thing of the kind appears to exist, especially among organized bodies; which apparently owe several of their most remarkable properties to the diffusion of active self-repulsive molecules throughout their substance.*

Of the equal Expansion of Gaseous Bodies by Heat.—With respect to the second essential property of gaseous bodies, that, under the same temperature and pressure they all undergo equal expansion by an equal increase of heat; this seems to be explicable only on the supposition that—*all gaseous bodies, under the same pressure and temperature, contain equal numbers of self-repulsive molecules:* a most important conclusion, as we shall see hereafter, and one, which at present we are anxious a little further to illustrate. Admitting the fact to be, as it is, undeniable, that within the ordinary limits of experiment, all perfectly gaseous bodies expand equally by similar increments of heat; *if* different gases contain *unequal* numbers of self-repulsive molecules, those gases which contain the least number of molecules, must exert the greatest power, and consequently have the greatest disposition to expand; in other words, the expansive energy of the molecules of a gas, must increase as their number diminishes; and

* For further observations on the diffusion of gaseous bodies and of vapours, and their operation in the economy of nature; see the Appendix.