

upon which we can enter; and to treat it with regularity will be indispensably necessary. Let us first then take a view of the powers and properties of matter connected with chemical changes. These may be viewed under the heads of—

- I. HOMOGENEOUS ATTRACTION.
- II. HETEROGENEOUS ATTRACTION.
- III. CALORIC, OR HEAT.
- IV. ELECTRICITY.

Homogeneous attraction, or the attraction of cohesion, always tend to the union of particles of the same nature. This it is which under the name of gravitation attracts all bodies to the earth.—The chief connexion it has with chemistry is, that it may be considered as being the primary cause of crystallization; a subject upon which our narrow limits and its present uncertainty must prevent our enlarging. We will therefore pass on to *heterogeneous* or *chemical attraction*. This, from some property unknown to man, causes particles of different natures to unite in various manners. If into a glass containing a piece of copper, some nitric acid* be poured, the acid will immediately unite with the copper, and form a new compound, which does not partake of the properties of its elements, but presents a distinct character. This is the first thing we should observe in the unions caused by chemical attraction; that, for the most part, the compound formed differs entirely from both its elements; whereas, in the unions caused by homogeneous at-

* Nitric acid will be treated of in the course of these papers. For the sake of preserving regularity no more than its name can now be mentioned. It may be obtained at the chemist's, by any person desirous of trying the experiment, but great care should be taken in using it, as it is a very corrosive fluid, and rapidly destroys cloths.