

MADRAS RECORD OFFICE.

Government of Madras.

Public

DEPARTMENT.

G.O. No.	103	Press
	(130-132)	Mis.
Dated	25-1-	1969

Not to be folded or roughly handled

Proceedings of the Madras Government, Public Department,
25th January 1869.

Read the following papers:—

No. 130. From the Sanitary Commissioner for Madras, to the Chief Secretary to Government, Fort Saint George; dated Madras, 23rd September 1868, No. 986.

I have the honor to forward, for submission to Government, a report upon the Lying-in Hospital at Madras, and trust

Five copies of Report, dated 1st August 1868.

that the suggested extension of the accommodation of the institution and further development of its usefulness may meet with approval.

Referred to the Inspector General, Indian Medical Department, for such remarks as he may wish to offer, both as to the improvement of the existing Lying-in Hospital, and the necessity of providing additional accommodation.

FORT SAINT GEORGE,
28th October 1868.

(Signed) C. G. WALKER,

Under Secy. to Govt.

No. 131. From the Inspector General, Indian Medical Department, to the Chief Secretary to Government, Fort Saint George; dated Fort Saint George, 21st December 1868, No. 402.

In returning the enclosed letter from the Sanitary Commissioner, referred to me with your Under Secretary's docket of 28th October 1868, I have the honor

No 986 of 23rd September 1868.

to state that, having visited and carefully inspected the Lying-in Hospital, in company with the Deputy Inspector General of Hospitals, Presidency Division, I fully concur with Dr. Ranking as to the necessity both for improvement in the existing building, and for the providing of additional accommodation.

2. The need of increased accommodation is sufficiently indicated by the fact that the Medical Officer has, as he informed me, repeatedly been unable to receive women applying for admission to the Hospital; and occasionally to discharge Dispensary patients prematurely, in order to make way for parturient women.

3. Of the three plans submitted for this purpose by the Sanitary Commissioner, I greatly prefer the first; viz., the erection of an upper story on the two wings of the present building; supplemented by two detached wards for contagious diseases, and by a shed for women awaiting their confinement.

4. This shed, which might, as proposed, be on the plan of those at the Emigration Dépôt, should be erected on the ground to the right of the Hospital; and I would suggest that one-half of the tank, which occupies the north-west corner of the compound, should be filled up; the other half (that furthest from the Hospital) being deepened proportionately. This tank is entirely dependent on the rainfall; and the reduction of the surface of evaporation would tend to husband the supply of water, as well as to diminish the dampness of the site.

5. The improvements in the existing Hospital and the alterations and additions to the out-houses, recommended by the Sanitary Commissioner, have my entire approval. I should mention, however, with regard to the plan proposed at page 19 of the "Report," for enlarging some of the out-houses, that I was informed at my visit that the walls will not bear the additional weight which would thus be put upon them; and it would be desirable to refer this point to the Executive Engineer.

*Proceedings of the Madras Government, Public Department,
25th January 1869.*

No. 132. ORDER THEREON, 25th January 1869, No. 103.

His Excellency the Governor in Council has perused with much interest Dr. Ranking's report upon the Lying-in Hospital. He fully coincides with the Sanitary Commissioner and the Inspector General of the Indian Medical Department in the opinion they have expressed regarding the necessity for effecting improvements in the existing building, and providing additional accommodation.

2. It appears that, allowing 120 and 90 superficial feet for Europeans and Natives respectively, which is the standard recommended for such an Institution as a Lying-in Hospital, both by the Inspector General, and the Sanitary Commissioner, there is accommodation for 47; whilst at the time Dr. Ranking inspected the Institution, "they had 74; and the usual number is stated at 87." It further appears that the ventilation of the wards requires improvement. The out-houses of the Institution are described as small and inconvenient, and an old coach-house affords the only place in which a *post-mortem* examination can be made by the Surgeon. The European latrines and the Native privies, both which are conserved entirely on the wet system, are described as being in an unsatisfactory state; and there are no night closets in any of the wards. The ablution and bath-room accommodation, which is entirely outside the building, is shown to be exceedingly defective. Not a single basin or towel, Dr. Ranking observes, is provided even for the European women.

3. Dr. Ranking submits three plans for extending the accommodation of the Hospital: the first of which the Inspector General strongly approves. It consists in the erection of an upper story over the wings of the present building. Accommodation for twenty-two Europeans and twenty-seven Native women would thus be gained, at the rates of 120 and 90 superficial feet, respectively, which, His Excellency in Council agrees with the Sanitary Commissioner, are the minimum that should be allowed. This arrangement, as Dr. Ranking points out, would admit of the whole of the western wing being given up to "women waiting for their confinements, who now have no sufficient accommodation, and are obliged to lie in the veranda;" and the body of the building might be devoted to administrative offices, a waiting room, and a dormitory and day room for the pupils. But even this increased accommodation will require to be supplemented, as Dr. Ranking shows, by two detached wards for contagious diseases peculiar to this class of patients, or for segregation of women suffering from puerperal fever, an addition, as to the necessity for which, the Government concur. The ventilation will probably be best improved by air shafts. To the out-houses Dr. Ranking would add a foul linen godown, and disinfecting room, a dead-house, and small privy for males, according to a plan submitted at page 19 of his Report, of which the Government approve. The Native kitchen, described by the Commissioner, would also be a desirable addition, which, as well as the bath-rooms within the Hospital described at page 20 of the Report, His Excellency in Council will be prepared to sanction. The other extensions of existing accommodation enumerated at page 21 are also approved, if the present walls will bear the additional weight which would be thrown upon them: a point, regarding which, the Inspector General, in paragraph 5 of his letter, expresses some doubt.

4. As no provision has been made in next year's budget for the enlargements above enumerated, all that can be done at present will be to prepare plans and esti-

*Proceedings of the Madras Government, Public Department,
25th January 1869.*

mates. An order on this subject will be passed in the Public Works Department. The "annual repairs and white-washing," the want of which, Dr. Ranking notices, as well as the improvement of the lighting of the examination room, of the bathing accommodation, and of the kitchen, and the construction of the night closets mentioned in page 8, may, however, be at once undertaken. The Inspector General of the Indian Medical Department will cause indents to be prepared, forthwith, for the supply of basins and towels for ablution, and of crockery, knives and forks, for the European and East Indian patients. The dry-earth system of conservancy should be introduced without delay.

(True Extract).

Chief Secretary.

To the Sanitary Commissioner.

„ Inspector General, Indian Medical Department, } with the Report.
„ Public Works Department,
„ Accountant General.
„ Examiner of Claims.

Ed. J. Wright.

REPORT

UPON THE

LYING-IN HOSPITAL AND DISPENSARY FOR WOMEN AND CHILDREN,
MADRAS,

BY

J. L. RANKING, Surgeon Major,
Sanitary Commissioner.

(MADRAS, 1st AUGUST 1868.)

1. In a letter addressed by the Honorable Mr. Ellis as President of the late Sanitary Commission, to the Chief Secretary to Government under date the 13th June 1864, upon the subject of re-allotment and sub-division of the General Hospital, this Institution was incidentally alluded to, and the necessity for some increase to its accommodation brought to notice—a promise was also made to report upon the subject on a future occasion.

2. Since this was written, the numbers seeking admission into the Institution have been steadily on the increase, and it has not infrequently happened that the Medical Officer in charge has been obliged to turn away from its doors, women desirous of availing themselves of its advantages and even to discharge Dispensary cases, to make way for parturient women.

3. The more immediate object of this report is to bring this fact to notice and in redemption of the promise made by Mr. Ellis to lay before Government the desirability of adopting some plan of extension of accommodation both for European and Native patients. I purpose however at the same time to give such an account, sanitary and statistical, of the Institution as may put the Government in possession of a report upon its past and present condition in a succinct and readily accessible form.

4. The suggestions and alternative plans for extension of the accommodation, I have to offer for the consideration of Government, will be submitted after I have described the site and accommodation of the existing building.

5. The Lying-in Hospital and Dispensary for the treatment of diseases of women and children was established in 1844, being opened in September of that year. It first consisted of the central portion of the existing building and was a private Institution, having been erected by private subscription. The medical duties were performed gratuitously by six of the Presidency Medical Officers, but the Government supplied the Subordinate medical assistance, medicines, and diets. The Institution was taken over by Government in 1847, as the Presidency Hospital for Lying-in women. Since then it has been enlarged by the addition of two wings.

Historical.

Cont. of 1869 Madras.

PUBLIC.

To

THE SANITARY COMMISSIONER,

Do., do., do.

Dated January, 25th.

Recd.

Recd.

G. O., 25th January 1869, No. 103.

JANUARY.

Nos. 130—132.

Passing orders on the Sanitary Commissioner
Report upon the Lying-in Hospital at Madras.

The site upon which the Hospital stands is a triangular piece of ground comprising about six acres upon the left bank of the Cooum river surrounded by public roads. It is open, but low, and when the river is full, is often flooded. It is traversed by a nullah, which is a natural water course, and is surrounded by ditches, which when the river is in flood have no drainage outlet, as the site is almost on a level with the high flood level of the river. Water has been known to stand two or three inches deep in the wards, and two years ago, it rose to within two inches of the floors.

The site therefore is not such as would now, with due regard to all the requirements of salubrity, be selected. Further its proximity to the river, the 'cloaca maxima' of the town of Madras exposes it to the influence of mephitic exhalations given off from its shores and bed on the recession of its waters.

7. But notwithstanding these objectionable features of the locality, the records of the Institution contain no evidence, that the inmates have suffered from diseases directly attributable to the lowness and dampness of the site, or to its proximity to the river.

8. The Hospital is a plain terraced building without any pretensions to architectural beauty, and consists of a body and two wings. **Description of building.** It has a floor elevation of 1½ feet above the ground and as already shown is below the occasional high flood level of the river. The aspect is easterly (E.S.E.) and it is fully exposed to the prevailing winds. The compound is surrounded by a hedge very much out of order, and which affords no security against the ground being invaded by cattle. The out houses and latrines are located to the rear of the building. There is a well and cistern for the distribution of water by pipes to all parts of the building; and a large tank, much resorted to by the inhabitants of the neighbourhood, occupies the north-west corner of the compound.

