

place to vast swampy flats, and which, instead of the oil-bearing shales of the Erian, were destined to produce those immense and wide-spread accumulations of vegetable matter which constitute our present beds of bituminous and anthracite coal. The

atmosphere of these great swamps is moist and warm. Their vegetation is most exuberant, but of forms unfamiliar to modern eyes, and they swarm with insects, millepedes, and scorpions, and with batrachian reptiles large and small, among which we look in vain for representatives of the birds and beasts of the present day.

Prominent among the more gigantic trees of these swampy forests are those known to us as *Sigillariæ* (Fig. 33). They have tall, pillar-like trunks, often several feet in diameter, ribbed like fluted columns, but in the reverse way, and spreading at the top into a few thick branches, which are clothed with long, grass-like leaves. They resemble in some respects the *Lepidodendra* of the Erian age, but are more massive, with ribbed instead of scaly trunks, and longer leaves. If we approach one of

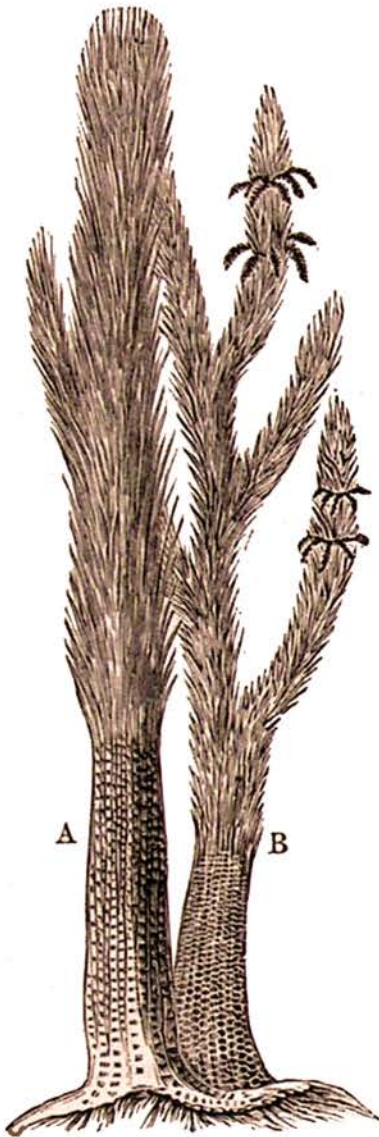


FIG. 33.—*Sigillariæ*, restored.
A, *Sigillaria Brownii*.
B, *Sigillaria elegans*.

them more closely, we are struck with the regular ribs of its trunk, dotted with rows of scars of fallen leaves, from which it receives its name *Sigillaria*, or seal-tree (Figs. 34–37). If we cut into its stem, we find that, instead of