M.R.O. 14—18,000—27-6-34

MADRAS RECORD OFFICE.

Government of Madras.

Revenue **DEPARTMENT.**

G.O. No. 1403 Press ~~Mis.~~

480. 481

Dated 22 — 6 — 186 .

Not to be folded or roughly handled

Proceedings of the Madras Government, Revenue Department, 22nd June 1865.

No. 480. Read the following Proceedings of the Madras Government in the Military Department:—

Passing orders on certain correspondence relating to measures for the prevention of cholera on the line of march and in Cantonments. } (Here enter 3rd June 1865, No. 2,074.)

No. 481. ORDER THEREON, 22nd June 1865, No. 1,403.

Miscellaneous.

1. Ordered that the above Proceedings be communicated to the Revenue Board, with the following instructions with reference to their Proceedings dated 15th May 1865, No. 2,502.

2. Collectors will be directed to place themselves at once in communication with the Commanding Officers of Troops stationed in their Districts, with the chief Medical Officer at each Station, and with the Officer of the Quarter Master General's Department attached to the Division or District (if any), in view to the selection in the neighbourhood of every Military Station, of the most favorable sites for the formation of Cholera camps into which the Troops may be moved on emergency in the event of epidemic disease breaking out in the Station. This order applies to the Stations of all Troops, both European and Native.

3. In the selection of sites, the banks of rivers should be avoided. A raised, open site should be sought out, with natural facilities for drainage, and with a not distant supply of good water. The suitability of the site should be tested by observation during the rains, as well as in fine weather. The approaches to the several sites should be examined, and immediate steps taken to remove any serious obstacles to the progress of wheeled carriage towards them.

4. Sketch maps on the scale of one mile to the inch should be prepared of each site or group of sites, indicating their position, the lines of approach, the situation of the best water supply, and the relative position and distance of the neighbouring villages, and main lines of road.

5. Detailed reports on each site or group of sites should also be prepared, and the extent of the accommodation afforded by *each site* should be distinctly noted *on the map* and *in the report*.

6. The reports and maps will be communicated to the Officer Commanding the Station, and be submitted to Government with any remarks he may desire to make thereon.

7. The plans will be prepared by the District Survey Establishment, or by the Revenue Survey Department where possible, and in other cases application should be made to the Superintending Engineer of the Division, for the services of a competent Surveyor for the purpose. Copy of the plan and report will be lodged in the Staff Office of the Station concerned.

8. The sites should be pointed out to the heads of the villages in which they may be situated, and it must be understood that although there is no objection to their being cultivated, they must be held always available for the special purpose when needed, and that the approaches are not to be obstructed.

9. The Tahsildars of the Talooks concerned should be held responsible for seeing that these orders are observed.

10. Collectors will also take an early opportunity of inspecting the halting places along the most frequented lines of march for Troops in their Districts, keeping in mind the special requirements and conditions above-named, and reporting as to their apparent suitability for the purpose.

11. They will understand that the object contemplated in these orders is the avoidance of delay and uncertainty on occasions of sudden emergency, and of unfavorable camping grounds on all occasions.

(True Extract.)

(Signed) W. HUDLESTON,
Acting Secretary to Government.

To the Board of Revenue.
,, the Military Department.
,, the Public Works Department.
,, the Public Department.
,, the President Sanitary Commission.
,, the Officiating Superintendent of Revenue Survey.

Exd. S. T. Augustin.

MILITARY DEPARTMENT.

PROCEEDINGS OF THE MADRAS GOVERNMENT.

Read the following papers :—

From the President Sanitary Commission, Madras, 26th April 1865, No. 677; to the Secretary to Government, Military Department, Fort Saint George.

I have the honor to submit, for the information of Government, a Memorandum on the marching of the Native Regiments in the Madras Presidency, prepared by this Commission.

MEMORANDUM on the marching of the Native Regiments in the Madras Presidency.

1. The liability of Native Regiments to attacks of Cholera when marching, has been since the formation of the Sanitary Commission a subject of anxious consideration.

2. This Memorandum has been drawn up by the President, with the concurrence of his colleagues in the Commission, after conferring with Colonel Scott, the Quarter Master General of the Army. It embodies the recommendations on this subject, which they think it necessary to submit to Government.

3. The experience of past years has furnished certain facts in connection with this subject which it may be convenient to re-call before detailing any measures which, in the opinion of this Commission, should be prescribed for observance during the march of a Native Regiment.

4. In 1816 a very complete Report was prepared by Dr. Lorimer on the subject of Epidemic Cholera in Camps of the Native Army—and after a most careful examination of the Statistics of 24 years, the following results were obtained.

5. Of 602 marches, 144 were attended with Cholera. The Infantry and Artillery suffered most severely. The Sappers were least liable to attacks of Cholera when in Camp.

[*Statement*

6. It was also ascertained, as shewn in the following Tables, that there is an undoubted connection between the length of marches and the appearance of Cholera in Camps.

RETURN shewing the number of Regiments attacked on the line of march after every two hundred miles of road passed over from 1820 to 1824 inclusive.

