

*pteris*\*, a genus characteristic of the same beds, but of very different habit of growth. This accords with the fact that there is in Prof. Hall's collection a mass of fronds of *Cyclopteris* (*Archæopteris*) *Jacksoni*, so arranged as to make it probable that the plant was an herbaceous fern, producing tufts of fronds on short stems in the ordinary way. The obscurity of the leaf-scars may render it doubtful whether the plant above described should be placed in the genus *Caulopteris* or in *Stemmatopteris*; but it appears most nearly allied to the former. The genus is at present of course a provisional one; but I think it only justice to the diligent and successful labours of Mr. Lockwood to name this curious and interesting fossil *Caulopteris Lockwoodi*.

I have elsewhere remarked on the fact that trunks, and petioles, and pinnules of ferns are curiously dissociated in the Devonian beds—an effect of water-sorting, characteristic of a period in which the conditions of deposition were so varied. Another example of this is, that in the sandstones of Gaspé Bay, which have not as yet afforded any example of fronds of ferns, there are compressed trunks, which Mr. Lockwood's specimens allow me at least to conjecture may have belonged to tree ferns, although none of them are sufficiently perfect for description.

Mr. Lockwood's collection includes specimens of *Psaronius textilis*; and in addition to these there are remains of erect stems somewhat different in character, yet possibly belonging to the higher parts of the same species of tree fern. One of these is a stem crushed in such a manner that it does not exhibit its form with any distinctness, but surrounded by smooth cylindrical roots, radiating from it in bundles, proceeding at first horizontally, and then curving downward, and sometimes terminating in rounded ends. They resemble in form and size the aerial roots of *Psaronius erianus*; and I believe them to be similar roots from a higher part of the stem, and some of them young and not prolonged sufficiently far to reach the ground. This specimen would thus represent the stem of *P. erianus* at a higher level than those previously found. My idea of the possible connexion of these fragments is represented in fig. 3. Mr. Lockwood's collections also contain a specimen of the large fern-petiole which I have named *Rhachiopteris punctata*. My original specimen was obtained by Prof. Hall from the same horizon in New York. That of Mr. Lockwood is of larger size, but retains no remains of the frond. It must have belonged to a species quite distinct from *Caulopteris Lockwoodi*, but which may, like it, have been a tree fern.

## 2. CAULOPTERIS ANTIQUA, Newberry.

(Plate XII. fig. 4.)

This is a flattened stem, on a slab of limestone, containing *Brachiopods*, *Trilobites*, &c. of the Corniferous Limestone. It is about

\* The genus to which the well-known *Cyclopteris* (*Adiantites*) *hibernicus* of the Devonian of Ireland belongs.