

5. *Stichaster felipes*, n. sp. (Pl. CI. figs. 1 and 2; Pl. CIII. figs. 7 and 8).

Rays five.  $R = 66$  mm.;  $r = 10$  to  $11$  mm.  $R > 6r$ . Breadth of a ray near the base, 12 to 15 mm.

Rays elongate, rather broad at the base, and tapering gradually therefrom up to the extremity, their form being more or less cylindrical, slightly flattened. The disk is slightly convex in the region covered by the primary apical plates; and there is a rather deep and broad depression in each interradium external to this area, from which a depressed sulcus proceeds up to the summit of the interbrachial arc. The interbrachial arcs are acute.

The abactinal area of the disk is occupied on fully the central half by large permanent primary apical plates. All the plates along the rays are arranged in regular longitudinal series. The abactinal plates may be defined as follows: a median series of large, broad plates, succeeded on each side by an intermediate series of smaller plates, and a lateral series of large plates broader than those of the median series. Then follow two series of smaller marginal plates, which stand wholly in the lateral wall of the ray, the plates of the superior series being larger than those of the companion series. Between these and the adambulacral plates intervene two, or at the base of the ray perhaps three, series of intermediate plates.

The abactinal and marginal plates bear short, robust, clavate, obtuse, equal spinelets, which viewed from above appear little more than large hemispherical granules. On the plates of the median series there may be either a double line of spinelets, the lines more or less unequal and irregular, or an angulated line with a few additional spinelets within the angle, the number varying from five to nine. On the small intermediate plates are not more than two or three in a group. On the broad lateral plates is a single line of six or seven spinelets, or an angulated and supplemented line as in the median series. About three spines are present on the supero-marginal plates, and seldom more than two (sometimes three and sometimes one) on the infero-marginal series. All these spinelets are well spaced. All the plates are covered with thick membrane, and on this are attached numerous isolated, well spaced, forcipiform pedicellariæ, which at first sight have the appearance of smaller granules accompanying the larger granules (the spines above described). Large papular areas occur at the angles of the plates, which fall in regular longitudinal lines along the ray. There are from three to five papulæ in each. Close to the margin of the papular area may be one or more very large forcipiform pedicellariæ. These are of remarkable form, and resemble two hands clasped together when the fingers are bent at right angles and interlocked. The jaws of the pedicellariæ are longer than the spines on the plates and also broader. Seen in some aspects their outline suggests fancifully the shape of a cat's paw with the claws exposed. These large pedicellariæ are numerous in the interbrachial arc.

The adambulacral plates are small, and their armature consists of two short, cylindrical, obtuse, equal spinelets, which radiate apart and normally form two regular longi-