

stretching from the base of the branchial tentacles more than half-way to the base of the atrial siphon (Pl. XLIII. fig. 10, *n.g.*). The peripharyngeal band is regular. It forms a slight peritubercular area on the dorsal edge.

The layer of test lining the atrial siphon is thrown into a series of corrugated ridges, about twelve in number, and leading downwards from the edge of the obscurely four-lobed aperture to the circle of atrial tentacles (Pl. XLIII. fig. 10, *at.*).

The œsophageal aperture is placed far back on the dorsal edge of the branchial sac. The œsophagus is a short curved tube which turns ventrally and leads into the narrow dorsal edge of the stomach (Pl. XLIII. fig. 6, *æ, st.*). The long axis of the stomach lies dorso-ventrally. On its anterior wall, near the intestinal end, there is a short cæcum (Pl. XLIII. fig. 8, *ves.*) which receives two ducts, one coming from each side of the intestine, where they branch into a large number of delicate tubules. The intestine on leaving the ventral edge of the stomach runs ventrally for a short distance and then turns anteriorly and dorsally in a wide curve. It runs parallel to the stomach and œsophagus till it reaches the dorsal edge of the body, and then turns sharply forwards to become the rectum (Pl. XLIII. fig. 6, *r.*), which runs for a short distance anteriorly along the dorsal edge of the branchial sac and ends in an anus with a slightly thickened border (Pl. XLIII. fig. 6, *a.*). Figure 5 represents on a smaller scale the alimentary canal of an Ascidioid where the axis of the stomach and of the middle portion of the intestine were not dorso-ventral in direction (their usual condition), but were inclined ventrally and posteriorly (compare figs. 5 and 6 on Pl. XLIII.).

The longitudinal folds on the stomach are regular and closely placed. They are from fifteen to twenty in number. A typhlosole is present in the intestine. The system of glandular tubules on the intestine is well developed (Pl. XLIII. figs. 7, 8, *h.t.*), and extends up the rectum to the anus. The tubules branch freely, and their ends form ovate dilated bulbs. They join to form a large duct on each side of the middle portion of the intestine, and these ducts open into the rounded projection on the anterior edge of the stomach (Pl. XLIII. fig. 8, *ves.*). The posterior edge of the stomach-wall is connected with the mantle externally by a large blood-vessel (Pl. XLIII. fig. 6).

The reproductive organs are imbedded in the mantle (Pl. XLIV. figs. 4, 8, 9), and form thickenings projecting into the peribranchial cavity, which may be compared with the polycarps of the genus *Polycarpa* amongst Simple Ascidians. Some of the polycarps are much more convex than others (compare figs. 8 and 9 on Pl. XLIV.).

The ova are few in number, and are generally placed near the centre of the polycarp (Pl. XLIV. fig. 8, *o*). The oviduct is a very wide slit, which usually appears curved in a crescentic manner in sections (Pl. XLIV. fig. 8, *o.d.*).

The spermatic vesicles are numerous, and are placed on all sides of the ovary (Pl. XLIV. fig. 8). They are pyriform vesicles (Pl. XLIV. fig. 10, *t.v.*) with delicate ducts, which join in twos and threes to form larger tubes which finally unite into one