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MADRAS RECORD OFFICE.

Government of Madras.

Public Works **DEPARTMENT.**

Cons.

G.O. No.	531	Press / Mis.
33-34 Dated	14-3	1860.

Not to be folded or roughly handled

Proceedings of the Madras Government, Public Works Department, for the month of March 1860.

No. 33. Read the following Proceedings of the Madras Government in the Military Department, dated 27th February 1860, No. 827 :—

Reviewing the general sanitary report on Her Majesty's British Regiments serving in the Madras Presidency, and concurring in opinion with the Commander-in-Chief that any works which can at present be deferred without serious inconvenience, may be postponed. (Vide Military Proceedings from 21st to 29th February 1860, Nos. 129-130.)

No. 34. ORDER THEREON, 14th March 1860, No. 531.

Ordered to be communicated to the Chief Engineer for information.

(Signed) C. G. MASTER,
Dy. Secretary to Government.

MILITARY DEPARTMENT.

PROCEEDINGS OF THE MADRAS GOVERNMENT.

Read the following papers:—

From the Quarter Master General of the Army, Fort Saint George, 7th February 1860, *No.* 47; *to the Secretary to Government, Military Department.*

In forwarding for the information of Government, extracts from the general sanitary report of Her Majesty's British Regiments serving in the Madras Presidency, I am desired by the Commander-in-Chief, to offer a few remarks on some subjects in the report, either accounting for the Inspector's observations, or shewing that some of the circumstances have materially altered since the date of the report.

2. His Excellency refrains from recommending at present, any works (which can be deferred without serious inconvenience) involving a demand on the Finances.

3. The subjects are numbered in the report as follows:—

1st. That of establishing stables for the horses of European mounted Corps, whereby the men would be greatly protected both from sun and rain. The Commander-in-Chief has repeatedly urged this being done, both on sanitary grounds as regards the soldier, and for other obvious reasons; nothing has come however of this important matter.

2nd. *Hospital of King's Dragoon Guards.*—This Hospital is now undergoing improvement, and fast approaching to completion.

3rd. The drainage of the Plateau of the European Barracks at Jackatalla is being carried out.

4th. The old Infantry Barracks at Secunderabad has been ordered by the Supreme Government to be much altered and fitted for the 17th Lancers, to quarter 700 men, and great hopes have been expressed from the improvements ordered, and its reduction in size, that a corresponding improvement will appear on its sanitary properties, but the site of these Barracks has been ~~so detrimental to health for a period extending over 25 years, that~~ the Commander-in-Chief has no expectation that the looked for result will be obtained, and His Excellency continues to entertain the strongest objections to a Regiment of Europeans being quartered on that ground.

5th. Measures are in train for removing this Depôt as well as that at Arcot, to the Mount, vide Proceedings of Government and order thereon, No. 124, 10th January 1860. The Fort in which stands the Hospital may be demolished; indeed, the Executive Engineer of the Centre Division has applied for the stones to use in building the new school at the Mount.

6th. The Skittle Alleys at Jackatalla are completed, and are excellent.

7th. Married quarters at Bellary were recommended to the Supreme Government in January 1859, and sanctioned in August, but no provision having been made for expenditure for the current year, the work will not be commenced before May, and then only if the Budget of 1860-61 is sanctioned.

8th. Regarding the Skittle Alleys at Bellary—One it is hoped was finished in December last, the other is not commenced on, from the multiplicity of work going on in the District.

9th. The new Hospital at Bellary is still unfinished. The Commander-in-Chief has ordered a Committee to assemble, composed of Medical Officers, whose duty it will be to recommend such improvements as may be carried out without incurring additional expense.

Extract from the general sanitary report of Her Majesty's British Regiments serving in the Madras Presidency from the 1st April 1858, *to* 31*st March* 1859.

Alleged causes of sickness and mortality.—The health of the Troops throughout the Madras Presidency, for the Official year 1858-59, may be pronounced to have been extremely satisfactory, the mortality having been under five per cent, and when we consider the terrific exposure to heat on service in Bundlecund, from which the 12th Lancers, 43rd Light Infantry, and a Battery of Artillery suffered, in consequence of which their mortality was excessive, we may congratulate ourselves in having altogether such a small per centage.

