

ginning of the Silurian age and to have finally disappeared in the early Erian, are altogether distinct from any form of vegetation hitherto known, and are possibly survivors of that prototypal flora to which I have already referred. They are trees of large size, with a coaly bark and large spreading roots, having the surface of the stem smooth or irregularly ribbed, but with a nodose or jointed appearance. Internally, they show a tissue of long, cylindrical tubes, traversed by a complex network of horizontal tubes thinner walled and of smaller size. The tubes are arranged in concentric zones, which, if annual rings, would in some specimens indicate an age of one hundred and fifty years. There are also radiating spaces, which I was at first disposed to regard as true medullary rays, or which at least indicate a radiating arrangement of the tissue. They now seem to be spaces extending from the centre towards the circumference of the stem, and to have contained bundles of tubes gathered from the general tissue and extending outward perhaps to organs or appendages on the surface. Carruthers has suggested a resemblance to Algæ, and has even proposed to change the name to *Nematophycus*, or "thread-sea-weed"; but the resemblance is by no means clear, and it would be quite as reasonable to compare the tissue to that of some Fungi or Lichens, or even to suppose that a plant composed of cylindrical tubes has been penetrated by the mycelium or spawn of a dry-rot fungus. But the tissues are too constant and too manifestly connected with each other to justify this last supposition. That the plant grew on land I cannot doubt, from its mode of occurrence; that it was of durable and resisting character is shown by its state of preservation; and the structure of the seeds called *Pachytheca*, with their constant association with these trees, give countenance to the belief that they are the fruit of Nematophyton. Of the foliage or fronds of these strange plants we unfortunately know nothing. They seem, how-