

The test is small in amount in this species, being reduced to thin membranes and narrow bars separating and surrounding the bodies of the Ascidiozooids. The upper layer forms a membrane, which is distinctly tougher than the part below. The test cells are few in number and of small size, and throughout the greater part of the test the vessels are few and inconspicuous. On the thin expanded margins, however, they become more numerous, and are usually found filled with blood-corpuscles. The long ovate bulbs on the terminal twigs are well marked. They resemble those found in a similar position in some species of *Botryllus*.

The muscle bands in the mantle run transversely and longitudinally (Pl. XLVI. fig. 12), but they are delicate.

The branchial sac is very like that of some Styelinæ amongst Simple Ascidians. The narrow transverse vessels crossing the meshes are well marked and are normally three in number (Pl. XLVI. fig. 10, *tr'*.), but in many of the meshes one and sometimes two of them are absent. The meshes are usually square and of large size, but along certain tracts, especially on each side of the dorsal lamina, three or four of the internal longitudinal bars become more closely placed (see Pl. XLVI. fig. 10) so as to form rudimentary folds, such as are seen in the branchial sac of *Styela grossularia* and some allied forms. The larger transverse vessels are variable in calibre (Pl. XLVI. fig. 10, *tr.*). In some sacs they are much narrower than is shown in the figure. The internal longitudinal bars of the branchial sac are rather wide (Pl. XLVI. fig. 10, *i.l.*). A single row of very large meshes, containing each about twelve stigmata, lies between the dorsal lamina and the rudimentary fold. Both the endostyle and the dorsal lamina are narrow.

The stomach is pyriform and of considerable size. About eight longitudinal folds are visible upon its side. It tapers gradually into the intestine, which turns anteriorly and then dorsally and runs alongside the anterior edge of the stomach so as to form a very narrow intestinal loop. The shape and course of the alimentary canal resemble somewhat those of *Botrylloides tyreum*¹ (see Pl. II. fig. 7). The system of glandular tubules with dilated ends is well developed, and covers the greater part of the intestinal wall.

The polycarps are fairly numerous (Pl. XLVI. fig. 12); they are not imbedded in the mantle, but project freely into the peribranchial cavity in the form of ovate or pyriform bodies, with narrow bases or short stalks by which they are attached to the mantle, and long tubular projections upon which their ducts open (see Pl. XLVI. fig. 12). The male polycarps are usually smaller, and are more of an irregularly rounded form, with no visible projections, or only very short ones (Pl. XLVI. fig. 13). In the female polycarps the more mature ova occupy the upper part of the structure, while very young ova are found at the lower end, next to the stalk (Pl. XLVI. fig. 12). Female polycarps in various stages of development were noticed. They commence as one (Pl. XLVI. fig. 12, upper end) and then two or three young ova which are imbedded in the mantle,

¹ Named *Botrylloides purpureum* on plate.