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Government of Madras.

Public works DEPARTMENT.

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Not to be folded or roughly handled

110

*Proceedings of the Madras Government, Public Works Department,
20th May 1867.*

No. 445. Read the following Proceedings of the Madras Government in the
Military Department : —

Communicating letter from the Sanitary Com-
missioner, Madras, forwarding a report upon
the Military and Civil Stations of Bellary,
and the Mountain Sanitarium of Raman-
droog. (Here enter 15th May 1867, No. 1,793.)

No. 446. ORDER THEREON, 20th May 1867, No. 1,508.

MILITARY WORKS, No. 35.

Communicated to the Superintend-
ing Engineer of the 3rd Division.

(True Extract.)

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

To the Superintending Engineer, 3rd Division, with a copy of Sanitary Commissioner's Report.

INSPECTION REPORTS

UPON

THE MILITARY AND CIVIL STATION OF
BELLARY,

AND UPON

THE MOUNTAIN SANITARIUM OF
RAMANDROOG,

BY

ROBERT S. ELLIS,

SANITARY COMMISSIONER FOR MADRAS.

I.—BELLARY.

The Town of Bellary lies in $15^{\circ} 5'$ North and $76^{\circ} 59'$ East; it is 1182 feet above the level of the sea, which is 220 miles distant on the Western Coast, and 240 on the Eastern Coast. The distance to the Ghauts on either side is about equal, 180 miles.

Topography.

The important stations of Belgaum and Hyderabad are, respectively, 203 and 223 miles distant, and Bangalore is 188 miles off, and Madras 316, (via Cuddapah) or (via Chittoor and Paulsamoodrum) by another route, 337 miles.

The direct route to Cuddapah from Madras being now entirely opened by Rail, troops moved to Bellary from the Presidency town will henceforward have only to march from Cuddapah, a distance of 150 miles, and when the Railway is further extended to Ghooty, the distance to be traversed will be only 52 miles.

It is also in contemplation to construct a loop-line connecting the towns of Ghooty and Bellary; when the communication between Bellary and the Eastern Coast will be complete by Railway.

2. Bellary has been declared a Cantonment under Act I of 1866. Rules framed under that enactment are about to be enforced, and the Cantonment limits defined.

3. The accompanying Plan shews the relative positions occupied by the Troops and by the civil population. The station, as regards its topography, has been correctly described as follows in the Reports of the Medical Board. The Fort, which may be taken as the central point of the station, stands interposed between the Bruce Pettah portion of the native town and the Military cantonment.

"It is a large granite hill of semi-elliptical form, the long diameter of which runs

north and south; on its eastern and southern aspect it is composed of huge boulders of irregular and often fantastic forms, piled to a height of 450 feet; on the western side, a large unbroken mass of solid rock slopes down to the plain. Other similar masses of broken rock are to be found in the neighbourhood, and others are visible at different distances, when the surrounding country is inspected from the top of the Fort.

"The whole of the surrounding country presents a desolate appearance. Except in the town and Cantonment, there is a marked absence of trees, and the naturally dry soil is, from want of sufficient water, little cultivated.

"The capabilities of the soil are, however, sufficiently attested by the flourishing gardens now existing in parts of the Town and in the Cantonment, and there is little doubt that, with a good supply of water by Irrigation channels, the country generally might be brought under successful cultivation.

"On the south side of the Fort and about 300 feet from the Rampart wall is a large tank; a rocky hill of the same geological formation as the Fort itself is seen, and fragmentary remains of a chain of similar hills are in the immediate neighbourhood of this. To the west of the Fort the ditch has been walled across and converted into a tank, and into this the rain-fall and surface drainage of the south-western and western faces of the Fort are discharged. The Civil Native town (Bruce Pettah and Mellor Pettah) lies to the south-east of the Fort, while the Cowle Bazaar, also occupied by natives, but within military limits, lies to the south-west. The large tank lying between these two large towns receives the storm water falling to the south and east of the Fort, and being low level, becomes the receptacle for all the storm water falling in its vicinity."

5. This tank is upwards of three miles in circumference when it is full, but having little depth of water, evaporation goes on very rapidly during the hot weather, and the surface of water is diminished to half the size above indicated at the conclusion of the hot season. There are no rivers in the immediate proximity of the town, and the water supply is derived from wells chiefly. The water of these is, however, frequently brackish, and owing to the recent occurrence of many dry seasons, many of the old wells have now become entirely dry.

6. The Government have before them two proposals for securing a constant water supply for the use of the Cantonment and of the civil town. (Porter's project and upper Bellary project.)

7. The rain-fall is small, seldom exceeding 21 inches in the town of Bellary, and it has within the last four years fallen as low as 12.7. The climate generally is very dry, and high heat by day is continuous for many months in the year. The nights, however, are usually cool. The station generally is, however, not unhealthy. (Vide Appendix A.)

The glare is considerable from the granite formations and they absorb and subsequently radiate a good deal of heat.

8. For a distance of a mile round the soil is red and gravelly, but in the rest of the Cantonment, and in the surrounding country it is a dark loam (cotton soil), tenacious and extremely productive when properly irrigated.

The soil is highly charged with saline materials, and especially with nitre, of which considerable quantities are recovered and become an important commercial product.

The difference of soil immediately surrounding the Fort from that of the rest of the station and the surrounding country, is no doubt due to the disintegration of the granite rock from which the soil becomes light and sandy.

9. The winds blow chiefly from north and north-west from March until November, and from east and south-east during the three remaining months, but considerable variations as to the direction of the wind are observed from day to day.

10. In the hot season a strong wind frequently blows at night from the westward. From the middle of March to the end of May the weather is usually extremely hot. But on the setting in of the South West monsoon considerable relief from the high heat is experienced.

The discomfort arising from the heat of this portion of the year is much aggravated by the glare reflected by the white particles of debris of granite rock which composes the roads and ground generally. Thunder storms are by no means unusual, and several accidents have occurred from this cause.

MILITARY BUILDINGS.

Military Cantonment.

11. I now proceed to a detailed examination of the different buildings, &c. occupied by the military at this station.

The present strength of the military forces at this station is shown in the accompanying return (Appendix A). It may be well, however to notice that some arms of the service were, at the time of inspection, below their proper strength.

The D Battery D Brigade of the Royal Horse Artillery was to be completed by recruits from England. This battery has since marched to Secunderabad.

The 76th Regiment was expecting only 40 recruits from England and they had 50 men to be invalided, so that the Regiment will be below the usual complement, until larger reinforcements are sent out.

In the Native Cavalry, recruiting has been stopped by order of Government, and the two Native Infantry Regiments' recruiting was progressing only slowly.

12. The actual deficiencies may be stated as follows in the rank and file:—

R. H. Artillery.....	13
76th Regiment.....	158
20th do. M. N. I....	191
34th do. do.	13
1st Light Cavalry.....	7

The strength of the troops to be henceforward stationed at Bellary is, I believe, not finally decided upon.

In my observations on this subject, I shall assume that all the Troops at present cantoned here are to be maintained and at their full strength.

14. The European troops are provided with barracks, hospitals, &c., placed on a large area of ground about 1 to 1½ miles to the west of the Fort. The ground is open, only moderately planted, and the majority of the different groups of buildings are of recent construction and modern design.

15. The Lines of the Native Regiments lie to the south-west of the Fort. These Lines are separated from the Fort by the Cowle Bazaar.

THE FORT OF BELLARY.

16. The Fort of Bellary was formerly considered of great importance, and both the upper and lower forts (as they were distinctively called), were capable of affording shelter to a large number of men.

Of late years, however, the troops have been located in the Cantonment. The chief public buildings still used by the Military are noticed below.

PRISON CELLS.

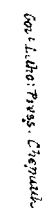
17. The Prison Cells used by prisoners sentenced to lengthened periods are two miserable apartments ventilating into each other, with a floor below the level of the surrounding ground and measuring each 18' x 14' x 12', thus having 252 superficial area and 3024 cubic capacity. (Vide plan.) They are therefore only fit to hold two or three men each.

18. The Guard Room on the other side of the gateway, is equally unsuited to the number of men on duty. It measures 18×14 and is capable of containing three men. The number of prisoners varies according to the season.

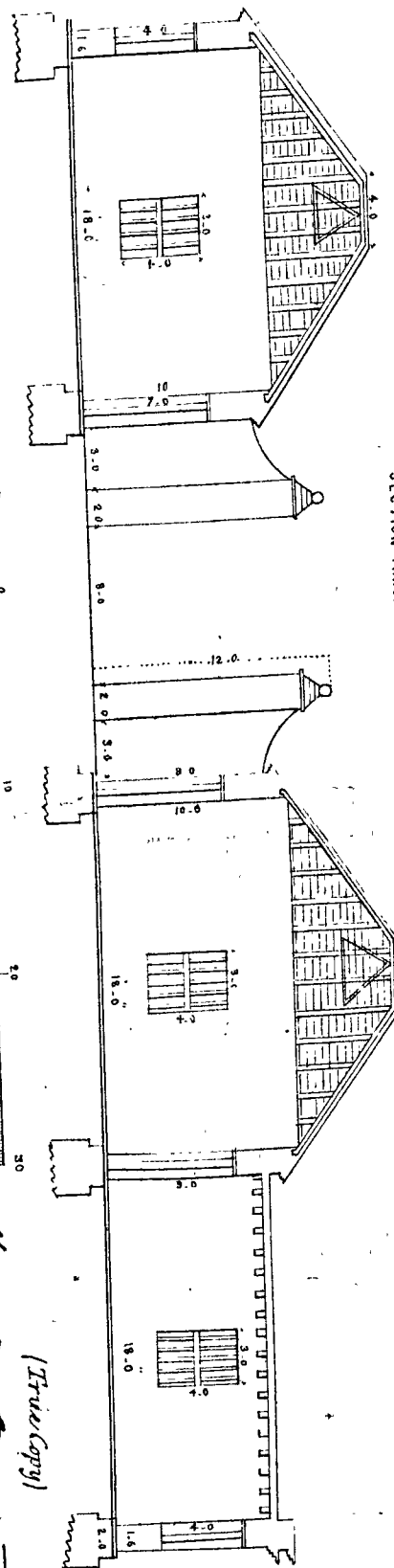
The number of prisoners varies a good deal, but six may be taken as a fair average although it is occasionally exceeded.

19. The Guard is about 13 strong, and is supplied from the adjoining Main Guard.
I need scarcely say that there was not sufficient space for either prisoners or guard.

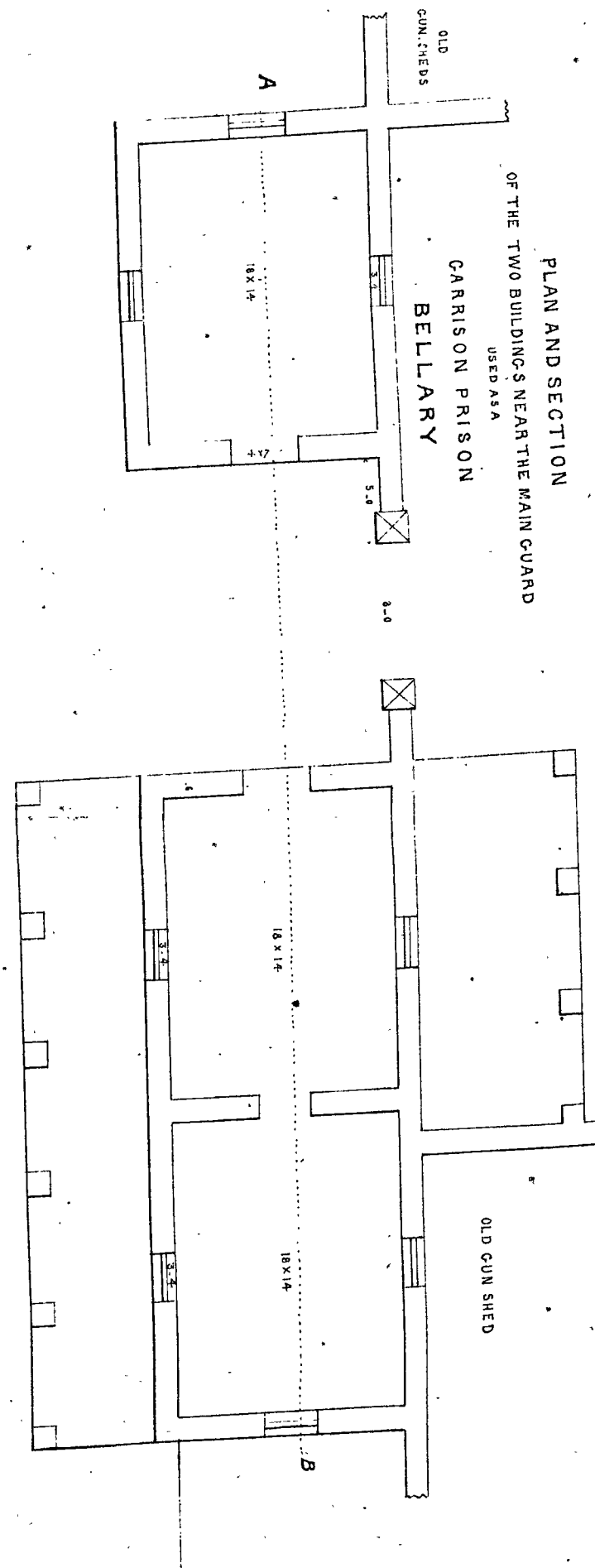
20. A case of Cholera broke out in these cells on the day after my inspection. The prisoners were immediately removed to suitable barrack rooms in the central block of buildings in the Fort, and they will be retained there until suitable permanent accommodation can be provided for them.



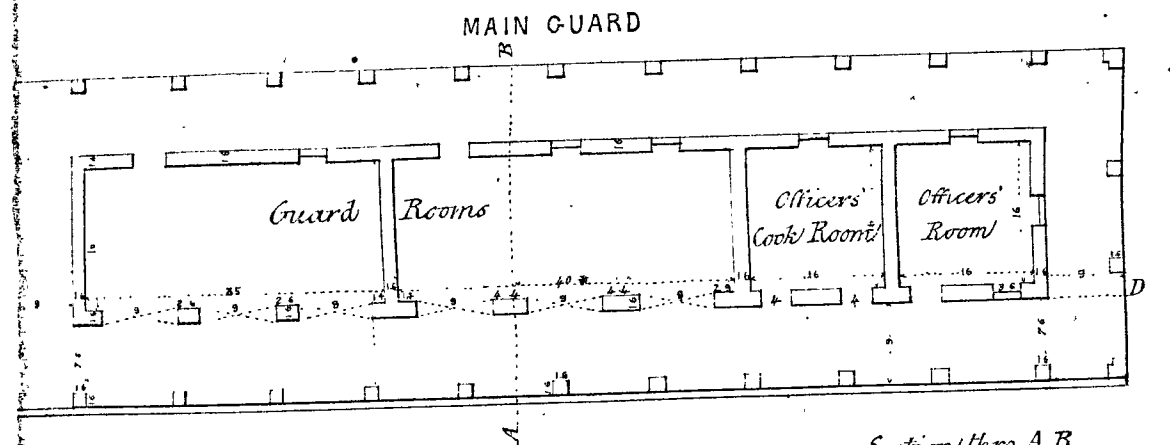
Howard P. Smith
Secretary Sanitary Commissioner



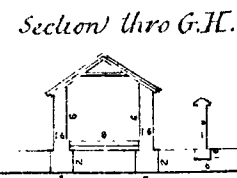
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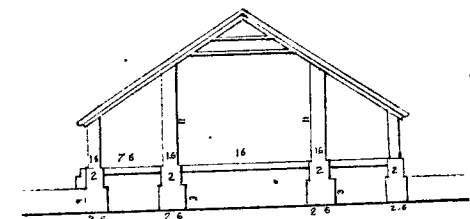
W AND SECTION OF THE GUARD ROOMS
IN THE
LOWER FORT OF BELLARY.



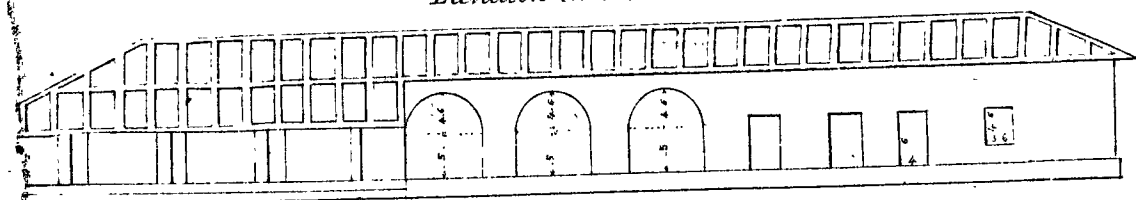
Section thro A.B



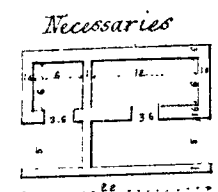
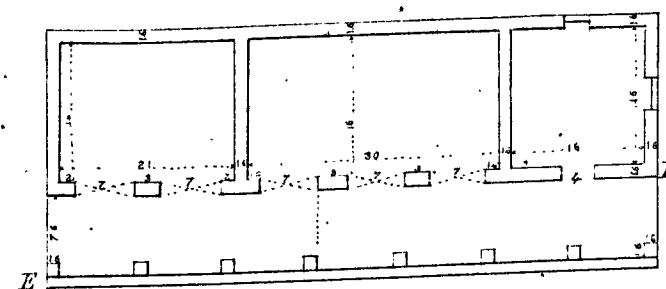
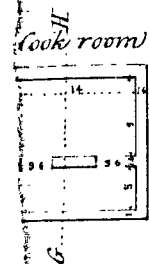
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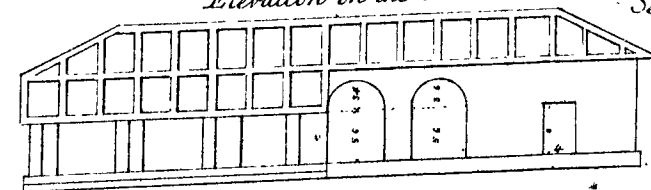
Elevation on the line C.D



GUARD ROOMS AT THE SOUTH AND EAST GATES
NOT NOW USED



Elevation on the line E.F.



Secretary Sanitary Commissioner

Nov. 4. Lith. Press, Chepauk
Madras, Feb. 1857.

I append to this report (marked C) copy of a letter addressed by me to the Quarter Master General of the Army, regarding a design for cells for Europeans proposed to be built at this station.

The early provision of suitable prison cells cannot be too strongly insisted upon.

MAIN GUARD.

21. The Main Guard is a miserable building. It is full of vermin, and the accommodation for the Officer on duty is very unsuitable. As shown in the accompanying Plan, the building consists of four rooms, two occupied by the Officer on duty and two by the Guard.

Officer's Rooms.

The rooms for the Officer are small, hot and unduly exposed to the men on Guard. The rooms are like the very worst side-rooms in the very worst bungalow.

Out-offices.

The Latrine is much too close to the Main Guard, and should not be allowed to remain.

The Officer's kitchen is dirty and with uneven flooring, and no cooking range of any kind has been provided.

22. The Guard consists of:—

Strength of Guard.

18 Privates,
3 Corporals,
1 Serjeant, and
1 Bugler;

but of these one-half were detached to the temporary Prison Cells, and the remainder in the centre of the Fort.

23. The Main Guard should be at once condemned as utterly unfit for occupation.

Building to be condemned.

The Latrines, the filthy condition of which attracted attention, are much too near; they are only nine feet from the Main Guard wall.

24. There is a capital site for a Main Guard in a square near to where the dhoolies and tents are kept. These stores are in old Barracks. It would

Proposed site for new building.

be better to build a store-shed of a much less massive construction than the old tumble-down barracks and with plenty of light, and to build an entirely new Main Guard with Officer's quarter, wash-house, privy, &c. &c. complete.

GARRISON HOSPITAL.

Locality.

25. This is placed in certain rooms formerly used as a portion of the left wing Barrack.

The dimensions of the rooms are shown in tabular statement given below.

Commissariat followers,
Telegraph staff,
Police,
Sappers and Miners,
All Serjeants in Cantonment,
All Prisoners from Prison Cells.

26. It will be seen that none of the Wards were over-crowded; the rooms were clean. Two prisoners (European) were under treatment in this Hospital when inspected.

27. The partition walls dividing the Wards from each other do not reach the ceiling, and so the Wards ventilate into each other. This serious fault should be at once corrected.

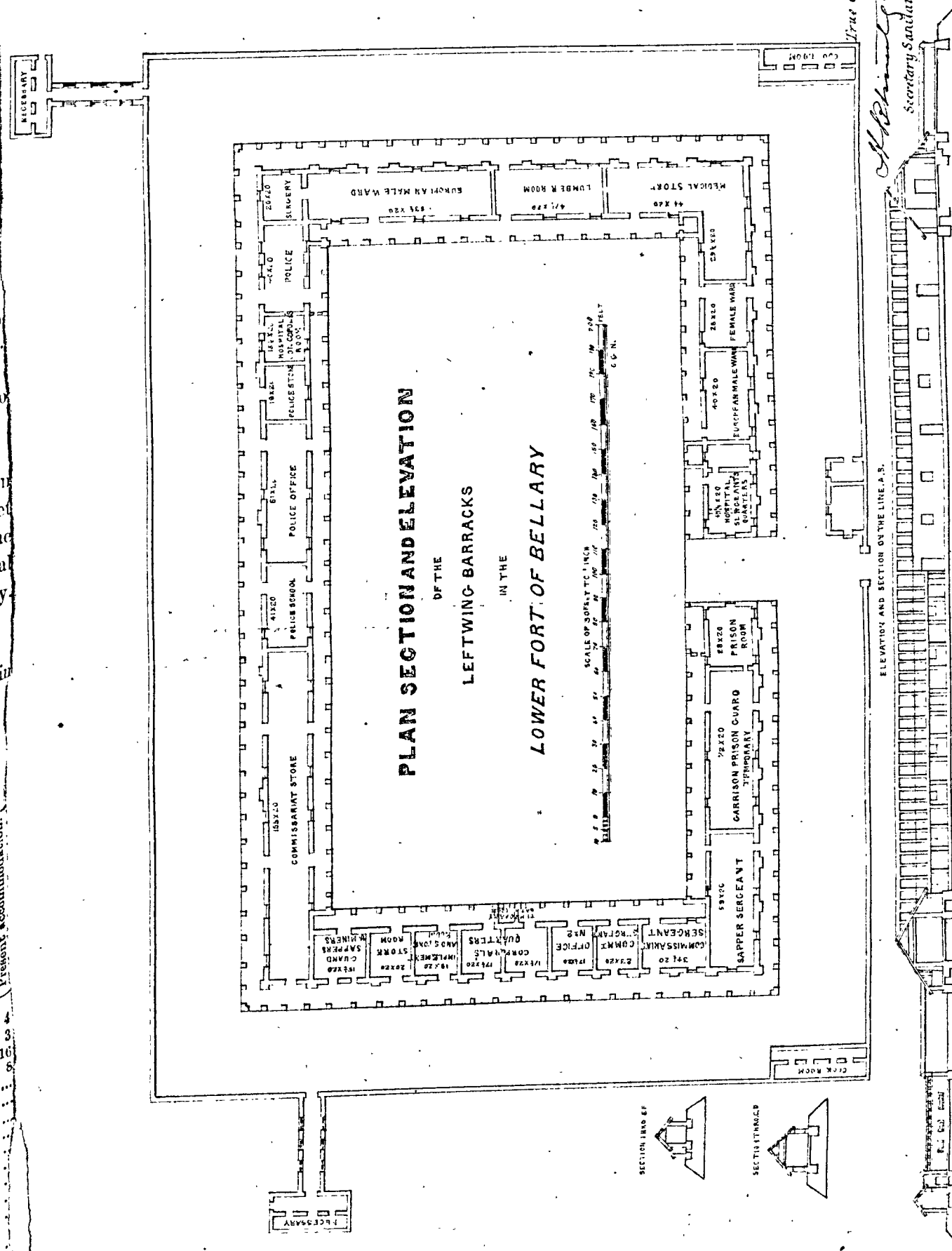
28. The Wards generally needed that blinds should be hung in the verandahs to shut out the glare.