Distance of each march.	Infantry.				Cavalry.				Artillery.				Sappers and Miners.				Total.			
	Number of marches.	Attacked.	Escaped.	Ratio of attacks to marches, per cent.	Number of marches.	Attacked.	Escaped.	Ratio of attacks to marches, per cent.	Number of marches.	Attacked.	Escaped.	Ratio of attacks to marches, per cent.	Number of marches.	Attacked.	Escaped.	Ratio of attacks to marches, per cent.	Number of marches.	Attacked.	Escaped.	Ratio of attacks to marches, per cent.
Under 200 Miles.	144	14	130	9·722	16	1	15	6·250	2	0	2	.....	14	0	14	.....	176	15	161	8·522
From 200 to 400 do.	222	58	164	26·126	28	4	24	14·285	6	4	2	66·666	18	3	15	16·666	274	93	205	33·944
,, 400 to 600 do.	83	27	56	32 530	12	4	8	33·333	3	1	2	33·333	1	1	0	100·000	99	33	66	33·333
,, 600 to 800 do.	27	16	11	59 259	16	4	12	25·000	1	1	0	100 000	1	0	1	.....	45	21	24	46·666
,, 800 to 1052 do.	6	4	2	66·666	2	2	0	100·000	0	0	0	.....	0	0	0	.....	8	6	2	75·000
Total...	482	119	363	24·688	74	15	59	20·270	12	6	6	50·000	34	4	30	11·764	602	144	458	23·920

By the following Table, it will be seen that the attacks progressively increase with the duration of the march, till about the end of the third month, when these reach as high as 61 per cent. in the Infantry, after which period the proportion of attacks would appear to diminish, though amongst the Cavalry and Artillery it increases.

TABLE shewing the proportion of attacks according to the number of days occupied in the completion of each march, from 1820 to 1844 inclusive,

Number of days on the march.	Infantry.				Cavalry.				Artillery.				Sappers and Miners.				Total.			
	Number of marches.	Attacked.	Escaped.	Ratio of attacks to marches, per cent.	Number of marches.	Attacked.	Escaped.	Ratio of attacks to marches, per cent.	Number of marches.	Attacked.	Escaped.	Ratio of attacks to marches, per cent.	Number of marches.	Attacked.	Escaped.	Ratio of attacks to marches, per cent.	Number of marches.	Attacked.	Escaped.	Ratio of attacks to marches, per cent.
Under 20 days	108	9	99	8·333	13	1	12	7·692	3	1	2	33·333	13	0	13	.....	137	11	126	8·029
From 20 to 40 do...	178	34	144	19·101	22	3	19	13 636	0	0	0	0·000	19	2	17	10·526	219	39	180	17·764
,, 40 to 60 do...	95	31	64	32 631	17	4	13	23·529	7	3	4	42·857	1	1	0	100·000	120	39	81	20·232
,, 60 to 80 do...	61	25	36	40·983	12	4	8	33·333	0	0	0	.....	1	1	0	100·000	74	30	44	40·540
,, 80 to 100 do...	13	8	5	61·538	5	0	5	.....	0	0	0	.....	0	0	0	.....	18	8	10	44·446
,, 100 to 120 do...	10	5	5	50·000	3	1	2	33·333	1	1	0	100·000	0	0	0	.....	14	7	7	50·000
,, 120 and upwards..	17	7	10	41·176	2	2	0	100·000	1	1	0	100·000	0	0	0	.....	20	10	10	50·000
Total...	482	119	363	24·688	74	15	59	20·270	12	6	6	50·000	34	4	30	11.764	602	144	458	23·920

7. It was also proved, as shewn in the following Tables, that large bodies of men are, when marching, more liable to attack than small Detachments, and that the death rate is in proportion higher.

Table shewing Ratio of Deaths to strength per thousand from Cholera in bodies of men varying in strength from under 300 to 1,500 while marching.

100 to 300 Men.....	24·2424
300 to 500 do. ...	29·5742
500 to 700 do. ...	24·3939
700 to 900 do. ...	35·9500
900 to 1100 do. ...	36·8574
1100 to 1534 do. ...	48·7322
Average of Total...	35·5242

Table shewing the Number of marches made and attacks of Cholera in bodies of men varying in strength from under 300 to 1,500—from 1820 to 1844.

	Number of marches.	Attacked.	Escaped.	Ratio of attacks to marches per cent.
100 to 300 Men...	53	10	43	18·867
300 to 500 do. ...	75	15	60	20 000
500 to 700 do. ...	98	21	77	21·428
700 to 900 do. ...	239	54	185	22·594
900 to 1100 do. ...	108	35	73	32·407
1100 to 1534 do. ...	29	9	20	31 034
Total...	602	144	458	23·920

8. The influence of weather as a predisposing cause is not so clearly established. "In the cool and dry and hot and dry weather, the ratio of attacks is nearly the same—and in the cold and rainy and hot and rainy weather the ratio also corresponds to a unit. It is also however a well established fact that in rainy weather, hot or cold, the ratio of attacks is nearly doubled."

9. Of the influence of the nature of the country and soil marched over, it was remarked that the greatest number of out-breaks of Cholera in Camps have occurred on Cotton soil and what is described as open country. Nearly one-third of the whole number occurred on the banks of rivers.

10. Of 95 Regiments who marched through Districts or Villages affected with Cholera, 83 were attacked and only 12 escaped, and in the case of these 12 Regiments, extraordinary care would seem to have been taken to prevent communication with infected villages.

Of 308 Regiments which marched, during a time when no Cholera was prevailing in the Districts and Villages, only 48 were attacked.

11. The practical deductions drawn by Dr. Lorimer from his elaborate investigation, appear to this Commission, perfectly sound, and they are as applicable and as valuable now as when they were originally announced.

1*st*.—That marches should not exceed two or three hundred miles.

2*nd*.—That as liability to attacks of Cholera increases according to the numbers marching, it is advisable to march Regiments by Wings and to reduce as much as possible the number of followers.

3*rd*.—That the greatest care should be taken to ascertain, prior to marching Troops and while marching, whether Cholera prevails on the line of road to be traversed by Troops.

