

rectangular network. Sphincters can scarcely be said to be present. In minute structure the mantle is precisely similar to that of the last species.

*The Branchial Sac.*—As the branchial sac is formed on the same plan as in *Culeolus murrayi* no detailed description is necessary. There are six longitudinal folds on each side, and they diminish in size from the dorsal to the ventral edge, those next the endostyle being very slight.

The transverse vessels are of three distinct sizes, and are arranged in the following manner (Pl. X. fig. 5):—Intermediate between every two of the largest (*tr.*) is a middle-sized one (*tr.'*) separated from each of the largest by three of the smallest size (*tr.''*) (see also fig. 14, p. 122) so that we have in series a large one, three small ones, a middle-sized one, three small ones, and a large one; consequently seven smaller transverse vessels are interposed between each pair of large ones.

Both transverse vessels and internal longitudinal bars are much closer than in *Culeolus murrayi*, and consequently the meshes are much smaller, usually one-eighth of the size; they are transversely elongated (Pl. X. fig. 5, and Pl. XIII. fig. 5), and their length is usually to their breadth about in the proportion of five to three.

The calcareous spicules in the vessels are much smaller and less branched than in *Culeolus murrayi*, but they are more numerous. They are especially plentiful in the internal longitudinal bars. The most common form is a simple elongated spindle, frequently bifurcated at one of the ends or having a branch from the middle so as to form a triradiate spicule.

*The Endostyle* is conspicuous, and has prominent lips as in the last species, but they are not white. Branched calcareous spicules are present in large numbers, but they do not form such dense masses along the sides, thus accounting for the want of whiteness in the lips. Along the edges, in the region occupied in *Culeolus murrayi* by the quadrate masses of spicules, are arranged a series of very large, branched, usually irregularly pinnate or fan-shaped spicules (Pl. XIII. fig. 6, *sp.*). Between these there are generally smaller and slighter spicules. From this point inwards to the centre of the endostyle, the spicules are numerous and of moderate size, generally having the branches longer and more slender than those in *Culeolus murrayi*. The central third of the organ is traversed by dark yellowish-brown longitudinal bands as in the last species; they represent prominent ridges of columnar epithelium. The very centre of the groove has a clear line down it, bounded on each side by a broad brown band (Pl. XIII. fig. 6, *c.b.a.*), outside of which, separated by slight intervals, are two narrow brown bands (*l.b.b.*).

*The Dorsal Lamina* is represented by a series of languets (Pl. X. fig. 6, *d.l.*). They are large, of an elongated triangular form, and are very closely placed.

*The Tentacles* are sixteen in number and are branched. They are of two sizes (Pl. X. fig. 6), and are placed large and small alternately. The tentacles in the two sets vary,