

De la Beche,\* Burr,† and others, afford all the information on these subjects which the student can require.

2. SUBSTANCES COMPOSING THE CRUST OF THE GLOBE.—Every substance is composed of atoms of inconceivable minuteness, held together by a principle termed attraction or cohesion, and which is probably a modification of that influence, which, as it exists under other conditions in inorganic substances, is called electricity, galvanism, or magnetism; and in organized beings, nervous influence. As the different stages of solidity, fluidity, or vapour, in which every material body may exist, have been exemplified in the former lectures, we need only remark, that there are about sixteen substances, which in the present state of chemical knowledge are considered simple in themselves, and which, in their various combinations, constitute by far the largest amount of the gaseous, liquid, solid, organic, and inorganic matter of the earth. Of these, eight are non-metallic; viz. *oxygen, hydrogen, nitrogen, carbon, sulphur, chlorine, fluorine, and phosphorus*. There are also six metallic bases of alkalies and earths, namely, *silicium, alumine,*

\* “A Geological Manual,” by H. T. De la Beche, Esq. F.R.S. An admirable work of reference. “Researches in Theoretical Geology.” A volume of considerable interest, affording a condensed and perspicuous view of the theories of modern geologists.

† “Elements of Practical Geology,” by Frederick Burr, Esq. 1 vol. foolscap 8vo.