4*th*.—That the banks of rivers should be avoided as encamping ground, and a raised open site always selected

5*th*.—That Regiments should be moved in the cool or dry, or in the hot and dry seasons of the year, all movements in the wet season being avoided.

12. The aggregation of a very considerable number of men, women and children in Camp, in itself affords the condition most favorable to the development of epidemic disease. In the case of Native Regiments not only is there this unfavorable condition, but the presence of the Regimental families adds much to the inevitable fatigue to which the Sepoy has to undergo on the march.

13. From the state of many of the roads and from the fact that the carts containing the families are overladen, these, though preceding by a few hours the march of the Regiment, seldom reach the halting ground till a considerable time after the arrival of the Regiment. The consequence of this is that a majority of the Sepoys return over a considerable portion of the ground traversed in the morning's march, to look after and assist their families into Camp which in some cases they do not reach again till past noon.

14. During the whole of this time the Sepoys have been waiting for the meal that they should properly consume shortly after their arrival in Camp. So that since the meal of the previous evening they have nothing to support nature while undergoing great fatigue, except conjee or a small quantity of cold rice remaining from the meal of the previous evening. The same privation is endured by the families and by the Camp Followers.

15. It must also be remembered that as the families frequently start at 2 and 3 A. M. when the Sepoys assist at the packing and starting of the carts, the Native Soldier during a march is deprived of a considerable portion of his usual rest.

16. It is difficult to conceive any combination of circumstances more favorable to the development of disease than those detailed above. A change of the usual habits of life, change of climate and water, unusual and excessive fatigue, irregularity of meals and long fasting and the privation of rest at night.

17. Most of these disadvantages would be obviated if the families were marched under sufficient guard, separately from the Regiment.

But to this it is objected that the Native Army of this Presidency regard it as their right to carry their families with them on their marches on ordinary home service, and that they would feel the greatest dissatisfaction at any change in this respect. Change of Station, already a source of heavy expense to the Sepoy, would be more distasteful than it now is; and should the families be attacked by severe epidemic sickness, when separated from their Sepoy relatives, they would be utterly helpless, and the knowledge that they were exposed to this danger would create such anxiety in the Regiment as would seriously interfere with the health and discipline of the Native Soldiers.

18. These objections are urged by Officers of great experience, and it only remains for this Commission to make such suggestions as may mitigate the evils attendant on the families and followers accompanying Regiments when marching.

19. It may fairly be considered as an established fact that the ratio of attacks increases in a marked degree according to the length of march. We would therefore respectfully urge the importance of losing no opportunity of taking advantage of water communication and of the Rail-roads.

In the case of the 4th Regiment which suffered so severely from Cholera recently, while marching to Secunderabad, the only objection to their proceeding by Rail to Cuddapah, at a saving of 150 miles of distance, was the high price of carriage in the Cuddapah District. But this seems hardly to justify allowing a Regiment to march 392 miles by a road notorious for its unhealthiness, for the difficulty of obtaining supplies and for the badness of the only water procurable.

20. Every precaution should be taken that Regiments should be so relieved as to ensure each Regiment having as short a march as possible. This no doubt does receive due attention, but the fact that the liability to attack by Cholera greatly depends on the duration of the march, cannot be too earnestly or too often brought to notice.

21. We would also beg to bring prominently to notice another important fact, that the liability to attack increases according to the numerical strength of the men present with the Corps on a march, and we would most strongly advocate that in future Native Regiments should move by Wings.

22. Each of these Wings would have their families with them but the total aggregation of living beings in Camp would be reduced by one half. The only additional expense to the Government would be the providing Medical assistance during the march for the divided Regiment.

23. An interval of at least ten days should be prescribed between the march of each Wing and they should be prohibited from occupying the same Camping grounds.

24. Supposing a Regiment to march by Wings, the following suggestions are made as to the march itself.

I. The marching distance should as a rule not exceed ten miles per diem, and the march should commence one hour before sun-rise. To start earlier deprives men of their rest. If the road is bad the men cannot in the dark march briskly and if the roads are good an earlier start is unnecessary.

II. The men should be required to step out, it being more tiring to walk slowly under the weight of their arms than to get over their ground at the pace of 3½ miles an hour which will secure their reaching their halting ground in good time.

III. The bandies containing the families should all leave the Camp together between the hours of 3 and 4 P. M., with an escort of the strength of one half Company under two Native Officers. The men should be told off in equal numbers from each Company. The Quarter Master or the Officer performing the duties of Quarter Master with the Wing of a Regiment should follow the families at such an interval as will enable him to overtake them and reach the Camping ground in sufficient time to select as good Camping ground for the families, as for the Troops.

IV. When the carts of the families arrive on the ground, the guard that has accompanied them should, under the direction of the Quarter Master, direct the Carts to spread out as much as the nature of the ground will admit; no crowding must be allowed, and the bullocks instead of being tied to the cart-yoke should be picketted in the rear, or to the side of the Camping ground and at some little distance.

[The advantage of making the families move in the afternoon is that the men reach their Camping ground before night—and the Sepoys are secured from the perpetual noise and disturbance which breaks their rest, if the families move late in the night or at a very early hour in the morning. The families are also able to have a meal ready cooked for the men on their arrival at the camping ground and the second meal can be prepared and eaten before the families move off in the afternoon.]

V. No bandies should under any pretext be allowed to leave the Camp during the night; such movements disturb the whole Camp, and the Regiment when it marches in the morning finds the road obstructed and the men make excuses to fall out and assist the carts.

VI. The tents required for the escort which accompanies the families will be carried as usual on bullocks, which will start in the afternoon with the carts belonging to the families. By the time the Sepoys have eaten their morning meal prepared against their arrival all the tents will have arrived and have been pitched.

