test, and terminal expansions on the outer surface are very rare. In different parts of the test, however, usually deeply situated, there are large cavities or reservoirs full of yellowish-brown blood-corpuscles, and appearing to the eye as minute brown dots scattered thickly over the test. In these species there are also found, in connection with the terminal twigs of the vessels in the superficial layer, numbers of minute thin-walled finger-like processes projecting beyond the surface of the test. They are found in the hollows and grooves on the uneven surface, probably on account of the protection afforded to them in these spots. These delicate processes doubtless represent the papillæ of *Culeolus murrayi*.

In *Culeolus perlucidus*, the pouches or cavities filled with blood-corpuscles seen on the inner surface of the test are undoubtedly prolongations from the blood-sinuses of the mantle. No further development of the vascular system in the test was seen either in this species or in *Culeolus recumbens*. In *Culeolus moseleyi* and *Culeolus perlatus*, of each of which there are only single specimens, the test could not be examined.

The peduncle probably contains blood-vessels in all the species. In *Culeolus murrayi* and *Culeolus recumbens* the vessels are numerous, and form a network traversing the peduncle. In *Culeolus perlucidus* there is a single central canal, apparently vascular. In the remaining three species the peduncle could not be examined without injuring the single specimens. In two of them, *Culeolus moseleyi* and *Culeolus perlatus*, a network of brown bars is distinctly visible from the exterior traversing the substance of the peduncle. These bars possibly indicate thickened or modified portions of the matrix separating canals in which the blood-vessels lie, as seen in *Culeolus murrayi*.

The structure of the mantle is very similar in the six species.

The Branchial Sac.—This is much the most characteristic organ in the genus, and is very similar in all the species.

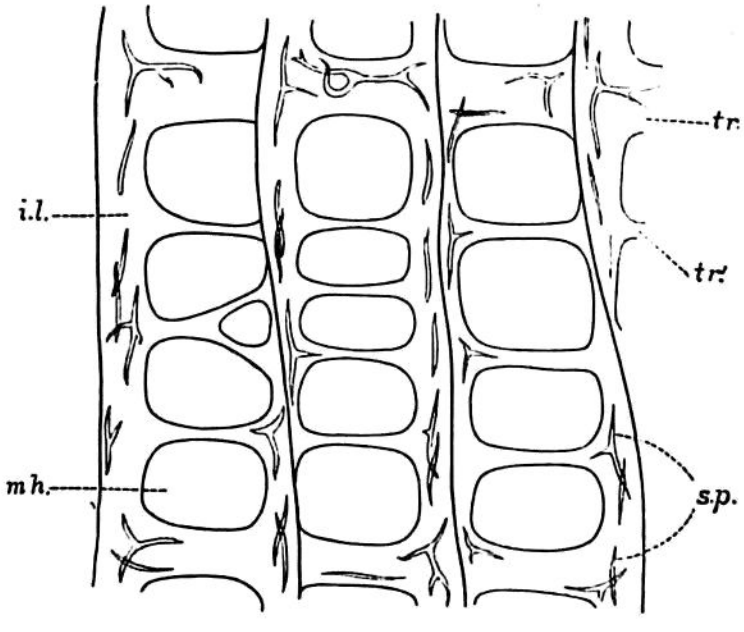

FIG. 14.—Part of the Branchial Sac of *Culeolus wyville-thomsoni*, from the inside.
tr., large transverse vessel; *tr'.*, smallest size of transverse vessel; *i. l.*, internal longitudinal bar; *mh.*, mesh; *sp.*, spicula.