

of the French observers, the apical pneumatophore was surrounded by a corona of five nectophores, and the single large basal siphon by a corona of numerous palpons; two tentacles are figured, but probably these were only parts of a loop of a single one. The tentilla, however, arranged in a single long series along the tentacle, were not simple lateral branches as in our *Circalia stephanoma*, but provided with an ovate cnidosac at the distal end. It is possible, therefore, that this *Circalia haplorhiza* represents another genus of Circalidæ; it may be called provisionally *Circonalia*.

Another monogastric Physonect, which is very similar to *Circalia*, and inhabits the western part of the Gulf Stream (near the Tortugas Reefs, Florida), has recently been described by Fewkes under the name *Agalma papillosum*. Its nectophores are papillate, and the tentilla, which form a long series on the single tentacle, are tricornuate with a median terminal ampulla and two lateral horns at the distal end of the spiral cnidoband (as in *Agalma*, *Agalmopsis*, &c.). But since no gonophores were observed on this remarkable form, it is perhaps only the larva of another Physonect.

The single cormidium, which represents the mature corm of *Circalia*, is of great interest on account of its typical simplicity and its morphological relations to other Siphonanth, especially to the Discolabidæ (*Physophora*, *Stephanospira*) on one hand, and to the Rhodalidæ (*Stephalia*, *Rhodalia*) on the other hand. The entire cormidium may be compared with a Medusa, which has preserved the original simple manubrium (the central siphon), but whose umbrella has been transformed into a pneumatophore, and produced by budding (from the base of the manubrium) a corona of radial medusomes (eight in *Circalia stephanoma*), each medusome being composed of a proximal nectophore and a distal palpon (or a pair of palpons), and beyond this a gonodendron.

It is perhaps a fact of great morphological value, that the octoradial type of Medusa in *Circalia* is expressed not only in the structure of the pneumatophore (with eight radial pouches of the cavity, and eight pigment-rays at the apex), and of the single central siphon (with eight liver-ridges and eight mouth-lobes), but also in the composition of the nectosome (with eight radial nectophores) and of the siphosome (with sixteen palpons and eight gonodendra); these latter numbers, however, may be accidental.

Comparing the entire corm of *Circalia* with a single Medusa, which has produced a cormidium by budding from the base of the manubrium, we get a further support for our medusome theory (p. 3). The transformed umbrella of the original Medusa person is the apical pneumatophore; its manubrium is the prolonged central siphon. The distal and lower part of the siphon only has preserved the function of a feeding and digesting stomach, whilst the proximal and upper part represents the axial trunk of the corm, from which the buds arise. These buds may have been originally simple Medusæ, but afterwards transformed into loose medusomes; the umbrella of the secondary Medusa has been developed into a nectophore, the dislocated manubrium into a palpon,