most gorgeously coloured, long-enduring sunsets, of the times of the conspicuous red glows' commencements; but this average interval appreciably surpassed the shorter space of 25-50m. (as did also the fading out duration of nearly an hour exceed that of only 20-25m.) observed in last month's displays; and the computed heights accordingly of the glow-producing matter ranged considerably lower (from 5 or 8 to 13 or 20 miles) in these latter than in the memorable sunset glows which followed the great eruption in Java on August 27, 1883, when heights appear to have been found of 13 or 17 to 25 or 30, or even possibly of 40 or 70 miles, for the strata of the atmosphere contaminated with volcanic dust.

The relative height results and the comparative intensities of the present and of the former glow displays seem, however, to have been in quite naturally comprehensible agreement with the lower height of projection, and with the generally lesser magnitude of the recent fearfully destructive outburst on the islands of Martinique and St. Vincent, when compared with the terrifically violent and immense volcanic explosion of Krakatoa in August, 1883, which is generally admitted to have had no previous parallel, in respect of scale and violence of mountain-mass ejection, in the history of such terrestrial convulsions. It will be interesting to notice on future nights if more examples of rose-red coloration should occur, when the times of the white and yellow sky-tracts becoming pink and ruddy should be noted, as the past month's rosy and fire-tinted sunsets were perhaps not quite sufficiently conspicuous to establish their certain connection with the terrible volcanic catastrophe of May 7-8 last in the West Indies. But considering the low temperature and continued cold soaking rainfall during all the early part of last month, until Sunday, June 22, it seems far from easy to conceive that the strikingly fine sunset display of Thursday, June 26, and the conspicuously rosy colorations of the sunset sky on June 27 and 28 can by any possibility have been merely sunset glares produced by ordinary floating dust raised locally from parched or arid tracts of land by the heat and fresh east wind of those few days of the first short interval of summer warmth and sunshine in last month, on which they were observed.

Observatory House, Slough, July 10. A. S. HERSCHEL.

P.S.—July 16.—A very fine display of orange-reddish streamers diverging in an open fan of six or seven stately light-beams from a similarly coloured horizon glow, 6° or 8° high at their common base where the sun had set (at about 8h. 15m.), was seen here on Monday evening, July 7. From 8h. 50-55m., when these fiery looking beams began to appear, up to altitudes of about 35°, across a rosy tract of sky which had sunk to the elevation of their growing crests from a higher region of pink colour first distinctly well perceived at 8h. 42-44m., their radiant light-sheaves shortened gradually without change of place or brightness; and they lasted thus quite 20m., retreating slowly into the decreasing glow at the horizon until that glow itself, at last, grew quite low and dull at 9h. 15m. The pink glow's lower border, when the first bands of streamers crossed it, was not more than 10° or 12° from the horizon, and the glow's red hue soon permeated all the yellow belt of sky which lay below it, while the streamers, at their heads, grew orange-red in place of pink, and thus from 8h. 50-55m. onwards, the whole display, until it subsided, was of one bright pinkish-orange tint in all its features. The new moon's very slender crescent, at 8h. 55m., lay less than 1° from the horizon, under the end part of the most southern streamer, looking pure yellow, and showed by its clear visibility how free from mist and smoky haze the sky was on that evening quite close to the horizon.

From the pink glow's first appearance at 8h. 43m. with an altitude of about 35°, at about 28m. after sunset, the resulting real height of the layer of dusty air which was thus lit up by the sun's departing rays, could not much exceed 5 miles above the earth's surface. On other dates in July before and since that notable appearance, the observed occurrences of a pink tinge in the sunset sky were scarcely noticeable, and the estimated time of its first appearance was only once thought to be pretty certainly trustworthy, on Sunday, July 13. A rosy tinge then first presented itself pretty brightly at 8h. 41m., about 33m. after sunset, at about altitude 40°, sinking down along the heads of some nearly vertical wide streamers, in three or four minutes to altitude 15°-20°, where it soon died away. The height of the mauve-coloured haze-stratum in the atmosphere which this observation pretty nearly indicated would seem to have been about 7 or 8 miles.

In addition to the above short notes of some particular accounts contained in NATURE of the bright sky-glows of November and December, 1883, it was observed, I find also, by Mr. E. Douglas Archibald, at Rusthall, near Tunbridge Wells (NATURE, vol. xxix. p. 176), that after sunset (at about 3h. 51m.) on December 6, a bright silky-looking white space in the clear sunset sky changed to pink at 4h. 25m. (34m. after) and to red at 4h. 45m. (54m. after sunset), which would imply heights of the pink and red glows of about 8 and 21 miles above the earth. But from the appearance of the glow on December 7 and of its reflection on low clouds, Mr. E. D. Archibald remarked that the red light's long continuance after the pink glow's departure was mainly attributable to cloud or haze reflections of true red coronal glares about the sun; and the conspicuous tinging of the white space with pink or rosy iridescence he concluded, from the interval between the concluding glow of ordinary cirrus and the commencing glow of the loftier dust stratum, corresponded more nearly with a height of from 10 to 13 miles, than with the great height of 40 miles assigned to the glow (probably from long-lasting reflection of red glows in the west on low-lying clouds, or perhaps even on the high dust stratum itself) by Prof. von Helmholtz.

Distribution of Pithophora.

In your Notes of July 17 you state that Mr. Kumagusu Minakata wishes to know if any species of the genus *Pithophora* besides *P. Kewensis* has been reported from any part of the Old World except Japan since 1877.

P. radians, West and G. S. West, was described from Loanda, on the west coast of Africa, in *Journ. Bot.* (January, 1897, p. 36), and has more recently been found in Ceylon (cf. *Trans. Linn. Soc., bot. ser. 2*, vol. v., 1902, p. 132). *P. Reineckii*, Schmidle, was described from Samoa in Engler's *Bot. Jahrb.* (xviii., 1896). Schmidle has also described at least one other species from the Old World, but I have not the reference to hand. It will be found within the last five years either in Engler's *Bot. Jahrb.* or in "Hedwigia."

G. S. WEST.

Royal Agricultural College, Cirencester, July 18.

Saturn Visible through the Cassini Division.

IN NATURE of May 22 you were good enough to publish my prediction that, on July 17, the Cassini division of Saturn's ring would be invisible where it crossed the planet.

On July 15, Mr. Townshend, president of the Leeds Astronomical Society, reports that he saw the division throughout the ring and crossing the globe, but that on the 17th the portion crossing the globe was invisible. Mr. Townshend observed with a 10-inch reflector, and is a very competent observer.

On July 17 I was observing with a 9-inch refractor, and the Cassini division, clearly seen in the ansæ of the ring, was quite invisible in that part of the ring which crossed the globe.

I shall be very glad to receive notes of other observations of Saturn made on July 17, and shortly before and after that date. Invermay, Leeds, July 21. C. T. WHITMELL.

THE ELECTRIFICATION OF LONDON.

THE various electric railway Bills which have already passed through the House of Lords came up for second reading in the House of Commons last week. In spite of some attempts to reject several of these Bills they all successfully passed the second reading and have been referred to two Select Committees of the House of Commons. These Committees, each of which will deal with about half-a-dozen Bills, are to hold their first meetings at once, the one under the chairmanship of Sir L. M'Ever, the chairman of the other being Mr. Seale-Hayne.

The Bills have already been thoroughly investigated by the Select Committees of the House of Lords presided over by Lord Windsor and Lord Ribblesdale during April and May. These two Committees had much the more arduous task, as they had to deal with a larger number of Bills, several of which they rejected. It is possible, as a result of their work, to form some idea of