

ECLIPSES IN THE YEAR 1830.

THERE will be six Eclipses in the year 1830—four of the Sun and two of the Moon, in the manner following :

I. The first will be of the Sun, February 22d day, δ at 11h 57m in the evening ; of course invisible here, Moon's lat. $1^{\circ} 29\frac{1}{2}'$ N. and the Sun's long. $11^{\circ} 4^{\circ} 7\frac{1}{2}'$.

II. The second will be of the moon, March 9th day, ecliptic δ at 8h 52m in the morning ; consequently invisible to us ; but she will be seen eclipsed 20° on her north limb, and in total darkness, by the dwellers on the northwest coast of America, and by the islanders of the Pacific, &c—the eclipse continuing 8h 54m.

III. The third will be of the Sun, March 24th day, δ at 10h 5m in the morning ; but invisible to us by reason of the moon's great southern latitude, which will be $1^{\circ} 17' S.$; and the sun's longitude, $0^{\circ} 5^{\circ} 29'$.

IV. The fourth will be of the Sun, August 18th day, δ at 7h 44m. in the morning ; but invisible here, by reason of the moon's great southern latitude, which will be $1^{\circ} 23' s.$; and the Sun's lon. $4^{\circ} 24^{\circ} 58'$.

V. The fifth will be of the moon, September 2d day, visible and total at London, and other parts of Europe, but only the latter part of it to be seen here, as follows :

Beginning of the Eclipse,	4h 11m	} Appar. time, in the evening.
Do. of total Darkness	5 8	
Ecliptic δ	5 59	
middle	5 58	
moon rises totally obscured	6 32	
End of total darkness,	6 49	
End of the Eclipse,	7 47	}
Duration,	3 36	

Digits eclipsed $21^{\circ} 40'$ on the moon's southern limb.

VI. The sixth will be of the Sun, september 16th day, δ at 9h 49m in the evening ; therefore invisible to us ; moon's lat $1^{\circ} 18' N.$ and the sun's long. $5^{\circ} 23^{\circ} 39'$.

Morning and Evening Stars for 1830.

The Planet Venus (γ) will be Evening star till March 7th ; thence morning star till December 20th ; thence Evening star.—Jupiter (μ) will be morning star till July 5th ; thence evening star to the end of the year.—Mars (δ) will be the morning star till september 19th ; thence evening star to the end of the year.—Saturn (ν) will be morning star till February 3d ; thence evening star till August 14th ; thence morning star to the end of the year.