

two or three gonophores are developed simultaneously in a single cormidium, and in some genera (*Lilyopsis*, *Desmophyes*) a bunch of numerous clustered gonophores; then usually their umbrella is more or less rudimentary, whilst still a "special nectophore" is developed as a swimming organ.

Each single gonophore is always gonochoristic, either male or female. Those cormidia, which bear two or more gonophores, are usually also gonochoristic (diclinic); but in some cases they are hermaphrodite, one of the gonophores being female, the other male (monoclinic cormidia). The corms of the polygastric Calyconectæ are usually monœcious and bear cormidia of both sexes, sometimes regularly alternating (as in *Cymbonectes*, Pl. XXVII., and *Desmophyes*, Pl. XXX.). At other times the distal (older) cormidia are males, and the proximal (younger) cormidia females. A few genera of polygastric Calyconectæ are dicecious, each cormus bearing only gonophores of one sex, either male or female (*Mitrophyes*, *Galeolaria*). But the question of the relation of these different forms of sexual differentiation requires a further examination.

*Umbrella of the Gonophores.*—The calyx or umbrella of the sexual persons has in all Calyconectæ the same structure as in a common simple quadriradial Hydromedusa. Its form is very rarely quite regular, hemispherical (as in *Diplophysa* and some Polyphyidæ); usually it is more or less bilaterally symmetrical, in adaptation to its place inside the bracteal cavity, at the ventral side of the siphon; sometimes it is strongly asymmetrical, as in *Amphiroa* (Pl. XXXVI. figs. 12–25); here two gonophores are developed simultaneously on each side of the siphon (right and left); each corresponding to an antimere, so that the two together form a symmetrical pair.

*The Exumbrella of the Gonophores* corresponds in its general form to a certain degree with that of the nectophores. It is therefore evenly convex and smooth, without prominent edges, in most Sphæronectariæ (Sphæronectidæ, Prayidæ, Hippopodidæ). On the other side, it is quadrangular, pyramidal, or prismatic, in most Cymbonectariæ (Cymbonectidæ, Diphyopsidæ, Abylidæ). Usually in the latter the four edges of the exumbrella are sharp and prominent, often elegantly denticulate, and wing-like dilated in the distal part; their distal ends are often prominent as four strong triangular teeth over the basal ostium of the umbrella. Often two paired dorsal edges and their terminal teeth are much more developed than the opposite two ventral edges. More rarely a single wing is stronger than the three others, or even five wings may be developed instead of four (compare *Amphiroa*, Pl. XXXVI.). The uppermost part of the exumbrella is usually prolonged into an apical horn, or a hook-shaped apophysis, which serves for its insertion into the bracteal cavity.

*The Subumbrella of the Gonophores* has always a well-developed layer of ring-muscles (*w*), and, on its distal prolongation, a circular velum (*v*) which closes the peripheral part of the opening of the subumbrellar cavity. Four radial canals (*cr*) always run in the subumbrella from its apex, diverging to its basal ostium, where they are united, above