

shaped dilatation before turning anteriorly to become the rectum. The intestine is thin walled, and it forms an open loop. The spindle-shaped dilatation and the rectum are separated by a constriction (Pl. XXVI. fig. 4, *i'*). The rectum is wide and forms the dorsal edge of the abdomen and a considerable portion of the thorax (Pl. XXVI. fig. 4, *r.*). The anal aperture is small, with a reflected margin.

The mantle over the abdomen is considerably pigmented, especially in its posterior part, around the intestinal loop. The pigment granules are opaque white. The post-abdomen is very variable in length. It is of a dull yellow colour and is quite opaque, except along the middle line, where a narrow undulating clear streak represents the lumen of the septum.

*Polyclinum fungosum*, n. sp. (Pl. XIV. figs. 15-23).

*The Colony* has a plano-convex discoid form. It is nearly circular in outline. The lower surface is almost flat, and the point of attachment is at its centre; there is no peduncle. The upper surface is irregularly convex. The colour is a dark dull grey. The surface is uneven, and is roughened all over by a layer of small sand-grains adhering to the surface. No common cloacal apertures are visible.

The length (from the place of attachment to the highest point) is 1.6 cm., the breadth 3.3 cm., and the greatest thickness 2.8 cm.

*The Ascidiozooids* are very long, and are placed at right angles to the upper surface. The largest measure about 8 mm. in antero-posterior extent and about 2 mm. in greatest breadth. The anterior end is not wide. It forms a small projection on the surface of the colony about 1 mm. in diameter.

*The Test* is soft but fairly firm. The outer layer is strengthened by imbedded and attached sand-grains and shell fragments. It is quite opaque and of a dull grey colour. In sections of the deeper layer of test the homogeneous matrix is seen to contain many small rounded cells; the usual fusiform and stellate shapes are absent or rare. No bladder cells are present.

*The Mantle* is rather thin. The transverse muscle bands are fairly strong, but are placed far apart. The branchial sphincter is well developed.

*The Branchial Sac* is very long and narrow. The transverse vessels are all similar, and are of moderate size. They have horizontal membranes attached to their inner edges. The stigmata are long and narrow, usually with rounded ends. They are very regularly placed.

*The Dorsal Lamina* is formed of a series of long pointed languets.

*The Tentacles* are very numerous and closely placed. There are about twenty very long and thin tentacles and some intermediate smaller ones.