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MADRAS RECORD OFFICE.

Government of Madras.

P. W. DEPARTMENT.

G.O. No. 1224	Press Mis.
380-381	
Dated 22-4 —	18 68.

Not to be folded or roughly handled

No. 380. Read the following letter from the Secretary to the Government of India, Public Works Department, (Military Works,) to the Local Governments and Administrations, dated Fort William, 21st March 1868, No. 22:—

1. In forwarding the accompanying copy of an Extract from the Proceedings of the Government of India, in the Military Department, No. 139, dated 3rd March 1868, and of its enclosures, relative to the purification of wells by periodically cleaning them out, and protecting them by an ample coping, with a platform of masonry, having an exterior slope to prevent the return of water, I am directed to request that, in order to enable the Government of India to form an idea of the probable cost of applying this measure to wells in Cantonments, two or three average Military Stations should be selected, and detailed estimates in respect of them be prepared. A rough calculation of the expense for the whole Province can then be made, and a statement, with the required data, submitted for the information and orders of the Government of India.

2. In framing the estimates, it will be necessary to consider—(1), the cost of constructing the masonry works where wanting; (2), the annual expenditure in repairs, and in the cleansing of wells: and the statement should, as required by the Military Department, show the cost—

1st.—If all wells in Cantonments are treated as above.

2nd.—If only a proportion as drinking-water wells are so treated.

Copy forwarded to the Governments of Madras and Bombay, and to the Military Department, Quarter Master General, Adjutant General, and Sanitary Commissioner with the Government of India, for information.

(Signed) E. C. S. WILLIAMS, Captain, R. E.,
Under Secy. to the Govt. of India.

To the Secretary to the Government of Madras, in the Public Works Department.

Extract from the Proceedings of the Right Honorable the Governor General of India in Council, in the Military Department,—No. 139, under date the 3rd of March 1868.

Read the following papers having reference to certain proposals for the purification of drinking-water for the troops and others in Cantonments, encamping grounds, barrack squares, &c., viz. :—

From Quarter Master General, No. 519 C, dated 11th February 1868.

From Sanitary Commissioner, Government of India, No. 50, dated 19th February 1868.

OBSERVATIONS.—The proposal as put in paragraph 8 of the Quarter Master General's letter is of the most extensive description, and seems a little beyond the province of the Military Department; and the Governor General in Council, before giving an opinion, or passing orders on the question, deems it expedient to ascertain the cost of the measure with reference to wells in Cantonments.

From the Quarter Master General, to the Secretary to the Government of India, in the Military Department, dated 11th February 1868, No. 519 C.

1. An important point has suggested itself to the Commander-in-Chief in India with regard to the purification of drinking-water for the troops and others in Cantonments, encamping grounds, barrack squares, &c.

Proceedings of the Madras Government, Public Works Department.
22nd April 1868.

2. It is true that efforts are now made to filter tanks on a considerable scale, as well as to urge the troops to apply the use of filters to the water after it has been brought to the barracks.
3. But it does not seem to have occurred to the several Sanitary authorities that much may be done for averting impurity in the first instance before the water is drawn.
4. During his late inspection of the Saugor District, this point was especially urged on the Commander-in-Chief by some of the Civil authorities, who dwelt on the advantage which would be secured by the periodical cleaning, under regulation, of all wells in towns, Cantonments, encamping grounds, &c.
5. In wells both in use and disuse, a vast quantity of organic and vegetable matter is continually accumulating, such being composed of the washings of dirty vessels, rotten leaves, &c., and no one who has witnessed the cleaning out of a well in this country could but have been struck with the amount and putrid nature of the matter excavated.
6. In very many instances it may be observed, that public wells are not sufficiently protected by a coping to prevent the return of water used for ablution, watering cattle, &c., &c.
7. Even in our barrack squares, His Excellency observes, there is no provision for periodical cleaning, although the Barrack Department are generally required to draw out any impurities which may have found their way into the water. With regard to encamping grounds, the only injunction is to take care that stagnant water is taken out of the wells before they are used.
8. It, therefore, appears to the Commander-in-Chief that it might be an advisable sanitary measure for Government to require all public wells in towns, Cantonments, villages, encamping grounds, &c., to be cleaned out annually, and to be protected by an ample coping with chabutra, having an exterior slope to prevent the return of water.
9. Should this proposal meet with the approval of Government, perhaps the first week in October might be named as a convenient date for the repair and cleaning out of all wells, and to ensure the execution of the work, a Completion Report might be furnished to all Local Governments and to Military authorities within their jurisdiction. His Excellency would name the Department Public Works as the most convenient Agency for the execution of the requirement.

From the Sanitary Commissioner, with the Government of India, to the Assistant Secretary to the Government of India, Military Department, dated 19th February 1868, No 50.