VII. It is of great importance to select camping grounds where there is good drinking water available and to guard these, when found, from being polluted by the careless habits of Native Soldiers and camp followers. Unless prevented, these will not hesitate to bathe, wash dirty clothes, and water the camp cattle in the same tank from which the drinking water is taken. It is therefore absolutely necessary to place a guard over the wells, the tank or stream from which the drinking water is taken, and this precaution should under no circumstances be neglected.

VIII. Care should be taken to impress on the Sepoys and through them on their families and camp followers to avoid eating on the march unripe fruit and vegetables. These they habitually consume in excess, and render themselves liable to bowel complaints which not unfrequently assume a choleraic character. Of course it is difficult effectually to prevent the Sepoys eating this unwholesome food on the line of march, but something can be done, towards it, by a careful inspection of the provisions offered for sale in the camp bazaars and by rigidly excluding any food of an unwholesome char acter.

25. It remains to make a few remarks upon the subject of the manner in which the Regimental families are carried during a march. The high rate of bandy-hire compels the Sepoys to join together for the conveyance of their families and to reduce the amount of carriage as much as possible. The absence of all unnecessary carriage is a matter of great importance, but the excessive crowding in carts, closed at either end by heavy purdahs, has a very injurious effect on the health of the women and children who pass several hours in these carts.

26. It is no unusual thing to see eight or ten women crowded into a single cart, the front of the cart blocked up with a miscellaneous heap of baskets and bundles, a carpet or native blanket being hung over the front as a purdah and excluding all fresh air. The women and children are seated on foul bedding and dirty clothes and at the back of the cart is hung a similar 'purdah' to that in front. The foul smells arising from dirt and overcrowding are enough to generate disease, and are perceptible to any one who has ever ridden close to the carts of a Regiment when marching.

27. There should be a halt at least once a week, and on this day orders should be issued and enforced for a thorough washing of all clothes, and for the complete purification of the carts and the matting which forms the hood of the carts. This should be done by Companies and under the superintendence of the Native and Non-Commissioned Officers. A report should be made by the Officers of each Company to the Adjutant of the Regiment that they have personally ascertained that this order has been carried into effect.

28. Another evil influence on the health of the Sepoys during their march is their poverty.

They have received advances of pay some considerable time before starting; a part of this advance has been retained to pay for the carts furnished for the use of the families, the rest has either been expended in paying small debts previous to leaving the Station or, as is often the case, has been spent in dissipation.

The consequence is that both the Sepoys and their families, though the former receive batta while marching, are poorer and less well fed during a march than at any other time, and are consequently less able to resist the attack of epidemic disease.

29. The following short account furnished by Colonel McGoun, of the course followed by him when commanding the 6th Regiment seems, if the Sepoys are to continue to pay for carriage, worthy of imitation.

"Notice that the Regiment would march from Secunderabad to Bangalore was received in July—the Regiment actually marching in January.

Men were put under stoppages on account of bandy-hire at the rate of one Rupee per month. This was done with the consent of the men.

Carriage was provided as follows:—

Native Officers, each two carts.

Havildars each one cart.

Rank and File—one cart to four men.

Two hundred and thirty-seven carts were required to enable the Regiment to march. Pay was drawn for the month in which they marched, January, and for February in advance. Three Rupees were disbursed to the men before they started; the balance was kept in deposit and issued to them during the march at the rate of a Rupee a week.

* * * *

A body of Artificers and a large working party accompanied the carts, and when any broke down or were upset, they were speedily righted.

A steady Non-Commissioned Officer was also associated with the Cart Maistries to assist them; and so well were the arrangements carried out that even the broken down carts were up by noon.

* * * *

The stoppages on account of cart-hire before the Regiment marched were seven Rupees from each man. Nothing was stopped from the Native Officers.

* * * *

The small balance due by the men for cart-hire (about one Rupee each) was recovered on the first issue of pay in April.

* * * *

the total number of people in Camp was.....3,484

30. It is not within the province of this Commission to make recommendations to the Government regarding the pay of the Native Army, or regarding the stoppages made from it.

But it is a matter of regret that the Sepoy and his family, are undoubtedly less well fed at present than they were twenty years ago, and that the prospect of a change of station is rendered most distasteful to the Sepoy from the very heavy expense which it entails on him.

31. For months before the march takes place they are suffering from the reduction which is necessary in order to pay for carriage or else the advances made at the time of marching are nearly all swallowed up for carriage and they are half starved during the march. They are then under stoppages for a considerable time after they reach their new Station. When the Sepoy arrives at a new Station he is put to other petty expenses before he settles down in the Regimental Lines.

32. These expenses reduce considerably the pay upon which he has to support himself and his relations, and it may be worthy of the consideration of His Excellency the Commander-in-Chief whether the time has not come for the Government to supply the carriage required when a Native Regiment changes its Station.

33. It is the established custom for the Madras Sepoy to carry his family with him and although this system has its disadvantages, it has also many advantages, as shewn in the excellent behaviour of the Madras Native Soldiers in the Cantonments and in their freedom from many of the vices attendant on other armies who are deprived of their families. The concession above suggested would be regarded as a great boon by the Native Army and would, I am persuaded, have a directly beneficial effect on the health of the Troops.

34. It remains to notice what should be the measures adopted when Cholera actually breaks out on a line of march. In this Memorandum which has for its object the prevention of liability to Cholera, it is not proposed to enter into detail on the question of how best to arrest the continuance of epidemic disease when it has made its appearance in a Regiment on the line of march. Much must of course depends upon the character assumed by the disease and whether it can clearly be traced to intercourse with infected towns and villages on the line of march —or whether it would seem to have been generated in the Regiment itself, or the Camp Followers, without communication with infected localities.

