

gentle elevations and depressions, which may be, however, the results of desiccation. The inner surface of the wall of the cup exhibits here and there inconspicuous, ridge-like elevations with a thin edge.

The extremely delicate dermal membrane, which forms a fine lattice-work is preserved only in a few sheltered portions. The parenchymal skeleton is represented by a feltwork of spicules, which are disposed in strands 2 to 4 mm. broad, and enclosing roundish spaces of various sizes. The gastral skin, which also forms an extremely delicate and fine network, exhibits a feltwork of spicular strands with meshes somewhat narrower than those in the dermal skeleton.

The subsequent influence of damp has caused this specimen to fall in, so that the two halves of the wall of the cup have been united. I was therefore unable to discover anything definite as to the nature of the inner surface or of the oscular margin. Dr. Döderlein told me, however, that this specimen, even when still well preserved, "exhibited a marked lateral compression. The inner wall or cup exhibited ridged elevations. The free upper margin had no marked plaiting, and ended in a slender smooth edge without a fringe of spicules. At the base of the cup the larger apertures of the efferent canals were apparent."

A second smaller specimen of this species, measuring 13 cm. in height and 8 in breadth, agrees closely with the above. It also exhibits a laterally compressed cup-like or saccular shape, with a thin oscular margin, but is attached to the firm substratum at several places, over a comparatively broad expansion. Two roundish apertures, 4 mm. in diameter, occur near the lower end.

The principal portion of the parenchymal skeleton consists of long slender diacts, occurring either isolated or disposed in strands. They exhibit a central nodal thickening, and the rough ends are sometimes conically pointed, sometimes simply rounded, and occasionally thickened in a club-shaped fashion. Between these there is a scattered occurrence of the familiar oxyhexasters, in which the principal rays are very short, and frequently almost aborted, while long terminal rays, present in variable number, are somewhat curved at their base, but otherwise quite straight on to the pointed outer end. Oxyhexacts occasionally occur in which the rays are twisted at a point corresponding to that at which the terminal rays arise from the principals in the oxyhexasters. They are doubtless degenerate oxyhexasters, which are again almost reduced to simple oxyhexacts, retaining only a trace of their metamorphosis in the twisting at the base.

In certain regions, especially in the subdermal trabecular spaces, there is an abundant occurrence of large rosettes with terminal rays bearing terminal discs. These spicules but rarely exhibit the typical number of principal rays, but as a rule eight are present. When only six principals are present, as in the form represented in Pl. LXIV. fig. 7, they intersect as usual at right angles in a somewhat thickened node, and are rather thick and cylindrical. At the slightly expanded outer end they divide into three to six straight or somewhat S-shaped terminals, which diverge slightly in a tuft, and attain a