

*Polycyclus lamarcki*, n. sp. (Pl. IV. figs. 1-5).

*The Colony* forms a large rounded lobed mass of considerable thickness. The surface is fairly even, and is smooth. The colour is between buff and pale orange. A lighter coloured area is found in the centre of each system around the common cloacal aperture, and here and there are similar patches between the systems. The circular systems are fairly regular, but are very closely placed. The common cloacal apertures are large and conspicuous.

The length of the colony is 6 cm., the greatest breadth is 4 cm., and the average thickness about 1.5 cm.

*The Ascidiozooids* are elongated obliquely from the ventral part of the anterior end to the dorsal part of the posterior. On an average they are about 1.5 mm. in greatest length.

*The Test* is firmer than is usual in the Botryllidæ, and is greatly thickened all over the colony; where free from Ascidiozooids it is of a pale bluish-grey tint. The terminal knobs of the vessels are not conspicuous, as they are also of a greyish colour. The test is composed of a clear homogeneous matrix, in which numerous cells of various sizes and shapes are thickly scattered. The vessels are abundant and branch freely, their terminal knobs are numerous and large.

*The Mantle* is thin. The muscle fibres are very fine and appear to run irregularly, most of them are more or less transverse in direction.

*The Branchial Sac* is large and strong. The transverse vessels are rather narrow, and are all of the same size. There are three internal longitudinal bars upon each side. The meshes are about square, and contain each three stigmata. The fine longitudinal vessels are rather narrow, and the stigmata are of moderate size and regularly arranged.

*The Dorsal Lamina* is a plain but rather wide membrane, with its edge somewhat corrugated at the anterior end.

*The Tentacles* are rather short. There are only eight, and they are all of much the same length.

*The Dorsal Tubercle* is a very small and inconspicuous aperture placed near the anterior end of the dorsal lamina.

*Locality*.—Station 54 (of the cruise of H.M.S. "Porcupine" in 1869); lat. 59° 56' N., long. 6° 27' W.; bottom temperature -0.3° C.; depth, 363 fathoms.

This species is formed for a specimen of *Polycyclus* obtained during the cruise of H.M.S. "Porcupine" in 1869, at Station 54, in the Færøe Channel, from a depth of 363 fathoms. It is attached to and has partially grown over a colony of *Sertularia operculata*. It is irregularly lobed at the free end, and the lobes are all rounded, which gives the colony very much the appearance (Pl. IV. fig. 1) of a specimen of *Alcyonium digitatum*. The thickness is so considerable that there can be no doubt as to the propriety of separating this and similar forms from the genus *Botryllus*.

The general colour is a yellowish-brown. The Ascidiozooids, as seen on the surface, are