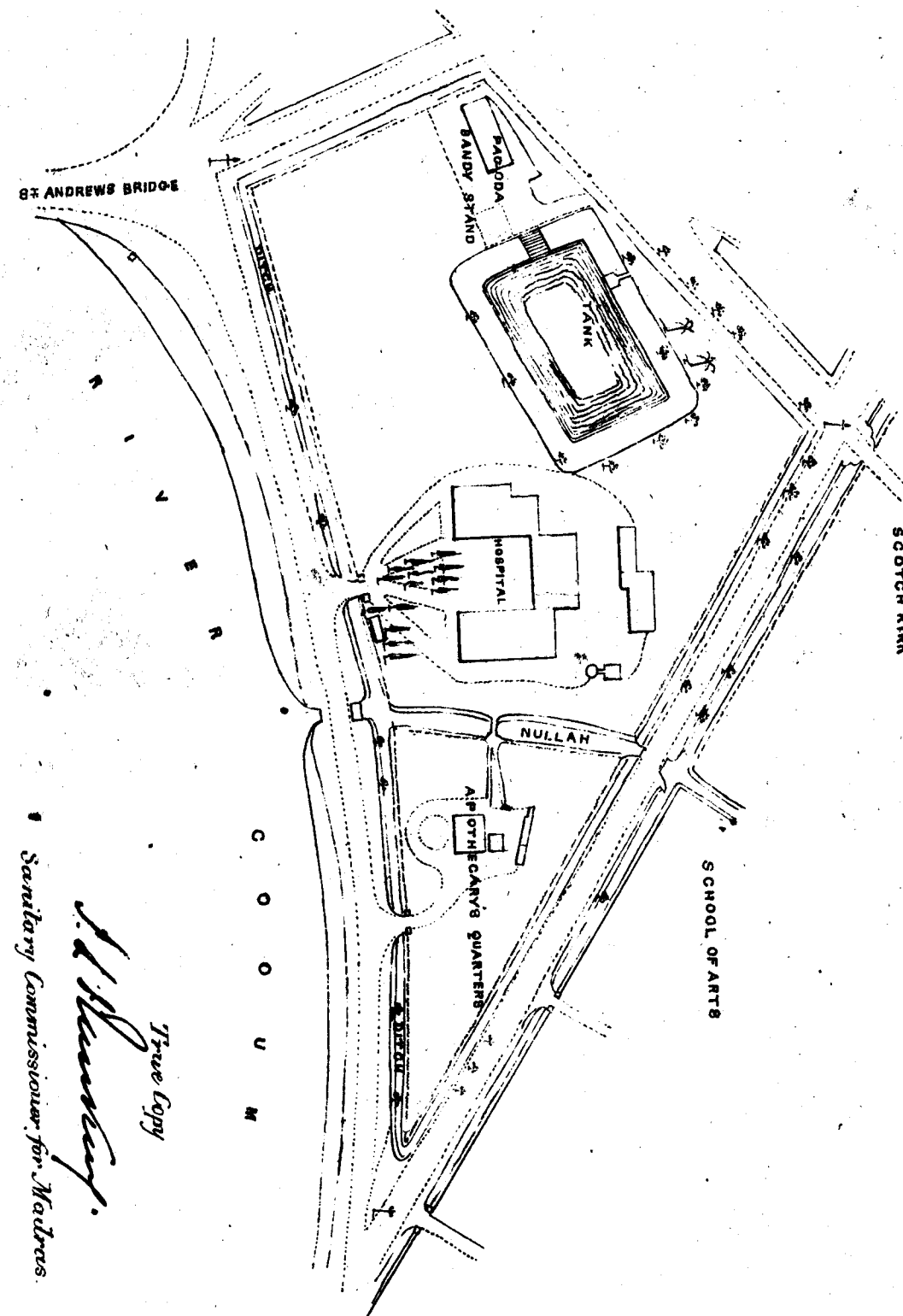
9. The accommodation is divided into (a) wards for parturient women European and Native (b) wards for "Dispensary" cases European and Native, for the treatment, that is of diseases of women not necessarily connected with pregnancy or parturition, (c) wards for native women awaiting their accouchements. Besides this there is a large out-patient list of women and children.

European lying-in women are accommodated in the left wing. Native women in child-bed in the centre or body of the building, and native women waiting for admission into the lying-in wards, and "Dispensary" cases, in the right wing. The Surgery (or Dispensary) and Office (or consulting room) are also in this wing.

10. The detailed statement of accommodation upon the opposite page gives every information regarding the size and dimensions of each room, and how each is occupied, together with the number of beds in each on the date of inspection, and the superficial and cubic space enjoyed; while the column of remarks contains additional information of importance.

11. Commencing with the right or western wing there are three rooms, each of the same dimensions (32' x 18' x 15')* opening into each other by four arch ways and consequently, so far as ventilation and the constitution of the atmosphere is concerned, may be taken as one large apartment. In numbers 1 and 2, there were 82 women waiting for their accouchements or 41 to each room. The superficial

* The height of rooms is, in the plan which illustrates this report, given as 14 feet, but this is an error not detected till after the plan was lithographed.



Detailed Statement of Accommodation in the Lying-in-Hospital

BLOCK AND ROOM.	How occupied.	DIMENSIONS.			Superficial area of each room.	Cubic contents of each room.	No. of cots or patients in each room.	No. at 120 and 90° square feet superficial area.	Cubic space thus afforded.	No. accommodated on date of inspection.	No. in excess of approved standard on date of inspection.	OPENINGS.	WINDOWS.		DOORS.		REMARKS.
		Length.	Breadth.	Height.									Number.	Height.	Number.	Height.	
Western Wing	1 Occupied chiefly by native pregnant women awaiting confinement, and by a few bed-ridden sick occasionally.	32	15	15	576	8640	25 to 40 patients	6*	1440	41	35	Openings.	54	31	3	8	* 130 superficial feet for Europeans and 90 for Natives
	2	32	18	15	576	8640	25 to 40 patients	6*	1440	41	35	Openings.	24	31	2	8	* Natives as 90 feet each.
	3 Dispensary	33	16	15	576	8640	8 Cots.	6*	1440	8 Cots.	2	Openings.	54	31	3	8	
	4 Office	22	16	15	352	5280	8 Cots.	6*	1440	8 Cots.	2	Openings.	64	31	2	8	
	5 Office	22	16	15	352	5280	8 Cots.	6*	1440	8 Cots.	2	Openings.	64	31	2	8	
Centre	6 Examination room	16	12	15	192	2880	2	3*	1360	9	...	Openings.	34	31	2	8	
	7 Native labor ward	17	16	15	272	4080	2	3*	1360	9	...	Openings.	44	31	2	8	
	8 By native patients after confinement.	30	16	15	480	7200	10	5*	1440	10	...	Openings.	44	31	2	8	
	9 Reserved ward for European women awaiting confinement, or natives confined when native increase.	30	20	15	600	9000	12	7*	1285	10	...	Openings.	44	31	2	8	
	10	30	16	15	480	7200	10	5*	1440	10	...	Openings.	44	31	2	8	
Eastern Wing	11	30	16	15	480	7200	3 to 10	4E*	1800	8 E & E1	...	Openings.	74	31	4	8	Temporary occupants by transfer from other wards.
	12 By female pupils	32	16	15	432	7680	6	4*	1920	6	...	Openings.	64	31	2	8	† Europeans.
	13 By European and East Indian patients and women awaiting confinement.	32	16	15	512	7725	6	4*	1920	6	...	Openings.	64	31	2	8	** No patients.
	14	32	18	15	576	8640	6	5	1728	6	...	Openings.	64	31	2	8	
	15	32	18	15	576	8640	6	5	1728	6	...	Openings.	64	31	2	8	
Bath Rooms	16 Matrons room	32	18	15	576	8640	...	...	...	...	...	Openings.	64	31	2	8	
	1 Separate ward for special cases.	18	10	15	1825	2737	...	9*	1366	...	...	Openings.	...	...	...	...	* Natives.
	2 Do.	18	10	15	1825	2737	...	2*	1366	...	...	Openings.	...	...	...	...	
	3 Bath room for labor ward.	18	10	15	1825	2737	...	2*	1366	...	...	Openings.	...	...	...	...	
	4 Bath room for European sick.	16	8	11	128	1408	...	1*	1408	...	...	Openings.	...	...	...	...	† Europeans.
N. B.—None of these rooms are occupied as bath rooms, but as wards for the sick as occasion requires.	5 Bath room for pupils.	16	10	15	160	2400	...	1*	2400	...	...	Openings.	...	...	...	...	
	6 Bath room for sick.	16	10	15	160	2400	...	1*	2400	...	...	Openings.	...	...	...	...	
	7 Bath room used as labor ward.	16	10	15	160	2400	...	1*	2400	...	...	Openings.	...	...	...	...	
	8 Do.	16	10	15	160	2400	...	1*	2400	...	...	Openings.	...	...	...	...	
	9 Matron's bath room.	18	10	15	180	2700	...	1*	2700	...	...	Openings.	...	...	...	...	
J. L. R.	10 Matron's 2nd room.	18	10	15	180	2700	...	...	...	...	...	Openings.	...	...	...	...	
	11	10	8	15	60	1200	...	...	...	...	...	Openings.	...	...	...	...	
							...	...	...	...	...	Openings.	...	...	...	...	
							...	...	...	...	...	Openings.	...	...	...	...	
							...	...	...	...	...	Openings.	...	...	...	...	

J. L. RANKING,
Sanitary Commissioner.

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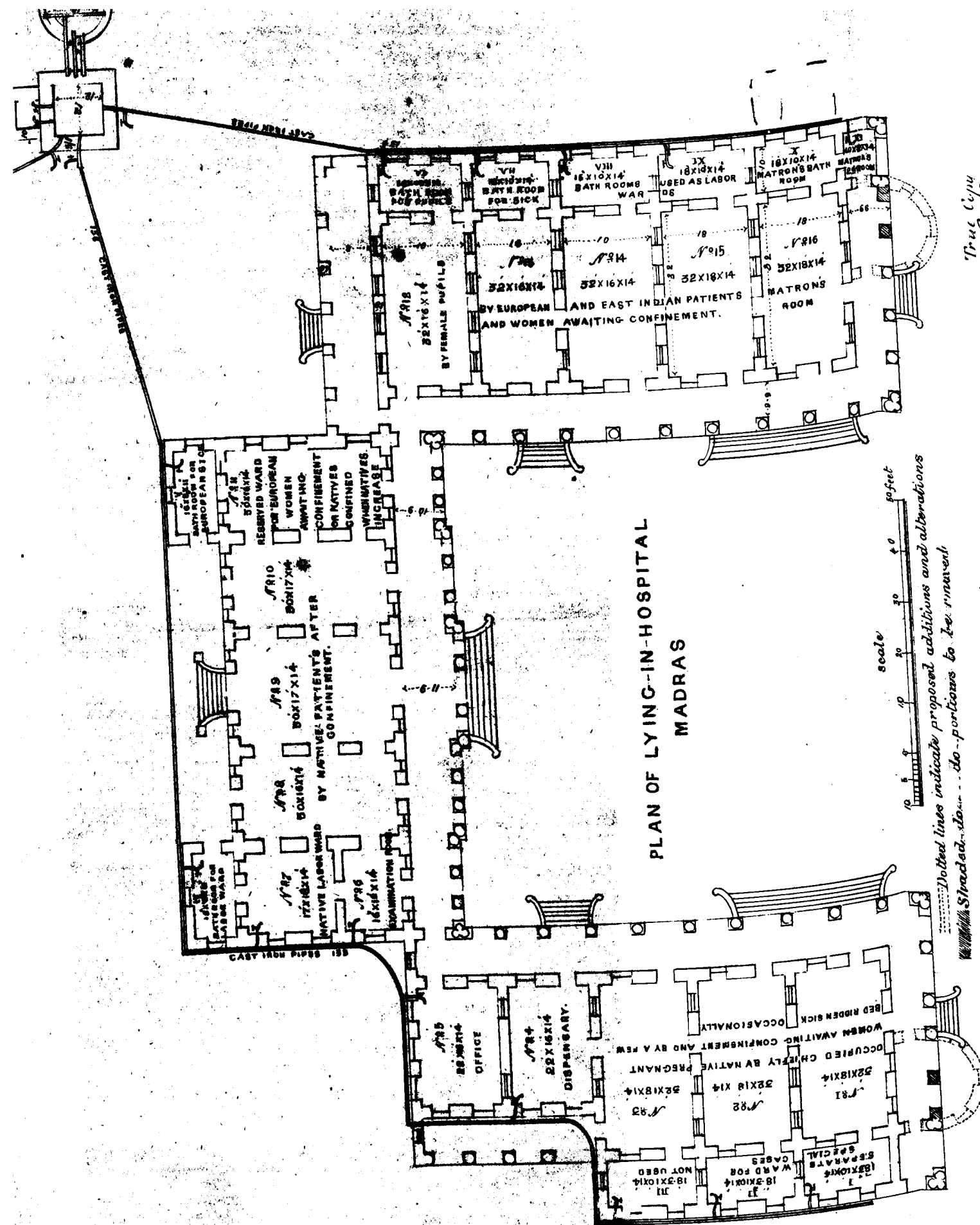
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area of each $(32' \times 18') = 576$ feet which $\div 41$ gives rather over 14 feet to each person! But the frightful overcrowding represented by these figures does not actually exist as many women sleep in the verandahs; but still in the event of driving-rain compelling them to seek shelter within the rooms assigned to them, it is manifest that most serious overcrowding must result. Room No. 3 was devoted to dispensary sick and contained eight cots at 72 superficial feet each, but as this room freely communicates with numbers 2 and 1 by open arches, the inmates must necessarily equally suffer from any overcrowding of these rooms. The total number of persons who were entitled to occupy these three rooms amounted then to 90. The whole superficies is 1,728 feet, giving to each inmate 19.2 feet, and the cubic contents are 25,920 feet, which divided by 90 gives 288 per head. This amount of overcrowding does not, as before remarked, actually exist, but under conditions just noted it may; and it is most necessary that the accommodation for this class of persons be extended. Propositions for this extension will be advanced hereafter under the head of "suggestions for the extension of accommodation." Rooms Nos. 4 and 5 are occupied as a Dispensary and Office, and need no further description here. The medicines and obstetrical instruments and appliances were all well and methodically arranged.

