Public Works (1899) Department.

G.O., No. 1357

DATED 29 May 1899.

[Despatch Abstract.]

Disposal of bath-room water

Memorandum from the Quarter Master General in India forwarding a circular on the method as to the —— by absorption, Communicated to the Officers concerned.

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Indexed. 30/5

[P. W. 2 —— 2,000—29-3-99.]

BACK PAPERS.

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Public works (1897) Department.

CURRENT No. 3864

From

The Quarter Master General
in India

B/ No: 1357 M & T. 5. 99

No. 1620 B - 1625 B.

Communicated to

the officers concerned.

A.H.K
15.5.99.

Dated 1.5.99

Received
Registered 13.5.99

Enclosures 1 (35.c)

Spare copies 3.

SUBJECT.

May

To The L. Govt I III VII Circles Bath room water:

Regarding the method for absorbing ——.

[P. W. 28. 2,000—15-99-9.] O.L.S 121 A21/5

BACK PAPERS.

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No. 8.

CIRCULAR MEMORANDUM.

OFFICE OF QR. MR. GENERAL IN IND

Addressed to Lieutenant-Generals
Commanding the Forces, Punjab,
Bengal, Madras and Bombay.

ARMY HEAD QUARTERS;
Simla, 25th April 1895.

Sanitary.

The Principal Medical Officer, Her Majesty's Forces in India, havi called attention to the unsatisfactory method of disposing of bathroom wat by means of absorption pits, the Quarter Master General in India is directe to publish the following memoranda, with a view to a better system bein employed at stations where absorption pits are in use.

2. Experience has proved that absorption pits are often not only failures but frequently sources of harm, the earthy vicinity of the pits becoming so overcharged with bathroom water constituents that the latter cannot be properly absorbed and the pits become of cesspool character.

3. General Officers Commanding Districts are requested to give the matter their attention so as to ensure the gradual abolition of this system as funds are available.

4. The following systems are considered superior to the absorption method, but, in selecting any of the systems, local conditions must be kept in view to secure good results :—

(*a*) Catch pits from which the accumulations must be removed daily, and either sprinkled on the ground in the vicinity, or preferably carried to a distance and disposed of.

(*b*) A system of *pucca* open drains to carry the water away from the wash houses. This can only be applied where the ground has a good fall; the water should, if possible, be distributed at the far end of the drains among cultivated fields, etc.

(*c*) Absorption by trees and gardens close to the lavatory openings. In connection with this system the following extract from a memorandum by the Director General of Military Works in India is published for information :—

"I am much opposed to absorption pits, and, from the stink they exhale when opened out, they cannot be sanitary. The subject is no new one to the officers of this department, and it has been quietly and successfully dealt with by some of them by means of gardens.

* * * * *

"Where there are no existing drains, I believe it would be quite feasible to have trees and gardens at each lavatory to absorb the water. It should pass automatically in *kutcha* drains from the building, along a hedge of any suitable shrub—say *senata*; inside the hedge there might be trees or plots of lucerne into which the water could be let at will.

"I believe in Quetta there is something of this sort, * * * and certainly on West Ridge (Rawal Pindi), I saw trees had been put in to absorb the water, but they were drowned, and I remarked they wanted a hedge between the individual trees to aid in absorption.

"It is no part of our work to buy the trees or shrubs, but if this were done, under paragraph 10 of the special India Army Circular, dated 26th October 1894, I am sure any Executive Engineer would aid the General Officer Commanding in planting the things or having seed sown.

"I believe the thing could be successfully worked and at any rate it might be tried in one or two sets of lines, but I would select those lines where the Commanding Officer would in all probability co-operate heartily.

"There is one difficulty, *viz.*, that when the lines are vacant for some time the plants might suffer; there is less fear of this in the cold weather, however, when the barracks are least likely to be empty, but if the Executive Engineer or any member of the Cantonment Committee were to give his heart to the thing, I am sure he would find a way to get the garden watered occasionally; if it were automatically arranged this would only mean filling the lavatory tank and turning a tap.

