

which is preserved in the bilateral larva, Siphonula; but partly the bilateral type is produced by adaptation, and mainly by accommodation to the conditions of development of the single forms. In order to get a clear conception of these difficult promorphological relations, we must distinguish, firstly, the fundamental forms of the entire cormus and of the single persons or medusomes composing it; and secondly, the different promorphological development in the two independent legions of the class, the Disconanthæ and the Siphonanthæ.

The promorph of the single medusome has the quadriradial medusoid type usually clearly expressed, when the umbrella is well preserved, as in the gonophores and nectophores (always with four radial canals and a connecting marginal ring-canal). But also in other parts of the medusomes the radial promorph may be recognised, as in those siphons which possess four, eight, or sixteen hepatic stripes, mouth lobes, &c.

*Promorph of the Corms in the Disconanthæ.*—The ideal geometrical fundamental form exhibits in the colonies of Disconanthæ two different types; one of these, represented by the Discalidæ and Porpitiidæ, is the primary and original type; the other, exhibited by the Velellidæ, is a secondary modification. All corms of Discalidæ (Pls. XLIX., L.) and of Porpitiidæ (Pls. XLV.–XLVIII.) preserve a completely regular octoradial structure; their ideal promorph is a regular octagonal pyramid. The vertical main axis of this pyramid, around which the eight equal parameres are regularly arranged, bears at its superior or apical pole the apical stigma of the central chamber of the pneumatocyst, at its inferior or basal pole the mouth of the central siphon. The eight equal sides of the pyramid are represented by the eight triangular radial chambers of the pneumatocyst, whilst the eight perradial grooves between these, and the eight canals running in the grooves, further the eight primary tentacles at the distal end of the canals, mark the eight edges of the pyramid. The horizontal lines which connect these edges with the vertical main axis are opposed in four pairs, and represent the four primary or perradial cross-axes of the octagonal pyramid; whilst the four secondary transverse axes alternating with these, and bisecting the eight triangular radial girdle-chambers of the pneumatocyst, are interradian. The perfectly regular octoradial promorph, which is so clearly marked by the structure of the central pneumatocyst, is likewise expressed by the entire structure of the canal-system, the eight primary perradial canals of the exumbrella, the centradenia, the subumbrella, &c., by the regular octoradial corona of the eight primary tentacles and gonostyles, the eight gastral ostia in the fundus of the central siphon, the eight lappets of its mouth, &c. The young larva of all Discalidæ and Porpitiidæ (Disconula, Pl. L. figs. 9, 10), and the simplest permanent genus of this legion (*Discalia*, Pl. XLIX.), exhibit the octoradial type in the same complete regularity as any octoradial Medusa (e.g., *Trachynema*, *Pectyllis*).

The Velellidæ (Pls. XLIII., XLIV.) differ from the regularly octoradial Porpitiidæ and Discalidæ in the amphitheat modification of the promorph, which is usually called