

of existence, but determines the properties of matter under all its forms, and the mutual influence which different species of matter, having various subordinate properties, exert upon each other. It embraces a knowledge of the laws of combination and form, the peculiarities of each element in itself, and in its union with others ; and attempts to reveal the secret processes by which the universe itself is regulated.

Such a subject, however, would be far too extensive for the mightiest human intellect, and we are compelled to form certain artificial divisions, that, by the united efforts of many individuals, we may advance to some knowledge of the universe itself. The consideration of material existence has in consequence been assigned to three classes of philosophers, the natural historian, the chymist, and the experimental philosopher. To the first of these is appropriated the study of animals and vegetables, and the form and localities of mineral substances. The chymist investigates all those phenomena which alter the composition of bodies, and endeavours to determine the nature of the elementary substances which enter into their formation. To the experimental philosopher is assigned the investigation of the laws of matter, and the nature and cause of all those phenomena in which it suffers change without altering any of the essential properties of its composition. But, as these boundaries are artificial, they are often broken down, for the gradation from one branch of knowledge to another is in nature so perfect, that it would be difficult to form such definitions as might prevent the student of one department from encroaching on the territories of others.

But although we have thus divided physical science, and have appropriated only so small a part to the experimental philosopher, it is still necessary to arrange the objects of his pursuit, and hence we have the sciences of hydrodynamics, electricity, and others. One great advantage has resulted from this subdivision. Men of investigation have been able to give their exclusive attention to particular subjects, and have thus been encouraged to pursue their inquiries at a time when knowledge was obtained with much difficulty. We would not, however, insinuate, that those who devote themselves to one science, are better fitted for discovery than those who have taken a wider view of nature. But, in the infantine state of philosophical knowledge, it was necessary, much more than at present, that there should be those who