

would be about 3500 feet, or exceeding the average elevation of the Alleghany Mountains.

The thinning out and disappearance of the mudstones and sandstones of the more eastern States, causing limestones, such as the Helderberg and Niagara, so widely separated in New York, to unite and form single and indivisible masses in Ohio, affords no argument against the classification of the New York geologists. Their grouping of the subordinate members of the Devonian and Silurian systems has been based on sound principles; on mixed geographical, lithological, and paleontological considerations; and the analogy of European geology teaches us that minor subdivisions, however useful and important within certain limits, are never applicable to countries extremely remote from each other, or to areas of indefinite extent.

The rock forming the hills and table lands around Cincinnati, called the blue limestone, has been commonly referred to the age of the Trenton limestone of New York (No. 15, map, Pl. II.), but is considered by Messrs. Conrad and Hall, and I believe with good reason, as comprehending also the Hudson River group (No. 14 of map). It seems impossible, however, to separate these divisions in Ohio, so that the district coloured blue (No. 15) may be regarded as agreeing with Nos. 14 and 15 in other parts of my map. Several of the fossils which I collected at Cincinnati, the encrinites and *Aviculæ* (of the subgenus *Pterinea*) in particular, agree with those which I afterwards procured near Toronto, on the northern shores of Lake Ontario.

After seeing at Cincinnati several fine collections