

off at the top by a layer of clay two feet thick, on which rested a seam of coal, *b*, fig. 21, one foot thick. This coal formed a foundation on which stood two large trees, *c* and *d*, fig. 21, about five yards apart, each about two and a half feet in diameter, and fourteen feet long, both enlarging downwards, and one of them, *d*, bulging considerably at the base. The beds through which they pass consist of shale and sandstone. The cliff was too precipitous to allow me to discover any commencement of roots, but the bottom of the trunks seemed to touch the subjacent coal. Above these trees were beds of bituminous shale and clays with *Stigmaria*, ten feet thick, on which rested another bed of coal, *e*, one foot thick, and this coal supported two trees, *f*, *g*, each eleven feet high, and sixty yards apart. They appeared to have grown on the coal, *e*. One of these, about two feet in diameter, preserved nearly the same size from top to bottom, while the other, which was about fourteen inches in diameter at the top, enlarged visibly at the base. The irregular furrows of the bark were an inch and half one from the other. The tops of these trees were cut off by a bed of clay, on which rested the main seam of the South Joggins coal, four feet thick, above which is another succession of strata, very similar to those already described, with occasional thin seams of coal, and with vertical trees at five or six different levels.

I observed in all at least seventeen of these upright trunks, but in no instance did I see any one of them intersecting a layer of coal, however thin, nor did I find any one of them terminating downwards in sandstone, but always in coal or shale. Their