

contact of the first pinnules of adjoining arms, and about the same distance measured transversely at the point of origin* of these pinnules. The larger of my specimens measures 30 mm. and 15 mm. in these two directions respectively. It is therefore apparent that the mature cup is more elongate than the undeveloped form.

In these specimens, the arrangement of the plates, the character of the posterior interray, the peculiar manner of origin of the first and second pinnulae and the biserial arms with their three-jointed plumes conform exactly to the description given by the authors cited. A further account of the anatomy of the form is therefore quite unnecessary.

With regard to the ornamentation, Billings states that "A strong, rounded carina, or ridge, runs up each of the primary rays, and, dividing into two on the centre of the third plate, sends a branch up each of the secondary rays to the base of the fingers; the carinae are also divided on each of the basal plates, and coalesce into one on the centres of the first primary radial plates; in the azygos interradius a sixth rib ascends to the top of the cup, dividing the space into two parts about equal; it bifurcates below on the centre of the large azygos, one branch proceeding to the centre of the two contiguous first primary radial plates." Billings further states that, with the exception of these carinae, the plates are smooth. The description given of the ornamentation by Wachsmuth and Springer is as follows: "A small species. Dorsal cup obconical with slightly convex sides; section across the costals sharply pentagonal, owing to the conspicuous radial ridges, which pass from the arms down to the centre of the radials, where they divide and are continued to the basals. The ridges, which are rounded, grow narrower towards the middle of the plates, widening at their margins. Surface, except along the ridges, covered with numerous small pustules without definite arrangement."

All the above features are exhibited by the present specimens, but in addition, each plate of the cup, with the exception of a few of the higher brachials and interbrachials, is provided with prominent ridges radiating from the centre to the sides of the plate, where each is continuous with the corresponding ridge of the adjoining plate. In the case of the basals, the radials, the first brachials and the first interbrachials, these ridges coalesce at the centres of the plates, are remarkably lineal in character and are continuous across the sutures: higher up they become more and more petaloid in character. On the outer sides of the main carinae, where they pass from the radials to the basals after bifurcation, lie secondary parallel ridges, which do not, however, reach the centres of the plates. Somewhat irregularly, similar