1st. *Stables.*—The Cavalry Barracks at Bangalore are very good, and when all alterations are completed, will be most healthy and convenient—If it were possible for the horses to be under cover in this country, it would I think considerably benefit the health of the Cavalry soldier, as he is now continually exposed to the sun or rain; if stables were generally established, it would I am sure tend to lessen the possibility of disease arising from this kind of exposure, and I beg to recommend the subject for consideration.

2nd. *Hospital of King's Dragoon Guards.*—I regret to state that the Hospital of the King's Dragoon Guards has remained unaltered during the last year, but it is intended to improve it very much, and now (in October) they are at work, but I do not think it can ever be so improved, as to render it even as good as the Barracks. In my opinion, an Hospital ought to be better, not worse than the Quarters occupied by the men, and no proposed alteration can make the wards wider, or give that loftiness to the building so much required in this climate.

At Bellary, none of the recommendations made more than a year ago have as yet been carried out, this is solely owing to the late mutiny—I trust now they will be immediately commenced, particularly Skittle grounds, Racket courts &c. &c. The Barracks are excellent, and if as I hope it is intended, the present married quarters at each end of each block be abandoned, as such it will considerably improve the ventilation. The new Hospital is progressing very slowly; when finished, it will be the best in this Presidency, but it requires some alteration as I have suggested in my Inspection report which accompanies this, and which I trust may be approved of and carried into effect.

At Fort Saint George, the lower rooms of the Barracks have been condemned, the soldiers will now occupy upstair quarters, other improvements are being carried out which will afford increased ventilation. The drainage is ordered to be improved, and in a short period, Fort Saint George Barracks will be healthy, clean, well ventilated, and as good as can be wished.

3rd. *Drainage of Plateau.*—At Jackatalla, the Barracks are progressing much more rapidly than they did. The 60th Rifles, 1250 strong, are now located there, and though somewhat crowded, it will be only temporary, as another block is nearly ready for occupation. Drainage is still imperfect, and until it is established on a proper and extensive plan, the Barracks cannot be expected to be as healthy as it is hoped they will ultimately prove. Vide Inspection Report.

4th. *Barracks at Secunderabad.*—At Secunderabad, the Infantry Barracks and Hospital have been improved, but it is still stated the site of the Barracks is very unhealthy, but the Hospital being on higher ground is less so: greater circulation of air has been obtained by the native Bazar having been removed, the surrounding wall has been lowered, ridge ventilation established, and other improvements carried out, yet Dr. Hearn considers the locality of both Barrack and Hospital seriously objectionable, and as having been the principal cause of so much sickness and mortality in the Royals during the year; and he imagines they will always be subject to visitations of sickness from the surrounding malarious influence.

At Cannanore, the drainage of the Hospital is very defective, but having been locally represented, it is to be hoped it will soon be remedied.

At Kamptee, the Barracks for the 91st afford accommodation for only 800 men; if the entire Regiment to its full strength were likely to be quartered here, other Barrack rooms will be required, and it has been suggested that the site for any new addition to Barracks, ought to be on an elevated ridge about half a mile from the present Barracks; since His Excellency the Commander-in-Chief was at this station last year, considerable improvements have been ordered, and are being carried into effect, but as yet there is no school-room; there is a building in the immediate vicinity of the Officers' Bungalows, at present used as an Hospital for the 33rd Madras N. I. It is certainly objectionable that a Native Hospital should be situated in the midst of Europeans and on the main road through the European lines, and it has therefore been recommended that this building be converted into a school-room for the Regiment – It might also serve for a Theatre, which would be a great boon to the soldiers who have so few amusements in this country. The Hospital is sufficient for only 43 men, totally inadequate for what might be required. It appears from the report of the Medical Officer, that it could not be beneficially enlarged or altered, as he considers the building too far from the Barracks and badly situated, from being lower than the rest of the Cantonment; he recommends its being appropriated to some other purpose, and a new and sufficiently large Hospital being built on the Hill in front of the present Barracks.

