# Memoranda for Observers.

# Standard Time is adopted in these Memoranda. Sidereal Time at 8 p.m.

			n.	TAY *	S.	
$November\ 1st$	•		22	39	59	
8th			.23	7	35	
15th			23	35	11	
22nd		•	0	2	47	
29th			0	30	23	

From this table the constellations visible during the evenings of November can be ascertained by a reference to their position as given in a Star Atlas.

#### Moon.

				H.	M.
November	2nd		New Moon	7	26 a.m.
	10th		First Quarter	10	59 a.m.
	17th		Full Moon	5	55 a.m.
	23rd		Last Quarter	11	43 p.m.

A total eclipse of the Moon will occur on the early morning of the 17th November 1910.

First contact with the Penembra	3	15.6 a.m.
First contact with the Shadow	4	14·1 a.m.
Beginning of Total Phase .	5	25.0 a.m.
Middle of Eclipse	5	$50.9 \; a.m.$
End of Total Phase	6	16·8 a.m.
Last contact with the Shadow	7	27.7 a.m.
Last contact with the Penembra	8	26·2 a.m.

Moon sets about 6-15 a.m.

Magnitude of the Eclipse (Moon's diameter =1) 1.131.

The first contact with the Shadow occurs at 94° from the North point of the Moon's limb towards East.

### Meteors.

There are two important showers in November—the Leonids and the Andromids.

Date.	Radiant point.	Character.
Nor	PA Dog	

Leonids . 14th 16th 150 + 22 Swift streaks. Andromids . 17th 23rd 25 + 43 Very slow trains.

Moonlight may interfere with the observation of these showers, especially the former. Other showers occur on November 1st, 2nd, 10-12th, 16-28th, and 20-23rd.

## Planets.

Saturn will be visible practically all night.

H. M. S.

November 15th ... R.A. 2 1 39 Dec. N. 9° 29′ 17″

Venus will be in conjunction with the Sun on the 26th November, after which it will become an evening star.

Mars and Jupiter are early morning stars, rising between 4 and 5 a.m.