

abactinal surface extends along the ray and tapers off with a graceful curve towards the extremity, which causes the rays to have a very short appearance when seen in profile.

The abactinal area is covered with a thick coriaceous integument, the usual meshwork skeleton of calcareous plates being altogether wanting. The membrane is indurated with a number of minute circular spicules, some of which bear a vertical spinelet, resembling the surface spicules of *Thyonidium* and other Holothuroids. These spinelets are sparsely distributed over the central portion of the abactinal area and along bands that run therefrom to the interbrachial arc, in the median interradian line. The spinelets are long and thin, and, being made up of fine calcareous rods united by short transverse dissepiments, present under the microscope a very open structure somewhat resembling the delicate hair-like spines of certain irregular Echinoids. The spinelets are clothed with thick investing membrane, which not unfrequently develops a knob at the extremity, and gives a club-shaped character to the appendage. A more or less prominent tubular epiroctal prolongation is present in the centre of the disk; in some examples measuring between 2 and 3 mm. in length, but shorter in others. It is a subcylindrical tube less than a millimetre in diameter, springing directly from the abactinal area, tapering very slightly towards the extremity, and is indurated with a close plating of very minute spinulate spicules.

The marginal plates form a deep conspicuous band, and stand as a perpendicular wall in the interbrachial arc, bending gently inward above and below. Along the rays the supero-marginal series arch well over on the abactinal surface, and leave only a very constricted space along the median line of the ray between the corresponding plates of each side. The supero-marginal plates, which are six or seven in number exclusive of the terminal, are bounded by straight lines, and vary from a quadrate to a subrhombic form according to position. The height and length are nearly equal, the latter being usually the greatest dimension, although in some specimens the proportions may be reversed. Normally each of the supero-marginal plates bears a short conical spinelet on its upper edge, but not unfrequently these become aborted into little more than tubercles, and are sometimes absent altogether, especially on those plates which are innermost in the interbrachial arc, and sometimes also on the penultimate plate of the ray. The terminal plate is moderately large and prominent, with the abactinal surface slightly tubercular, the adoral margin being deeply indented in the median line, and the lateral angles fully rounded. The whole plate is directed at a slight angle upward in relation to the ray, a circumstance which emphasises the strongly upturned appearance presented by the rays, the general habit of which seems always to be more or less bent upward or backward. Three moderately robust spinelets are borne on the terminal plate—one placed at the summit of the tubercular swelling in the median line of the ray and directed vertically upwards, and two somewhat smaller ones which stand one on each side at the extreme anterior lower angles of the plate and directed outward.