

rhopalar, marginal selvage, are likewise without dendritic side branches. Anastomosed formation between adjacent branch canals never takes place, and there is no trace of a coronal canal (fig. 1, quadrant to the right above).

The genitalia or reproductive glands (Pl. XXXI. figs. 9–11) comport themselves the same as in *Cyanea* and *Desmonema*. They form four long band-shaped frills, which are fastened to the endodermal inner wall of four powerful, many-folded, gastrogenital pouches. The latter are four interradial cæcal sacs of the central stomach, which project as evaginations of the bottom of the stomach between the four perradial oral pillars and hang down as wide, thin-walled sacs, which are nearly half as long as the radius of the umbrella (figs. 1, 8, 9, *gg*). They alternate with the four perradial arm curtains, which are twice the length, and like them, consist of an extremely delicate, thin-walled, transparent membrane. This gastrogenital membrane lies, like the arm curtains, in numerous longitudinal folds, as the peripheric cæcum of the gastrogenital pouches is of far larger extent than its narrow base of insertion. The long, narrow, genital band (fig. 10, *s*) lies at the bottom of the cæcum, fastened to its endodermal inner surface. The genital band is laid together in numerous windings, and folded thickly like a frill. The numerous, short, gastral filaments are spread not far from its proximal margin on the inner surface of the gastrogenital pouch (fig. 11, *f*). Stronger magnifying power shows us that each fold of the frill is composed of a very large number of small follicles (fig. 11, *sb*). The hollow spaces of these follicles, or the genital sinus, open into the gastrogenital pouch. The ripe sexual products fall first into the pouch, from which they pass into the stomach, and are finally emptied out through the mouth. They probably reach the exterior as in *Cyanea*, through the arm furrows in the folds of arm curtains, which shelter the fructified ova for some time, like a protective breeding pouch.

#### THIRD SUB-ORDER OF THE DISCOMEDUSÆ, RHIZOSTOMÆ, Cuvier, 1799.

Root-mouthed Discomedusæ. Discomedusæ with eight large, adradial, root-shaped, simple or branched oral arms, with numerous mouths of the funnel frills, without central oral opening and without tentacles.

#### Family, CRAMBESSIDÆ, Hæckel, 1869.

CRAMBESSIDÆ, Hæckel, System der Medusen, 1879, p. 614, taf. xxxviii., xxxix.

Rhizostomæ with a single, central, sub-genital porticus, and with both dorsal and ventral funnel frills of the eight oral arms. Discomedusæ without tentacles and without central oral opening; in place of it numerous small funnel openings form funnel frills both on ventral (axial) and on the dorsal (abaxial) sides of the eight oral arms. Eight sense clubs (four perradial and four interradial); eight to sixteen or more narrow radial canals, which are branched and by anastomosis form a vascular network in the sub-