

separated from it by the cathammal plate of the septum (*ks*), they belong genetically to the subumbral wall. Each reproductive leaf is really a thin fold of this subumbral wall, inasmuch as the gelatinous supporting lamella of the latter forms a leaf-shaped process ("sterigma," fig. 10, *zs*), which is covered on both sides by the subumbral endodermal epithelium. The reproductive elements, which fall freely when ripe into the pouch, are developed from the subumbral endodermal epithelium on both sides of the sterigma. They originate from the subepithelial endoderm cells, which cover both surfaces of the fulcral process. The latter corresponds to the sterigma or fulcral frame in the genitalia of the *Peromedusæ* (p. 83), and formed in both female specimens before me a broad, fibrous, axial plate (fig. 10, *zs*), thickly covered with later and earlier egg cells (*so*). The reproductive leaves are covered on both free surfaces by the connected cylindrical epithelium of the endoderm (fig. 10, *pd*). The ripe reproductive elements pass from the radial pouches into the stomachs through the gastral openings, and are expelled through the mouth.

Order VIII. DISCOMEDUSÆ, Hæckel, 1866.

Acraspeda with eight to sixteen or more sense clubs (always four perradial and four interradial, besides these occasionally several accessory clubs); in each sense club an auditory club with an endodermal otolite sac and often an eye at the same time. Marginal lobes always eight pair of primary (*Ephyra* lobes) and frequently numerous accessory (velar lobes) besides. Tentacles sometimes present, sometimes wanting. Stomach surrounded by a corona of radial processes (8 to 16 to 32 or more; sometimes broad radial pouches, sometimes narrow radial canals. Genitalia four interradial folded swellings in the subumbral gastral wall, developed from its endoderm (rarely divided into eight adradial swellings); sometimes invaginated in the form of a pouch towards the inside in the central gastral cavity, sometimes evaginated hernia-like towards the outside in the umbrella cavity. Umbrella depressed and discoid. The general fundamental form of all *Discomedusæ* is the octomeral *Ephyra*.

FIRST SUB-ORDER OF THE DISCOMEDUSÆ, CANNOSTOMÆ, Hæckel, 1879.

Discomedusæ with undivided proboscis or oral tube, a simple, quadrangularly prismatic œsophagus, without oral arms; with simple or quadrangular central oral opening, and with short, solid marginal tentacles.

Family, EPHYRIDÆ, Hæckel, 1877.

EPHYRIDÆ, Hæckel, *System der Medusen*, 1879, taf. xvii, xviii, p. 450.

Cannostomæ with broad radial pouches, without terminal branched canals. *Discome-*