5th. *Depôt at Poonamallee.*—At Poonamallee, the Barracks and Hospital remain with little or no improvement. It must really be a very healthy situation, for considering the great disadvantage that must arise to the sick from being treated in a wretched ill ventilated Hospital, surrounded by the Fort wall, and the building itself only ten feet high, the floors on a level with the ground, it is surprising how low the mortality has been. The circulation of air is further impeded by buttresses which have been found necessary to place in the Verandah to support the falling building, thus depriving the convalescent men of the possibility of taking exercise in the shade. The ditch surrounding is not so impure as it used to be, the drain from the Hospital into it having been at last done away with, and the soil is now carried away to a distance and buried, but still in the dry season, it becomes most offensive, and thereby must interfere with the recovery of the sick. If this station is to be kept on even for another year, I beg strongly again to recommend that the walls of the Fort be levelled, and that the ditch be filled in.

The diet of the soldier in this Presidency is on the whole very good, there are of course occasional complaints, but remedied as soon as possible; in some stations, it is extremely difficult to obtain a proper supply of vegetables, and at two, Bellary and Poonamallee, I saw Potatoes issued which really could not be considered fit for use. I think it would be worth consideration, whether the Commissariat Officers at Jackatalla and Bangalore, could not engage Contractors to supply those stations which are now deficient. It would be a great boon, and I think might easily be arranged; independent of this, I would beg to recommend, that at each station, there should always be a supply of prepared compressed vegetables, such as I have seen in the Crimea, so that the Commissariat could issue this, when fresh vegetables are not procurable. I consider that a salt ration once a week to the men would be beneficial, and I understand is much wished for by them. I beg again to recommend its adoption. Lime juice is occasionally absolutely required, and generally most useful in this climate. I have recommended that it should be used in every Regiment, one month in every quarter, one ounce of lime juice every day for each man—I am sure the result would ~~be most~~ satisfactory, and I trust it may be ordered to be carried into effect.

The subject of iron cots I have frequently brought forward, and I am glad to hear there is a probability of their being soon supplied. I mentioned last year, that I believed many acute cases of illness originated from the want of a comfortable bed, the men having been literally driven by bugs from the bed now supplied to lie in the Verandah or some exposed situation, and in what I then stated, I have since had additional reasons to confirm my belief.

When iron cots are to be provided, I beg to recommend that each Barrack should be supplied with the number necessary at once, and not in driblets, that the Barrack-room be perfectly cleared of all beds, boards and tressels, and the walls scraped and white-washed before the new beds are introduced.

(Signed) J. E. WILLIAMS,
Dy. Inspector Genl. H. M.'s Hospitals.

Extract from the observations of the Deputy Inspector General H. M.'s Hospitals, upon the state of Regimental Hospitals belonging to Her Majesty's Forces in the Madras Presidency, from 13th April to 4th July 1859.

3rd Battalion 60th Rifles, Jackatalla.—The Barracks at Jackatalla are now progressing to completion. The 60th Rifles arrived at this station towards the end of March last, 1250 strong, and though at first rather crowded, no ill effect arose. Another block is almost ready for use, and others are progressing; when finished they will be excellent Barracks; but as yet the drainage is very imperfect; I understand it is intended to have underground drainage to beyond Coonoor—At present, the soil from the Privies, except the Hospital one, is carted to some distance, still the smell about the Barrack Privies is sometimes very offensive. I believe this greatly arises

from portions of the ordure falling outside the tubs, and from the urine escaping and saturating the ground—to obviate this, I beg to recommend that an iron cart or trough be substituted for the tubs, this trough to fit exactly into each Privy, to be on wheels, a train road to lead at least the distance of a mile to well prepared pits; to have two troughs for each Privy, the one carried away in the morning, to be thoroughly cleansed and whitewashed previous to replacing the other the following morning; this with the use of Charcoal which I have recommended being used, and which has been in use for some time in the Hospital, will I think prevent all disagreeable effluvia—The Barrack square requires raising—At present, after rain it is a perfect puddle, if it was raised and gravelled, and the side drains kept in good order, it would prove a great advantage. The supply of water is plentiful, but the stream conveying it is open all its course; I beg to recommend its being covered for some distance, it would ensure greater purity. The establishment of wells or pumps is, I think worth consideration, as after rains the running stream is most impure. Two pumps in the Barrack square, and one in the Hospital square would answer.

