

cylindrical, slightly oval in section, apparently rigid. Interbrachial arcs wide, with a flattened curve emphasising the pentagonal character of the disk.

The marginal plates form a well-rounded lateral wall to the disk and rays. On the disk they do not extend far upon the abactinal area, being simply confined to the rounding of the lateral wall; throughout the whole length of the ray, however, the supero-marginal plates of one side are separated from those of the other only by a very narrow longitudinal series of small square plates which occupies the median radial line. The supero-marginal plates are thirty-eight in number from the interradian line to the extremity. Their apparent height as seen when the side of the ray is placed in full view is about equal to their length, except along the margin of the disk where the height is greater. Their breadth when seen from above is greater than their length throughout the ray, in the plates at the base being in the proportion of about 3 : 2, or even a little more; the relative proportions of the length diminishing towards the extremity. The surface of the plates presents no tumidity, and their curvature, when seen in section, is conformable to that of a sector of an oval cylinder. The surface of the plates is covered with a small, uniform, definitely-spaced, semiglobular, miliary granulation, disposed without any definite order upon the plate, excepting a regular lineal series of granules round the margin, which are of the same size as the rest, and whose presence marks out a narrow but well-defined channel separating the plates. The odd terminal plate is elongate and shield-shaped, the free portion being subcylindrical and slightly tapering, but obtuse at the extremity. Its posture in relation to the ray is at a slight angle to the horizontal, directed upward.

The infero-marginal plates correspond in length and height to the superior series, but in breadth they extend further upon the actinal surface of the disk than the supero-marginal plates do on the abactinal area. From the fifth plate outward they are contiguous to the adambulacral plates and their breadth is very little greater than their length, whilst on the outer part of the ray the length becomes the greater dimension. They are covered with minute papilliform granules, which at the outer end of the plate are scarcely distinguishable from the granules of the supero-marginal plates, but increase slightly in length and stand at a small angle on the plate as they approach the opposite or inner end. Along the median line of the plates in the interbrachial arc are four or five very small, flattened, tapering, sharply-pointed spinelets, appressed to the plate and scarcely noticeable by the naked eye. At the inner extremity two usually stand near together, obliquely side by side; the others are isolated and wide apart on the median line of the plate. These little spinelets decrease in size and number along the ray, and it is not easy to discover traces of them far beyond the middle of the ray.

The adambulacral plates have an angulated margin projecting into the furrow, which is rather obtuse and with a tendency to become semicircular. Their armature consists of a furrow series of five or six short, equal, cylindrical, papilliform spinelets, contracting a