as they exist in our atmosphere; and of the circumstances by which these relations are influenced: —Fourthly, *Of the distribution of heat and light in their latent and decomposed forms, through the vapour of the atmosphere; and of the effects of that distribution.*

First, *Of the phenomena of evaporation and condensation; and of the general dependance of vapour on temperature.*—We have before stated the fact, that water assumes the elastic form, in a greater or less degree, at all temperatures. From the tendency of water, thus to rise "above the Firmament;" not only the ocean, but ice and snow, are unceasingly contributing their supply of moisture to the air; and this important fluid, so indispensable to vegetable and animal existence, is distributed over the surface of the whole earth. In considering, therefore, the relations of the water of the atmosphere to temperature; the phenomena which first claim our attention, are the processes by which water is taken up, and again separated, from the atmosphere; that is to say, the processes of *Evaporation* and *Condensation*.

In treating of the nature of *Evaporation*, the questions to be answered at the outset are,—Why is moisture present in the atmosphere? By what force is its presence determined, and its quantity limited? The reply to these questions depends upon the properties of matter in general, and of vapour in particular, as formerly des-