

that is to say, will increase or diminish as this difference increases.

*Of the nature and causes of the motions of the vapour through the air of the atmosphere.*—Water is dispersed through the atmosphere in two ways: viz. by the motions of vapour properly so called; and by the motions of visible vapour or clouds.

With respect to the motions of *vapour properly so called*; it may be remarked, that, vapour is circulated through the atmosphere, partly by convection; but chiefly, by means of that tendency before described, which water possesses at all temperatures, to assume the form of vapour, and to diffuse itself through the air. In a mixed atmosphere of vapour and air, the motions of the vapour, on the large scale of the operations of nature, are considerably influenced, no doubt, by the motions of the air. For example, large masses of air, more or less saturated with vapour, in proportion to their respective temperatures, and having either vertical or lateral motion; must carry with them the vapour they contain; whether there be much or little vapour so contained. On the other hand, motions of the air, on a smaller scale, as we shall presently see, may be even caused—may certainly be accelerated or retarded, according as the diffusive motion of the vapour, to be next considered,