12. The three rooms numbered 1, 2 and 3 have attached rooms, intended for bath rooms, on the western side; but they are not used as such. That opening out of Room No. 1 is used as a "foul linen Store" an objectionable arrangement; but necessitated by the absence of a suitable room in the out houses. Bath Room No. 2, is used occasionally for any special case. It was empty on the date of my inspection. Bath Room No. 3 is kept open as a passage to afford access to the wards. In each of these rooms there is a small cistern with a tap over it, supposed to be for washing, but more often used as a sink. I shall offer suggestions presently in regard to the appropriation of these rooms in connection with suggested changes in the general arrangement and allotment of the Hospital wards.

13. The centre of the building contains six rooms, numbered 6, 7, 8, 9, 10, and 11 in Statement of Accommodation and Plan. The 1st (No. 6) is the examination room. It is far too small and what is of more importance dark, so that on cloudy mornings, Dr. Harris represents that efficient examination becomes a matter of difficulty. This subject will be reverted to. Room No. 7 is the Native labor ward, and is $17' \times 16'$ by $15'$, giving it a superficies of 272' and a cubic measurement of 4,080'. There were only two patients in labour in the ward at the time of inspection, but it is liable at any moment to receive more as occasion may demand. Each patient has also an attendant nurse so that the room is often much overcrowded. Nos. 8, 9, and 10 like 1, 2, and 3, communicate with each other by open arches. They are devoted to native women after confinement. They are respectively (two) $30' \times 16' \times 15'$ and (one) $30' \times 20' \times 15'$ giving a superficies of 480' and 600' and a cubic measurement 7,200' and 9,000' or collectively 1,560' and 23,400'. There were nine cots in No. 8, 10 in No. 9, and 9 in No. 10, or altogether 29, giving to each cot 53.8' superficial and 807 cubic feet of space. Ward No. 11 was in use as a reserved ward for European women awaiting confinement, but is often appropriated to relieve the over pressure put upon the Institution in the Department of Native women, or for special cases requiring segregation. It was occupied by European and East Indian women on the date of inspection and contained eight beds. Its dimension are $30' \times 16' \times 15'$ or 480 superficial and 7,200 cubic feet, which $\div 8$ gives 60' and 900' respectively.



DRAWN IN THE OFFICE OF SANITARY COMMISSION AND LITS BY H. J. SALDREY GOVT. LITH. PRESS, CHENNAI 1861.

14. The section of the Institution assigned to Native parturient women is very much overcrowded, if judged by the standard allotment of space now considered necessary and more especially in an Institution of this character.

Native lying in wards much overcrowded.

15. The Eastern or left wing contains five rooms with bath rooms, one (No. 12) is assigned to the pupils, six of whom occupied it. Nos. 13, 14, and 15, communicate by open arches and to all intents and purposes constitute one apartment. One room is of the following dimensions $32' \times 16'10' \times 15'$, one $32' \times 16' \times 15'$ and one $32' \times 18' \times 15'$, and they afford an aggregate superficial and cubic space of 1,663' and 24,045' respectively. There were in all 22 cots in these three rooms so that the superficial space to each was 73, and cubic 1,093'.

Eastern wing.

In this, the European Department also, both superficial and cubic space is insufficient, far less than that allowed to Military sick.

Overcrowding of European Section.

16. Room No. 16 is the Matron's room which, by a low screen, is divided into two compartments, with two small bath rooms attached.

Matron's room.

This accommodation is insufficient, and a proposal will be made for its extension in another place. I may here remark that I discussed with Dr. Harris, the propriety of giving the Matron accommodation outside the Hospital, but within the compound; but he is of opinion that the calls upon her are so frequent, that it is desirable that she should be at all times quite close at hand, and in this the Matron herself concurs.

Accommodation insufficient.

17. I have shown that the Institution if judged by the standard authoritatively laid down for Military sick, whether European or Native, is overcrowded, and this quite independent of the peculiar nature of the cases admitted into Institutions of this nature, in which authorities are unanimous in declaring that the fullest provisions should be made in the question of superficial and cubic space. In the detailed statement of accommodation it is shown that at 120 and 90 superficial feet for European and Natives respectively, the wards (excluding the rooms assigned to Native women waiting for their confinement), can accommodate 47 Sick. But at the time of inspection they had 74, or 25 in excess, and the usual number of patients or cots for occupation, is stated at 78.

Overcrowding, general.

18. The superficial space to be assigned to *civil* patients, European or Native, has not, that I am aware of, been authoritatively laid down; but I think it is very desirable that, Government should fix the allotment for this Institution. I do not think that 120 feet for European and 90 feet for Native patients, when the nature of the cases is taken into consideration, too great.

Allotment of cubic and superficial space requires to be laid down by authority.

19. I may be permitted to remark that parturient women are peculiarly susceptible to absorption through the uterine surface of any septic matters generated by overcrowding, and such matters are especially apt to be generated in Lying-in Hospitals; consequently ample space both superficial and cubic is necessary. The actual space depends of course much upon the nature of ventilation, upon the amount of air gaining access to the wards at all times, and its renewal day and night.

Before, therefore, the Government is in a position to decide as to the actual amount of space to be allowed, upon which will hinge the whole question of extension of accommodation and its attendant expenses, it is necessary to describe the ventilation of the building.

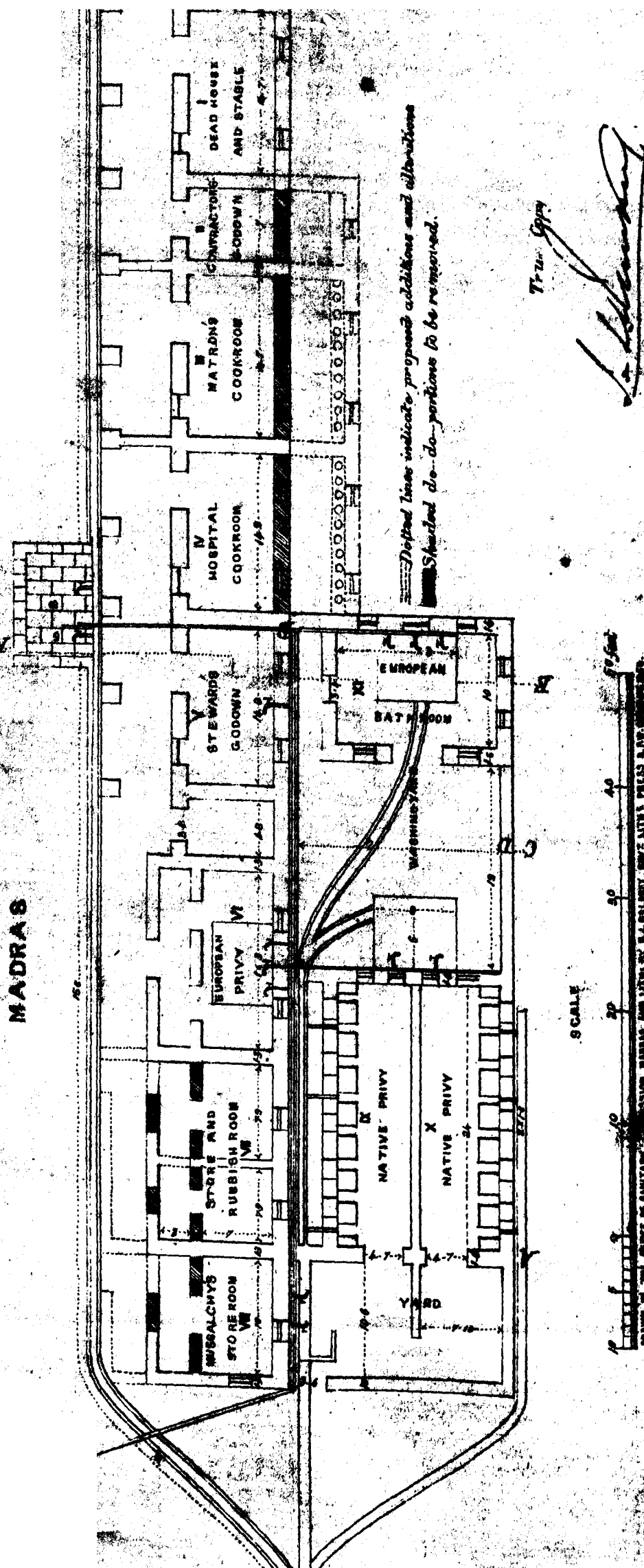
20. The principal wards in each wing as I have just shown ventilate into each other and must be consequently dealt with as single wards.

Ventilation of the building.

These wards are ventilated by doors and windows the numbers and size of which are given in the "Detailed Statement of Accommodation." The windows are glazed, and furnished outside with venetian shutters or jalousies. When these windows and doors are open there is a constant renewal of the atmosphere and no sense of closeness was perceptible at my visit; but I am assured by the Nurse, and the statement is corroborated by Dr. Harris, that when the windows are closed at night, as they usually are in the cold weather the atmosphere becomes close and the air tainted, and that on entering the wards, the first thing in the morning, from the fresh air, before the rooms are opened, the atmosphere is certainly often foul. This, however, might be remedied by removing two upper panes of glass in every window and substituting perforated zinc or 'ventilating panes' and by fixing permanently the upper segment of all ventians so that they cannot be closed. The pannels of the doors might also with advantage be fitted with perforated zinc or tin plates about 1 foot for the ground. These measures would certainly prevent that utter stagnation of the air, that must now occur if doors and windows are closed at night. I would suggest in fact the provision of suitable openings as 'inlets' and 'outlets' so arranged as to be beyond the control of the inmates, but at the same time to ensure the air entering in so divided a current that it can under no circumstances constitute a draught. It is laid down by the best authorities that these openings independent of doors and windows should be of such size in Hospitals as to give 72 square inches per head. If we apply this rule, say to the three European wards 13, 14 and 15 of this Institution, and which held 22 women on date of my inspection, there should be $72 \times 22 = 1,584$ square inches = 11 square feet of 'inlet' and 'outlet' openings independent of doors and windows. There are to these rooms six doors and six windows, so that if to each door and each window, provision be made for an opening one foot square the requirements would be met. But as I have suggested perforated zinc, the openings must be necessarily larger. Openings in each door of a sectional area of one foot with substitution of perforated zinc plates or ventilating panes for the four upper panes of each window will I think suffice, and be about equivalent to the 11 feet of unobstructed opening. Would this improvement of the ventilation justify a reduction of the superficial space noted above of 120 and 90 feet respectively? I think, with due consideration to the nature of the cases under treatment, not; and even with that allowance, I think it highly advisable that the ventilation be improved in the way suggested.

