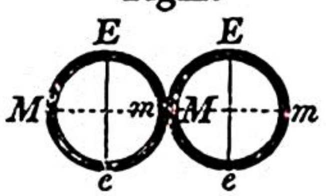
Hence it is presumed, that the repulsion of these poles does not prevent the molecules from cohering at their equators; every point, *M*, *m*, of which, in the two molecules, as thus arranged, will be dissimilar, and, of course, attractive. Let us now suppose, from some external source, a certain quantity of heat to be communicated to these molecules. The natural tendency of heat is usually considered to be, to arrange itself in the form of an atmosphere, around the molecules as in Fig. 11; the consequence of which is, that while the temperature of the molecules is raised, they are, at the same time, slightly separated from each other: thus the molecules of ice to which heat has been applied, will be partially disjoined at the cohesive points, *M*, *m*; and the result, of course, will be, that these molecules will occupy, as in Fig. 11, more space, than they occupied, as in Fig. 10, before the addition of the heat. The preceding explanation of the effects of heat in separating the molecules of solids, and thus of increasing their volume, applies also, (though perhaps in a still more striking degree,) to the effects of heat upon the molecules of bodies, in the liquid and gaseous states.

Fig. 11.



Another important property of heat, which we must briefly explain, is what is termed the *Latency* of heat. When the *same quantity* of heat