current problem of variation in the solar tomperature, indicating that the temperature of the sun is groater during the spot minima.

This, in turn, would solve the puzzling phonomena of the spot minima and maxima, demonstrating that they are due to periodic variations in the solar temperatures.
[Popular Astronomy.

## Memoranda for Observers.

Standard Time of India is adopted in these Memoranda.
For the month of July 1912.
Sidereal time at 8 p.m.

| July 1st | ... | $\ldots$ | ... 14 | 37 |
| :---: | :---: | :---: | :---: | :---: |
| ,, 8th | $\ldots$ | $\ldots$ | ... 15 | 4 |
| ,, 15th | $\ldots$ | $\ldots$ | ... 15 | 32 |
| , 22nd | $\ldots$ | $\ldots$ | .. 15 | 59 |
| 2967 | ... | $\ldots$ | .. 16 | 27 |

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. |  |
| :---: | :--- | :--- | :--- | ---: | ---: | :--- |
| July 7th | Last Quarter | $\ldots$ | $\ldots$ | 10 | 17 | p. m. |
| ," 14th | New Moon | $\ldots$ | $\ldots$ | 6 | 43 | p. m. |
| ", 21st | First Quarter | $\ldots$ | $\ldots$ | 10 | 48 | a. m. |
| ,, 29th | Full Moon | $\ldots$ | $\ldots$ | 9 | 58 | a. m. |

## Meteors.

Date. Radiant. Character.
R. A. Dec.

| July | 6th--August | 22 nd | $284^{\circ}$ | $-13^{\circ}$ | Slow, Trains. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| , | 15th | 31st | 23 | +43 | Rapid, Streaks. |
| " | 6th-August | 16th | 315 | +48 | Rapid. |
| " | - August |  | 269 | $+48$ | Slow, Trains. |
| " | 15 th - | 28 th | 304 | -10 | Do. do. |
| " |  |  | 22 | +22 | Rapid, Streaks. |
| " | 25th-Scpt. | 15th | 48 | +43 | Do. do. |
| " | 27th | 31st | 339 | -11 | Slow, Trains. |
| , | -Sept. |  | 335 | +73 | Rapid. |
| , | -0ct. | Sth | 30 | +36 | Rapid, Streaks. |
| " | --0ct. |  | 310 | +79 | Slow. |
| " | --August |  | 339 | -27 | Slow, Trains. |

Planets.
Venus.-Is an evening star. It sets about 12 minutes after sunset on the 15th July.

Saturn.-The position of this planet on the 15th July at 8 P.M. will be R. A. 3 h .56 m .28 s . Dec. $18^{\circ}-24^{\prime}-51^{\prime \prime} \mathrm{N}$. The time of its rising will be 1 h .25 m . A.M. on the 16th July.

Mars.-The position of this planet on the 15th July at 8 P.M. will be R.A. 10 h .6 m .23 s . Dec. $12^{\circ}-50^{\prime}-33^{\prime \prime}$ N. The time of its setting will be 8 h .34 m . P.M. on the 15th July.

Jupiter.-The position of this planct on the 15th July at 8 P.M. will be R. A. 16 h .17 m .6 s . Dec. $20^{\circ}-40^{\prime}-53^{\prime \prime} \mathrm{S}$. The time of its setting will be 1 h .46 m. A.M. on the 16th July.

## Notices of the Society.

## Election of Members.

The attention of members is invited to Bye-Law No. 14, regulating the election of persons who desire to join the Society. It is hoped that those who are already members will induce others to join. Forms of application can be had from the Secretary, Mr. P. N. Mukherji.

