when an elastic fluid suffers mechanical compression, its temperature is raised, a portion of its latent heat being made sensible. The sensible heat may be easily drawn off by the contact of some cold body; so that, by continuing the compression, and abstracting the sensible heat, it may be possible to remove so much of the latent heat as may compel the gas to take a liquid form. By submitting the gases in strong glass tubes to the pressure of their own elastic force, Dr. Faraday succeeded in condensing nine of them. Oxygen, nitrogen, and hydrogen, have resisted a pressure equal to that of eight hundred atmospheres, so that there can be little prospect of knowing any thing about the liquids from which they are produced. When it is remembered that oxygen and nitrogen are the component parts of atmospheric air, there will be little difficulty in deducing, from the facts which have been stated, proofs of the wisdom displayed in the choice and arrangement of materials. If an atmosphere of vapours had been employed instead of gases, it might all have been condensed into a liquid during some inclement season, and the beings dependant on its existence have perished.

EVAPORATION.

The formation of vapour does not altogether depend upon ebullition; or, in other words, it is not absolutely necessary that a liquid should be raised to the boiling point for the production of vapour. A liquid may produce vapour from its surface, and at every temperature, though the amount increases with the temperature. It was once supposed that evaporation resulted from a chymical affinity between the particles of air and the liquids evaporated. This theory, proposed by Halley, has been disproved by the experiments of Dalton; and if we had no other proof, the formation of a vapour in vacuo would be a sufficient contradiction.

Every mass of water on the surface of the earth, and every moist or damp district, will afford an example of evaporation All parts of the earth support a mass of atmospheric air, to which they are constantly imparting aqueous vapour; and there is but one limit to this process, the saturation of the air; the point of saturation being the reception of a quantity that will exert a pressure sufficient to prevent any further evaporation.

As there are many phenomena resulting from evaporation,