1. In acknowledging your docket No. 824, dated 15th February, forwarding, for report, a proposal by His Excellency the Commander-in-Chief, contained in Quarter Master General's letter No. 519, dated 11th February, to institute an annual cleansing of all the wells used for drinking purposes in Cantonments, I have the honor to state that this important subject has not escaped my notice. On the occasion of my visits to several Stations, I have made a point of inspecting the wells used for potable purposes, and I have invariably pointed out to the Regimental authorities and others the necessity which existed that they should be kept as clean as possible. Indeed, is one of the most important matters connected with the subject of water, and is the first consideration towards securing and maintaining a wholesome supply.
2. The Cholera Commission of 1861 also drew special attention to the urgent necessity that exists for maintaining the cleanliness of the wells in encamping grounds and Cantonments. The suggestion, therefore, is not a new one, but as His Excellency has drawn attention to it with the view of having it systematically carried out once every year, I may express my belief that if judiciously attended to, it will prove a very beneficial measure.
3. No effort should be spared to secure that the water shall be pure from its very source, at the same time much caution is requisite in the cleaning out of wells. There are some instances, such as Umballa and a few other Stations in the Punjab, where yearly cleansing, without actual necessity for such a proceeding, involving, as it will, the deepening of the wells to some extent, would be fatal to the water-supply. The clay strata whence the water is derived are so shallow, that incautious digging has penetrated through them into the sand beneath, allow-

Proceedings of the Madras Government, Public Works Department.
22nd April 1868.

ing of the speedy percolation of the water and the drying up of the wells altogether. But whilst pointing to the necessity for care, I would unhesitatingly assert that such a risk ought to be incurred rather than that water known to be impure should be used by the troops.

4. On the other hand, if it is the opinion of the Cantonment Sanitary Committee, that a certain well is clean, and the water good and wholesome, it would, I think, be injudicious to interfere with it.

5. I would, therefore, propose for the consideration of Government, that orders be issued, to all Cantonment Committees to examine periodically, and with great care, say once a year in October, as suggested by His Excellency the Commander-in-Chief, every well in the Station, and to repair and cleanse those only found in a dilapidated or dirty condition.

6. The duty of frequently examining at other times also the wells in Cantonments should be impressed on all Health Officers, and any defects should at once be brought by them to the notice of the Committee of which they are ex-Officio Members, with a view to their being at once remedied. This would, of course, not interfere with the annual inspection by the Committee as a body.

7. His Excellency proposes in paragraph 8 of the Quarter Master General's letter under reply "to require all public wells in towns, Cantonments, villages, encamping-grounds, &c., * * * to be protected by an ample coping with chabutra, having an exterior slope to prevent the return of water." The proposition is, I think, an excellent one, and worthy of adoption. I am not sure but that it has been adopted already in some Cantonments, but in Civil Stations and towns, it is not uncommon to find wells so protected. Care would require to be taken that the choppers are renewed at stated times, as they are apt to harbour birds and vermin, and in damp climates they speedily rot, so that the wells are apt to be contaminated by droppings from above.

8. The enclosure of your docket is herewith returned.

ORDER.—Ordered, that the papers* be forwarded to the Public Works Department for an estimate approximately showing the cost of such a measure merely for Military Cantonments—
* Return requested.

- 1st.—With respect to all wells treated as recommended.
- 2nd.—If only a proportion, as drinking-water wells, were thus treated.

No. 381.

ORDER THEREON, 22nd April 1868, No. 1,224.

Ordered to be recorded.

MILITARY WORKS, No. 25.

(True Extract.)

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

Enclosure to Circular No. 22 Public Works.

Extract from the Proceedings of the Right Hon'ble the Governor General of India in Council, in the Military Department,—No. 139, under date the 3rd of March 1868.

Read the following papers having reference to certain proposals for the purification of drinking-water for the troops and others in Cantonments, encamping grounds, barrack squares, &c., viz. :—
From Quarter Master General, No. 519 C, dated 11th February 1868.
From Sanitary Commissioner, Government of India, No. 50, dated 19th February 1868.

OBSERVATIONS.—The proposal as put in para. 8 of the Quarter Master General's letter is of the most extensive description, and seems a little beyond the province of the Military Department; and the Governor General in Council, before giving an opinion, or passing orders on the question, deems it expedient to ascertain the cost of the measure with reference to wells in Cantonments.

No. 519 C., dated 11th February, 1868.

*From—MAJOR-GENL. J. S. PATON, Quarter Master General,
To—Secretary to the Government of India, in the Mily. Dept.*

An important point has suggested itself to the Commander-in-Chief in India with regard to the purification of drinking-water for the troops and others in Cantonments, encamping grounds, barrack squares, &c.

2. It is true that efforts are now made to filter tanks on a considerable scale, as well as to urge the troops to apply the use of filters to the water after it has been brought to the barracks.

3. But it does not seem to have occurred to the several Sanitary Authorities that much may be done for averting impurity in the first instance before the water is drawn.