29. The Women's Ward is not provided with a privy, the one formerly used by women is now given up to the Hospital Serjeant's family. A closet seat was therefore used in the Female Ward. I think that the privy for the Female Ward should be restored to its original use, and that a small privy should be built for the Hospital Serjeant and his family. That now in use by them is too distant from the quarters they occupy.

30. The Bathroom in these quarters is allowed to drain its contents into the open enclosed square of the Barracks.

TABLE showing extent of present accommodation in Garrison Hospital at Bellary, including all Wards, Verandahs, and Out-buildings.

Block.	Rooms.	How Occupied.	DIMENSIONS.			Superficial area of each Room.	Cubic contents of each Room.	No of Cots usually occupied.	Present accommodation.
			Length.	Breadth.	Height.				
1	1	European Male Ward.....	Feet. 37	Feet. 18	11½	668	7,659	3	10
	1	European Female Ward.....	26½	18	11½	477	5,485½	2	10
	1	Native Sick Male Ward.....	84	18	11½	1,512	17,388	8	10
	1	Police Sick Male Ward.....	39½	18	11½	711	8,176½	6	10
	1	Surgery and Dispensing Room.....	20	18	11½	360	4,140	...	10
	1	Store Room for Bedding.....	19½	18	11½	351	4,136½	...	10
	1	Store Room for Lumber.....	9	7½	7	67½	472½	...	10
	1	Urinary Closet.....	7	7	7	49	343	...	10
	2	Cook Room.....	27½	8½	9	234	2,106	...	10
	1	Lumber Godown in two parts.....	15	8½	9	127½	1,147½	...	10
3	1	Privy for European Male.....	17	9	9	153	1,377	...	10
	1	Privy for Native Male.....	17	9	9	153	1,377	...	10
	1	Dead Room.....	50	6	6	300	1,800	...	10
	1	Verandah to Male and Female European Ward in front and rear.....	70	9	7	630	4,410	...	10
	1	Verandah to Native Ward, front and rear.....	86	9	7	774	5,418	...	10
	1	Verandah to Police Ward, front and rear.....	47	9	7	423	2,461	...	10



...in the presence of ...

31. The prisoners from the Prison Cells, before noticed, have been transferred to two large rooms 72 x 20 and 28 x 20. This is shown on the Plan as a temporary prison. These rooms are well suited for this use, and should certainly be retained until a suitable prison is built. The guard was twelve strong and thirteen cots were provided for them. There were nine prisoners detained. They were kept in the smaller room as being the most secure, but it is only large enough for six persons.

Temporary Prison.

32. A Bathing tent was pitched close to the temporary prison, and this was also used as a privy at nights. A second tent should be supplied for this purpose. The prisoners expressed themselves much pleased at the change from the old prison.

Bathing tent.

33. When the large Ward 72 x 20 is rendered secure, any prisoners in excess of six should be placed in a portion of it.

34. A Native Guard Room intended for the Sepoys guarding the Solitary Cells is placed near the east gate. The windows have been bricked up at the back and the whole place is ruinous and is now never used.

Native Guard Room.

35. Near the Provincial School, a large quantity of prickly pear is the cause of much nuisance. This and several ruinous buildings afford shelter to natives, and these should all be removed.

Overgrowth of Prickly pear.

The drainage generally of the Fort is defective.

36. The other apartments in the Left Wing Barracks are occupied as shown on the Plan, and do not require notice. They are generally satisfactory.

Other public quarters in the Barrack Block.

ARTILLERY BARRACKS.

Site of Barracks.

37. To the Artillery is allotted permanent accommodation in three temporary Barracks, the construction and capacity of which are noted below.

These Barracks are situated about 1½ miles north-west of the Fort. The ground is open, and only sparingly planted.

Barrack not in use.

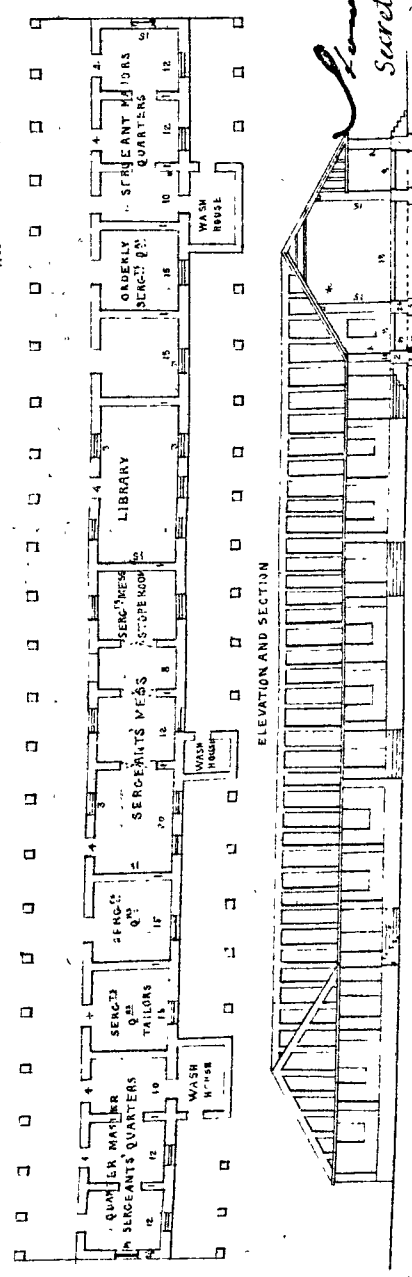
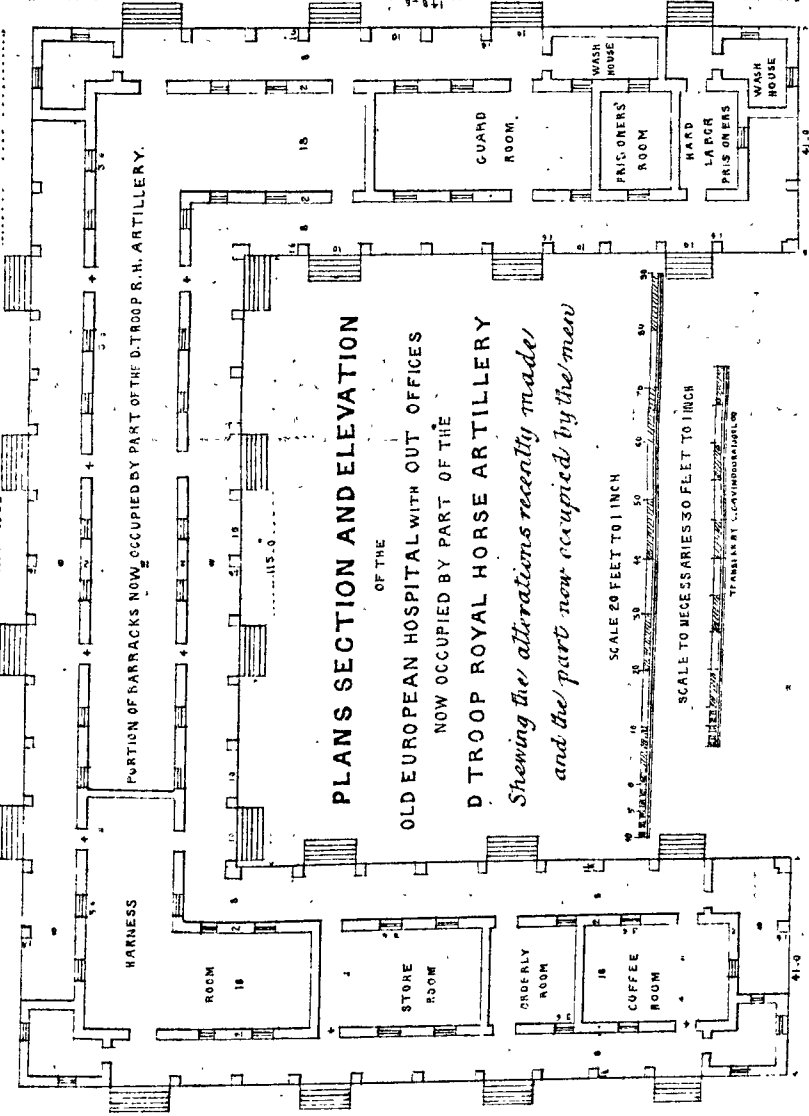
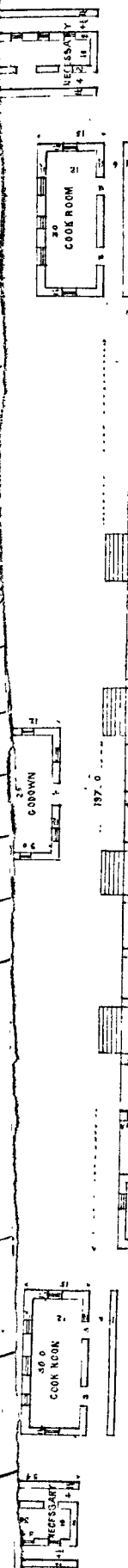
38. These Barracks were not occupied at the time of my inspection. They had recently been under repair and the Troops were accommodated in the old Artillery Barracks and one of the Barrack Blocks belonging to H. M.'s 76th Regiment.

Barracks used for the present.

The occupation of this building is only intended as a temporary arrangement, and will be discontinued on the relief of Major Henegan's Troop of Horse Artillery.

Detailed Statement of accommodation in one Block of H. M.'s 76th Regiment occupied by the Royal Horse Artillery at Bellary.

Block.	Rooms.	How occupied, whether by Troops, Officers, Married Men, &c.	Dimensions.			Superficial area of each Room.	Cubic contents of each Room.	No. of Cots at present in each Room.	No. at 90 square feet superficial area.	Cubic contents thus afforded.	No. to be accommodated at minimum standard for Europeans in Barracks.	No. in excess on Inspection.	Openings.	Windows.		Doors.		Remarks.
			Length.	Breadth.	Height.									Number.	Height.	Number.	Height.	
1		Front open Verandah.....	303-0	10-0	10-9	3080	32572	..	..	..	..	..	..	..	..	..	..	Open arches to adjoining Rooms.
		Back do	303-0	10-0	10-9	3080	32572	..	..	..	..	..	..	..	..	..	..	..
		Front enclosed do	172-0	12-0	17-0	2064	35088	..	..	..	..	..	..	..	8-0	31	8-0	31
		Back do	172-0	12-0	17-0	2064	35088	..	..	..	..	..	..	..	8-0	31	8-0	31
		Barrack Room	172-0	24-0	17-0	4128	79176	52	45	1559	..	7	36 Attics	..	..	..	..	60
		East-end Verandah	56-0	10-0	10-9	560	6020	..	..	..	..	..	..	..	..	..	..	..
		West do do	56-0	10-0	10-9	560	6020	..	..	..	..	..	..	..	..	..	..	..
		Sergeant's Rooms, No. 1.....	19-10	8-9	17-0	173	2950	1	..	..	..	..	..	..	5-0	1	5-0	..
		Do do " 2.....	19-10	8-9	17-0	173	2950	2	..	..	..	..	..	..	..	..	..	..
		Do do " 3.....	19-10	8-9	17-0	173	2950	2	..	..	..	..	..	..	..	..	..	..
		Do do " 4.....	20-10	9-10	17-0	204	3482	1	..	..	..	..	..	..	..	..	..	..
		Do do " 5.....	20-10	9-10	17-0	204	3482	1	..	..	..	..	..	..	..	..	..	..
		Do do " 6.....	20-10	9-10	17-0	204	3482	1	..	..	..	..	..	..	..	..	..	..
		Do do " 7.....	20-10	9-10	17-0	204	3482	1	..	..	..	..	..	..	..	..	..	..
		Do do " 8.....	19-10	8-9	17-0	173	2950	1	..	..	..	..	..	..	..	..	..	..
		Do do " 9.....	19-10	8-9	17-0	173	2950	2	..	..	..	..	..	..	..	..	..	..
		Do do " 10.....	19-10	8-9	17-0	173	2950	..	..	..	..	..	..	..	..	..	..	..
		Do do " 11.....	19-10	8-9	17-0	173	2950	..	..	..	..	..	..	..	..	..	..	..
		Do do " 12.....	19-10	8-9	17-0	173	2950	..	..	..	..	..	..	..	..	..	..	..
		Do do " 13.....	20-10	9-10	17-0	204	3482	..	..	..	..	..	..	..	..	..	..	..
		Do do " 14.....	20-10	9-10	17-0	204	3482	..	..	..	..	..	..	..	..	..	..	..
		Do do " 15.....	20-10	9-10	17-0	204	3482	..	..	..	..	..	..	..	..	..	..	..
		Do do " 16.....	20-10	9-10	17-0	204	3482	..	..	..	..	..	..	..	..	..	..	..
		Do do " 17.....	20-10	9-10	17-0	204	3482	..	..	..	..	..	..	..	..	..	..	..
		Do do " 18.....	19-10	8-9	17-0	173	2950	..	..	..	..	..	..	..	..	..	..	..
		Do do " 19.....	19-10	8-9	17-0	173	2950	..	..	..	..	..	..	..	..	..	..	..
		Do do " 20.....	19-10	8-9	17-0	173	2950	..	..	..	..	..	..	..	..	..	..	..



True Copy
James P. Bellary
 Secretary Sanitary Commissioner

Do to

How occupied, whether by Troops Officers, Married Men, &c.

Block.	Rooms.	Dimensions.			Superficial area of each Room.	Cubic contents of each Room.	No. of Cots at present in each Room.	No. at 90 square ft. superficial area.	Cubic contents thus afforded.	No. to be accommodated at minimum standard for Europeans in Barracks.	No. in excess on Inspection.	Open-ings.	Windows.			Doors.			Open arches to adjoining Rooms.	REMARKS
		Length.	Breadth.	Height.									Number.	Height.	Width.	Number.	Height.	Width.		
1	Enclosed Verandah Coffee Room.	21-6	8-0	9-6	172	1634	0					..	..	..	..	1	7-6	3-0	Open arches to adjoining Rooms.	Honeycombed.
	Store Room do	17-0	8-0	9-6	136	1292	0					..	2	3-6	3-0	1	6-6	3-6		
	Coffee Room.....	28-9	18-0	15-6	517	8021	1					1 Attic	3	5-0	3-6	2	7-0	4-0		
	Orderly Room....	18-6	18-0	15-6	333	5161	0					2 "	2	5-0	3-6	2	7-0	4-0		
	Store Room.....	30-0	18-0	15-6	540	8370	0					2 "	4	5-0	3-6	2	7-0	4-0		
	Harness Room.....	68-3	18-0	15-6	1228	19041	0					4 "	7	5-0	3-6	3	7-0	4-0		
	Store Room.....	17-0	8-0	9-6	136	1292	0					..	2	3-6	3-0	1	6-6	3-6		
	Front Verandah round above.....	113-6	8-0	9-6	908	8626	0					..	..	..	..	..	..	..		
	Back do	115-0	8-0	9-6	920	8740	0					..	..	..	..	..	..	..		
	Barrack Room.....	166-0	18-0	15-6	2988	46314	32	33				10 "	17	5-0	3-6	9	7-0	4-0		
	Wash House.....	28-6	8-0	9-6	228	2166	0					..	4	2-0	2-10	2	6-9	3-0		
	Front open Verandah.....	136-0	8-0	9-6	1088	10336	0					..	..	..	..	..	..	..		
	Back do	160-0	8-0	9-6	1280	12160	0					..	..	..	..	..	..	..		
	Guard Room.....	39-0	18-0	15-6	702	10881	11					2 "	6	5-0	3-6	2	7-0	4-0		
	Prison Room.....	14-9	18-0	15-6	265	4115	0					2 "	3	1-6	4-6	1	7-0	4-0		
	Hard Labor Prison Room.....	12-0	18-0	15-6	216	3348	0					1 "	3	1-6	4-6	1	7-0	4-0		
	Wash House.....	24-0	8-0	9-6	192	1824	0					..	..	..	..	..	..	..		
	Front open Verandah.....	96-0	8-0	9-6	768	7296	0					..	..	..	..	..	..	..		
	Back do	75-6	8-0	9-6	604	5738	0					..	..	..	..	..	..	..		
	Store Room.....	21-6	8-0	9-6	172	1634	0					..	2	3-6	3-0	1	6-6	3-6		

Detailed Statement of accommodation of Staff Sergeant's, Sergeant's and Librarian's Quarters of the R. H. Artillery Barracks at Bellary, (Old Hospital Barracks.)

Block.	Rooms.	How occupied, whether by Troops, Officers, Married Men, &c.	Dimensions.			Superficial area of each Room.	Cubic contents of each Room.	No. of Cots at present in each Room.	No. at 90 square ft. superficial area.	Cubic contents thus afforded.	No. to be accommodated at minimum standard for Europeans in Barracks.	Openings.	Windows.			Doors.			Remarks.
			Length.	Breadth.	Height.								Number.	Height.	Width.	Number.	Height.	Width.	
1	1	Serjt. Major's quarters, Room No. 1	12-0	15-0	13-0	180	2,340	...	2	1170	...	3 Attics	1	5-0	3-9	2	7-0	4-0	...
	2	Do. do. do. do. 2	12-0	15-0	13-0	180	2,340	1	2	1170	...	2 "	2	5-0	3-9	1	7-0	4-0	...
	3	Do. do. do. do. 3	10-0	15-0	13-0	150	1,950	1	1	1950	...	2 "	...	...	...	2	7-0	4-0	...
	1	Do. do. Wash House	13-0	8-6	9-0	110	1,436	...	...	...	...	1 "	...	...	...	1	5-0	2-6	...
	4	Orderly Sergeant's quarters	15-0	15-0	13-0	225	2,925	1	2	1462	...	2 "	1	5-0	3-9	1	7-0	4-0	...
	5	Corporal's Mess...	15-0	15-0	13-0	225	2,925	...	2	1462	...	2 "	1	5-0	3-9	1	7-0	4-0	...
	6	Library ...	30-0	15-0	13-0	450	5,850	1	5	1170	...	6 "	5	5-0	3-9	1	7-0	4-0	...
	7	Sergeant's Mess Store Room	12-0	15-0	13-0	180	2,340	...	...	...	...	2 "	2	5-0	3-9	1	7-0	4-0	...
	8	Do. do. ...	40-0	15-0	13-0	600	7,800	...	...	...	...	8 "	7	5-0	3-9	2	7-0	4-0	...
	2	Do. do. Wash House	8-6	6-9	9-0	57	516	...	...	...	...	1 "	...	...	...	1	5-0	2-6	...
	9	Sergeant's quarters	15-0	15-0	13-0	225	2,925	1	2	1462	...	2 "	1	5-0	3-9	1	7-0	4-0	...
	10	Do. do. ...	15-0	15-0	13-0	225	2,925	1	2	1462	...	2 "	1	5-0	3-9	1	7-0	4-0	...
	3	Qtr. Master Serjt's Wash House	13-0	8-6	13-0	110	1,436	...	...	...	...	1 "	...	...	...	1	5-0	2-6	...
	11	Do. do. Room No. 3	10-0	15-0	13-0	150	1,950	1	1	1950	...	2 "	...	...	...	2	7-0	4-0	...
	12	Do. do. do. do. 2	12-0	15-0	13-0	180	2,340	1	2	1170	...	2 "	2	5-0	3-9	1	7-0	4-0	...
	13	Do. do. do. do. 1	12-0	15-0	13-0	180	2,340	...	2	1170	...	3 "	1	5-0	3-9	2	7-0	4-0	...
		Front open Verandah.	218-0	8-6	9-0	2,108	18,972	...	...	...	...	...	...	...	...	...	...	...	...
		Back do. do.	207-6	8-6	9-0	1,763	15,873	...	...	...	...	...	...	...	...	...	...	...	...
		East Foot	39-0	8-6	9-0	255	2,295	...	...	...	...	...	...	...	...	...	...	...	...

PLAN AND SECTION

OF A

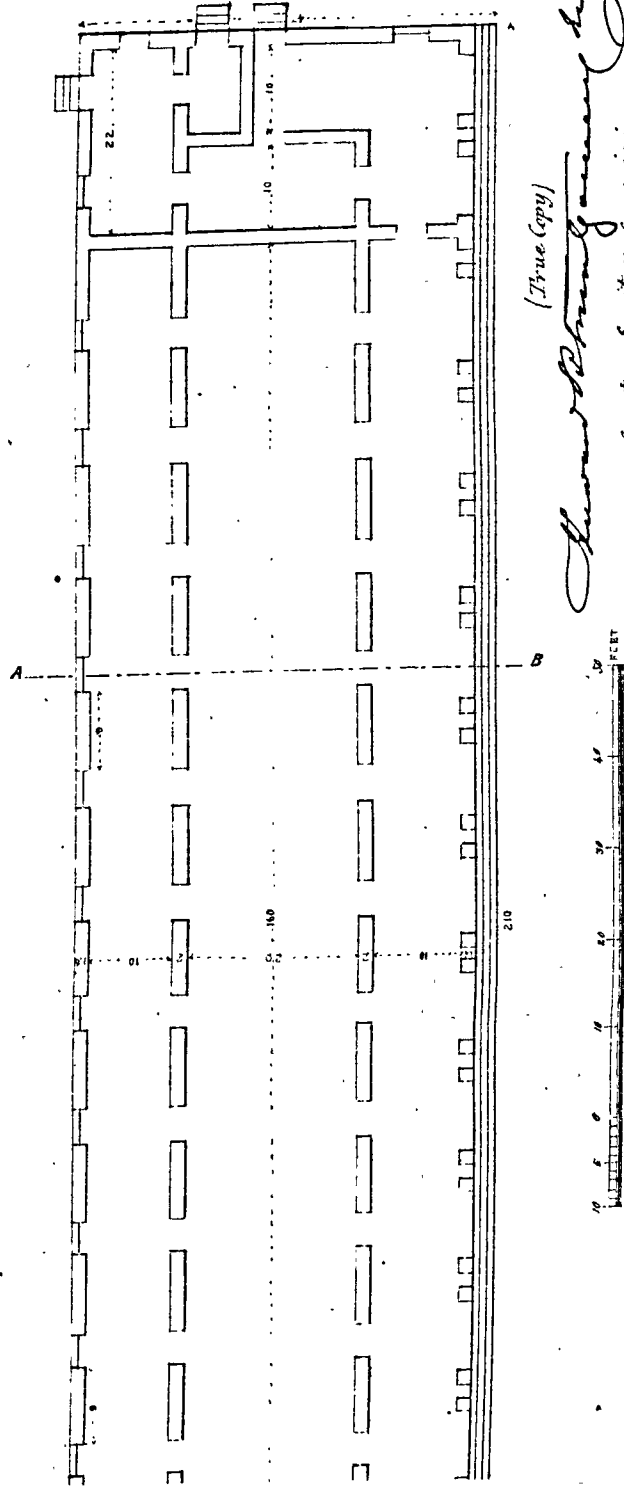
TEMPORARY BARRACKS

FOR

EUROPEAN ARTILLERY STATIONED

AT

BELLARY



(True Copy)

Thurston
Secretary Sanitary Commission

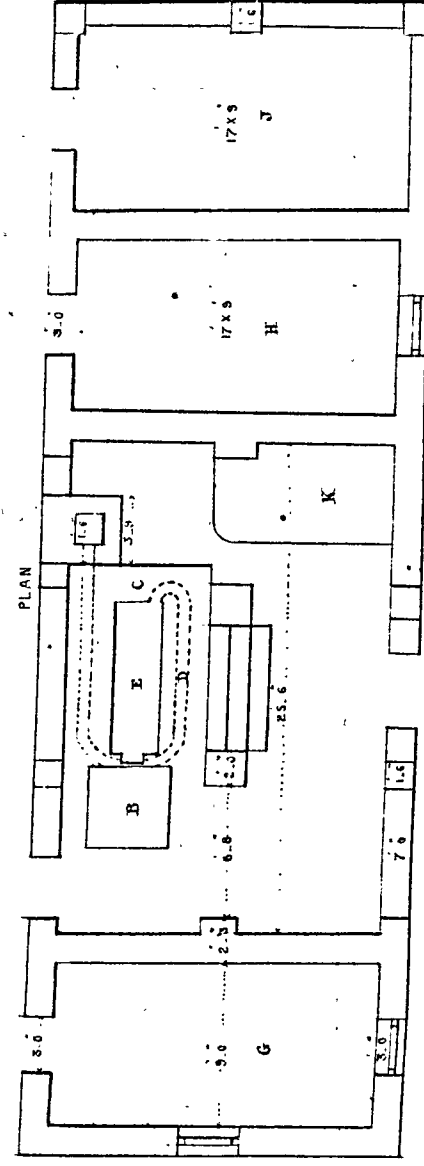
Detailed Statement of accommodation in one Block of the Royal Artillery Barracks at Bellary (late E Battery Barracks.)

