

(1) Number of pages _____

(2) Date of repair _____

(3) Initials of the Referencer _____

MADRAS RECORD OFFICE.

Government of Madras.

Public Works DEPARTMENT.

G.O. No. 1590 243-246	Press Mis-
Dated 7-6-1863.	

Not to be folded or roughly handled

15

*Proceedings of the Madras Government, Public Works Department,
9th June 1865.*

No. 245. Read the following Proceedings of the Madras Government in the Military Department, dated 29th May 1865, No. 1,989 :—

Read the following papers :—

From the President Sanitary Commission.

Submits observations of the Madras Sanitary Commission on Colonel Crommelin's Plans for Hospitals for European and Native Troops in India. (Here enter 31st March 1865, No. 605 A.)

From R. COLE, Esq., Principal Inspector General, Medical Department, to Colonel C. A. ORR, R. E., Secretary to Government, Public Works Department, dated Fort Saint George, 13th April 1865, No. 130 B :—

SIR,

I have the honor to submit herewith the following Memorandum on the proposed plans of Hospital construction by Colonel Crommelin, in obedience to Proceedings of Government and order thereon calling on me for report, dated 17th January 1865, No. 155.

MEMORANDUM.

I. It will be convenient to follow the arrangement of the subject adopted in Colonel Crommelin's Memoranda, and first in the order thereof come

NATIVE HOSPITALS,

And here I will adopt, to express my views, the recapitulation given at the end of the 1st Memorandum :—

I. I entirely approve that single storied buildings, having their floors raised 3 feet in dry climates and 5 feet in damp climates, suffice for Native Regimental Hospitals; a second story being, in no case that I am aware of, necessary or even desirable.

II. A single building should suffice for every description of Native Regimental Hospitals.

III. The component parts of a Native Regimental Hospital should consist of—
(1.) Wards for the sick. The dimensions of these must depend on the numerical strength of the Regiments, which has been found to vary considerably from time to time. Every Native Hospital that I am acquainted with in this Presidency is much too small for the maximum number of sick of a corps, say 10 per cent., and, in these cases, the wards have to be overcrowded, the verandahs having sick placed in them sometimes, or tents are pitched outside for their reception.

(2.) The Hospital "administration" being in the centre of the building, as in the plan, I think good. In this Presidency the arrangement is much simpler, one long ward with verandah all round, and this latter enclosed at the four corners into small rooms for dispensary, store-room, bath-room, and guard, thus blocking up the ventilation of the centre of the building in those directions. The six apartments in the centre might be reduced to two in this Presidency, one for dispensary and store-room (all medicines being preserved in almirahs with locks), and one for Surgeon's receiving-room; in which arrangements for light might be so made as to admit of the room being used for operating, and at other times might be occupied as a sitting room by the Medical subordinate on duty. "Small wards" for special cases might much more appropriately occupy the spaces assigned to "sculleries" in the plan, sculleries no doubt would be useful for the purposes named, but the multiplication of fire-places would augment the expenditure of fuel, and a single one in the centre of the Hospital enclosure, to the rear, would suffice for the simple culinary purposes of a Native Hospital, as well as for medical preparations. The two privies and two wash-houses, at each corner of the main building, but outside the verandah, and the former opening obliquely to the wards, I think admirable and very desirable.

(3.) Accommodation for Medical subordinates, other than I have named, within the Hospital itself, is unnecessary; but quarters for them, outside, but in the immediate vicinity, should be provided.

(4.) Dispensary and Receiving-rooms I have provided for.

(5.) Cook-room. I believe that in the other Presidencies, as in Madras, no diets are prepared for the sick, nor does a Native Cook prepare the food of the sick in the Hospital kitchen. In Burmah and the Straits the Native Troops are dieted with excellent results. If such arrangements did exist in other Hospitals, treatment would be much more efficacious and satisfactory to the Surgeon. A simple building, somewhat larger and more complete than those we now have, with separate fire places for Hindoos and Mahomedans, is all that is needed.

