

With the advancement of meteorological knowledge much has been done, however, to bring about a desirable change. Convenient names which have a definite application, more commonly used to designate the different kinds of clouds and it thus becomes possible to describe an appearance of the sky in such a manner as to correctly represent it to a person who has not seen it. In order to distinguish the different classes of clouds it is necessary to consider how they are formed.

The atmosphere, like a sponge, can absorb a certain amount of water. Thus the water evaporated from the streams and pools, which dry up in summer, passes into the air, generally in the form of invisible vapour.

The atmosphere also can hold more water when warm than at a colder temperature, and it becomes colder the farther it is removed from the earth.

Accordingly as the warm air rises from the earth, it becomes cooler and the moisture that was before invisible is seen in the form of minute floating droplets, and a fog or cloud appears according to the height at which it is developed. The degree of temperature at which those appear is called the dew-point, and the height at which this is reached is marked by the lower margin of those clouds which have even base lines.

If the clouds rise so high that the temperature falls below the freezing point, the vapour is changed to snow or icy particles which probably constitute the majority of clouds.

The upward movement of the air, which it is necessary to consider here, is, like the winds, caused primarily by differences in the temperature of the air. This ascent of the warmer air, which is known as *convection*, assumes a vorticular or whirling motion and is often very rapid. It may be observed on the eve of a thunder storm when the cloud known as cumuleus can be seen rolling upwards with astonishing celerity.

Having thus briefly treated of the causes of clouds, their different classes may be taken up. These are distinguished chiefly by their form but the altitude is also considered.