35. If it appears that the Regiment is following a road which passes through an infected locality, no effort should be spared to leave the road, and move the Regiment towards its destination by a different though more circuitous route—In an admirable order issued by Sir H. Rose on this subject it is laid down, that "Should Cholera follow the Troops, they will be moved short distances at right angles if posible to the prevalent wind and tract of the disease." A divergence of four or five miles is often sufficient to avoid the line of progress of the epidemic; and short marches, even over a difficult country, with tolerably frequent halts, will probably be found preferable to following a high road known to be infected or to halting in one place when Cholera has declared itself. The greatest care should be taken in the selection of camping grounds and in the conservancy of the Camps, both of the men and of their families, and it should be insisted that the Camp Latrine Trenches should be used instead of the usual practice of fouling the whole immediate neighbourhood of the Camp. This is essentially necessary on halting days.

36. Care should be especially directed to ensure abundant food being consumed both by the Sepoys and their families during a Cholera season, and advances to be expended for this important object should be given to the Sepoys. Imperfect nourishment is certain to predispose men to attacks of Cholera or any other epidemic disease which may be prevalent in their neighbourhood.

37. The Sepoys and the families should be encouraged to bring to speedy notice any attacks of diarrhœa, or any premonitory symptoms of Cholera, however slight, that manifest themselves. It should be explained to them how effectual Medical treatment is, in the earliest stages of the disease, and of how little avail when the disease has fully declared itself.

20th April 1865.

(Signed) R. S. ELLIS,
President of the Sanitary Commission.

From the Quarter Master General, Fort Saint George, 6th May 1865, No. 5139; to the Secretary to Government, Military Department.

I have the honor, by order of His Excellency the Commander-in-Chief, and with advertence to Proceedings of Government, No. 1566, dated 26th ultimo, relating to the measures to be adopted in this Presidency for preventing, as far as possible, attacks from Cholera in Garrison and in Camp, to say, that he thinks the best course will be to furnish every Corps in the Service with a copy of the Pamphlet entitled "a re-print of the third Section of Bengal Cholera Commissioners' Report" for information and guidance, and to be retained in the Regiment as a public Record.

2. In addition, the Commander-in-Chief would re-publish in G. O. C. C. Sir Hugh Rose's G. O., found at page 127 of the Volume for 1862, and also that at page 450 of the same Volume.

3. The Commander-in-Chief proposes to substitute the following for paragraph 4 of the first named Order.

"Paragraph 4. Whenever Cholera in a Regiment threatens to manifest itself in any unusual degree or epidemic form, the Regiment shall be immediately moved into Camp, and no unfavorable condition of the weather is to prevent this movement being "carried out." The Principal Medical Officer Her Majesty's British Troops considers this amendment, on Sanitary considerations, judicious, not only would it be politically impracticable in some cases to move an entire Garrison into Camp, but it would be also impossible to do so: for no Garrison has Tents, Cattle or Carriage and Followers for such a Force.

4. In the second G. O. referred to in paragraph 2, there is authority given for Sweepers and Bildars to make trenches, &c. In this Presidency there are only Sweepers called Totics, and it is not likely that they could be made to undertake this duty in addition to their ordinary duty. Bildars there are none, nor any class corresponding to them. European Regiments have no Lascars of their own, though Native Corps have, and Tent Lascars supplied are so few, that their aid could not be expected; besides none of these servants would allow themselves to be used for digging and filling latrine trenches. The Commander-in-Chief can only therefore recommend that, in this Presidency, Coolies be employed by Commanding Officers of Regiments in Camp, and that they be paid on Contingent Bills like all other similar marching expenses.

5. In their Order of the 26th ultimo, No. 1566, Government notifies to the Revenue Department, that part of Colonel Norman's letter which directs a Camping ground to be fixed at every Station. But the Revenue Department is not every where influential in this Presidency, at Secunderabad, for instance. The Commander-in-Chief therefore requests that where the Revenue Department cannot assist, the Public Works Department may be requested to do so.

6. Should Government concur in these proposals, the Commander-in-Chief will publish in G. O. C. C. an Order embodying the whole.

From the President Sanitary Commission, Madras, 6th May 1865, No. 23; to the Secretary to Government, Military Department, Fort Saint George.

I have the honor, with reference to the Order of Government, No. 1566, dated 26th April 1865, to state that on the 22nd April 1864, I addressed the Secretary to Government, Military Department, requesting to be informed whether any instructions had been issued, under the sanction of Government, regarding special measures to be adopted for the prevention of Cholera among the European Troops in this Presidency. In this letter, I alluded to the Report of the Cholera Commission and to the preparation necessary to carry into effect the recommendations of that Commission.

2. My letter was referred under an Order, No. 1441, dated 29th April 1864, to the Commander-in-Chief, and an application was made to the Government of India, for copies of the Report of the Cholera Commission. On the 1st of September 1864, I requested the Quarter Master General to inform me whether any measures were to be adopted in case of an out-break of Cholera among European and Native Troops, and if any additional Camp Equipage was being prepared for this purpose. In this letter I drew the attention of the Quarter Master General to the Proceedings of Government in the Military Department, and to the Order, No. 1441, dated 29th April 1864.

3. Under date 9th September, the Quarter Master General informed me that no preparation was needed by the Department to meet out-breaks of Cholera; Camp Equipage and Cattle for its carriage being ready for use at any notice.

