

there are proofs that the ancient land lay in that direction. The conglomerate which forms the general base of the coal-measures is 1500 feet thick in the Sharp Mountain, where I saw it, near Pottsville; whereas it has only a thickness of 500 feet, about thirty miles to the north-west, and dwindles gradually away when followed still farther in the same direction, till its thickness is reduced to thirty feet. (*Rogers. Trans. Assoc. Amer. Geol.*, 1840—42, p. 440.) The limestones, on the other hand, of the coal-measures, augment as we trace them westward. Similar observations have been made in regard to the Silurian and Devonian formations in New York; the sandstones and all the mechanically-formed rocks thinning out as they go westward, and the limestones thickening, as it were, at their expense. It is, therefore, clear that the ancient land was to the east; the deep sea, with its banks of coral and shells, to the west.

I at first supposed that some deception might have arisen respecting the alleged thickness of the older fossiliferous rocks of the Appalachians, owing to the dislocations and inverted position of the beds, but I was soon convinced that due regard had been paid to the apparent repetitions caused by these disturbances, and I have little doubt that those Silurian and Devonian strata, which do not exceed in their aggregate thickness a mile and a half in the State of New York, acquire more than three times that thickness in the Pennsylvanian Alleghanies.

A few days' observation of the identity of the fossil plants, and the relative position of the anthracite, satisfied me that it was of the same age as the bituminous coal which I had seen at Blossberg. This opinion was,