

There are some negative characters showing a resemblance between the most ancient of the fossiliferous rocks yet known in Europe and America, which deserve notice, although they belong to a perfectly different order from those before mentioned, as deduced from the analogy of organic forms. Of these points of agreement, the most remarkable are the absence or extreme rarity of land plants and vertebrate animals. That the vegetable world had already been called into existence is proved by the presence of various forms of fucoids, which are plentifully distributed through every part of the series. Some of the slabs of the lowest Silurian slates of Wales are covered with sea-weeds of such genera as are plainly indicative, like the brachiopoda, of deep water. There is, indeed, every reason to conclude that the Silurian deposits generally were formed far from land, which would alone explain the extreme scarcity of terrestrial plants; for how seldom do we meet with wood or fruits floating in mid ocean; and, if they are sometimes carried there by currents, how rarely can we expect them to sink to the bottom precisely in those places where, before decay, they may become enveloped and permanently preserved in sediment.

A few examples, however, of Devonian and Silurian land plants have been brought to light in the course of the New York survey. One of these was shown me by Mr. Vanuxem, and has been figured in his final Report, p. 157. It appeared to me more allied to the *Lepidodendron* than any fossil genus hitherto described. Its position is in the Hamilton or Upper Silurian group, in which we find a great