

before, principally to the elements of water, hydrogen and oxygen.

It has been found by experiment, that the same volumes of different bodies in the gaseous state, have very different weights. Thus, for instance, a volume of oxygen weighs sixteen times as much, as the same volume of hydrogen. Hence, as the number of self-repulsive molecules in each of these gases, is presumed to be the same; the weight of the self-repulsive molecule of oxygen must of course be sixteen times greater, than that of hydrogen; and GENERALLY, *the weights of the self-repulsive molecules of all bodies, will be as the specific gravities of these bodies in the gaseous state; or will bear certain simple relations to these specific gravities.* This relation in *weight* among the molecules of bodies, constitutes the basis of what is called, the *Atomic theory*, proposed, some years ago by Dr. Dalton; who established the most important fact, that bodies do not, as formerly supposed, combine at random, but in definite proportions by weight; and if the preceding doctrines be well founded, it is evident they cannot combine otherwise.* As however water is composed of one volume of

* The reader is referred to "An Introduction to the Atomic Theory," recently published by Dr. Daubeny, Professor of Chemistry, at Oxford; for an interesting and able inquiry into the principles of this theory.