permanent in two remarkable genera of the Agalmidæ, *Crystallodes* (Pl. XVII.) and *Stephanomia* (*Amphitrites*, Péron). The horizontally swimming trunk is here so densely covered with thick prismatic bracts, that it becomes rigid and almost every contraction is excluded, no spiral turning possible.

Cormidia.—The arrangement of the polymorphous medusomes in the Physonectæ, their composition and metameric succession along the stem, offer numerous important modifications, hitherto much neglected. The general opinion has been up to this time, that in most Physonectæ the polymorphous persons and their organs are intermingled without definite order, and that only in a few cases, as in *Apolemia* and *Physophora*, they may be disposed according to certain laws, as in the Calyconectæ (8, p. 311, &c.). But in reality the reverse is the case. The great majority of Physonectæ possess ordinate cormidia, and in the minority only irregular cormidia with more or less scattered parts occur. The cormidia are ordinate and separated by free internodes of equal length in the Apolemidæ, and Stephanomidæ (the first subfamily of Agalmidæ); they are also ordinate, but separated by narrow internodes or constrictions of the trunk, in the Nectalidæ, Discolabidæ, and Anthophysidæ. On the other, hand the cormidia are irregularly placed, and the polymorphous parts scattered along the stem, in the Forskalidæ (except *Strobalia*) and the Halistemmidæ (the second subfamily of Agalmidæ).

The cormidia of nearly all Physonectæ are monogastric, with a single siphon and a single tentacle attached to each node of the trunk. A single exception is formed by *Apolemia* and the closely allied *Apolemopsis;* these possess two to four or more siphons in each ordinate cormidium, and the same number of tentacles.

Bracts.—Nearly all Physonectæ possess a great number of hydrophyllia, bracts or covering scales; they are wanting in two families only, the Circalidæ and the Discolabidæ; in the latter they are probably lost by phylogenetic reduction. Usually the bracts cover the entire stem in hundreds or thousands, and arise not only from the nodes of the siphosome, but also from the internodes between them; or even from the pedicles of the siphons (Forskalidæ); but sometimes they arise only from the nodes. Their general function is that of protective organs, or shields, which cover the other parts of the corm; in two families, however, the Athoridæ and Anthophysidæ, where nectophores are wanting, the bracts take on besides a locomotor function and become paddling organs (Pl. XXI. fig. 5; Pl. XI. fig. 1). Sometimes the distal end of the bract in this case encloses a small rudimentary subumbrella, and is thus proved to be developed from a reduced nectophore (Pl. XXI. fig. 6). At other times it is possible that each bract may not be homologous with a complete umbrella, but a separate portion of a cleft (*e.g.*, quadripartite) umbrella. Their jelly-substance is always colourless, hyaline, and transparent, usually rather firm, often cartilaginous. Their form is extremely variable. The bracts in the majority of Physonectæ are rather thin scales, lanceolate or triangular plates, more or less foliaceous or squamiform, with a convex upper (or dorsal) and a