4. During his late inspection of the Sangor District, this point was especially urged on the Commander-in-Chief by some of the Civil Authorities, who dwelt on the advantage which would be secured by the periodical cleaning, under regulation, of all wells in towns, Cantonments, encamping grounds, &c.

5. In wells both in use and disuse, a vast quantity of organic and vegetable matter is continually accumulating, such being composed of the washings of dirty vessels, rotten leaves, &c., and no one who has witnessed the cleaning out of a well in this country could but have been struck with the amount and putrid nature of the matter excavated.

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8. It, therefore, appears to the Commander-in-Chief that it might be an advisable sanitary measure for Government to require all public wells in towns, Cantonments, villages, encamping grounds, &c., to be cleaned out annually, and to be protected by an ample coping with chabutra, having an exterior slope to prevent the return of water.

9. Should this proposal meet with the approval of Government, perhaps the first week in October might be named as a convenient date for the repair and cleaning out of all wells, and to ensure the execution of the work, a Completion Report might be furnished to all Local Governments and to Military Authorities within their jurisdiction. His Excellency would name the Department Public Works as the most convenient Agency for the execution of the requirement.

No. 50, dated 19th February, 1868.

*From—MAJOR G. B. MALLESON, Sanitary Commr. with the Govt. of India,
To—Assistant Secretary to Government of India, Military Dept.*

In acknowledging your docket No. 824, dated 15th February, forwarding, for report, a proposal by His Excellency the Commander-in-Chief, contained in Quarter Master General's letter No. 519, dated 11th February, to institute an annual cleansing of all the wells used for

11/12/68/60

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2. The Cholera Commission of 1861 also drew special attention to the urgent necessity that exists for maintaining the cleanliness of the wells in encamping grounds and Cantonments. The suggestion, therefore, is not a new one, but as His Excellency has drawn attention to it with the special object of having it systematically carried out once every year, I may express my belief that, if judiciously attended to, it will prove a very beneficial measure.

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7. His Excellency proposes in para. 8 of the Quarter Master General's letter under reply "to require all public wells in towns, Cantonments, villages, encamping-places &c. to be protected by an ample coping with chabutra, having an exterior slope to prevent the return of water." The proposition is I think an excellent one and worthy of adoption. I am not sure but that it has been adopted already in some Cantonments, but in Civil Stations and towns, it is not uncommon to find wells so protected. Care would require to be taken that the choppers are renewed at stated times, as they are apt to harbour birds and vermin, and in damp climates they speedily rot, so that the wells are apt to be contaminated by droppings from above.

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* Return requested.

1st.—With respect to all wells treated as recommended.

2nd.—If only a proportion, as drinking-water wells were thus treated.

76

CIRCULAR No. 22 PUBLIC WORKS.

GOVERNMENT OF INDIA.

PUBLIC WORKS DEPARTMENT.

MILITARY WORKS.

To Local Governments and Administrations.

FORT WILLIAM, MARCH 21, 1868.

SIR,

In forwarding the accompanying copy of an Extract from the Proceedings of the Government of India, in the Military Department, No. 139; dated 3rd March 1868, and of its enclosures, relative to the purification of wells by periodically cleaning them out, and protecting them by an ample coping, with a platform of masonry, having an exterior slope to prevent the return of water, I am directed to request that, in order to enable the Government of India to form an idea of the probable cost of applying this measure to wells in Cantonments, two or three average Military Stations should be selected, and detailed estimates in respect of them be prepared. A rough calculation of the expense for the whole Province can then be made, and a statement, with the required data, submitted for the information and orders of the Government of India.

2. In framing the estimates, it will be necessary to consider—(1), the cost of constructing the masonry works where wanting; (2), the annual expenditure in repairs, and in the cleansing of wells: and the statement should, as required by the Military Department, shew the cost—

1st.—If all wells in Cantonments are treated as above.

2nd.—If only a proportion as drinking water-wells are so treated.

I have the honour to be,

SIR,

Your most obedient Servant,

C. H. DICKENS, Colonel, R. A.,

Secy. to the Govt. of India.

Copy forwarded to the Governments of Madras and Bombay, and to the Military Department, Quarter Master General, Adjutant General, and Sanitary Commissioner with the Government of India, for information.

L. P. R. H. S. Captain, R. E.,
Under Secy. to the Govt. of India.

To the Secy to the Govt of Madras in the Public Works Dept.

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Recd of Govt of India
1260

GOVERNMENT OF INDIA.

PUBLIC WORKS DEPARTMENT.

MILITARY WORKS.

To

CIRCULAR No. 22 PUBLIC WORKS.

Dated March 21, 1868.

Received

4 April 1868

See one.

1
Recd of Govt of India
No 1224-22 April 1868

Calls for detailed estimates of the probable cost of cleaning, &c., wells in Military Cantonments.

For the Secy
22 April 1868
Civ

1224
No 1224

Recorded

A 380 & 381

Wm
by W. B.