

sea shore, or by inland sections of quarries, banks of rivers, &c.*

The vertical position of these trunks, however, is only occasional and accidental; they lie inclined at all degrees throughout all the strata of the carboniferous series; but are most frequently prostrate, and parallel to the lines of stratification, and, in this position are usually compressed. When erect, or highly inclined, they retain their natural shape, and their interior is filled with sand or clay, often different from that of the stratum in which their lower parts are fixed, and mixed with small fragments of various other plants. As this foreign matter has thus entirely

* On the coast of Northumberland, at Creswell hall, and Newbiggin, near Morpeth, many stems of *Sigillaria* may be seen, standing erect at right angles to the planes of alternating strata of shale and sand-stone; they vary from ten to twenty feet in height, and from one to three feet in diameter, and are usually truncated at their upper end; many terminate downwards in a bulb-shaped enlargement, near the commencement of the roots, but no roots remain attached to any of them. Mr. W. C. Trevelyan counted twenty portions of such Trees, within the length of half a mile; all but four or five of these were upright; the bark, which was seen when they were first uncovered, but soon fell off, was about half an inch in thickness, and entirely converted into coal. Mr. Trevelyan observed four varieties of these stems, and engraved a sketch of one of them in 1816, which is copied in Count Sternberg's Tab. 7, Fig. 5.

In September, 1834, I saw in one of the Coal Mines of Earl Fitzwilliam, at Elsecar, near Rotherham, many large Trunks of *Sigillaria*, in the sides of a gallery by which you walk into the mine, from the outcrop of a bed of Coal about six feet thick. These stems were inclined in all directions, and some of them