

inflated region only occupying about 23 mm. Beyond this the section of the ray is sub-triangular with a truncate median carination.

The disk is very small and depressed, with the abactinal surface subplane and nearly on the same level as the base of the rays, the margin being slightly bevelled. The abactinal area of the disk is covered with a delicate membrane, beset with minute, papilliform, skin-covered spinelets, all of uniform height and distinctly spaced. The membrane which covers the abactinal surface of the rays is extremely delicate and quite transparent. The inner portion of the ray, about one-third of the length, is furnished with from ten to twelve transverse annular ridges, seven or eight of which are remarkably high and prominent in relation to the size of the ray. The ridges are rather widely spaced, their distance apart being equal to the length of two or three adambulacral plates, and they form a rigid narrow crest, composed of small imbricating ossicles, which bear small but robust conical spinelets, rather widely and equidistantly spaced. One or more narrow transverse band-like sacculi, crowded with minute pedicellariæ, occur on the abactinal membrane in the interspaces between the ridges, but no tegumentary spicules are present. Beyond the ovarian region the abactinal membrane is extremely delicate and is occupied only by the bands of pedicellariæ.

The ambulacral furrow is wide and occupies about 1.75 mm. at a part where the ray is 3 mm. (about 50 mm. from the disk). The adambulacral plates are longer than broad, measuring about 1.5 mm. at 50 mm. from the disk, and the furrow margin of the plate is conspicuously concave. The adambulacral armature consists of:—(1.) Two small inner spinelets directed horizontally over the furrow. (2.) A longer, more robust spine, standing perpendicularly on the actinal surface of the plate. The lateral spine is borne on a small rudimentary infero-marginal plate, so intimately united to the adambulacral plate as to appear an integral part of it. The spine, which is remarkably delicate and needle-like, measures 8 mm. at about 70 mm. from the disk, and is enveloped in an extremely thin membrane with numerous pedicellariæ. The actinal spine is shorter and even more delicate, and is so fragile that I have been unable to find one unbroken near the region indicated. Nearer the disk they measure 2.5 to 3 mm. in length, and are invested with a delicate membranous sheath bearing pedicellariæ. The two small inner or furrow-spines are equal, less than 1 mm. in length, and are invested with a delicate membrane expanded into a slight sacculus at the tip and bearing a few pedicellariæ; one is placed at each extremity of the plate, and it thus follows that there are two small spinelets standing parallel to one another between each consecutive ambulacral tube-foot.

The actinostome is large and measures 8 mm. in diameter in a disk 13 mm. in diameter. The mouth-plates are moderately large in comparison with the size of the disk, and the united pair have a prominent median keel along the line of juncture, which is imperfectly closed. Their armature consists of two small spines less than 1 mm. in length on the adoral margin of each plate, the inner one, when directed horizontally over the