ceolate, sessile, entire, with rounded apices and of leathery consistency. The leaves are from twenty to ninety centimetres in length. The nerves are either equally or unequally strong.

2. *Dorycordaites.*—Leaves lanceolate, with sharp points; nerves numerous, fine, and equal in strength. The leaves attain a length of from forty to fifty centimetres.

3. *Poacordaites.*—Leaves narrow, linear, entire, blunt at the point, with nerves nearly equally strong. The leaves are as much as forty centimetres in length.

To these Renault and Zeiller have added a fourth group, *Scutocordaites.*

Genus STERNBERGIA.

This is merely a provisional genus intended to receive casts of the pith cylinders of various fossil trees. Their special peculiarity is that, as in the modern *Cecropia peltata*, and some species of *Ficus*, the pith consists of transverse dense partitions which, on the elongation of the internodes, become separated from each other, so as to produce a chambered pith cavity, the cast of which shows transverse furrows. The young twigs of the modern *Abies balsamifera* present a similar structure on a minute scale. I have ascertained and described such pith-cylinders in large stems of *Dadoxylon Ouangondianum*, and *D. materiarium.* They occur also in the stems of *Cordaites* and probably of *Sigillariæ.* I have discussed these curious fossils at length in "Acadian Geology" and in the "Journal of the Geological Society of London," 1860. The following summary is from the last-mentioned paper:

a. As Prof. Williamson and the writer have shown, many of the *Sternbergia* piths belong to coniferous trees of the genus *Dadoxylon.*

b. A few specimens present multiporous tissue, of the type of *Dictyoxylon*, a plant of unknown affinities, and which, according to Williamson, has a *Sternbergia* pith.

c. Other examples show a true scalariform tissue, comparable with that of *Lepidodendron* or *Sigillaria*, but of finer texture. Corda has shown that plants of the type of the former genus (his *Lomatophloios*) had *Sternbergia* piths. Some plants of this group are by external characters loosely reckoned by botanists as ribless *Sigillariæ* (*Clathraria*); but I believe that they are not related even ordinally to that genus.

d. Many Carboniferous *Sternbergiæ* show structures identical with those described above as occurring in *Cordaites*, and also in some of the trees ordinarily reckoned as *Sigillariæ.*