

In addition to this species and the *Caulopteris* above described, Mr. Lockwood's collection contains branchlets of a *Lepidodendron*, apparently *L. gaspianum*, which also occurs in Prof. Newberry's collections from the Corniferous Limestone.

#### 6. LYCOPODITES, &c.

In his recently published 'Paléontologie,' Schimper (evidently from inattention to the descriptions and want of access to specimens) doubts the Lycopodiaceous character of the species of this genus described in my papers in the Journal of this Society from the Devonian of America. Of these *L. Richardsoni* and *L. Matthewi* are undoubtedly very near to the modern genus *Lycopodium*. *L. Vanuxemii* is, I admit, more problematical; but Schimper could scarcely have supposed it to be a fern or a fucoid allied to *Caulerpa* had he noticed that both in my species and the allied *L. pinnæformis* of Goeppert, which he does not appear to notice, the pinnules are articulated upon the stem, and leave scars where they have fallen off. When in Belfast last summer I was much interested at finding in Prof. Thomson's collection a specimen from Caithness, which shows a plant apparently of this kind, with the same long narrow pinnæ or leaflets, attached, however, to thicker stems, and rolled up in a circinate manner. It seems to be a plant in veneration, and the parts are too much crowded and pressed together to admit of being figured or accurately described; but I think I can scarcely be deceived as to its true nature. The circinate arrangement in this case would favour a relationship to ferns; but some Lycopodiaceous plants also roll themselves in this way, and so do the branches of the plants of the genus *Psilophyton*.

In conclusion, I may state that, when in Edinburgh last summer, Mr. Peach showed me fine and characteristic specimens of rhizomata of *Psilophyton* from the Caithness beds, and also specimens which seem to show that some at least of the fragments from these beds, which have been referred to *Lepidodendron nothum*, belong to a different species, more nearly allied to the *Cyclostigma* of Killercan and Gaspé. Mr. Peach has also branches of a *Lepidodendron* like *L. gaspianum*, a *Cyclopteris* allied to *C. Brownii*, a plant of the nature of *Anarthrocampa* or *Calamites*, a *Stigmaria*, and fragments which may belong to *Sigillaria*, all from the Devonian beds of Caithness.

#### EXPLANATION OF PLATE XII.

- Fig. 1. *Caulopteris Lockwoodi*, one-fourth natural size, portion of stem with petioles.  
 Fig. 2. Leaf-scar, natural size.  
 Fig. 3. Restoration in part of *Caulopteris Lockwoodi*, reduced: *a*, upper part, with petioles; *b*, remains of pinnæ; *c*, middle part, with diverging aerial roots; *d*, lower part, with aerial roots, perhaps the same with *Psaronius erianus*, Dawson, MS.  
 Fig. 4. *Caulopteris antiqua*, Newberry, one-fourth the natural size.