

(with elliptical or oblong shell, and a vertical crest). Huxley (in 1859) gave the first accurate definition of this group (9, p. 71):—"Physophoridæ without nectocalyces or hydrophyllia; with short, clavate, simple or branched, submarginal tentacles. A single central principal polypite. Pneumatocyst flattened, divided into chambers by numerous concentric partitions, and occupying almost the whole of the discoidal cœnosarc." The description which Huxley gave of the two genera *Veleva* and *Porpita* is very accurate, as is also that given in 1853 by Kölliker (4). Another description of both has been recently published by Alexander Agassiz (1883, 57). His opinion is that these Siphonophoræ are more nearly allied to the Tubulariæ, and on the other side to the Hydrocorallinæ (Milleporidæ, &c.). The oldest figures are those of Forskål (11).

All authors hitherto agree in the general opinion that the Disconnectæ are the most highly developed of all Siphonophoræ, and that they form the terminal group in their systematic arrangement, as being most closely allied to the Physalidæ. In my opinion this general view is quite erroneous. I am convinced, mainly by their ontogeny, that the Disconnectæ have preserved the original medusoid structure more than any other Siphonophoræ (or the Siphonanthæ). They retain the original umbrella with its corona of marginal tentacles, and the original manubrium, which is the "principal polypite," or better, "central siphon." The gonostyles, or the polypiform persons which bear the gonophores (either mouthless palpons or mouth-bearing siphons), bud from the subumbrella (or the lower face of the disc); while the polymorphous persons in all the other Siphonophoræ bud from one side of the manubrium (or the primary siphon) in its ventral line. The primary larva of all the Disconnectæ (Disconula) is a regular octoradial Medusa, with a marginal corona of eight radial tentacles, widely different from the larva of all other Siphonophoræ (the Siphonula, with bilateral umbrella and a single tentacle). I suppose, therefore, that there is no direct relation between the Disconanthæ and the Siphonanthæ, and that the two subclasses or legions have a different origin: the former arising from Anthomedusæ (Codonidæ, Euphysidæ), the latter from Trachomedusæ (Trachynemidæ, Pectyllidæ).

*Nectosome and Siphosome.*—The two main parts of the fully-developed body, which we separate as nectosome (or swimming apparatus) and siphosome (or nutritive apparatus), have in the Disconnectæ a mutual relation very different from that of the other Siphonophoræ (the Siphonanthæ). The *nectosome* is represented by the *exumbrella*, or the upper half of the discoidal body, which includes the polythalamous pneumatocyst; the *siphosome*, however, is formed by the *subumbrella*, or the lower half of the horizontal disc, and by the different organs which are attached to its margin and to its lower face. The boundary face between the two main parts is the upper face of the centradenia or the so-called "liver"; it is in close contact with the lower face of the pneumatosaccus. The constant organs, which depend from the subumbrella, are the following:—(I.) The large central siphon, in the middle of the lower face; (II.) a simple or multiple corona