But the ventilation might be further improved by turret ventilators with louvred sides inserted in the roof of each room. The building being terraced, this method of ventilation could easily be applied at moderate cost; but the introduction of these roof ventilators, will depend upon the determination arrived at upon the question of extension of accommodation. Should an upper floor be determined upon the ventilation of the lower rooms would be best met by 'air shafts' from the

PLAN OF OUTBUILDINGS OF LYING-IN HOSPITAL
MADRAS



ceiling passing up through the walls of the upper rooms to the roof, inlet openings being provided above the doors and windows, the Sectional area of the whole (inlet and outlet shafts) being maintained in the proportion noted above, viz. 72 square inches to each inmate.

21. In further description of the building I may add that the walls are rather low, only 15 feet, that the general wards are flagged with tiles, and that the small side rooms designed as bath rooms, but almost all of which are applied to other uses, have asphalted floors.

22. The out houses situated at the rear of the building are of a very inferior description, too small, and wanting in many necessary conveniences. The range from north to south contains the rooms noted in the margin.

Out houses.

1. Misalchies' godown and oil store room.
2. Medical store room.
3. European privy.
4. Steward's room, and bedding and clothing room.
5. European kitchen.
6. Native do.
7. Contractor's godown.
8. Coach house used as dead house.

These rooms are divided into two blocks by a passage between the European privy and the steward's godown, leading to an open court yard, which lead off the bath rooms assigned to European patients. To the rear of the northern block of godowns are located the Native privies. The arrangement of the whole of these subsidiary buildings is shown upon Plan No. 2.

This is a small, and more or less necessarily dirty room without any convenience in the shape of shelves, consequently a Hospital cot had been called into requisition as a table for the lamps, oil cans, &c.

Oil godowns and Misalchies' room.

This is equally wanting in shelves for arrangement of the stores. They are consequently kept in baskets on the floor. There is also much lumber in this room heaped in a corner.

Medical store room.

Steward's room.

This room which is used principally as a clothing store room is quite unsuited to its purpose, it wants shelves and should be better ventilated.

The Contractor's godown is of the same inconvenient description; and when I state that an old coach house is used both as a coach house and stable by the Matron, and as a dead house (being the only place in which a post mortem examination can be held by the Surgeon,) I complete the description of this very indifferent, insufficient and unsuitable subsidiary accommodation.

There are two latrines one for Europeans and one for Natives neither of which are worked upon the dry earth system, but upon the old and objectionable wet system, water being laid on to them by pipes.

Latrines.

The European privy is situated on the right of the passage leading to the ablution yard. It is 16' by 7' x 7' (to wall plate) feet, and contains four moveable night commodes. The centre portion of the floor is occupied by a kind of sink with a tap above it. The

European latrines.

walls are coated with coal tar to about 2½ feet from the ground. The toties (female), have to enter the building to remove the pans. It was tolerably free from smell on the day of inspection. Dry earth is not used.

The Native privies are located at the rear of the godowns, and are in two compartments. They are ventilated by oval openings at the top of the walls. Each compartment has a range of eight seats consisting of a raised platform of masonry, with

Native privies.

interruptions at regular intervals instead of seats. No vessels of any kind are used. These privies drain into drains at the rear. The floor is asphalted and water is laid on by pipes, a tap being fixed over a small cistern in the eastern compartment. Charcoal is used, but the privies are conserved entirely upon the wet system, water being used abundantly. The whole of the flooring was wet at the time of my inspection, water being lodged here and there in small pools. The drainage water accumulated in a reservoir into which the drains discharge, and whence the main drain leads off to the nullah, was foul but not particularly offensive.

I would strongly recommend that the conservancy of these privies, both for European and Natives be changed for the dry earth system. It will doubtless entail a larger expenditure under the head of establishment, but it will be far superior to the present system. It will also entail certain alterations in the construction of the buildings which I shall notice in another place.

No convenience of this kind exists even for European patients. Commode or night stools are brought into the bath rooms adjoining the wards and removed in the morning, an objectionable arrangement always. One night closet (at least), is needed in each compartment of the Hospital for the use of those patients who are able to leave their beds. These closets might I think be built on to the bath rooms communicating with them by strong self-closing doors.

They need not be large, two seats in each would be enough. They should be well ventilated and admit of conservancy from the outside, without the toties going into the building.

The ablution accommodation is entirely outside the building. Not a single basin or towel is provided in any of the bath rooms (or the rooms designed as such, but which are devoted to other purposes) within the building; indeed there is no proper provision for ablution at all.

Ablution rooms and provisions for washing and bathing.

The bath room for Europeans is situated at the back of the godowns, and leads out of the open court yard in which the natives wash. In this room water is laid on by pipes and large bathing tubs are provided, which, however, Dr. Harris assures me are rarely used. They are inconveniently large. One was standing outside and was used to soak foul linen soiled with discharges in, as no suitable room is provided for this very necessary operation in an Institution of this nature.

No towels are provided here or in any part of the Institution, patients whether European or Native being supposed to bring their own. Jack towels should I think be allowed with the necessary "rollers" for ordinary ablution in addition to hand towels. The native bath room is as I have said an open court yard, to which water is also laid on. (The ablution accommodation generally then is very bad.) The tubs are so high, that it is difficult to step over the sides to get into them. A great change need be introduced in this Department. Some of the misappropriated bath rooms attached to the wards of the building should be converted into suitable ablution rooms with convenient reclining baths and standing basins, and should be duly furnished with towels and soap. I shall indicate hereafter the particular rooms that I think should be thus converted. The existing outside bath room can only be used by women in robust health. Instead of the large unwieldy tubs I would advise stone or brick in chunam reclining baths beneath the existing taps.

Drainage.

23. The drainage of the Institution is effected by channels running all round the building which join the system of drains from the godowns, privies, and wash houses, and which converge to a main drain, discharging into the nullah, at the bridge crossing the main road. The drains are generally in good repair and efficient, except when the river is in flood, when the water stagnates at the end of the main drain. They were however foul in parts and offensive. I suggested that they should be flushed and have a liberal supply of "McDougal's powder" thrown into them.

24. Water for ablution purposes is laid on to the main building, to the wash-houses, and also to the privies. The water is raised from a well into a reservoir, whence it is distributed by pipes; but although the head of water in the reservoir is great enough to allow of the stand pipes being raised to at least three feet, they are at a small elevation except in the examination room. The water is brackish.

25. Drinking and cooking water is brought from the Egmore well in carts which hold sixty gallons. The cart makes five trips and brings consequently 300 gallons daily. It is stored in large earthen vessels and is filtered before use. An analysis of the tank water is given in the Appendix and it will be seen that it is quite unfit for domestic purposes. The Egmore well water is said to be the best in Madras.

26. The conservancy of the native latrines I have shown is upon the wet system. The solid feculence is supposed to be removed by the toties to receptacles (baskets) kept at the rear of the latrines in which it is mixed with the cookroom ashes, and deposited in the Municipal filth carts. All excreta from the European privy and from the wards of the Hospital are disposed of in the same way. But the whole of the liquid excreta find their way into the closed main drain which extends from the privies to the bridge crossing the road, to be discharged into the Cooum river. It is, however, very indifferently disposed of; for when the river is in flood the sewage is 'ponded' back into the drain, or stagnates with the water in the nullah. When the river is low it is discharged into the bed of the nullah beneath the arch of the bridge in the masonry of which the drain terminates. It would be well to extend this drain to the low-water level of the Cooum.

All ordinary refuse is disposed of in Municipal carts. The bodies of all still-born infants or abortive-births are sent to, and buried in native burying grounds. 'After-births' are supposed to be conveyed to the same places and buried.

Establishment.

Female toties.
Male do.

27. The Conservancy Establishment comprises the individuals noted in the margin, who are said to be quite equal to the duties of the Institution in this Department. There is no Scavengers' cart; but this is not needed as the Municipal carts remove all refuse.

It will be, however, probably necessary to provide one, or to increase the establishment when the dry earth system is introduced, especially if provision be made for a probable increase in the number of inmates in connection with the proposed extension of the accommodation of the Institution.

Allowing 5 lbs of earth to each individual, and supposing the numbers, including 'waiting' women, to rise to 200, the mass to be removed daily from the premises (5 lbs earth $\times$ 2.5 lbs. solid and fluid excreta $\times$ 200), would equal lbs. 1,500 or about two ordinary cart loads, or at any rate a cart load and a half. Unless the Municipal carts could remove this, it will be necessary to employ a cart for the purpose. But by the terms of Municipal Act, it is, I presume, incumbent on the Municipality to remove all filth and refuse of this description from all Civil Hospitals and Institutions, as well as from private dwellings, if deposited in a convenient position, or brought to the Scavengers' carts. In this case the introduction of the dry earth system will entail no additional expense, except in the provision of the earth and which could be made by contract.

The contract rate is, I believe seven annas a cart load of 1,000 lbs. which would be about the daily requirement; so that the increase to expenditure would amount to 160 Rupees per annum.

The Hospital is administered by the Staff noted in the margin. The

Administration. *S. A.*

1 Medical Officer in charge.
1 Apothecary.
1 Dresser.
1 Matron.
7 Resident Pupil Nurses.
1 Writer and Steward.
1 Head Native Nurse.

4 Native Nurses.
1 Peon.
1 Cook.
1 Tailor.
1 Washerman.
3 Peonchik ropan.
1 Puckally.

sanctioned, it will be possible to give up two rooms to these pupils, one of which can be used as a day and dining-room. The duties of the Hospital are carried on methodically and discipline is good. A regular Roster of duties is kept by day and night.

Dieting

28. All European pauper inmates are dieted at the expense of Government, to others, charges are made according to the following scale:—

Hospital stoppages.

All patients having incomes above 300 Rs. a month 5 Rs. per diem.

Rs. . Rs.	Rs. A.	
From 200 to 300	2 0	per diem.
" 150 to 200	1 0	do.
" 100 to 150	0 12	do.
" 50 to 100	0 8	do.
" 25 to 50	0 4	do.

Natives are not dieted; but receive instead a money allowance of two Annas a day. There is no native cook; but all natives make

Natives not dieted. their own arrangement; their meals either being brought from their homes, or cooked any where about the premises.

In 1865 this, the 'batta' system, was abrogated in favor of a fixed money payment of two Rupees to each woman confined in the Hospital on her leaving the Institution. The change did not work well. The number of 'waiting' women instantly fell off, and the batta was accordingly resumed by order of Government, dated the 22nd June 1866.

