

faults, the section being unbroken, and the rocks, with the exception of their dip, being quite undisturbed. The first of the upright trees which I saw, in the strata *d*, fig. 18, is represented in the enlarged section, fig. 19. No part of the original plant is preserved except the bark, which forms a tube of pure bituminous coal, filled with sand, clay, and other deposits, now forming a solid internal cylinder without traces of organic structure. The bark is a quarter of an inch thick, marked externally with irregular longitudinal ridges and furrows, without leaf-scars, and therefore not resembling the regular flutings of *Sigillariæ*, but agreeing exactly with the description of those vertical trees which are found at Dixonfold, on the Bolton railway, of which Messrs. Hawkshaw and Bowman have given an excellent account in the Proceedings of the Geological Society.* On comparing Mr. Hawkshaw's drawings of the British fossils, in the library of the Geological Society, as well as a specimen of one of the Dixonfold trees presented by him to their museum, with portions of the bark brought by me from Nova Scotia, I have no hesitation in declaring them to be identical.

The diameter of the tree, *a. b*, fig. 19, was fourteen inches at the top and sixteen inches at the bottom, its height five feet eight inches. The strata in the interior of the tree consisted of a series entirely different from those on the outside. The lowest of the three outer beds which it traversed consisted of purplish and blue shale, *c*, fig. 19, two feet thick, above which was sandstone, *d*, one foot thick, and

* London, 1839—40; vol. iii., pp. 139, 270.