

[1868.]

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further north than a line including Honduras, Cuba, Jamaica, Rouen, Hamburg, Tilsit. Line of centrality, 60 miles south of Lima, Casco, Pernambuco, Liberia, and Lake Tchad. II. A total eclipse of the sun, commencing 17th August, 14h. 34m. 7s., ending 19h. 14m. 2s., visible as a partial eclipse, to South Asia, from the Dardenelles to the Yellow Sea; also to the eastern half of Africa, as far south as Madagascar; the line of totality passing through Abyssinia, Hydrabad, Malacca, Borneo, and Torres Straits.

There will be several occultations of planets by the moon, some of which, being visible at Charlottetown, are noted in their place in the Calendar; as also some of the well-known bright star Aldebaran. The time given being local mean time of conjunction of the star with the moon's centre, an allowance of about half an hour each side will have to be made for immersion and reappearance.

There will be a Transit of Mercury over the sun's disc, Nov. 4th, commencing 17h. 24m. 39s., and ending 21h. 2m. 57s., Greenwich mean time. Invisible on this side of the Atlantic.

PLANETS.

MERCURY. In consequence of this planet's proximity to the Sun, it is very difficult to be seen, being mostly under the Sun's rays. The most favorable time is when it is at its greatest elongation, when it may be found near the Sun shortly after sunset, or before sunrise, according as the planet is to the east or west of the Sun.

VENUS. Revolving in an orbit within that of the earth, Venus never appears more than 45° or 46° from the Sun. Moving alternately to the east and west among the Stars her motion will be retrograde or westwards from June 24 to August 7, and direct or eastward during the year. As the apparent motion of the Earth, as seen from the Venus or Mercury, is direct or retrograde, according as their motion is direct or retrograde to us, so also the apparent motion of the superior planets is sometimes retrograde as seen from the earth.

MARS. The motion of Mars will be direct throughout the year, being in conjunction with the Sun on the first of January. He will not be visible till he appears as a Morning Star in March. He will not be seen to rise in the east before midnight till the beginning of November.

JUPITER. Retrograde from the 3d August to the end of the year. He is to be seen to the south-west at sunset. His distance from the Sun decreasing till the time of conjunction on the 10th of March; after which he will reappear as a morning star. His range of motion through the heavens during the year is $36^{\circ} 26'$ in the constellation Pisces.

SATURN. Retrograde from March 14 to August 2, and direct to the end of the year. His range of motion is about $6^{\circ} 45'$ in