leaves, and numerous fragments of Calamites and Sternbergia. The sandstone in which the upright Calamites were enveloped was about ten feet thick, and all these terminated downwards at the same level, where the sandstone joined a layer of coarse grey limestone with pebbles. The tops of the Calamites were broken off at different heights, where the grit became coarser. Mr. Dawson states that he observed in the same bed, in a prostrate position, a lepidodendron, with leaves and lepidostrobi attached to its branches.

Since my excursion to Nova Scotia, I have examined the French coal-field of St. Etienne near Lyons, where M. Alexandre Brongniart first described a great bed of erect Calamites, inclosed in sandstone, which he believed to have grown where they have become fossil. The section of the beds of which he published a drawing, representing the erect fossil stems, has been since entirely destroyed by the quarrying away of the sandstone, but I obtained so much evidence, in 1843, of the occurrence of various upright trees, Sigillariæ and others, at different levels in the same coal formation, as to incline me fully to believe M. Alex. Brongniart's conclusions, and to retract the objections I formerly urged against his inferences, on the ground of the different heights at which the Calamites terminated downwards.* This may perhaps be explained by a slight obliquity in the direction of the trunks, or a want of perpendicularity in the vertical face of the cliffs to the planes of stratification.

* See Elements of Geol., vol. ii , p. 137.