(6.) An out-door lavatory would, no doubt, be a most desirable adjunct to a Hospital.

(7.) An out-door privy is indispensable.

*Proceedings of the Madras Government, Public Works Department,
9th June 1865.*

(8) A guard-room is no doubt desirable. The men composing the guard usually encumber the front verandah, or sometimes have a corner room assigned to them, both objectionable.

(9.) A dead-house, for obvious reasons, is desirable, but rarely, if ever, exist attached to Madras Hospitals.

(10.) Servants' houses would be a great boon to these under-paid classes (not over-near to the Hospital), and would increase the efficiency of menial attendants. The only servants of this class in Native Hospitals are two Toties.

(11.) An iron railing on a two feet wall, would be an appropriate enclosure, and the guard-room should be at the gate.

IV. I consider that the following numbers of wards should suffice.
For Infantry Hospitals, two general wards, and two small wards for special cases to accommodate a number of 50 beds.

For Cavalry Hospitals, two general and one small ward for a full Regiment; and one general and one small ward for a Detachment.

V. I am of opinion that it is not necessary to provide convalescent wards for Native Regimental Hospitals.

VI. The beds should be arranged, as recommended, for European Hospitals and Barracks for unmarried European Soldiers, viz., that they be arranged on the opposite sides of the wards, with their heads to the walls; that not more than two beds be placed in the wall space between two doors on the same side of the ward, or between the opposite doors of the ward; that there be not less than half as many doors in the length of the ward as there are beds.

VII. That all large wards should be 23 feet in width and 16 feet in height from floor to wall plate, and that the wall space per bed should be $7\frac{1}{2}$ running feet, thus giving an area of $97\frac{1}{2}$ square feet per bed.

VIII. That a privy and ablution-room should be attached to each large ward. The privy to be suited for the dry earth system.

IX. That a dispensary and a receiving-room (to serve as an occasional operating-room, and as a sitting-room for Medical subordinates on duty) should be placed in the Hospital proper, close to the wards.

X. That a cook-room, a privy, a lavatory, a guard-room and a dead-house should be provided in out-buildings.

XI. That special accommodation is not necessary for day-rooms for the sick, for stores, Hospital Serjeant, or Orderlies.

XII. That, with the exceptions indicated, the proposed two plans of Hospitals are approved.

XIII. That a filth cart should be allowed for each Native Regiment and Hospital. The Hospital alone would not afford enough work, but the cart might be employed with advantage in removing all effete matters from the Regimental lines; very strong recommendations reach me from Executive Officers and Deputy Inspectors General that one should be provided.

2. With regard to Colonel Crommelin's second Memorandum, on the principles to be attended to in designing Hospitals for European Troops, I beg to observe that I consider it of no use to enter into details therein laid down, as I most cordially concur in all his recommendations.

3. On the question, however, of the necessity of providing detached wards for the reception of infectious diseases, it is very true that, if the perfection of Hospital construction and administration is attained, there would be no danger of a disease, though really infectious, being communicated. But there are so many chances against this absolute perfection being secured, that I think it would be a wise precaution to isolate such cases. In India, particularly, where native agency is necessarily so much employed in Hospital administration, less dependence can be placed on the fulfilment of orders to keep such cases entirely separate, if they are received into the great wards. I think each European Regimental Hospital should have a detached ward for Cholera or Small Pox patients.

4. One building for all the corps in a garrison is very inadvisable for obvious reasons; and I think that the small wards in the middle of the building, where there must necessarily be less segregation on account of this situation being a centre of resort, are not appropriately placed for the reception of infectious diseases.

