

The parenchymalia lying between the beams of the dictyonal framework consist of small, simple, and regular oxyhexacts, with delicate, straight, and rough rays, which run out with a slightly conical terminal pointing, and of discohexasters which are much smaller than the oxyhexacts, but vary considerably in size and form. Some of them bear on the short simple principals, three to five, rarely more, S-shaped, whorled, somewhat markedly divergent, moderately thin, terminal rays with convex marginally toothed transverse discs (Pl. CII. fig. 5). In other, usually somewhat larger discohexasters of a similar type, the short simple principal rays bear six to ten long terminals, which are similarly S-shaped and disposed in perianth-like fashion, only more closely packed together and with less broad terminal discs (Pl. CII. fig. 4) than in the preceding form. Both forms are connected, however, by numerous intermediate types.

The dermalia are oxypentacts in which the straight or slightly incurved tangential rays are about 0.2 mm. in length, while the straight radial proximal is twice or three times as long. All the five rays are cylindrical, and are smooth except on the conically pointed terminal portion. A distal tubercle sometimes appears as the rudiment of the undeveloped sixth ray. The gastralia have quite the same form and an approximately equal size. They are largest on the gastral surface of the body, and become smaller and more weakly developed the nearer they are to the blind ends of the efferent canal system.

#### Tribe II. AMPHIDISCOPHORA, F. E. Schulze (Pls. XXVII.-LII.).

The bounding surface-membranes always contain amphidiscs. Hexasters are wholly absent from the parenchyma. There is always a tuft of basal fibres, by means of which the cup- or club-shaped sponge body is rooted in the mud. The ciliated chambers are not exactly thimble-shaped or sharply defined from one another, but appear rather as somewhat irregular diverticula of the membrana reticularis.

#### Family HYALONEMATIDÆ, Gray (Pls. XXVII.-LII.).

Both dermal and gastral membranes bear numerous pentact pinuli.

#### Subfamily 1. HYALONEMATINÆ, F. E. Schulze (Pls. XXVII.-L.).

The usually cup-shaped body exhibits a more or less sharp-contoured, circular oscular region, and is only exceptionally split in an ear-shaped fashion.