"Existing trees might be utilised, but the *kutcha* drains to them should be along hedges, or else the drains will be a nuisance."

By order,

E. STEDMAN, *Major-General*,

Quarter Master General in India

To

	No. of copies.
The Lieutenant-General Commanding the Forces,	*Punjab*, 120
	Bengal, 160
His Excellency the Lieutenant-General Commanding the Forces.	*Madras*, 40
	Bombay, 60

No. 1227-B.

OFFICE OF QR. MR. GENERAL IN INDIA,

ARMY HEAD QUARTERS;

Simla, 26th April 1895.

MEMORANDUM.

Submitted for the information of the Government of India in the Military Department.

G. HENRY, *Lieutenant-Colonel*,
for *Quarter Master General in India.*

No. $\frac{1228}{1229}$-B.

MEMORANDUM.

Forwarded for information.

G. HENRY, *Lieutenant-Colonel*,

for *Quarter Master General in India.*

	No. of copies.
To the Principal Medical Officer, Her Majesty's Forces in India	4
„ Director General of Military Works in India	4

G. C. Press, Simla.—No. 47 Q. M. G. 5-5-95.—200.

No. 1.

CIRCULAR MEMORANDUM.

Addressed to Lieutenant-Generals
Commanding the Forces.

OFFICE OF QR. MR. GENERAL IN INDIA,

ARMY HEAD-QUARTERS;

Simla, 1st May 1899.

Sanitary.

Instances having been brought to notice in which the disposal of bath-room water is not altogether satisfactory, attention is invited to Quarter Master General's Circular No. 8, dated 25th April 1895, paragraph 4 (*c*).

2. The following method for absorbing such water has been tried with great success at Bareilly, and is published for information :—

Small gardens were made about 30 feet from the lavatories and generally with one side at least below the level of the surrounding ground, so as to enable the water to run by gravitation all over them.

These were made at the end of the masonry channels which already existed, and the surface was slightly sloped away from the channels. The gardens were planted with *plantains* and with a kind of red lily called *Indian shot*:—in the vernacular *canna* and *gooltusvie*; a cooly was employed by the Military Works Department to do nothing but attend to these gardens, and, whenever the surface of the ground became caked, to dig it up, and take care that water did not lie for any very long time on it.

The system was found to answer excellently. The plant of the *Indian shot* can be propagated very quickly, as the roots are bulbous : it can also readily be propagated from seed.

Plantains can be quickly propagated from cuttings. Single gardens without fences were at first used, but afterwards it was found better to make the gardens double, *i.e.*, about 20 feet × 40 feet for a large double company lavatory, the water being run on to the two ends alternately, so that the one not in use could dry in the sun.

Wire fences were then put round some of them to protect them from cattle, and it is the intention to put them round all.

The cost of maintenance is Rs. 5 a month for a regiment, and the initial cost, if fencing is not used, is about Rs. 2 per garden : even if fencing be used the initial cost is not greater than that of absorption pits, and the cost of upkeep is much less than that of the latter, which had to be renewed once a year.

By order,

ALFRED GASELEE, *Brigadier-General*,

Offg. Quarter Master General in India.

	No. of copies.
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„ „ „ „ „ „ Bengal ...	... 160
„ „ „ „ „ „ Madras ...	... 85*
„ „ „ „ „ „ Bombay ...	... 90†

* With 45 additional copies of Circular No. 8, dated 25th April 1895.

† „ 30 „ „ „ „ „ „ „ „ „

No. 1620 B.

Simla, 6th May 1899.

MEMORANDUM.

Submitted* for the information of the Government of India in the Military Department.

W. PEACOCKE, *Colonel,*
for *Offg. Quarter Master General in India.*

No. 1625 B.

MEMORANDUM.

Forwarded for information.

Colonel,
for *Offg. Quarter Master General in India.*

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,, ,, ,, Agents to the Governor-General in Rajputana and Central India in the Public Works Department.	4

* With 4 copies of Quarter Master General's Circular No. 8, dated 25th April 1895.

G. C. Press, Simla.—No. 49 Q. M. G.—2-5-99.—700.

[8,000—29-8-99.]