The batta system was also in force in the Eye Infirmary and Dr. George Smith entirely condemned it, advocating in its stead the dieting of the sick at the expense of Government. Dr. Smith's objections to the batta system are, to my mind, unanswerable. It is, I conceive, to the advantage, both of the patient and physician that the diet should be under the control of the latter. Dr. Harris however assures me that the women much prefer the batta system, and affirms that were it changed for the system of dieting at the expense of Government, there would be a great falling off in the number of applicants for in-door treatment at the time of labor. The batta system is undoubtedly the less expensive to Government, and, as it appears to possess the confidence of the patients and to have the support of the Medical Officer, I hesitate to recommend any change. I have, however, always been a persistent advocate of the dieting of all Sick, whether Military or Civil. Sepoys on foreign service are now dieted in Hospital in lieu of the old system of feeding themselves, and to the manifest advantage of all parties, the Government, the Medical Officer, and the Sepoy. It is true that in the large majority of cases of child-birth in natives, a special diet is not necessary, as in the case of ordinary sickness; and in the face of the testimony borne to the working of the batta system, I consider it advisable to leave well alone.

There is one point, however, connected with the system, that must be adverted to. It often, or at any rate not unfrequently, becomes necessary for the Medical Officer to order some article of diet as an extra. Recently he has been threatened with retrenchment on this account and has been instructed that in future no extras can be permitted to women receiving the money allowance.

Dr. Harris is about to represent the case and it is possible that the question may be settled before this Report is submitted; if not I earnestly advocate that the restriction be withdrawn, and that permission be granted for such "extras," whether as food or stimulants, being given in special cases, under the existing rules of the Service, viz., that a full explanation of the necessity for the issue be given to the satisfaction of the Inspector General of the Department.

29. European and East Indian women, as a rule, provide their own clothing; but a small stock is kept on hand for pauper patients or for those who may not have a change at command. Natives are clothed at the expense of the Institution.

The bedding consists of paillasses stuffed with straw; but half a dozen coir mattresses are kept for special cases. Europeans receive a pair of sheets, a quilt, a red blanket and two pillows. The quilts are of inferior description; but recently quilts of improved quality, which are about to be indented for, were sanctioned.

Native bedding consists of a mat, a cumblee, and quilt over the straw stuffed paillasse. Women in waiting find their own mats and cumblees.

Clothing consists of a few white cotton gowns, shifts, jackets, and petticoats for European and East Indian women who may have no sufficient clothing of their own; and for natives some gowns and jackets with chintz petticoats.

A list of the clothing in Store on the 1st of March of the present year will be found in the Appendix. It will be noted that no towels are found in it.

30. The building is in need of the usual annual repairs now due. The walls

Condition of building as to repair and cleanliness.

much require white washing being soiled and dirty looking. The floors require repointing here and there, and the drains looking to in places where sewage matters have corroded the mortar.

General results of inspection.

31. The result of inspection may be thus briefly summarized:—

- I. All sections of the Hospital overcrowded, especially that assigned to native women awaiting their confinement.
- II. Accommodation, insufficient for due classification of the sick and for segregation of special cases.
- III. The examination room too small and badly lighted.
- IV. Building generally much in want of annual repairs and white-washing.
- V. Out-house accommodation, insufficient.
- VI. Ablution accommodation, bad.
- VII. Kitchen small and smoky.
- VIII. Privies kept upon the objectionable wet system.
- IX. No equipment in the shape of crockery, knives, and forks for European or East Indian patients.
- X. General conservancy fairly attended to; but frequent disinfection of the drains necessary.
- XI. Ventilation of building indifferent.
- XII. Compound capable of improvement.
- XIII. A Dead-house and disinfecting room much needed.
- XIV. Towels for ablution required.

Statistics of Institution.

32. On the date of my inspection* the Institution contained 128 women divided into the following classes:—

EUROPEAN.		
Women Lying-in	...	10
Do. Dispensary cases	...	13—total 23
NATIVE.		
Do. Lying in	...	23
Do. Dispensary cases	...	5
Do. Awaiting confinement...	...	77—total 105
General total		128

Lying-in Branch.

By table (B) in the Appendix it will be seen that the number of confinements has been steadily on the increase since the foundation of the Institution in 1844. The monthly average has been (in 1864) as high as 118.83. In 1865 the numbers fell off owing to the withdrawal of batta which up to that year had been granted to women awaiting their confinements, numbers of whom, indeed I may say *all* of whom, withdrew, and this withdrawal necessarily effected the number of actual confinements. In November of that year the number of waiting women fell from 81 to 'Nil,' and so continued till July 1866 when batta being regranted, the list of applicants began steadily to assume its former proportion, and as above shown there are at the present time no less than 77 of these claimants for the shelter of the Institution during

* See present state page Appendix.

their period of trouble. The total number of accouchments within the walls of the Institution since its establishment are 16,324, varying from 15 in the first four months and 62 in the following year to 1,425 in 1864. The mean annual admissions for the last five years is 1,186.

Table C in the Appendix shows the monthly admissions amongst the different classes of patients since 1865. I regret that it is not possible to carry this table further back, but it will serve the object I have in view, viz., to show the necessity that exists for extension of the accommodation of the Institution:—

Years and Total annual admissions.	EUROPEAN.			NATIVE.			Total.	MAXIMUM NUMBER IN ANY ONE DAY.					
	East Wing.			Centre and West Wing.				European.			Native.		
	Lying-in.	Dispensary.	Total.	Lying-in.	Dispensary.	Waiting.		Lying-in.	Dispensary.	Total.	Lying-in.	Dispensary.	Waiting.
1865*	78	48	126	262	17	801	1,080	16	8	24	39	5	127
1866	41	41	82	209	21	112*	342	14	8	22	35	5	32
1867	63	60	123	214	35	341	590	14	11	25	30	11	76
1868†	47	68	115	145	34	351	530	13	16	29	37	9	32

* Batta withdrawn this year.

† Seven months.

This table conclusively shows the extent to which the Institution is gaining the confidence of the public in both its relations, that is as a "Lying-in-Hospital" and as a "Dispensary for diseases of women." In every element in fact upon which the accommodation of the Hospital has the most important bearing, the necessity for extension of that accommodation is shown. In the seven months of the present year for instance, the numbers are in excess of any other period of the history of the Institution, for we find that amongst Europeans there have been as many as 28 in-patients at one and the same time, a considerable increase being manifest in the Dispensary cases. The smallest number of Europeans under treatment during the current year has been 15, and I have shown elsewhere that the accommodation of rooms 13, 14, and 15 at the allotment of 120 superficial feet is equal to 13 only, so that the minimum number above indicated is two in excess, and the maximum, 18 in excess of the accommodation.

In the Native portion also the numbers are in excess of the accommodation. The maximum number of 'Lying-in' and 'Dispensary' cases has reached 46 while the accommodation at 90 superficial feet (in rooms 3, 7, 8, 9, 10, and 11) is equal to 31 patients only, or 15 below the number for which accommodation has recently been required, and which has been found at the risk of evils resulting from overcrowding.

The only one element in which no increase is shown is that of "women awaiting labor" but this arises from the temporary withdrawal of batta. But at present there are 77 of these women for whom accommodation is ostensibly found in two rooms at an allotment only of 19 superficial feet per head as has already been stated, but the numbers, Dr. Harris assures me, could be doubled if all applicants were admitted at the time of their presenting themselves. Now in order to keep the numbers as low as possible women are only admitted on the very eve of their confinement.

It is not my intention to enter upon statistics purely medical in their nature, but it may prove of interest to touch upon a few points illustrative of the working of the Institution. The 16,324 cases of labor were distributed over the different months as follows:—

Twenty-four years from September 1844 to July 1868 inclusive.	January*	February*	March*	April*	May*	June*	July*	August*	September*	October*	November*	December*
Total	1,345	1,102	1,084	1,147	1,324	1,391	1,446	1,558	1,630	1,670	1,555	1,545
Mean of period	55	45.9	45.2	47.8	55.0	57.9	62.9	67.7	67.9	69.6	64.8	64.8

* Twenty-four years.

The largest number of admissions occur in the month of October, which month gives a mean of 69.6 for the twenty-four years. The next two highest numbers occur in the months of August and September. The 24 first 'half-years' give a mean of 51.3, and the second 'half-years' 66.3, the lowest means occur in the months of March and April. The following table exhibits some of the leading statistical deductions drawn from the records of the Institution for twelve years, in which those records are complete and reliable, and which it may be of interest to compare with inferences drawn from similar figures in England and elsewhere:—

Years.	Deliveries.	Undelivered.	CHILDREN.								General Total.	PLURAL BIRTHS.			Remarks.
			Born alive.				Still born.					Twins.	Triplets.	Monsters.	
			Males.	Females.	Unknown.	Total.	Males.	Females.	Unknown.	Total.					
1854 ...	714	...	363	304	2	669	25	30	...	55	724	10	...	...	* Not included.
1855 ...	789	1	353	320	...	673	49	51	...	80	753	14	...	...	
1856 ...	857	2	406	379	...	785	48	88	...	81	866	9	...	...	
1857 ...	787	2	387	330	...	717	49	80	...	79	796	11	...	2*	
1858 ...	956	1	448	415	...	863	56	51	...	107	970	14	...	...	
1859 ..	836	4	390	369	8	762	53	31	...	84	846	8	1	...	* Return for 1862 and 1863 not reliable.
1860 ...	927	1	443	401	...	844	58	26	...	93	937	10	...	...	
1861 ...	1,036	...	525	481	...	1,006	65	32	...	97	1,103	17	...	...	
1864 ...	1,425	1	691	593	17	1,306	79	63	...	141	1,447	20	1	...	
1865 ...	1,184	2	573	515	...	1,088	52	54	2	108	1,196	12	...	...	
1866 ...	1,127	4	543	480	14	1,042	59	42	...	101	1,143	14	1	...	Deliveries ... 11,599
1867 ...	961	2	487	416	...	853	57	45	16	118	971	10	...	...	Twins ... 149
Total...	11,599	29	5,564	5,008	36	10,608	645	481	18	1,144	11,752	149	3	2	Triplets ... 2
															Total... 11,754
															Monsters ... 2
															Children dead and alive ... 11,753

In the period embraced by the table, there were 11,599 deliveries, and 1,175 children born, dead or alive, of which 11,444 were single births, and 155 plural, 149 being twins and 6 triplets. There were also two "monsters" not included in the births.

Dr. Churchill has collected from various sources statistics with which the above figures may be compared. Thus he finds that amongst 167,676 cases of labor recorded in the United Kingdom there were 2,572 cases of twins and 37 of

triplets. From France he collected 35,570 cases of which 332 were twins and 6 triplets. Germany, yielded him 251,386 cases with 2,967 cases of twins and 35 of triplets.

From these figures the following averages are deduced:—

	Proportion of, to total deliveries.	
	Twins.	Triplets.
Great Britain	1 in 65½	1 in 4,531½ cases.
France	1 in 110	1 in 6,095 do.
Germany	1 in 84	1 in 7,185 do.
Mean of the above...	1 in 77½	1 in 5,840 do.

The records of the Lying-in-Hospital as above noted yield the following results:—

Madras 1 in 77½ 1 in 1,933

The proportion of twin-births to total confinements is precisely the same as the mean derived from the statistics collected in Europe and which include nearly half a million of cases or to be precise 455,632. Triplets are in much larger proportion, or 1 in 1,933 against 1 in 5,840. Of the 11,754 children, the product of the 11,599 deliveries, the sex was determined in 11,698 instances and 'undetermined' in 54.

