

distinctly nucleated, closely resembling the epithelial lining of the blood-vessels in the peduncle of *Culeolus murrayi*. No blood-corpuscles were noticed in the interior of this tube, but there can be little doubt that it is a great sinus in connection with the blood-vessels of the mantle.

The wall of the tube has the same structure as the test over the body, and has no vessels in it. The outer surface is very smooth, and has no foreign matter adhering or imbedded as in the last species.

*The Mantle* is a very delicate membrane which does not adhere closely to the test as in *Culeolus recumbens*, but is easily separated. The musculature is feeble, and consists, as in the last species, of intersecting bands of fibres. The network formed, however, is very irregular, as the bands are not arranged in parallel series.

*The Branchial Sac* is more delicate than that of *Culeolus recumbens*. As in that species there are several longitudinal folds on each side of the sac, but they are very slight, being of the simplest form possible—merely a second internal longitudinal bar attached to each of the normal ones by a short connecting piece at each transverse vessel (Pl. XI. fig. 11, *br.f.*). These secondary internal longitudinal bars, representing the folds, project into the interior of the cavity. The transverse vessels are moderately wide, all of one size, and placed distantly. Occasionally, however, much slighter intermediate transverse vessels are present (Pl. XI. fig. 11, *tr.'*), dividing the meshes.

The meshes formed by the intersection of the large transverse vessels and the internal longitudinal bars are nearly square, the antero-posterior extent being generally slightly the greater. Each mesh is divided into two by a delicate longitudinal vessel running from each transverse vessel to the next, and placed about midway between the two internal longitudinal bars (Pl. XI. fig. 11, *l.v.*), so that, going round the sac dorso-ventrally, one comes upon two internal longitudinal bars united to form a fold, a narrow longitudinal vessel uniting the transverse vessels, and then other two internal longitudinal bars, and so on. These narrow longitudinal vessels springing from the transverse vessels are of course homologous with the fine interstigmatic vessels of most branchial sacs, so that in the present species the mesh might be correctly described as containing two stigmata.

In the portions of the branchial sac examined, no calcareous spicula were detected; but as in some of the other species the spicules were absent over considerable areas, and as they are sometimes very small and difficult to distinguish, I prefer to think that spicules, though doubtless few and minute, are probably present in this species, than to suppose that it differs from all the other species of the genus, which it otherwise so closely resembles, in this important particular.

*The Endostyle*.—This organ is narrow, and not nearly so conspicuous as in *Culeolus recumbens*. The most striking peculiarity, however, is that no calcareous spicules can be detected in any part of it.

As in all the preceding species of *Culeolus*, there is a clear edge on each side, and a