

It is easy to account for the fall of rain, but philosophers have differed in their theories of its formation, and of those diversities which regard the quantity that falls in different countries. No subject connected with general physics is more involved in mystery than this. The difficulty partly depends upon our inability to account for the change of temperature which is supposed to be the cause of rain, and partly from the impossibility of understanding how the change of temperature does produce the phenomenon. Even in places where there is little or no variation in the annual mean temperature, there may be a great variation in the annual quantity of rain, a circumstance which induces us to believe that there are local and temporary deranging causes which it is almost impossible to estimate. We can only attempt to explain the opinions which have been entertained by philosophers, and to mention a few of those facts which have been established by experiment or observation.

It is universally agreed, that rain is produced by the condensation of vapour drawn into the atmosphere by the process of vaporization. The question of dispute is, why does the vapour separate from the atmosphere and fall in a liquid state to the earth? We might suppose it to arise from the coldness of the atmosphere at the time; but it not unfrequently happens that rain falls very abundantly when the air is most heated. We have little doubt that this subject, and many other branches of meteorology, will be relieved from the perplexing circumstances which now attend their explanation, when we are better acquainted with the influence of atmospherical electricity, an agent already known to exert an immense influence upon the conditions of terrestrial phenomena. Neither vaporization nor liquefaction can be effected without its development; and, existing as it does in all matter, it may be supposed to exert some influence in all the changes it suffers. Some philosophers have attempted to explain the phenomenon of rain by a reference to this agent, but we are not sufficiently acquainted with its conditions to determine its true influence upon atmospheric phenomena.

Dr. Hutton's explanation of the production of rain is very ingenious, and has been adopted by many meteorologists as better explaining the facts than any other theory. Rain, according to Hutton's hypothesis, results from the union of ex-