

The infero-marginal plates correspond to the superior series in the neighbourhood of the median interradiial line, but alternate with them along the rest of the ray. They are covered with precisely similar granules. I have detected no pedicellariæ on either series of marginal plates.

The adambulacral plates are slightly broader than long, and their armature consists of three regular series of spinelets. In the furrow series are seven moderately elongate, prismatic spinelets, compressed transversely, with obtusely rounded tips, subequal in length excepting one or two at the adoral end of the series which are rather shorter; these spinelets radiate very slightly apart, but to such a small degree that their disposition is almost that of a compact comb. The second series, which is placed on the actinal surface of the plate, consists of five quadrangular prismatic spinelets, which taper slightly, and are shorter but more robust than the furrow series. The adoral spinelet of this series is usually placed rather further back on the plate than the others, a circumstance which causes this series to have the appearance of a slightly oblique position. The third series is close to the external margin of the plate, and consists of four or five low, equal, granuliform spinelets, or spiniform granules, much shorter than the median series just described. The outer spinelet at each end of the series is often accompanied by another placed close behind, and this is sometimes modified into a pedicellaria. Sometimes the whole line may be doubled on the outer part of the ray. The three distinct series of spinelets above described are comparatively widely spaced apart.

The mouth-plates are small and inconspicuous. Their armature consists of a marginal series on each plate of ten to thirteen powerful representatives of the marginal spinelets on the adambulacral plates, which increase in size as they approach the mouth. On the actinal surface of the plate is a lineal series of about five short, robust, prismatic secondary spinelets, and on the outer part of the plate are a few prismatic granules.

The actinal interradiial areas are large, and extend far along the ray. The intermediate plates have, in consequence of their mode of granulation, a very paxilliform appearance, their armature consisting of a marginal series of slightly elongate sub-prismatic granules surrounding several larger hemispherical granules, all of which are well spaced.

The madreporiform body is situated near the centre, its inner margin being less than one-fourth of the distance from the centre to the margin. It is rather large and sub-circular in outline, and its surface is marked with fine striations, which are much convoluted in the central region.

Colour in alcohol, a light shade of umber brown.

*Locality*.—Station 232. South of Yeddo, Japan. May 12, 1875. Lat. 35° 11' 0" N., long. 139° 28' 0" E. Depth 345 fathoms. Green mud. Bottom temperature 41°·1 Fahr.; surface temperature 64°·2 Fahr.

*Remarks*.—This species is distinct from any other *Pentagonaster* with which I am