6th. Skittle Alleys at Jackatalla.—The married soldiers quarters are also progressing towards completion, and I am glad to say Skittle Alleys &c., &c., for the men's amusement have been commenced, and will soon be finished; ground for gardens is also under preparation.

The Hospital is an excellent one for its size, it is calculated to contain 84 beds. This is not sufficient for such a large body of men, still more as it must yet be used for the convalescents at the station. At present, the Maternity (ward?) gives increased accommodation, but when the women and children arrive from England, this must be used for what it is intended. I consider it will be necessary to enlarge the Hospital so as to contain at least forty two additional beds, there might be either another range of building where it was I believe intended to place the Garrison prison, or what I think would be better, if the Engineers consider it safe, another Story added. There are also one or two detached wards required for Itch &c., &c., a Regimental Conicopoly store is necessary in the immediate vicinity of the Hospital; a temporary building is now occupied, the space of which is not sufficient, and the stores are liable to injury. In the Hospital square, there is a kind of garden overshadowed with trees, which on a fine sun-shiny day looks very nice, and would induce one to think it would afford shade for Convalescents, and will be resorted to; but very few, if any, ever take advantage of this, and in wet weather, it is the source of much damp to the Hospital—I believe, in an Hygienic point of view, it would be better to be removed, which I beg to recommend being done, and the square properly ~~gravelled. The entire Hos-~~ pital compound should be surrounded with Iron railing, and a few additional trees planted.

Quarters for single Officers are much required; at present they are obliged to live in very wretched places, the consequence has been, that their health has suffered, many are frequently on the sick list from Fever, Rheumatism, Diarrhœa, and the prevention of these diseases can only be accomplished by their occupying quarters well ventilated and dry. I beg to recommend this subject for serious consideration.

A place I understand has been selected for building a Convalescent depôt, it will I think answer admirably, and I trust to see this building soon commenced, as while a Regiment strong as the 60th are quartered at Jackatalla, there can be little room for Convalescents.

(Signed) J. E. WILLIAMS,
Dy. Inspector Genl. H. M's. Hospitals.

Extract from the sanitary report of Her Majesty's 68th Regiment, from 1st April 1858, to 31st March 1859.

GENERAL REMARKS.

Amherst.—The first subject I would bring to your notice, is the opening of Amherst as a sanitarium, not only for the Troops quartered in Rangoon, but for the whole of Burmah; Amherst is situated on entrance of the Martaban river on the sea coast. The surrounding country is dry, elevated, and exposed to the influence of the N. E. and S. W. monsoons, which renders it remarkably healthy and suited to the European constitution. It is about 100 miles S. E. of Rangoon, and 30 S. of Moulmein; we have steamers every week passing Amherst on their passage from Rangoon to Moulmein; it has a good harbour, and is accessible by ships of any burthen.

In the last war it was used for the purpose I have proposed, and I have ascertained beyond a doubt, that it afforded the happiest results—Why it was given up as a sanitarium is a difficult matter to find out, but certainly not because it did not realize the hopes. The buildings are standing, and would only require a few repairs to make it tenable—It would be invaluable to the Invalid in the wet season, from its sea bathing and cool sea breeze which are steadily maintained. The climate of Burmah is one of a very relaxing nature, soon renders a constitution enfeebled, and quite unable to resist disease, change of air from one low station to another in this country is always attended with beneficial results, (and all the places are in low situation except Amherst) how much more beneficial results would we expect from a change such as I am advocating.

As we are now situated, men requiring a change of air are obliged to go to the Neilgherries via Poonamallee and Madras, in some cases the delay may be attended with fatal results, as no certainty attends the arrival of a steamer for Madras, and once a patient becomes debilitated by disease in this country, change of air is the only restorative.