4. On the 30th January 1865, I again addressed the Quarter Master General, and with reference to paragraph 468 of the Report of the Cholera Commission, I requested to be informed if, in addition to the provision of Camp Equipage, Camping grounds had been selected, and whether any instructions had been issued, such as those suggested in the Cholera Report for carrying out the recommendations of the Cholera Commission. In reply I was informed by the Deputy Quarter Master General on the 13th February 1865, that the Report of the Cholera Commission had only been received officially on the 9th February, and that it would be submitted to His Excellency the Commander-in-Chief immediately on his return to Madras.

5 On the 13th March 1865, I received a letter from the Quarter Master General, in reply to my letter of the 30th January 1865, informing me that no orders were issued by the Government for the Commander-in-Chief to act on the suggestion of the Cholera Commission.

6. Colonel Scott proceeded to state that, with reference to his previous letter of the 9th September 1864, that the "selection of encamping grounds in the neighbourhood of Cantonments has not been carried out *advisedly*, because it was not considered that there was any necessity for it. Troops are moved out into camp when Cholera breaks out of course, but the selection of the ground is left to the discretion of the Division Commanding Officer, with reference to the circumstances of the time. Nor has any inconvenience ever been found to arise from this arrangement."

7. In reply to this letter, I wrote to the Quarter Master General on the 25th March 1865, as follows:—

I. I have the honor to acknowledge the receipt of your letter, No. 3092, dated 13th current, in which I am informed "that the selection of encamping grounds in the neighbourhood of Cantonments has not been carried out advisedly, because it was not considered that there was any necessity for it, the selection of the ground being left to the discretion of the Division Commanding Officer when Troops are moved into Camp when Cholera breaks out." I would most respectfully beg a re-consideration by His Excellency the Commander-in-Chief of this decision.

II. One of the facts elicited by the Commission appointed to enquire into the Cholera epidemic of 1861 was, that on the occurrence of a severe epidemic of Cholera, it happened, almost every where, that there was not sufficient information regarding the character of the Camping grounds available, or the routes by which they might be reached, nor had previous enquiry been made into the previous character of the neighbourhood with regard to liability to Cholera or exemption from it. It has also to be remembered that the ground must be high, with natural facilities for drainage, and with a supply of good water.

III. It may be necessary to move out the whole of the Troops into a single Camping ground; it may be necessary to have several distinct Camps so as to reduce the numbers in each Camp: and occasional change of ground may be very desirable. These Camping grounds must be examined during the rainy season, in order to determine if they are suitable at all seasons of the year. The approaches to the selected Camping grounds must be maintained in good order.

IV. All these considerations indicate, I submit, a greater amount of previous preparation than can be provided under the emergency of an out-break of severe epidemic sickness.

V. I feel the less hesitation in again bringing this matter to the consideration of His Excellency the Commander-in-Chief, after perusing the Orders of Government of India, No. 11, addressed to the Secretary to Government, Fort Saint George, Military Department, under date 1st September 1864.

VI. In these Orders the Governor General is of opinion that the Local Governments should be requested to appoint a Civil Officer at each Station to make the necessary enquiries as to the best sites for the Camps, and to select such as may appear most eligible in conjunction with the Officer of the Quarter Master General's Department attached to the Division or District.

VII. Full reports in detail, accompanied by a sketch Map on the scale of 5,000 feet to an inch, were directed to be prepared, containing all the information referred to in paragraph 468 of the Cholera Report. Copies of these were to be furnished to the Government and to the Sanitary Commission.

VIII. I observe from your letter, dated the 9th September last, that no preparation is considered necessary in your Department to meet out-breaks of Cholera—Camp Equipage and Cattle for its carriage being always ready for use at any notice. It does not appear whether these remarks are intended to apply to Madras itself or to every Station in the Presidency in which Troops are stationed.

IX. On this point I beg to refer you to the remarks in the Cholera Commission Report, paragraph 471, and to the probability of aid being required from the Civil Authorities to provide carriage on an emergency such as the out-break of Cholera.

X. I may mention that when I was last at Bangalore I visited, with the Deputy Inspector General of Hospitals, three sites which it was proposed to select as Cholera Camps.

XI. I also learn from General McCleverty, Commanding Centre Division, that a Camping ground at the Red Hills, to which on the occurrence of an out-break of sickness Troops could be moved, has been selected by him, and approved by the Government—the proposal regarding this Camping ground having been submitted to Government through the Quarter Master General's Department and after being favorably noticed by His Excellency the Commander-in-Chief.

XII. I mention these facts as being in contradiction to the expression in your letter under acknowledgment, "that the selection of encamping grounds has not been carried out advisedly."

8. In reply the Quarter Master General on the 7th April wrote.

I. I have the honor, by order of His Excellency the Commander-in-Chief, to acknowledge receipt of your letter, dated 25th ultimo, No. 585, and I proceed to reply to your observations.

II. Previous to the arrival of His Excellency the Commander-in-Chief from his last Tour, nothing had been before him regarding encamping grounds in the vicinity of Cantonments, except Sir H. Rose's G. O. of 7th April 1862, which on being submitted to Sir H. Grant at the time of its receipt, he decided that the Order as relates to encamping grounds need not be carried out in this Presidency, where no difficulty in the matter had ever been felt. The omission was therefore advised.

III. The Orders of the Government of India, which were only sent to this office, on being applied for, in February last, have been communicated only without any authority of action, but this has now been asked for—the Commander-in-Chief having no authority to appoint a Civil Officer at each Station for any duty.

