

nodular layers, dikes, and veins of flint, which prevail in many beds of the chalk, and other formations.

The most abundant microscopic animal forms in the English chalk and flint which I have examined, are two kinds of *Polythalamia*, called *Rotalia*, and *Textularia*. Immense numbers of minute *Foraminifera* also occur, and many shells, which are unquestionably the young of the testaceous Cephalopoda (as the Nautilus, Ammonite, &c.), that prevail in the cretaceous strata. Spines of sponges, and of echinoderms, and the scales and teeth of fishes, also frequently appear in the field of the microscope: and a spongy structure is so common in flint, that an eminent observer (Mr. Bowerbank) conceives that all the flints, both nodular and tabular, have originated from sponges;* an hypothesis which is altogether inadmissible. The assertion that the chalk almost wholly consists of organic bodies which can be rendered visible, is likewise to be accepted with some limitation. The assiduous observer who searches for hours the chalk and flint, carefully prepared, and with the aid of an excellent microscope, although he will meet with immense numbers of organisms, will find a far greater proportion of atoms without any traces of structure. Neither is

* See Memoir on the Siliceous bodies in the Chalk, Greensands, and Oolite, by J. S. Bowerbank, Esq. F. R. S. &c. Geol. Trans. Vol. VI. p. 181.