

paradoxical as it may appear, such ascensional movements are the primary cause of this state of things; in consequence of the habitudes of air with respect to heat when compressed or expanded, according to a mode of action well understood by meteorologists, which we need not stop here to explain, as the reader will readily collect it for himself from what follows.

(15.) As the air aloft is colder than below, so also is it *drier*. Every one considers that he knows the distinction between damp and dry air; but many are not aware that all air contains *some* moisture, in the form of transparent invisible vapour; or that in summer and winter on two days, both which would in common parlance be pronounced dry ones, there is more than twice as much moisture present in an equal bulk of air in the summer, as in the winter day. In this state of invisible vapour which water is always assuming (throwing itself off in that form from its surface whenever exposed, and the more copiously the warmer it is), the air is its general recipient and distributor. The mechanism by which it is enabled to do so on the great scale is exceedingly curious. We shall endeavour to exhibit it, as it were in action—not so much with a view to affording a *coup-d'œil* of the whole of meteorology, as with that of rendering in some degree more intelligible than at present it seems to be, that great phænomenon of the November storms, with the mention of which we began this lecture, which has never been satisfactorily explained.

(16.) Looking at our globe as revolving under the warming influence of the sun, whose rays at noon fall on