

interior smooth; with minute interstitial orifices, but no general aperture. Colour reddish-brown. Diameter, from $\frac{1}{160}$ th to $\frac{1}{8}$ th inch (0.16 to 4.0 mm.).

This is one of the simplest of the arenaceous Foraminifera. Although by no means uncommon in deep water, it remained undescribed until the publication of Prof. Schulze's memoir above quoted. Fifteen years or more ago I found it in considerable abundance in one of the "Bulldog" soundings obtained by Dr. Wallich, but the specimens were very minute, and in the then existing state of knowledge it was difficult to decide whether they were Foraminifera or not. It has been the custom to consider that the tests of the arenaceous Rhizopoda are of necessity imperforate; in other words, that except the general pseudopodial orifice the investment is non-porous, and the fact of these specimens having no general aperture created a doubt as to their Foraminiferal character. But it is now well understood that the term "imperforate" is only applicable to a limited number of genera, and that some at least of the sandy forms have more or less porous tests, though, owing to their composite texture and the irregularities of the surface, the orifices are but little apparent on the exterior.

Schulze's description of the species is quite accurate as applied to large specimens. They are spheroidal bodies, from two to four mm. ($\frac{1}{12}$ th to $\frac{1}{6}$ th inch) in diameter, without any perforations visible to the naked eye, commonly free, but occasionally adherent to small stones. The test itself is from .25 to .5 mm. thick, and is composed of coarse sand-grains, united by a cement of fine texture and of characteristic grey-brown colour. Whilst the exterior is more or less rough, owing to projecting sand-grains or fragments of stone, the interior is throughout even and smooth (Pl. XVIII. fig. 6), the constituent angular particles being very neatly fitted together and cemented. But in point of size the range is much wider than that suggested by the large North-Sea specimens, and in some areas adult and otherwise characteristic tests scarcely average $\frac{1}{100}$ th of an inch in diameter, and are often much smaller.

The tendency of the animal to attach itself to foreign bodies is revealed in many different ways; sometimes a fragment, but little smaller than the remainder of the test, is built into the wall; in other cases the shell is erected, tent-like, upon a stone. In several localities minute specimens like that represented in Pl. XVIII. fig. 4, built upon or around a sponge-spicule, are very common. Occasionally where the species is abundant the spheres are found adhering to each other, and forming what appears at first sight a polythalamous test (Pl. XVIII. fig. 8). It is evident, however, that the connection is purely accidental, and examples do not occur with sufficient frequency to warrant the idea that there is any tendency to associate in colonies as in *Sorosphaera*.

It is somewhat remarkable that, notwithstanding the thickness of the test and its rough composite texture, these sandy spheres are quite translucent when fresh, and retain this character for a long period, when preserved in glycerine or diluted alcohol.