1. Patiria bellula, n. sp. (Pl. LXIII. figs. 1 and 2; Pl. LXIV. figs. 5 and 6).

Rays five. R = 49 mm.; r = 18 mm. Breadth of a ray between the fifth and sixth infero-marginal plates, 17 mm.; breadth near the tip, 7.5 mm.

Rays produced and rather long, semi-cylindrical, flattened actinally, rather broad at the base and tapering towards the extremity, which is blunt and obtusely rounded. Interbrachial arcs more or less rounded. Abactinal area of the disk convex. Actinal surface subplane or slightly convex.

The abactinal area is covered with comparatively large and more or less convex plates, amongst which smaller ones are interspersed. Numerous papulæ are present. The plates bear short, robust, subequal, papilliform spinelets which form groups. The plates on the outer part of the ray are larger and more distinct than elsewhere, and their shape is nearly circular. On the disk and the inner part of the ray they are smaller and more irregular, and there is a tendency for the plates, as indicated by the groups of spinelets, to assume here and there the crescentiform shape found in many species of Asterina. This character is more conspicuously shown in some examples than in others.

The marginal plates are very small, and on the outer part of the ray the two series appear to alternate. The supero-marginal plates are about thirty-two or thirty-three in number, counting from the median interradial line to the extremity. They are covered with a compact group of spinelets rather smaller than those on the abactinal plates generally, and the form of the plates as defined by these groups is nearly square.

The infero-marginal plates form the margin of the actinal surface, and are subequal in length to the plates of the superior series, but are not so high; they bear groups of similar spinelets.

The armature of the adambulacral plates consists of :—(1.) A furrow series of four spinelets, invested with membrane, partially united or webbed, forming a fan slightly obliquely placed, and high in the furrow. The spinelets are robust, cylindrical, obtusely tipped, and the two middle ones are usually longer than the others; sometimes only three spinelets are present. (2.) On the actinal surface of the plate is an obliquely placed fan of three or four (usually four) short, robust, papilliform spinelets, which are shorter and more robust than the furrow series, and radiate slightly apart.

In the actinal interradial areas five rows of intermediate plates may be counted; only two series extend to the end of the ray, the outer one becoming very small near the extremity; the third series extends about two-thirds of the length of the ray, and the remaining series are very short. All the intermediate plates bear groups of small, subequal, obtuse, papilliform spinelets, which are larger and more robust than those on the marginal plates, but rather smaller than the series of spinelets above described on the actinal surface of the adambulacral plates. The groups are more or less compact and well defined, each being distinctly spaced; about eight or nine spinelets are present