect, the medicines. They may also
be attended by visitors and ~~servants~~
servants as the in charge may think
reasonable. All visiting patients for
purposes of rendezvous, shall reside within the
precincts of the hall be subject to such
rules as the Medical from time to time direct -

enough for 2 plants - (p. 99) 2/20 - 71
The rough huts the inmates are housed in
the open air & the air space is unlimited. B.S.

Better, | ^{any} ^{few} ^{is} ^{improvement}
 without, if
 you ^{are} ^{not} ^{improving} ^{the} ^{land} ^{the}
 means ^{the}

As a physician, to the
7th and 8th of the
Bombay method as likely to
cause clouds of death
due to a want of the
cent with lungs that
threatened by the disease; as
a sanitarian, I prefer removal
of soiled portions to trusting to
layers of stale linen
kill the miasma. W. H. W.
S. C.

to hidden worn of single bamboo matting & the roof of
of palm leaves with a ceiling of cloth in some cases.
each pair of beds, there were screens of matting
bany standard, the unit was a double row
in an area of 120' x 24, "giving each bed
a clear area of 144 sq feet, a somewhat liberal
but bearing in mind the necessity for attendance
two relatives with the patients, and looking to the fresh
cube space of fresh air favourably influences
of recovery and lessens the possibility of contagion
determined by the Committee to adhere to the above
ments. Subsequently it was found convenient to
self-acting hospitals (10 beds) and quarters section
(5 beds) in districts where few cases were
bed" (page 22 - from Paterson's report)

sides are made of matting of grass and the upper
open on hinges, affording good ventilation by day
open, and shelter from winds at night when shut.
As we cast and work the doors on the north side &
doors of grass thatching on the three other sides" (the
Barranmore description of Bombay standard). The
doors not show any windows for "vents" in the fresh
hospital, Bombay, "the walls consisted of matting with
a opening below and above, which afforded ample
ventilation" (page 107 of Satani's report)

rather not attempt such ambitious
as - a smaller round hut with a partition
with 4 or 2 patients & a quite simple -

ital and Camps

DIX-A.

DIRECTIONS.

choice of sites, the structures are those dictated by the plague bacillus. All arrangements for the destruction of the plague will present difficulties. The absence of the microbe. The and in damp earth could be found in the flooring. Plenty of sun, dryness of the soil are especially that of a pure water-supply for, and in subsequent

able distances from to free access of readily carry off as well as of attendants, ventilation is also necessary.

HUTTING.

of one or two patients in fair weather, building, any mode that may, in the red to afford sufficient protection may be than a superficial area of 12 square feet

HOSPITALS.

of special castes or classes of persons where funds are available, that the floors for by the use above lime concrete of cement plastering. In the event of the water cistern should be constructed in disinfectants.

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HOSPITALS.

all its surfaces smooth and non-adherence of organic matter of any microbes in particular, and of facilitation and disinfectants. This perfection is, but these principles should be held in construction.

2. Patients removed ~~from~~ us, should they so select, the medicines, They may also be attended by visitors and servants as the in charge may think reasonable. All attending patients for purposes of range, shall reside within the precincts of the hall be subject to such rules as the Medical from time to time dictate.

enough for 2 patients - (p. 99) of 20 ft. rough built the inmates are practically in the open air & the air space is unlimited.

12 feet square or 144 sq feet

In the Grant Road Hospital Bombay, where 401 patients were admitted between 4th March & 15th June 1897, the flooring was apparently beaten down and laid with a layer of lime and the lime renewed every month. Expert medical opinion declared the flooring to be proof against the life of plague bacilli (p. 107 - Gatacre's report). Dr. Bannerman & Dr. Sanyal have recommended that the wood floors be impervious (p. 244 & p. 46-47).

Better, if possible, the use of the means for

The roofing should be formed of the material in common use for huts of a superior class in the district concerned.

against para 5

the sides were of single bamboo matting & the roof of of palm leaves with a ceiling of cloth in some cases. Each pair of beds, there were screens of matting

bay standard, the unit was a double row in an area of 120' x 24, "giving each bed a bed area of 144 sq feet, a somewhat liberal but bearing in mind the necessity for attendance two relatives with the patients, and looking to the fact of cubic space of fresh air favourably influences of recovery and lessens the possibility of contagion determined by the Committee to adhere to the above limits. Subsequently it was found convenient to self-section hospitals (10 beds) and quarters section (5 beds) in districts where few cases were bed" (page 22 - Gen Gatacre's report)

sides are made of matting of grass and the upper open on hinges, affording good ventilation by day open, and shelter from winds at night when shut. On one east and west the doors on the north side & doors of grass thatching on the three other sides. The Bannerman's description of Bombay standard). The does not show any windows for windows. In the Grant hospital, Bombay, the walls consisted of matting with an opening below and above, which afforded ample ventilation" (page 107 of Gatacre's report)

either not attempt such ambitious as - a smaller room but with a partition with doors 2 patients & 2 patients single.