Block.	Rooms.	How occupied, whether by Troops, Officers, Married Men, &c.	Dimensions.			Superficial area of each Room.	Cubic contents of each Room.	No. of Cots at present in each Room.	No. at 90 square feet superficial area.	Cubic contents thus afforded.	No. to be accommodated at minimum standard for Europeans in Barracks.	No. in excess on Inspection.	Open-ings.	Windows.			Doors.			REMARKS.		
			Length.	Breadth.	Height.									Number.	Height.	Width.	Number.	Height.	Width.			
1		Front open Verandah.....	160	10-0	11-6	1,600	18,400		35	1737	35		...	...	...	...	12	8	4	12	Open arches to adjoining Rooms.	
		Barrack Room.....	160	20-0	19-0	3,200	60,800	2	35	1737	35	22 Attics also Ridges	...	...	...	...	12	8	4	...		
		Enclosed back Verandah.....	160	10-0	11-6	1,600	18,400		...	...	...	3 Attics	...	...	...	...	3	8	4	...		
		Serjeant's Room, East End.....	10-0	20-0	19-0	200	3,800	2	1900	...	2	...	...	...	...	...	1	8	4	...		
		Enclosed Verandah to do	15-0	10-0	11-6	150	1,725		...	...	...	...	...	...	...	...	2	8	4	...		
		Do. back do. to do.	22-0	10-0	11-6	220	2,530		...	...	...	...	...	...	...	...	2	8	4	...		
		Wash House to do	10-0	6-0	11-6	60	690		...	...	...	...	...	...	...	...	3	8	4	...		
		Serjeant's Room, West End....	10-0	20-0	19-0	200	3,800	2	...	...	...	...	3 Attics	...	...	...	...	1	8	4	...	
		Enclosed Verandah to do. ...	15-0	10-0	11-6	150	1,725		...	...	...	...	...	...	...	...	...	2	8	4	...	
		Do. back do. to do. ...	22-0	10-0	11-6	220	2,530		...	...	...	...	...	...	...	...	...	2	8	4	...	
		Wash House to do. ...	10-0	6-0	11-6	60	690		...	...	...	...	...	...	...	...	...	2	8	4	...	
		Detached.																				
		Wash House.	95-0	18-0	13-0	450	6,850		...	...	...	2 Attics	...	...	...	...	...	...	...	...	* Honey-moored.	

PLAN AND SECTION

OF THE

HORSE ARTILLERY GRAM BOILING SHED



REFERENCES.

- B Ash-pit.
- C Store
- D Fire for conveying smoke round to the Chimney.
- E Fire place under Boilers.
- F Quarters for two men in charge.
- G Gram Godown.
- H Place to winnow the gram.
- I Platform to cool the gram.
- J Platform to cool the gram.
- K Platform to cool the gram.

Genl. L. H. Press Chitpauk 1887

SCALE 10 FEET TO 1 INCH

(True Copy)
Samuel B. Montgomery
 Secretary Sanitary Commissioner

46. The Serjeants' quarters at the ends of these two Barrack Blocks are ill-arranged, are not provided with any Latrine, Lavatory, or Cooking-house.

47. Throughout the Barracks the shelves provided for holding clothes, &c. are much high, and they are consequently of little use to the men.

48. The out-offices are faulty. The Orderly Room is over-run with white ants, the roof leaks. The wash-houses (of which there are two) are open to the same objections as I have to make against these places generally, being of small size with no possible means of privacy, and as they are without arrangements for the carrying off of waste water, they are certain to be always damp and uncomfortable.

49. The Latrine seats in the unused Latrines were rude and comfortless. The ordinary Latrine seat should be supplied.

GRAM-BOILING SHED.

50. A plan of this building accompanies the report. It was, I believe, designed by Mr. Henegan, and it is well ventilated by honey-comb openings, and the smoke is drawn by a flue passing into a chimney, which leaves the buildings free from smoke in the food of the horses is being prepared. This plan is worthy of imitation, and it provides for the due preparation of the food at the least possible expenditure of fuel. Fires of dry horse dung are chiefly used for firing.

SICK LINES.

51. The Sick Lines are in a ruinous condition. They were built by the Department Public Works, but fell down from their faulty construction. As it has been determined to supply stables to the Cavalry and Artillery in India, proper sick stables will doubtless be provided.

GUN SHED.

52. Close to the Gram-boiling shed is a Gun-shed, which contains 3,330 lbs. of powder. This building is insufficiently protected against accidents.

CANTEEN.

53. The Canteen used by this force (vide Plan) is quite inadequate in size to the requirements of the men. It is a small bungalow, utterly unfit for its present use. If the men who should be present were this battery complete, were to resort to it at once, they would be not more than about eight square feet per man of floor space available for them.

An examination of the accompanying Plan of the Canteen will show its entire unsuitability for this use.

54. Not only is the space much too small for the 150 men who may have to be accommodated to this Canteen, but the accommodation for the Serjeant and the safe custody and distribution of liquor is entirely inadequate. The Canteen Serjeant is obliged to pass several times of the day in a small low verandah room, without ventilation.

55. Major Henegan brought to my notice a design, (by himself I believe), for a Canteen to be attached to existing Canteens where, from insufficiency of space or other causes, the Canteen does not afford a suitable place for holding large supplies of liquor.

LATRINES.

56. The Latrines (two in number) measure 30 feet by 10. They are deodorized by the use of coal tar, which is only partially effectual. In a climate as hot as that of Bellary, little difficulty could be experienced in working all Latrines by the dry earth system, and the arrangements in these buildings need not be costly.

LAVATORIES.

57. The Washing rooms are objectionable as to position, being merely portions of the verandah enclosed. That shown as belonging to the Prison is furnished with a tub and the two corner rooms which hold two tubs, a foot tub and fifteen or sixteen are small and have no means of securing the privacy of those using them.

58. The quarters of the Serjeant Major and Quarter Master Serjeant have very small Cookrooms and Privies attached. These are insufficient in size and unduly exposed.

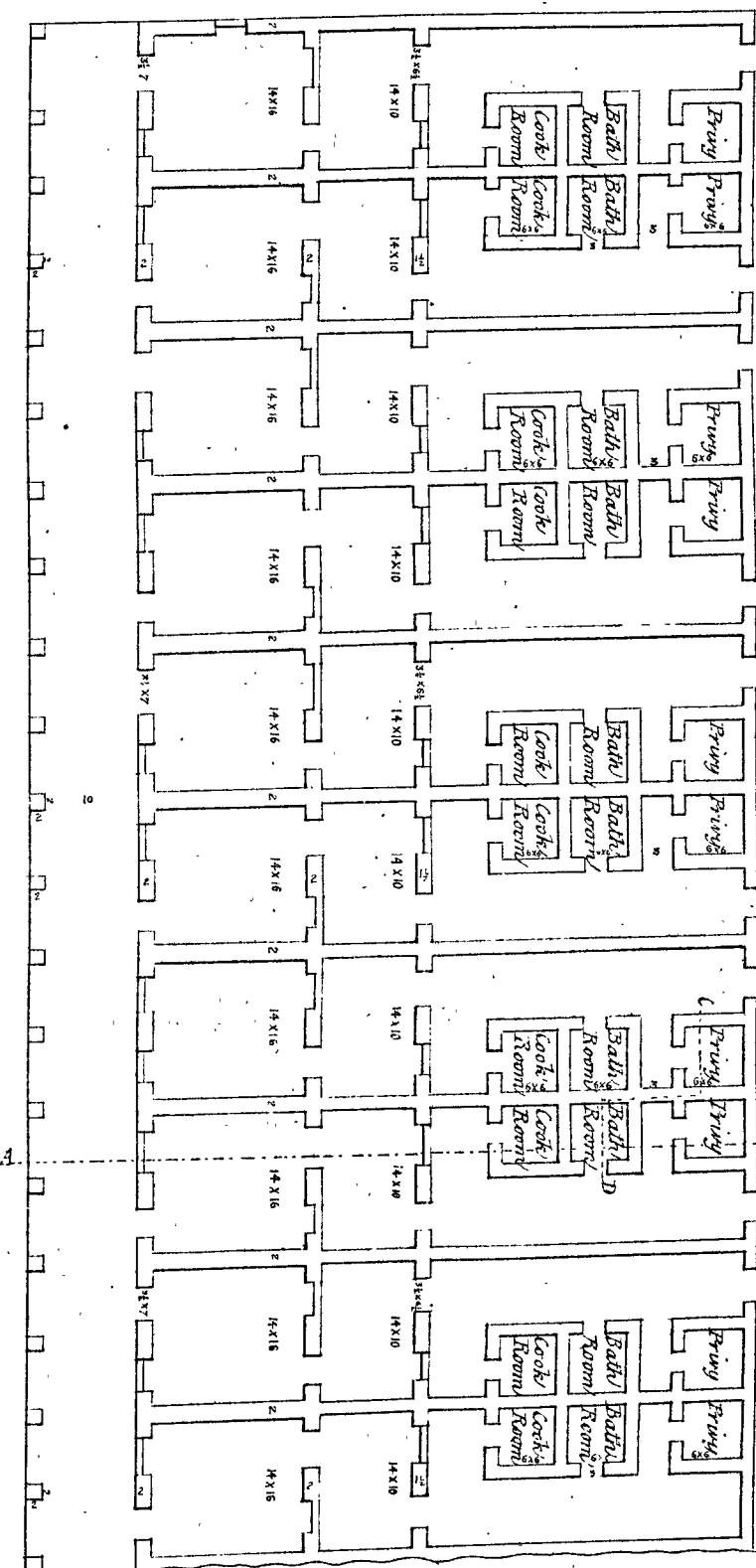
59. There is no Plunge-bath for the Artillery, and generally the arrangements for bathing are unsatisfactory. In the Prison Room, Guard Room, and Lavatories the basins are generally insufficient in size and seldom sufficient in point of numbers. Being portable they are frequently removed from their proper places and devoted to other uses than those for which they are intended.

60. A good system of water supply to these Barracks is a pressing want.

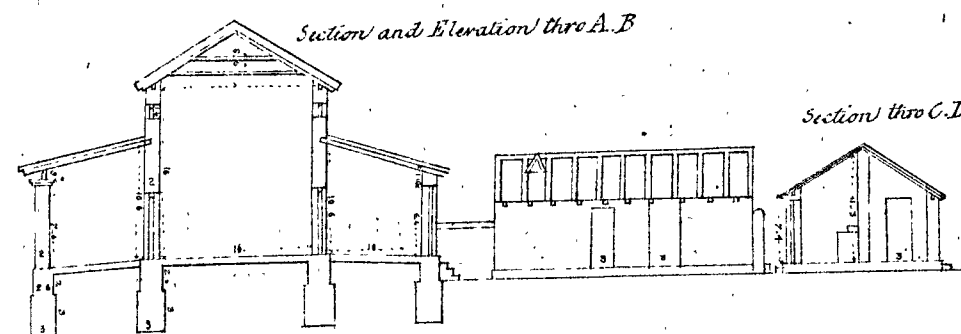
Detailed Statement of accommodation of the Married Men's Quarters of Royal Horse Artillery at Bellary.

Block. Rooms.	How occupied, whether by Troops, Officers, Married Men, &c.	Dimensions.			Superficial area of each Room.	Cubic contents of each Room.	No. of Cots at present in each Room.	No. at 90 square feet Superficial area.	Cubic contents thus afforded.	No. to be accommodat- ed at minimum stan- dard for Europeans in Barrack.	No. in excess on Inspec- tion.	Open- ings. Ventilation.	Windows.			Doors.		
		Length.	Breadth.	Height.									Number.	Height.	Width.	Number.	Height.	Width.
1	Married Men's Quarters No. 1	14-0	15-9	20-0	220	4,410	0	2	2205	2	None	3	2	4-3	3-9	1	7-0	3
2	" " "	14-0	10-0	10-0	140	1,400	2	2	700	2	None	1	1	4-3	3-9	2	7-0	3

Front view



MARRIED QUARTERS FOR ARTILLERY
AT
BELLARY



FAMILY QUARTERS OF ARTILLERY.

tual dimensions of these
e 16 x 14 and 14 x 10, but
it of them is only an aver-
a feet in the smaller apart-

cannot now, however, be
amended.

61. 16 Quarters of the dimensions shown in the accompanying Plan are now occupied by the families of the Artillery. The rooms, two for each of these families, are tolerably good, but the proximity of the out-offices is objectionable. A space of only six feet intervenes between the cookroom and sole window of the sleeping apartment.

It is in my opinion well worthy of consideration whether in future family quarters it is necessary to erect separate cookrooms for each quarter. One common cookroom, provided with a suitable cooking range, would probably suffice for so small a block of buildings as
Cookrooms.
ler notice, and the cost to Government of erecting the out-houses could be much
hed.

e roof of these quarters (which are only temporary) appeared very defective in
tion, and cannot be expected to last long.

c water used in these quarters is supplied by hand, but water should be laid
1 the water supply project is carried to effect.

Government have already sanctioned a table and two chairs and two cots to each
quarter. These have not yet been supplied. The cots should
Furniture.
be of iron and not the ordinary planks and trestles, which are
always full of vermin and are cleaned with difficulty.

The water falling from the roof is allowed to lodge on the ground outside the
verandahs facing these buildings. Granite flagging should
be laid down so as to prevent the water sapping the founda-
tions, and V-shaped channels to carry it off should be interpos-
Drainage.
een the flagged pavement and the roadway. Great natural facilities for drainage
rded by the sloping ground on which these quarters are built. The verandah
more than three feet from the ground on which the quarters are built. For the
ion of the children, a railing should be placed round the verandah.

A Block of nine quarters for the Non-Commissioned Officers of the Artillery were
rapidly approaching completion when inspected. Each quar-
ter comprises three rooms and a passage room. The dimen-
sions of the rooms are good and sufficient for their intended
missioned Officers' Quarters.
t here, as in the married soldiers' quarters, the out-offices are too close to the
room.

Shelves are provided in these quarters, but they are much too high for con-
s of the men and families.

INFANTRY BARRACKS.

The Military Buildings occupied, at the time of my inspection, by H. M. 76th
t of Foot, are situated about one mile to the west of the northern extremity of the

The accompanying block plan and the detailed statement as to the mode
pation, show that nineteen main buildings are allotted to this Regiment.

In addition to these, there are a series of Ablution rooms, Cook houses, Latrine Two cells (one large and one small) were placed on either side of the central building. with subsidiary buildings attached to public buildings devoted to special purposes. 73. The smaller cells are for solitary confinement, and the larger for prisoners sentenced to short imprisonment. The larger rooms measure 30 x 18 = 540 square feet.

It will be observed that of the nineteen Blocks, one is omitted from the following list. This Block was, at the time of my inspection, occupied by a portion of the Artillery. The ventilation of these rooms is by upper attic openings and by three ground

Return shewing the number of Military Buildings occupied by the above Corps, and for what purpose they are occupied.

Description of Buildings.	How occupied.
No. 1, Block...	Garrison Library, Non-Commissioned Officers and Men.
" 2, do.	Non-Commissioned Officers and Men.
" 3, do.	Do. do. do.
" 4, do.	Do. do. do.
" 5, do.	Theatre.
" 6, do.	Non-Commissioned Officers and Men.
" 8, do.	Do. do. do. Library and Coffee Room.
" 9, do.	Pay Master's Office, Non-Commissioned Officers and Men.
" 10, do.	Band and Serjeants' Mess.
" 11, do.	Orderly Room, Scripture Reading Room and Serjeant's Quarters.
" 12, do.	School and School Master's Quarters, Canteen and Lecture Room.
" 13, do.	Guard Room, Prisoner's Room and Quarter Master's Store.
" 14, do.	Work Shops.
" 15, do.	
" 16, do.	
" 17 (Family Quarters)...	
" 18, do.	Occupied by Married Soldiers.
" 19, do.	

69. As, however, the Artillery expected to arrive were to be put into the ten Barracks, the Block No. 7 then occupied by this force is probably now restored to proper use. The Barrack blocks are all of one size, and are capable of containing in the centre room 45 men at the regulation allowance of ninety square feet superficial area.

70. The Guard room and Prisoners' room and Master's stores were first inspected. The dimensions of the two first are marginally noted. They are respectively 40 x 24 and 20 x 24. They are respectively adapted to hold ten and five men.

71. Here and in the room occupied by prisoners, wooden trestles and cots were used in lieu of iron cots as sanctioned. The men complained of the prevalence of bedbugs, many of the planks had been injured by the men beating them against the ground to get rid of these insects. The strength of the guard is 19 rank and file, 2 corporals and 1 sergeant. The room is capable of containing only 10 men at 90 superficial feet, but the Verandahs surrounding the Guard Room allow ample space for the Guard.

72. The room occupied by the prisoners was rendered dark, and the ventilation was interfered with by the partial enclosure of the back verandah, which was used for Quarter-Master's stores. In this room for prisoners sentenced to not more than 14 days' imprisonment, there are usually six prisoners; at the time of inspection there were eight.

The ventilation of these rooms is by upper attic openings and by three ground floor ventilators communicating with the external air by a pipe bent at right angles and so preventing its being used as a means of conveying anything to the prisoners.

74. This mode of ventilation is of little use and larger and more direct openings, protected by grates, would be far preferable. The adjacent Cook-house, Racket, and Fives Courts do not require any detailed notice.

75. Block No. 12 contains School and School Master's quarters, Canteen, and Lecture Room. The School-room was a cheerful-looking apartment, lofty and well ventilated. But the furniture was drawn to the want of suitable furniture. The tables were inordinately high and the forms much too low for the children who were to use them. Otherwise, the arrangement seemed well arranged.

76. The Canteen is a portion of the same block as the School-room, and is little suited to the present mode of occupation.

77. A Canteen providing separate accommodation for the non-commissioned officers should be built and constructed upon better principles, or the present one should be altered.

When seen at night the place was much over-crowded and the room intolerably hot from the burning oil lamps fixed low upon the walls.

Block 11,

Contains Orderly room, Scripture Reader's room, and Serjeant Major's quarters. The apartments are all good, built on a raised basement and well ventilated. Convent out-houses are in close proximity. I would remark here, that the end rooms, occupied by the Serjeant Major and his family, were originally constructed like the rooms at the end of the barrack blocks; that is, they consisted of six rooms, three on each side (20 x 10) and a central passage 8 feet wide. By judicious opening out of the end rooms and arched opening, this series of rooms have now been made to communicate one another, and the result is a pleasant, well-ventilated quarter, contrasting most favorably with the dark nest of rooms to be found at the end of each Barrack Block.

Block No. 10,

Contains Serjeants' Mess and Band-men's Barrack. These require no comment.

Block No. 9,

Contained the Paymaster's Office and 68 Non-commissioned Officers and Men. The latter is over-crowded, 14 of the men were occupying the verandah.

Block No. 8,

Contained 40 men in a portion of the Barrack, the rest of which was used for the Non-commissioned Officers and Men's Library and Coffee Room. The Library was a

82. Was occupied temporarily by the Artillery.

83. Is used as a theatre.

84. Are occupied exclusively by Non-Commissioned Officers and Men.

I have before shewn that the centre barrack room of these blocks—and this alone be occupied—is only capable of containing 45 men with the regulation allowance of 90 square feet superficial measurement.

85. But I found, on inspection, that in the last named, No. 6, No. 4, No. 3,
4 Barracks, the numbers contained were

In Centre Room	56	50	57
Southern Verandah.....	12	13	12

86. Thus showing a considerable amount of overcrowding in excess of the regulated number. The four rooms shown at each end of the main barrack room, accommodate further number of 39 men, each having not less than 100 superficial square of room.

87. In order to improve the Barrack accommodation, I would propose that, Barrack blocks where it is practicable, the four rooms to the east and the four to the west of each Barrack room should be thrown into it by large arches.

This would increase the Barrack room accommodation at each end by measuring more than 40 feet by 20, thus raising the Barrack room accomm from 45 to 64. This, together with the liberation of Block No. 7, recently occu the Artillery, would sufficiently prevent overcrowding.

88. But I would strongly urge that the regulation number to be accommodated in every Barrack room should be definitely ascertained, and a printed notification of the number be affixed in a conspicuous place in the Ward, and that this number should under any circumstances, be exceeded.

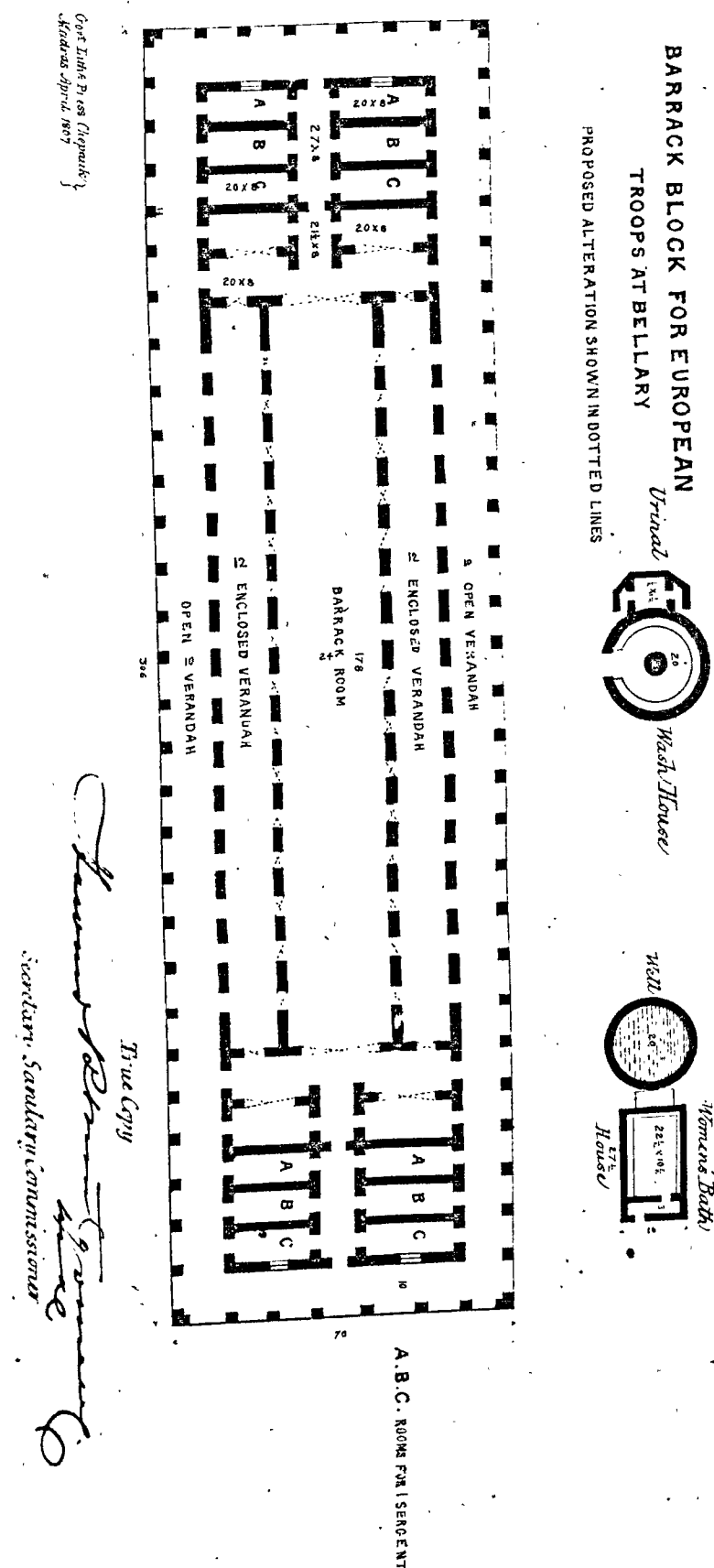
89. The shelves in the Barracks and also in the Family quarters are much too high. The men can with difficulty when standing on their cots, place their clothing, &c. on a high shelf, and in the family quarters the shelf at the top is practically useless.

