

Astronomy and Meteorology.

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Astronomy and Meteorology.

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There will be no further issue of this paper unless at least two hundred subscribers' names at one dollar per annum each are received before April 25th.

Astronomy.

Nine comets were discovered in 1886.

Up to the end of 1886, Dr. Swift and his assistant discovered 540 new nebulae.

Zodiacal Light—that mystery attending our sun—is usually seen as an oval of hazy, nebulous light during the early evenings of April. Meteoric matter is the generally credited cause.

Warner Observatory has issued a nice pamphlet of some 70 pages, descriptive of the building, instruments, etc. There are also lists of the nebulae discovered by Prof. Swift, and the essays obtaining prizes on the subject of "Comets" and the "Red Sky Glows."

It seems to me that the *Sidercal Messenger* gets better every month. The February and March numbers are especially interesting. In them are to be found articles on such themes as "Astronomy and the Ice Age," "Meteorites, Meteors and Shooting Stars," "Kepler's Correspondence in 1599," as well as numerous "Editorial Notes" by Mr. Wm. W. Payne.

A congress of Astronomers is to assemble at Paris this month and discuss plans for a special survey of the sky. The heavens, from pole to pole, are to be

photographed, thus obtaining for the use of posterity, charts of the thousands—one might almost say millions—of stars revealed in the largest telescopes. The heavens will be divided up into portions, distributed amongst the different observatories, and the work, it is hoped, will be completed in about ten years.

Another object to be gained by thus carefully mapping the heavens, is the discovery of an ultra-Neptunian planet, by many believed to exist on the confines of the solar system. Left to chance for its discovery, it might be years, centuries, ere this far away orb is discovered. With the accurate charting now talked of, this faint body—less perhaps than a twelfth magnitude star—will, it is thought, be readily found.

The comet discovered by Dr. Thome, at Cordoba, on January 18, in the Constellation *Grus*, although not brilliant, has been visible to the unaided eyes of residents of the Southern hemisphere. The tail was at one time traceable for a length of about 30°.

It has been many times asserted in my hearing—generally by persons who should know better—that the public take no interest in astronomy, that, in fact, they can never understand the science. In its scientific, its mathematical sense perhaps not; but, that the public—or, at least, that portion of the public with whom I have come in contact—take a very great interest in the truths presented by the astronomer, I know to be a fact. It is the astronomer's own fault if he cannot make his truths entertaining, interesting and instructive.

But how do I know that the public take an interest in astronomy? First, from the eagerness with which any object of unusual interest in the heavens is looked at and talked of; second, by the many requests other writers, as well as myself, have from editors and others for "astronomical notes"; third, I know it by the immense amount of correspondence that reaches me; fourth, by the ever increasing interest shown in the work of the Astro-Meteorological Association; fifth, by the large audiences that assemble to listen whenever I lecture; and sixth, by the many requests I have had to commence ASTRONOMY AND METEOROLOGY.

The planet Jupiter has long been credited with a partiality for comets. Nearly all of these bodies of short period are thought at some time or another to

have been compelled to pursue new and more straightened paths owing to their having come within the giant planet's influence. But until now Jupiter was not suspected of having a predilection for asteroids. Prof. Kirkwood, however, has pointed out that an asteroid may yet be discovered with an aphelion more remote than Jupiter's perihelion. When this asteroid reaches its aphelion at the same time as Jupiter is at perihelion, he thinks that it may go hard with the asteroid, whose orbit may be entirely changed, perhaps made cometary instead of planetary.

PLANETS IN APRIL.

Jupiter, the golden hued, arrives at opposition to the sun on the 21st at 5 a.m. He is then at his most brilliant phase, rising before sunset, southing at midnight and setting in the twilight of the growing dawn. The large telescopes of most of the observatories will now busy themselves with him, and photographs of his belts and spots,—more particularly that one known as "the great red spot"—will be in order. His four moons, Io, Europa, Ganymede and Calisto, worlds in themselves, will doubtless be seen with more or less of markings on them, indicating, perhaps, seas and continents on these remote orbs. The owners of even the smallest field lenses can see these moons, in fact persons with extra good eyesight can sometimes pick one or two of the brightest up without other optical aid.

Saturn is overhead at 6 p.m. on the 8th, and is still well placed for observation, although by the end of the month he will have begun to draw visibly nearer the sun. On the 24th and 25th he is very close to *Delta*, in Gemini, a third magnitude star, *Delta* passing about 12' north of Saturn.

Uranus is overhead all night long, and favorably placed, having passed his opposition on the night of March 31.

Vesta, the largest of the asteroids, has been for some time visible in the constellation Virgo, N. of Jupiter, where she shines like a sixth magnitude star, but with a steady radiance.

Venus—well I need not direct attention to her, compelling, as she does, the upward glances of all who plod their homeward way about the time of the evening meal. She is always "fairest of stars, first in train of night," and bewitchingly lovely as she hangs out her scintillating lamp after sunset in the west.