tensive strata of air, charged with moisture, and having different temperatures. It is well known to philosophers, that the quantity of aqueous vapour that can be contained by atmospheric air, differs according to the temperature of the air at the time. Air at a given temperature may be saturated, and the condition under which this effect is produced has been already explained; but, raise the temperature, and it receives a capability of absorbing more moisture; lower the temperature, and it must part with some that it possesses. Let it then be supposed that two saturated masses of air, having unequal temperatures, and consequently containing an unequal amount of humidity, meet each other; their contact will produce a conduction of heat tending to give an equality of temperature. A mean temperature will be produced, which must be lower than the temperature of one of the masses, and, if the quantity of moisture be too great for the degree of heat, a portion of it must be precipitated as rain. The whole of this explanation, then, depends upon the fact, that temperature and solution do not increase by equal increments. Many objections have been made to the theory, and there are many facts for which it does not readily account; but these cannot be urged as a proof of its inaccuracy, as they may depend on local circumstances which modify the common results.

Mr. Harvey has so well illustrated by numerical examples Dr. Hutton's theory, in an excellent paper, worthy its place in the Encyclopedia Metropolitana, that we cannot deny ourselves the pleasure of a quotation. "Let it be required to mingle two volumes of air, of the temperature of 40° and 60°, each being saturated with humidity. The force of vapour at these temperatures is known to be respectively 0.263 and 0.524 inches of the mercurial column. The compound mixture will evidently have a mean temperature of 50°, and the mean of the elastic forces is at the same time 0.393 inches of the same column. But if we now inquire whether air at the temperature of 50° requires an elastic force of this last mentioned magnitude to saturate it entirely with vapour, we shall find that it does not; and that, at the mean temperature here referred to, the measure of entire saturation is really 0.375 inches of quicksilver. The difference of the two columns, or 0.018 inches of mer-