

ECLIPSES IN THE YEAR 1854.

This year there will be two Eclipses of the Sun, and two Eclipses of the Moon.

I. A partial Eclipse of the Moon, May 12, in the morning. Magnitude 2.87 digets on the southern limb. Invisible on this continent.

II. An annular Eclipse of the Sun, Friday, May 26, in the afternoon. Visible *principally* as a very large partial Eclipse on the Sun's northern limb, throughout North America, except along the isthmus of Darien. At Saint John it will begin at 4h. 43m., and end at 6h. 59m., Magnitude 10.75 digets. During this Eclipse the apparent diameter of the Moon will be little less than that of the Sun, and therefore the Sun cannot in any place be entirely or totally eclipsed. This circumstance also will cause a bright ring of light to be formed around the darkened parts of the Sun. This ring will be only about one-third of a diget wide, and will be visible only in the vicinity where the line of central eclipse passes. The eclipse is central in longitude $73^{\circ} 53'$ west of Greenwich, latitude $44^{\circ} 14'$ north; and in longitude $64^{\circ} 35'$ west, latitude $41^{\circ} 10'$ north. By finding these positions upon a map and drawing a line from one to the other, the towns and countries through which the central eclipse passes will be readily discovered. The path of the annular eclipse will be about 100 miles wide and extend about 50 miles each side of the line described. It will move about 100 miles per minute, and begin at sunrise in the Pacific Ocean, near the Caroline Islands, long. $162^{\circ} 51'$ east, lat. $6^{\circ} 43'$ north, ending at sunset in long. $51^{\circ} 53'$ west, lat. $36^{\circ} 18'$ north. The partial eclipse first touches the earth at sunrise in long. $176^{\circ} 35'$ west, lat. $1^{\circ} 22'$ south; and ends at sunset north-east of the Bahama Islands, in long. $73^{\circ} 41'$ west, lat. $28^{\circ} 29'$ north. The first time this eclipse ever occurred was in 1313, July 2d, since then it has returned 31 times, including its return this year. It occurred in April 1800, in May 1818, and in May 1836. It will return again in June 1872. Its last return will be in the year 2593, Aug. 17th.

III. There will be a very small partial eclipse of the Moon Saturday, Nov. 4, in the evening. At St. John the Moon will rise about the time of greatest eclipse, (4h. 43m.) This eclipse may be seen, when the moon rises, throughout the Province.

IV. There will be a total Eclipse of the Sun on the 20th November, invisible in North America. This eclipse is confined mostly to the Indian and Atlantic Oceans. At the Cape of Good Hope it will be 6.97 digets in size.

MORNING AND EVENING STARS FOR 1854.

Mercury will be morning star until Feb. 8; then evening star until March 23; then morning star until May 28; then evening star until July 30; then morning star until Sept. 12; then evening star until Nov. 19; then morning star until Jan. 20, 1855.