90. Before concluding these remarks upon the Barracks, I think it right to draw attention to the frequent instances of misappropriation witnessed at Bellary. The temporary Barracks for the Artillery not being in use, one of the Barrack blocks containing 45 men was given to the Artillery, thus overcrowding the 76th Regiment.

One Barrack block was given up as a Theatre, thus diminishing the accomm. by another 45 men.

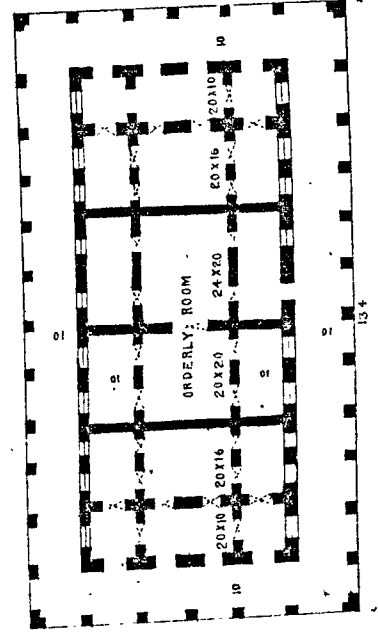
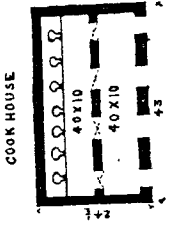
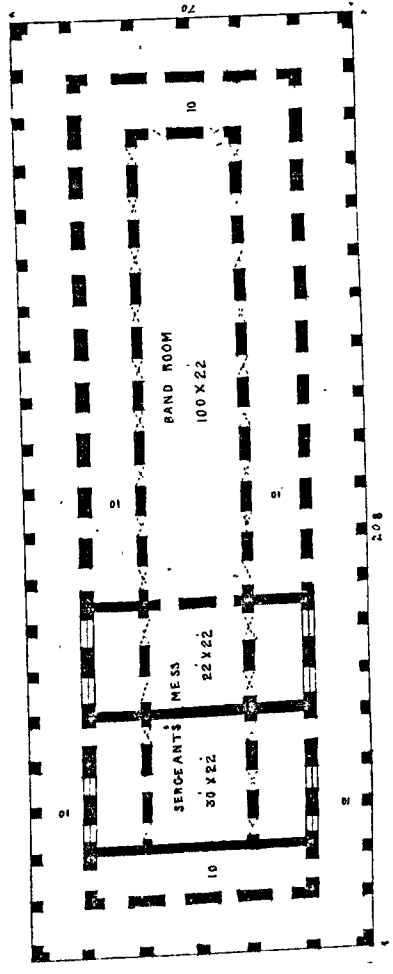
The nests of rooms at the ends of the Barracks were chiefly filled with stores, of

The end Reading Room not being sufficiently central, a portion of a barrack was taken up for this purpose.



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Th

SERGEANT'S MESS AND BAND ROOM
OF 76TH REGIMENT AT BELLARY



SERGEANT MAJOR'S
QUARTERS

Q144 SERJEANTS
QUARTERS

(True Copy)
Samuel Bennett
Secretary Sanitary Commissioner

Wm. Little & Co. Press, Bangalore
Madras April 1887

These instances of misappropriation occur usually as merely temporary arrangements, and are allowed to continue.

OUT-BUILDINGS OF THE EUROPEAN INFANTRY BARRACKS.

These comprise chiefly Cook-houses, Women's and Men's Lavatories, Urinals, and Canteens.

COOK-ROOMS.

There are very numerous and scattered over the Barrack space most irregularly. Two blocks, each comprising five cook-rooms, stretch along the rear of the Barrack blocks. They are clumsily constructed, ill-designed apartments, ill-lighted, indifferently ventilated, and provided with common native cooking ranges. Duff's or Riddell's stoves, or any improved pattern should be supplied. I believe this has been sanctioned for a considerable time past, but there is much delay in carrying the sanction into effect.

LATRINES.

2. These are behind the cook-houses and consist of ten privies; they are open apartments affording no privacy. The seats are of the rudest possible description, and the excreta are passed into open tubs not provided with any deodorant.

These buildings could be converted into dry earth latrines, and they would then be, as they are now, most offensive nuisances.

Sewage cart drivers empty the excreta from the tubs into open carts, and remove them once or twice a day, and the stench occasioned in transit is described as most offensive.

The sewage pits are two miles from the Barracks, but no systematic utilization of the pits has yet been attempted.

WASH-HOUSES AND URINALS.

The wash-houses are of the most inferior character, small, with no raised flooring, and no attempt at privacy, and scantily supplied with washing utensils, they are of little use. Bathing is impossible, if there is any regard to decency, and even the most uncomfortably carried on, owing to the lowness of the ledge on which the tubs are placed.

A adjoining urinal attached to each wash-house is a small, close, open enclosure, with shabby walls and furnished with urine tubs. These two buildings should be separated.

DRAINAGE.

The drainage of the whole of these Barracks requires much attention. Preparations are being made to lay shallow granite saucer drains to catch the water falling from the roofs, and the storm water of the barrack space. But no preparations are being made for the storing of this, nor is there any system of sewage disposal. The two systems of drainage should be independent of each other, for without it, storm water will become saturated with filth of every kind.

96. Additional planting might also be with great advantage carried out to diminish the glare so much complained of in the hot weather at the station.

FAMILY QUARTERS.

97. The family quarters are identical in point of design and construction to those of the married soldiers of the Artillery. They are neat and well kept and are carefully drained.

98. A case of Cholera occurred recently in the southern range of the quarters now occupied by the families of the 76th Regiment. The case proved fatal, and instructions were very properly given for the destruction of the bedding and clothing of the child during the attack. Both the Commanding and Medical Officer issued orders but it was found afterwards that they were not fully carried out.

Some of the clothes were retained, and the mother was attacked three days subsequent to the death of the child, and herself died. This is not a solitary instance of danger of clothing as a means of communicating Cholera; a precisely similar case occurred in the family quarters in Fort St. George.

99. The Cholera Congress at Constantinople, the several Sanitary Commissions in India, and the orders of the Supreme Government, have all recognized the necessity of either thoroughly disinfecting, or where this is not easily done, burning clothes and bedding tainted with choleraic discharges. It should be the duty of the Medical Officer to satisfy himself that the orders given on this subject are carried into effect.

100. Close to the quarter in which this case occurred, is a bridge over the road crossing under the road. This place is resorted to by natives both in the day and at night, and the smell is at times disgusting. The Officer Commanding issued orders to endeavour, if possible, to prevent the recurrence of this nuisance.

101. The quarters have their godowns in too close proximity to the main building and between the rear walls of adjoining parallel rows of quarters; the narrow, and little or no attention has been paid to the drainage; this has not been remedied. The end quarters assigned to Non-Commissioned officers, and those allotted to Privates and their families.

102. There are two double and fourteen single quarters in each block, or in all, and a sixth block has recently been placed at the disposal of the Regimental Artillery who vacated it, on taking possession of their own new quarters.

103. To each quarter, whether double or single, two chairs, one table, and two cots are allotted, but these have not yet been fully supplied. At present the quarters are only common trestles and wooden planks, and these are much infested by vermin.

104. The family quarters are said to leak during the monsoon.

WORKSHOPS.

105. The workshops of the Regiment are in a block placed nearly

nearly at right angles with the front line of the Barrack blocks. It is not shown on the accompanying plan, but is entered upon the large map of the Cantonment.

The number of men employed at the time of inspection was small—two tailors, two painters, one turner, and four shoemakers, and it was stated that more than eight men could do as much work as Tailors at any time.

SOLDIERS' GARDENS.

In the interspaces between the Barrack blocks a good many patches of ground have been taken up as gardens. But the want of water prevents their very successful cultivation. The water from the bath rooms is used for this purpose, and as previously remarked, the water from the Lavatories is sometimes abstracted before being used for its proper purpose.

This could of course be prevented, and orders should also be issued that a clear space should be always left clear close to the barrack foundation, so that not only would there be no interference with ventilation, but also the foundations of the building would be protected from damp.

HOSPITAL FOR EUROPEANS.

The Hospital for European troops is an imposing-looking building, well situated to the east of the Barracks of the Infantry Regiment, and to the south of those of the Artillery.

The building is almost directly south, and consists of an oblong block of rooms and verandahs, with two long passages projected outwards and backwards to connect the main building with the Latrines.

The building is of recent construction, and presents a commanding appearance when viewed from the road. But the most casual examination of it proves it, in almost every respect, to be utterly unsuited to its present use.

A careful examination of the accompanying plan will sufficiently explain the chief faults in this building.

It consists of one huge apartment, 138 feet long by 40 wide, two small rooms 40 feet long by 10 wide, and a number of small rooms enclosed in the corners of the building at the junction of the verandahs.

There are double verandahs at the front and back of the Hospital.

On the lower and upper floor of the Hospital, the large Ward is subdivided by screens and glazed partitions. The building is very lofty, and the whole place has a cheerless appearance.

On account of the width of the Wards, their height, the necessity of placing some beds in the Ward, the double verandahs and the imperfect lighting of the building, as shown in the plans, all combine to render the Hospital gloomy. Access to the lower floor is gained by two most unsightly staircases which open in one steep flight from the lower to the upper floor, a height of more than 19 feet.

These staircases occupy a site which, it is believed, was formerly intended as a room. But no staircase was originally designed inside the building, and this make-shift was had recourse to.

All principles of Hospital construction, as now approved, are so utterly new to this building, and it is so incapable of improvement that it is difficult to find means whereby it can be adapted to the purpose for which it was originally intended.

108. The accompanying plans show the allotment and subdivisions of the upper floors of the Hospital at Bellary, and the following observations upon the several rooms will still further show in which they are defective. The female ward occupied by women and children of the R. H. Artillery is ill-lighted and badly ventilated. The Lavatory attached to this ward is defective. The rude table intended for basins is too high for women and is entirely unsuitable to children. The result of this is, that the portable basins are usually kept in the dormitory for female servants. The Bath-room is small and not provided with shower baths, but only with tubs, which are old and in bad repair.

Defects of Hospital.

109. The Latrine for females is approached by a long passage, and divided into closets, nor is any privacy possible. The resort to it.

Latrine.

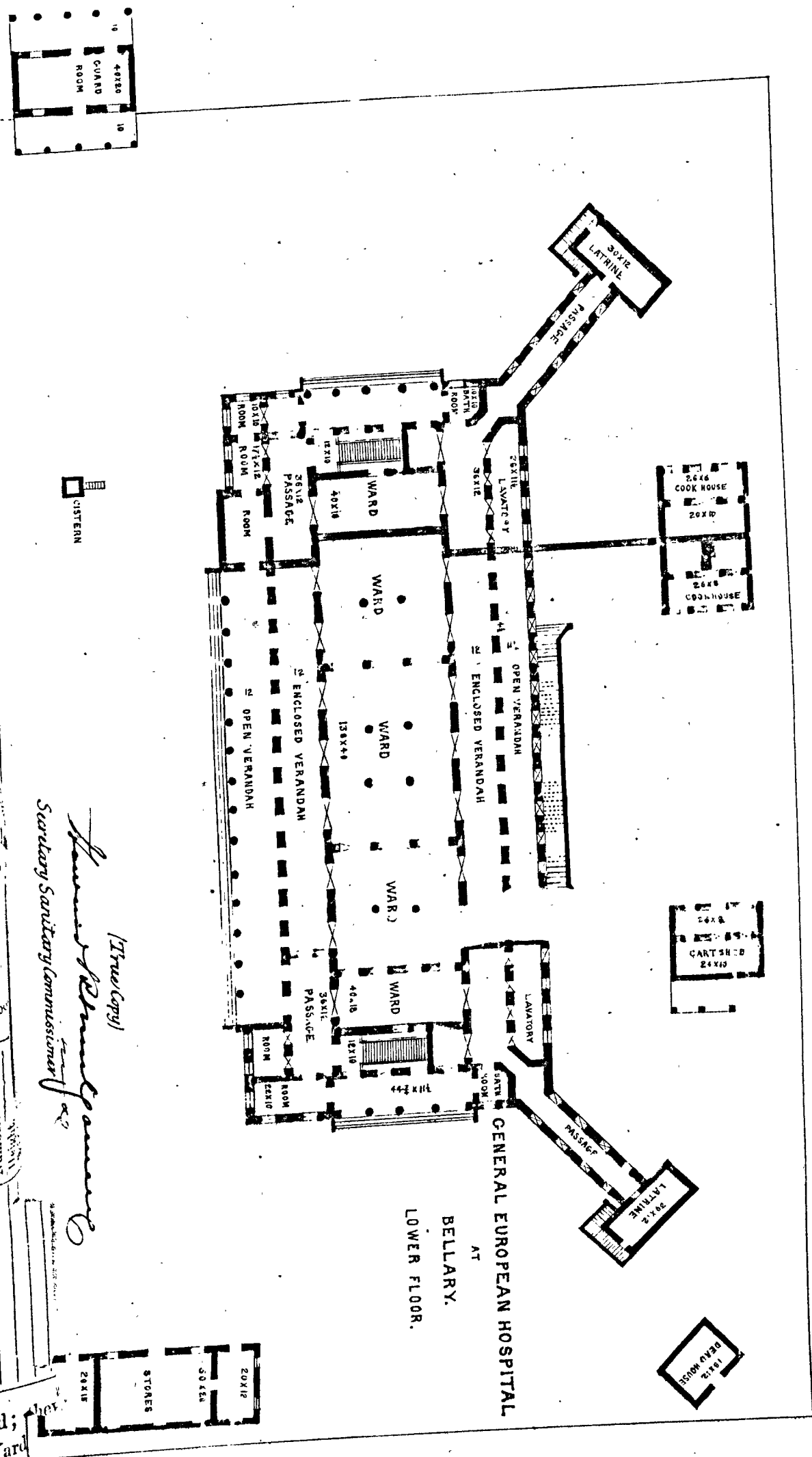
At the time of inspection the whole furniture consisted of one crudest construction, and two hand-chamber vessels.

Coal tar is painted on the floor and lower part of the wall, but not employed in the vessels containing excreta.

Detailed Statement of accommodation in the General Hospital of European Troops at Bellary.

Block. Rooms.	How occupied, whether by Troops, Officers, Married Men, &c.	Dimensions of each Room.			Cubic contents of each Room.	No. of Cots at present in each Room.	No. at 120 square feet superficial area.	Cubic contents thus afforded.	No. to be accommodated at minimum standard for Europeans in Barracks.	No. in excess on inspection.	Open- ing.	Windows.			Doc.
		Length.	Breadth.	Height.								Number.	Height.	Width.	
Lower floor.															
1...	Female Ward R. H. A.	40	18	19	720	13680	...	6	12	2	280				
2...	Male General do. 76th	40	37	19	1480	28120	...	12	2	2	343				
3...	Do. do. do. do.	57	40	19	2280	43320	...	19	2	2	280				
4...	Do. do. do. do. Arty.	40	37	19	1480	13320	...	12	2	2	343				
5...	Do. do. do. do.	40	18	19	720	13680	...	6	12	2	280				
Upper floor.															
5...	Wards of same dimensions.														

110. The Male Wards on the same floor are as before described; perfectly separated by wooden partitions which, however, allow the Ward into each other.



the adjoining verandah closet seats are placed for the use of patients who resort to them, without any privacy being afforded, and during our inspection the men resorted to them looking disgusted at this exposure, but unable to reach the distant latrine.

11. There are no separate and detached Wards for Cholera, or other contagious disease, and when these cases occur, they are obliged to be treated in an out-building to the rear of the Hospital or in tents.

No separate Ward.

12. The Latrine of the Male Wards is quite as bad as that of the female, and smelt offensively during my visit. The Latrines are approached by a long passage 60 feet long and $8\frac{1}{2}$ wide, and a door is interposed at the Hospital end of this passage to cut off the access of air. The door was intended to swing upon a central pivot and to be self-closing, but the necessary means have not been adopted to secure this and the door remains perpetually open.

Latrine.

13. There is no separate Ward for venereal cases, and no properly constructed Ophthalmic Ward is provided. On the upper floor, indeed, a portion of the large Central Ward is screened and partitioned off for the purpose, but it is ill-ventilated and unprovided with any of the appliances of an Ophthalmic Ward.

14. Although Eye disease is of frequent occurrence, and has been extremely prevalent during the past year, yet no suitable colouring has been put upon the walls, nor blinds provided to exclude glare, and if it be desirable to darken the wards, the only means of ventilation) are, of necessity, closed.

The Lavatory and Latrine downstairs are used by the sick of the 76th Regiment which was 694 strong. They are not sufficient in size and are ill kept and badly

The cots are chiefly of iron with sacking. The greater portion of the blankets were once white, but are now much discoloured with age. The mattresses were of coir and but indifferently prepared, and many of them require to be re-made and properly fitted to the cots.

and bedding.

The patients generally wore Cholera belts, and the usual Hospital clothing.

The upper floor corresponds in arrangement and dimensions with the lower floor. I specially notice that the lavatory used by the Artillery upstairs leaks, that there are no basins in it when inspected and no gratings were provided to keep the men's feet wet.

The out-houses of the Hospital are indifferent. The cook-room (only one used by different Regiments) was in native fashion and dirty; it requires white-washing.

The Medical Officer in charge of the Royal Horse Artillery informed me that he had orders from the head of his department, that he was for the future to treat Europeans in the same Hospital as that in which the Europeans of the Artillery were treated. This aggregation under one roof, of European males and females and native followers, is I think objectionable. The present Wards are entirely unsuited to native patients, and

of European males and native followers.

if they are to be treated in connection with the Hospital, wards suited to be built contiguous to the present Hospital.

121. The sick carts provided for the airing of Invalids are here, as in stations, very uncomfortable, and by no means would be a light omnibus which could be drawn by horses without in the least overtaxing them. Then be an enjoyment to convalescents, which can hardly be the case of rough carts slowly dragged by bullocks.

Sick Carts.

LINES OF NATIVE REGIMENTS.

122. The force of Native troops stationed at Bellary was, during the 1st Regiment Madras Light Cavalry, 20th and 34th Native Infantry.

The lines and public military buildings occupied and used by the lie to the west and south-west of the Fort, from which they are distant (as indicated on the plan of the Cantonment accompanying this report of buildings west of the Fort.)

123. The lines of the different regiments and the chief public military buildings west of the Fort.)

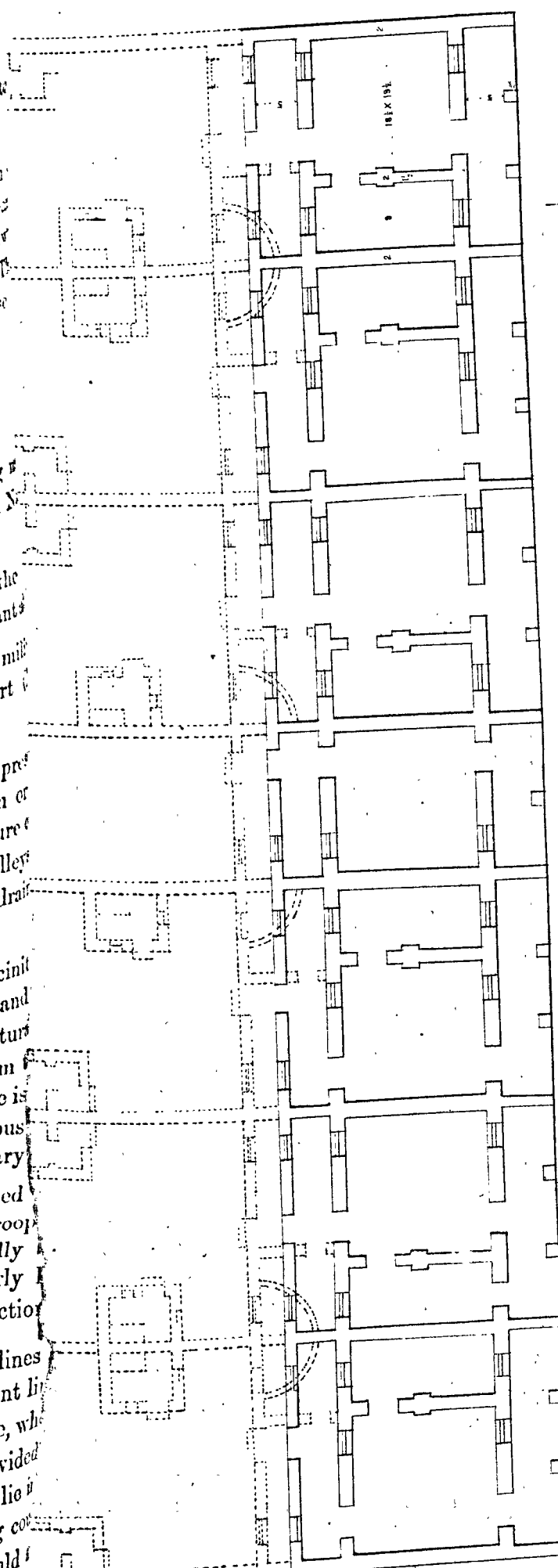
124. The lines of the Cavalry were first examined, and they presented a wretched appearance. There is no system or whatever as to the position, size, or enclosure of the lines. Many of the alleys are so narrow that a cart cannot pass up them. There is no drainage of the place is a specimen of the very worst form of native lines.

125. Vast quantities of prickly pear grows in the immediate vicinity of these places are resorted to by natives and of extreme offence. In addition to the natural keeping clean the lines of this regiment from the absence of suitable thoroughfares, there is a great increase to this difficulty occasioned by the fact that several of the houses are inhabited by followers of the regiment not themselves under military discipline.

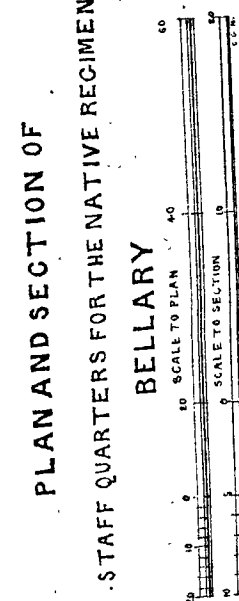
126. These lines were originally merely an encamping ground used by a regiment temporarily stationed here. The troops were longer than was expected at first, gradually increasing in number, and so the lines were not properly planned, nor can they now be remedied except by complete re-construction.

Lines badly situated.

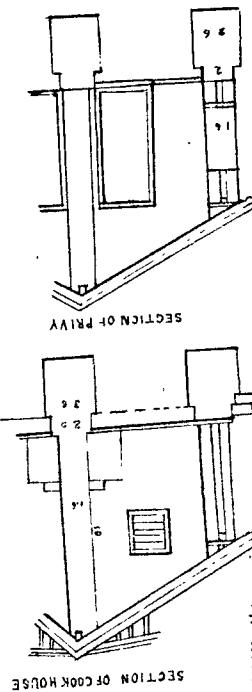
127. If a cavalry regiment is to be continued at Bellary, these lines should be abandoned without delay, and new permanent lines should be erected on the Race-course, where an open site with good water supply could be provided. One radical objection to the site occupied by these lines is, that they lie towards which the whole of the storm water falling on the surrounding country is consequently inundated in the rains. A worse situation could be imagined. There is no surface drainage from these lines. They were



PLAN AND SECTION OF
STAFF QUARTERS FOR THE NATIVE REGIMENTS
BELLARY



SECTION THROUGH A-B



(True Copy)
James O'Brien
Secretary Sanitary Commissioner

me sixteen years ago in consequence of an outbreak of Cholera, and I need scarcely say that they have not improved in their condition since. But cholera was only seen in two cases (during the present year), none having occurred in 1863, 1864, or 1865.

128. Although situated so disadvantageously, it was evident that care is taken towards promoting the conservancy of the lines. Five latrines were employed by the men of the regiment at their own cost, and they also maintained four carts to move the rubbish to pits half a mile distant. But the naturally bad situation of the lines, and their ill-construction prevented their being kept clean even by this establishment. The prickly pear in the vicinity of the lines should be removed, and two latrines, one for males, and another for females, should be erected to the south of the lines. This latter would probably only be used by the lower caste females among the followers, and this would be a very great aid in promoting the cleanliness of the place.

Military Buildings.
Places of arms for two troops
Store-room; Standard Guard
Workshop.
Sergeants' Quarters with out-
two Solitary Cells, and
rooms; Hospital
stables; Gram-
etc. &c.

