

their upper edge being visible on the abactinal surface, to which, however, they form a narrow and slightly raised border. The supero-marginal plates are thirty-three in number from the median interradial line to the extremity. Their length is greater than their height throughout, except the innermost on each side of the median interradial line; and midway along the ray they have the form of elongate, suboval, imbricating squamiform plates. Each plate bears a robust conical spine, very thick at the base, and tapering to a sharp point—the longest, which is about the fifth from the base, measuring 4 mm. or a trifle more,—borne on a distinct articulatory tubercle near the upper margin of the plate. On the innermost plate, on each side of the median line, the spine is reduced to the size of a secondary. On the surface of the plates are a few minute, conical granules, very widely spaced, which appear to be generally confined to the adoral and aboral ends of the plate, the area of the plate below the spine being generally nearly, if not quite, naked.

The infero-marginal plates correspond to the superior series, but these are not exactly superposed, and the line of suture forms two unequal facets. Each plate bears a robust, tapering, sharply-pointed lateral spine, similar in form and character to the supero-marginal spine, the longest (which is about the eighth or ninth) measuring 4.5 mm. Midway on the surface of the plate, between the base of this spine and the margin adjacent to the adambulacral plates, is a small, conical, secondary spine, broad at the base and sharply pointed; and the miliary spinulation of the plate consists of very minute, conical, or papilliform granules, scarcely worthy of being called spinelets, but still rather too long to be described as granules. Very few are present on the median area of the plate below the lateral spine, which is usually almost, if not quite, naked. As seen in the actinal view, the breadth of the infero-marginal plates is about equal to their length at the base of the ray, but at the fifth or sixth plate the length becomes the greater dimension.

The adambulacral plates are elongate, with a prominent and well-rounded semicircular margin towards the furrow. Their armature consists of:—(1.) A furrow series of six or seven short, cylindrical spinelets, the outermost at each end of the series being much shorter than the others; and there are two or three equally small or smaller papilliform spinelets on the adoral and aboral margins of the plate on the actinal surface, forming as it were a continuation of the furrow series. (2.) On the midst of the actinal surface is one large but short, robust, conical spine, with usually a minute papilliform miliary near it on the adoral side and close to the outer margin of the plate.

The mouth-plates are large, and the united pair have a nearly circular outline, and are convex actinally. Their armature consists of six small tapering spines on each plate, the innermost one being much larger and fully one-third longer than the others, which diminish in size as they recede from the mouth, the last being very small. They are rather widely spaced, and radiate apart regularly. On the actinal surface of the plates is a regular lineal series of about eight small spines placed parallel to the median suture; and in