The family Discolabidæ comprises those polygastric Physonectæ, the nectosome of which is well developed, with a long trunk and two or more series of nectophores, whilst the trunk of the siphosome, without bracts, is shortened and subhorizontally expanded in the form of a wide spiral bladder, the ventral periphery of which bears a series of ordinate cormidia, protected by a corona of large palpons.

The well-known type of this family is the Mediterranean *Physophora hydrostatica*, figured and described in 1775 by Petrus Forskål. Its accurate anatomical description was given in the years 1853 to 1860 by Kölliker (**4**), Vogt (**6**), Gegenbaur (**10**), and Claus (**34**). Huxley (**9**) established for this genus the family Physophoriadæ and gave to it the following definition :—" Physophoridæ with nectocalyces, but without hydrophyllia. The distal end of the filiform cœnosarc dilated. Tentacular branches with involucrate sacculi. Pneumatocyst small." The name Physophoridæ for this family has also been retained by later authors ; but unfortunately it is employed with no less than four different meanings, and therefore has lost all value (compare above, p. 186). It may be, therefore, best to call this family Discolabidæ, from another genus belonging to it, *Discolabe* (Eschscholtz, **1**, p. 155). A third genus is *Stephanospira* of Gegenbaur (**10**, p. 67).

Nectosome.—The swimming apparatus of the Discolabidæ is composed of numerous large nectophores, arranged in various ways around the vertical tubular trunk, and of an apical pneumatophore at the top of the common trunk. Usually (in the typical *Physophora*) the nectosome is biserial (*disticha*), as in the Agalmidæ, composed of two opposite longitudinal rows of nectophores (usually four to six pairs). *Discolabe* differs in having a quadriserial nectosome (*tetrasticha*), similar to *Sphyrophysa ;* it is composed of four cruciate longitudinal series of nectophores (or of four to six quadriradiate coronas). *Stephanospira*, finally, has a conical or multiserial nectosome (*polysticha*), similar to that of the Forskalidæ ; the nectophores are here very numerous and arranged in a long continuous spiral, with four to six or more turns. The trunk of the nectosome, after the detachment of the nectophores, is a cylindrical, or in the contracted state, spindle-shaped bladder, which bears on its ventral side a lamellar longitudinal fold, like a mesentery, and at the free edge of this a series of spirally convoluted folds, the insertions of the detached nectophores. The tapering proximal end of the vertical spindle-bladder is separated by a constriction from the pneumatophore, and the broader distal end by a similar constriction from the inflated trunk of the siphosome (Pl. XX. figs. 9–12).

Pneumatophore (figs. 1, *p*, 9–13, *p*).—The float filled with air has in the Discolabidæ the same structure as in the Agalmidæ. It is ovate or subcylindrical, with a red pigment-spot at the apex, and with a variable number (usually eight) of longitudinal ribs in the outer wall. These arise in the lower half as eight (more rarely seven or nine) vertical radial septa, which connect the inner with the outer wall and divide the