

tion ; and hence the influence of currents or winds in assisting the process, by bringing successive portions of dry air over the fluids. The expression of a "drying wind," so commonly heard, is thus explained.

*Density* of the atmosphere (the 5th and last influencing cause in evaporation) also interferes with the elevation of vapour.-- This must be the case from its circumstance of decreasing the sizes of the interstices or spaces between the particles of air, and so lessening their capacity for moisture. A sponge, when squeezed, will not suck up as much water as if it was at liberty to expand. The truth is also easily proved by means of the air pump, in the exhausted receiver of which, fluids boil and evaporate with great rapidity. Chemists adopt this means to dry substances thoroughly which they cannot expose to the action of increased temperature and it is on the same account that moisture, in any way connected with the vacuum, destroys it by swelling out into an atmosphere of elastic vapour.

Since a large quantity of heat unites with water to form vapour it follows, that cold must be the consequence of evaporation. If a few drops of ether be allowed to fall upon the hand, a strong sensation of cold will be produced by its rapidly evaporating and carrying off some of the vital heat ; or if the bulb of a thermometer, covered with lint, be moistened with ether, the mercury will immediately begin to descend. It has been asserted, that an animal might be frozen to death in the midst of summer by constantly keeping its skin moistened with ether and exposing both to the vacuum of an air pump or to a current of wind. Water placed under the exhausted receiver of an air pump evaporates with great rapidity, and so much cold is generated as would speedily freeze the water, did the vapour continue to rise for some time with the same velocity ; but the vapour itself forms an atmosphere in the receiver and retards the evaporation. This may be prevented, by enclosing in the receiver some substance which will readily absorb the moisture as it is formed. Such as high-dried oatmeal, concentrated sulphuric acid, &c. On this principle professor Leslie founds his elegant method of producing artificial congelation. He encloses a portion of water in a