As a physician, to the 7th and 8th of the Bombay method as likely to cause clouds of dust which would be sent with the lungs. The disease is threatened by the disease; as a sanitarian, to the proper removal of the portions of the disease to the layers of stable litters. With the help of the medical. S.C.

C 10 853 P.

No. 1253
S

NOTE by the Sanitary Commissioner for Madras, dated
4-6-90.

Reference.— *Notes on plague hospitals
etc.*

*These "notes" have been
revised in the spirit
of the remarks made
by Sir Henry Blunt.*

*W. H. Murray
S. C.*

*For the Sec. to Govt.
L & M. Dept.*

Instructions regarding

API
is,
GENERAL

The principle which should guide arrangements of plague camps and for preventing the propagation of the such as will permit of the segregation off by those affected with the disease the continued life of the bacillus, where of arrangements, it has escaped such stagnation, and moisture favour the sur to flourish is in dark ill-ventilated roo filth incidental to human habitations, sid of native huts, pools used for easement change due to free ventilation and perf contamination by any organic matter excretions and secretions—conjoined important considerations when selecting plague camps.

2. Consequently, having regard to a site should be preferred well elevated soil should be dry, and have a slope tha

3. In the interests of the patients, space in wards of 2,000 feet is essential

URGENT Ho

4. In dealing with the temporary is pending the erection of a more subst judgment of the officer in charge, be employed for making huts, provided no are secured per patient.

SEMI-PERM

5. In the case of municipalities, erecting private hospitals, it is advisable should be impervious. This can be an Cuddapah slabs cement pointed, or P impervious floorings being made, a smal in which the washings of the wards can

6. The support of the structure may or rough-hewn jungle wood, according formed of bamboo matting, or, so long to be upon it, the sides may be made o in mud or mortar between the support well white-washed. The roofing may thatch to secure coolness, or may be made reeds and the like convenient material.

in the next paragraph should be followed

TEMPORAR

7. A typical plague hospital shou absorbent, with the object of preventing description and of material containing pla ing their ready removal by ordinary cl cannot be obtained in making temporary in mind when choosing material and direc

Plague Hospitals and Camps.

APPENDIX A.

GENERAL DIRECTIONS.

the choice of sites, the structure, and accessory hospitals are those dictated by the necessity plague bacillus. All arrangements must be and destruction of the plague microbes thrown, and will present difficulties to the growth or e, by unrecognized conditions or imperfection attempts. The absence of free sunlight, air arrival of the microbe. The typical place for it s-nms, and in damp earth contaminated by the o ulch as found in the flooring and surroundings in and the like. Plenty of sunlight, plenty of air- oflation, dryness of the soil and its freedom from tah—more especially that derived from human hose with a pure water-supply, must therefore be a site for, and in subsequent management of,

if reasonable distances from the village affected, le, open to free access of wind and sun. The it will readily carry off surface water.

as well as of attendants, a minimum cubic free ventilation is also necessary.

HOSPITAL HUTTING.

separation of one or two patients in fair weather, xantial building, any mode that may, in the nsidered to afford sufficient protection may be t less than a superficial area of 12 square feet

PERMANENT HOSPITAL.

and of special castes or classes of persons e, where funds are available, that the floors is ranged for by the use above lime concrete of Portland cement plastering. In the event of d refuse water cistern should be constructed, be received in disinfectants.

usefully be made of old rails, wooden beams, to resources available. The sides may be as the weight of the roof is not allowed screen walls formed of single lines of brick s, the surface of the wall being maintained, be formed of corrugated iron covered with of thatch, hay grass, paddy or colam straw, a The rectangular forms of hospitals described

TEMPORARY HOSPITALS.

ld have all its surfaces smooth and non-ready adherence of organic matter of any gue microbes in particular, and of facilitat-eansing and disinfectants. This perfection hospitals, but these principles should be held eting construction.

8) Department.

EOUS.

30P

6-98

2. Patient should they they may relative charge accompa rendering presents such mlt time b

tract.)

ndering the re-sub-notification of the

directing that the

Kudchi shall be

the medical inspection transferred to Belgium.

note

Revised para 2

The purport of this has been already embodied in the G.O. on the first of Indian Revolution announcing the principles of plague administration

Long 10/6. Loss of. in all veg well in a dnd building with broken walls roof - But can't be mended the the walls are more catty in some through which the wind can pass.

note

The following may be added to Rule 3 "This minimum is not applicable to temporary structures with walls of mere Cuddapah or other similar material through which the air can freely circulate."

Long 15/6

stone/

paragraphs 10-13