aspects; some have only a single arborescent limb, others have several. When there is only one, it is large, erect, and much branched, and springs from the centre of the patelloid base. The multibrachiate forms have none of the regularity shown in Dr. Wright's figure of the species. The adherent chamber is more often long and spreading than circular, and the arms, though sometimes marginal, are by no means invariably so, but appear to spring from any prominent part of the surface. At the same time there can be little doubt that these different forms, regular and irregular, whether with one branch or several, all belong to a single very variable species.

The shape of the basal chamber depends a good deal upon that of the body to which it is attached. It is almost always more or less encrusted with coarse, brown, sand-grains, but when these are removed, they leave a light, shelly-looking test. As stated by Dr. Wright, this is unaffected by acids, at any rate by strong acetic acid. The texture is so fine that under a low power it appears almost homogeneous; and it is only with a magnifying power of 500 diameters, and with the assistance of polarized light, that its composite arenaceous structure is at all clearly revealed. It is not easy to determine how the sand-grains are incorporated. The investment of the tubes, near their union with the central chamber, though much thinner than that of the chamber itself, exhibits the same structure; and in the tubular portions of the test the sand-grains are certainly embedded directly in the chitinous envelope. The chitinous coat itself is unaffected by acetic acid, and I am disposed to think that the "shell," firm and hard as it is, is formed of very fine sand, selected from the impalpable mud, and incorporated by the chitinous layer without the aid of inorganic cement.

The tubes, except just at the base, are soft and flexible; they collapse on drying and can scarcely be manipulated in fluids, even with a soft brush or needle, without disintegration; hence it is seldom that the terminal apertures (fig. 9) are left entire in preserved specimens. The investment consists of a delicate chitinous membrane, slightly beset with sand, and covered with a thin layer of grey mud. When growing in the vicinity of sponges a considerable number of spicules find their way into the muddy coat; but this rarely occurs, and they are not used as building material in the same systematic fashion as in many other arenaceous Rhizopoda.

This species, as well as the last-described, will probably be found on many parts of the coast when it is looked for; meanwhile, all we know of its distribution is that it has been found by Dr. Wright and Mr. Robertson in pools at low-water, at Old Granton Quarry and at Cumbrae.

Storthosphæra, Schulze.

Storthosphæra, Schulze [1874], Norman, Brady.

This genus is represented by a single species only.