

open by denudation. The component rocks are of great thickness, all referable to the Silurian, Devonian, and Carboniferous formations. There is no principal or central axis, as in the Pyrenees and many other chains—no nucleus to which all the minor ridges conform; but the chain consists of many nearly equal and parallel foldings, having what the geologists term an anticlinal and synclinal arrangement. This system of hills extends, geologically considered, from Vermont to Alabama, being more than 1000 miles long, from 50 to 150 miles broad, and varying in height from 2000 to 6000 feet. Sometimes the whole assemblage of ridges runs perfectly straight for a distance of more than 50 miles, after which all of them wheel round together, and take a new direction, at an angle of 20 or 30 degrees to the first.

Mr. R. C. Taylor had made considerable progress in unravelling the structure of certain portions of this chain, before the commencement of the State Surveys of Virginia and Pennsylvania, the former conducted by Professor W. B. Rogers, the latter by his brother, Professor H. D. Rogers, both aided by a numerous corps of assistants. To these elaborate and faithful surveys we owe the discovery of the clue to the general law of structure prevailing throughout this important range of mountains, which, however simple it may appear when once made out and clearly explained, might long have been overlooked, amidst so great a mass of complicated details. It appears that the bending and fracture of the beds is greatest on the south-eastern or Atlantic side of the chain, and the strata become less and less disturbed as we go westward, until at length they regain their original or horizontal position. By