

MADRAS RECORD OFFICE.

Government of Madras.

Justice DEPARTMENT.

G.O. No.	900	Press ~~Mis.~~
Dated	3-6-	191867

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*Proceedings of the Madras Government, Judicial Department,
3rd June 1867.*

Read the following papers:—

No. 15. From the Sanitary Commissioner, Madras, to the Chief Secretary to Government, Fort Saint George; dated Madras, 22nd May 1867. No. 125.

I have the honor to acknowledge the receipt of the docket from the Under Secretary to Government, Public Department, dated 16th May 1867, calling for a report on Dr. Moule's system of dry earth conservancy. In this docket, reference has been made to Proceedings of Government, No. 389, dated 11th March 1867.

2. In these Proceedings no report was called for, nor would it have been possible to forward the information required in the letter from the Under Secretary to Government of India, dated 14th June 1866, No. 1853, as to the thorough establishment of the dry earth system of conservancy in respect of all the Provinces of the Madras Presidency, nor am I in a position to furnish this information at present.

3. As the Government are aware, this subject was brought to their notice by the Sanitary Commission in the early part of 1865, and a pamphlet containing detailed information regarding Dr. Moule's conservancy system was widely circulated in all the stations of the Presidency; but it was not until June 1866 that an order was passed by the Government directing the early introduction of the system into the European Regimental Latrines at Fort Saint George, and into those of the 2nd Battalion, 21st Regiment, at Secunderabad, with a view of testing the applicability of the system of dry earth conservancy and its cost in European Regiments.

4. As regards Native Regimental Lines, the experiment of the system in the Vepery Lines at Madras was sanctioned in 1865: a latrine adapted to the dry earth system was constructed in 1866, and the experiment was commenced, with all the necessary appliances, on the 4th April 1867.

5. There has, therefore, not been sufficient time to enable exact details of results to be furnished; but I can report that the result, as shown in the Vepery Lines, has been most satisfactory. No serious difficulty has been experienced by the Regimental authorities in enforcing the system, which is very much liked by the Sepoys themselves.

6. Regarding the delay that has occurred in the introduction of the complete system, both in Fort Saint George and Vepery, I beg to refer to the Proceedings of the Madras Government of the 2nd and 6th May 1867, in the Military and Public Works Departments.

I have no information as to the result of the experiment at Secunderabad.

7. Although I have not the means of furnishing a complete report of the result of the experiment in the Regiments where it is being carefully tried under proper supervision and with all the required appliances, or to give any exact estimate of the cost of this system of conservancy, as compared with that which formerly prevailed, I can report that it has been very generally introduced into the Jails, Hospitals, and other public Institutions of this Presidency.

8. I have personally visited a large number of these Institutions, and wherever a tolerable amount of care has been taken to observe the rules prescribed regarding the system, it has proved entirely successful.

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Even in imperfectly constructed latrines, which were formally sources of intolerable nuisance, the dry earth conservancy has never failed, and I have little doubt that its continued enforcement in the Jails of this Presidency will have a most sensible result in reducing the hitherto high rate of sickness and mortality.

9. It is, therefore, no exaggeration to say that, wherever large numbers of persons *under control* are congregated, Dr. Moule's system of conservancy has been entirely successful, and that it is, so far, a great public benefit.

10. It is still doubtful whether this system is applicable to public latrines, and whether it can be generally introduced in Native houses in Indian towns. The objection to the system is the great cost of furnishing earth for daily use, and of its removal. In these respects, water conservancy, by which human excreta can be removed in suspension by public sewers, will, wherever water supply is available, be found more economical.

11. As regards the ultimate use of human excreta as manure, it is probable that, when thus diluted and applied to the soil, this form of manure has more fertilizing properties than the excreta mixed with dry earth and known as *poudrette*.

12. But, as in many stations in India a good system of drainage and water supply are both deficient, Dr. Moule's system of dry earth sewage is the best means available for our Barracks, Hospitals, Jails, and other public Institutions. Its adoption by the Municipal Authorities, and by Natives in their own houses, in these places, although very desirable, is still very uncertain.

13. I am preparing, for submission to Government, a complete report on the best forms of latrines adapted to the dry earth system for European and Native Regiments, for Hospitals, and other public Institutions, and for latrines, public and private, suited to the wants of the Native population.

No. 16. From the Inspector General of Jails, to the Chief Secretary to Government, Fort Saint George; dated Madras, 27th May 1867, No. 35.

