

Clouds, while they retain that shape, are of the most essential use to vegetable and animal life. They moderate the fervour of the sun, in a manner agreeable, to a greater or less degree, in all climates, and grateful no less to vegetables than to animals. Duhamel says that plants grow more during a week of cloudy weather than a month of dry and hot. It has been observed that vegetables are far more refreshed by being watered in cloudy than in clear weather. In the latter case, probably the supply of fluid is too rapidly carried off by evaporation. Clouds also moderate the alternations of temperature, by checking the radiation from the earth. The coldest nights are those which occur under a cloudless winter sky.

The uses of clouds, therefore, in this stage of their history, are by no means inconsiderable, and seem to indicate to us that the laws of their formation were constructed with a view to the purposes of organized life.

5. Clouds produce *rain*. In the formation of a cloud the precipitation of moisture probably forms a fine watery *powder*, which remains suspended in the air in consequence of the minuteness of its particles: but if from any cause the precipitation is collected in larger portions, and becomes *drops*, these descend by their weight and produce a shower.

However rain is formed, it is one of the consequences of the capacity of evaporation and condensation which belongs to water, and its uses are the result of the laws of those processes. Its uses to plants are too obvious and too numerous to be described. It is evident that on its quantity and distribution depend in a great measure the prosperity of the vegetable kingdom: and different climates are fitted for different productions, no less by the relations of dry weather and showers, than by those of hot and cold.

6. Returning back still further in the changes which cold can produce on water, we come to *snow*