

instead of the well-marked scales of the *Lycopodiaceæ*, irregular rows of tubercles, that, when elongated in the profile, as sometimes happens, might be mistaken for minute, ill-defined leaves; the other, a smooth-stemmed fucoid, existing on the stone in most cases as a mere film, in which, however, thickly-set longitudinal fibres are occasionally traceable, and which may be always distinguished from the other by its sharp-edged outline, and from the circumstance that its stems continue to retain the same diameter for considerable distances, after throwing off at acute angles numerous branches nearly as bulky as themselves. In a Thurso specimen, about two feet in length, which I owe to the kindness of Mr. Dick, there are stems continuous throughout, that, though they ramify in that space into from six to eight branches, are nearly as thick atop as at bottom. They are the remains, in all probability, of a long, flexible weed, that may have somewhat resembled those fucoids of the intertropical seas, which, streaming slantwise in the tide, rise not unfrequently to the surface in from fifteen to twenty fathoms of water; and as, notwithstanding their obscurity, they are among the most perfect specimens of their class yet found, and contrast with the stately araucarians of the Coal Measures, in a style which cannot fail to delight the heart of every assertor of the development hypothesis, I present them to the reader from Mr. Dick's specimen, in a figure (fig. 54) which, however slight its interest, has at least the merit of being true. The stone exhibits specimens of the two species of Mr. Clouston's collection, — the sharp-edged, finely-striated weed, *a*, and that roughened by tubercles, *b*; which, besides the distinctive character manifested on its surface, differs from the other in rapidly losing breath with every branch which it throws off, and, in consequence, runs soon