

Young Phase.—There is a young example ($R = 16.5$ mm.; $r = 7.5$ mm.) which presents so characteristically the structural features of the adult that it may be readily distinguished from a young specimen of the same size of *Cycethra nitida*. The abactinal paxillæ at this age are distinctly spiniform and without the appearance of being imbedded, which is such a striking feature in the adult.

Locality.—Station 315. Port William, Falkland Islands. January 26, 1876. Lat. $51^{\circ} 40' 0''$ S., long. $57^{\circ} 50' 0''$ W. Depth 12 fathoms. Sand, Gravel. Surface temperature $50^{\circ} 0$ Fabr.

Remarks.—This species presents many points of alliance to *Cycethra simplex*, Bell, but may be distinguished by the generally flatter form, by the greater breadth of the rays at the base, by the more obliquely placed pair of spinelets on the furrow margin of the adambulacral plates, and by the presence of the oblique series of three spines on the actinal surface of the plates, whereas in *Cycethra simplex* there are only two.

2. *Cycethra nitida*, n. sp. (Pl. LXI. figs. 3 and 4; Pl. LXII. figs. 10 and 11).

Rays five. $R = 53$ mm.; $r = 16$ mm. $R = 3.3 r$. Breadth of a ray between the fifth and sixth infero-marginal plates, 12 mm.; midway along the ray, about 7.5 mm.

Rays rather elongate and narrow, distinctly subcylindrical abactinally, and flat actinally. Disk slightly convex and capable of inflation. Lateral wall low and merged in the convexity of the rays and disk. Interbrachial arcs well rounded. Actinal area plane.

The abactinal area is covered with small plates which bear compact groups of numerous spines, large and smaller groups interspersed and all closely crowded. The spinelets are short, robust, cylindrical, obtusely-rounded and subequal, and in the larger groups there may be as many as eighteen to twenty. The groups have a more or less rounded form. No order of arrangement is discernible. Papulæ are present in the interspaces.

The marginal plates are small and confined to the margin, where, however, they do not form a definite wall in consequence of the tumid convexity of the abactinal surface of the rays and disk. The superior and inferior series alternate. The plates, which are subequal and similar in character, bear a group of small, equal spinelets which are so short that they are little more than elongate granules. The plates, which are convex and subtubercular, are suboval in form, and their posture is somewhat oblique. In the interbrachial arcs, in consequence of the tumidity of the margin, the infero-marginal series is carried quite on the actinal surface, and the supero-marginal series forms the actual margin of the disk. There are about forty supero-marginal plates between the median interradiial line and the extremity.

The adambulacral plates are small, and their armature consists of a pair of short, robust, flattened, obtusely-tipped, equal spinelets on the furrow margin, which radiate slightly apart, and are directed over the furrow. On the actinal surface of the plate are