

BOOK IV

GEOTECTONIC (STRUCTURAL) GEOLOGY

OR THE ARCHITECTURE OF THE EARTH'S CRUST

THE nature of minerals and rocks and the operations of the different agencies by which they are produced and modified having been discussed in the two foregoing books, there remains for consideration the manner in which these materials have been arranged so as to build up the crust of the earth. Since by far the largest visible portion of this crust consists of sedimentary or aqueous rocks, it will be of advantage to treat of them first, noting both their original characters, as resulting from the circumstances under which they were formed, and the modifications subsequently effected upon them. Many superinduced structures, not peculiar to sedimentary, but occurring more or less markedly in all rocks, may be conveniently described together. The distinctive characters of the igneous or eruptive rocks, as portions of the architecture of the crust, will then be described; and lastly, those of the crystalline schists and other associated rocks to which the name of metamorphic is usually applied.

PART I. STRATIFICATION AND ITS ACCOMPANIMENTS

The term "stratified," so often applied as a general designation to the aqueous or sedimentary rocks, expresses their leading structural feature. Their materials, laid down for the most part on the bed of the sea and the floors of lakes