

large. Usually its form is also bilaterally symmetrical, and often divided into three portions; an odd narrow basal part, and two paired apical wings. The pedicular canal, coming from the cavity of the trunk, divides at the top of the subumbrella into four radial canals. Usually the two sagittal canals (shorter ventral and longer dorsal) have a simply curved course in the median plane of the subumbrella, whilst the two paired lateral canals (right and left) are much longer and form several loops. The circular ring-canal, which connects the four radial canals on the ostium of the nectosac above the velum, is usually small. Many Physonectæ bear a red or brown pigment-spot (ocellus, the point where the radial canals open into the ring-canal. But usually only the two lateral canals, or the dorsal also, exhibit this ocellus, whilst the ventral canal has lost it (Pl. XVIII. fig. 9).

*Siphosome.*—The Physonectæ exhibit very great differences in the form of the siphosome and in its composition from various parts. Accordingly three principal groups (or suborders) may be distinguished in that great order, the Siphostelia, Macrostelia, and Brachystelia. The first group, Siphostelia, are the monogastric Physonectæ (Circalidæ and Athoridæ, Pl. XXI.); the axial trunk is represented by a single central siphon; from the superior or basal part of this (as from the manubrium of a budding Medusa) arise the buds of the various medusomes, which compose the single cormidium. The two other suborders are polygastric, therefore their corm is composed of numerous cormidia. The second group, Macrostelia, has a long tubular trunk of the siphosome, much longer than that of the nectosome, and the siphons of the cormidia are separated by long internodes (Apolemidæ, Agalmidæ, and Forskalidæ, Pls. VIII., XIV., XVIII.). The third group, Brachystelia, on the other hand, possesses a short vesicular trunk of the siphosome, either a flat sac or a spirally convoluted bladder, and the cormidia are densely apposed one to another, with very short internodes (Nectalidæ, Discolabidæ, and Anthophysidæ, Pls. XI., XIII., XIX., XX.).

The long tubular siphosome of the Macrostelia is very extensible and contractile, and exhibits in the most contracted state (Pl. IX. fig. 6) the same appearance which the Brachystelia offer permanently. The long internodes of the former (similar to those of the Calyconectæ) are extremely shortened in the latter. The insertion of the cormidia, however, and of the single parts composing them, is the same in both groups. All parts arise originally by budding from the ventral median line of the trunk, in the same way as the nectophores from the ventral line of the trunk of the nectosome. But when the trunk becomes spirally twisted, then the direction of the spiral turning is usually or always opposite in the two portions of the corm; the spiral of the nectosome is mostly left-handed or lambdoidal (like that of the spiral cnidobands in the tentilla); the spiral of the siphosome, however, is usually right-handed or deltoidal. The cavity of the axial trunk is continuous in both portions. The original situation of the ordinate cormidia, succeeding at equal distances in the straight median ventral line of the trunk, is