129. The military buildings in use by this Regiment are noted in the margin. The places of arms need no especial remark. They are exactly similar to those in use by the corps of Native Infantry.

The standard Guard-room is ill-ventilated, and if there is any considerable number of prisoners, there is little accommodation for them. An additional window is required in it and ridge ventilation should be introduced.

131. A suitable dry earth latrine should also be erected in its vicinity for the use of the Guard and the prisoners.

The Staff Sergeants of the Native Cavalry are accommodated in two quarters forming part of a set of seven quarters occupying a central position near the places of arms.

The accompanying ground plan shows the construction of these quarters and the deficiency of them for men with families. I would suggest that the alterations shown by dotted lines should be sanctioned. The cook-rooms and latrines attached to these quarters are situated in front of them and are a great annoyance. These should be removed and separate cook-houses and latrines be erected in the compounds which it is proposed to enclose to the west of the

Two Solitary Cells of the standard pattern were examined. They were clean, but are hot and ill ventilated, and the latrine ventilates into the cell, a very objectionable arrangement.

The Cavalry Hospital is very similar in style to the usual Native Regimental Hospitals in this Presidency. It consists of a single long ward, with verandah front and rear and with the end of the building converted into a Surgery and Store-room.

It is little raised from the ground, and from its position is a low-lying piece of ground and damp during the rains.

135. There are no Apothecaries' quarters, and the Apothecary (being a married man) occupied a portion of the common ward as a residence. This he was enabled to do, as there were patients in this building when inspected. There were five men in hospital labouring under trivial diseases, and they were accommodated in a good detached ward originally erected to accommodate the grass-cutters and other followers of the regiment. The room, which is detached, is lofty, well ventilated and raised on a three foot basement and from its being isolated is well suited for a cholera ward or other contagious disease ward.

In this respect of quarters for the Apothecary this hospital is deficient; I do suggest that this addition should be made, as I hope Government will order the transfer of the regiment to the Race-course.

136. The Hospital is also not provided with a bathing place for the patients. For this purpose a chabootra should be built round the well and this form of provision for bathing should be similar to that provided for all Native Hospitals.

On this subject, and as regards water supply for Native Regimental Hospitals, the conclusions of the Government of India should be borne in mind:—

"The out-door lavatory to consist of a well, surrounded by a broad and raised chabootra, but without roof or screen wall. A separate well for drinking water and for culinary purposes is only to be allowed when the lavatory well does not afford a sufficient supply for all purposes."

LINES OF 20TH REGIMENT M. N. I.

137. These lines occupy a site close to the Cavalry, but on higher ground with good natural drainage. The lines themselves are about fifteen years old and in indifferent repair. The huts face the streets to the east and eight to the west of a broad central street running nearly north and south. This again is pierced by a broad road running east and west, so that there are in all sixteen streets towards which the compounds of the latter being interposed between the huts and the road.

138. To the west and south-west of the lines a vast quantity of prickly pear to be found. This should be cleared away, and new Regimental Latrines are to be erected.

139. These lines can be easily drained and the ground on which they are usually dry. Few houses had fallen during the preceding my visit, but some of the huts belonging to the companies of the regiment or detachment at Hurs from neglect become ruinous.

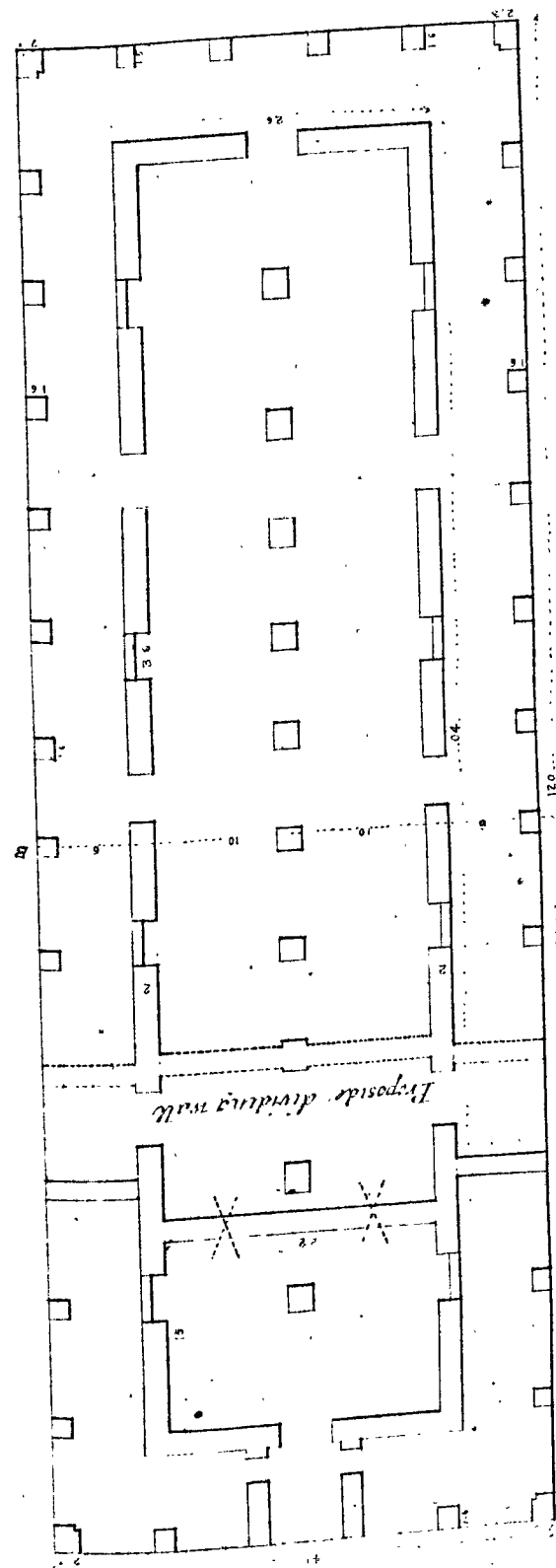
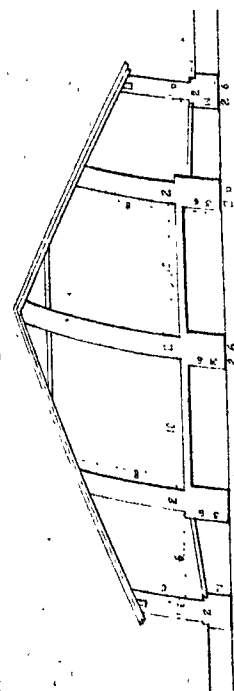
PLAN

OF ONE OF THE

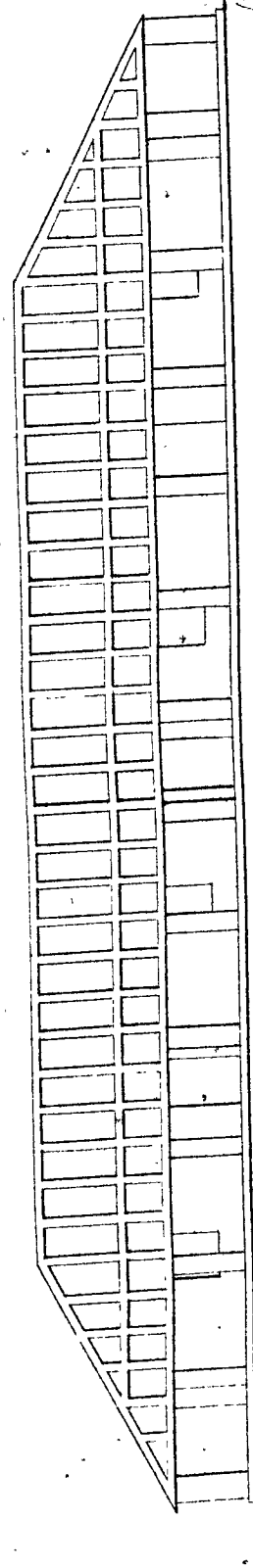
PLACES OF ARMS IN THE CANTONMENT

OF

BELLARY.



ELEVATION



[True Copy]

Samuel B. Thompson
Secretary Sanitary Commissioner

140. Colonel Carter, commanding the regiment, having been formerly employed in the corps of Sappers and Miners, expressed his willingness to superintend the construction of new permanent lines which might gradually re-place the present ones.

Permanent lines required.

141. The water supply is derived from a large tank adjacent to the lines, and from wells. This tank, at the time of my visit, was leaking very considerably, the bund of it should be carefully examined, raised and strengthened, so as to ensure, as far as possible, a continued supply of water to this regiment, and to the 34th which occupies the contiguous lines.

Water supply.

Some of the wells have run dry permanently or become so in the hot weather. They might be deepened and enlarged by blasting the rock in the direction of the springs by which they are fed. This has been done with advantage in many places in the Cantonment.

142. As with almost all Native lines which I have examined, the system of conservancy in these was defective. The establishment then recently sanctioned, one cart and eight toties, had not been employed, but during my visit no cart was available, and the price of bullock hire was exceedingly high in consequence of the drought, during which so many of these animals had perished.

Conservancy.

I availed myself of the necessity for instituting Famine works and allotted certain gangs of coolies and of convicts to clear quantities of prickly pear growing near these lines.

The erection of latrines also for males and females belonging to the regiment was ordered, and I have no doubt that these, if properly attended to, will be a source of comfort to the regiment.

143. The public buildings noted in the margin are at present used by this regiment. The places of arms when examined were found very clean, and at the end of one of them a Guard-room was enclosed as shown in the accompanying plan. The guard room itself was rather small, measuring only 22 by 15 feet, and intended to contain 21 privates, 1 drummer, 2 naigues, and 1 havildar.

Public Military Buildings.
2 Places of Arms.
2 Store Rooms.
2 Magazines.
2 Solitary Cells.
2 Staff Sergeant's Quarters.
1 Fire Engine House.
1 Hospital.

144. The enclosed portions of the front and side of the verandahs shown on the plan were occupied by prisoners and by a native officer respectively.

Colonel Carter suggests that this guard-room should be enlarged by throwing back the rearwall of it A B to the line marked C D, the doorways E and F being simply barred with iron so as to promote the free ventilation of the apartment.

145. I think, considering the strength of the guard, that this suggestion should be acted upon. There will still be left in the places of arms, abundant room for the arms and accoutrements of the regiment, as they have really three places of arms allotted to them, although only two were used at the time of my inspection. One of the three places of arms belonging to this, the 20th, had been placed at the disposal of the 34th Regiment Light Infantry, as this latter regiment had given up two of its own three

places of arms as a temporary prison in consequence of the Bellary Jail being dangerously overcrowded.

Store Rooms.

146. The Store-rooms were of sufficient size and repair and remarkably clean. They do not require detailed notice.

Magazines.

147. Two magazines belonging to this Regiment (vide No. 20 on plan of Cantonment) were fully occupied at the time of my inspection. One of them contained the service ammunition of the Regiment, which, in the opinion of Colonel Carter, might with advantage, transferred to the Arsenal.

2 Solitary Cells.

148. The remarks already made with reference to similar buildings of the native cavalry regiment are equally applicable to these cells.

2 Staff Serjeants' Quarters.

149. Vide remarks under this head in report on Cavalry lines.

150. A fire engine is supplied to these lines, but is practically utterly useless. The hose is so short that the engine has to be backed to the edge of the tank, and the engine is not then able to project water so as to reach even the nearest building.

Hospital.

151. The Hospital occupied by the sick of the two native infantry regiments is a large building, the contents of each half of which are set out in the following statement of the accommodation used by the sick of the 20th. As will be seen from this statement, the accommodation is by no means excessive, although it is sufficient for the present year, been eight years, exactly the number which is fixed by regulation. If, however, it is intended that this building should satisfactorily accommodate the sick of the two regiments, some additions should be made to it, not only to provide for cases of contagious special disease requiring isolation, but also to promote the comfort of the inmates of the hospital.

152. A detached cholera ward should be built in the line of the present latrines which are to windward of the hospital should be re-placed by latrine to the north-west of the present hospital (No. 18 of Cantonment plan) and beyond that again a separate ward should be built. The enclosure of the hospital, more particularly in the rear, should be considerably enlarged, and a deep verandah should be erected along whole length of the rear of the hospital so as to afford a suitable resting place for patients able to leave their beds. The enclosure wall generally should be lowered to not more than 1½ or 2 feet in height, and on this a palisading should be erected which would sufficiently prevent intrusion inside the hospital compound.

Table showing extent of present accommodation in the 20th Regiment N. I. Hospital at Bellary, including Ward, Verandah, Surgery, and out-buildings.

Block.	Rooms.	How occupied.	Dimensions.			Superficial area of each Room.	Cubic contents of each Room.	No. of Cots usually occupied.	Regulation No. at 99 square feet.
			Length.	Breadth.	Mean height.				
			Feet.	Feet.	Feet.	Feet.	Feet.		
1	1	Sick Ward	75	24	17½	1800	31050	26	18
...	1	Surgery (enclosed verandah)	22	9½	10	209	2090	...	...
...	1	Verandah... ..	53	9½	10	503½	5035	...	...
...	1	Cook House (one large room for both Regiments).	31½	14½	8½	456½	3994	...	...
...	1	Latrine..... ..	14½	11½	8½	166½	1459	...	...

153. A paved chabootra should be erected for the use of the patients and a suitable reservoir for water placed in the centre of this. Warm baths if required by the patients should, of course, be used within the building of the hospital.

The Apothecaries attached to the two regiments treated here are not provided with quarters. I have had occasion so frequently to bring this omission to the notice of Government, that I need here only remark that in order to promote the discipline of hospitals, to insure the greatest care being given to the sick and to increase the comfort of the Medical Subordinates attached to regiments, suitable residences for them should invariably be provided in close contiguity to, but not necessarily in the same compound as the hospital under their charge.

LINES OF THE 34TH REGIMENT.

154. These lines are so identical in point of construction and position with those of the regiment before noticed, that it is not necessary to dwell at any length upon them. The drainage of the lines of the 34th might be much improved, by directing the storm water towards the land lying south and south-west. To the west of the lines a large open maidan exists, in which a large quantity of prickly pear has been allowed to grow.

155. Two latrines were about to be built, one to each regiment to leeward of the lines. There should also, I think, be erected separate latrines for the females of each regiment, and the conservancy of these places should receive early consideration under the recent orders of Government.

156. Several inequalities of the ground at present existing in the vicinity of the lines require to be filled up. This had been to a certain extent effected during the three or four months previous to my visit by gangs of prisoners; but a good deal still remains to be done before the neighbourhood of these regimental lines could be considered as in a sanitary condition. Care should also be taken with reference to the disposal of the rubbish collected by the carts. It is complained that the sweepers attending these lines frequently throw the rubbish they collect into any hole that they may find, however near it may be to the lines.

Stringent orders should be issued that all rubbish thus collected should be moved to a distance of not less than one mile from the lines, and buried in pits covered in each day.

157. The Officer Commanding this regiment suggests that a latrine and a latrine to answer both purposes, should be erected close to the barracks and room of this regiment. In the propriety of this suggestion I fully concur, and before made a similar suggestion with reference to the 20th Regiment.

158. The military buildings attached to this regiment are strictly identical with those of the 20th. The guard-room of the 34th Regiment, however is low, and requires raising and might, for advantage, be enlarged.

LINES OF THE SAPPERS AND MINERS.

159. The A Company of the Sappers and Miners was located at Bellary, and been so for some months. No regular lines, however, had been built for these men of whom had purchased, and others of whom had hired groups of houses in the bazaar. Their huts were well kept and had been much improved by the industry of the men themselves. The military buildings attached to this regiment are, as mentioned, situated chiefly in the Fort.

The accompanying statement will show the dimensions of them and their of occupation.

Memorandum shewing the Military Buildings in use with the "A" Company Sappers and Miners, Left Wing, Old European Barracks, situated in the Fort at Bellary.

DESIGNATION OF BUILDINGS.	Dimensions.			No of Doors.	No of Windows.	REMARKS.
	Length.	Breadth.	Height.			
No. 1. Staff Serjeant's Quarters...	60	20	11	3	4	Divided into 3 Rooms.
" 2. do. do.	38	20	11	2	4	
" 1. Married.	20	20	11	2	4	
" 2. do.	18	20	11	2	4	
" 3. do.	12	20	11	2	4	
" 4. do.	18	20	11	2	4	
" 5. do.	18	20	11	2	4	Made into one quarter Rooms.
" 6. do.	18	20	11	2	4	
Guard Room	20	20	11	2	4	
Cook Rooms	20	20	11	2	4	
Men's Privies	24	9	11	2	4	
Female do.	34	9	16	2	4	
3 Sheds	10	8	16	1	4	Made into one quarter Rooms.
1 Temporary Magazine and Shed	36	14	10	1	4	
	12	12	10	1	4	

HEALTH OF THE TROOPS IN GARRISON.

160. Notwithstanding the high heat witnessed at this station, the health of troops, both European and Native, has generally been good. From 1847 to 1856-57 the total average mortality annum was only 18 per thousand among European troops, and of these 4.8 were attributable to cholera. The station, as compared with stations where European troops are located, occupied the third place when the stations were arranged in order of salubrity as tested by total deaths from all causes and when cholera was excluded from this calculation, Bellary stood second on the list.

161. So far as the health of Native Troops is concerned, Bellary stands equally well in regard to the mortality arising from all diseases, whether cholera be included or not; but both for Europeans and Natives it is found that Bellary presents a rather high per mille rate on sickness to strength.

162. Among the more important diseases witnessed at this station, cholera ranks first. It is satisfactory, however, to notice that although in former years this disease was extremely prevalent at this station, it has latterly been much less so, as will be rendered apparent when I proceed to analyze the Medical Returns of the different arms of the service stationed at Bellary at the time of my inspection.

163. Fever, chiefly of a continued character, is occasionally witnessed, but this does not present appearances of its being due to a malarious origin. On the contrary, the exceedingly dry condition of the atmosphere, the very slight rain-fall, and the absence of vegetation likely to decay, all seem in favor of the health of the Troops. Ophthalmia, however, is by no means infrequent, and is no doubt in great part referrible to the glare which is witnessed in the hot weather and to the dust storms which are by no means infrequent.

164. Guinea-worm is rather a common affection both among Europeans and Natives, but chiefly among the latter; this is a result which is likely to be anticipated where the water supply is so insufficient, and where many of the wells are almost dry during the greater portion of the hot season.

165. During the year 1866 a very considerable amount of sickness prevailed in the Native town of Bellary itself, and in the out-lying talooks of the Bellary district, but it is satisfactory to notice that fever and cholera did not exist to any considerable extent among the troops in garrison; there were no admissions from cholera either in the Horse Artillery or in the rank and file of the 76th Regiment of Foot, although in the families of the latter corps a few cases of cholera occurred, as before noticed.

166. The 1st Regiment of Light Cavalry had only two cases of Cholera up to the date of my inspection, 13th November; both of these cases recovered. The 20th Regiment M. N. I. had two admissions from Cholera, both of which proved fatal. The 34th Regiment C. L. I. had, during the past year, four cases of Cholera, three of which proved fatal. In the Sappers and Miners there were two cases of Cholera, both of which recovered. From the small number of attacks in these Native Regiments, and from the absence of Cholera among European troops (rank and file) as from the small number of admissions among the families of the latter regiments, we may conclude that Cholera in an epidemic form did not visit the military cantonment; this is the more to be wondered at, as the disease was prevalent in the bazaars not two miles distant, and between these places in the military cantonment constant intercommunication was taking place.

167. I now proceed to notice in detail such facts regarding individual regiments as would appear to be of chief importance, and in every case save in that of the Artillery,

an opportunity has been afforded of contrasting the health of the several regiments at this and at other stations or on the line of march.

168. The following Return shews that in the D Battery, during the year the ratio per thousand of admissions to strength was lower than during any of the previous four years, and only a death-rate per thousand was only nine, and only a death occurred during the current year.

Sanitary Return of the D Battery D Brigade Royal Horse Artillery, up to 31st October

YEAR.	Where station- ed.	Average daily strength.	Average daily sick.	Total admis- sions to Hos- pital.	Total deaths in Hospital.	Total admis- sions from Cholera.	Total deaths from Cholera.	Rates per thou- sand of admis- sions to strength.	Rates per thou- sand of deaths to strength.	Rates of admis- sion from Cholera.	Deaths from Cholera.	Admissions from Cholera.
1862	Bellary.	131	7 1/2	257	...	4	...	1961	...	15	...	253
1863		143	15 1/2	270	...	1	...	1888	13	3	...	272
1864		141	12	272	...	...	...	1926	21	...	...	272
1865		157	19	299	...	1	...	1904	6	3	3	272
1866		104	14	217	1	...	...	1086	9	...	...	217

169. As regards the 76th Regiment of Foot, the following table shews that, as compared with Fort St. George, the number of admissions per thousand of strength and the number of deaths in the same ratio is considerably less in Bellary at Madras. For while the regiment had a death-rate from all causes of 19.23 per thousand during the first year of its residence in India in nearly eleven months of 1864, at Bellary the death-rate amounted only to 7.63, nor were the rank and file of the regiment attacked by Cholera.

Return showing Sickness and Mortality in H. M.'s 76th Regt. of Foot, during the year 1864.

Where Stationed—Madras,* Bangalore,† Bellary‡.	1864.	1865.
Average daily Strength.....	884	863
Do do Sick.....	65	61
Total admission into Hospital.....	1333	1352
Do deaths do.....	17	11
Do admission from Cholera.....	5	1
Do deaths do.....	2	1
Admission exclusive of Cholera.....	1328	1351
Deaths do.....	15	10
Ratio per thousand of		
1. Admissions to Strength.....	1507.94	1566.63
2. Deaths.....	19.23	12.71
3. Admissions from Cholera.....	5.65	1.15
4. Deaths do.....	2.26	1.15
5. Admissions exclusive of Cholera.....	1502.26	1565.46
6. Deaths.....	16.96	11.58

* The Regiment arrived from England in three divisions, 1st on 26th January; 2nd, 31st January, and the 3rd on the 28th April 1864. Madras from 1st January to 13th November. Camp Bangalore from 14th November to 2nd December, en route to Bellary by wings 15th December to end of year, 1865.
† The Regiment left Madras by wings on the 13th November and 3rd October and were encamped at Bangalore on the 5th and 23rd December, whence it proceeded by march to Bellary.
‡ The Regiment arrived at Bellary by wings on the 8th and 16th January by march from Bangalore.

170. Although the death-rate of the soldiers has been favorable, it is unsatisfactory to have to record that not only has there been an unusual amount of sickness, but there also has been a large mortality among the children, as compared with former years. Among them deaths from all causes in ten months of 1866 amounted to 18 on a strength of 143, being at the rate of 125 per thousand for ten months, or 150 per thousand per annum. The death-rates for the years 1864 and 1865 were 96 per thousand and 62 per thousand respectively. Among the women only two deaths occurred in each year of 1864-65 and 66. Those in the year 1866 were from cholera. An equally unfavourable condition of the health of the children of the Artillery was apparent in 1866, although the very small numbers of these scarcely allow the institution of any comparison between them and the children of the 76th Regiment. It is to be remarked that in the Artillery an equally high rate of mortality occurred together with a very high number of admissions as compared with strength. It is not, however, necessary to dwell at any length upon the latter point, as owing to the very imperfect accommodation afforded by the hospital, it was not found possible to admit into it all the sick children of the two Regiments. Ophthalmia was exceedingly prevalent during the year, and scarcely a family in the married quarters escaped without some cases of it. The mortality throughout the whole of the Presidency among the children of British troops in the year 1865 amounted to 71 per thousand, shewing very unfavorably as regards infant life at Bellary during the past year.

171. It will be observed that the unusually high mortality noticed in the 76th Regiment and Artillery at Bellary was chiefly among very young children; diarrhoea, convulsions, teething, and atrophy, being among the chief diseases. Much of the illness ending thus fatally, was no doubt attributable to the difficulty of procuring suitable food for the young children; the prices of bread, rice, sugar, and milk rose enormously, and there was no corresponding increase in the allowance granted to the soldiers for the maintenance of their families. It is, I think, worthy of consideration, whether in times of scarcity so extreme as that witnessed in Bellary during 1866, an increased allowance should not be made to compensate for the extreme dearth of provisions.

172. We may accept as a fair proof of the enormous rise in the price of provisions during the famine, the fact that all the provision contractors, with one exception, preferred to sacrifice their contracts and pay forfeit to Government rather than continue to supply provisions at the rates agreed upon, and the Commissariat Officers found it necessary to issue fresh contracts at considerably enhanced rates.

