to the genus *Zygopteris* of Schimper. The central axis alone has a curious resemblance to the peculiar stem described by Unger ("Devonian Flora of Thuringia") under the name of *Cladoxylon mirabile;* and it is just possible that this latter stem may be the axis of some allied plant. The large aërial roots of some modern tree-ferns of the genus *Angiopteris* have, however, an analogous radiating structure.

The specimen is from the collection of Berlin H. Wright, Esq., of Penn Yan, New York, and was found in the Portage group (Upper Erian) of Milo, New York, where it was associated with large petioles of ferns and trunks of *Lepidodendra*, probably *L. Chemungense* and *L. primævum.*

The occurrence of this and other stems of tree-ferns in marine beds has recently been illustrated by the observation of Prof. A. Agassiz that considerable quantities of vegetable matter can be dredged from great depths in the sea on the leeward side of the Caribbean Islands. The occurrence of these trunks further connects itself with the great abundance of large petioles (*Rhachiopteris*) in the same beds, while the rarity of well-preserved fronds is explained by the coarseness of the beds, and also by the probably long maceration of the plant-remains in the sea-water.

In connection with this I may refer to the remarkable facts recently stated by Williamson* respecting the stems known as *Heterangium* and *Lyginodendron.* It would seem that these, while having strong exogenous peculiarities, are really stems of tree-ferns, thus placing this family in the same position of advancement with the Lycopods and *Equisetaceæ* of the Coal period.

### IV.—On Erian Trees of the Genus Dadoxylon, Unger. (*Araucarites* of Goeppert, *Araucarioxylon* of Kraus.)

Large woody trunks, carbonised or silicified, and showing wood-cells with hexagonal areoles having oval pores inscribed in them, occur abundantly in some beds of the Middle Erian of America, and constitute the most common kind of fossil wood all the way to the Trias. They have in the older formations, generally, several rows of pores on each fibre, and medullary rays composed of two or more series of cells, but become more simple in these respects in the Permian and Triassic series. The names *Araucarites* and *Araucarioxylon* are perhaps objectionable, inasmuch as they suppose affinities to *Araucaria* which may not exist. Unger's name, which is non-

* "Proceedings of the Royal Society," January 6, 1887.