5. If an entirely detached building is provided, it would, as Colonel Crommelin observes, involve difficulties as to attendance. I would therefore suggest that complete segregation might be effected, and yet the patients not be far removed from supervision and attendance, and without necessitating a separate establishment, if a small ward with covered passage from the main building, were projected from the centre, where the administrative offices and small wards are

*Proceedings of the Madras Government, Public Works Department,
9th June 1865.*

laid down in Colonel Crommelin's plan; great care would be required, however, in such case, that the position should not be to windward at any season of the year, so as to interfere with due atmospheric perfusion and the ventilation of the wards.

(Signed) R. COLE,
Prin. Insp. Genl., Medical Department.

ORDER THEREON, 12th May 1865, No. 1,296.

MILITARY WORKS, No. 23.

The foregoing papers will be communicated to the Government of India, with an intimation that this Government concur generally in the views of the Sanitary Commission, but that they are of opinion that the restriction of the treatment of European sick to upper rooms only is not necessary in this Presidency, and that an absolute adherence to the principle will involve an unnecessary expenditure in providing Hospital accommodation.

Ordered that the following letter be sent:—
(Here enter No. 1,297, dated 12th May 1865.)

(True Extract.)
(Signed) CHARLES A. ORR, Colonel, R. E.,
Secretary to Government.

1. Ordered that the foregoing Proceedings in the Department of Public Works be communicated to the Commander-in-Chief, with reference to previous Proceedings in the same Department, communicated in No. 792, dated 27th February 1865.

2. It is observed that the Commander-in-Chief has not had an opportunity of recording any remarks that His Excellency might wish to make on the previous papers, they having been referred direct to the President of the Sanitary Commission and Principal Inspector General Medical Department; in all similar Military questions it is desirable that the usual course of referring through the Military Department should be observed.

(Signed) R. HAMILTON, Lieutenant-Colonel,
Under Secretary to Government.

No. 246. ORDER THEREON, 9th June 1865, No. 1,590.

MILITARY WORKS, No. 16.

Ordered to be recorded.

(True Extract.)
(Signed) CHARLES A. ORR, Colonel, R. E.,
Secretary to Government.

*Proceedings of the Madras Government, Public Works Department,
12th May 1865.*

No. 261. Read the following papers:—
From the President Sanitary Commission.

Submits observations of the Madras Sanitary Commission on Colonel Crommelin's Plans for Hospitals for European and Native Troops in India. (Here enter 31st March 1865, No. 605A.)

No. 262. From R. COLE, Esq., Principal Inspector General, Medical Department, to Colonel C. A. ORR, R. E., Secretary to Government, Public Works Department, dated Fort Saint George, 13th April 1865, No. 130 B:—

SIR,

I have the honor to submit herewith the following Memorandum on the proposed plans of Hospital construction by Colonel Crommelin, in obedience to Proceedings of Government and order thereon calling on me for report, dated 17th January 1865, No. 155.

MEMORANDUM.

1. It will be convenient to follow the arrangement of the subject adopted in Colonel Crommelin's Memoranda, and first in the order thereof come

NATIVE HOSPITALS,

And here I will adopt, to express my views, the recapitulation given at the end of the 1st Memorandum:—

I. I entirely approve that single storied buildings, having their floors raised 3 feet in dry climates and 5 feet in damp climates, suffice for Native Regimental Hospitals; a second story being, in no case that I am aware of, necessary or even desirable.

II. A single building should suffice for every description of Native Regimental Hospitals.

III. The component parts of a Native Regimental Hospital should consist of—

(1.) Wards for the sick. The dimensions of these must depend on the numerical strength of the Regiments, which has been found to vary considerably from time to time. Every Native Hospital that I am acquainted with in this Presidency is much too small for the maximum number of sick of a corps, say 10 per cent., and, in these cases, the wards have to be overcrowded, the verandahs having sick placed in them sometimes, or tents are pitched outside for their reception.

