

When we have in this manner traced back all kinds of mineral bodies, to the first and most simple condition of their component Elements, we find these Elements to have been at all times regulated by the self-same system of fixed and universal laws, which still maintains the mechanism of the material world. In the operation of these laws we recognize such direct and constant subserviency of means to ends, so much of harmony, and order, and methodical arrangement, in the physical properties and proportional quantities, and chemical functions of the inorganic

of one system of combinations to another system, under which every individual crystal has been adjusted by laws, acting comparatively to produce harmonious results.

Every crystal of Carbonate of Lime is made up of millions of particles of the same compound substance, having one invariable primary form, viz. that of a rhomboidal solid, which may be obtained to an indefinite extent by mechanical division.

The *integrant molecules* of these rhomboidal solids form the smallest particles to which the Limestone can be reduced without chemical decomposition.

The first result of chemical analysis divides these integrant molecules of Carbonate of Lime into two compound substances, namely, Quick Lime and Carbonic Acid, each of which is made up of an incalculable number of *constituent molecules*.

A further analysis of these constituent molecules shews that they also are compound bodies, each made up of two elementary substances, viz. the Lime made up of *elementary molecules* of the metal Calcium, and Oxygen; and the Carbonic Acid, of elementary molecules of Carbon and Oxygen.

These ultimate molecules of Calcium, Carbon, and Oxygen, form the final indivisible atoms into which every secondary crystal of Carbonate of Lime can be resolved.