

another instance, it brings before us, within the compass of a few yards, the evidence of a most varied and complicated series of changes in physical geography, as well as an abundant and interesting suite of organic remains. These and other characteristics of the geological record will become more apparent and intelligible to the student as he proceeds in the study of the science.

In the present volumes the subject will be distributed under the following leading divisions:

1. *The Cosmical Aspects of Geology*.—It is desirable to realize some of the more important relations of the earth to the other members of the solar system, of which it forms a part, seeing that geological phenomena are largely the result of these relations. The form and motions of the planet may be briefly touched upon, and attention should be directed to the way in which these planetary movements influence geological change. The light cast upon the early history of the earth by researches into the composition of the sun and stars deserves notice here.

2. *Geognosy—An Inquiry into the Materials of the Earth's Substance*.—This division describes the constituent parts of the earth, its envelopes of air and water, its solid crust, and the probable condition of its interior. Especially, it directs attention to the more important minerals of the crust, and the chief rocks of which that crust is built up. In this way, it lays a foundation of knowledge regarding the nature of the materials constituting the mass of the globe, whence we may next proceed to investigate the processes by which these materials are produced and altered.

3. *Dynamical Geology* embraces an investigation of the operations which lead to the formation, alteration, and disturbance of rocks, and calls in the aid of physical and