committal, is therefore, I think, to be preferred. In my "Acadian Geology," and in my "Report on the Geology of Prince Edward Island," I have given reasons for believing that the foliage of some at least of these trees was that known as *Walchia*, and that they may have borne nutlets in the manner of Taxine trees (*Trigonocarpum*, &c.). Grand d'Eury has recently suggested that some of them may have belonged to *Cordaites*, or to plants included in that somewhat varied and probably artificial group.

The earliest discovery of trees of this kind in the Erian of America was that of Matthew and Hartt, who found large trunks, which I afterwards described as *Dadoxylon Ouangondianum*, in the Erian sandstone of St. John, New Brunswick, hence named by those geologists the "Dadoxylon sandstone." A little later, similar wood was found by Prof. Hall and Prof. Newberry in the Hamilton group of New York and Ohio, and the allied wood of the genus *Ormoxylon* was obtained by Prof. Hall in the Portage group of the former State. These woods proved to be specifically distinct from that of St. John, and were named by me *D. Halli*, *D. Newberryi*, and *Ormoxylon Erianum*. The three species of *Dadoxylon* agreed in having composite medullary rays, and would thus belong to the group *Palæoxylon* of Brongniart. In the case of *Ormoxylon* this character could not be very distinctly ascertained, but the medullary rays appeared to be simple.

I am indebted to Prof. J. M. Clarke, of Amherst College, Massachusetts, for some well-preserved specimens of another species from the Genesee shale of Canandaigua, New York. They show small stems or branches, with a cellular pith surrounded with wood of coniferous type, showing two to three rows of slit-formed, bordered pores in hexagonal borders. The medullary sheath consists of pseudo-scalariform and reticulated fibres; but the most remarkable feature of this wood is the structure of the medullary rays, which are very frequent, but short and simple, sometimes having as few as four cells superimposed. This is a character not before observed in coniferous trees of so great age, and allies this Middle Erian form with some Carboniferous woods which have been supposed to belong to *Cordaites* or *Sigillaria*. In any case this structure is new, and I have named the species *Dadoxylon Clarkii*, after its discoverer. The specimens occur, according to Prof. Clarke, in a calcareous layer which is filled with the minute shells of *Styliola fissurella* of Hall, believed to be a Pteropod; and containing also shells of *Goniatites* and *Gyroceras*. The stems found are only a few inches in diameter, but may be branches of larger trees.