

all the variable conditions of our planet, in all ascertainable or conceivable times, past, present, and to come.

Nor is there less diversity of object among the zealous students of geology. For some regard, as the principal object of their inquiries, the constitution of rocks and minerals,—the chemical effects which are traceable in the earth, and thus merely enlarge the limits of mineralogy; others turn their whole energy to the development of the history of fossil plants and animals, and thus constitute the interesting branch of organic geology*; while a third class watches the relation of the phenomena established by geologists to general statical and dynamical truths, and thus strives to found the new and attractive study of physical geology. Nor is there in this apparently imperfect apprehension of the extensive range of geological inquiry much to be reprehended. It is desirable that as many roads as possible should be opened toward the attainment of the varied truths which must be collected, by insulated observers, before it shall be found possible, for even the most comprehensive intellect, to frame a general and consistent view of the whole scope of this great branch of the study of nature.

The natural sciences are commonly understood to include all inquiries into the history of the inorganic and vital phenomena which take place on and about the surface of the globe, and the relation of these to general terrestrial, and cosmical conditions. The problems thus proposed for discussion are sufficiently ample and diversified to employ a very large number of observers and reasoners; they are, perhaps, inexhaustible; yet, were they all resolved, the study of nature would not be ended; for there would remain the inquiry, whether the present condition of nature is to be taken as a type of all her past and future states, or to be viewed as exhibiting one of many aspects, one of many gradations of change—a temporary adjustment, not a con-

* For this branch of Geology the term Palæontology is becoming usual.