

and in an ill-defined region parallel to, and a little removed from, the infero-marginal plates. These pedicellariæ on the intermediate plates are of nearly uniform size throughout, and there is no regularity in their orientation.

The anal orifice is slightly excentric, and is surrounded by rather larger plates than in the central region generally.

The madreporiform body, which is rather small and polygonal in form, is situated at about one-third of the distance from the centre to the margin. It is marked with fine, regular, sharply convoluted, centrifugally radiating striations.

Colour in alcohol, a warm shade of light brown.

Locality.—Station 232. South of Yeddo (Japan). May 12, 1875. Lat. $35^{\circ} 11' 0''$ N., long. $139^{\circ} 28' 0''$ E. Depth 345 fathoms. Green mud. Bottom temperature $41^{\circ} \cdot 1$ Fahr.; surface temperature $64^{\circ} \cdot 2$ Fahr.

Remarks.—*Pentagonaster japonicus* is distinguished from *Pentagonaster patagonicus*, to which it is most nearly allied, by the more regular pentagonal form, the sides being less curved, and the rays less produced. The general granulation is finer. The structure of the paxillæ and the armature of the adambulacral plates are characteristic, as well as the presence of numerous pedicellariæ.

6. *Pentagonaster lepidus*, n. sp. (Pl. LVII. figs. 1-4).

Body pentagonal, with the sides slightly incurved and the extremities of the rays rather obtuse or rounded. $R = 7 \cdot 5$ mm.; $r = 5$ mm. $R = 1 \cdot 5 r$.

General form depressed and thin. Margins rounded and slightly bevelled abactinally. Abactinal surface feebly inflated along the median radial line; extremities of the rays slightly turned upward.

The abactinal and marginal plates are covered with small, uniform, papilliform spinelets, distinctly clavate and well spaced; those on the infero-marginal plates being longer than the others. The actinal intermediate plates are similarly covered with small spinelets, which are tapering.

The papilliform spinelets on the abactinal plates simulate paxillæ in their posture and grouping, and the groups are tolerably spaced. A distinct median series traverses the radial line, and very little variation in size is noticeable throughout the area.

The supero-marginal plates are nine in number on each side of the pentagon, and there is consequently an odd plate in the median interradiial line. This plate is of the same shape and size as those on each side, its length and breadth being about equal. The length of the succeeding plates diminishes slightly as they approach the extremity. The odd terminal plate is rounded and patella-like.

The infero-marginal plates bear longer spinelets than the superior series, and these are confined to the lateral face. The surface which is presented to the actinal area of the