

CHAPTER XXIV.

Coal Formation of Nova Scotia.—Productive Coal Measures.—Erect Fossil Trees in the Cliffs of the Bay of Fundy.—Section from Minudie to the South Joggins.—Ten buried Forests, one above the other.—Connection of upright Trees with Seams of Coal.—Stigmaria.—Sigillaria.—Evidence of Repeated Submergence of dry Land.—Theory to explain the Evenness of the Ancient Surface.—Pictou Coal-field.—Bed of Erect Calamites, compared to those of St. Etienne, in France.—List of Species of Nova Scotia Coal-plants.—Four-fifths of these Fossils identified with European Species.—Carboniferous Flora of the United States.

ABOVE the granite, clay-slate, quartzite, and Silurian formations of Nova Scotia, there occur, in the northern part of the peninsula, as stated in the last chapter, strata referable to the carboniferous group, occupying very extensive tracts, and resting unconformably on the rocks of the older series. They may be divided into three formations; the middle one, comprising the productive coal-measures, agreeing precisely with those of Europe in their lithological characters and organic remains; an upper one, composed of sandstone and shale with fossil plants, but without coal; and a lower carboniferous group, chiefly made up of red sandstone and red marl, with subordinate beds of gypsum and marine limestone. In this lower series there are also occasionally some beds of shale with plants, and some coal-grits, and thin seams of impure coal.

A variety of opinions have been entertained re-