Mica Schist System.

The subdivisions are only locally ascertained. Chloritic schists lie in the upper parts; quartz rock and primary limestones are interposed among the beds of mica schist.

Gneiss System.

Mica schist alternates with gneiss, which is diversified by beds of limestone and quartz rocks.

Beneath all these systems of stratified rocks, the production of water, we find, in all places where the base is clearly seen, a mass of granite and other unstratified rocks, the effect of great and pervading heat. Basalt, porphyry, and other igneous rocks, are frequently found protruding through the strata along anticlinal axes, and penetrating them in dykes along the course of faults and fissures.

In possession of this complete section of all the principal masses of stratified rocks in the British isles, and guided by a map of the ranges of each of these on the surface*,—aware, also, that within the narrow compass of these islands some of the groups of strata vary extremely (as the lower oolites, which are principally calcareous near Bath, but principally arenaceous near Whitby), and others have only a limited range (as the magnesian limestones), we may proceed to inquire how far the sections of other natural districts agree with that given above.

Throughout the great basins of Europe, and parts of Asia and Africa, including the countries bordering on the German Ocean, the Baltic, the Black Sea, and the Mediterranean, within the mountain boundaries of the Ural, Caucasus, Greece, Calabria, the Atlas, Western Spain, Brittany, Cornwall, the west of Ireland, Scotland, and Scandinavia, the same *general divisions*, viz., primary, secondary, tertiary, and superficial deposits occur, and the

* A geological map of the British Islands has been constructed by the author of this treatise, at a moderate price.