

takes its place in its new situation *as very cold air*, without further tendency to rise. But the vapour so chilled loses its vaporous state, and condenses in the manner above stated ; leaving only so much uncondensed *as can remain vaporous under that temperature and pressure*. This is the origin of those continual and violent tropical rains which always accompany the vertical sun, and its near neighbourhood, and of which we feel the influence, though slightly, in our wet Julys. The vapour being thus arrested in its upward progress, the whole of the evaporatory process we have just described, however tumultuous in its origin, is confined to what may be considered comparatively the lower strata of the atmosphere. But these become in this manner saturated with moisture ; and when carried into the general circulation, convey it either as cloud or as invisible vapour to the farthest regions of the earth.

(24.) Besides the evaporation produced by the direct action of the sun, a vast amount of moisture is taken up by the air immediately from the sea and land over which it passes in its indraft towards the Equator as a trade-wind. Coming from a colder region to a warmer, and acquiring heat as it advances, its capacity for receiving and retaining moisture in an invisible state is continually increasing ; and hence, even during the absence of the sun in the night hours, it is constantly absorbing moisture ; which it carries along with it, and delivers, as a contribution of its own collecting, into the general ascending mass, to be handed over in the returning upper current into the circulation. Hence it arises that