

# Astronomy and Meteorology.

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## Astronomy and Meteorology.

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## Astronomy.

A meteor, measuring 40 by 20 feet, is said to have fallen near Elmira, N.Y., on May 25. Notwithstanding its immense size, only one man is reported to have seen it!

A thirteenth magnitude asteroid was discovered by Charlois, at Nice, on May 28. This brings the number up to 267.

I hope to shortly continue my articles on "The Constellations," commenced in the defunct *Advocate* a year or two since. These, with short notices of the whole of the visible sky at intervals, will prove of value to amateurs wishing to localize the different stars and clusters.

Prof. Young declares that "each star presents a subject for spectroscopic study; for although, for the most part, the stars may be grouped into a very few classes from the spectroscopic point of view, yet in detail, the spectra of objects belonging to the same group differ considerably and significantly, almost as much as human faces do."

What an immensity of diverse conditions and possibilities as regards the forms of life pre-existing, now existing, or to exist on the millions of worlds circling these diverse suns, does this paragraph open to the thinking person. For if the constituents of these numerous suns differ as much "as human faces," must not the forms of life on their attendant worlds differ also?

### PLANETS IN JULY.

Those who have not yet been able to pick up Mercury, "the only twinkler 'mongst the planet throng," will have an opportunity so to do at the entry of this month, when he is  $25^{\circ} 51'$  E. of the sun. Look for a star of the first magnitude below Venus, toward the sunset point during the first five days.

Venus continues her outward course, passing *Regulus* on the 4th. She reaches her farthest limit east of the sun at midnight on the 13-14, being then  $45^{\circ} 33'$  from the god of day. The moon is near her on the night of the 23rd. Ordinary telescopes ought to perceive the half moon shape of Venus this month.

Jupiter is  $90^{\circ}$  from the sun on the 19th, when he is overhead at 6 p.m. Notwithstanding his increasing distance, as yet he has lost but little of his lustre.

Saturn attains his solar conjunction and becomes a "morning star" on the 18th.

### OF REAL VALUE.

Are astronomical researches—and particularly amateur ones—of any value? I reply, very little, in a direct commercial sense, my friend, if it is an answer on the dollars and cents side of the argument that you are aiming at. You are not perhaps one cent in pocket from your watching the heavens closely for the past ten years, on the contrary, you have been "wasting," as the ultra utilitarian will tell you, hours that might have been employed in increasing your bank account or the value of your real estate. But indirectly, I fancy you have gained a great deal. Your study of the noblest, the highest, the supremest of the sciences, has improved your intelligence. Standing with others who have not so "wasted their time" under the canopy of heaven, any starry night you are able to expound to such men truths which seem to them like marvellous tales from another planet, but which are real nevertheless, and cannot be refuted. Besides, with increased intelligence, your brain has been strengthened for the struggle after the daily loaf of bread that nearly all men are forced to strive for. Show me the members of any astronomical association, and I will show you men certainly not the least worthy of respect amongst their fellow-citizens. Such men will not have been drawn from the ranks of the idle or the shiftless, but rather prove themselves amongst the busiest. But let us leave utilitarian arguments and ascend to a

higher level. What study will so enoble the mind, or give man a proper sense of his relations to the rest of an infinite universe, leading him from himself up to higher and better views of his place in it, as a pursuit of the science of Astronomy? Those who smile at our devotion, should stop smiling and get to calculating. Let them tell us how many astronomers have been evil doers. Have not their lives rather been examples to their fellow-men? "By their fruits ye shall know them."

### THE AUGUST ECLIPSE.

Scarcely any other astronomical phenomenon can be compared with that of a total eclipse of the sun, as regards both interest and importance. The brevity of the duration of the eclipse, the narrowness of the shadow of true totality—which is never over 100 miles wide—and the rapidity with which the shadow rushes along—30 miles per minute—together with the importance of the observations to be made, all combine to render a total solar eclipse of great interest. That of August 18-19, 1887, will be of more than usual import, as the shadow will pass over more of the inhabited portions of the globe than is generally the case. As a partial eclipse it will be seen from the Solomon Isles, in the South Pacific, to the East Coast of Iceland, in the North Atlantic. The line of totality is more circumscribed, of course, but even that reaches from the 170th to the 10th degree of East Longitude, crossing the Island of Rico de Oro and the City of Yedo, Japan, in the Northern Pacific, extending over the whole of Northern Asia, and the inhabited portions of Europe, passing a little North of Moscow, Russia, and crossing the Cities of Königsberg and Berlin. Owing to the many possibilities of examination, it is consequently one of the most interesting eclipses. It is not visible in America, except that the moon will be seen to just graze the sun, by residents of Alaska Territory. The leading governments of the world have expeditions organized to observe, that of the United States proceeding to Japan. Astro-Meteorologists will remember the coincident earthquake phenomena that immediately followed the ecliptic conjunction of sun and moon at the end of August, 1886, and will be prepared to hear—in this earthquake period—of further disturbances. The meteorological conditions will doubtless be disturbed greatly, so much so that