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MADRAS RECORD OFFICE.

Government of Madras.

Public Works DEPARTMENT.
Com 10/12/58

G.O. No. 2802	Press ~~Mis.~~
9-10 Dated 1-12-18 58	

Not to be folded or roughly handled

*Proceedings of the Madras Government, Public Works Department,
for the month of December 1859.*

No. 9. Read the following letter from Lieutenant-Colonel J. H. BELL, Chief Engineer; to J. D. BOURDILLON, Esq., Secretary to Government, dated 18th November 1859, No. 7421.

Since the receipt of the order of Government, dated September 14th 1859, No. 2221, I have carefully considered the subject of lightning conductors in connexion with the circular memorandum of the 25th of May 1858, No. 260, with the Appendices thereto by Sir W. Snow Harris, and with the papers in No. XXII of 1857 of Selections from the Records of the Government of India (Public Works Department.)

2. The Government is aware that the present plan of insulated lightning conductors, originating with Professor Faraday and the late Professor Daniell, was authorized for general adoption in India by the Court of Directors in their letter to the Government of India of the 17th of September 1845.

3. This plan is now superseded under the authority of the Inspector General of Fortifications for Magazines in the United Kingdom, and I presume also the Colonies, by that of Sir W. Snow Harris, who disapproves of insulated conductors, and recommends that they shall be attached to the building and connected with all its metallic surfaces.

4. It appears that Sir W. O'Shaughnessy has declined to discuss the views of Sir W. Snow Harris, from whom he continues to differ on some points. He adds that his own arrangements for the protection of the Telegraph stations in India have been completely successful. What these arrangements are I do not know. Sir W. O'Shaughnessy formerly proposed a plan of insulated conductors which was considered unobjectionable. His other plan of "bird-cage" conductors was disapproved by the great English electricians on account of the want of mass and consequently of conducting power in the straps of the proposed frame-work.

5. Upon the whole, I am disposed to prefer our present plan to that of Sir W. Harris, because I think that without frequent inspection and great care the continuity of his system of conductors might be broken, in which event they would be more likely to destroy than preserve the building; while if the insulated conductors, which would be more easily attended to, should nevertheless fail, no injury to the building would necessarily follow.

6. I must also remark that the connexion of metallic surfaces of a building independently of the thickness of the metal with the conductors, seems to me to cancel the distinction between statical and dynamical electricity so strongly insisted upon by Professors Faraday and Daniell, and to favor lateral discharges which would be extremely dangerous.

7. Considering, however, that great advances in electrical science have been made since Professors Faraday and Daniell wrote the reports contained in the Selections No. XXII, I am of opinion that the Secretary of State should be requested to issue such fresh instructions on the subject of lightning conductors as may, after due enquiry, be considered suitable for Indian practice. The question cannot, I think, be determined in India, especially as the leading electrician in the country is averse from discussing it.

No. 10. ORDER THEREON, 1st December 1859, No. 2802.

Communicated to the Military Department with reference to proceedings in that department dated 8th September 1859 No. 3193.

(Signed) L. FORBES,
Dy. Secretary to Government.

No 7421

Central Office (M.)
Fort St. George

18 November 1859

From

The Chief Engineer

To

Military

The Secretary to Government
D.O.

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Selections.
N^o XXII
page 104

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Letter to Govt
July 13th 1859
N^o 614 in No.
24 dated July 27th
1859 N^o 2677

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Portsmouth 18th November 1859

I have the honor to be Sir.

Your most obed^t Serv^t

W. M. S. Sient Cole
Chief Engineer

To
The Secretary to Government

L. May

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8th September 1859 A/c. 3193—

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1. 1990年12月25日，在俄罗斯莫斯科市，俄罗斯总统叶利钦在克里姆林宫正式签署《俄罗斯联邦宪法》，宣布俄罗斯联邦为总统制国家。

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Feb 20

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