The proportion of the sexes are as follows:—

Males born alive	5,564
Do. still-born	645—total 6,209
Females born alive	5,008
Do. still-born	481—total 5,489
Sex not determined alive	38
Do. do. still-born	18 total 54
Monsters	2
General total 11,754	

These figures give the following proportions:—

Female to male births	100 to 113
"Still births" to "live births"	1 in 9.3
Do. do. do. in Males	1 in 8.6
Do. do. do. Females	1 in 10.4

33. The total number of deaths recorded in the period embraced in the above table is 170, or in the proportion of 14.6 per 1,000 cases. Of these 170 deaths the causes of lapse have been recorded in 150 instances.

It will be foreign to a report of this nature to go further into statistics, but there is one disease that has such an important bearing upon accommodation, in relation to superficial and cubic space necessary in Institutions of this character, that it must not be passed over without a word of comment.

34. That disease is Puerperal Fever alluded to in a former paragraph. Of 150 recorded deaths, 38 are from this disease, or in the ratio of 253.3 per 1,000 cases,

which figures afford sufficient indication of the frequency of occurrence of a disease peculiarly apt to assume an epidemic form in crowded wards, and against the inroads of which it is recommended not only to afford abundant space to the sick and to make the fullest provision for ventilation, but to periodically throw every labor ward in succession out of use, in view to its through ventilation and purification.

Out Patients.

35. The treatment of out-patients constitutes a very important branch of the benefits this Institution confers upon the poor. During the year 1867, 10,597 persons attended for out-door medical relief of diseases peculiar to women and children. The following table prepared by Dr. Harris shows the increase that has taken place within the last few years in this department of relief of suffering :—

	1863.	1864.	1865.	1866.	1867.
Europeans and East Indians ...	1,697	2,804	2,901	3,734	4,228
Natives	3,584	5,861	5,990	5,899	6,369
Total ...	5,281	8,665	8,891	9,124	10,597

The progressive increase in these figures exhibits well the hold the Institution is acquiring upon the confidence of the people.

SUGGESTIONS FOR EXTENSION OF ACCOMMODATION.**I.—HOSPITAL.**

36. The extension of the accommodation of the Hospital requires to be planned with reference to the requirements of the three divisions of the Institution, viz., (a) European and East Indian lying-in women and dispensary patients (b) Native women of the same class, and (c) Native women awaiting their confinement.

37. I have three plans to offer for consideration. The first, plan and the one that most strongly recommends itself, since it will afford the largest amount of accommodation, at probably the smallest cost, is the erection of an upper story.

I understand that the wings only will bear a superstructure of this nature; but they will give a ward space of about 5,120 superficial feet. An upper story over the eastern wing, if devoted to European and East Indian women, with an allotment of 120 superficial feet per bed, would accommodate 22; while a similar story to the other wing would, at 90 feet per bed accommodate 27 Native women, 'lying-in' and 'dispensary.'

This arrangement would admit of the whole of the lower story of the western wing being given up to the 'waiting' women, who have now no sufficient accommodation, but are obliged to lie in the verandah.

The body of the building could contain the Administrative Offices, as Surgery, Office and Examination room, with a Waiting-room for Europeans and East Indians, and a Dormitory and day room for the pupils.

The addition of an upper story would, besides extending the accommodation, admit of a better classification of the patients.

38. It will be necessary to supplement this extension of accommodation by two detached wards for contagious diseases, or for segregation of women suffering from puerperal fever. But

Contagious diseases Ward required. Dr. Harris considers that even this extension will not meet the requirements in the case of 'waiting' women, and suggests a shed in addition, of the kind proposed in the 3rd plan I have presently to offer for consideration.

The body of the building would also require some alterations to adapt it to the use I have proposed. The present examination room (No. 6) might be shut off from No. 7, and converted into a waiting-room. No. 7 might be assigned as the

"examination room," provision for better lighting being made. Nos. 8 and 9 could be made respectively, office (or consulting-room) and dispensary, doors being inserted in the archways; Nos. 10 and 11 could be assigned to the pupils who are now very much cramped for space; the wall between Nos. 9 and 10 being built up.

3. This plan embraces the erection of a separate Hospital for European and East Indian lying-in and dispensary patients; with attached 'waiting' and 'examination rooms' a small room for a

2nd Plan. special case as after operation (an operation ward) bath-rooms, and night closets; and detached wards for contagious cases.

The accommodation required must at least be equal to 30 patients; for there were on the date of my inspection 23 in Hospital, and Dr. Harris assured me that as the dispensary cases were on the increase he would soon require additional accommodation. The building then should afford 3,600 feet of floor space, and might be advantageously built in two stories; both on account of the lowness of the site, the limited available space, and, from motives of economy; a building in two stories being, I understand less costly than an extension of the ground floor.

40. A third plan has been suggested, viz., separate accommodation for the Native women awaiting their confinement, in buildings somewhat upon the plan of the sheds at the Emigration Depot.

3rd Plan.

As these women merely require shelter, costly structures would not be necessary. Accommodation for 100 women (there were 82 on date of inspection) could be found in two sheds 85 x 24 feet each, allowing to each woman 40 feet of floor space. The building would have to be protected by shallow verandahs, and as the site is low and consequently damp, it should be erected upon raised basements with a damp-proof course. A separate cook-room will also be required.

The provision of these sheds would liberate three wards in the western wing having an aggregate superficies of 1,728 feet, or accommodation for 20 lying-in Native women, at 90 feet each.

This latter plan will not, however, extend the accommodation to the standard required, for I have elsewhere shown that if the inmates on the date of my inspection had been provided with the amount of superficial space I have advised, all existing accommodation would be taken up, and no room afforded for any addition to the number of inmates.

Plan No. 3 then, I think, must be dismissed from consideration as in itself, however desirable it may be to give the waiting women accommodation in a separate building, it will not meet the necessity for extension of the accommodation in other directions.

41. Separate wards for the segregation of puerperal fever cases will be necessary with either plan of extension of the accommodation. Two wards, capable of accommodating two beds, each at 120 superficial feet with small (verandah) rooms as night closets, will suffice.

The occasional occurrence of cases of puerperal fever, a disease liable to rapid propagation amongst lying-in women, and the ravages of which not unfrequently necessitates the closure of Institutions of this nature, renders the provision of special wards necessary.

I do not, at this stage suggest 'plans' for the European Hospital or for the contagious disease wards; my object being simply to submit for the consideration of Government alternative suggestions for extension of accommodation in

order that the Department of Public Works may be able to estimate the relative costliness of each plan, and which I may summarize thus:—

- 1st Plan. { Upper stories on the wing.
Contagious disease wards.
One shed 85 x 24 for "waiting women."
- 2nd Plan. { New Hospital for European and East Indian women for 30 sick with
attached waiting operation and examination rooms.
Detached contagious disease wards.
- 3rd Plan. { Erection of sheds for Native women.
Contagious disease wards.

II.—OUT-HOUSES.

42. I have already alluded to the indifferent and insufficient nature of the out-house accommodation. The rooms are all small and unprovided with sufficient means of storing, with any method or order, the stock of clothing, furniture, medicines, &c.

It has been proposed to build another range of godowns, removing it at the same time to a greater distance from the Hospital, but I do not consider it absolutely necessary to remove the range simply on this account, viz., proximity to the Hospital; while I also think that it is possible to increase the existing accommodation by enlarging some of the rooms in the manner I shall presently suggest.

But, first, it is necessary to determine what subsidiary accommodation of this nature is really required. In communication with Dr. Harris I have assigned the following as essential to the Institution:—

- | | |
|---|--|
| 1. A Massalinee's godown. | 9. Bath-room for Europeans. |
| 2. Store room for medicines, &c. | 10. Do. for Natives. |
| 3. Privy for Europeans. | 11. Latrine for Natives. |
| 4. Stewards' godown. | 12. Foul linen godown and disinfecting room. |
| 5. Cook-room for Europeans. | 13. Dead-house. |
| 6. Do. for Matron. | 14. Privy for Males. |
| 7. Room for Contractors' stores. | 15. Cook-room for Natives. |
| 8. Coach-house and stable for one horse for the Matron. | |

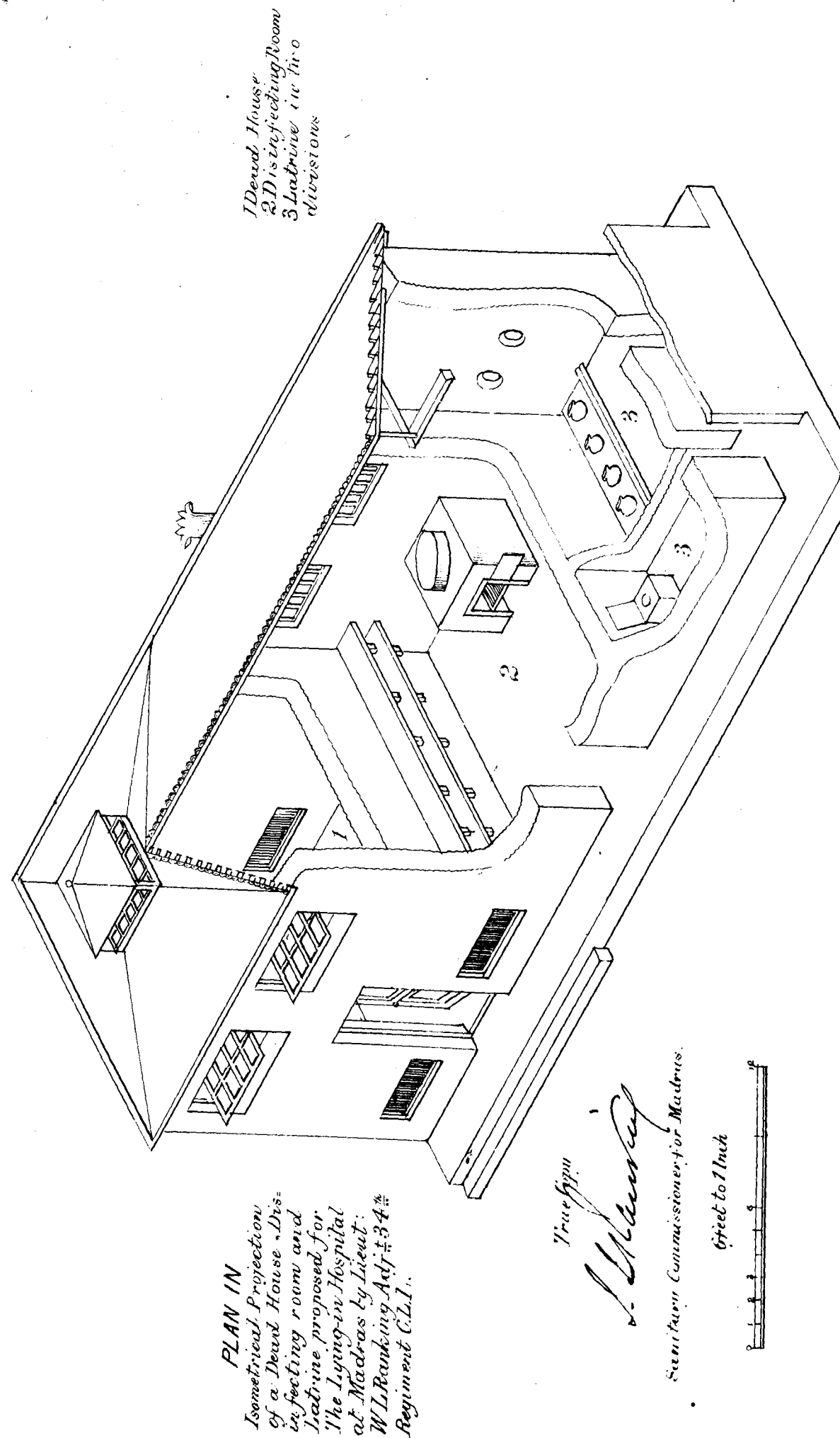
I have numbered the first of these rooms from 1 to 8 in the order in which they exist in the present range—9, 10, and 11 also exist to the rear of the range—12, 13, 14, and 15 have no existence.

