

Eclipses, 1878.

In the year 1878 there will be two Eclipses of the Sun and two of the Moon, viz.:

I.—An Annular Eclipse of the Sun, February 1, 1878, invisible at Greenwich.

Begins on the Earth generally, Feb. 1, 17h 56m, 2, Mean Time at Greenwich, in Longitude $20^{\circ} 2' W.$ of Greenwich, and Latitude $54^{\circ} 4' S.$

Central Eclipse begins generally, Feb. 1, 19h 38m, 5, in Longitude $103^{\circ} 0' W.$ of Greenwich, and Latitude $75^{\circ} 8' S.$

Central Eclipse at Noon, February 1, 19h 43m, 8, in Longitude $112^{\circ} 27' W.$ of Greenwich, and Latitude $84^{\circ} 3' S.$

Central Eclipse ends generally, February 1, 21h 16m, 8, in Longitude $149^{\circ} 25' E.$ of Greenwich, and Latitude $40^{\circ} 58' S.$

Ends on the Earth generally, February 1, 22h 59m, 1, in Longitude $112^{\circ} 31' E.$ of Greenwich, and Latitude $12^{\circ} 28' S.$

II.—A Partial Eclipse of the Moon, February 16–17, 1878, invisible at Greenwich.

The first contact with the Shadow, 82° from the Northernmost point of the Moon's limb towards the East.

The last contact, 30° towards the West; in each, for *direct* image

III.—A Total Eclipse of the Sun, July 29, 1878, invisible at Greenwich.

Begins on the Earth generally, July 29, 7h 18m, 2, Mean Time at Greenwich, in Longitude $141^{\circ} 53' E.$ of Greenwich, and Latitude $41^{\circ} 21' N.$

Central Eclipse begins generally, July 29, 8h 24m, 4, in Longitude $117^{\circ} 42' E.$ of Greenwich, and Latitude $54^{\circ} 14' N.$

Central Eclipse at Noon, July 29, 9h 22m, 9, in Longitude $139^{\circ} 10' W.$ of Greenwich, and Latitude $60^{\circ} 27' N.$

Central Eclipse ends generally, July 29, 11h 9m, 6, in Longitude $69^{\circ} 45' W.$ of Greenwich, and Latitude $17^{\circ} 33' N.$

Ends on the Earth generally, July 29, 12h 15m, 8, in Longitude $91^{\circ} 11' W.$ of Greenwich, and Latitude $3^{\circ} 37' N.$

IV.—A Partial Eclipse of the Moon, August 12, 1878, visible at Greenwich.

The first contact with the Shadow occurs at 100° from the Northernmost point of the Moon's limb towards the East.

The last contact at 157° towards the West; in each case, for *direct* image.

A Transit of Mercury across the Sun's disc, May 6, 1878, partly visible at Greenwich.

NOTE.—The Tide Tables (in the Calendar pages) may be rendered applicable to various other places on the coast, by simply adding or subtracting as the case may be, the difference between the times of High Water on the full and change of the Moon at St. John's, and the time of the full tide at any other harbor; for example, to find the time of High Water at any of the principal harbors of Conception Bay, add 45 minutes to the time at which it will be high water at St. John's; for Placentia Bay add 2 hours; for St. Peters, 1h. 50m; for Ferrolle, on the French Shore, 4 hours, &c.—See table LVII of Norie's Epitome.