

abundant, in the Carboniferous. Many years ago I observed, in a beautiful specimen collected by Sir W. E. Logan, in New Brunswick, that the stem of this plant had an axis of reticulated and scalariform vessels, and an outer bark.* Renault and Williamson have more recently obtained more perfect specimens, and the former has figured a remarkably complex triangular axis, containing punctate and barred vessels, and larger punctate vessels filling in its angles. Outside of this there is a cellular inner bark, and this is surrounded by a thick fibrous envelope. That a structure so complex should belong to a plant so humble in its affinities is one of the strange anomalies presented by the old world, and of which we shall find many similar instances. The fruit of *Sphenophyllum* was borne in spikes, with little whorls of bracts or rudimentary leaves bearing round sporocarps.

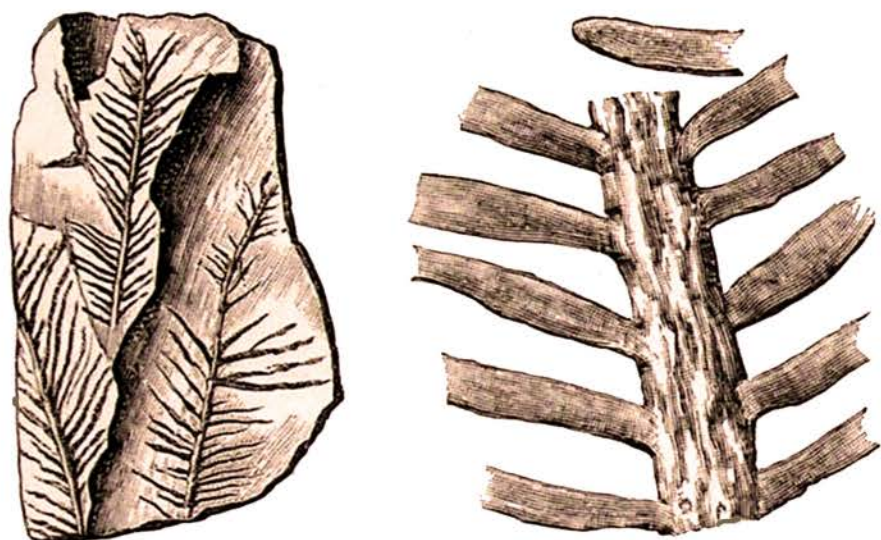


FIG. 17.—*Ptilophyton plumosum* (Lower Carboniferous, Nova Scotia).
Natural size and magnified.

A second type of plant, which may have been Rhizocarpean in its affinities, is that to which I have given the name *Ptilophyton*.† It consists of beautiful feathery

* "Journal of the Geological Society," 1865.

† *Plumalina* of Hall.