1ST REGIMENT OF LIGHT CAVALRY.

173. The 1st Regiment Light Cavalry has been at the station of Bellary since the year 1862, and the accompanying returns indicate that since that time it has enjoyed a remarkably high state of health. The health of this regiment was, during the years 1863 to 1866 inclusive, much better than when they were stationed at Bangalore.

Return shewing Sickness and Mortality in the 1st Regiment L. C. during the years 1862-63-64-65 and 1866.

Where stationed.	Bangalore.	Bellary.		
	1862.	1863.	1864.	1865.
Average daily strength				360
Do. do. sick				34
Total admissions in Hospital	344	339	353	140
Do. deaths do.	104	7	199	...
Do. admissions from cholera	282	232	2	...
Do. deaths do.	1	...	...	...
Admissions exclusive of cholera	...	...	...	140
Deaths do.	282	232	199	3388
1. Rates per thousand of admissions to strength	1	...	563.7	...
2. Deaths do.	819.7	684.3	5.6	...
3. Admissions from cholera do.	2.9	...	...	...
4. Deaths do.	...	...	...	...
5. Admissions exclusive of cholera do.	...	...	...	...
6. Deaths do.	819.7	684.3	563.7	3855

1st Regiment Madras Light Cavalry.

YEARS.	ADMISSIONS													Total.
	Fevers.	Diarrhoea.	Dysentery.	Cholera.	Atrophy.	Anasarca.	Diseases of the Lungs.	Diseases of the Liver.	Rheumatism.	Veneral.	Ulcers and Sores.	Wounds and Injuries.	Diseases of the Eyes.	
1861.....	32	12	4	1	3	...	...	...	15	5	52	43	4	193
1862.....	67	8	4	...	...	...	...	...	10	4	60	79	12	275
1863.....	64	9	9	...	...	...	...	...	7	4	53	52	6	216
1864.....	48	6	4	...	...	...	...	...	9	1	42	42	29	188
1865.....	57	2	4	...	...	...	...	...	6	3	18	21	6	129
1866 (ten months) {	41	9	8	2	...	...	...	...	4	...	22	23	3	115

YEARS.	DEATHS.													Total.
	Fevers.	Diarrhoea.	Dysentery.	Cholera.	Atrophy.	Anasarca.	Diseases of the Lungs.	Diseases of the Liver.	Rheumatism.	Veneral.	Ulcers and Sores.	Wounds and Injuries.	Diseases of the Eyes.	
1861.....	...	...	...	1	...	...	...	...	...	...	...	...	...	...
1862.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1863.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1864.....	1	...	...	...	...	...	...	...	...	...	...	...	...	...
1865.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1866.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...

20TH REGIMENT MADRAS NATIVE INFANTRY.

174. This Regiment was stationed at Penang during 1862 and 1863. In January 1864 it left that station in detachments for Madras, where they arrived on the 15th February and left in two detachments, the head quarters starting on the 15th February for Tripatore and the remainder of the Regiment on the 6th July for Bangalore. The head quarters marched from Tripatore to Bangalore and were attacked by Cholera in epidemic form almost immediately on commencing the march; this attack was referrible to the fact that the regiment (which was returning from foreign service) joined by the families who had been residing at Vellore during the absence of the Regiment in the Straits, fifty-one cases occurred at this time, of which twenty-four proved fatal. In July and August of the same year five cases occurred, of which three were fatal. It will be seen from the following table that during 1865 and 1866, the mortality has been

exceedingly low, only ten deaths having occurred from all causes in two years. The mortality in 1864 is high in consequence of the Cholera epidemic above noticed, but contrasting the health of the regiment at Bellary with that at Penang, it would appear that the former station is justly entitled to a character of being salubrious for native troops.

20th Regiment Madras Native Infantry.

YEARS.	ADMISSIONS.													Total.	All other Diseases.	General total.
	Fevers.	Diarrhoea.	Dysentery.	Cholera.	Atrophy.	Anasarca.	Diseases of the Lungs.	Diseases of the Liver.	Rheumatism.	Veneral.	Ulcers and Sores.	Wounds and Injuries.	Diseases of the Eye.			
1861.....	346	212	93	...	14	1	27	1	75	30	62	47	8	90	1,010	1189
1862.....	170	138	89	...	10	3	26	1	86	36	44	38	10	61	716	8468
1863.....	119	48	42	1	7	2	19	...	53	34	25	32	2	16	401	477
1864.....	182	45	47	56	18	...	16	...	27	40	34	17	26	16	524	598
1865.....	176	10	37	2	8	3	13	...	55	35	18	16	26	20	431	491
1866 (ten months) {	57	29	37	2	11	3	3	2	33	31	18	55	9	5	306	329

YEARS.	DEATHS.													Total.	All other Diseases.	General total.
	Fevers.	Diarrhoea.	Dysentery.	Cholera.	Atrophy.	Anasarca.	Diseases of the Lungs.	Diseases of the Liver.	Rheumatism.	Veneral.	Ulcers and Sores.	Wounds and Injuries.	Diseases of the Eye.			
1861.....	1	3	2	...	2	...	1	...	...	...	...	...	...	9	1	10
1862.....	2	1	...	...	1	1	1	...	2	...	...	...	...	8	2	10
1863.....	...	3	1	...	...	1	...	...	...	...	...	...	...	6	1	7
1864.....	1	3	1	27	2	...	1	...	...	...	...	...	...	53	1	54
1865.....	3	...	...	...	...	...	...	...	...	...	...	...	...	4	1	5
1866.....	1	1	...	2	...	1	...	...	...	...	...	...	...	5	...	5

Return shewing Sickness and Mortality in the 20th Regt. N. I. during the years 1862-63-64-65-66.

	At Penang.		At Bellary.		
	1862.	1863.	1864.	1865.	1866.
Average daily strength	439	488	426	640	493
Do. do. sick	47	31	25	181	18
Total admissions in Hospital	846	477	598	491	329
Do. deaths do.	10	7	36	5	5
Do. admissions from cholera	...	1	56	3	2
Do. death from do.	...	...	27	1	2
Admissions exclusive of cholera	846	476	542	488	327
Deaths exclusive of cholera	10	7	9	4	3
1. Ratio per thousand of—	1927.1	979.5	1403.75	781.25	667.36
2. Admissions to strength	22.7	14.34	84.5	7.8	10.14
3. Deaths	...	2.05	131.45	4.5	4.05
4. Admissions from cholera	...	...	63.38	1.56	4.50
5. Deaths do.	1927.1	979.5	1272.30	776.70	663.31
6. Admissions exclusive of cholera	22.7	14.34	20.12	6.24	6.9

34TH REGIMENT C. L. I.

175. This Regiment embarked for foreign service on the 13th April 1863, and the troops were landed at Singapore on the 29th of the same month. On the 11th March 1866, they re-embarked for India, and going by train to Cuddapah, marched thence to Bellary. No cholera appeared during this march, but in July of the present year at Bellary four cases occurred, of which three were fatal. It is to be

37
lying to the south-west and south-east of the fort, and named respectively Bruce
Pettah and the Cowle bazaar; the former is within civil limits, and the latter within
those of the military cantonment.

With this distinction, they have almost all points in common, and each of each is superintended by a municipality.

BRUCE PETTAH.

177. The condition of Bruce Pettah, and that of Mellor Pettah which closely adjoins it, are identical.

The main streets, which in Bruce Pettah are very wide and straight, lie in the directions north-west and south-east, and north-east and south-west, and are thus exposed to the influence of the prevailing winds. The two main roads form a cross in the centre of the town and from them small streets of a width of from 25 feet to 60 feet branch off, and form a network of roads between and along the sides of which is a dense mass of native houses. A very few Europeans and East Indians live within the limits of this native town, but generally in isolated positions.

178. Although the main roads are generally clean, good, and in excellent order, and on the whole built with some regularity, yet the smaller streets are narrow, ill kept and filthy in the extreme. Some of the roads end in a *cul de sac* so narrow as to prevent the turning of a conservancy cart in it, while a total disregard of decency and cleanliness allows the deposit of human ordure, house-sweepings and refuse of all kinds in these lanes. The stench of these places is abominable.

179. Even in the main street nuisances abound, the drainage is very imperfect, square channels laid badly as regards levels and faced with coarse slabs of undressed granite afford abundant lodgment for solid and liquid sewage, the latter also percolating through fissures between the ill-laid slabs of granite.

180. The houses fronting to the street do not follow one straight line, but are some of them projecting over the rude side drains, or in other cases far removed from it, while the regularity of its course is prevented by projecting houses and other obstructions.

181. This town therefore is no exception as regards its defective sanitary condition to the native towns of this Presidency. But the size and dense population of Bellary render the existence of these sources of nuisance unusually injurious to the health of the inhabitants.

182. Disgusting as are so many parts of the town, it is perfectly feasible to remedy much of the existing evil. For a population of 23,000 people only a few latrines are now in use, and a very considerable increase upon this number is urgently required.

183. On the outskirts of the Bruce and Mellor Pettahs, and through every piece of waste ground may be seen rising what may, without exaggeration, be called forests of prickly pear. Rising to a height from three to six feet they afford ample shelter from observation to the poorer classes who resort to them for the purposes of nature.

Prickly pear.

DEATHS.														
1861.....	...	...	...	1	1	...	...	...	...	...	...	...	...	6
1862.....	...	...	2	3	...	...	...	...	...	...	...	...	...	7
1863.....	1	1	...	1	1	1	2	...	...	...	...	...	...	17
1864.....	2	8	...	1	1	2	...	3	...	...	...	...	...	18
1865.....	2	5	2	...	4	1	2	...	2	...	...	...	...	13
1866.....	4	2	1	3	1	1	...	9	...	...	...	...	...	

Return shewing Sickness and Deaths.

Return shewing Sickness and Mortality in the 34th Regiment C. L. Infantry, during the years 1862-63-64-65-66.

the years 1862-63-64-65-66.				
	Madras.	Singapore.		
	1862.	1863.	1864.	1865.
Average daily strength.....	703	716	717	706
Average daily sick.....	12	14	15	21
Total admissions into Hospital.....	370	385	446	410
Do. deaths.....	7	8	20	23
Do. admissions from Cholera.....	5	3	1	1
Do. deaths.....	3	1	1	0
Admissions exclusive of "Cholera.....	365	382	445	409
Deaths.....	4	7	19	22
Ratio per thousand of—				
1. Admissions to strength.....	526.31	537.7	622.03	580.7
2. Deaths.....	9.9	11.1	29.2	31.1
3. Admissions from "Cholera.....	7.1	4.1	1.3	1.4
4. Deaths.....	4.2	1.3	1.3	1.4
5. Admissions exclusive of Cholera.....	19.21	553.5	623.4	579.3
6. Deaths.....	5.7	9.7	26.4	31.1

NATIVE TOWN OF BELLARY.

176. The map prefixed to this report indicates clearly the position and disposition of the various parts of the town of Bellary.

The native population of the town is chiefly to be found in two large bazaars.

184. Old roofless houses are similarly used and the present conservancy establishment is either unable or unwilling to clean these. Large holes are frequently to be seen, from which road-making, or mud for the construction of houses, have been taken, and the holes are used, from the shelter from observation which they afford, as latrines. There seems to have been little or nothing done hitherto to check the creation of these sources of annoyance or to remedy them when in existence. The sanction of Government to the employment of able bodied poor during the prevalence of the distress, general throughout the Bellary district, has led to the employment of large gangs of coolies in levelling uneven ground and filling up some of the miserable pits of this kind to be found all over the civil bazaars and their environs.

185. I must specially call attention to a chuckler's bazaar near the market which is little creditable to the authorities, magisterial, municipal, who have suffered its existence. The houses are miserably built and densely populated. Attention directed to this place from the horrible odour proceeding from it; so persons indeed as to make itself known at a considerable distance. On a nearer inspection place was found to be situated on tolerably high ground and naturally presenting facilities for drainage. But the dense collection of huts was found huddled together without in many places, the pits from which the materials for the construction of these had been excavated were more or less filled with house-sweeping and filth of the most disgusting kind in a state of decomposition, causing the most noxious and offensive exhalations. Drains full of black semitenacious sewage polluted the open spaces before and behind the houses. The ground unoccupied by dwellings was one vast latrine and presented clear indications of not having been cleaned for days. Indeed, the only scavengers who ever work here are a horde of lean, ill-favoured pigs, which abound in the neighbourhood. Vast mounds of decomposing house-sweepings and decaying vegetable matter were piled before the houses, and the whole atmosphere was sickening. Houses and roofless ruined tenements aided in the diffusion of the horrible smells met one at every turn, and the general squalid appearance of the inhabitants, whose number appeared very considerable, gave evidence as to the evil conditions in which they lived.

186. No carts ever visited the place, no latrine was in existence for its inhabitants whom caste prejudice would exclude from association with others; but it was stated in excuse for these omissions that the inhabitants did not pay municipal taxes. On further enquiry, however, it was apparent that all the houses were rated and had paid taxes some time, when finding that no assistance was given by the Municipality the inhabitants ceased to contribute to funds from which they reaped no benefit.

187. I may remark that poor localities, such as this, are especially fit objects for the care of the Municipality, and that if not most carefully watched, they are certain to become foci of fatal epidemic disease.

188. For convenience of arrangement of duties, &c. the Municipal limits have been divided into six divisions, four of them meeting at the centre of Bruce Pettah. Each of these divisions marked A, B, C and D has two carts allowed to it, and of these, one is sent occasionally to Mellor Pettah once or twice a week.

189. In Mellor Pettah, thus insufficiently supplied with systematic conservancy, there are 450 houses which probably contain some 4,000 inhabitants. There are no latrines either in Bruce Pettah or Mellor Pettah.

COWLE BAZAAR.

190. The Cowle bazaar was and will still probably be included in military limits, and lies south-west of the Fort but separated from it by the southern end of the Fort ditch tank. It is bounded on the north by a public road; on the east by the main tank and open ground erected to collect the rain-fall so as to divert it into the main tank; on the south by open ground much overgrown with prickly pear and largely resorted to as latrines by natives; and on the west by the native cavalry lines and the houses of officers of that corps. These several places should, on sanitary grounds, be protected from the ill effects of any causes likely to generate illness or annoyance from want of conservancy in the bazaar.

191. It is however much to be regretted that few native villages could possibly be more deserving of reprobation for want of drainage, imperfect conservancy, and insufficient latrine accommodation. One of the natural results of this is witnessed in the frequent appearance of cholera in this place. The vicinity of the bandy stand (now under water), the chuckler's lines and the public slaughter-house, which is merely a space of open ground reeking with abominable stenches and nuisance of every kind, sufficiently account for outbreaks of epidemic disease.

The tanneries, two of which are placed, for convenience, close to the slaughter place, are also a source of serious nuisance.

These tanneries are three in number, and are private property. I found in Tannery No. 1—18 steeping pits and 27 dyeing pits.

"	"	2—30	"	"	and 14	"	"
"	"	3—38	"	"	and 153	"	"

192. On the occasion of my inspection these places were found not only in themselves a source of nuisance, but as attracting to their neighbourhood a large number of low caste people who, as squatters, erect miserable hovels in their close vicinity. These groups of huts, varying in number from two to twenty, are built utterly without any system of arrangement as to situation or regularity and they give shelter for the commission of nuisances.

193. The conservancy of the bazaar is under the control of the Municipal Commission, presided over by the Major-General commanding the division. But the executive functions of this body are carried out under the directions of the Sub-Committee, whose head is the Brigade Major. This body meets once a week, when the Secretary submits orally a report upon the proceedings of the week. The establishment for conservancy purposes consists of six carts with bullocks and drivers, accompanied by two sweepers to each cart. These carts go round their appointed districts from 5 A.M. to 10 A.M., and from 2 P.M. to 5 P.M. These carts are allotted as follows,—one to the main public road, two to division 1st, and one each to divisions 2nd, 3rd, and 4th.

194. The population is supposed to be about 17,000, at a computation of persons to each of 3,400 houses, but this is shewn by comparison with other native towns to be based on incorrect data; eight or nine would be a more correct number of inhabitants to each house.

195. There are eleven latrines, of which one only is of permanent construction and not yet opened for use: it will be so immediately. The other latrines are simply enclosures by mud walls and they are arranged in five sets, each having one latrine for males and another for females.

Since the recent rains, four of the places are useless, having entirely fallen down and one is in a ruinous condition, thus only five were actually in use when I inspected Bellary.

The sites of these latrines had not been selected with sufficient care, for some of them had been placed in close proximity to the main tank, and were now submerged by the overflow of it in consequence of the late monsoon. These are destroyed, and two others equally ill-placed close to a public road directly south of the eastern end of the water reservoir in the fort ditch.

For the dense population of this bazaar not less than eight double sets of latrines should be erected.

By the foregoing arrangement the bazaar can be well supplied with public conveniences, and on the erection of these the commission of public nuisances should be suppressed by the rigid enforcement of the provisions of the Police and Town Improvement Acts.

196. Among the measures which require the immediate attention of the Municipality are:—

1. The removal of all slaughter-houses, tanneries, and bandy stands, to the south of the town where a suitable space of ground within military limits should be cleared of prickly pear, and the conservancy of this place should receive due attention.

2. The erection of latrines as before suggested.

3. The strict punishment of all persons committing nuisance.

LOCK HOSPITAL.

197. One of the most fruitful sources of illness among the military is the prevalence of venereal disease. This is due to the presence in this bazaar of a very large number of prostitutes of the lowest order. The necessity for the rigid enforcement of the rules sanctioned to control prostitution should be here, as soon as possible, instituted. It will be seen below, that I consider that it would be most desirable that a Lock Hospital should be placed in this bazaar, as it is only by placing such an Institution within easy access of public women, that we can hope to make the Institution practically useful.

198. The present Lock Hospital consists of two outbuildings of small size attached to the Civil Dispensary (vide plan). They were formerly used as stables and are fitted with 14 fixed raised chunam sleeping places in each.

The number of patients is however seldom fourteen, and indeed owing to the defective arrangements now in force for the detection and control of prostitution, the hospital does little more than afford a shelter to women who voluntarily come there when entirely unfitted for the practice of their calling by sickness resulting from their mode of life.

If this Institution is to be made of practical use, it should be situated in the Cowle Bazaar.

A good bath-room exists between the wards. It is however little used:

199. The latrine is covered in and consists of a small apartment six feet square with a curtain wall. It is little used and the patients resort to the shelter only of its shadow to protect them from the sun, and they resort in preference to the ground immediately surrounding the building. Nothing could be more filthy than this place on every occasion of its being visited.

200. The establishment attached to this Institution was one chowdranee or Matron and two native female coolies.

201. The system in force for the control of prostitution is highly inefficient. When the chowdranee complains of any woman as labouring under syphilitic disease, the person accused is summoned before the Cantonment Magistrate, by whom she is sent to hospital where, if found to be diseased, she is detained until cured. Unwillingness to submit to the very little control implied in the practice, as explained, has induced almost all prostitutes to take up their residences outside military limits, and here the Lock Hospital establishment possesses no controlling authority.

202. The following table shows the working of the Institution during the past five years and in 1866 up to date of my inspection (12th November).

Return showing the Sickness and Mortality of the Lock Hospital at Bellary,
from 1861 to 1866 (part of).

Years.	DISEASE.	Remained.	Admitted.	Total.	Cured.	Absented.	Died.	Remaining.	REMARKS.
1861	Syphilis Primaria	12	67	79	68	2	...	9	
	" Secondaria	...	2	2	2	...	...	...	
	Gonorrhœa	22	190	212	186	4	2	20	
Total...		34	259	293	256	6	2	29	
1862	Bubo	...	1	1	1	...	...	...	
	Syphilis Primaria	9	76	85	62	9	2	12	
	Gonorrhœa	20	170	190	166	13	...	11	
Total...		29	247	276	229	22	2	23	
1863	Bubo	...	4	4	4	...	...	...	
	Gonorrhœa	...	...	...	...	...	...	...	
	Syphilis Primaria	11	108	119	102	11	1	5	
	" Secondaria	12	74	86	74	2	2	8	
	Tumour	...	2	2	...	...	1	1	
Total...		23	189	212	181	13	4	14	
1864	Gonorrhœa	5	51	56	55	...	...	1	
	Syphilis Primaria	8	54	62	49	2	4	7	
	" Secondaria	1	2	3	3	...	...	...	
Total...		14	107	121	107	2	4	8	
1865	Bubo	...	2	2	1	...	1	...	
	Gonorrhœa	1	127	128	121	1	1	5	
	Syphilis Primaria	7	55	62	55	1	1	5	
Total...		8	184	192	177	2	3	10	
1866 10 Mons.	Gonorrhœa	5	101	106	95	3	1	7	
	Syphilis Primaria	5	70	75	61	3	1	10	
	" Secondaria	...	2	2	2	...	...	...	
	Total...	10	173	183	158	6	2	17	

BELLARY,
12th November 1866.

203. The presence of this Lock Hospital within the limits of the Civil Dispensary has been found to interfere with the popularity of the latter Institution; and the site of it is inconvenient and unsuitable as being outside military limits.

The Dispensary is distant three miles from the Cantonment, and at a very considerable distance from the residences of those public women who are supposed to resort to the European soldiery. In fact the Institution, so far as it is intended to free the soldiery from liability to incur venereal disease, must be regarded as of little use.

204. The Lock Hospital should be located in the Cowle bazaar which will probably always be within Military limits.

JAIL AT BELLARY.

205. I have recently had occasion to submit to Government a detailed account of the accommodation afforded by, and the number of prisoners confined in this jail. In this report recommendations for the enlargement and improvement of this prison are fully given.

I have therefore only to submit a few observations on the state of health of the prisoners.

206. The following tables shew in detail the rates of sickness and mortality among the prisoners.

The diseases most prevalent among natives in this Jail are shown in the following Return. It will be observed that Guinea Worm is a fruitful source of sickness.

YEARS.	ADMISSIONS.													REMARKS.
	Fever.	Diarrhoea.	Dysentery.	Cholera.	Atrophy.	Anasarca.	Diseases of Lungs.	Diseases of Liver.	Rheumatism.	Veneral.	Ulcer.	Wounds.	Diseases of the Eye.	
1859-60.....	25	7	8	4	9	3	10	...	11	2	8	15	2	* Beriberi.....3
1860-61.....	64	15	10	...	4	3	13	...	13	4	5	45	4	+ Do. 1
1861-62.....	63	46	21	11	5	1	4	...	14	3	24	87	8	† Varicella.....20
1862-63.....	159	24	14	9	16	4	1	...	54	12	46	48	11	‡ Do. 2
1863-64.....	56	11	12	1	8	...	4	...	24	8	36	30	7	Icterus.
1864-65.....	29	9	22	3	5	1	3	...	3	13	21	25	7	
1865-66.....	40	9	16	4	8	4	1	...	16	4	38	18	3	
Total...	436	121	103	32	55	16	36	1	135	46	178	268	42	

YEARS.	DEATHS.													REMARKS.
	Fever.	Diarrhoea.	Dysentery.	Cholera.	Atrophy.	Anasarca.	Diseases of Lungs.	Diseases of Liver.	Rheumatism.	Veneral.	Ulcer.	Wounds.	Diseases of the Eye.	
1859-60.....	1	0	...	...	6	2	3	...	...	3	...	1	...	* Beriberi.
1860-61.....	1	2	...	...	1	1	2	...	1	...	...	...	...	
1861-62.....	2	7	...	5	4	1	1	...	2	...	...	...	...	
1862-63.....	0	2	1	3	8	2	...	...	7	...	6	1	...	
1863-64.....	5	7	4	...	6	...	1	...	...	1	...	...	...	
1864-65.....	1	5	6	1	2	1	...	...	...	1	...	...	...	
1865-66.....	1	3	3	...	3	2	1	...	...	2	...	...	...	
Total...	11	26	14	9	30	9	8	...	19	1	14	2	...	

207. The following table shows the sickness and mortality among the prisoners confined in this Jail during the past five years.

