

To measure the trails a micrometer is required, and after the measures have been reduced to a common denomination, they can then be compared. On the negatives it is not the length of the trail that is to be observed, but the width, and the brighter stars therefore make wider trails, the length being due to the length of time of exposure. The width again varies according to the colour of the star, a red star making a narrower trail than a blue one for instance, but these would be details for particular cases. Also a clear or cloudy night makes a difference in the relative size of all the trails, as an illustration a slide put on the sheet showed where a cloud passed over during exposure, partially obscuring the stars for a short time, and thus lessening the light as shown by the sort of dumbbell shape of the trails. Perhaps this can hardly be called deep science, but it forms quite an interesting method of using a camera.

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## Memoranda for Observers.

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Standard Time of India is adopted in these Memoranda.

*For the month of April 1911.*

Sidereal time at 8 p.m.

	H.	M.	S.
<i>April 1st</i> . . . . .	8	35	19
„ <i>8th</i> . . . . .	9	2	55
„ <i>15th</i> . . . . .	9	30	31
„ <i>22nd</i> . . . . .	9	58	7
„ <i>29th</i> . . . . .	10	25	43

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

### Phases of the Moon.

	H.	M.
<i>April 6th</i> First Quarter . . .	11	25 a.m.
„ <i>13th</i> Full Moon . . .	8	7 p.m.
„ <i>22nd</i> Last Quarter . . .	0	6 a.m.
„ <i>29th</i> New Moon . . .	3	55 a.m.

**Meteors.**

Date.	Radiant.		Character.
	R. A.	Dec.	
April 20-23 . . . . .	189°	-31	Slow ; long.
20-21 . . . . .	261	+36	Swift ; bluish white.
20-22 . . . . .	271	- 2	Swift : streaks.
20-25 . . . . .	218	-31	Slow : long paths.
30 . . . . .	291	+59	Rather slow.

**Planets.**

*Venus*—Is an evening star. It sets 2 hrs. 29 mins after sunset.

*Saturn*.—The position of this planet on 15th of April at 8 p.m. will be R. A. 2 hrs. 24 mins. 25 secs. Dec. 12°-3'-17" N. Time of its setting is 6 hrs. 53 mins. p.m.

*Mars*.—The position of the planet on 15th of April at 8 p.m. will be R. A. 21 hrs. 47 mins. 59 secs. Dec. 14°-44'-52" S. The time of its rising will be 2 hrs. 16 mins. a.m. on 16th April.

*Jupiter*.—The position of the planet on 15th April at 8 p.m. will be R. A. 14 hrs. 38 mins. 29 secs. Dec. 14°-0'-1" S. The time of its rising will be 7 hrs. 6 mins. p.m.

**The Sun.**

A total eclipse of the Sun will take place on April the 28th. The eclipse will be invisible in this country. The line of central eclipse traverses the Pacific Ocean, and the most suitable spot for observation will probably be the Friendly Islands. A partial eclipse will be visible in Australia.

**Extracts from Publications.**

Mr. E. W. Maunder, at the Meeting of the British Astronomical Association, said that, with regard to the question of the brightness of the corona, it had occurred to him in three total eclipses to try to note the time after sunset when the illumination was equal to the illumination during mid totality. The first time he did so was in India in 1898, two or three days after the eclipse. Being out in the open just after sunset, it struck him that the phenomena of the fading light were very like what he had witnessed during totality, and he carefully noted the time when he thought the illumination was just about equal to what it was at mid totality. Curiously enough, at the same time Mr. Backhouse, on the