

midway along the ray they consist of three, or rarely four, very short spinelets, whilst only one or two are frequent near the margin. On the central part of the disk, larger paxillæ occur, with five or six, or even more, spinelets. When more than five are present, one is usually central, but is uniform in length and size with the rest. In each inter-radial line, midway between the centre of the disk and the margin, is a conspicuous circular plate bearing twenty to thirty spinelets similar in all respects to those forming the paxillæ, of which in fact this may be considered as an enlarged example. These are probably the representatives of the primary basal plates of the embryo. There is also a similar large oval plate, slightly convex, on the inner side of the papularium, which appears to be the representative of the primary radial plate. No definite order is discernible in the arrangement of the paxillæ, and no pedicellariæ are present on the abactinal area.

The supero-marginal plates, eighteen in number from the median interradian line to the extremity, form a moderately broad, definite, and well-rounded border on the abactinal surface; they are longer than broad, and the suture or line of junction between adjacent plates is more than usually oblique, passing from within outwards adorally. The height and breadth are subequal, the latter dimension being perhaps slightly the greater, except in the innermost part of the series. Each supero-marginal plate bears a single, short, conical spinelet, broad at the base and tapering throughout to a sharply pointed extremity. They are placed upon, or even on the lateral side of, the rounding of the plate. The fourth or fifth from the base of the ray measures about 2.25 mm. in length; and they decrease in size as they proceed outwards, whilst the innermost pair are very small. The rest of the surface of the supero-marginal plate is covered with minute, uniform, and tolerably closely placed thornlets.

The infero-marginal plates are rather higher than the superior series, except on the inner part of the ray; and they show a decided tendency to alternate with the companion series instead of each being placed immediately opposite or under the corresponding plate; the upper margin of the infero-marginal plates and the lower margin of the supero-marginal plates being angulated so as to appear superficially bifaceted. The breadth of the infero-marginal plates is greater than that of the superior series; and their breadth on the inner part of the ray is greater than the length, but the latter dimension increases and becomes the greater on the outer part of the ray. Each plate bears a short lateral spine near the upper margin, of the same size and character as those on the supero-marginal plates; and the rest of the plate is covered with small, uniform, tolerably closely placed thornlets, like those on the superior series of plates, amongst which no larger spinelets whatever occur.

The adambulacral plates are elongate and narrow, excepting the prominent angular extension into the furrow. Their armature consists of:—(1.) A furrow series of seven short, cylindrical, obtusely pointed spinelets (the median three or more, the longest), arranged on the free margin of the plate which projects into the furrow, and forming a scoop-like