CHAPTER IV.

Excursion to New Jersey.—Cretaceous Rocks compared to European.—General Analogy of Fossils, and Distinctness of Species.—Tour to the Anthracite Region of the Alleghanies in Pennsylvania.—Long parallel Ridges and Valleys of these Mountains.—Pottsville—Absence of Smoke.—Fossil Plants same as in Bituminous Coal.—Stigmariæ.—Great Thickness of Strata.—Origin of Anthracite—Vast Area of the Appalachian Coal-field.—Progressive Debituminization of Coal from West to East.—General Remarks on the different Groups of Rocks between the Atlantic and the Mississippi.—Law of Structure of the Appalachian Chain discovered by the Professors Rogers.—Increased Folding and Dislocation of Strata on the South-eastern Flank of the Appalachians.—Theory of the Origin of this Mountain Chain.

CRETACEOUS STRATA OF NEW JERSEY.

Sept. 30, 1841.—FROM Philadelphia I made a geological excursion of several days, to examine the cretaceous strata of New Jersey, in company with Mr. Conrad, to whom we are indebted for several valuable works on the fossil shells of the tertiary, cretaceous, and Silurian strata of the United States. We went first to Bristol on the Delaware to visit Mr. Vanuxem, then engaged in preparing for publication his portion of the State Survey of New York; next by Bordentown to New Egypt, and returned by the Timber Creek, recrossing the Delaware at Camden.

Although in this part of New Jersey there is no white chalk with flints, so characteristic of rocks of this age in Europe, it is still impossible to glance at the fossils, and not to be convinced that Dr. Morton was right