number of individuals with short rays, united together in a colony. It represents seven distinct disks, intercommunicating with each other, and forming a sort of network, the arms of each serving as stoloniferous tubes connecting it with the adjacent members of the group.

But the most singular specimen which has come under my notice is one which was dredged on the coast of Haddingtonshire about ten years ago, by my friend the late F. M. Balfour. The test is less thickly beset with mud than usual, and the chitinous envelope is correspondingly more apparent; the disk is of full size, about $\frac{3}{10}$th inch (7 mm.) in diameter, and the rays are small and delicate, and branched at the ends; but proceeding from one side is a tube, of the same texture and substance as the disk, nearly an inch (25 mm.) in length, and $\frac{1}{7}$th inch (3·6 mm.) in diameter. It is possible that this may be only a monstrous individual of the species under notice. It was dredged in company with the typical form, and, except its anomalous contour, and somewhat thinner coating of mud, presents no distinctive feature. In specimens showing much irregularity it is not uncommon to find one arm a good deal larger than the rest, and the present case may perhaps represent an abnormal development of this sort.

Astrorhiza limicola has been collected at the following localities:—coast of Bohuslän, Skager-Rack, Sweden (Sandahl, Lovén); coast of Norway (Norman); off Heligoland, 21 fathoms (Schulze); off Dunbar (F. M. Balfour); west coast of Scotland, 10 to 20 fathoms (Robertson, Herdman); Northumberland and Durham, 30 fathoms (Brady); Torbay, Devon (Norman); coast of Connecticut, 25 fathoms, and Maine, U. S. A. (Bessels, Verrill).

Astrorhiza arenaria, Norman (Pl. XIX. figs. 5–10).

Astrorhiza limicola, M. Sars, 1868, Vidensk.-Selsk. Forhandl., 1868, p. 248.
„ „ Carpenter, 1868, Proc. Roy. Soc., vol. xvii. p. 173.
„ „ G. O. Sars, 1871, Vidensk.-Selsk. Forhandl., 1871, p. 252.
„ sp., Carpenter, 1876, Quart. Journ. Micr. Sci., vol. xvi. N. S., p. 221, pl. xix.
„ *arenaria*, Norman, 1876, Proc. Roy. Soc., vol. xxv. p. 213.
„ „ Brady, 1879, Quart. Journ. Micr. Sci., vol. xix. N. S. p. 43;—1882, Proc. Roy. Soc. Edin., vol. xi. p. 711.

Test free, compressed; irregular and branched, or sublenticular and more or less radiate, the terminal branches and rays being alike short and thick, and the peripheral edges rounded. Walls thick; built of uniform fine sand with but little cement; loose and granular externally. Interior cavity of the branched variety taking the form of a narrow tube, of nearly even diameter except at the points of furcation; that of the stellate variety a central chamber with radiating tubular passages; internal surface smooth. Aperture at the end of each branch or ray, usually closed with loose sand.