

between them becomes more and more crenated till finally a point is reached where the dorsal lamina exists no longer as a membrane but is replaced by a series of triangular or conical processes.

In the species under consideration the dorsal lamina is in an intermediate condition. A membranous band extends along the dorsal edge of the sac, from the peripharyngeal band to the œsophageal aperture, and from this a series of long thin pointed processes spring at nearly equal distances. Each process or languet is placed at the intersection with a transverse vessel, is about 0.1 mm. in length, is roughly triangular in outline (Pl. VII. fig. 3), and has somewhat undulating edges. A delicate membrane extends between the languets in a series of festoons, but does not reach quite to their points.

*Tentacles.*—The tentacles are placed in a circle round the base of the branchial siphon just at the entrance of the branchial sac. The branchial siphon is a short funnel formed by the mantle and having the thickened six-lobed margin already described. Its inner surface is lined by an invagination of the outer test, which is of extreme delicacy and transparency, and extends as far down as the tentacular circle. This point therefore may really be considered as the mouth of the animal, the siphon being merely a depressed portion of the surface leading to the true oral aperture.

The tentacles (Pl. VII. figs. 2, 6) are simple, long, and rather stout, being large in proportion to the size of the animal. When directed upwards they project beyond the external opening of the branchial siphon. They are about sixteen in number, and are all nearly of the same length. They are attached by their bases to a strong muscular band which encircles the base of the branchial siphon, it has the lower end of the invaginated test attached to its upper edge, and is in relation with the prebranchial zone by its lower edge.

Each tentacle is attached separately and has a swollen base, a round tapering and generally curved stem, and a rather blunt apex. Along one side a strong band of cubical ciliated epithelium is placed (Pl. VII. fig. 4). The rest of the wall of the tentacle is formed externally of squamous epithelium (Pl. VII. fig. 4). In the interior, near the concave side, a dark line is seen running from the base nearly to the extremity. This is a septum formed of connective tissue and dividing the interior into two cavities just as in the tentacles of Simple Ascidiæ.

*The Peripharyngeal Band* is composed of a row of ciliated cells and encircles the top of the branchial sac (Pl. VI. fig. 3, *p.p.*). It is connected at its ventral and dorsal ends with the anterior extremities of the endostyle and dorsal lamina. In the bay formed where it curves posteriorly to meet the latter, the dorsal tubercle is placed (Pl. VII. fig. 6).

Anterior to the peripharyngeal band is a clear space extending nearly to the base of the tentacular circle. This is the *zona prebranchialis* (Pl. VII. fig. 2). Its upper boundary is formed by a ciliated circle like the peripharyngeal band, and placed just