With reference to the Proceedings of Government noted in the margin, I have the honor to state that the system of dry earth sewage has, with one or two exceptions, been introduced into the Jails of this Presidency: covered latrines, with stores for dry earth, have been sanctioned both for the Central Prisons and for certain other Jails now in course of being improved. In some Jails temporary sheds have been erected, while in others the latrines are still uncovered, but dry earth is used in all. With respect to night conservancy, although the means and appliances in use are not uniform, and in some cases require improvement, the system is in full operation, and has been found perfectly efficacious in preventing any bad smell in the wards. During my tours on the Western and Eastern Coasts, I made a point of entering every ward and cell before day-break, and, with very few exceptions, no smell, either of faeces or of urine, was perceptible. The results, however, are unequal in degree, owing to the various qualities of the different kinds of earth available, and also owing to the nature of the climate. For example, at Chittoor, although the earth used for the night vessels entirely prevents any effluvia from the deposits, yet it is not efficient as a deodorizer, which is apparent when the vessels are emptied. With regard to the influence of

Judicial Department, 11th March 1867, No. 116.
Do. 14th May 1867, No. 323.

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climate, I may mention that considerable difficulty is experienced on the Neilgherry Hills, where the humidity of the atmosphere is so great for many months together that it is not possible to procure earth which is sufficiently dry.

2. I subjoin, by way of illustration, accounts of the process as it is now being carried out at Rajahmundry, Vizagapatam, and Guntoor. The practice in other Jails may differ somewhat in the details, but is the same in all essential points. The annual report for the past year will contain particulars.

Rajahmundry Central Jail.—The general latrine not being yet built, three temporary sheds are in use, two measuring 64×20 feet each, and the third 32×20 feet. They are tiled and screened by enclosures made of mats. There is a water cistern, and a tarred space for washing at each end. The earth used is the soil washed down by the Godavery, and is said to be of superior deodorizing quality. The latrines are all cleaned in the morning, and the night soil is buried in a trench at a distance from the Jail.

Night Conservancy.—The vessels at present in use are open buckets. One bucket is allowed for every five convicts, and contains both faeces and urine. No inconvenience has been found to arise from this. The vessels are cleaned in the morning, and re-placed in the afternoon.

Rajahmundry District Jail.—The general latrine is similar to those in the Central Jail, and is situated in the outer yard.

Night Conservancy.—Oblong wooden troughs are used for the faeces, and buckets as urinals. Some of the wards have small privies attached, and, wherever these exist, the vessels are placed in them. The system is carried out in the most effectual manner in both of these Jails, and reflects great credit upon the Superintendent, Captain Bloomfield.

Vizagapatam District Jail.—The prisoners are located in sheds surrounded by a fence, the regular Jail being in course of construction. The temporary latrine consists of rows of trenches on a piece of waste land about 100 yards from the Jail enclosure, and dry earth is used. At the time of my inspection in February, I found this latrine very offensive, partly owing to want of sufficient attention, but principally on account of the unfavorable nature of the soil, which is extremely stony. I requested the Superintendent to detail a special gang to sift and store a quantity of earth. This was done, and he now reports that the unpleasant smell no longer exists. The soil is sandy, and not of good deodorizing quality. A latrine, according to the standard plan, is to be erected at the new Jail.

Night Conservancy.—At night, wooden tubs are used for the faeces, and chatties as urinals. Dry earth is used for both. The fronts of the sheds being open, the tubs and chatties are placed outside at regular intervals. In the morning the contents are removed to the general latrine and buried in the trenches. The vessels are scoured and dried, and replaced about sunset. They are reported as being free from any bad smell.

Guntoor District Jail.—There is a temporary thatched shed used as a latrine. It contains from 6 to 8 tubs made of casks, cut in half. These are tarred from time to time as may be required. The night soil is buried in trenches about a mile from the Jail. Separate tubs are used as urinals. A privy of masonry has been sanctioned.

Wicks

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Night Conservancy.—Tubs of the kind abovementioned are used in the wards in the proportion of one to every 15 persons. They are used both for faeces and as urinals. Each tub contains a layer of dry earth finely pulverized, and a basket, containing a further supply of the same, is placed beside each tub. Doctor Wither, the Superintendent, is of opinion that the advantages of the system cannot be too highly appreciated.

3. Dr. Lloyd, the Superintendent of the District Jail at Nellore, states that great benefit has resulted from the introduction of the system—that no smell is now perceptible, whereas formerly the stench proceeding from the vessels was unbearable.

