

These data may be reduced to Charlottetown time by multiplying the hourly difference by the constant 4.208, adding or subtracting the result according as the data are increasing or decreasing.

For convenience of reference the sun's semi diameter for every day in the year is given in a separate table. From this the sun's horizontal parallax may be found by dividing the semi diameter reduced to seconds by the constant 107.44. Example:

$$\text{For March 21, sun's semi-diameter, } 16' 43'' = \frac{964.8''}{107.44} = 8.98.$$

The bearing of the moon at the times of full and changes are given for the purpose of assisting or testing weather forecasts; and the times of the moon's crossing the equinoctial and of its attaining its greatest declination are given as days of expected atmospheric disturbance. When these days fall on or near (within two days) of the time of the moon's changes or perigee the disturbing influence is proportionally increased. These cases are marked with \*\* or \*\*\* according as two or three of their influences are combined, and the closer these times agree the stronger and more certain may the disturbance be expected.

### PLANETS.

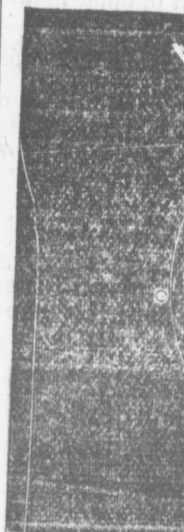
**MERCURY.**—Apparent motion alternately direct and retrograde between the dates when he will be stationary to the east or west of the sun, namely March 18th E., April 9th W., July 24th E., August 14th W., November 13th E., and December 2d W. The most favorable time for seeing this planet is when at the time of his greatest angular distance from the sun, his declination is more northerly than the sun's. This will occur in the evening, about March 11th, and before sunrise about August 22. He will be in conjunction with Venus April 14th and May 19th; with Mars September 28th, November 28th and December 23d; with Jupiter February 28th and April 7th; and with Saturn May 6.

**VENUS.**—Apparent motion in right ascension direct throughout the year. She will be a morning star till her conjunction with the sun, July 13th, afterwards reappearing as an evening star, becomes visible in the west in September. Besides those already noticed, her conjunctions will be—with Mars, September 7th (when at sunset the two planets may be seen in the west); with Jupiter, April 16th, an hour before sunrise; and with Saturn May 1. She will be occulted by the moon November 4th.

**MARS.**—Apparent motion throughout the year direct. He will be an evening star during the first part of the year. Comes to the meridian at 8 p. m. and earlier every day till his conjunction with the sun, October 13th. Becomes visible as a morning star about the end of November. There will be two occultations by the moon—on March 17th and April 15th. The former alone will be visible to P. E. Island. The planet will disappear at the moon's eastern or darkened limb at about 24 minutes past 7 p. m., reappearing on the western side at 44 minutes past 8.

Tremaine and Metcalf

1880.]



Occult

**JUPITER.**—Mocember 4th; after star from the bejunction with the April, and coming then on the mari

**SATURN.**—Mot during the rest March, about 30 junction with the about the end of 15th.

**URANUS.**—Motember 18; in op on the 1st Septem

**NEPTUNE.**—Mo August 16th and year. He will b position on Nover

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