

the extremity, which is obtusely pointed. The abactinal surface of the disk is slightly inflated, that of the rays arched, with a tendency towards a carinate appearance. The actinal surface is subplane. The interbrachial arcs are acute; and there is a sharply defined steep sulcus on the disk at the summit of each arc.

The abactinal surface is beset with small paxilliform groups of spinelets. The paxillæ are rather widely spaced, and the medium-sized ones near the base of the ray are composed of five or six very short spinelets, which are denticulate at the extremity but not tapering, and usually radiate only slightly apart. The paxillæ are arranged with more or less regularity in longitudinal lines along the rays, and single papulæ occur in the interspaces; occasionally two may be found together.

Of the marginal plates the superior series are small, and scarcely distinguishable from the paxillæ of the abactinal surface. The infero-marginal series resemble large paxillæ, with a broad and massive compressed pedicle, having the major axis placed at right angles to the median line of the ray, and surmounted by a crown of about ten to twelve spinelets, which are larger and more robust than the spinelets of the abactinal paxillæ. These marginal paxillæ are tolerably well spaced, and there are about twenty-six between the median interradian line and the extremity; those on the outer part of the ray becoming smaller in size, and the pedicle being reduced to a subtubercular eminence.

The adambulacral plates are short but broad, and their armature consists of two series of spines. (1.) A furrow series of short, skin-covered, slightly tapering spinelets, which are four in number near the mouth, and then three up to the middle of the ray; beyond this only two are present, and probably only one at the extremity. When four spines are present, the adoral and aboral spines of the series are generally smaller than the others. (2.) On the actinal surface of the plate is a transverse lineal series of four or five large, robust, cylindrical, obtusely-rounded and thickly skin-covered spinelets, which diminish in size as they proceed outward, and are reduced to three in number at the extremity of the ray.

The mouth-plates are large and elongate. Their armature consists of a marginal series of eight spinelets on each plate. The innermost three are larger than the others, which decrease slightly as they recede from the mouth. All are skin-covered, but there is no development of a definite membranous web. On the actinal surface of each plate is a lineal series of three or four skin-covered spinelets, which diminish in size as they recede from the mouth; the foremost three are long, robust at the base and tapering, but the fourth or outermost is usually very small.

The actinal interradian areas of the disk, which are narrow, are occupied by small intermediate plates bearing tufts of short, rather robust spinelets, about three to five in each.

The madreporiform body, which is very small and inconspicuous, is situated nearer the centre of the disk than midway between that point and the margin; the striations upon its surface are fine, and their direction is more or less centrifugal.