(2.) The Hospital "administration" being in the centre of the building, as in the plan, I think good. In this Presidency the arrangement is much simpler, one long ward with verandah all round, and this latter enclosed at the four corners into small rooms for dispensary, store-room, bath-room, and guard, thus blocking up the ventilation of the centre of the building in those directions. The six apartments in the centre might be reduced to two in this Presidency, one for dispensary and store-room (all medicines being preserved in almirahs with locks), and one for Surgeon's receiving-room; in which arrangements for light might be so made as to admit of the room being used for operating, and at other times might be occupied as a sitting room by the Medical subordinate on duty. "Small wards" for special cases might much more appropriately occupy the spaces assigned to "sculleries" in the plan. Sculleries no doubt would be useful for the purposes named, but the multiplication of fire-places would augment the expenditure of fuel, and a single one in the centre of the Hospital enclosure, to the rear, would suffice for the simple culinary purposes of a Native Hospital, as well as for medical preparations. The two privies and two wash-houses, at each corner of the main building, but outside the verandah, and the former opening obliquely to the wards, I think admirable and very desirable.

*Proceedings of the Madras Government, Public Works Department,
12th May 1865.*

(3.) Accommodation for Medical subordinates, other than I have named, within the Hospital itself, is unnecessary; but quarters for them, outside, but in the immediate vicinity, should be provided.

(4.) Dispensary and Receiving-rooms I have provided for.

(5.) Cook-room. I believe that in the other Presidencies, as in Madras, no *diets* are prepared for the sick, nor does a Native Cook prepare the food of the sick in the Hospital kitchen. In Burmah and the Straits the Native Troops are dieted with excellent results. If such arrangements did exist in other Hospitals, treatment would be much more efficacious and satisfactory to the Surgeon. A simple building, somewhat larger and more complete than those we now have, with separate fire places for Hindoos and Mahomedans, is all that is needed.

(6.) An out-door lavatory would, no doubt, be a most desirable adjunct to a Hospital.

(7.) An out-door privy is indispensable.

(8.) A guard-room is no doubt desirable. The men composing the guard usually encumber the front verandah, or sometimes have a corner room assigned to them, both objectionable.

(9.) A dead-house, for obvious reasons, is desirable, but rarely, if ever, exist attached to Madras Hospitals.

(10.) Servants' houses would be a great boon to these under-paid classes (not over-near to the Hospital), and would increase the efficiency of menial attendants. The only servants of this class in Native Hospitals are two Toties.

(11.) An iron railing on a two feet wall, would be an appropriate enclosure, and the guard-room should be at the gate.

IV. I consider that the following numbers of wards should suffice.

For Infantry Hospitals, two general wards, and two small wards for special cases to accommodate a number of 60 beds.

For Cavalry Hospitals, two general and one small ward for a full Regiment; and one general and one small ward for a Detachment.

V. I am of opinion that it is not necessary to provide convalescent wards for Native Regimental Hospitals.

VI. The beds should be arranged, as recommended, for European Hospitals and Barracks for unmarried European Soldiers, viz., that they be arranged on the opposite sides of the wards, with their heads to the walls; that not more than two beds be placed in the wall space between two doors on the same side of the ward, or between the opposite doors of the ward; that there be not less than half as many doors in the length of the ward as there are beds.

VII. That all large wards should be 26 feet in width and 16 feet in height from floor to wall plate, and that the wall space per bed should be $7\frac{1}{2}$ running feet, thus giving an area of 97 $\frac{1}{2}$ square feet per bed.

VIII. That a privy and ablution-room should be attached to each large ward. The privy to be suited for the dry earth system.

IX. That a dispensary and a receiving-room (to serve as an occasional operating-room, and as a sitting-room for Medical subordinates on duty) should be placed in the Hospital proper, close to the wards.

