

species of *Archæopteris*, of the Upper and Middle Erian, are eminent as examples. This type, however, scarcely extends as high as the coal-formation.* Some of the tree-ferns of the Carboniferous present very remarkable features. One of these, of the genus *Megaphyton*, seems to have two rows of great leaves, one at each side of the stem, which was probably sustained by large bundles of aërial roots (Fig. 56).

In the Carboniferous, as in the Erian, there are leaves which have been referred to ferns, but are subject to doubt, as possibly belonging to broad-leaved taxine trees allied to the ginkgo-tree of China. One of these, represented in Fig. 57, has been



FIG. 57.—*Noeggerathia dispar*
(half natural size).

found in the coal-formation of Nova Scotia, and referred to the doubtful genus *Noeggerathia*. Fontaine has proposed for similar leaves found in Virginia the new generic name *Saportea*.

Ferns, as might be inferred from their great age, are at the present time dispersed over the whole world; but their headquarters, and the regions to which tree-ferns are confined,

are the more moist climates of the tropics and of the southern hemisphere. The coal-swamps of the northern hemisphere seem to have excelled even these favoured regions of the present world as a paradise for ferns.

I have already stated that the Carboniferous constitutes the headquarters of the *Cordaites* (Fig. 58), of which a large number of species have been described, both in

* The pretty little ferns of the genus *Botrychium* (moonwort), so common in American and European woods, seem to be their nearest modern allies.