

Its range of depth varies from 20 fathoms to 640 fathoms; the latter depth being off the North American coast (Verrill).

3. *Pentagonaster astrologorum* (Müller and Troschel), Perrier.

*Astrogonium astrologorum*, Müller and Troschel, 1842, System der Asteriden, p. 54.

*Pentagonaster* (?) *astrologorum*, Gray, 1866, Synop. Spec. Starf. Brit. Mus., p. 11.

*Pentagonaster astrologorum*, Perrier, 1876, Révis. Stell. Mus., p. 196 (Archives de Zool. expér., t. v. p. 19).

*Locality*.—Sydney Harbour.

4. *Pentagonaster patagonicus*, n. sp. (Pl. XLVI. figs. 3 and 4; Pl. XLIX. figs. 3 and 4).

Rays five.  $R = 68$  mm.;  $r = 43$  mm.  $R = 1.58 r$ . The minor radius is thus in the proportion of about 63 per cent.

Body of large size. General form depressed and flat. Abactinal area slightly inflated in the central region and flexible. Marginal contour pentagonal with a slight stellate tendency, the extremities of the rays being pointed and slightly produced. Interbrachial arcs forming a distinct curve sweeping from tip to tip. Margin thick and more or less vertical, the rounding more bevelled on the abactinal surface than on the actinal.

The whole abactinal paxillar area is covered with small, regular, polygonal tabula or paxillæ, those in the radial areas regularly hexagonal and larger than those in the intermediate regions, which are rhomboid, and all diminish in size as they approach the margin. The larger paxillæ in the radial regions do not actually touch one another but are slightly spaced apart. These paxillæ consist of a hexagonal tabulum on a low broad base, and the tabulum is covered with low truncate granules, the marginal series of which are slightly larger than the rest and sub-prismatic or polygonal; all the granules are uniformly truncate so as to form a smooth upper surface to the tabulum, which is also slightly convex; and the edges of the paxillæ are sharply cut as if "dressed" with a knife. Occasional paxillæ at wide intervals apart bear a single small excavate pedicellaria, having two chisel-shaped or spatulate jaws, which can be drawn down more or less into the pit or cavity; the form of the jaws varies considerably, sometimes being narrow and elongate, sometimes much broader and more lamelliform; occasionally three jaws may be present. The small rhomboid tabula in the interradial regions, which are crowded and fit close to one another, have a much lower base; indeed the base appears to gradually diminish and the paxillar character to disappear as the tabula approach the margin. In the marginal region, where the tabula are smaller, faintly indicated lines may be seen to proceed inwards from the sutures of the supero-marginal plates, which have the appearance of dividing up this marginal series of small tabula into band-like series corresponding in breadth to the length of the marginal plates, four or five rows of tabula being in each band; this character is lost, however, as soon as the large hexagonal and separated paxillæ are reached. There