

and, as already stated, nearly pure white, but in old specimens of large dimensions it is often partially coated by a superficial brownish deposit. The test is more or less flexible, and its consistence is such that it is easily cut with a sharp knife. The interior forms a cylindrical cavity of nearly even diameter, with smoothly finished surface. During life the tube is filled with dark-coloured or almost black sarcode.

The minute structure of the test is closely analogous to that of *Pilulina*. It is composed almost entirely of interlacing sponge-spicules and fine siliceous sand, differing however from *Pilulina* in one point, namely, that the spicules appear to be employed chiefly, though not exclusively, on the inner portion of the wall, the outer surface being made up of finer materials (fig. 18). There is the same apparent absence of cement as in the allied genera, and acids have but little effect on the test. There is no evidence whatever of definitely organised structure, such as would be presented by a sponge; there are no visible pores, and no oscula. Though some selective power is manifestly exercised, there is a wonderful variety amongst the spicula employed in the construction of the test; and Mr. Norman states in a letter on the subject, that in disintegrating a single specimen he has counted as many as nineteen of the forms enumerated in Bowerbank's list, not one of which could be said to be predominant or characteristic.

*Bathysiphon filiformis* is a rare species, and has only been met with at one Challenger locality, Station 195, off Banda, Amboyna, 1425 fathoms. It appears to be plentiful in the Hardanger Fiord (M. Sars, G. O. Sars, Norman), and occurs in deep water in the Bay of Biscay (Norman, de Folin).

I am indebted to my friend the Rev. A. M. Norman for the specimens figured in Pl. XXVI., as well as for the supply that has enabled me to work out the general characters and structure of the test.

### Sub-family 3. *Saccammininæ*.

#### *Psammosphæra*, Schulze.

*Psammosphæra*, Schulze [1874], Brady, Norman, Hæusler.

Test free or attached, typically spherical, with no visible aperture. Only one species.

*Psammosphæra fusca*, F. E. Schulze (Pl. XVIII. figs. 1-8).

*Psammosphæra fusca*, Schulze, 1874, II. Jahresberichte d. Komm. Untersuch. d. deutsch. Meere, p. 113, pl. ii. fig. 8, *a. f.*

„ „ Brady, 1879, Quart. Journ. Micr. Sci., vol. xix. N. S., p. 27, pl. iv. figs. 1, 2.

„ „ Hæusler, 1883, Quart. Journ. Geol. Soc., vol. xxxix. p. 26, pl. ii., fig. 1.

Test free or attached, spherical or nearly so; exterior rough and coarsely arenaceous,