

CHAPTER XV.

The Atmosphere.

WE have considered in succession a number of the properties and operations of the atmosphere, and have found them separately very curious. But an additional interest belongs to the subject when we consider them as combined. The atmosphere under this point of view must appear a contrivance of the most extraordinary kind. To answer any of its purposes, to carry on any of its processes, separately, requires peculiar arrangements and adjustments; to answer, all at once, purposes so varied, to combine without confusion so many different trains, implies powers and attributes which can hardly fail to excite in a high degree our admiration and reverence.

If the atmosphere be considered as a vast machine, it is difficult to form any just conception of the profound skill and comprehensiveness of design which it displays. It diffuses and tempers the heat of different climates; for this purpose it performs a circulation occupying the whole range from the pole to the equator; and while it is doing this, it executes many smaller circuits between the sea and the land. At the same time, it is the means of forming clouds and rain, and for this purpose, a perpetual circulation of the watery part of the atmosphere goes on between its lower and upper regions. Besides this complication of circuits, it exercises a more irregular agency, in the occasional winds which blow from all quarters, tending perpetually to restore the equilibrium of heat and moisture. But this incessant and multiplied activity discharges only a part of the functions of the air. It is, moreover, the most important and universal material of the growth and sustenance