

NIGHT SKY.—DECEMBER AND JANUARY.

BY RICHARD A. PROCTOR.

The Great Bear (*Ursa Major*) is now rising well above the horizon, in the northeast, the pointers about midway between north and northeast. A line from the Pole Star to the Guardians of the Pole is now in the position of the minute hand of a clock about 28 minutes past the hour. The Dragon (*Draco*) lies due north, curving round under the Little Bear, its head close to the horizon. Low down in the northwest is a part of the Swan (*Cygnus*). Higher up we see King *Cepheus*, his wife *Cassiopeia*, and their daughter *Andromeda* (the Seated Lady and Chained Lady, respectively), with the Rescuer, *Perseus*, nearly overhead. The Winged Horse is setting, his head close by the western horizon, and near the jar of the Water Bearer (*Aquarius*).

In the southwest is the Whale, and close by the constellation *Pisces*, or the Fishes; above them the Ram (*Aries*), between which and *Andromeda* the Triangle can be seen.

In the south the River *Eridanus* makes now its best show. Its leading brilliant, *Achernar*, is, however, never seen in the United States. In the southwest the Great Dog with the splendid *Sirius* ("which brightest shines when laved of ocean's wave") shows resplendently. Above is *Orion*, now standing upright, treading on the Hare (*Lepus*) and facing the Bull (*Taurus*), now at its highest. The Dove (*Columba*) below the Hare is a modern and not very interesting constellation.

The Little Dog (*Canis Minor*) is on the east of *Orion*. In the east the Sea Serpent (*Hydra*) is rising, and due east a little higher we find *Cancer*, the Crab (note the pretty cluster called the Bee Hive—*Præsepe*); above are the Twins (*Gemini*), and above them the Charioteer (*Auriga*), with the bright *Capella*, nearly overhead.

The Lion is rising in the northwest, his heart star *Regulus* (α) being low down a little north of east.

Lastly, due north, high up, the absurd Giraffe (*Camelopardus*) stands proudly on his ridiculous head.

Prof. John C. Draper.

Dr. John C. Draper died at his residence in New York city, on Dec. 20, after three days' illness from pneumonia. He was born in Prince Edward County, Va., in 1835, and was educated at the University of the city of New York. After graduation, he spent a year abroad. He occupied positions of responsibility at different times in Bellevue Hospital, the University, and Cooper Institute. During the war, he acted as volunteer surgeon, and at the time of his death occupied the chair of physiology and natural history at New York College, and of chemistry in the medical department of the University. As an investigator and writer, Dr. Draper attained considerable distinction. He was connected for some years with *Scribner's Magazine*, and just before his death published an advanced text-book on medical physics, which promises to be of much importance.

The Prevalence of Hydrophobia.

Hydrophobia is so terrible a disease that for many years undoubted cases of the malady have been reported by the newspapers with almost the same regularity that they have chronicled murders, suicides, or other tragedies. It is therefore impossible to believe, as has been suggested, that the present unfortunate abundance of news of this character has been called forth by the widespread discussion of Pasteur's researches. The dreaded malady has made its appearance in so many and such widely separated districts that it has almost the appearance of an epidemic. In various parts of the Continent—in Russia, Austria, Switzerland, France—numerous individuals have been bitten by rabid dogs, and many of them have suffered a terrible death. Others undertook the journey to Paris, and are now under treatment,

while a few less fortunate ones left their homes only to be stricken down on the way. In England it has been particularly prevalent, and has occasioned much alarm. It is a country which is never altogether free from the disease, but during the past few weeks the outbreak has been of unusual extent. In London, which, next to Lancashire and the West Riding of Yorkshire, is pronounced by the *Lancet* to be the home of rabies, so many cases have occurred that a lively discussion, both legal and medical, has been provoked. It is complained that there is a great laxity in the laws regulating the destination of stray dogs, and an even greater carelessness in enforcing those enactments which already exist. At each epidemic there is a general outcry, but with the disappearance of the disease the cry is soon stifled, and the reappearance of the epidemic made possible. Children are particularly susceptible to attack from rabid animals. Their size and strength make the encounter very unequal. When bitten, the child is usually in much greater danger than the adult, since the bite is more apt to be on the bare skin, where no clothing can hinder the virus from coming in contact with the blood. The London outbreak has raised the

