5. *Dytaster æquivocus*, n. sp. (Pl. XXXVI. figs. 5 and 6 ; Pl. XXXIX. figs. 10-12).

Rays five. R = 18 mm. ; r = 4·75 mm. R < 4 r. Breadth of a ray between the first and second supero-marginal plates, 4·25 mm.

Rays moderately long and robust, tapering gradually from the extreme base to the extremity. Disk small. Interbrachial arcs rather angularly rounded. Abactinal surface subplane, subject to slight inflation, with a central conical peak. Actinal surface plane. Lateral walls rather high, rounded towards the abactinal and actinal surfaces.

The paxillæ of the abactinal surface are small and well-spaced, borne on comparatively large basement plates, with a large, low, robust, tuberculose central eminence upon which the crown is attached. The crown is composed of five to eight short, equal, papilliform granules (occasionally with a tendency to the spiniform character), which are disposed in a compact group, or radiate only very slightly apart. At the sides, near the base of the ray, the paxillæ show a tendency to be disposed in transverse series, more distinctly seen in some specimens than in others. The paxillæ are smaller on the flanks of the central cone and on the outer part of the rays.

The supero-marginal plates, sixteen in number from the median interradial line to the extremity, are large, and form a well-defined border to the disk and rays. When viewed from above their breadth is slightly greater than their length—this being an apparent rather than a real dimension, caused by the arching or curvature of the plate toward the abactinal surface. The median region of the plates is slightly tumid, but there is no definite channel between adjoining plates as in *Astropecten*. The supero-marginal plates bear a small, low, robust, papilliform tubercle near the upper margin, the largest being in the median region of the ray. This tubercle is greatly aborted or absent altogether on the innermost plate on each side of the median interradial line, and perhaps also at the extremity of the ray. The surface of the plate is covered with small uniform papilliform granules, rather widely spaced, except at the vertical margins of the plates.

The infero-marginal plates correspond exactly to the superior series, which are directly superposed. Their surface is covered with low papilliform granules, widely spaced on the median area on the actinal region of the plate. The plates bear on the rounded angle that unites the lateral and actinal areas of the test, or sometimes further upon the former, a small, pointed, and more or less adpressed, spinelet, directed upward and outward, and scarcely noticeable without a magniying glass. Up to the middle of the ray this spinelet may be accompanied by one or two much smaller microscopic spinelets, usually placed above it, and with a tendency to form a small compact vertical series or comb, adpressed to the ray, on the upper part of the plate near the aboral margin.

The adambulacral plates are elongate, but also rather broad on the inner half of the ray, and the margin towards the furrow is convex. Their armature consists of :—(1.) A furrow series of five or six small but rather long, cylindrical, obtusely tipped, delicate spinelets, which radiate slightly apart and form a fan over the furrow. (2.) The actinal