

THE DIPPER AND ITS MOTION.—In order to see the dipper in its different positions, and also in that portion of its course which in December it traverses during the daytime, it is not necessary to keep a long watch upon a group, or to study the heavens during those "wee sma' hours ayont the twal" wherein the professional astronomer does the best part of his work. If you come out in the evening (say at about eight) once or twice a week on clear nights, all through the winter half of the year, and a little later during the summer months, you will see the dipper and all the polar groups carried right round the pole. For though, speaking generally, it may be said that they complete a circuit once in every day, yet in reality they gain about four minutes' motion in the twenty-four hours, and thus get further on little by little night after night—gaining an hour's motion in about a fortnight, two hours' motion in a month, twelve hours' motion (or half the complete circuit) in half a year, until finally, at the end of the year, they have gained a complete circuit.

It is because of this steady turning motion or rotation around the pole of the heavens, that the stars of the dipper (say, for instance, the pointers) form as it were a clock in the sky, by which the astronomers at any rate, though also any one who is willing to give a little attention to the matter, can tell the hour within a few minutes on any night in the year.

A few observations made in this way on a few nights during the course of the year, will give a clearer idea of the steady motion of the star-dome (resulting in reality from the earth's steady rotation on her axis) than any amount of description either in books or by mouth.—*Prof. R. A. Proctor, in St. Nicholas for December.*

THE LIBRARY OF CONGRESS.—This stupendous collection embraces full 300,000 volumes, being the largest single library in the United States. Some years ago the library of the Smithsonian Institute was merged with the Congressional Library, and has now become a part and parcel of it. These books, comprising works on almost every notable subject, number from 35,000 to 40,000 volumes, and are included in the above estimate. Ancient and modern history embrace the largest collection, containing about an even 100,000 volumes. Biography and travel stand next in order, and show some 80,000. The law department, with its 35,000 volumes, stands third on the list, and of poetry there are at least 20,000. The medical works present a very handsome front of 8,000, and standard novels comprise a carefully selected list of about 5,000. No novels of a lower order than those commonly known as standard are allowed in this valuable collection.

The books of this library are allowed by law to be loaned out to the President of the United States, members of his Cabinet, Judges of the Supreme Court and the Court of Claims, the members of the Senate and House of Representatives, and the diplomatic corps in Washington. The same privilege is also extended by courtesy to many of the gentlemen employed about the Capitol building, and to the clerks of Senators and Representatives, or those who are chairmen of the different Congressional committees. To any other persons, male or female, over the age of 19 years, is accorded the privilege of going to the library and reading at all times that the rooms are open.

COMMON-SENSE VENTILATION.—The best practical statement we have met with about ventilation was contained in the remark of a mining engineer in Pennsylvania:—"Air is like a rope; you can pull it better than you can push it." All mechanical appliances for pushing air into a room or a house are disappointing. What we need to do is to pull out the vitiated air already in the room; the fresh supply will take care of itself if means for its admission are provided. It has been usual to withdraw the air through openings near the ceiling, that is, to carry off the warmer and therefore lighter portions, leaving the colder strata at the bottom of the room with their gradual accumulation of cooled carbonic acid undisturbed. Much the better plan would be to draw this lower air out from a point near the floor, allowing the upper and warmer portions to descend and take its place. An open fire, with a large chimney throat, is the best ventilator for any room; the one-half or two-thirds of the heat carried up the chimney is the price paid for immunity from disease; and large though this seems from its daily draft on the wood-pile or coal-bin, it is trifling when compared with doctors' bills and with the loss of strength and efficiency that invariably result from living in unventilated apartments.

BOSTON PUBLIC LIBRARY.—The Boston Public Library now furnishes books to the public at ten separate deliveries—the Bates hall and lower hall in Boylston street, six branch libraries, and two deliveries. These last, of which one has been opened at Dorchester Lower Mills, and one at Jamaica Plain, may be called boughs of the branches, for they furnish books from the Roxbury branch as much as the branch is supplied from the central library. The library has now, in all, over 300,000 volumes, and increases by about 20,000 a year. It circulates nearly a million issues annually, and the percentage of books lost is not far from one in ten thousand, or one hundredth of one per cent. Not one single volume was lost of the 307,648 volumes circulated from the South Boston, Roxbury, Brighton and Dorchester branches.

Dr. Hall advocates some rather startling ideas concerning cold air. He is most earnestly against cold bed-chambers, which, he says, imperil health and invite fatal diseases. To this—giving a contrast of some fifty degrees between the temperature of the lungs and the air of the room—the writer ascribes frequent and fatal attacks of inflammation of the lungs, and concludes with the assertion (which will astonish some) that it is even safer to sleep in a bad air all night, with a temperature over fifty, than in a pure air with a temperature under forty. For the bad air may sicken you, but cannot kill you, while the cold air can and does kill very often.

The calculations on the observations made upon the late transit of Venus—which is to settle the question of the exact distance of the earth from the sun—are of such a complicated and elaborate character that it will be some time yet before they will be concluded and made known to the anxiously waiting literary world. The distance of the earth from the sun is generally given as 96,000,000 miles, but experiments on the absolute velocity of light have led astronomers to the belief that it is only about 92,000,000 miles. Have patience!