

BOOK VI

STRATIGRAPHICAL GEOLOGY

THIS branch of the science arranges the rocks of the earth's crust in the order of their appearance, and interprets the sequence of events of which they form the records. Its province is to cull from other departments of geology the facts which may be needed to show what has been the progress of the planet, and of each continent and country on its surface, from the earliest times of which the rocks have preserved any memorial. Thus, from Mineralogy and Petrography, it obtains information regarding the origin and subsequent mutations of minerals and rocks. From Dynamical Geology, it learns by what agencies the materials of the earth's crust have been formed, altered, broken or upheaved. From Geotectonic Geology, it understands in what manner these materials have been built up into the complicated crust of the earth. From Palæontological Geology, it receives, in well-determined fossil remains, a clew by which to follow the relative chronology of stratified formations, and to trace the grand onward march of organized existence upon the planet. Stratigraphical geology thus gathers up the sum of all that is ascertained by other departments of the science, and makes it subservient to the interpretation of the geological history of the earth.

The leading principles of stratigraphy may be summed up as follows: