

The branchial apertures are conspicuous over the greater part of the surface of the colony (Pl. XXXVII. fig. 1; Pl. XXXVIII. fig. 2). They are more regularly placed and more widely open on the inner walls of the cavity than on the outside. They are nearly circular in shape, and are surrounded by five short blunt lobes (Pl. XXXVIII. fig. 3), each of which is strengthened at its base by a clump of calcareous spicules, which forms a small opaque white dot visible to the eye (Pl. XXXVIII. figs. 2, 3).

The test is soft, and is to a great extent cut up by canals and spaces which are prolongations of the common cloacal cavity and serve to connect the atrial apertures of the various Ascidiozooids (shown diagrammatically in fig. 10, B, on p. 320). The clear matrix contains delicate fibres stretching in all directions. The test cells are large and granular; they are mostly rounded in form, but fusiform and branched shapes also occur. No spicules are present in the deeper parts of the test, and even in the superficial layers they are not very abundant. They are exactly like the spicules of a typical *Leptoclinum* (see Pl. XXXVII. fig. 4). The rays vary in thickness, but are generally very sharp at the points. No spherical forms were found.

In a section through the wall of the colony the large Ascidiozooids are seen projecting inwards from both surfaces, and occupying the greater part of the test (see Pl. XXXVII. fig. 3). The intestine, containing a row of fæcal pellets, is usually visible to the eye. It lies to a great extent alongside the branchial sac, and the thoracic and abdominal regions of the body are not distinctly separated.

The mantle is thin and transparent, but has a considerable number of muscle bands. They run mainly in a longitudinal direction, occasionally branching and anastomosing (Pl. XXXVII. fig. 5). The branchial sphincter is rather feeble. It is a narrow band of muscle, encircling the wide branchial aperture at the bases of the rounded lobes (see Pl. XXXVIII. fig. 3). The clumps of spicules which strengthen the lobes are usually placed on the line of the sphincter.

The branchial sac is large but delicate. The transverse vessels are narrow (Pl. XXXVII. fig. 6, *tr.*), and the stigmata are of great length but are arranged with regularity (Pl. XXXVII. figs. 6, 7). The ciliated cells are well developed (Pl. XXXVII. fig. 7).

The endostyle is not wide; its course is rather undulating. The dorsal languets are large. They taper to narrow points. The tentacles are very narrow, and the larger ones are of considerable length. They are closely placed round the base of the wide branchial siphon. The dorsal tubercle has a large ovate aperture immediately in front of the convoluted peripharyngeal band. The aperture leads into the usual infundibulum (Pl. XXXVIII. fig. 4, *inf.*), which rapidly tapers into a short narrow canal, leading to the neural gland (Pl. XXXVIII. fig. 4, *n.gl.*). This gland is an elongated curved body which lies along the ventral surface of the ellipsoidal nerve ganglion (Pl. XXXVIII. fig. 4, *ng.*).