

thing in its power towards securing full and accurate observations on this rare and important occasion.

I have, &c.,

(Signed) J. GEOGHEGAN,
Under Secretary to Government of India.

True copy.

J. HERSCHEL, Lieut. R.E.

[Commander Rennoldson's letter, which was sent independently by the Secretary of the Peninsular and Oriental Steam Navigation Company appears below.]

*XI. "Observations of the Total Solar Eclipse of August 18, 1868."

By Captain CHARLES G. PERRINS. Communicated by Prof. STOKES. Received October 30, 1868.

(Abstract.)

These observations are contained in a letter dated "S.S. 'Carnatic,' Suez, 28th August, 1868," addressed to the Managing Directors, Peninsular and Oriental Steam Navigation Company. One of the hand spectroscopes sent out by the Royal Society had been entrusted to Captain Perrins; but as his ship at the time of the eclipse was about 20 miles north of the track of the total phase, he had no opportunity of using it for the observations contemplated. He thus describes the appearance at the time of greatest obscuration:—

"That portion of the sun remaining uneclipsed consisted of a narrow streak (in shape like a crescent) of its upper left limb, in size about $\frac{1}{16}$ part of its diameter. The light emitted from this was of a very peculiar description and difficult to describe, being at the same time extremely brilliant and yet most remarkably pale. The high sea running appeared like huge waves of liquid lead, and the ghastly paleness of the light thrown upon it and all around revealed a scene which, for its weird-like effect, it would be as impossible to depict as it is to describe."

The slender crescent showed in the spectroscope several dark lines, as was to be expected.

XII. "Observations of the Total Solar Eclipse of August 18, 1868."

By Captain D. RENNOLDSON. Communicated by Prof. STOKES. Received October 30, 1868.

(Copy.)

From Captain D. Rennoldson.

"Peninsular and Oriental Company,
Bombay, 22nd August 1868.

"DEAR SIR,—I enclose you a sketch of the eclipse seen on board the

* This and the following three communications were transmitted by the Directors of the Peninsular and Oriental Steam Navigation Company.