when the mean velocity was 6.64 miles. These statements agree very nearly with those made in the preceding year, when the most windy hour was from 2 to 3 P.M. and the calmest hour, from midnight to 1 A.M.

Rain and Snow.—The depth of rain 33.274 inches, shows an increase of more than 5 inches on that of the year 1858, and was 2.415 above the average. The depth of snow shows also an increase of 9 inches on that of the preceding year. This however, was principally due to the heavy falls in December, as the amount that fell in other months was below the average in every case but in January, when it exceeded it only by about 3 inches. The total depth of rain and melted snow exceeded the average by 2.724 inches.

November was the most rainy month with respect to the amount of rain, and June with respect to its frequency. The smallest amount of rain fell in February, and the fewest rainy days occurred in December.

The heaviest rain occurred on August 23rd, when it fell to the depth of 1.655 inches, and the heaviest fall of snow on December 18th, when the depth was estimated at 6 inches.

The fall of rain was distributed over 127 days, and the fall of snow over 87 days, including 23 days which occurred in December alone; and there were 169 days only, or less than half the year, without either rain or snow.

The rain occupied about 514 hours and the snow about 380 hours in its fall, making thus a total of about 894 hours, or 37¼ days, during which either rain or snow was falling; a result it is to be remarked differing only by about one day from that of last year.

The hour at which rain or snow was most frequent, was between 2 P.M. and 3 P.M. and the hour most free from rain and snow, on the average of the year, was between 1 A.M. and 2 A.M.

Thunderstorms.—There were 30 thunderstorms, reckoning as such those cases in which thunder or lightning occurred accompanied by rain or hail, besides 16 instances in which the thunder or lightning occurred singly or together, but without rain or hail.

Auroras.— The auroras in 1859 were not quite so numerous as in 1858, but there was an increase in the number of days in which those of the first class were observed. The aurora of August 28th, and the following days, was probably one of the most remarkable ever recorded, when considered with respect to its brilliancy, its duration, and the extent of the earth's surface at which it was visible. It was accompanied by an extraordinary magnetic disturbance. The magnets were deflected from their normal positions to the extent of about 2° 7′ in the delination and 2° 20′ in the dip; and in the horizontal and vertical components of the force, there was a departure from their normals, of about .08 and .006 of their respective normal absolute values. The magnitude of these deviations will be better appreciated when it is remembered that a disturbance is reckoned large when the declination differs 5′, the dip 1′, the horizontal force .0012, and the vertical force .00026, from their respective normals.

The following is the general Meteorological abstract for the year 1859, deduced from the observations taken at the Provincial Observatory: