

*vegetating amidst the mud*: but we must surely attribute this improbable idea to an error of observation.

The stem, in its present state, generally exhibits a solid but often compressed cylinder of sandstone or clay, invested with a carbonaceous coat; it has usually a deep groove running along one side, and in its interior an included cylinder may be observed, traversing the sandstone in a direction parallel to, but not coincident with, the axis of the stem, approaching more nearly to its grooved side.

Mr. Steinhauer considers this as representing the pith, which resisted decomposition longer than the ligneous portion; he accounts for its position by supposing that it subsided towards the side of the decomposing plant which lay lowest (in which point he says it is always found), and attributes the groove to a rise in the middle of the inferior surface of the matrix in which it lay, squeezed upwards by the unequal pressure of the incumbent mass while unequally consolidated. These views, however, we cannot entirely adopt, but rather regard these remains as having proceeded from a succulent plant which never had a much larger portion of ligneous fibre than that which has shrunk into the carbonaceous investment still surrounding it. It is probable, however, that the included cylinder may represent the pith, but it is said that other smaller longitudinal tubuli, parallel to the above, may be traced through its substance. A termination has been in one instance observed, drawing from a thickness of three inches to an obtuse point; the trunk has also been seen subdividing into two nearly equal branches.

The diameter is from two or four (the most usual size) to even twelve inches.

Sternberg believes that the family to which this plant belonged must have had many analogies with the arborescent Euphorbiæ and the Cacti. On the whole it seems certain that these also must have been succulent plants; only one species is certainly known.

Steinhauer, Pl. 4. fig. 1 to 6. Martin, Pet. Derb. Pl. 11. 12. 13.

Parkinson, O. R. vol. 1. Pl. 3. fig. 1. Sternberg, Pl. 12. fig. 1. 2.

The leaves or acini are beautifully shewn in this last figure.

B. The leaf-bearing impressions, forming scales spirally surrounding the stem.

*Lepido dendra* (Sternberg, from *Λεπίς* a scale, and *δενδρον* wood.

*Phytolithi cancellati* (Steinhauer and Martin.)