

result suggested the spectrum might be due to the light from Merope scattered and reflected by the large objective. Exposures on the nebula of Orion and of a region near Sirius led him to conclude that "the nebula shines by light, the spectrum of which is a true copy of that of the neighbouring star Merope and of the other bright stars of the Pleiades." It is suggested then that the nebula is disintegrated matter similar to what we are acquainted with in our solar system, as in the rings of Saturn, comets, etc., and that it shines by reflected light.

[*Nature.*

## Memoranda for Observers.

Standard Time of India is adopted in these Memoranda.

*For the month of July 1913.*

Sidereal time at 8 p.m.

				H.	M.	S.
<i>July 1st</i>	...	...	...	14	36	8
„ <i>8th</i>	...	...	...	15	3	44
„ <i>15th</i>	...	...	...	15	31	20
„ <i>22nd</i>	...	...	...	15	58	56
„ <i>29th</i>	...	...	...	16	26	32

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

### Phases of the Moon.

			H.	M.
<i>July 4th</i> —New Moon	...	...	10	36 A.M.
„ <i>11th</i> —First Quarter	...	...	3	7 A.M.
„ <i>18th</i> —Full Moon	...	...	11	36 A.M.
„ <i>26th</i> —Last Quarter	...	...	3	29 P.M.

### Meteors.

Date.	Radiant.		Character.
	R. A.	Dec.	
<i>July 6th—August 22nd ...</i>	284°	—13°	Slow, Trains.
<i>July 15th—31st ...</i>	23°	+43°	Rapid, Streaks.
<i>July 6th—August 16th ...</i>	315°	+48°	Rapid.
<i>July—August ...</i>	269°	+48°	Slow, Trains.
<i>July 15th—28th ...</i>	304°	—10°	Slow, Trains.
<i>July 25th—September 15th</i>	48°	+43°	Rapid, Streaks.
<i>July ...</i>	22°	+22°	Rapid, Streaks.
<i>July 27th—31st ...</i>	339°	—11°	Slow, Trains.
<i>July—September ...</i>	335°	+73°	Rapid.
<i>July—October 8th ...</i>	30°	+36°	Rapid, Streaks.
<i>July—October ...</i>	310°	+79°	Slow.
<i>July—August ...</i>	339°	—27°	Slow, Trains.

### Planets.

*Venus*.—Is a morning star. Its position on the 15th of July at 8 P.M. will be R. A. 4 hrs. 23 mts. 47 secs. Dec. 18°-29'-1" N. The time of its rising will be 1 hr. 54 mts. A.M. on the 16th July.

*Mars*.—The position of this planet on the 15th July at 8 P.M. will be R. A. 3 hrs. 13 mts. 21 secs. Dec. 16°-53'-53" N. The time of its rising will be 0 hr. 46 mts. A.M. on the 16th July.

*Jupiter*.—The position of this planet on the 15th July at 8 P.M. will be R. A. 18 hrs. 50 mts. 50 secs. Dec. 23°-3'-31" S. The time of its setting will be 4 hrs. 16 mts. A.M. on the 16th July.

*Saturn*.—The position of this planet on the 15th July at 8 P.M. will be R. A. 4 hrs. 48 mts. 36 secs. Dec. 20°-50'-23" N. The time of its rising will be 2 hrs. 23 mts. A.M. on the 16th July.