Astronomy and Meteorology.

No. 5. MONTREAL, AUGUST, 1887. $1 PER ANNUM—TEN CENTS PER COPY.

Astronomy and Meteorology.

PUBLISHED MONTHLY BY

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KIND WORDS.

The Magazine ought to become popular.—*Herald, Montreal.*

The paper is one of the needs of the present time, hope it will go on.—*Democrat, Doylestown, Pa.*

Mr. Walter Smith's new monthly published in Montreal—"ASTRONOMY AND METEOROLOGY"—is to hand, and we are indebted to the publisher for it. It is an excellent paper, deals practically with astronomy and meteorology, and tells many things about heaven and earth which, as Hamlet said, "are not dreamed of in our philosophy." We trust Mr. Smith's venture will become a fixture, permanent, lucrative, and profitable to the proprietor as it certainly must be to the subscriber.—*Standard, Cornwall, Ont.*

Walter H. Smith, the noted weather prophet, of Montreal, Canada, and president of the Astro-Meteorological Society, is now publishing a handsome and exceedingly interesting monthly, entitled "ASTRONOMY AND METEOROLOGY." It gives monthly weather forecasts, astronomical essays with illu trative diagrams, and a fund of general information on the sciences to which it is devoted, of interest to all.—*Gazetteer, Denison, Texas.*

In the month of May, "ASTRONOMY AND METEOROLOGY" published an article on the summer of 1887, from the pen of Mr. Walter H Smith, which merits the attention of the public. The article, written in April, predicted this summer with a fidelity which we have reason to regret. Mr. Walter H. Smith, whose predictions are so generally correct, is rendering a great service to agriculturists and merchants, generally, by his clever indications of coming seasons. We invite our readers to verify this summer's predictions of our prophet, and to follow his indications for the future, if he has been correct in the past.—*La Presse, Montreal.*

Your enterprise in establishing a monthly devoted to Astronomy and Meteorology is highly commendable and should receive the hearty co-operation and patronage of all who pay any attention to such subjects. A good many here who received copies of your Almanac for 1887 are following directions in planting, and watching results. They are also watching the weather predictions with more than usual interest.—*W. S. W., Shawano, Wis.*

Astronomy.

Young declares that were a comet whose mass equalled the earth's, to run full tilt into the Sun, the effect would only be to add to the Sun's store of heat, not to increase its emission.

All that has yet been written about comets and meteors—and the total amounts to many volumes—only serves, as it were, to deepen the mystery surrounding these bodies.

Seeliger finished a count of the stars in the Northern Hemisphere a year or two since. He classed them under seven heads: the first, from 1 to 6 magnitudes inclusive, giving 4,120 stars; class 2, (6 to 7 mag.), 3,887 stars; class 3, 6,054; class 4, 11,168 stars; class 5, 22,898 stars; class 6, 52,852; class 7, 213,973 or 314,952 in all! Argelander had previously made the number 315,089.

Saturn's Belts (not rings) are believed to be subject to far more sudden changes than similar markings on Jupiter.

Of the major planets, Mars has the most eccentric orbit, excepting Mercury. The perihelion distance of Mars being 13,000,000 miles less than its mean distance This amounts to as much as 20,000,000 miles when the orbit of Mars has greatest eccentricity. My readers will readily understand from the above why certain oppositions are so very much more favorable for telescopic observation than others.

Dawes is the only astronomer, so far as is known, who has been fortunate enough to observe a star pass behind the ring of Saturn.

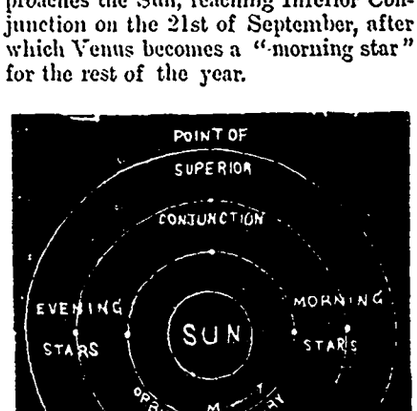
The American Association for the Advancement of Science meets in New York between August 10 and 16. The meeting will, it is said, be one of the most interesting ever held. In addition to the regular sessions, a series of excursions have been arranged to places of interest in the neighborhood of the Empire City.

Vienna's new refracting telescope is 27 inches aperture, 36 feet long, and weighs, with base, 36,000 lbs. It was made by Grubb, of Dublin, Ire., and cost, with dome, masonry, etc., $84,000.

Of the 267 asteroids discovered, 4 were located prior to 1845; from 1845 to 1849, 6; 1850-4, 23; 1855-9, 24; 1860-4, 25; 1865-9, 27; 1870-4, 32; 1875-9, 70; 1880-4, 33; and 1885-7 (to May 28), 23.

PLANETS IN AUGUST.

Venus, lessening in size, but increasing in light, owing to her nearer and nearer approach to the earth, is the most noticeable "evening star" at the opening of the month. Up to the 15th of August the beautiful planet of love grows brighter and brighter each evening. On that day she is at "greatest brilliancy," and will grow less and less in light as she approaches the Sun, reaching Inferior Conjunction on the 21st of September, after which Venus becomes a "morning star" for the rest of the year.



Orbits of the Earth, Venus and Mercury.

The above diagram illustrates the positions and phases of the inferior planets. At the point of "Superior Conjunction" the planet is directly in line with the Sun and invisible. Moving onward, at a faster rate than the Earth, the planet becomes visible as an evening star, showing first a perfectly rounded disc. Later it reaches "greatest elongation east," marked "evening stars," when it shows a shape similar to the Moon at "first quarter." Travelling on, it appears to grow brighter as it nears the Sun, growing more and more crescent shaped, until it is finally lost in the Sun's rays. Passing the point of "Inferior Conjunction," which is sometimes a "transit" over the Sun's disc, the planet becomes a "morning star," reappearing as a thin crescent and growing gradually larger and larger in the telescope until "greatest elongation west" of the Sun is reached, when the planet is similar in shape to the Moon