sent to Pasteur in charge of Dr. Billings, two or three other patients are now on their way to Paris for treatment. Some of these go at their own expense, while others, not able to afford such a journey, owe their opportunity to public generosity. The epidemic seems spreading in New Jersey. Each day bring news of more rabid dogs and more injured people. The list is already very large; and should only the usual 50 per cent of those bitten develop hydrophobia, the suffering and death in store will be appalling. In the West, cases in several localities have been reported. At Milwaukee, Wis., much alarm has been felt. One of the victims, a Bohemian workman, who was bitten in the latter part of November, developed premonitory symptoms of hydrophobia. As the theory had been advanced that a Turkish bath was an excellent preventive, submitted to several hours in the sweating room, at last reports had recovered his usual health.

We have recorded his case because, being an ignorant man, and unacquainted with the symptoms of hydrophobia, his attack cannot possibly be ascribed to the effect of imagination. These details have been repeated in so many communities throughout the land that some relief action becomes imperative. It is to be hoped that

the widespread alarm will be productive of such preventive measures as getting rid of all stray dogs at once, and of a thorough investigation of Pasteur's method of treatment. If his treatment prove effective, we are permitting an unnecessary sacrifice of life. If not, it is time that some other clew should be followed.

Electrical Selenium Plates.

The plates of Mr. Ch. E. Fritts, of New York, are described as consisting of a thin, homogeneous sheet of selenium, spread upon a metal plate, and covered over with a fine gold leaf.

The illumination of the gold leaf by direct sunlight increases the conductivity of the selenium plate to an enormous extent. By means of a modification of this simple apparatus, Mr. Fritts now believes that he can accomplish the conversion of the greater portion of the energy of light into electrical energy, and if so, we may, ere long, see the photo-electric plate competing with the dynamo electric machine itself. Thus, for instance, the light of the sun would be converted into electricity, and the latter again into light.

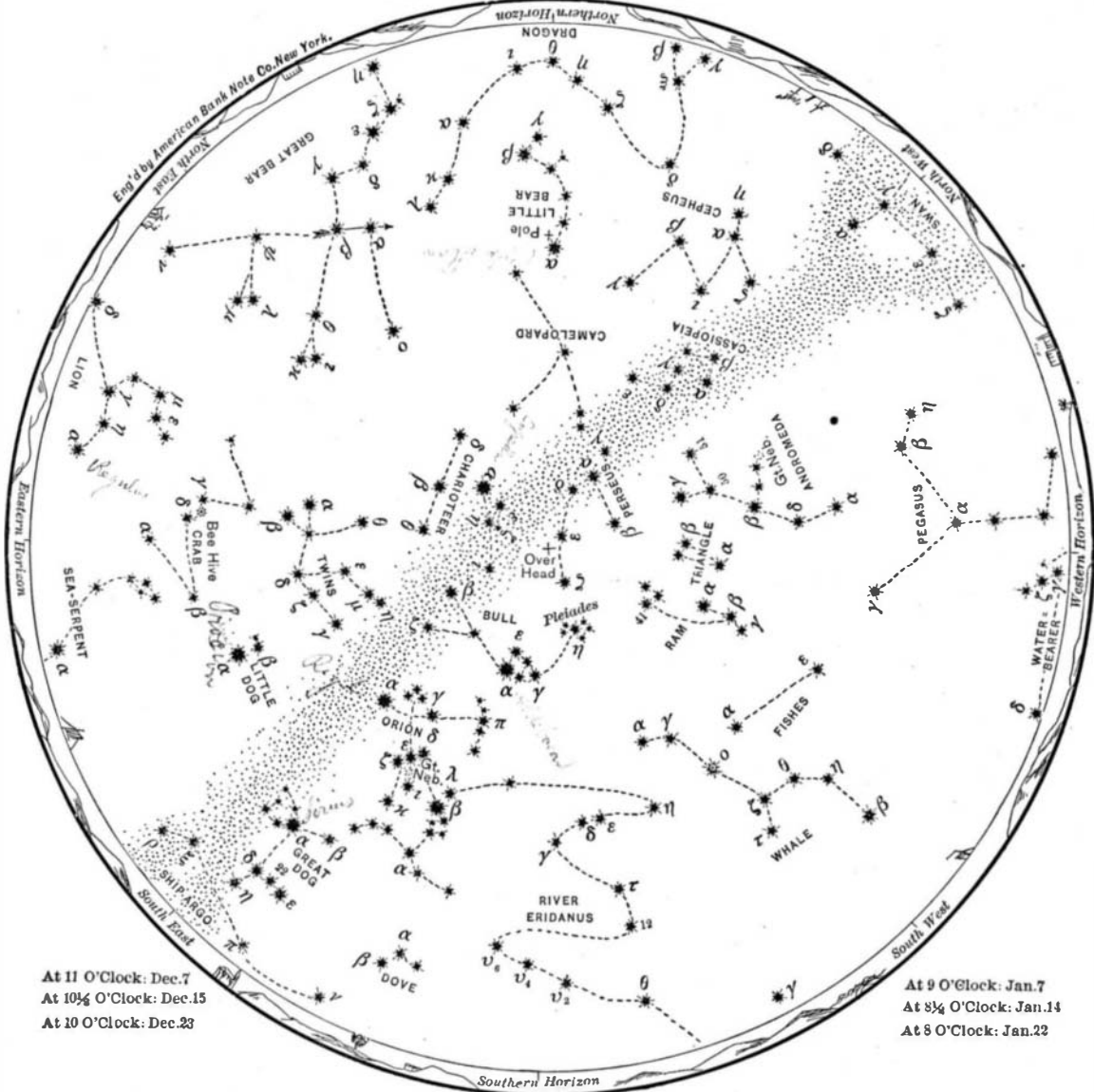
These and similar experiments in which selenium is largely employed attach considerable importance to new methods of procuring this valuable substance.

