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M.R.O. 1—20,002—12-8-65.

(1) Number of Pages 4

(2) Date of repair 2 4 65

(3) Initials of the Referencer

# MADRAS RECORD OFFICE

## GOVERNMENT OF MADRAS

REV DEPARTMENT

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| G.O. No. / ~~B.P. No.~~ | 140. | Press / Mis. |
| Dated | 24, 10 | 1892 ~~196~~ . |

*Not to be folded or roughly handled*

*Proceedings of the Madras Government, Public Works Department,*
*16th October* 1872.

Read the following papers :—

No. 268. From the Superintending Engineer, 7th Division, to the Secretary to Government, Public Works Department, dated Camp at Ootacamund, 8th July 1872, No. 73.

With reference to your memorandum of the 6th instant, I have the honour to report that before I can give any professional opinion of the value to be attached to Mr. Pringle's depreciatory remarks in regard to the material used in the construction of the Mangalore Lighthouse, it is necessary that that gentleman should furnish me with further information on the subject, which I have called for. G. O. dated 4th of July and Mr. Pringle's report reached me almost at the same time.

Copy of a letter No. 87 of 26th June 1872.

2. The G. O. to my mind settled the question of the continuance of the light, and therefore beyond furnishing Mr. Pringle with a copy of it and calling for the information above noted, no action has been taken by me in the matter. A copy of Mr. Pringle's letter is herewith forwarded.

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From E. H. PRINGLE, Esq., Assistant Engineer, Public Works Department, to the Officiating Superintending Engineer, 7th Division, dated Mangalore, 26th June 1872, No. 87.

It having been brought to my notice that during the late cyclone the lighthouse at Mangalore vibrated so much as to make the light-keepers refuse to ascend to the lantern, I have the honour to state that I have personally examined the pillar internally and externally and find not the slightest sign of cracking. The platform is as firmly attached to the masonry as when it was first erected.

2. I have had no opportunity yet of ascertaining the amount of vibration during a gale ; but at the burst of the monsoon, when the gusts were travelling at from 21 to 22 miles an hour, I measured one-third of an inch as the greatest deviation from perpendicularity at the basement of the platform. The vibrations were rapid and the motion had nothing of a swaying character about it. Were the building* brick, I should from its section have judged it capable of standing any wind pressure, but I place so little faith in laterite that, though without orders, I do not feel justified in removing the lantern. I have stated to the Collector that, in the event of a very high wind blowing at any time, I would advise the light-keepers being permitted to leave the building.

* Plan herewith forwarded.

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No. 269. From the Superintending Engineer, 7th Division, to the Secretary to Government, Public Works Department, dated Coimbatore, 7th September 1872, No. 136.

With reference to your memorandum dated 27th June 1872, I have the honour to submit a plan of the mode in which the lantern is fixed on the top of the column of the Mangalore Lighthouse. The Range Officer reports that he ascertained the vibration to be equal to one-third of an inch by a series of very carefully conducted instrumental observations, and doubtless he is not far wrong. So inconsiderable a movement, however, in my opinion, could in no way endanger the column, and the Range Officer appears to me to have been needlessly alarmed for the safety of the structure. All columns are liable to a certain amount of vibration

during high winds, and in the case of lighthouses provision is made, in the construction of all lanterns, to preserve the plate glass from fracture on such occasions, by separating the glass from actual contact with the metal frame of the lantern. The Mangalore light column has been accurately gauged and examined by the Range Officer from top to bottom, and found to be perfectly true, while no signs of even the minutest crack can be detected anywhere; moreover, the Range Officer states that after this examination he is satisfied, in his own mind, of its security. I, therefore, attach no value to the Range Officer's depreciatory remarks concerning the material used in its construction, which he reports he was induced to make from his experience of laterite as a building material in South Canara, where he has witnessed frequent failures in consequence of the stones crushing and so forth.

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No. 270. ORDER THEREON, 16th October 1872, No. 2,430.

CIVIL WORKS, No. 12.

ORDERED to be recorded.

2. The Mangalore Range Officer whose experience in the department is very limited would have done better to place the Superintending Engineer in possession of the facts which he has recorded, to enable that Officer to advise the Collector as to the propriety of removing the lantern, or permitting the lascars to abandon their duties, instead of taking upon himself that responsibility.

(True Extract.)

Colonel, R E.,
*Secretary to Government.*

To the Superintending Engineer, 7th Division.
" Marine Department.
" Revenue do.

Exd. E. C. Shunker.

N° 3417
Revenue Dept

# Govt. of {1872} Madras.

## PUBLIC WORKS.

*To*

THE SUPERINTENDING ENGINEER,

7TH DIVISION.

&c., &c., &c.

*Dated October 16th.*

*Recd.* ~ 24 *Encl.*

*G. O., 16th October 1872, No. 2,430.*

OCTOBER.

Nos. 268-270

*Mangalore Lighthouse.*—Letters from the Superintending Engineer of the 7th Division reporting on the state of the Mangalore Lighthouse, recorded with remarks.

No 140.

Read & Recorded
24 Oct 72.