(Signed) A. P. M. CORBETT,
Assistant Surgeon in charge 68th Lt. Infantry.

Extract from observations by the Deputy Inspector General of Her Majesty's Hospitals, on the state of the Regimental Hospitals of Her Majesty's British service.

74th Highlanders, Bellary, 5th August 1859.

7th. Married Quarters.—"The Barracks are very good; they would be considerably improved if the married soldiers' quarters were built elsewhere; they are now situated at each end of each block, and tend very materially to prevent the free circulation of air, the glare in the Verandahs of those blocks is sometimes most painful, and I think it is well worth consideration whether having Tatties to each as they now have for the Hospital block, would not tend considerably to the health and comfort of the men. The cook houses, wash houses and privies are I think badly placed, the distances are too great from the Barracks. I enclose a memo. shewing the different distances, from which it will be seen the men have little chance of having their meals served up hot, and the exposure of going to and from the privies, exposed to the sun's rays or to wet, cannot but result in proving most injurious—The wash houses are too close to the public road.

8th. Skittle Alleys at Bellary.—It is now more than a year and a half since it was decided to have racket courts, skittle alleys, and other means of amusement for the men established in this most monotonous station, as yet not one has been commenced, owing I believe to the rebellion, but still it is so generally understood that idleness induced by no excitement or amusement of any kind, ~~deprived~~ of the possibility in this climate of out-door amusement, in a station like Bellary; no recreation for the soldier has yet been provided, he is consequently driven to over-smoking, over-drinking and other vices tending to injure his health. How many would we save from the dreadful ennui—Day after day the same eternal duties, and not one single amusement, nothing to vary the eternal monotony, (in itself enough to produce disease) unless there had been established here a Gymnasium, a Theatre, Racket Courts, and Skittle Alleys.

On the 20th of April 1859, the Quarter Master General of the Army Colonel Reid, states, "In Minutes of Consultation 19th of August last, Skittle Alleys were ordered to be built at all stations where European Troops are quartered, two for each Regiment—their usefulness as contributing to the amusement and health of the men being fully recognized. I am desired to say that the subject will be again brought to the notice of Government—"This was five months since."

There are at Bellary, upwards of one thousand Europeans—if they are afforded no source of amusement, nothing to dispel the never varying monotony, what can Government expect, but that the consequence will be step by step, from indolence to vice, from vice to depravity, moral degradation, drunkenness and disease, undermining their constitutions, and laying seeds for future illnesses. I do hope therefore, Government will again order these absolutely necessary buildings to be commenced and completed as soon as possible.

One block of the Barracks has been occupied as an Hospital, the old Hospital having been condemned, but lately, the Major General Commanding the Division has ordered it to be again partially used, entirely in opposition to the expressed opinion of the Medical Officer, but I trust my representations will cause it to be immediately abandoned, for it is totally unfit for European sick to be treated in.

9th. New Hospital at Bellary.—The new Hospital is progressing very slowly, I believe from the want of timber, there were many suggestions made when His Excellency the Commander-in-Chief visited this station last year, and with one or two exceptions, I believe met with his approval, but as yet there is no appearance of any being carried into effect; I will now enumerate the principal ones, in the hope they may again be approved of and ordered to be carried into effect.

There are not enough of special case wards at present—only two; it will be at once seen that any day cases might occur requiring separation. Cholera, Small pox, Ophthalmia, severe cases of Fever &c. must be kept separate, and it is recommended that there may be six special case wards; this I think might be done by one end above and below being separated from the large ward, and each divided into three special case wards—There ought to be a Medical Officer's quarter in, or close to the Hospital—One for the Hospital Serjeant ought to be in the building, to enable him to carry on his duties efficiently, and there should be some accommodation for the Native Hospital Attendants to cook and eat in, so that there would be no necessity for their frequently visiting the Bazar.

Ventilation ought to be so established as to be beyond the control of patients or servants.

Ventilation in outer verandah ought to be much more extensive through the wall than at present, as it might require to be shut up; the fan lights for inner verandah ought to move on pivots; the archways, five at each side, ought to be panelled for seven or eight feet high, and it might be advantageous having jalousies (trellises?) above this—Fire places in all the wards are required to assist ventilation.

The women's wards, which certainly would have been better placed under a separate roof require considerable additional ventilation, the one door is too small, a double door with moveable fan lights is recommended, two additional windows are required; the room appears to have been built without either window or door. The privies must have each a back door, all privies instead of having tubs, ought to have an iron cart or trough on wheels, to run on a train way, the cart ought to be the exact size of the privy, so that none of the ordure could escape, but must fall direct into it; one great cause of the bad smells so frequently met with in privies, proceeds from all the ordure not being carried away; with an iron trough properly constructed, even urine would be prevented saturating the ground. There ought to be two sets of troughs or iron carts for each privy, and the train way should be carried out at least a mile, or even further, to well constructed pits. I believe these means, with charcoal used, as it is now at Jackatalla, will keep even large privies free from taint. An extensive compound should be marked out, and trees planted, particularly on the two monsoon aspects—all surrounded by an iron railing.

The rations are on the whole very good. Patatoes, though often wanting, are sometimes very bad; a Contractor at Bangalore or Ootacamund might be employed with advantage to keep up a regular supply; since the 74th arrived at Bellary, there has been a considerable demand for Soda water for the sick in Hospital—A Soda water Manufactory at this station might easily be started; I understand such establishments pay remarkably well elsewhere, and the subject may be thought worth considering.

(Signed) J. E. WILLIAMS,
Dy. Inspector General H. M's. Hospitals.

ORDER, No. 827, *27th February* 1860.

The Governor in Council proceeds to pass orders on such points connected with the general sanitary reports on Her Majesty's British Regiments serving in this Presidency, submitted with the foregoing letter, as seem to require special notice.

2. The Governor in Council concurs in opinion with the Commander-in-Chief, that any works which can at present be deferred without serious inconvenience, may be postponed:—Such improvements or alterations however as may be found necessary on sanitary grounds, will be promptly considered on the usual estimates being submitted.

3. His Honor observes, that subsequent to the date of the reports, many of the requirements in question have either been provided, or are in course of completion, as stated in the Quarter Master General's letter.—The report of the Committee on the new Hospital at Bellary is awaited.

Government of India, Public Works Department, 3rd February 1860, *No.* 610.

4. It is observed that the question of stabling for European Dragoons has been already disposed of as marginally noted, under the orders of the Government of India.

Proceedings of Govt. 1st Feby. 1839, *No.* 460.
Do. 6th June „ „ „ 1981.

5. Sanction has already been accorded under the orders of this Government* for the issue of lime juice whenever required,—and the question of a salt ration has been referred for the consideration of the Government of India, under whose orders the rations for European Troops are regulated.

6. Arrangements for the provision of iron cots are under consideration; but much difficulty has been experienced in deciding on the pattern to be finally established.

7. Referring to para. 4 of the Quarter Master General's letter, the Governor in Council observes that the Minute by His Excellency the Commander-in-Chief on the subject of the re-occupation of the old Infantry Barracks at Secunderabad, was duly forwarded to the Government of India, with the order of Government dated 3rd January 1860, No. 32, to which no reply has been received as yet.

(True Extract.)

Acting Dy. Secretary to Government.

To the Quarter Master General.
„ Dy. Adjt. Genl., H. M.'s British Forces.
„ Dy. Qr. Mr. Genl. H. M.'s British Forces.
„ Adjutant General.
„ Department Public Works.
„ Commissary General.

Exd. J. Davis.

No 31 1st Lancs f/6 No 79 & 80

PP Works 1860 Despatch
Proc: of Govt 20 Jan.
No 629.

Proceedings of the
Madras Govt in the
Military Despatch

Dated 27 Feby }
Received 9 March } 1860.

No 531-14 March No 827.

Reviewing the
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William Ord

No 531.

Ordered to be com
-municated to the Chief Eng
for information.

Fort St George
14 March 60

4 Copies to the Chief Engr with Gen. Ord. No 827

Desp 14