

which Paleontology forms an essential part. A group of strata extending over a certain geographical extent, all of which contain some fossils in common, no matter what may be the chemical character of the rock, whether it be limestone, sand, or clay, is termed a geological *Formation*. Thus, the coal beds, with the intervening slates and grits, and the masses of limestone, between which they often lie, constitute but one formation — the carboniferous formation.

461. Among the stratified rocks we distinguish ten principal Formations, each of which indicates an entirely new era in the earth's history; while each of the layers which compose a formation indicates but some partial revolution. Proceeding from below upwards, they are as follows, as indicated in the cut, and also in the lower diagram on the Frontispiece.

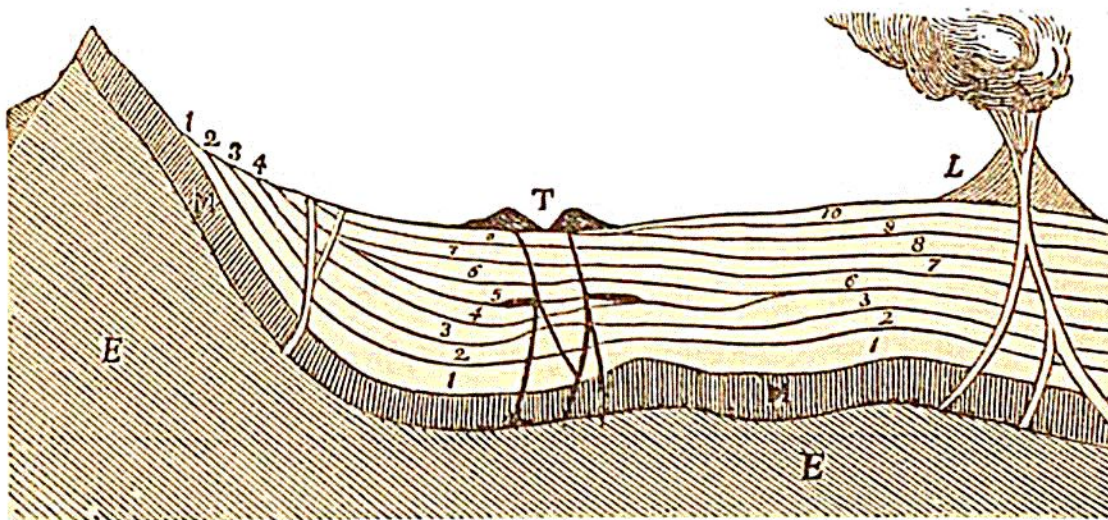


Fig. 154.

1st. The *Lower Silurian*. This is a most extensive formation, no less than eight stages of which have been made out by Geologists in North America, composed of various limestones and sandstones.*

* 1. Potsdam Sandstone; 2. Calciferous Sandstone; 3. Chazy Limestone; 4. Bird's-eye Limestone; 5. Black River Limestone; 6. Trenton Limestone; 7. Utica Slate; 8. Hudson River Group; being all found in the western parts of the United States.