cavity is often constricted near the middle, though not to the extent of actual segmentation. The apertures, which are terminal, are frequently rendered labyrinthic by partial closure with loose sand-grains.

Astrorhiza crassatina was obtained on the third cruise of the "Porcupine" in 1869, from dredgings in the Faröe Channel, at a depth of 640 fathoms. The figured specimens are nearly all from Dr. Carpenter's collection.

## Astrorhiza granulosa, H. B. Brady (Pl. XX. figs. 14-23).

Marsipella granulosa, Brady, 1879, Quart. Journ. Micr. Sci., vol. xix. N. S., p. 36, pl. iii. figs. 8, 9.
Astrorhiza granulosa, Id. 1881, Ibid. vol. xxi. p. 48.

Test fusiform, tapering nearly equally towards both ends; cavity tubular, of approximately uniform diameter. Walls thickest in the middle of the test, composed of fine grey sand; exterior loose and granular, interior nearly smooth. Apertures simple and terminal, either open or partially closed with sand-grains; often tinged brown. Length,  $\frac{1}{4}$ th inch (6 to 7 mm.) or more.

It is possible that Astronhiza granulosa may be only a local variety of Astronhiza crassatina; but the smaller and more regular test and the uniform width of the tubular cavity are sufficiently distinctive in the specimens which have come under my notice. The polystomous modification, Astronhiza angulosa, also differs considerably from the corresponding species of the more northern area.

Astrorhiza granulosa has only been found at a single Challenger Station, No. 78, east of the Azores, depth 1000 fathoms; at which locality it is tolerably abundant.

Astrophiza angulosa, H. B. Brady (Pl. XX. figs. 10-13).

Astrorhiza angulosa, Brady, 1881, Quart. Journ. Micr. Sci., vol. xxi. N. S., p. 48.

Test subtriangular (rarely quadrangular), depressed, biconvex; peripheral edge rounded: consisting of a small central chamber with radiating tubes, one of which passes to each corner, the open ends serving as apertures. Texture and substance of the walls similar to Astrorhiza granulosa. Diameter about  $\frac{1}{6}$ th inch (4 mm.).

Astrophiza angulosa appears to be a short three-mouthed variety of Astrophiza granulosa, with which species it is found associated. In these, as in some other modifications of the genus, the orifices are often blocked with loosely aggregated sand, and are not unfrequently stained reddish-brown.

The figured specimens are all from Station 78, east of the Azores, depth 1000 fathoms;