43. I will first deal with the new buildings. Of those I have named, the first two are essential adjuncts to the Institution and might be built in one block to which the privy for males, (a convenience much wanted) could be added.

In Institutions of this nature where bed and body linen become saturated with discharges and in which, in this country, decomposition sets in so rapidly, it is essential, not only that the linen should be removed from the Hospital, but that it should be disinfected and subjected to the temperature of boiling water.

This room may consist of a small apartment well ventilated; but capable of being closed, so as to be made almost airtight, to admit of the use of gaseous disinfectants. It should be provided with a small stone or asphalted trough for soaking linen in, and a copper boiler for subjecting the same to the temperature of boiling water. One side should be furnished with rows of shelves

Foul linen and disinfecting room.



The Dead-house simply requires to be a well lighted and well ventilated building. The windows high up in the walls and ventilating openings near the floor. It should have a low asphalted table in the centre, with shallow gutters around it to convey all fluids away to a convenient reservoir.

Dead-house.

A small privy for the males employed about the Institution is much needed.

Privy.

These three rooms might be built in one block. The foul linen room in the centre and the dead-house and privy at either end.

I submit a plan drawn in isometrical projection, by my son Lieutenant Ranking, which shows exceedingly well my idea of the way in which these rooms may be combined, and of the kind of structure suited to them.

No separate cook-room for Native women now exists. Their meals are prepared in the best way they can about the compound, and any extra article of diet ordered by the Surgeon is prepared in the same kitchen with the Europeans. A kitchen might be built in connection with the shed proposed under plan 1.

Cook-room for Native women.

The remaining out-house accommodation already exists, as shown upon 'plan.' I have indicated in dotted lines the way in which it may be possible to enlarge some of the rooms, viz., by extending them in some cases to the front by taking in the present verandahs, and adding new verandahs, and in other cases to the rear. This addition to them with a liberal supply of shelves will, I think, meet the requirement in this department.

The cook-rooms will, however, also have to be otherwise improved. There is now no sufficient outlet for the smoke and no accommodation.

Cook-rooms.

A kitchen range would be a welcome addition to the European kitchen, indeed may be considered an essential adjunct to any well organized European Hospital, but if that be not provided, a flue should be built the whole length of the kitchen, and the usual fire-places ranged beneath it. A chopping block, table, some shelves and a small meat-safe are also necessary.

The European privy may remain where it is; but should be kept upon the dry earth system. It should have three fixed seats in the south end (as the most convenient site for them) and openings in the rear walls, leading into the bathing yard and passage, for removal of the pans. The pipes and taps should be removed and no water allowed in the building. An earth store should occupy the position of the present 'sink.'

Latrines European.

The Native latrine should also be converted upon the dry earth system; the accommodation, to consist of earthen vessels standing upon earth, with openings in the walls for their removal from the rear, to which the present latrines, can easily be adapted, as there is a passage behind one, and the other can, at a small cost, have a wall thrown up is a passage behind one, and the other can, at a small cost, have a wall thrown up to screen it from the road to which it is in close proximity. One tap should be left for purposes of ablution as practised by Natives, and a small cistern be built under it.

Native.

The additions that I would advise to the outside

Ablution rooms.

For Europeans.

ablution room for Europeans are as follows:—two shallow stone baths to be built in the place of the large unweildy tubs now in use, a stand for four fixed basins with taps, chains, and plugs, and waste pipes, to be erected, and also two rollers for jack towels.

The present Native bath-room is an open court yard called the "washing yard." The part shown upon the plan, over which two taps are fixed, should be enclosed within a low wall so that women can wash with some degree of privacy. With this provision the accommodation will be as good as Native women are accustomed to in their own homes.

But the European and East Indian, and indeed Native patients, certainly require additional bath-room accommodation within the Hospital. One room connected with each division of the Hospital should be provided with a shallow reclining bath, and contain a number, (say three,) of fixed basins with the usual necessities of taps, waste pipes, &c.

There is now absolutely no means of giving a patient a warm bath except by bringing a huge unwieldy tub from the ablution room outside, and consequently the hot or warm bath as a remedial measure is rarely employed. It would be also very advisable to supply a copper boiler to the cook-room with pipes leading to the bath-rooms so that hot water could be turned on at any time.

The Hospital very much requires to be enclosed with a low dwarf wall and fence. The hedge is in a dilapidated state and cattle consequently trespass upon the premises.

The nullah alluded to as running through the compound requires attention. It cannot be filled in, as has been suggested to me, as it is a natural water-course. Its banks, however, could be levelled, the width of the nullah increased and the banks turfed.

I have elsewhere pointed out that the main drain out-fall should be extended. It now discharges into this nullah which is often very foul in consequence.

The addition I propose to the Matron's quarters is shown in dotted lines upon the plan, viz., a small bay window added to the verandah, a corresponding addition being made for the sake of symmetry to the other wing. This second room would make a very good examination room instead of the room No. 6, which could then be used as an additional labour ward.

44. I have now indicated the direction in which extension of accommodation both of the Hospital and out-houses is, in my judgment, required to put this Institution upon a better footing. As before remarked, I do not submit plans; that duty properly pertains to the Department of Public Works. I content myself with recommending for the favorable consideration of Government, measures that appear necessary to meet the increasing demands upon this Institution, and which for the sake of convenience I summarize below:—

New buildings.

1. Upper story to both wings.
2. Shed for Native waiting women with cook-room, or, Separate Hospital for European and East Indian patients.
3. Two contagious disease wards.
4. Foul linen and disinfecting room.
5. Dead-house.
6. Privy for males attached to the Institution.

(The last three buildings could be in one block.)

Extension of existing accommodation, &c.

7. Enlargement of store-rooms and cook-rooms as shown in dotted lines upon plan.
8. Conversion of existing latrines, European and Native, to the dry earth system.
9. Improvements of ablution room accommodation.
10. Provision of bath-rooms with reclining baths, and fixed basins with taps and waste pipes in each division of the Hospital.
11. Improvement of Hospital compound by surrounding it with a dwarf wall and railing, levelling and repairing the banks of the ditch and turving them.
12. Extension of the out-fall of the drain to the low water line of the Cooum river.

Internal economy and administration.

13. Provision of knives, forks, crockery, &c., for the European and East Indian patients.
14. Provision of towels for ablution purposes for the same class.

S. L. Manning

Surgeon Major,
Sanitary Commissioner for Madras.

APPENDIX

A.

Present state of the Lying-in-Hospital.

	EUROPEANS.		NATIVES.		Pregnant women waiting.	
	Lying-in	Dispensary.	Lying-in	Dispensary.		
15th July 1868	10	13	23	5	77	

(Signed) W. H. HARRIS, M. D.,
Superintendent Lying-in-Hospital.

(True Copy.)

J. L. RANKING,
Sanitary Commissioner.

B.

MEMORANDUM of the monthly number of Confinements in the Lying-in-Hospital from the date of the foundation of the Institution in September 1841.

Years.	MONTHS.												Total.	Monthly average.
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.		
1844	...	...	...	...	...	...	...	...	3	2	5	5	15	8½
1845	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1846	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1847	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1848	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1849	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1850	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1851	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1852	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1853	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1854	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1855	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1856	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1857	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1858	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1859	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1860	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1861	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1862	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1863	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1864	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1865	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1866	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1867	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1868	...	...	...	...	...	...	...	...	...	...	...	...	...	...

MADRAS,
15th July 1868.

(Signed) W. H. HARRIS, M. D.,
Superintendent, Lying-in-Hospital.

(True Copy.)

J. L. RANKING,
Sanitary Commissioner.

C.

Return of Admissions from classes of patients from January 1865 to July 1868 inclusive
LYING-IN-HOSPITAL AND DISPENSARY.

	EUROPEANS.			NATIVES.	NATIVES.			MAXIMUM NUMBER ON ANY ONE DAY.					Remarks.	
	Eastern Wing			Centre.	West Wing.			Europeans		Natives.				
	Lying-in.	Dispensary.	Total.	Lying-in	Waiting-cases.	Dispensary.	Total.	Lying-in	Dispensary.	Lying-in	Waiting-cases.	Dispensary.		
1865.														
January ...	5.	5	10	22	112	2	114	7	6	39	127	2		
February ...	5	3	8	24	78	1	79	7	4	32	97	1		
March ...	6	5	11	22	67	2	69	8	7	28	89	4		
April...	7	4	11	20	102	1	103	9	7	30	111	2		
May ...	7	3	10	22	93	...	93	9	4	27	113	1		
June ...	9	2	11	22	79	...	79	10	4	31	99	1		
July ...	7	2	9	24	66	...	66	10	3	33	76	1		
August ...	6	3	9	23	68	1	69	9	5	32	76	3		
September ...	8	4	12	24	66	2	68	15	5	33	82	3		
October ...	13	5	18	24	70	4	74	16	7	37	81	4		
November ...	3	6	9	19	Batta withdrawn.	3	3	6	8	25	*	5	*Batta withdrawn.	
December ...	2	6	8	16	Batta withdrawn.	1	1	4	7	25	*	2		
Total ...	78	48	126	262	801	17	818							
1866.														
January ...	3	1	4	13		4	4	6	3	21	*	5		
February ...	3	2	5	10		2	2	14	3	16	*	5		
March ...	3	3	6	11	Batta withdrawn.	1	1	5	5	17	*	2		
April ...	4	4	8	8		1	1	5	6	13	*	1		
May ...	2	5	7	11		1	1	3	8	17	*	3		
June ...	3	5	8	13		1	1	5	7	18	*	2		
July ...	3	2	5	19	12	2	14	7	2	35	19*	3		
August ...	3	2	5	23	21	2	23	6	5	35	31	3		
September ...	4	4	8	27	20	1	21	6	5	35	31	5		
October ...	5	3	8	26	23	1	24	7	4	29	32	4		
November ..	4	5	9	24	22	3	25	7	6	31	32	4		
December ...	4	5	9	24	14	2	16	7	6	29	20	3		
Total ...	41	41	82	209	112	21	133							

(Continued.)
LYING-IN-HOSPITAL AND DISPENSARY.