New seleniferous minerals are spoken of as existing in California and Bolivia, but the main source of this element at present is the flue dust and red acid deposits which arise from the manufacture of sulphuric acid from pyrites. The selenium originally present in the pyrites is met with in every stage of the process. All that is required is some economical method of concentrating it, and so collecting it all together.

Whales off Long Island.

The neighborhood of Easthampton, L. I., was thrown into considerable excitement on the 12th of December by the announcement that several whales had been sighted to the southwest, and about five miles out. The whalers started after their game at once, and succeeded in capturing two, a large bull and a cow. The fight lasted over an hour, and carried the hunters fifteen miles out to sea. The animals were towed back to shore, and landed on the beach at Amagansett. The bull measured fifty feet in length, and the cow seventy feet. It is estimated that they will yield from 125 to 150 barrels of oil and about 1,800 pounds of bone. The net profit will probably amount to several thousand dollars. It is seldom that the whale appears on this coast so early in the season, and the fact of the double capture has raised anticipations of a prosperous winter's work.

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At 11 O'Clock: Dec. 7
At 10¼ O'Clock: Dec. 15
At 10 O'Clock: Dec. 23

At 9 O'Clock: Jan. 7
At 8¼ O'Clock: Jan. 14
At 8 O'Clock: Jan. 22

At 9¼ O'Clock: December 30.

In the map, stars of the first magnitude are eight-pointed; second magnitude, six-pointed; third magnitude, five-pointed; fourth magnitude (a few), four-pointed; fifth magnitude (very few), three-pointed, counting the points only as shown in the solid outline, without the intermediate lines signifying star rays.

old question of whether there is such a disease in man as hydrophobia, or whether it is not simply an affection of the imagination. A respectable minority still deny its existence, in spite of the apparently unequivocal demonstration brought by the last few weeks. It is probable that in a number of cases death has been the result of a morbid imagination, just as people have been able to worry themselves into consumption or other maladies; but there are many other cases in which such a comfortable hypothesis is no longer tenable. The greatest mortality, as we have said, is among children; and though usually the possessors of a very vivid imagination, they are seldom permitted to exercise it to their own destruction. In many cases their fatal illness has been their first information about hydrophobia; while under any circumstances a parent of any discretion; after doing everything possible for the child, would silence its apprehension, and permit no mention to be made of impending danger.

In America, an equal alarm has been felt, for seldom if ever, have so many cases of rabies been reported, and the shadow of death hangs over a number of communities. The most severe outbreak has been at Newark, N. J., and the towns in the immediate neighborhood. It has been sufficient to cause an organized crusade against the dogs. Several of the persons bitten have died, and grave apprehension is felt for a number more. In addition to the four children