

*Rotularia*.—Folia Verticillata in parvæ rotæ formam expansæ.

*R. cuneifolia*, T. 26. fig. 4. is very common in our coal mines. See Parkinson, org. rem. vol. 1. pl. 5. fig. 3.

*Leafy impressions.*

We have already mentioned the leaves belonging to the various stems above-described; when they could be clearly ascertained; those we have now to consider are probably in the great majority of instances quite distinct from them, and are generally indeed found in distinct strata: they appear to belong to low shrubby vegetables, such as ferns, rather than to arborescent plants.

In this branch of the inquiry we have to regret the want of good and accurate figures of English specimens to which we might refer. We may mention another difficulty which affects the subject generally: a few detached leaves, or single pinnae, afford a very imperfect view of the general infrondescence of a plant, and the appearances of the imperfectly-developed leaves of the youngest shoots may often be mistaken for the marks of distinct species. The subject requires rather to be studied from the large slabs in the coal-pits themselves, than from the small and mutilated fragments which find their way into cabinets. Count Sternberg unites these requisite and local advantages with all the precision of science, and when his work shall have been continued so as to include these remains, much new light will probably break in: at present Schlotheim's figures in his *Flora der Vorwelt* appear to be the best extant.

A. The first class of leaves we shall consider, are those which are *Verticillate*.

Martin. Pet. Derb. T. 20. Schlotheim, 1. 2. 3. 4.

There are several varieties; the leaves in some more, in others less, numerous; sometimes pointed, at others truncated and serrated at the end; sometimes there appears to be only a single stem bearing these verticillæ; this is often striated, and appear to be smaller varieties of those which we have already distinguished as *Calamitæ*; perhaps young individuals of them: at other times the verticillæ appear to issue from jointed branches at right angles to the main stem.

These impressions have been compared by different authors to *Hippuris Equisetum*, *Asperula*, *Galium*, *Rubia*, *Molluga*, and *Casuarina*: a list quite sufficient to shew the entire uncertainty of the subject.