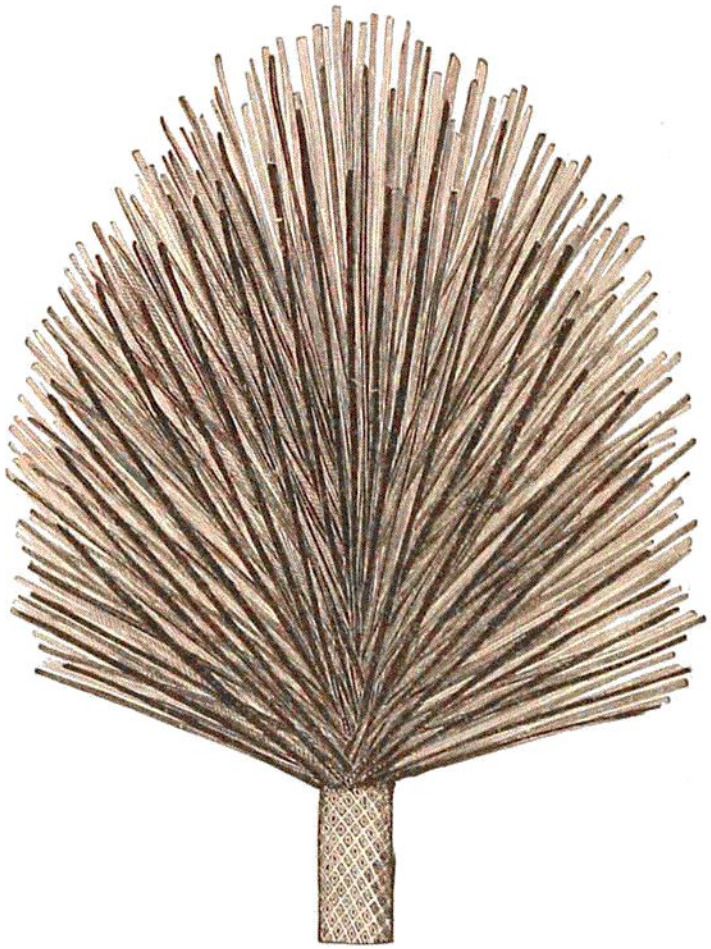
and no fragrance but that of Conifers and Cycads. Even Mosses, so common in modern swamps, and the chief source of modern peat, have left no evidence of their presence.

A general idea of the vegetation and scenery of the era during its periods of verdure may be gathered from the accompanying ideal sketch (Fig. 1031), from a painting by Russell Smith. The tree to the left of the center, and others with similar palm-like tops, are the *Tree-ferns;* and smaller Ferns make up much of the foreground. The other trees are Lycopods, the *Lepidodendrids;* and one bare trunk to the right is that of a *Sigillaria*. Other straight stems with leaves (or branchlets) at regular intervals are the Equiseta or *Calamites*. The Cycad-like *Cordaites*, with their long strap-like leaves, with probably others having almost the foliage of a Fern-tree, should have been in the view; for they added largely, as Lesquereux and others have stated, to the forest trees. But of other Gymnosperms, the so-called Conifers, there are few indications in the beds. They may have been common over the drier fields and hills.

1032.



Extremity of a branch of Lepidodendron, with the leaves attached.

Forests made of the Equiseta and Lycopods of to-day would hardly overtop a man's head. They would be simply shrubbery of "Horse-tails" and "Ground Pines." The height of the largest modern Lycopod is five to six feet; that of the ancient, 60 to 90 feet. In habit and in foliage they were much like the Spruces and Pines of the present day, the length of the leaves varying greatly, as illustrated in Fig. 1032. The Equiseta of the present time are slender, herbaceous plants, with hollow stems; while the Calamites of the Carboniferous marshes included species having partly woody trunks, a diameter of 3 to 10 inches, and a height of 30 or 40 feet. Ferns now grow into trees in tropical and warm temperate climates, but only small trees, and poor in wood compared with some in the coal era.

While the terrestrial vegetation was thus abundant, seaweeds after the old style were still in the waters. The *Spirophyton caudagalli* of the Lower