

Financial (1895) Department.

ORDINARY MS.

G.O., No. 105.

DATED *2nd Feby 1895*.

INDEXED. 3/4

[Despatch Abstract.]

COCHIN EXPERIMENTAL BORING.-

Recording Proceedings, Local and Municipal Department,
directing with remarks that the ----be definitely suspended, and
requesting the Sanitary Engineer to visit Cochin, when the work
which he has on hand will permit of his doing so, and to report
on the suggestion made by the Assistant Sanitary Engineer that a
water-supply for the town should be searched for upon the mainland
opposite to Cochin.

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BACK PAPERS.

G.O.	No.	Department.	Date.	G.O.	No.	Department.	Date.

FURTHER PAPERS.

G.O.	No.	Department.	Date.	G.O.	No.	Department.	Date.
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Financial

File fo. 6368 28. 11. 94
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Govt. of {1895} Madras.
LOCAL AND MUNICIPAL.

CURRENT No. 260

50 2 Pm 1/15 1895

105 Recorded

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M.S.

Issued

Recd. 31 January 195 Encl.

G.O., 21st January 1895, No. 93 M.

JANUARY.

Cochin Experimental Boring.

Ordering, with remarks, that the — should be definitely suspended, and requesting the Sanitary Engineer to visit Cochin when the work which he has on hand will permit of his doing so and to report on the suggestion made by the Assistant Sanitary Engineer that a water-supply for the town should be searched for upon the mainland opposite to Cochin.

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21st JANUARY 1895, No. 93 M., LOCAL AND MUNICIPAL.

GOVERNMENT OF MADRAS.
LOCAL AND MUNICIPAL DEPARTMENT.

READ—again the following paper :—

G.O., dated 3rd November 1894, No. 1628 M., Local and Municipal.

ABSTRACT.—Referring to the Director of Geological Survey, for remarks, Assistant Sanitary Engineer's report regarding the Cochin experimental boring, and informing the Sanitary Engineer that his application for sanction of the excess expenditure of Rs. 294-8-0 over the sanctioned amount, as also Rs. 12-12-0, monthly cost of watchmen whilst the boring apparatus remains in Cochin, will be considered in the Financial Department.

READ—also the following paper :—

From C. L. GRIESBACH, Esq., C.I.E., F.G.S., Director, Geological Survey of India, to the Chief Secretary to the Government of Madras, dated Calcutta, 19th December 1894, No. 2649.

In acknowledging your letter, No. 1628 M., dated 3rd November 1894, I have the honour to forward herewith a detailed statement with determinations of the various strata passed through in the Cochin experimental boring as far as the rocks can be determined from the specimens sent.

2. I regret that I am unable to offer any opinion which could guide you in this exploration for fresh water, as there are absolutely no data available which would entitle me to do so. It seems, however, most probable that the boring will have to be driven to a much greater depth before a pure supply of fresh water could be obtained, but it is an open question whether such would be met with much above the rock *in situ*, in which case the water stratum may possibly be thousands of feet below the surface.

3. The geology of Cochin has not been worked out, but it is almost certain that the alluvial strata increase in thickness away from the mainland and water should therefore be met with at a lesser depth from the surface there than in the town of Cochin.

4. In conclusion, I request you will be good enough to inform me whether you wish that the specimen trays of this boring should be returned to you or not.

ENCLOSURE.

Water-supply of Cochin.

Thickness of strata.	Details of boring.
4' Surface to 4 feet	Ferruginous and calcareous quartz sand.
26' 4' to 30'	Fine white sand with shells.
2' 30' to 32'	Black mud calcareous.
11' 32' to 43'	Sand darkened by carbonaceous matter and containing shells of lamellibranches.
51' 6" 43' to 94' 6"	Dark mud with fragments of shells.
5' 6" 94' 6" to 100'	Fine calcareous sand.
5' 100' to 105'	Mixture of dark clay and sand.
23' 105' to 128'	Black clay. Band of shells at 120'-125'.
10' 128' to 138'	Light colored clay with sand grains.
10' 138' to 148'	Dark colored clay with sand grains.
12' 148' to 160'	Coarse gravel.
8' 160' to 168'	Carbonaceous clay.
12' 168' to 180'	Clay becoming sandy at base with tubes of pyrites.
13' 180' to 193'	Sand and gravel (well rounded).
7' 193' to 200'	Clay with pyrites tubes.
17' 193' to 210'	Black clay with pyrites tubes.
5' 210' to 215'	Black carbonaceous clay.
10' 215' to 225'	Black carbonaceous clay, sandy.
35' 225' to 260'	Dark clay with resin in upper layers.
30' 260' to 290'	Coarse round gravel.
16' 290' to 300'	Dark colored coarse sand mixed with clay.
25' 300' to 325'	Coarse grey sand with pyrite twig probably not <i>in situ</i> .

ORDER—dated 21st January 1895, No. 93 M., Local and Municipal.

The papers read above appear to render it evident that the chances of discovering a sufficient supply of good water by further borings within the town of Cochin are not such as would justify additional expenditure from Provincial funds upon experiments there. The boring operations should therefore be definitely suspended, and the Sanitary Engineer will be requested to make arrangements to utilize elsewhere, or otherwise dispose of, the plant which is now lying in Cochin.

2. The various reports upon the water-supply of the town which are already on record show, however, that the only financially practicable method of improving its present unsatisfactory condition is the discovery of an under-ground supply in the neighbourhood, and the Sanitary Engineer will accordingly be requested to visit Cochin when the work which he has on hand will permit of his doing so and to report upon the suggestion made by the Assistant Sanitary Engineer at the end of his report printed in the Government Order read above that such a supply should be searched for upon the mainland opposite to Cochin and, if discovered, be conveyed across the back-water to the town. His report should contain information as to the depth at which water is found and the probable quantity which could be made available, with a rough estimate of the cost of taking it across the backwater.

(True Extract.)

Ranis

for Ag. Chief Secretary.

To the Sanitary Engineer.
 " Chairman, Municipal Council, Cochin.
 " Collector of Malabar.
 " Financial Department.
 Editors' Table.

Ed. C A Munisawmy.

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READ AGAIN G.O., No.
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DATED

CURRENT No.

ENCLOSURES TO C. No.

ORDER OF GOVERNMENT

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LETTER OF GOVERNMENT.

STATEMENT WITH DIITO.

PAPERS NOT FILED UP, BEING MEANT FOR DESPATCH
 IN ORIGINAL.

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