

apertures are placed on the wide anterior end; they are moderately far apart, and are sessile and inconspicuous. The branchial aperture is six-lobed and the atrial four-lobed. The surface is entirely covered with a thick coating of sand. The colour is yellowish-brown.

The length of the body is 3 cm., the greatest breadth is 2.3 cm., and the thickness is 1.8 cm.

The Test is thin but moderately tough.

The Mantle is thin and membranous. The musculature is not strong, but it is in the typical Molgulid condition; the bodies of the muscles are wide, and the tendons are long and slender.

The Branchial Sac is large. There are five distinct folds upon each side. The internal longitudinal bars are straight and strong. There are about eight bars upon each side of a fold, and six in the interspace between two folds. The transverse vessels are placed far apart, and they are of two sizes, which occur alternately. Three delicate horizontal membranes are found between each pair of transverse vessels. The stigmata are straight, and they are very long. The ciliated cells are distinct.

The Dorsal Lamina is a membrane marked with slight transverse ribs. Its free margin is irregular, but is not distinctly toothed.

The Tentacles are large and much branched. There are eight large and a number of smaller intermediate ones.

Locality.—Station 51 (of "Porcupine" expedition in 1869); lat. 60° 6' N., long. 8° 14' W.; depth, 440 fathoms; date, August 17, 1869.

Several specimens¹ of this interesting new species of *Molgula* were obtained during the cruise of the "Porcupine" in the summer of 1869, off the north-west coast of Scotland, from a depth of 440 fathoms. It is a moderately large species, and all the specimens are of much the same size. The external appearance (Pl. XLVII. fig. 1) is not unlike that of *Molgula occulta*, Heller, but the internal structure is very different.

When the thin but sandy test is removed the mantle is seen to be very transparent. The course of the alimentary canal and the position of the long narrow reproductive organ upon each side of the body are clearly visible. The musculature is delicate, but most beautifully marked. The fusiform muscle bands are conspicuous in the transparent membranous mantle. The endostyle is narrow and straight.

The folds in the branchial sac are well-marked. They are of the very unusual number of five on each side. *Molgula chrystallina*, Møller, has the same number of folds, but is a very different species,² in which the test is not incrustated and the stigmata in the branchial sac are in the usual spiral condition. The most remarkable

¹ I am indebted to Dr. P. Herbert Carpenter, F.R.S., for having kindly sent me these specimens for examination.

² See Traustedt, Oversigt over de fra Danmark, &c., Ascidiæ Simplices, and Ascidiæ Simplices fra det Stille Ocean, Vid. Meddel. nat. Foren. Kjøbenhavn, 1880 and 1885.