YEARS.	Average daily strength.	Average daily sick.	Admissions into Hospital.	Deaths in Hospital.	Average daily sick to strength per mille.	Admissions to strength per mille.	Deaths to strength per mille.	Deaths to admissions per mille.
1859-60	469	11	247	26	23.4	526.6	55.4	105.2
1860-61	416	8	251	12	19.2	603.3	28.8	47.8
1861-62	415	22	567	35	53.01	1366.2	84.3	61.7
1862-63	564	26	606	38	46.09	1074.4	67.3	62.7
1863-64	522	22½	372	54	42.7	712.6	103.4	145.1
1864-65	506	16½	251	22	32.6	496.04	43.4	87.6
1865-66	487	14½	310	26	30.6	636.5	53.3	83.8
Average..								84.8

208. The proportion of deaths to strength is very high, but the cause of this is of easy explanation, when it is remembered that the Jail has been for a long time past greatly overcrowded, and that during 1866 much scarcity prevailed and that the prisoners admitted were in a sickly, starved condition.

CIVIL DISPENSARY.

209. This Institution is badly situated for the convenience of the town's people. It is placed at the extreme north-east angle of the Mellor Pettah. The bazaar close to it is thinly inhabited and it is removed a considerable distance from the greater portion of the Bruce Pettah and more than two miles in a direct line from the western portion of the Cowle bazaar. Persons from the latter place would have a distance of nearly three miles to walk to reach the Dispensary.

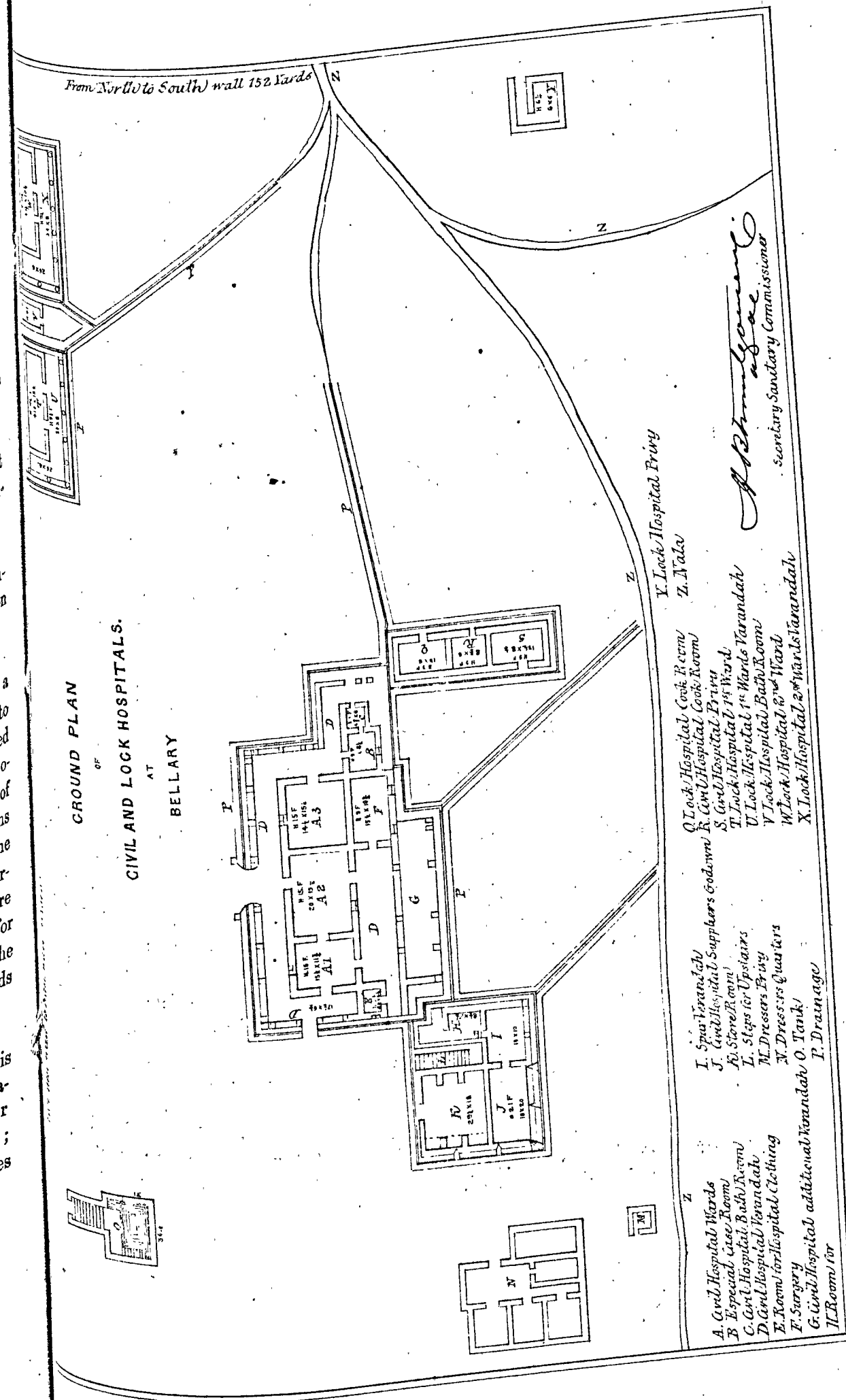
210. It is the opinion of several native gentlemen who were consulted, that if a good Dispensary were located in the Cowle bazaar, or on some equally eligible situation, a considerable increase in the subscriptions and in the usefulness of the Institution would result from the change.

211. A good site for a new building would be found to the west of the present Collector's Cutcherry, where ground, the property of Government, could be assigned to it.

The present Dispensary was formerly a private residence. It is in a large compound, and if the position relative to the bazaar was better chosen, the ground on which it stands would be most suitable.

212. The building itself, however, is deficient in almost all the requirements of a good hospital. The wards open into one another or into the front, or end verandahs. They are small, little raised from the ground, and from their size, they can accommodate a very small number of patients. There are no separate wards, and cases of cholera or of ordinary contagious disease must, if admitted, be treated in the verandahs or in one of the smaller rooms which would be quite insufficient to hold even one native convict in a Jail. As will be seen by the statements contained in that portion of this report entitled "The health of troops," both cholera and small-pox are not unusual sources of sickness and death at this station; yet cases of this kind are, for want of suitable accommodation in the Dispensary, sent off to a Chuttrum adjoining the Tahsildar's Cutcherry, where they are attended by the Dispensary Dresser, who sends medicine, but can of course only visit the place very occasionally.

213. Although, as stated above, the building is ill-suited for a dispensary, it is but just to add that the building and bedding were remarkably clean and that the patients were evidently cared for with as much attention as they could be in any Hospital; but the Dispensary itself is miserably poor and sadly deficient in many requisites essential to the well being of the sick.



215. The most correct standard to be accepted in estimating the rates of mortality in this Institution must be that shown by a comparison of the numbers of admissions and deaths, and the following will give the actual rate per mille, thus calculated:—

Year.	Admitted.	Died.	Rate per mille.
1861	340	14	41
1862	327	19	58
1863	262	20	76
1864	97	14	144
1865	135	22	162
1866, up to } October 31st }	179	30	167

Average... 108

The high mortality from Dysentery, Diarrhoea and Cholera will, to some degree, account for the large death-rate of those treated as in-patients.

216. After a careful perusal of the Annual Reports of this Dispensary, commencing from 1859, the following facts regarding the general health of the population of Bellary are of interest.

Cholera prevailed during the greater part of 1859. 335 cases were recorded, of which 91 or 27 per cent. proved fatal. The great majority of deaths occurred among emaciated and poverty-stricken natives. It was then remarked by Dr. Forbes that additional accommodation for the sick was required in the bazaar itself, for the Medical Subordinate establishment was found unable, from its paucity, to afford efficient medical aid in all directions through Bruce Pettah and the Cowle Bazaar. This observation now applies with even greater force than in 1859, for the population of the two places has risen to an aggregate of 40,000 souls. One Dresser only is attached to the Dispensary, and he has also to attend to the Lock Hospital.

217. The removal of the Dispensary from its present situation becomes, therefore, a matter of urgent necessity, and should receive the immediate attention of the authorities. In 1861 Dr. Forbes drew attention to the want of accommodation for cases of cholera and small-pox. This want remains unsupplied to this day, and the Chuttrum next to the Tahsildar's Cutcherry, to which cholera cases are transferred, is a most unsuitable place for such cases. It has none of the appliances of a hospital, and is a source of serious danger to the Taluq officials who are daily employed at the Cutcherry. In the year 1861, Dr. Jackson notices the beneficial effect of distributing medicine for cholera to the different tannahs, but this cannot be regarded as more than a very slight means of alleviation during times of epidemic disease.

218. In 1863 Dr. Jackson noticed the great want of a Lying-in ward as labour "cases come in freely," and he adds: "Indeed, respectable women in cases of difficulty at once come, and are most solicitous of European aid." It is much to be regretted that

this suggestion was not attended to. A curious illustration of the propriety of it was seen during my inspection of the Dispensary, when a woman, recovering from childbirth, was found in one of the Lock Hospital Wards surrounded by diseased prostitutes of the lowest order.

219. The most prominent wants of the Dispensary are (1) iron cots in lieu of the present boards and trestles, (2) separate wards for contagious cases, (3) a separate Lying-in ward, (4) a good Surgery, capable of serving as an Operation-room if necessary, (5) the entire separation of the Lock Hospital from the Dispensary.

The removal of the Institution to a central position is so urgently required, that I do not deem it requisite to suggest minor improvements in the present very unsuitable building.

Return showing the Sickness and Mortality in, and cost of maintenance of, the Civil Dispensary, Bellary, from 1861 to 1866, (part of).

YEARS.	Number of In-Patients.	Number of Out-Patients.	Average daily sick.		Income.	Expenditure.	REMARKS.
			In-Patients.	Out-Patients.			
1861.....	340*	3543	11	82	23 1870 14	9 1870 14	*When the Dispensary was supported solely by Government.
1862.....	327*	3597	14	56	31 2448 4	4 2418 4	
1863.....	262*	3815	12½	46½	44 2343 10	6 2343 10	† Since 1st January 1864 self-supporting by voluntary contribution (excluding all payments made by Government.)
1864.....	97	3447	7½	33½	18 1744 7	8 1155 9	
1865.....	135	4661	8½	29½	56 2003 7	2 1233 4	
1866 (part of)	179	4430			59 2102 10	6 1338 2	

* During these three years the Police were treated at the Civil Dispensary. They are now treated in the Garrison Hospital.

* Annual Subscriptions..... Rs. 1435 0 0
† Monthly Subscriptions Rs. 31-14-0 " 382 8 0
Total... " 1817 8 0

§ Of this amount only about 1,200 Rs. could be collected.
‡ Of this amount, monthly, only 4 Rs. could be collected.

220. The high prices of provisions have acted injuriously on this Dispensary and lessened its income materially, as the foot-notes of the foregoing table show. But there are also other circumstances which impede its prosperity. Very little interest in it is apparent on the part of Europeans, and little or no check appears to be exercised over the expenditure of the funds.

221. Up to 31st December 1863, all the cost of maintenance was defrayed by Government; since that date the expenses have been met from private subscriptions and donations, supplemented by the gratuitous supply by Government of the services of a Medical Officer and establishment, house-rent and medicines. From the preceding table and that submitted below, it will be seen that the charge for each in-patient has increased enormously, and in 1864 the cost of each in-patient was out of all proportion to past and subsequent years. The sum expended then was nearly double that during 1866, a famine year. The cost of providing diets, wine and spirits and sundries, was when the Institution was managed by Government, as follows:—

	RS.	A.	P.	
1861.....	278	7	3...	Dieting sick.
	161	3	1...	Perishable, &c.
	17	5	2...	Other charges.
Total...	456	15	6	
1862.....	378	13	5...	Dieting sick.
	8	6	9...	Wine and spirits.
Total...	387	4	2	
1863.....	359	15	8...	Dieting sick.
	39	13	10...	Wine and spirits.
	166	12	2...	Other charges.
Total...	566	9	8	

} 340 Patients at a cost of 1-5 6 per head.

} 343 at a cost of 1-2-0 per head.

} 275 at a cost of 2-1-6 per head.

222. A very notable increase of expenditure occurred, when the Institution became self-supporting.

The cost per patient rose in 1864 to 12-0-0, in 1865 it was 9-2 0, and during ten months of 1866, 7-7-7.

223. There must be some method of explaining this, but I could gain no information on the point. I bring this matter to notice, because I think that Government should continue to exercise a certain amount of supervision over the expenditure in Civil Dispensaries, for a large proportion of their means of usefulness is derived by the supply of medicines and the services of the Medical Officer and subordinates from Government.

Government control over expenditure desirable.

II.—RAMANDROOG.

The following is an abstract from the topographical description of Ramandroog.

224. "The hill station of Ramandroog is situated about 38 miles from Bellary. It is one of a series of hills constituting the Sundoor range. It is at an elevation of 3,400 feet above the sea, and 1,825 above that of Bellary. The eastern portion of the plateau is about 150 feet higher than the western extremity of it. The surrounding hills are covered with low jungle wood, and have many sholas. To the west and north of the Sanitarium the Toongabuddra pursues its irregular course through the low country."

General description.

"The hill bears evidence of former occupation as a fortified post. There still exists barricades and loop-holed parapets and walled excavations, and ruins of habitations have been discovered."

225. Dr. Macpherson in his "Report on the Mountain and Marine Sanitaria within the Presidency of Madras," directs attention to the valuable chalybeate springs found at this place, and asserts that in chemical composition and therapeutic effects they are almost identical with the Cheltenham waters.

226. The approach to Ramandroog is through the village of Yettunhutti, and thence the road leads through the Sundoor pass to the village of Bovihully, at the bottom of the hill. Ascending the hill, the road passes through low jungle; the road is tolerably good, but as the summit of the hill is neared, it becomes more steep and tortuous.

227. The first rains had fallen prior to my visit, and the hills were green and the valley presented in its rich cultivation, a striking contrast to the black plain which surrounds the station of Bellary.

228. The hill sides are prettily wooded, the mountain-road was in excellent order, and until nearly the summit of the Ramandroog hill, the ascent is gradual. The effect, when the small plateau is reached, is singular, from the small space which is afforded on the summit of the hill. On either side there is an extensive view over the low country, studded with tanks newly filled by the late heavy rains. I reached the top of the Ramandroog hill about nine A.M., the air was cold and bracing, and the abundant grass, the pretty gardens attached to the few houses, and the wooded slopes of the hills, reminded me very much of Materan, in the neighbourhood of Bombay.

229. The Military buildings on Ramandroog consist of—

- (1). Barrack for unmarried Soldiers to hold 55 men at regulation standard of accommodation.
- (2). Married quarters capable of containing two Non-Commissioned Officers and their families, and eight married Soldiers and families.
- (3). Hospital, with the usual subsidiary buildings, giving accommodation for 10 beds at 100 square feet per bed.

230. With reference to the condition and suitability for their intended use of these buildings and their general conservancy, I must record a few remarks.

231. The only suggestion which I would make as regards the Serjeants' quarters, which in other respects are very good, is that surface drainage should be provided, so that the rain water should be drained rapidly away from the foundation of the building.

232. The single men's quarters consist of two rooms; the first is airy, the second is deficient in ventilation. The steps leading up to these rooms are most unnecessarily steep.

233. Increased accommodation is required for single men, for a larger number of men are sometimes quartered here than can be accommodated at the regulation standard of space at hill stations (namely, 77 square feet superficial space) and one of the Barrack rooms being an enclosed verandah is not suitable for use as a dormitory during the monsoon. This enclosed verandah is temporarily used as a Reading room and is not computed in the calculation of barrack accommodation (para. 229) of this Report.

234. The married quarters, sufficient for two Non-Commissioned Officers and eight married Soldiers, were only occupied by one Serjeant. No drainage has been provided for these quarters. The steps are as steep as those noticed in the single men's quarters, and are unprotected by any railing. The steep steps in the single men's quarters, which are there only a matter of discomfort, are seriously inconvenient in the married quarters where, if they were used, there would be a large number of children. These steps, which might cause serious accidents, should be removed and others less steep and protected by a railing substituted.

235. In the Cook-rooms there are no cooking stoves, nor is there any separate cook-room for the Hospital, which is eighty yards distant. Small cooking ranges are very desirable as economizing fuel and being much more cleanly in use than the ordinary native fire-place.

236. The latrines were clean, but are ill constructed; there is no attempt at privacy and no means of removing excreta by openings at the back of the latrine.

237. The dry earth system of conservancy has not been introduced. The whole of the excreta are carried to a distance from the latrine and then thrown down a steep rock. Much of it lodges on the sides and becomes a nuisance. If the dry earth system is introduced, the poudrette would be very usefully disposed of in the public and private gardens in the neighbourhood.

238. The Bath-rooms are badly furnished and roughly paved; one only has a substantial roof, the other being thatched. No separate provision is made for bathing.

239. The cots, both in the barracks and in the hospital, are the old-fashioned planks and trestles which harbour vermin; for these, iron cots with coir mattresses and suitable bedding should be substituted.

240. A store room attached to the Hospital is used as a Dead-house. This practice should be discontinued, and a dead-house built. At present the dead-house is much too near the ward, a space of only $4\frac{1}{2}$ feet intervening.

241. The present Hospital latrine, which ventilates into the central ward, should be abandoned and a new latrine, a Cook room, and a properly-constructed dead-house added to the Hospital.

242. It has been suggested that an entirely new Hospital should be built at this Sanitarium, and that the present arrangement of devoting a portion of the Barrack space to those requiring medical treatment, should be discontinued. In this proposition I concur.

243. No quarters have been provided for the Hospital Serjeant. If, as may be hoped, due advantage is taken of Ramandroog as a convalescent station, and the present buildings fully occupied, an Hospital Serjeant's quarters will be required; they should be built in close proximity to any Hospital that may be built.

244. A small separate ward for Cholera, Small-pox or other epidemic disease should be added to the proposed Hospital, and built at a convenient distance from the Hospital.

In addition to the suggestions contained in the foregoing remarks, there are others which are of considerable importance as tending to promote the health and comfort of the men transferred to this Depôt.

245. In the Guard room, and Store rooms, fire-places should be introduced for use during the monsoon.

246. The means provided for the amusement and healthful recreation of the men are very defective. The floor of the Fives Court is so much out of repair as to be actually dangerous; the floor of the skittle alley is so bad that it cannot be used, and no suitable recreation rooms are provided. These are urgently required for convalescents who are unable to enjoy much out-of-door exercise. The recovery of these men who are, of necessity, cut off from much of the enjoyment of barrack life and the companionship of their comrades, is likely to be retarded, if they are not provided with rational amusement.

247. In Regiments and at large stations many means of recreation and amusement are provided for the men out of the profits arising from the Canteen, Coffee Shop, &c., but from the small force at Ramandroog, little in this way can be done. On the occasion of my visit, two newspapers constituted the chief amusement of the men. I would strongly recommend that if a new Hospital is built, a portion of the present Hospital should be converted into a recreation room, furnished with chess and draught boards, &c.

248. I have already noticed that the water supply is, in places, of a chalybeate character, but the springs found on the western side of the hill were good and abundant in quantity; but owing to the low level on the face of the hill, at which this water makes its exit, much inconvenience is experienced in carrying it to the plateaux of the Sanitarium. Some years since an attempt was made to get water by boring from the top, but the attempt was not successful.

249. The sanitarium of Ramandroog is intended for the reception of sickly or delicate men of the European forces at Bellary and Secundrabad. It possesses very considerable advantages as a sanitarium, being in some respects decidedly superior to other places of the kind at more elevated sites.

250. Hill-diarrhoea is unknown: the congestion of internal organs so common at hill stations, where the air is extremely rarified, is not witnessed here. And although the change is considerable from the hot low-lying station of Bellary, yet it is borne even by sickly Invalids without discomfort.

251. The climate even in the hottest season of the year is temperate and enjoyable even during April and May, the hottest time of the year. The thermometer never rises above a maximum of 84° , and this only for a few hours in the day, while the mornings and evenings are deliciously cool.

252. Ramandroog is so accessible to the sick at Bellary, that it is, I think, to be regretted that it is not more fully used. Sanitaria are more efficacious in preventing than curing serious diseases, and there would be little difficulty I should think in keeping the present accommodation for 56 unmarried men fully occupied. But it is chiefly as a curative and not a remedial agent their residence at Ramandroog is employed, and the restrictions as regards rations practically close this sanitarium to women and children and confine its benefits to unmarried soldiers or to married men who are obliged to leave their families behind them.

253. At the time of my inspection of Ramandroog, the 76th Regiment had some men at the sanitarium, there were three of the R. H. Artillery from Bellary, and a few men of the 2nd-21st Fusiliers now stationed at Secundrabad, at which station they arrived from Bellary early in February 1866.

254. The total number of sick and convalescent was only 31, exclusive of serjeants, who occupy separate quarters. Of these, in all there were 26 who were about to proceed to Bellary to appear before an Invaliding Committee, and 20 were expected to be received for change of air.

This insufficient occupation of this sanitarium is much to be regretted, and there can be little doubt that if not of actual invalids, at least of sickly or very young soldiers, a sufficiency could always be selected with advantage to keep the Barracks constantly full.

255. Mr. Eyre,* formerly Inspector General of Hospitals, Madras, remarks upon the care that must be taken in selecting not only the cases to be sent to Ramandroog, but also the season of the year at which they should be sent, and in conformation of the importance of Mr. Eyre's view, I may quote the following observations by the Medical Officer in charge of the sanitarium at the date of my visit. Dr. Davies writes, addressing the Principal Medical Officer of Queen's troops:—"Since I have been in Medical charge, more than half of those sent up on different occasions have been men suffering from organic and incurable diseases, such as Heart Disease, Chronic Rheumatism, Hepatitis Chronic, Dysentery, and Secondary Syphilis; these cases do not derive any benefit from residence on the hill, but remain here merely till the Invaliding season."

256. As evidence of the utility of Ramandroog in improving health of young and delicate soldiers, Dr. Davies adds:—

"On the other hand young soldiers and weakly men sent here before they get too ill to be moved, derive in a short time great benefit."

"I would point out to you also that out of the ten married quarters (two being occupied by the Serjeant Major, and Quarter Master Serjeant of the Depôt) the remaining eight have been unoccupied since the commencement of the year, with the exception of two quarters, which were occupied for about five weeks. In remarking on this accommodation, which seems so wasted, I cannot help remembering the very unhealthy condition of the women and children of H. M.'s 76th Regiment during the time I was doing duty last year."

To this subject detailed reference will be found in the portion of this report, headed "Health of Troops." In conclusion, Dr. Davies offers a useful suggestion as to

he means to be adopted to ensure the constant full occupation of the Depôt. He says:—

"There cannot, however, I should say, be any doubt that the Depôt ought invariably to be maintained at its full strength, and that a party of men proceeding to rejoin their Regiment should always be relieved by an equal number from head quarters."

257. With reference to the infrequency with which sick women and children resort to the Droog, the reasons are easily apparent. Sick women and children accompanying their husbands or fathers, do not receive any allowance additional to that granted in cantonment, and this allowance is entirely inadequate to defray the cost of provisions at Ramandroog. For the families of sick soldiers at regimental head quarters, and whose families are left behind, half rations are provided gratuitously, so that the sick soldier has every inducement to leave his family behind.

258. The journey too is fatiguing and expensive, and the difficulty attending it enhances considerably the dislike of families to avail themselves of the beneficial change to the bracing climate of Ramandroog.

259. The Officer Commanding informs me that—"Details of the Regiment quartered in Bellary proceeding to and from this Depôt, are usually three days on the road, the days of departure and arrival both inclusive. The better plan of posting bullocks was adopted in the case of the last party that left Bellary, by which means they (as well as the party that returned from Ramandroog) were enabled to perform the journey in a single night."

"This is especially an advantage to sick men coming up to this sanitarium, who are thereby spared all the fatigue and discomfort of a three days march."

260. The following table, prepared some days after my visit, and after the troops to be invalided had been discharged, shows that benefit has, in a large number of cases, been derived from residence at this sanitarium; of a total of 396 received, 295 were returned to duty. I believe that a very much larger proportion of recoveries would have appeared if the cases had been better selected.

Table showing result of treatment, and casualties occurring at the Depôt of Ramandroog.