IV. There are Camp Equipage, Sick Carriage and public Cattle at every Station where there are European Troops, and Camp Equipage and Sick Carriage

and a few public Bullocks at every Station where there are Native Troops, proportioned to the Military exigencies of the force; but sufficient no where to cover the whole Garrison in the Field. If extra carriage were required on a Cholera emergency it would have to be impressed, if not otherwise obtainable.

V. No Orders have been addressed to the Officer Commanding the Mysore Division relative to the selection of ground at Bangalore, and the ground at the Red Hills being the only spot selected for the purpose, the contradiction you speak of does not appear.

VI. But the Commander-in-Chief having now for the first time had opportunity of perusing the Orders of the Government of India, measures shall be taken to carry them out, should the Madras Government not interpose.

I have entered into this detail in order to make it clear to the Government that the Sanitary Commission has, from the date of its constitution, been fully alive to the importance of the question of Cholera Camps, and that I have endeavoured to the utmost of my ability to bring the subject to notice.

Proceedings of the Board of Revenue, dated 15th May 1865, No. 2502.

Read the following Proceedings of the Madras Government, Revenue Department, dated 5th May 1865, No. 936.

ABSTRACT—Forwarding an Order of the Military Department, regarding the selection of encamping grounds, and drawing the Board's attention to paragraphs 3 and 4 of Colonel Norman's letter, for the issue of necessary instructions to Collectors on the subject.

The Board request that they may be informed whether the Stations referred to in Colonel Norman's letter are the ordinary Stations of European Troops only, and whether the encamping sites proposed are to be selected in the vicinity of such Stations only.

(A true Extract.)

(Signed) R. A. DALYELL,
Acting Secretary.

Transferred to the Military Department for disposal.

16*th May* 1865. (Signed) W. HUDLESTON.

ORDER, No. 2074, 3rd June 1865.

The Governor in Council proceeds to pass orders on the foregoing papers, relating to measures for the prevention of Cholera on the line of march and in Cantonments.

2. The President of the Sanitary Commission submits a memorandum on the marching of Native Regiments in this Presidency; and His Excellency the Commander-in-Chief, in the foregoing letter from the Quarter Master General, reports on the subject of the Pamphlet "on measures for the prevention of Cholera among European Troops in Northern India."

3. The principal points for the consideration of Government are the selection of such measures now recommended for adoption, from the many valuable suggestions contained in these papers; and although precautionary and remedial measures have, from time to time, been provided for under the orders of Government and the Commander-in-Chief, occasion has not hitherto offered for establishing any definite Rules for guidance, with any confidence of success in their remedial or preventive efficacy.

4. The Commander-in-Chief proposes that the Pamphlet adverted to in paragraph 1 of this Order be furnished to every Corps in the service, and to re-publish the General Orders by Sir H. Rose as marginally noted, with a modification of paragraph 4 of that of the 7th April 1862. It appears to the Governor in Council, with reference to the latter point, that the movement of a Regiment under the conditions named should not be absolute, but contingent on the concurrence of the Chief Military and Medical Authorities on the spot.

G. O. C. C. in India, dated Head Quarters, Simla, 7th April 1862.
G. O. C. C. in India, dated Head Quarters, Camp Agra, 14th November 1862.

5. Referring to paragraph 4 of the Quarter Master General's letter, the Governor in Council approves of the expenses incurred in giving effect to the measures sanctioned for the object in view being adjusted by Contingent Bill.

6. In the selection of encamping ground at Stations not coming under Madras Revenue Jurisdiction, the course proposed in paragraph 5 will be adopted, in communication with the Resident or Commissioner of Provinces who will be addressed on the subject; further, it appears desirable that, in connection with the Local Authorities concerned, a general revision of halting places on all the more frequented routes may, with advantage, be effected, in view to the selection of more eligible ground when necessary,—camping grounds in the vicinity of Stations occupied by Troops will be selected at once, in communication with the authorities above adverted to.

7. In drafting the G. O. proposed in paragraph 6 of the Quarter Master General's letter, the suggestions of the President of the Sanitary Commission, in his memorandum, should be generally embodied and established as Rules, and special attention enforced to that in paragraph 27, which it is observed is adverted to in G. O. C. C., No. 15, dated 15th March 1854.

8. To meet the pressure falling on the Troops for Cart-hire on change of Station, it appears that the "*Cart-funds*," now understood to exist in several Native Corps, might be generally established regimentally, with advantage, should His Excellency the Commander-in-Chief approve of such arrangement being voluntarily introduced under his suggestion and encouragement. Pending the maturity of the Regimental arrangements which the Commander-in-Chief may recommend, when Corps are moved suddenly on emergency, Government will be prepared to sanction an advance of Cart-hire on the usual terms, to obviate the acknowledged evils adverted to in paragraph 28 of the memorandum by the Sanitary Commission.

9. Any further Orders required on this important subject will be duly provided for on the submission of the proposed draft G. O., which will be forwarded for the consideration of Government, through the Controller of Military Accounts.

(True Extract.)

R Macmillan Lieut
Under Secretary to Government.

To the President Sanitary Commission.
" Quarter Master General.
" Revenue Department. Will 10 spare Copies
" Adjutant General.
" Controller of Military Accounts.
" Military Accountant.
" Examiner Pay Department.
" Principal Inspector General Medical Department.
" Commissary General.

Exd. T. Stubbs.

since breaking out in the station. Since

Privy Council Office
22nd June 65
No. 1403
Ent. Rec. of Let. Rs. 3 June
1865. No. 2074. Instr. D.

