

with the thickness of the wall, and thus differs very greatly in the different regions of the body. The subdermal trabecular framework, extending between the dermal membrane and the chamber layer, exhibits only here and there irregular gaps, while the similar subgastral framework following the concave curvature of the chamber layer exhibits wide lacunæ, which extend into the gastral membrane. A thin layer of the trabecular framework also extends on the inner surface of each concave diverticulum (Pl. LX. fig. 3).

The connected lattice framework of the skeleton consists of medium-sized hexacts, which are united in an irregular fashion either by fusion or by synapticula (Pl. LX. fig. 3).

As can be readily seen in the older portions of the framework, with the help of the much enlarged axial canals, the six rays stand, as a rule, at right angles to one another, but frequently bend from their original direction, and become, as they approach the rays of other hexacts, united with the latter by lateral mooring or by synapticula.

From the complete absence of a regular orientation and mode of connection, it seems to me preferable to refer *Aulocalyx* not to the Dictyonina but to the Lyssacina. In the closer regions of the skeletal framework, between the medium-sized hexacts, numerous small forms occur with short, thick rays, rounded off at the ends, and with a much expanded central portion. These are irregularly scattered, and are united with the former, so that a very close, spongy skeletal meshwork often results.

As to the isolated spicules which occur between the beams of the skeletal framework, either scattered quite irregularly in the parenchyma, or limited to certain regions of the same, I ought first to mention the fine, small, regular oxyhexacts, which occur irregularly, but in considerable abundance, through the whole parenchyma (Pl. LX. fig. 3). They always exhibit a slight roughening of all their rays. Besides these, numerous irregularly distributed, small, regular discohexasters occur, in which, from each of the moderately large, simple, smooth main rays, a tuft of S-shaped thin terminals project in perianth-like arrangement. Each of the terminal rays exhibits a somewhat thickened end, bearing a convex terminal disc with marginal teeth (Pl. LX. figs. 4, 6).

The length of the main rays and the number of terminals on each are the same in one and the same discohexaster, but vary in the different rosettes, of which two very different specimens are figured in Pl. LX. figs. 4, 6.

Another quite unique and characteristic form of rosette occurs, only however in the subdermal trabecular space, but there in comparative abundance. It is distinguished by its conspicuous size and by its peculiar structure, as represented in Pl. LX. figs. 3, 5.

These perfectly regular rosettes have a diameter of 0.4 mm. From each of the relatively short, smooth main rays, six terminals arise, arranged in a whorl, and disposed at equal angles in a funnel-like manner. These long terminals are either straight or somewhat convexly curved at their narrow base, and gradually increase in thickness in club-like fashion toward the simply convex, or more rarely somewhat knobbed external end. They