

his Bridgewater Treatise, pl. 56, vol. ii., was nothing more or less than a section of the stump of a fossil *Sigillaria*, from which the roots extended in all directions through the ancient soil. It should be remembered that M. Adolphe Brongniart, when he obtained from Autun the first and only example yet discovered of a *Sigillaria* exhibiting internal structure, pronounced it to agree so nearly with *Stigmara*, that he inferred on botanical considerations alone, that both must belong to the same plant, and that the *Stigmara* was probably the root. In some of the specimens of the latter plant obtained in Nova Scotia, and cut in thin slices so as to transmit light, the woody fibre of the internal cylinder surrounding the axis from which the pith has disappeared, shows, under the microscope, the vascular tissue, and the fern-like or scalariform vessels, which are so conspicuous in European *Stigmariæ*. By aid of the silicified fossil from Autun, M. Ad. Brongniart has been enabled to demonstrate that this structure, or the scalariform vessels, so distinguishing a character of the living Ferns and some other cryptogamous plants, is united in *Sigillaria* with rings of growth peculiar to dicotyledonous trees, so that we have here, in this extinct genus, a link between classes of plants standing widely apart from each other in the arrangement of existing vegetables.

I have stated that I counted seventeen upright trees in the strata of the South Joggins, and I was assured by Dr. Gesner, and by residents at Minudie, that other and different individuals were exposed a few years ago; the action of the tides of the Bay of Fundy being so destructive as continually to undermine and sweep away the whole face of the cliffs, so that