Captain McLeod, at Bellary, says:—"The dry earth system had just been introduced when I took charge of the Jail, and is far superior to any other that I have ever seen. The latrine here is as clean as any other part of the Jail: no one would know for what purpose it was used were they not told. The great difficulty I find is to procure proper earth, and then to take care that it is sufficiently finely powdered. The soil in the neighbourhood is white and gravelly, which does not answer at all well as a deodorizer.

"Mr. Tagg, the Acting Superintendent at Chittoor, observes:—"The improvement effected by the introduction of the dry earth system is very striking. About eight months ago, when I happened to be present as a visitor at an official inspection of the Jail, the atmosphere of the wards, before the prisoners were released, was very foul, the stench nauseous and insupportable. Shortly afterwards, the present system was introduced under the late Superintendent, and has been continued, with slight variations of detail, ever since. At present there is no offensive odour in the wards before the exit of the prisoners, and it is almost impossible to tell, except when close to the vessels, that urine or excrement is there. At the general latrine, also, the advantages of the system are very apparent, and after the prisoners have come and gone little smell can be detected, even when the examination is made from the middle of the raised platforms I have referred to (paragraph 1). The defective character of the soil at disposal becomes evident when the latrine and the vessels are cleaned and the contents removed; and the inference seems to be that the offensive matter is not so much deodorized, as prevented from emitting its odour by the covering of earth.

No. 17. From the Municipal Commissioners for the Town of Madras, to the Chief Secretary to Government, Fort Saint George; dated Madras, 23rd May 1867.

With reference to the Proceedings of Government, No. 389 of the 11th March 1867, Judicial Department, and the Memorandum, No. 143 of the 16th instant, Judicial Department, we have the honor to state, for the information of Government, that we have been precluded from trying Dr. Moule's dry-earth conservancy system, as the public latrines are not adapted for it, and the number of persons who use them is so large that it would be utterly impossible, with our present very inefficient conservancy arrangements, to attempt a system which to ensure success requires the utmost care, and most careful supervision. Should Government think fit to accede to our urgent appeal for an increase of funds for conservancy purposes, we should be glad to try on a small scale the dry-earth conservancy, though, except

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in Hospitals, Jails, and Barracks where effective supervision can be exercised, we doubt its practicability.

No. 18. To the Secretary to the Government of India, Home Department, Simla, dated Fort Saint George, 3rd June 1867, No. 900.

Adverting to Mr. Under Secretary W. E. Ward's letter, dated the 1st March last, No. 2149, and to the Circular from the Secretary to the Government of India, Public Works Department, dated the 16th idem, No. 28, I am directed to transmit

* No. 125, dated 22nd May 1867,
" 35, " 27th " "

Proceedings, Military Department, No. 1593, dated 2nd May 1867.
Proceedings, Public Works Department, No. 1375, dated 6th May 1867.

the annexed copies of letters* from the Sanitary Commissioner, Madras, and the Inspector General of Jails, together with copies of the Proceedings of this Government, in the Military and Public

Works Departments, regarding Dr. Moule's dry earth system of sewage.

2. It will be seen that the system has been very generally introduced in the Jails, Hospitals, and other public Institutions in this Presidency, and that it has been found to be successful wherever it has had a fair trial, and when the persons who make use of the latrines are under control. It is still doubtful whether the system is applicable to public latrines, and whether it can be generally introduced in Native houses in Indian towns.

(Signed) A. J. ARBUTHNOT,
Chief Secretary.

Ed. J. H. Burns.

Recd 20/8
With 2 Pm. referred to in para 1.

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Judicial Department.
No. 900.

To

The Secretary to the Government
of India,

Home Department.
Simla

Sir,

Referring to Mr. Indu.
Secretary W. & Ward's letter
dated the 4th March last
No. 2117, and to the Circular
from the Secretary to Govern-
ment of India, Public
Works Department, dated
the 16th idem, No. 28, I
am directed to transmit
the annexed copies of letters
from the Sanitary Com-
missioner, B. adras, and the
Inspector General of Jails,
together with copies of the
Proceedings of the Government
in the Military and Public
Works

* No. 125 dated 22nd May 1867
" 35 — " 27 — —

W. W.

Pro. M. Dept.
No. 1578 dated 2nd May 1867
Pro. P. Works Dept.
" 1575 — " 6 — —

Works Department regarding
Dr. Crookes dry earth
system of sewage.

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3. June 1867 }

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of Leavenworth

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London 1857 Sept 10th
a 1200
To the Secretary of the Board
of London
of the 1st of May
Solid 3 June 1857

c 29 May.
12-2-1857