

are no larger than the fine longitudinal vessels. The stigmata are a little irregular in form and by no means very large. The cells bearing the cilia (Pl. II. fig. 5, *sg. c.*) are cubical or short columnar in form and distinctly nucleated.

The endostyle, though narrow, is very conspicuous. Its edges are prominent, and at the anterior end are seen distinctly (Pl. II. fig. 6) to become continuous with the peripharyngeal band. At each side of the endostyle there is a widish area (about the size of a small mesh) of the branchial sac free from stigmata.

The dorsal lamina commences anteriorly as an extremely narrow membrane which rapidly widens (Pl. II. fig. 8, *d.l.*). In some cases it appears to have transversely directed ribs or bands, but a careful examination always shows that they are merely corrugations or folds. The peripharyngeal band connecting the anterior ends of the endostyle and dorsal lamina circumscribes an oval area (Pl. II. fig. 8), inside which lies the circle of sixteen tentacles. The four largest tentacles are placed dorsally, ventrally, and laterally. There is no well-marked peritubercular area, and the dorsal tubercle, which is very simple, appears to vary somewhat in its position, size, and shape. Figure 8 shows a case where the tubercle is circular, very small, and placed close to the dorsal lamina, leaving a wide expanse of prebranchial zone between itself and the dorsal tentacle. In the specimen represented by figure 9 the tubercle was somewhat ovate in form with a slight constriction in the middle; it was also of larger size, and was placed about one third of the way from the dorsal lamina to the dorsal tentacle. In this last figure (Pl. II. fig. 9) the specimen is represented as seen from the outer surface (*i.e.*, from the mantle), and therefore the dorsal lamina is hidden by the nerve ganglion and neural gland (*n.g.*). The duct (*gl.d.*) leading from the dorsal tubercle to the neural gland is well seen.

The alimentary and reproductive viscera lie alongside the posterior third or so of the branchial sac (Pl. II. fig. 7). The œsophagus is rather long, and is abruptly curved in the middle of its course. It runs at first posteriorly and dorsally and then ventrally, and a little posteriorly. The stomach (*st*) is the most posterior part of the canal. It is large, equally wide at both ends, and strongly ribbed longitudinally. The intestine (*i*) runs at first ventrally, then anteriorly, then dorsally, and a little ventrally towards the œsophagus. It then curves anteriorly to become the rectum (*r*), which runs anteriorly and terminates in a wide anal aperture, about half way down the body. The course of the intestine is, as a whole, transverse and parallel to the stomach, and it therefore forms a right angle with the rectum, which runs antero-posteriorly.

The genital gland (*g*) is situated in front of the intestine, not far from the ventral edge. It is an irregularly lobed (Pl. II. fig. 10) opaque mass. The other genital gland is placed on the inner face of the mantle in the corresponding position on the other side of the body.

Figure 11 shows a young Ascidiozoid, many of which are found in various stages of development lying in the test alongside the older Ascidiozooids from which they have