Enclosure

(2)

CASUAL PHENOMENA.

NOTE OBSERVATIONS OF THE FOLLOWING:

THUNDER STORMS—Time of occurrence and direction of motion. TORNADOES—Time of occurrence, width and direction of path, effects produced, and whether attended by electricity or hail. LIGHTNING AT A DISTANCE—Time of occurrence, direction from observer, whether zigzag, forked, or diffuse. Objects struck by lightning, as trees, buildings, &c. HAIL STORMS—Time of occurrence, direction and width of path, size and quantity of stones, and amount of injury. AURORA BOREALIS—Time of appearance and disappearance; time of the formation of arch, beams, and corona, and whether there is a dark cloud below the arch. Direction and time of occurrence of METEORS, SHOOTING STARS, SOLAR AND LUNAR HALOS, PARHELIA, and PARASELENES. Time of early and late FROSTS, particularly first and last. DEPTH OF GROUND FROZEN, in feet and inches; disappearance of frost from the ground. Time of closing and opening of RIVERS, LAKES, CANALS, and STREAMS, and their extreme rise and fall. TEMPERATURE of wells and springs at least once each season. EARTHQUAKES—Time of occurrence, direction of impulse, number of shocks and effects produced. HAZY OR SMOKY APPEARANCE OF THE ATMOSPHERE—Time of occurrance and intensity. HIGH WINDS, GALES, HURRICANES, UNUSUALLY HEAVY RAINS, or remarkable CHANGES IN TEMPERATURE between the regular hours of observations, viz: 7 A. M., 2 P. M., and 9 P. M.; date, time and duration.

Too warm & sunny for Vegitation which is springing up, budding out, and getting ready for a "nip in the bud". Therefore we petition to the weather Clerk for weather suitable for the season of year.

RECEIVED JUN 6 1870

EXPLANATION OF THE ABOVE COLUMNS.

THERMOMETER IN THE OPEN AIR.

This is intended for the register of the thermometer, and for the daily mean or average of the three observations. Fractions of degress should be recorded in tenths, thus: 46°.5, 37°.3, 72°.1, &c.

RAIN AND SNOW.

Under this head are entered the time of beginning and ending of the fall of rain or snow, and the amount, in inches and hundredths, of rain or melted snow collected in a gauge at the surface of the ground; also the depth of the snow. Rain to be indicated by R and snow by S. When there is no rain or snow, mark 0. Amount of rain or melted snow in gauge should be recorded in inches, tenths, and hundredths, thus: 1.25, 6.03, 0.01, &c.

CLOUDS.

cumulus.

WINDS.

This is for the record of the direction *from* which the wind is blowing as indicated by a vane, and its force by estimation. The direction is entered in eight points of the compass: N., N.E., E., S.E., S., S.W., W., N.W. The force is to be estimated and registered by figures from 1 to 10, as in the first column of the following table. The figures in the last column, expressing the number of miles per hour, are *not to be used* in the register. A little practice will enable Observers to make use of the figures in the first column, corresponding to light, gentle, fresh, strong, &c., with accuracy, and it is very important that such should be the case to make the record reliable:

0. Calm.

1. Very light [illegible]

10. Most violent hurricane, [illegible] from 100 upwards.