Board have the honor
to command that
Her. Rs. will be pleased
to direct instructions
to issue to
Staff Surgeon Mackay 15 May 1865 No. 2502.
Orders of this date
to place himself
once in communication
with the Senior Officer
of troops stationed in
Fiume for, & with the Chief
Medical Officer at each
station in order to the
selection in the neighbourhood
of suitable stations,
of the most favorable
sites for the formation
of Cholera Camps in case
the troops may be
required on emergency
in the Croatian Frontier
Service, treating not
in the station. Should

and with the Officer of
the Quarter Master's
dept. attached to the
Division or District
(if any)

WOM
JP

Foreign Office May 15th 1865.

Sir,

I am directed by Earl Russell to transmit to you, to be laid before the Lords Commissioners of the Admiralty, a Report from Staff Surgeon Mackay, dated Fiume, 9th instant, on the Sanitary State of that Port.

I am, Sir,
Your most obedient
humble Servant
Edmund Hammond

The Secretary to the
Admiralty

Rec. May 16th 1865 Admiralty
No. 1403 Dec. 22nd 1865.

Reading with the
Sanitary Report.

Plates 3 & 3 June/65
Received Dec. 22nd 1865.

Foreign Office 1403. 22 June
Relative to the
measures for the
selection of Cholera
Camps in case the
troops may be
required on emergency
in the Croatian Frontier

Rec. Board of Customs
May 16th 1865

Admiralty
May 16th 1865

Customs May 16th

applies to the Stations of
all Troops - to the European
& Native.

In the selection of sites,
the banks of rivers should
be avoided - a raised open
site should be sought out -
with natural facilities for
drainage - & with a not
distant supply of good water.

The approaches to the several
sites should be examined -
& immediate steps taken to
remove any obstacles to the
progress of wheeled carriage
towards them.

Sketch maps on the scale of one mile
~~to the inch~~ to the inch should
be prepared of each site or
group of sites - indicating
their position - the lines
of approach - the situation
of the best water supply - and distance
& the relative positions of
the neighbouring villages.
& main lines of road.

Separate reports on
each site or group of sites

The sketch maps to
accompany
reports to be
prepared by
the Executive
Officers -

should also be prepared
and the options of the accom-
modation afforded by each
site should be distinctly
noted on the Sketch - & in the
Report.

The reports & Sketch
will be communicated to
the Officer commanding the
Station - who will submit
to Govt. with any remarks
he may deem desirable
thereon. The plans will be
prepared by the Dy. Surveyor
or by the Revd. Survey Supt. where found to be
necessary -

and in this case
application should be made
to the Supdg Engr. of the
Circle for the services of
a competent Surveyor
for the purpose.

Copy of the plans &
reports will be lodged
in the Staff Office of
the Station concerned.

The sites should be
pointed out to the Field
Officers in Dy. Surveyors
by the Villages in Dy. Survey
or by the situated &
~~in the neighbourhood of the~~
~~Stations and Cantonments~~
~~in which they are~~
~~to be selected~~
~~they may be~~
also
available for the special
purposes of the selected
& that the approaches
thereto shall be constructed
The Govt. of the Station
concerned shall be held
responsible for seeing
that these orders are
observed -

Colonels will also take
an early opportunity of

inspecting the halting places
along the most frequented
lines of march for troops in their Dt
~~in view to the selection of more~~
~~favorable ground than~~
~~occasion~~ keeping in mind
the special requirements &
conditions above named.
and reporting as to their appearance in details
for the purpose.
They will understand that
the object contemplated in these
orders, is the avoidance of delay
& uncertainty on the occasions
of sudden emergency - and
of unfavorable camping grounds
on all occasions.

The Govt attach very great
importance to this subject -
& desire to impress on all
Collrs that they look for their
best exertions in the matter
& immediate attention to it.

In order also to facilitate
the movements of troops on
emergent & ordinary occasions - & to insist to great the Lordship to cart owners should be altogether avoided -
the Govt desire that every Collr
will in communication with
the Commiss. Officer in his Dt
& with the Commandg Officers of
troops stationed there - Open &
maintain a register of Cart
owners in his District - showing

names and residences
of all cart owners -
the number of carts
belonging to each -
& the date & circumstances
of his cart being last
taken up for troops -
and every endeavour
should be made to
render the service when
required of them - as
little irksome & as fairly
distributed as possible
Especially should every facility be x

x given for carts taken from one & the same village to march & camp together when taken up for troops - disregard of this simple precaution often entails great & unnecessary addl hardship -

It will be considered
in the Mil Dept. whether
inducements cannot
be offered to [illegible] to
maintain [illegible] amt of
wheeled or pack
carriage [illegible] stores
&c. [illegible] available
for hire & use on the
occasion of troops
moving - or means of
transport for stores requiring

LA

100

To The [illegible] offices [illegible] 7. 6. 63

7/81 Mil Dept. S
6 Public Works D. S
3 Public D. S
Sanitary Commn S
10 ~~Commissary Genl~~ [illegible] S

26-4-66 ✓

Revenue 1865 Vol 16
Proc 30 for June

— 6408 -

Pro: of the Madras Govt
D/ 22 June 1865

Pro: Military Dep.t D/ 13 July 65
& N. 1954
Pro: B.d of Revenue dated 10th
August 1865 & N. 2291

Passing orders on
the selection of sites
for the formation of Cholera
Camps.

Pro Board of Rev.e
D/ 16 Feby 1866 Cir. 538

Pro of the Madras Govt
Military Dep.t of 2 December
65 C. 3471

Pro: B.d of Rev.e D/ 1 Aug 65
& N. 2078.
Further 28 Oct 65 & N. 2991
Forwarding Copy of Circular
No 21 of 1865 & N. 240-

No 480 4487

Rep. Cons 29 Jan 66