

disk and rays. When viewed from above, their breadth on the abactinal surface is subequal to their length, slightly greater in the interbrachial arc, and slightly less at the extremity of the ray. Viewed laterally, the height is rather greater than the length in the interbrachial arc, but gradually diminishes until on the outer part of the ray it is rather less than the length. The width of the paxillar area midway along the ray is a shade more than twice the breadth of the marginal plates. The outer surface of the supero-marginal plates is a well-rounded uniform curve without any tumidity, and the series of the plates consequently forms a flush surface. The supero-marginal plates bear no spines, but their surface is covered with rather large uniform hemispherical granules, which are crowded but not touching. These become much smaller and subpapilliform at the extreme adoral and aboral margins. The suture-lines between the plates are thus well defined.

The infero-marginal plates correspond exactly to the superior series, and their length is the same. The height is rather less than the length throughout the ray, excepting on a few plates in the interbrachial arc. Their breadth on the actinal surface is greater than the length in the interbrachial arc, midway along the ray subequal, and at the extremity rather less than the length. The rounding of the plates is rather sharper and more acute than that of the superior series. Each plate bears a short, robust, conical spinelet, the longest about 1.5 mm. in length, placed on the rounding, directed horizontally, and pointed at a slight angle towards the extremity. Along the greater portion of the length this spinelet is placed close to the aboral suture of its plate. The surface of the plate is covered with hemispherical granules similar to those on the supero-marginal plates, closely placed but not touching, with a much smaller and more crowded series along the lines of suture between succeeding plates.

The adambulacral plates are longer than broad, with the furrow margin slightly convex. Their armature consists of:—(1.) A furrow series of nine short, cylindrical, obtusely tipped spinelets, with a tendency to become prismatic, the outermost at each extremity of the series very much smaller than the rest, which are subequal in length. They stand upright and parallel to one another; and the ambulacral furrow is very contracted. (2.) On the actinal surface the plate is covered with low papilliform granules, of which three or more irregular longitudinal series may be indistinctly defined. These are, however, too irregular in their position to be spoken of as forming true series. In apparent size, as viewed from above, they correspond exactly to the granules on the infero-marginal plates, but are, however, slightly more papilliform. The adambulacral plates on the outer fourth of the ray bear a single small conical spinelet immediately behind the furrow series, placed near the aboral margin of the plate, and scarcely noticeable except with a magnifying glass. No trace of this is found along the inner part of the ray.

The mouth-plates are not remarkably large, and the united pair are elongate and elliptical in outline, and slightly convex actinally. Nearly half their length is free and