Year.	Total admissions.	Died.	Invalided.	Transferred for change of air.	Returned to duty.	Remaining.
1863.....	103	4	...	24	75	...
1864.....	114	2	16	8	98	...
1865.....	125	2	15	3	15	20
1866.....	54	1	...	...	...	...
Total...	396	9	31	40	295	20

261. The causes of death of the fatal cases were:—

1. Hepatic Abscess.
2. Hepatitis.
3. Delirium Tremens and Bronchitis acute.
4. Psoas Abscess.
5. Continued fever.
6. Hepatic Abscess.
7. Cholera.
8. Phtisis.
9. Disease of the Valves of the Heart.

Of these, Nos. 1, 2, 6 and 9, would almost certainly be injured by a hill climate, and No. 8 very probably so; this and case No. 4 were cases of long standing, scrofulous disease lasting for 4½ and 9 months respectively.

1863.							1864.						
DISEASE.	Total admissions.	Died.	Invalided.	Transferred for change of air.	Returned to duty.	Remaining.	DISEASE.	Total admissions.	Died.	Invalided.	Transferred for change of air.	Returned to duty.	Remaining.
Febris Intermittent	2	...	...	2	...	...	Febris Intermittent	1	...	...	...	1	...
" Remittent	1	...	...	1	...	...	" Cont.	19	1	...	...	18	...
Rheumatism	15	...	...	4	11	...	Dysentery Acute	1	...	...	...	1	...
Dysentery Acute	3	...	...	3	...	...	Ophthalmia	3	...	...	...	3	...
" Chron.	2	...	...	2	...	...	Lepra	1	...	...	...	1	...
Diarrhœa	2	...	...	1	1	...	Gonorrhœa	4	...	...	...	4	...
Syphilis Prim.	1	...	...	1	...	...	Bubo	20	...	...	...	20	...
" Second.	5	...	...	2	3	...	Orchitis	4	...	...	...	4	...
Bubo	1	...	...	1	...	...	Syphilis Prim.	5	...	...	...	5	...
Orchitis	2	...	...	1	1	...	Anæmia	34	...	...	2	32	...
Poirigo	1	...	...	1	...	...	Aneurism	1	...	...	...	1	...
Anæmia	4	...	...	4	...	...	Carditis	1	...	...	1	...	...
Scrofula	1	...	...	1	...	...	Bronchitis Acute	1	...	...	1	...	...
Delirium Tremens	1	1	...	...	...	...	Dyspepsia	5	1	...	1	3	...
Paralysis	1	...	...	1	...	...	Hæmorrhoids	2	...	...	...	2	...
Cephalœa	4	...	...	4	...	...	Ulcer	1	...	...	...	1	...
Carditis	5	...	...	3	2	...	Phlegmon	6	...	...	...	6	...
Pericarditis	1	...	...	1	...	...	Debilitas	3	...	...	...	3	...
Bronchitis Acute	1	...	...	1	...	...	Vulnus-incisum	1	...	...	...	1	...
" Chron.	1	...	...	1	...	...	Contusio	1	...	...	...	1	...
Dyspepsia	5	...	...	2	3	...		1	...	...	...		...
Hepatitis Chron.	3	1	...	...	2	...			...	...	...		...
Hepatitis Abscess	1	1	...	...	...	...							...
Phlegmon	1	...	...	...	1	...							...
Abscessus	1	1	...	...	...	...							...
Debilitas	37	...	...	...	37	...							...
Vulnus Sclopet	1	...	...	...	1	...							...
Total...	103	4	...	24	75	...	Total...	114	2	...	5	107	...

1865.						1866.						
Febris Remittent	2	...	...	2	...	Ophthalmia	2	...	2	...	...	
" Cont.	7	...	...	7	...	Diarrhoea	4	...	2	1	1	
Dysentery Acute	3	...	...	3	...	Rheumatism Acute	3	...	...	...	3	
" Chron.	1	...	...	1	...	Bubo	7	...	...	4	3	
Ophthalmia	3	...	1	2	...	Syphilis Second.	3	...	1	...	...	
Diarrhoea	5	...	1	4	...	Otitis	1	...	1	...	...	
Rheumatism Acute	3	...	...	3	...	Morbus Valv. Cordis	3	1	2	...	...	
Orchitis	4	...	...	4	...	Bronchitis Acute	1	...	...	1	...	
Bubo	11	...	...	11	...	Hepatitis Acute	1	...	...	...	...	
Syphilis Prim.	7	...	1	6	...	Nephritis	1	...	...	1	...	
" Second.	9	...	2	6	...	Synovitis	1	...	1	...	...	
Gonorrhoea	3	...	...	3	...	Abscess	1	...	...	...	1	
Tœnia Sol	1	...	...	1	...	Ulcer	1	...	1	...	...	
Anæmia	21	...	1	20	...	Asthénia	1	...	...	...	1	
Scrofula	4	...	1	3	...	Cephalœa	23	...	4	9	9	
Paralysis	2	...	1	1	...		2	...	2	...	...	
Carditis	5	...	2	3	...							
Bronchitis Acute	7	2	1	4	...							
Hepatitis Acute	3	...	...	3	...							
Hepatitis Chron.	2	...	...	2	...							
Splenitis	1	...	1	...	...							
Dyspepsia	6	...	1	5	...							
Hæmorrhoids	2	...	1	1	...							
Enteritis	1	...	1	...	...							
Stricture Urethra	1	...	1	...	...							
Ulcer	1	...	...	1	...							
Phlegmon	1	...	...	1	...							
Asthénia	2	...	1	1	...							
Explosia	1	...	...	1	...							
Contusio	1	...	...	1	...							
Fractura	1	...	...	1	...							
Insolatio	2	...	1	1	...							
Subluxatio	1	...	1	...	...							
Total...	124	2	16	8	98	Total...	54	1	15	3	15	20

262. The journey both to and from Ramandroog is attended with some risk, partly inevitable and in other respects due to inadequate arrangements to promote the comfort of the men. No Medical Risk in the journey.

Subordinate accompanies the men. They are only under the command of any non-commissioned officer who may happen to belong to the party. And they are halted at unsuitable places (small native villages), where only indifferent shelter is provided for them.

263. That soldiers thus insufficiently cared for and under little control should be attacked with epidemic diseases is not to be wondered at, and one case of Cholera took place at the Dépôt in 1866, in a man who had arrived from the low country on the previous day.

264. It is to be feared that the parties of men returning from Ramandroog to their Regiments at Bellary or Secunderabad do not always escape. The Officer Commanding, in reply to my enquiries on this point, writes:—

"The only instance of an outbreak of cholera amongst troops proceeding to and from this station, which I have heard of, occurred in a party of 20 men of the 21st Fusiliers, who left Ramandroog en route to Secunderabad on the 13th August 1866. These men, I understand were, after a few days' delay in Bellary, marched from that place to re-join their regiment. I am informed that out of this party of 20 men, five were attacked by cholera, three men died on the road, one shortly after arriving at Secunderabad, and one when last heard of was still at Kurnool."

The names of this party had been sent in to the Deputy Inspector General of Hospitals as fit to return to duty in May.

265. In conclusion, I beg to recommend the following subjects to the notice of Government, the places in this Report where they are considered, are shown in this list.

I.—BELLARY.

Page. Para.
2 6 that the proposals for securing constant supply of water to Bellary receive early attention;

MILITARY BUILDINGS.

5 20 the early erection of Prison Cells for Europeans;
" 24 that an entirely new Main Guard with officers' quarters, wash-house, privy, &c., be erected.

GARRISON HOSPITAL.

6 27 that the ventilation of wards into each other be at once prevented;
" 28 that blinds be supplied for the verandahs of the wards;
" 29 that a small privy for the Hospital Serjeant and his family be erected;
7 32 that another tent be supplied for the temporary prison;
" 35 that prickly pear near the Provincial School be removed.

ARTILLERY BARRACKS.

11 44 that the drainage of Barracks be attended to;
13 49 that suitable latrine seats be supplied in the privies;
" 52 that the necessary precautions to prevent accidents in the gun shed be adopted;

Page.	Para.	
15	63	that the cots to be supplied to the families be of iron, not of wood;
"	64	that granite flagging, and railing for protection of children from accidents, be provided.

INFANTRY BARRACKS.

17	74	that large openings for ventilation be made in the Prison cells;
"	77	that a separate Canteen be erected for the Regiment;
18	81	that suitable furniture for Library be supplied;
"	87	that improvement in Barrack accommodation be effected as suggested;
19	91	that better cooking ranges be supplied for cook-rooms;
"	93, 94	that the Wash-houses and Urinals be re-constructed;
"	95	that a double system of drainage be instituted throughout the Barracks;
20	96	that additional planting be carried out;
"	104	that the road-way and drainage be attended to near the family quarters;
21	106	that orders be issued to prevent interference with the ventilation of barracks from the undue proximity of Soldiers' gardens.

HOSPITAL FOR EUROPEANS.

23	119	that the Hospital cook-room be white-washed;
"	120	that wards suited for Natives be built.

LINES OF NATIVE REGIMENTS.

24	127.	that if a Cavalry Regiment is to be continued at Bellary, new lines should be erected on the Race-course;
25	128	the removal of Prickly Pear and the erection of two latrines should be at once carried out;
"	130	that an additional window be made in the guard room; and ridge ventilation introduced.
"	131	that a dry earth latrine be erected for the Guard and Prisoners;
"	132	that the alterations and additions to Staff Serjeants' quarters suggested, be sanctioned;
26	136	that a chabootra be built for Native Cavalry Hospital.

LINES OF THE 20TH REGIMENT M. N. I.

"	138	that Prickly Pear be removed and new Regimental latrines be erected;
27	140	that new permanent lines should be constructed;
"	141	that the tank bund be raised;
"	144	that the guard room be enlarged as shown in plan.
28	152	that certain alterations be made in the Hospital;
29	153	that a chabootra be erected, and Apothecary's quarters be built close to the Hospital.

LINES OF THE 34TH REGIMENT.

29	156	that orders be issued regarding rubbish being removed to a distance;
30	157	that a latrine and urinal be erected close to the Barracks and Guard room;

Page.	Para.	
30	158	that the Guard room be raised and enlarged;
33	171	that Government should consider the propriety of increasing the money allowance for families to married soldiers during times of famine and consequent dearness of provisions.

BRUCE PETTAH.

37	182	that latrines be erected for public use.
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COWLE BAZAAR.

39	190	that its conservancy be attended to;
40	195	that eight double sets of latrines be erected in the Cowle Bazaar;
"	196	that certain sanitary enactments be enforced;
41	197	that a Lock Hospital be built in the Cowle Bazaar.

CIVIL DISPENSARY.

47	218	that a Lying-in-ward be instituted;
"	219	that a better site be selected for a new Dispensary;
48	223	that Government should exercise control over the expenditure of the Funds of the Institution.

II.—RAMANDROOG.

MILITARY BUILDINGS.

49	231	that surface drainage be provided for the Serjeants' quarters;
"	233	that increased accommodation be provided for the single men;
50	234	that the present steps in married quarters be re-placed by others less steep and protected by railing;
"	239	that iron cots with coir mattresses be substituted in lieu of those used at present in the Barracks and Hospital;
"	240-41	that a new dead house, latrine, and cook-room, be erected at suitable distance from the Hospital;
"	242	that a new Hospital be built;
"	243	that quarters for the Hospital Serjeant be erected near the Hospital;
51	244	that a small ward for epidemic diseases be built at a convenient distance from the proposed Hospital;
"	245	that fire places be introduced in the Guard room and store room;
"	247	that a portion of the present Hospital be converted into a recreation room;
52	256	that the dépôt be constantly kept occupied to the full extent of its capacity;
53	259	that, as a rule, troops proceeding from Bellary to Ramandroog should have bullocks posted and suitable carriage, so as to avoid undue fatigue.

R. S. ELLIS,

Sanitary Commissioner for Madras.

APPENDIX A.

NOTE ON

THE METEOROLOGY OF BELLARY AND THE DISTRICT OF BELLARY.

From the following Returns it appears that in the whole of the Talooks of the Bellary District there is only an average rain-fall of 17·0 inches per annum.

The unequal distribution of this through the different Talooks is shown in the following table :—

TOTAL RAIN-FALL IN

PLACE OR TALOOK.		1863	1864	1865	1866*	Total.	Annual Average.	REMARKS.
Town of Bellary								
" Hospett		9.6	15.9	12.3	13.1	51.1	12.7	
" Kudlighi		18.2	18.0	13.5	15.5	65.2	16.3	
" Havaudbudgalli ...		3.8	18.7	17.7	14.5	54.7	13.6	
" Harpunhully		15.7	14.1	15.4	15.6	60.8	15.2	
" Alur		12.3	19.2	14.5	26.8	72.8	18.2	
" Adoni		36.3	7.2	6.9	13.4	63.8	15.9	
" Gutti		21.8	17.5	18.1	19.9	77.3	19.3	
" Tadputri		17.4	20.5	15.3	16.0	69.2	17.3	
" Raidroog		13.6	18.2	19.9	16.9	68.6	17.1	
" Anantapoor		10.2	23.0	10.2	11.0	54.4	13.6	
" Dhurmavaram		7.6	17.1	10.8	12.4	47.9	11.9	
" Pencondah		15.8	20.1	21.4	16.6	73.9	18.4	
" Hindupur		17.2	26.4	27.6	21.0	92.2	23.0	
" Mudaksira		9.3	18.2	26.7	22.0	76.2	19.0	
" Ramandroog		17.5	20.3	19.9	12.9	70.6	17.6	
Average annual fall Talookwar, ...		19.2	26.3	25.4	7	71.6	17.9	
* The Returns for 1866 are only up to 31st October.		15.3	18.7	17.2				

The Returns from this, which is a hill station, are probably not correct for the part of 1866 reported upon.

Annual Rain Report of the Bellary District for 1863.

STATIONS AT WHICH RAIN REPORTS ARE KEPT.																																		
MONTHS.		Bellary.		Hospett.		Kodligbi.		Huvinhudgalli.		Harpanuhulli.		Alur.		Adoni.		Gutti.		Tadputri.		Raidroog.		Anantapur.		Dharmavaram.		Ponconda.		Hindupur.		Mudaksira.		Ramandroog.		
Collector's Cutcherry.		Fort Hospital.																																
Inches.	Tenths.	I.	T.	I.	T.	I.	T.	I.	T.	I.	T.	I.	T.	I.	T.	I.	T.	I.	T.	I.	T.	I.	T.	I.	T.	I.	T.	I.	T.	I.	T.	I.	T.	
January.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
February.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
March.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
April.	2	3	...	...	1	1	...	7	...	6	1	9	...	7	1	1	...	7	1	5	3	4	1	9	7	6	3	...	2	2	2	2	...	...
May.	...	7	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
June.	1	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
July.	...	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
August.	...	7	...	...	6	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
September.	...	9	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
October.	1	1	...	...	9	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
November.	2	8	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
December.	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total Inches.	9·8	5·4	...	...	18·2	3·8	...	...	15·7	12·3	...	...	36·3	21·8	...	...	17·4	13·0	...	10·2	...	...	7·6	...	...	15·8	17·2	...	9·3	...	...	17·5	19·2	

Annual Rain Report of the Bellary District for 1864.

MONTHS.	STATIONS AT WHICH RAIN REPORTS ARE KEPT.																			
	Bellary.		Hospett.		Kudlighi.		Huvinhudgalli.		Harpunbulli.		Alur.		Adoni.		Gutti.		Tadputri.		Raidroog.	
	Collector's Cutcherry.		Fort Hospital.		Hospett.		Kudlighi.		Huvinhudgalli.		Harpunbulli.		Alur.		Adoni.		Gutti.		Tadputri.	
	Inches.	Tenths.	I.	T.	I.	T.	I.	T.	I.	T.	I.	T.	I.	T.	I.	T.	I.	T.	I.	T.
January..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Feb...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
March....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
April.....	1	...	1	...	1	...	1	...	1	...	1	...	1	...	1	...	1	...	1	...
May.....	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2
June.....	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1
July.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
August....	6	2	4	7	11	6	3	5	3	6	3	5	3	6	3	5	3	6	3	5
Sept.....	1	1	...	...	1	1	...	...	1	1	...	...	1	1	...	...	1	1	...	...
October...	...	9	1	...	...	9	1	...	...	1	...	...	...	2	6	2	...	...	...	...
Nov.....	1	4	1	4	...	6	...	6	...	5	...	...	...	6	1	2	1	4	...	...
Dec.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total { Inches }	15.9		13.7		18.0		18.7		14.1		19.2		7.2		17.5		20.5		18.2	

Annual Rain Report of the Bellary District for 1865.

MONTHS.	STATIONS AT WHICH RAIN REPORTS ARE KEPT.																			
	Bellary.		Hospett.		Kudlighi.		Huvinhudgalli.		Harpunbulli.		Alur.		Adoni.		Gutti.		Tadputri.		Raidroog.	
	Collector's Cutcherry.		Fort Hospital.		Hospett.		Kudlighi.		Huvinhudgalli.		Harpunbulli.		Alur.		Adoni.		Gutti.		Tadputri.	
	Inches	Tenths	I.	T.	I.	T.	I.	T.	I.	T.	I.	T.	I.	T.	I.	T.	I.	T.	I.	T.
January..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Feb.....	...	9	1	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
March....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
April.....	3	...	3	9	3	...	3	...	3	...	3	...	3	...	3	...	3	...	3	...
May.....	2	8	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
June.....	...	9	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
July.....	1	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Aug.....	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Sept.....	...	9	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Oct.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Nov.....	...	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Dec.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total { Inches }	12.3		5.3		13.5		17.7		15.4		14.5		6.9		18.1		15.3		10.2	

1866.

(TEN MONTHS ONLY.)

January..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Feb.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
March....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
April.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
May.....	2	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
June.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
July.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Aug.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Sept.....	2	5	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Oct.....	8	2	8	2	8	4	7	3	11	8	20	7	7	6	13	4	9	5	6	1
Total { Inches }	13.1		8.2		15.5		14.5		15.6		26.8		13.4		19.9		16.0		16.9	

* No Returns received.

APPENDIX B.
Present strength of Troops in Garrison, Bellary.

STATION.	ROYAL ARTILLERY.				CAVALRY.				INFANTRY.			
	Non-Commissioned Officers, Trumpeters, Gunners and Drivers.				British.				British.			
	Present.	Sick.	Absent.	Total.	Present.	Sick.	Absent.	Total.	Present.	Sick.	Absent.	Total.
Bellary.....	81	14	37	132	2		2	308	1262	382	328	176th Regiment.....
												Sappers and Miners...
												20th Native Infantry.
												34th Native Infantry..
Total...	81	14	37	132	2	...	2	308	1262	382	328	...
D Battery G Brig. Roy. Horse Artillery.....												Deaths during last month.
												Deaths during last month.
												Deaths during last month.
												Deaths during last month.
Bellary.....												Deaths during last month.
												Deaths during last month.
												Deaths during last month.
												Deaths during last month.
Bellary.....												Deaths during last month.
												Deaths during last month.
												Deaths during last month.
												Deaths during last month.
Bellary.....												Deaths during last month.
												Deaths during last month.
												Deaths during last month.
												Deaths during last month.
Bellary.....												Deaths during last month.
												Deaths during last month.
												Deaths during last month.
												Deaths during last month.
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APPENDIX C.

Copy of a letter No. 220, dated Madras, 22nd September 1866, from the Honorable R. S. ELLIS, C.B., Sanitary Commissioner, Madras, to the Quarter Master General, Fort St. George.

Enclosures 5.
1 Letter No. 1678, 7th September 1866, from the Superintending Engineer 3rd Division, to the Quarter Master General.
1 Specification.
1 Estimate.
2 Plans.

With reference to your Docket memorandum No. 500 received on 20th instant, forwarding for my observations a block of cells for the European troops at Bellary, I have the honor to make the following remarks.

2. The general plan of this building is not on sanitary grounds suitable for the confinement of European prisoners.

3. The buildings consist of one block, 159 feet long and 54 feet broad, having a row of cells, &c. down the sides with a corridor in the centre 20 feet broad, into which the cells, 19 in number, open. Two of the cells at each end of the building, of the same dimensions as the others, are to be used as latrines and lavatories. The space of three cells is also given up for a Warder's room on one side and that of two on the other, for stores. The building stands within an enclosure 193 x 260 feet.

4. The general arrangement of these cells is bad, as the perfusion of air through them is entirely prevented by one row being always cut off from the prevailing winds by the other. This becomes at once evident from an inspection of the plan.

5. I should prefer the cells being arranged in two distinct blocks, each containing a single row of ten cells, on the same principle as that adopted in the standard plan, as per margin, forwarded for my information. The Warder's room could be conveniently placed either in front of or in the centre of the two blocks. It would also be a convenient arrangement if every alternate cell opened into the opposite verandah and the doors were iron-barred instead of panelled. Advantage could then be taken when the prison was not full, of being able to confine men in those cells most exposed to the prevailing winds.

Dimensions.

6. The cells in the plans are each 10 x 13 x 16 feet, giving each a superficial area of 130 feet and a cubic space of 2080 feet, which is sufficient.

7. The cells have two ventilators in the upper part of the wall; one of them opens directly into the air, but the other only into the corridor. If the cells were built in separate blocks, both ventilators could communicate directly with the open air. In

addition to these ventilating windows, there is an opening in the centre of the floor of the cell which is connected with the outer air by means of a horizontal shaft which passes outwards beneath the verandah. This form of ventilation is very objectionable, as the shaft is apt to become a nuisance from its collecting the sweepings and washings of the cell, besides being a refuge for vermin. In one barrack, to my knowledge, this form of ventilator has been condemned from this cause. Ground ventilator opening through the wall are not exposed to the same objection (vide Report of the Commissioners appointed to enquire into the sanitary state of the Army in India, page 104 "ventilation of barracks.")

8. The latrines in the plan are under the same roof as the cells. This is a most objectionable arrangement. These should be in rear and detached from the other cells. The arrangement for the night pan within the cells is unobjectionable.

Latrine arrangement.

9. The lavatory and bath-room are also under the same roof as the cells. These should also be detached buildings. As the bath-room and lavatory occupy the space of one cell, this accommodation would appear inconveniently small.

Bathing arrangement.

10. On each side of the entrance to the prison enclosure, are two rooms of the same size; one to be used as a guard room, the other for the non-commissioned officer. These rooms are each 8 x 18 x 15, having a superficial area of 324 square feet and a cubic space of 4860 feet. The guard room will accommodate only 3 men at 90 feet superficial area. As the strength of the guard required for the cells is not given, I am unable to say whether sufficient accommodation has been provided. The ventilation of both these rooms is sufficient.

Guard Room and Non-commissioned Officer's Room.

11. No drains for the removal of the storm-water from the building and compound, nor sewerage from the bath-rooms are shewn on the plan. Provision for these should certainly be made, and should, I think, always be indicated on a plan.

Drainage.

Cook-house.

12. It is presumed no cook-house is required, as none has been provided in the plan.

Provost Serjeant's Quarters.

13. The Provost Serjeant's quarters appear to be all that is required. A ridge ventilator in the roof would, however, improve the ventilation.

I have, &c.
(Signed) R. S. ELLIS,
Sanitary Commissioner for Madras.

25

MILITARY DEPARTMENT.

PROCEEDINGS OF THE MADRAS GOVERNMENT.

Read the following letter :—

From the Sanitary Commissioner, Madras. 17th April 1867, No. 42; to the Secretary to Government, Military Department, Fort Saint George.

I have the honor to forward, for submission to Government, the accompanying report upon the Military and Civil station of Bellary, and upon the Mountain

Enclosures 5.

Sanitarium of Ramandroog, which were inspected by me in the month of October last.

ORDER, No. 1793, 15th May 1867.

Ordered that the foregoing report on Bellary and Ramandroog be communicated to the Commander-in-Chief, Public Works Department and Inspector General Indian Medical Department.

2. Government will await the observations of His Excellency the Commander-in-Chief and Inspector General Indian Medical Department, before passing final orders on the measures proposed by the Sanitary Commissioner.

(True Extract.)

McMillan Colonel.

Deputy Secretary to Government.

To the Sanitary Commissioner:

- Quarter Master General, with a copy of the report. do.
 - Adjutant General, with do. do.
 - Public Works Department, with do. do.
 - Inspector General Indian Medical Department, with do. do.
- 820 spare copies.

Ed. J. E. Cashart.

J. W. ... May 1867

M. D. ... 2031 of 1867

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Comm. of Ramandroog
20th May 1867

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to the Secy with a copy of
Sanitary Comm. Report
20th May 1867

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