	EUROPEANS.			NATIVES.	NATIVES.			MAXIMUM NUMBER ON ANY ONE DAY.					Remarks.
	Eastern Wing.			Centre.	West Wing.			Europeans		Natives.			
	Lying-in	Dispensary.	Total.	Lying-in	Waiting Cases.	Dispensary.	Total.	Lying-in	Dispensary.	Lying-in	Waiting Cases.	Dispensary.	
1867.													
January ...	5	4	9	20	10	2	12	9	6	31	16	4	
February ...	2	6	8	13	12	6	18	5	11	18	19	11	
March ...	2	8	10	11	9	3	12	3	10	15	15	6	
April ...	3	5	8	10	11	1	12	6	8	16	14	3	
May ...	3	6	9	14	12	...	12	5	8	19	17	1	
June ...	4	8	12	17	16	1	17	6	10	25	23	1	
July ...	6	4	10	17	12	4	16	10	6	27	18	5	
August ...	7	6	13	15	20	4	24	9	7	20	38	5	
September ...	5	3	8	25	49	3	52	9	4	38	59	4	
October ...	9	4	13	20	62	3	65	14	6	28	68	4	
November ...	8	3	11	24	60	4	64	10	5	28	68	7	
December ...	9	3	12	28	68	4	72	11	4	39	76	6	
Total ...	63	60	123	214	341	35	376						
1868.													
January ...	7	4	11	27	62	4	66	9	6	37	72	7	
February ...	8	7	15	21	46	6	52	11	10	31	59	7	
March ...	3	9	12	18	30	5	35	8	12	24	38	7	
April ...	4	8	12	17	49	2	51	7	11	22	58	3	
May ...	7	11	18	20	45	3	48	11	13	30	51	7	
June ...	7	10	17	20	52	6	58	12	13	38	61	8	
July ...	11	14	25	22	67	8	75	12	16	28	82	9	
Total ...	47	63	110	145	351	34	385						

(Signed) W. H. HARRIS, M. D.
(True Copy.)
J. L. RANKING,
Sanitary Commissioner.

D.
* List of Hospital Bedding and Clothing of the Lying-in-Hospital and Dispensary, Madras.

Articles.	Serviceable.	Repairable.	Unserviceable.	Total.
Quilts ... No.	1,044	60	48	1,152
Pailliasse, blue ...	129	.....	9	138
Sheets, white ...	57	.....	5	62
Pillows, cotton ...	91	.....	.....	91
Do. cases ...	270	.....	30	300
Gowns, white ...	4	.....	.....	4
Shifts, white ...	3	.....	1	4
Jackets, white ...	4	.....	.....	4
Petticoats, chintz ...	4	.....	.....	4
Blankets, Europe ...	80	.....	.....	80
Cumblies, black ...	30	.....	10	40
Native gowns ...	84	.....	14	98
Do. Jackets, white ...	150	.....	.....	150
Do. Petticoats, chintz...	150	.....	.....	150

(Signed) W. H. HARRIS, M. D.,
MADRAS,
31st July 1868.
Superintendent Lying-in-Hospital.
* At date of inspection of Deputy Inspector General of Hospitals in March last.
(True Copy.)
J. L. RANKING,
Sanitary Commissioner.

Results of analysis of drinking water taken from the Superintendent Lying-in Hospital, taken from the Hospital compound.

SENSIBLE PROPERTIES.

Appearance ... with a reddish tinge.
Taste ... slightly sweetish, earthy.
Odour ... slight earthy odour.

CHEMICAL PROPERTIES.

To test paper reaction ... Neutral.

Solid matter in one Imperial Gallon. { Organic and other volatile matters .. 9.1 grains.
Inorganic, Salts, &c. ... 16.43 ,,
25.53

Oxydizable matter by permanganate solution—} 1.5680
relation of oxygen to organic matter 1 to 8.

Hardness to Soap test $1^{\circ}=727$ { Temporary. $1\frac{1}{2}^{\circ}$
grains of carbonate of Lime and { Permanent. 7°
989 of Sulphate of Lime. {
Total... $8\frac{1}{2}^{\circ}$

Chlorides determined volumetrically as Chloride of Sodium in one gallon. ... 8.1844

Carbonate of Lime ... Average.

of Magnesia ... Traces.

Iron... Above average (in excess.)

In Solution after boiling.

Lime... Above average.

Magnesia ... Average.

Chlorides ... do.

Sulphates ... do.

Nitrates ... Rather more than traces.

Ammonia ... None.

CHEMICAL EXAMINER'S OFFICE,
Madras, 3rd August 1868.

(Signed) J. HARVEY,

Officiating Chemical Examiner.

REMARKS.

This water contains Alumina and Sesquioxide of Iron in suspension, which by careful filtration may be separated. The large quantity of Organic and volatile matters renders it unfit for drinking. The quantity of oxyd. organic matter also is large.

(Signed) J. HARVEY,

Officiating Chemical Examiner.

(True Copy.)

(Signed) J. L. RANKING,

Sanitary Commissioner.

No. 086.

OFFICE OF SANITARY COMMISSIONER,
Madras, 23rd September 1868.

From

The Sanitary Commissioner for Madras,

To

The Chief Secretary to Government
Fort St. George.

Enclosures 5

3 Copies of Report
sent 1st. Aug 68.

I have the honor to forward for submission to Government a Report upon the Lying-in Hospital at Madras, and trust that the suggested extension of the accommodation of the institution and further development of its usefulness may meet with approval.

I have the honor to be,

Very most Obedient Servant.

J. L. Ranking
Sanitary Commissioner
for Madras.

	Class of Patients	Probable Requirements.
European & East Indians	Lying-in and Pregnant waiting Confinement.	at least 15
European & East Indians	Dispendary.	15
Natives or	Lying-in Dispendary.	40 } 52 12 } from floor
Natives	Pregnant waiting Confinement.	100 Separate Stalls with Cook Room attached.

Separate Contagious Ward. 4 beds.

Europeans & East Indians. Lyng-in. 19.
 & & Dispendary. 16 } 35

Water Lying-in. ————— 38.
 " Discharge ————— 12
 " Pregnant Aborting —————
 Confirmation ————— 85

W. M. Hammett
Dept. of Agriculture

To
Lieut. Secretary
to Government
Dated
Despatched
Received
No. 1749 No. 1749
29 Oct
Enclosures 2
H. C. S. S.
H. C. S. S.

Sanitary Commissioner

for Medias,

From

1925-26

The Medical Supply Office

N^o 388402 1343
Office of Inspector General, Ins^{rs} Medical Dept.
Fort St. George 21st December 1868.

From The Inspector General Ins^{rs} Medical Dept.
Fort St. George

To The Chief Secretary to Government
Public Department.

Sir,

N^o 986423-2 up.
21st December 1868.

In returning the enclosed letter from the Sanitary Commissioner, referred to me with your Quater Secretary Docket of 28th October 1868, I have the honor to state that, having visited and carefully inspected the Lyng-in-Hospital, - in company with the Deputy Inspector General of Hospitals Presidency Division, - I fully concur with Mr. Harding as to the necessity both for improvement in the existing building, and for the providing of additional accommodation.

2. The need of increased accommodation is sufficiently indicated by the fact, that the Medical Officer has, - as he informed me, - repeatedly been unable to receive women applying for admission to the Hospital, - and occasionally to discharge Dispensary patients prematurely, in order to make way for parturient women.

3. Of the three plans submitted for this purpose by the Sanitary Commissioner,

I greatly prefer the first, viz the erection of an upper story on the two wings of the present building; - supplemented by two detached wards for contagious diseases, - and by a shed for women awaiting their confinement.

4. This shed, - which might, as proposed, be on the plan of those at the Emigration Depot, - should be erected on the ground to the right of the Hospital, and I would suggest that one half of the tank, which occupies the north-west corner of the compound, should be filled up; - the other half, - (that furthest from the Hospital), being deepened proportionately. - This tank is entirely dependent on the rain-fall, - and the reduction of the surface of evaporation would tend to husband the supply of water, as well as to diminish the dampness of the site.

5. The improvements in the existing Hospital and the alterations and additions to the out-houses, recommended by the Sanitary Commission, have my entire approval. - I should mention, however, - with regard to the plans proposed at page 19 of the Report for enlarging some of the out-houses, - that

that I was informed at my visit, that the walls will not bear the additional weight which would thus be put upon them; - and it would be desirable to refer this point to the Executive Engineer.

I have the honor to be
Sir
Your most Obedt. Servt.

H. Macleay

Inspector General,
Sd. M. S. Deptt.

PROCEEDINGS of the MADRAS GOVERNMENT.

Read the following ~~letter~~ papers.

From the Sanitary Com^r for Madras. *Here enter 23rd Sept/66/1902*
From the Insp^r Gen^l and Med^l Dept^t. *Here enter 21st Decr/66/1902*

Order thereon 25th January 1897 No. 103.

His Excellency the Governor in Council has perused with much interest Dr. Ranking's Report upon the Lying-in Hospital. He fully coincides with the Sanitary Commissioners and the Inspector General of the Med^l Dept^t in the opinion they have expressed regarding the necessity of effecting improvements in the existing building, and providing additional accommodation.

2. It appears that following 120 and 90 super.
= filed

Transmitted by
Post 1888. 22/11

to the Insp^r Gen^l & Med^l Dept^t
Public Dept^t.

Noted 21st Nov.
22/11

22/11

25/11

Submits previous
regarding the influence
of the Med^l Dept^t
accommodation beyond
the Med^l Dept^t

13/11/92

Sanitary Commission,
are the minimum that
should be allowed.

This arrangement, as Dr.
Ranking points out, wants
a ~~great~~ ^{large} part of the whole of the
western wing being given
up to "women waiting for
their confinements, who
now have no sufficient
accommodation and are
obliged to lie in the scullery"
and the body of the building
might be devoted to
Administrative Offices,
a Waiting Room, and a
Dormitory and Day Room
for the pupils. But even
this increased accommo-
dation will require to be
supplemented, as Dr. Ranking
shows, by two detached
wards for Contagious diseases
peculiar to this class of patients,
and for segregation of women
suffering from puerperal
fever, an addition, as to
the necessity for which, the
Commissioner

Government concurs. The
ventilation will probably
be best improved by
shafts to the outside.
Dr. Ranking would add
a parlour, linen room, and
disinfecting room, a Dress
Room, and Small Privy
for males, according to a
plan submitted at page
19 of his Report, of which
the Government approve.

The Native Kitchen, desired
by the Commission, would
also be a desirable addition,
which, as well as the Bath
Rooms within the Hospital
described at page 20 of
the Report, his Excellency
in Council will be prepared
to sanction. The other
extensions of existing accom-
modation enumerated
at page 21 are also approved
if the present walls will
bear the additional
weight which would be
thrown

33
the same point
regarding which, the
Inspector General in
charge of the building
department.

There is no provision
has been made in next
year's Budget for the
enlargement above
enumerated, all that
can be done at present
will be to prepare plans
and estimates. An
order on this subject
will be passed in the
S. D. Department. The
annual repairs and
"white-washing" the
paint of which, Dr. Ranking
articles, as well as the
improvement of the lighting
of the Examination room,
of the bathing accommodation
and of the kitchen, and
the construction of the
night closets mentioned
in

in page 8. may, however,
be at once undertaken.
The Inspector General
of the Med. Dept. with care
in deeds to be prepared,
forthwith, for the supply
of basins and ~~for~~ touch for ablution, and
of crockery, knives and
forks, for the European
and East Indian patients.
The dry earth system
of conservancy should
be introduced without
delay.

To the Sanitary Commissioner
— Inspector General, Indian
Medical Department
— Public Works Dept.
— Asst. General
— Claims
} with the Report

Govt. of 1863 **Canada**

Public

To
the Secretary for
the
the

Dated . Aug. 25 }
Recd. 1869

G. O., 25 Aug 1869, No. 143.

Nos. 130. 132

494 404
1011-

Having orders in the form
of a printed report upon
the young in the field of
the