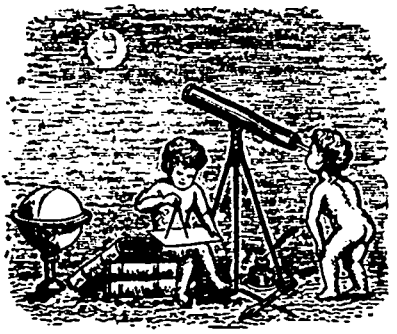


Astronomy and Meteorology.

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Astronomy and Meteorology.

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One hundred subscriptions are still needed to pay cost of printing. Is it the intention of my friends that I should publish this paper at a loss?

Astronomy.

The total solar eclipse of August 19 was well observed at Berlin and other places in Europe. At Klin, near Moscow, it was cloudy, but an Astronomer, not to be put off, ascended above the clouds in a balloon and obtained a successful observation.

Chacornac has recorded many star changes, and declares that new stars appear, and old stars disappear, much more often than is suspected.

Allair, the leading brilliant in *Aquila*, has been thought to vary in lustre at times. It has a very sensible proper motion.

Maraldi, writing of the polar snows on Mars as far back as 1704, says they had then been occasionally seen for at least 50 years.

Amongst the valuable Astronomical information to be found in *Smith's Planetary Almanac* for 1888, there will be a Planetary Ephemeris written specially to suit amateur Astronomers, notes on eclipses, on the asteroids, etc. Price 12 cents, post paid. Prospectuses free. Every amateur Astronomer should have this book.

Previous to observing with the telescope, the eye is usually greatly benefited by a five minutes' rest in an utterly dark room.

Persons unacquainted with the use of the telescope imagine that very brilliant nights must of necessity be the best for "seeing." Experience would teach such that nights of the kind mentioned are often of very little value, especially for observations on the planets and double stars.

How many *Perseids* did you count on the evenings around St. Lawrence Night? I was at Melvin, N. H., at the time, and noticed quite a few, especially on the 7-8. According to Denning, there are two streams, having distinct radiant points, one near *Mu Perseus* and the other near *Epsilon* in the same constellation. August 6-12 is given as the period of these meteors' appearance. Occasional ones radiate from the same places in October and November.

The Jovian Satellites cease to be visible in the telescope after October 13 this year, owing to his then proximity to the sun. After the planet becomes a "morning star" the satellites reappear, being visible once more by December 1st.

Say your farewells to Venus as an "evening star." She is at "inferior conjunction" passing between the sun and earth on September 21st. Early in October those who rise before the sun will notice her in the eastern sky. Then will be the best time to observe, as the morning air is much less impregnated with foreign matter than the evening air. Do not be afraid of rising early, as the morning air is not injurious. As a proof, remember how many famous Astronomers have lived to a good old age.

The "Harvest" and "Hunter's" moons can only occur when the sun is in *Virgo* and *Libra*, when the moon "fulls" in *Pisces* and *Aries*, consequently the "Harvest Moon" this year is that which fulls on September 2nd, and the "Hunter's Moon" that which fulls on October 1st.

PHOTOGRAPHING THE HEAVENS.

I learn that the Congress at Paris decided on obtaining numerous views of the Moon, Planets and any comets that may appear prior to the close of its labors. These views will, doubtless, prove superior to most of the views we now have. As an instance of the importance of the work of the congress it is stated that, in a space where good star maps now show

about 170 stars, the methods of photography to be used will, it is expected, reveal in some places as many as 5,000, or more in one small map than the eye now can see in the whole heavens. About 20,000,000 stars will likely be revealed in all, exactly represented as to position and brightness. What an infinity is here! Think of it. There are no less than twenty million suns with, in all probability, similar functions to our own sun. Besides

"Other stellar systems, such as this Of which our mighty sun is but a speck. Clusters of whirling suns with reflect orbs Basking in their warm rays, and circling on Each in its proper round, appointed year."

Two thousand photographs are to be taken with a limited length of exposure, so that only stars down to about the eleventh magnitude will be shown, and two thousand additional photographs with a much longer exposure, so as to catch the faintest twinklers extant. Stars of the first magnitude are said to need an exposure of less than the hundredth part of a second to give a correct image, while those of the sixteenth magnitude need an exposure of 1 hour and 23 minutes. What would Hipparchus, who, over 2,000 years since, with much labor and pains, constructed the first imperfect chart, say to these things? Truly Astronomy is a progressive science.

NEW COMET.

Mr. William R. Brooks, at Redhouse Observatory, Phelps, N.Y., discovered a telescopic comet on the early morning of August 25th, in R. A. 8 hrs. 33 mins.; Dec. 29° N., or near *Iota Cancri*, and some 15° East of "The Twins," in the North-Eastern heavens. The comet's motion is easterly (toward the sun) and and its nucleus is described as "brightish." This discovery entitles Mr. Brooks to another Warner prize of \$100.

The Brooks' Comet must not be confounded with "the largest comet in many years," said to have been visible at Indianapolis on the night of August 24th "in the northern sky," with a "somewhat dim outline, but perfectly plain to the naked eye." Of it, there is, as yet, no verification. It may turn out to be either a new body, or it may have been only an auroral streamer.

ALBANY, August 31.—Prof. Egbert announces that in investigating the orbit of the comet recently found by Mr. Brooks, he has identified it as a return of the Olbers' comet of 1815.