carbonized bark. All the stems were filled with blue clay, or shale, a proof that they were hollow when submerged in the mud, which is now consolidated into the shale, in which they are imbedded. But it is not probable that they were originally tubular, like a reed: on the contrary, there is evidence to show that they were highly organized. Their internal structure may have decayed, or been destroyed by insects, or other depredators; this is often the case in tropical climates, where even the trunks of timber trees are speedily excavated after their fall, and afford shelter to innumerable insects and reptiles, as the weary traveller often finds to his surprise and annoyance.* The late Mr. Bowman affirmed † that these trees were dicotyledonous, and stated that medullary rays and coniferous structure could be detected; an opinion, which the researches of M. Brongniart on the Sigillariæ have fully corroborated. Many other instances have been noticed of Sigillariæ standing more or less erect in the strata. In forming the railway tunnel at Claycross, five miles south of Chesterfield, through the middle portion of the Derbyshire coal measures, in 1838, a group of nearly forty trees (*Sigillariæ*) was discovered, standing not more than three or four feet apart, at right angles to the plane of the strata.‡ On the coast of Northumberland, within the length of half

* Mr. Hawkshaw, Geol. Proc. p. 269.

† Geol. Proc. Vol. III. p. 270. ‡ Ibid. 272.