X. That a cook-room, a privy, a lavatory, a guard-room, and a dead-house should be provided in out-buildings.

XI. That special accommodation is not necessary for day-rooms for the sick, for stores, Hospital Serjeant, or Orderlies.

XII. That, with the exceptions indicated, the proposed two plans of Hospitals are approved.

XIII. That a filth cart should be allowed for each Native Regiment and Hospital. The Hospital alone would not afford enough work, but the cart might be employed with advantage in removing all effete matters from the Regimental lines; very strong recommendations reach me from Executive Officers and Deputy Inspectors General that one should be provided.

*Proceedings of the Madras Government, Public Works Department,
12th May 1865.*

2. With regard to Colonel Crommelin's second Memorandum, on the principles to be attended to in designing Hospitals for European Troops, I beg to observe that I consider it of no use to enter into details therein laid down, as I most cordially concur in all his recommendations.

3. On the question, however, of the necessity of providing detached wards for the reception of infectious diseases, it is very true that, if the perfection of Hospital construction and administration is attained, there would be no danger of a disease, though really infectious, being communicated. But there are so many chances against this absolute perfection being secured, that I think it would be a wise precaution to isolate such cases. In India, particularly, where native agency is necessarily so much employed in Hospital administration, less dependence can be placed on the fulfilment of orders to keep such cases entirely separate, if they are received into the great wards. I think each European Regimental Hospital should have a detached ward for Cholera or Small Pox patients.

4. One building for all the corps in a garrison is very undesirable for obvious reasons; and I think that the small wards in the middle of the building, where there must necessarily be less segregation on account of this situation being a centre of resort, are not appropriately placed for the reception of infectious diseases.

5. If an entirely detached building is provided, it would, as Colonel Crommelin observes, involve difficulties as to attendance. I would therefore suggest that complete segregation might be effected, and yet the patients not be far removed from supervision and attendance, and without necessitating a separate establishment, if a small ward with covered passage from the main building, were projected from the centre, where the administrative offices and small wards are laid down in Colonel Crommelin's plan; great care would be required, however, in such case, that the position should not be to windward at any season of the year, so as to interfere with due atmospheric perfusion and the ventilation of the wards.

(Signed) R. COLE,

Prin. Insp. Genl., Medical Department.

No. 263. ORDER THEREON, 12th May 1865, No. 1,296.

MILITARY WORKS, No. 23.

The foregoing papers will be communicated to the Government of India, with an intimation that this Government concur generally in the views of the Sanitary Commission, but that they are of opinion that the restriction of the treatment of European sick to upper rooms only is not necessary in this Presidency, and that an absolute adherence to the principle will involve an unnecessary expenditure in providing Hospital accommodation.

Ordered that the following letter be sent:—

(Here enter No. 1,297, dated 12th May 1865.)

(True Extract.)

(Signed) C. LARLEY, A. C. R. Colonel, R. E.,
Secretary to Government.

To the Superintending Engineers.

Military Department.

President Sanitary Commission.

Exd. S. T. Agnew.

Principal Sanitary Engineer.

Military Department.

15th 1889

—

Ordered that the foregoing Ar-

resting in the Department of Order should be con-

sidered to the command in chief with regard

to previous Proceedings in the same Department, con-

sidered in 1879, dated 27th January 1879.

2. It is ordered that the command

in chief be not held as a standing of standing

any manner that the Secretary might wish it

made as the previous papers that have been from request

and to the President of the Society of Commerce

and Principal Secretary General of the Department

my all similar matters questions it is decided that

the usual course of passing through the Military

Department should be observed.

of the Secretary

15th 1889

The Secretary General.

Public Works Department.

15th 1889

15th 1885 of the

Pro. of the Secretary General

of the Secretary General

in the Secretary General

15th 1885

15th 1885

15th 1885

15th 1885

15th 1885

15th 1885

15th 1885

15th 1885

15th 1885

15th 1885

15th 1885

15th 1885

15th 1885

15th 1885

15th 1885

15th 1885

15th 1885

15th 1885

St. Paul & George
9th June 1865

Received

15th 1890

15th 1890

15th 1890 - 15th June 1890

15th 1890