

each surmounted by seven or eight short truncate polygonal granules, usually surrounding a central one, but the latter is not always present; in addition to these, a few much smaller ones may also be seen here and there on the periphery. The bases of the paxillæ have star-like prolongations, and single papulæ occur in the interspaces. The paxillæ are largest at a short distance from the centre, and decrease in size as they proceed outward. A perfectly regular series, slightly larger than the rest, proceeds along the median abactinal line of the ray, and the other paxillæ form regular longitudinal series parallel thereto, the paxillæ of one series alternating with those adjacent of the next, and thus form a compactly fitting tessellation. The primary embryonic apical plates are discernible. The five basal plates are rather larger than any of the other paxillæ, and the primary radials are next in size; a considerable number of intermediate paxillæ (plates) intervene between these cycles of plates and the dorso-central, which is small and difficult to distinguish. The periproctal aperture is placed on the right posterior of this plate; and the madreporiform body is independent of, and external to, the adjacent basal plate, its position being consequently a little nearer the centre than the margin of the disc.

The marginal plates form a uniformly rounded lateral wall to the disk and rays. The supero-marginal plates are thirty-five in number from the median interradiial line to the extremity. Owing to the curvature of their rounding the supero-marginal plates present a well-defined border of uniform width when viewed from above, the apparent breadth being about equal to half the width of the intermediate paxillar area, midway on the ray. The height is greater than the length in the proportion of three to two or even more. In the interbrachial arc a faint tendency towards convexity is discernible along the median line of a plate perpendicular to the axis of the ray. The supero-marginal plates are compactly covered with a rather large hexagonal granulation, low and truncate, with a slightly smaller series round the margin of each plate, but all uniform in height. The supero-marginal plates are devoid of true spines. The odd terminal plate is small and shield-shaped, deeply excavated inferiorly.

The infero-marginal plates correspond in length and curvature to the superior series; their granulation, however, has a decided tendency to assume a squamiform character owing to its somewhat greater length and oblique attachment. Nevertheless the covering of the plates is still essentially granuliform, thick, and apparently of uniform size with the covering of the supero-marginal plates. Each plate usually bears one to three very small compressed, pointed, inconspicuous spinelets, standing in the median line and wide apart, the largest about 1 mm. in length.

The armature of the adambulacral plates consists of a palmo-radiate furrow series of five or six small straight spinelets, which are delicate towards the base and slightly thickened towards the roundly truncate extremity. The outside spines of each series are a little smaller than the middle ones. External to the furrow series may be one or two longitudinal series, each with four short stumpy papilliform spinelets, slightly tapering towards the