

the microscope reveals that this is due to the presence in the interior of a number of trabeculæ, which form a close network and cause projections on the surface from the sinking in of the matrix over the meshes (Pl. XIII. fig. 1). The trabeculæ (*t.m.c.*) are of a rich brown colour, and stand out from the surrounding material (*t.m.*), which is much paler and less opaque. Probably these trabeculæ are of the same nature as the cornified bars of test matrix separating the blood channels in the peduncle of *Culeolus murrayi*.

*The Mantle* is a very delicate membrane, and the musculature is feebly developed.

*The Branchial Sac* is very delicate and has several slight folds on each side. These are formed in the usual manner, and each has about four internal longitudinal bars (Pl. XI. fig. 9, *br.f.*). The transverse vessels are narrow and are all of one size. The internal longitudinal bars are wider, forming the strongest part of the network.

The meshes are large and are nearly square, usually a little elongated transversely (Pl. XI. fig. 9); in the row on each side of the dorsal lamina they are more elongated, the transverse extent being to the longitudinal in the proportion of six or seven to four; no secondary transverse vessels, fine longitudinal vessels, or other irregularities were observed.

Calcareous spicules are present in the internal longitudinal bars. They are not very numerous but are large and branched slightly, resembling those of the branchial sac of *Culeolus murrayi*.

*The Dorsal Lamina.*—The languets placed along the dorsal line are large and triangular, but rather broader and blunter than usual.

*The Tentacles* are branched, and are large compared to the size of the body. They are sixteen in number, and are of two sizes placed long and short alternately.

They are not much branched, and contain numerous and large calcareous spicules of the same form as those in the branchial sac. The branches are rather long and narrow.

A single specimen of this small species, slightly injured, was obtained off the east coast of North America, south from Long Island. After the publication of the part of my Preliminary Report in which this species was described as new under the name of *Culeolus suhmi*, a MS. of Dr. R. von Willemeoes Suhm was placed in my hands, in which a sketch and a brief description, under the name of *Boltenia perlata*, n. sp., evidently refer to this specimen. I have consequently substituted Suhm's specific name.

Station 44. May 2, 1873; lat. 37° 25' N., long. 71° 40' W.; depth, 1700 fathoms; bottom temperature, 1°·7 C.; grey ooze (a blue mud).

*Culeolus moseleyi*, Herdman (Pl. X. figs. 7-12 and Pl. XIII. figs. 3-4).

*Culeolus moseleyi*, Herdman, Preliminary Report, Proc. Roy. Soc. Edin., 1880-81, p. 87.

*External Appearance.*—This is a small species, but it has the body and the peduncle both rather elongated. The general outline of the body is elongated pyriform, the anterior being the narrower tapering end (Pl. X. fig. 7). The outline is pretty regular, and