ECLIPSES FOR YEAR 1890.

IN the year 1890 there will be two Eclipses of the SUN and one of the MOON.

I.—An Annular Eclipse of the SUN, June 16–17, 1890, visible as a Partial Eclipse at Greenwich.

Begins on the Earth generally, June 16, 18h, 55m, 1, Mean Time at Greenwich, in Longitude, 13° 58′ W. of Greenwich, and Latitude 0° 47′ N.

Central Eclipse begins generally, June 16, 20h, 1m, 8, in Longitude, 32° 30′ W. of Greenwich, and Latitude 5° 8′ N.

Central Eclipse at Noon, June 16, 21h, 58m, 5, in Longitude 30° 31′ E. of Greenwich, and Latitude 36° 41′ N.

Central Eclipse ends generally, June 16, 23h, 48m, 5, in Longitude 101° 25′ E. of Greenwich, and Latitude 18° 46′ N.

Ends on the Earth generally, June 17, 0h, 55m, 2, in Longitude 82° 44′ E. of Greenwich, and Latitude 14° 27′ N.

II.—A Partial Eclipse of the MOON November 25–26, 1890, invisible at Greenwich.

The first contact with the Shadow occurs at 14° from the Northernmost point of the Moon's limb towards the West.

The last contact at 19° towards the West; in each case, for *direct* image.

III.—A Total Eclipse of the SUN, December 11, 1890, invisible at Greenwich.

Begins on the Earth generally, Dec. 11, 12h, 28m, 4, Mean Time at Greenwich, in Longitude 77° 46′ E. of Greenwich, and Latitude 8° 19′ S.

Central Eclipse begins generally, December 11, 13h, 32m, 9, in Longitude 56° 58′ E. of Greenwich, and Latitude 18° 42′ S.

Central Eclipse at Noon, December 11, 15h, 15m, 0, in Longitude 129° 42′ E. of Greenwich, and Latitude 53° 58′ S.

Central Eclipse ends generally, December 11, 16h, 38m, 1, in Longitude 142° 48′ W. of Greenwich, and Latitude 36° 33′ S.

Ends on the Earth generally, December 11, 17h, 42′ 7, in Longitude 165° 0′ W. of Greenwich, and Latitude 26° 31′ S.