

for determining the relative humidity of the atmosphere. Evidently, the drier the atmosphere, the greater will be the evaporation from the muslin, and the heat necessary for evaporation is abstracted from the mercury bulb, with a consequent fall in temperature. From the difference in temperature of the dry and wet thermometers a measure of the relative humidity of the air is obtained.

The instruments used for recording the wind are ; the vane, for direction ; the anemometer, for velocity and the anemograph, which registers both direction and velocity. Add to the instruments named the hygrometer and rain gauge and we have the necessary ones for a meteorological station.

When from any cause the air at any part of the atmosphere is cooled below its dew point, a portion of the vapour suspended in it becomes condensed and converted into minute drops of water, forming what is called a fog, or a cloud, according as the condensation takes place near the ground or in some higher region. The numberless forms of clouds make it difficult to so classify and name them as to secure easy recognition and ensure uniformity of record. The classification introduced at the beginning of the century obtains to the present day. In it three simple or primary and four compound forms are recognized. The cirrus is the high fleecy cloud ; the cumulus of moderately low elevation and its simpler form the shape of conical heaps rising from a horizontal base ; the stratus is the lowest of all, generally gray masses or sheets of clouds with ill defined outlines. The compound ones fall intermediate between the primary ones described. The highest cirrus cloud recently measured at Toronto was about seven miles high, while some European observers claim to have obtained fully double that height. Observations on the motions of upper clouds are of great importance, since from these movements can be gleaned the only possible information as to the prevailing direction of