

magnifying power they give a hirsute appearance to the surface of the colony. They are in the form of very slender cylindrical tubes, open at the summit, and contain a granular matter which is directly continuous with the contents of the peripheral tube from which they spring. In *Perisiphonia filicula* similar receptacles occur in connection with the axial system, one being here fixed on the peduncle of every hydrotheca, while the lateral offsets of the axial tube in this species carry each a pair of such bodies near their origin.

These little receptacles must certainly be regarded in the same light as the sarcothecæ or nematophores so characteristic of the Plumularinæ, which in some rare cases are also present in a modified form among other groups of the Hydroida.

That their contents, like those of the nematophores of the Plumularinæ, consist essentially of sarcode—whether in connection with a true cell-tissue or not—there can be very little doubt, and, judging from the analogy of the Plumularinæ, it is also nearly certain that, like the sarcothecæ of these, their contents have the power of emitting pseudopodial extensions of the enclosed sarcode.

A living specimen of a *Perisiphonia* must thus when seen under the microscope present an appearance as singular as it must be beautiful; for besides the flower-like hydranths which expand over the surface of the colony, countless fine contractile filaments of sarcode will be seen like the pseudopodia of the Foraminifera extending in all directions into the surrounding water.

*Perisiphonia filicula*, n. sp. (Pl. XXII. figs. 1-4).

*Trophosome*.—Colony attaining a height of between two and three inches, stem simple or sparingly branched, and very regularly set with pinnately disposed opposite or subopposite ramuli. Hydrothecæ flask-shaped, curving away from the axial tube, and with the neck short and stout.

*Gonosome* not known.

*Locality*.—Station 75, near the Azores; lat. 38° 38' 0" N., long. 28° 28' 30" W.; depth, 450 fathoms.

Station 163A, off Twofold Bay, Australia; depth, 150 fathoms.

*Perisiphonia filicula* is a rather strong, rigid species, and in common with *Perisiphonia pectinata*, presents in its nearly opposite ramuli a distinct and easily recognised physiognomy. The somewhat robust stem springs from a complex plexus of tubular filaments, and soon begins to send off from each side its pinnately disposed ramuli. These are considerably more slender than the stem, and are either opposite or so nearly opposite that close inspection is necessary in order to discover any deviation from an exactly opposite arrangement. This deviation, however, becomes sufficiently obvious when the pinnæ are traced to their origin from the axial tube of the stem. It is only