

few such in a century, combining the zeal of the enthusiast and the caution and restraint of the professional scientist; but most of us have to remain satisfied with forming only an incomplete part of the engine of research. * * *

“It does not follow that because an amateur pursues his own method he is wrong or inferior. Further, if he possessed a complete knowledge of everything bearing upon a particular subject, he might be discouraged, or consider himself not sufficiently well-informed. The stimulus of enquiry would be gone. In some cases such knowledge may be essential; in other cases it is a hindrance. * * *

“It has been said that there are two parties necessary for every advance in science; the one which makes it, and the one that believes in it. Possibly to some of us it is given only to believe; but to most of us it is permitted to take a more active share in the progressive march, especially if we have the true spirit of the amateur in us. ‘According to my view,’ says Professor Hale, ‘the amateur is the man who works in astronomy because he cannot help it; because he would rather do such work than anything else in the world, and who therefore cares little for hampering traditions or for difficulties of any kind.’ Professor Turner says of this definition that it provides both an ambition and a criterion. Surely, in this sense, we all want to be amateurs who will find it impossible to stop, who work in astronomy because we cannot help it. Clearly the army of amateurs is the right one for the work: weariness cannot touch them! They will go on fighting automatically because they cannot help it!”

[W. E. Plummer in an address to the Liverpool Astronomical Society.]

Memoranda for Observers.

Standard Time of India is adopted in these Memoranda.

For the month of April 1913.

Sidereal time at 8 p.m.

					H.	M.	S.
<i>April</i>	<i>1st</i>	...	...	...	...	8	37 22
	<i>8th</i>	...	...	...	...	9	4 58
	<i>15th</i>	...	...	...	...	9	32 34
	<i>22nd</i>	...	...	...	...	10	0 9
	<i>29th</i>	...	...	...	...	10	27 45

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

Phases of the Moon.

			H.	M.
<i>April</i>	<i>6th</i>	New Moon	...	11 18 P.M.
"	<i>14th</i>	First Quarter	...	11 9 A.M.
"	<i>21st</i>	Full Moon	...	3 3 A.M.
"	<i>28th</i>	Last Quarter	...	11 39 A.M.

Meteors.

	Date.	Radiant.		Character.
		R. A.	Dec.	
<i>April</i>	<i>20th—23rd</i>	189°	-31°	Slow, long.
"	<i>20th—21st</i>	261	+36	Swift, bluish white.
"	<i>20th—22nd</i>	271	- 2	Swift, streaks.
"	<i>20th—25th</i>	218	-31	Slow, long paths.
"	<i>30th</i>	291	+59	Rather, slow.

Planets.

Venus.—Is an evening star. On the 15th April at 8 P.M. its position will be R. A. 2 hrs. 19 mts. 50 secs. Dec. 21°-14'-19" N. The time of its setting will be 7 hrs. 3 mts. on the 15th April.

Mars.—The position of this planet on the 15th April at 8 P.M. will be 22 hrs. 58 mts. 5 secs. Dec. 8°-1'-18" S. The time of its rising will be 3 hrs. 12 mts. A.M. on the 16th April.

Jupiter.—The position of this planet on the 15th April at 8 P.M. will be R. A. 19 hrs. 14 mts. 33 secs. Dec. 22°-16'-0" S. The time of its rising will be 11 hrs. 54 mts. P.M. on the 15th April.

Saturn.—The position of this planet on the 15th April at 8 P.M. will be R. A. 4 hrs. 1 mts. 20 secs. Dec. 18°-56'-32" N. The time of its setting will be 8 hrs. 40 mts. P.M. on the 15th April.

