

MADRAS RECORD OFFICE.

Government of Madras.

Judicial **DEPARTMENT.**

G.O. No.	222	Press
		~~Mis.~~
Dated	12 - 2.	11/86

Not to be folded or roughly handled

[Signature]
7.10.32

*Proceedings of the Madras Government, Judicial Department,
12th February 1867.*

No. 82. Read the following letter from the Sanitary Commissioner for Madras, to the Chief Secretary to Government, Fort Saint George; dated Madras, 23rd January 1867, No. 423.

With reference to the Order of Government, dated 25th September 1866,

•Judicial Department.

Enclosure 1.

Letter (copy) from Captain Chrystie, R. E., to the Secretary to the Sanitary Commissioner, No. 423, dated 18th January 1867.

No. 1513,* I have the honor to forward a copy of a letter, received on the 19th January 1867, from Captain Chrystie, R. E., who, when officiating as a Member

of the late Sanitary Commission, gave special attention to an experiment for the purification of the Cooum river, made by the Municipal Commissioners at the suggestion of the Sanitary Commission.

2. The idea of this experiment is due to Mr. Fraser, C. E. The principal feature of Mr. Fraser's plan consisted in attempting to divert the Town sewage from the Cooum river into a series of catch pits, where it was to be deodorized and carted away.

3. An experimental catch pit near the Chindadrepettah bridge was constructed in March 1866, but was found on trial not to answer the purpose for which it was built.

It has since been closed to prevent the water derived from percolation becoming a nuisance.

Captain Chrystie, in his report, states that, in his opinion, it is not practicable, at any reasonable cost, to improve the Cooum river on Mr. Fraser's plan.

4. I have communicated this report to the Municipal Commissioners, who will probably defer any further experiments for purifying the Cooum river until a decision has been passed by Government on the comprehensive scheme for the drainage of the Town of Madras which has been submitted by Captain Tulloch, R. E.

From Captain W. CHRYSTIE, R. E., Officiating Assistant Chief Engineer of Mysore, to the Secretary to the Sanitary Commissioner, Madras; dated Bangalore, 18th January 1867, No. ³⁶³/₃₃₀.

In returning the enclosures of your No. 304 of the 3rd ultimo, I have the honor to state, for the information of the Sanitary Commissioner, that, in my opinion, it is not practicable, at any reasonable cost, to materially improve the Cooum river by intercepting the sewage in cess pits, similar to that constructed near the Penitentiary, unless a greater fall can be given to the drains, and efficient means adopted for entirely separating the sewage matter from storm water, and water used for the purpose of flushing the drains.

2. The above mentioned cess pit was constructed to intercept the sewage which now flows into the Cooum from the large drain discharging close to the Penitentiary, and it was proposed to deodorize the sewage with dry earth in the cess pit, and afterwards cart it away. The upper part of the cess pit was rectangular, averaging 14 feet in length by 11 feet in breadth, whilst the lower part, or well, was 3 feet 9 inches in depth and 7 feet in diameter. It was considered that this well was of ample dimensions to hold all the sewage that would flow into it in one day. The main drain with which it is connected is feet 3½ by 3½, with a fall of nearly 1 in 400. This large drain is only intended to carry off storm water, there being a currette, 9 inches by 9 inches, constructed in the floor of it, to receive and pass down the sewage. This currette is covered with flat stones, but as there are no

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pipes or other method of connecting it with the house drains, of which there are 540 in the District drained, openings are necessarily left in the covering stones, at from 50 to 100 feet apart, to admit of the sewage entering the currette. It may, therefore, be said that no separation exists between the main drain and currette. Further, I was informed that, even were the connections with the house drains made, it would still be necessary to have frequent openings in the covering stones, as the currette is constantly becoming choked, and no means exist of clearing it, but by passing a bamboo through these openings. Unless, therefore, the Municipality had been prepared to undertake the enormous expense of deodorizing and carting away the whole of the flushing and storm water, it is evident from the above that the communication between the drain and the cess pit must be closed during and after rain and whenever the drains are flushed.

3. The experiment with the cess pit was only tried for two days when it was abandoned, on account of the percolation, but I had visited the place several times previously, at different hours of the day, and had thus the opportunity of observing the quantity of sewage which trickled down the main drain. It never exceeded a stream, or rather film, a few inches in breadth, moving with an almost imperceptible current, and I therefore concluded that the greater part of the sewage must remain adhering to the sides of the drain, and in the traps constructed at intervals along the currette, until the drains are flushed on every third day. With a greater fall to the drain, a greater quantity of the sewage would, of course, pass down. Were the cess pit closed as shown to be necessary in the concluding part of my 2nd paragraph, the major portion of the sewage would still pass into the Coom as now, and the benefits obtained in return for the expenditure incurred would be really inappreciable.

4. The above are all the points which, after so long an interval, occur to me, but if the Commissioner desires any further information which it is in my power to give, I shall be happy to furnish it. The delay in replying to your letter has arisen partly from the pressure of other business, and partly from having been on tour in the Province, in the early part of December.

No. 83. ORDER THEREON 12th February 1867, No. 222.

To be recorded.
(True Extract).

A. J. ARBUTHNOT,
Chief Secretary.

Exd. J. H. Burns.

Dec. 25th Sept. 1866 No. 279 & 281.

Jud. 1867 Sept
San. Pros. 12th Sept 1867
Sanitary Commissioner
Madras

The Chief Secretary to Govt.
Fort Saint George

Dated 23rd } January 1867.
Recd 25 }

No. 423
Rev. 1

No 166.

Submit Report on the Experiment
with the Cess Pit near the Cen-
terinary, as directed in G.O. No. 1513
dated 25th September 1866.
12th February 1867 No. 222.
J. H. Burns

copy-
R.H.

No. 83