

The armature of the adambulacral plates consists of proportionally larger spines than in the adult, and these are conical and pointed, and radiate apart, as in other forms of *Hyphalaster*, instead of forming the almost straight uniserial line noticed in the adult of *Hyphalaster hyalinus*. The terminal plate is thick and blunt at the end.

If this really is the young form of *Hyphalaster hyalinus* it is extremely interesting to note (1) up to what a comparatively late stage of growth the embryonic planting is retained; and (2) that these large plates entirely disappear and do not become metamorphosed into other plates, but give place to the very minute and simple spiniferous *Thyonidium*-like spicules which pervade the whole of the then delicate semi-transparent abactinal membrane.

Locality.—Station 274. In the Mid-Pacific, due north of the Society Islands and due west of the Marquesas Islands. September 11, 1875. Lat. $7^{\circ} 25' 0''$ S., long. $152^{\circ} 15' 0''$ W. Depth 2750 fathoms. Radiolarian ooze. Bottom temperature $35^{\circ} \cdot 1$ Fahr.; surface temperature $80^{\circ} \cdot 2$ Fahr.

Remarks.—This species is distinguished from all the others by its remarkably delicate structure, the abactinal membrane appearing at first sight merely like a semi-transparent bag, by the mouth-plates bearing secondary spines, and by the two innermost supero-marginal plates on each side of the interradian line bearing small spinelets.

2. *Hyphalaster diadematus*, Sladen (Pl. XXI. figs. 1-4; Pl. XXVIII. figs. 17-20).

Hyphalaster diadematus, Sladen, 1883, Journ. Linn. Soc. Lond. (Zool.), vol. xvii. p. 237.

Rays five. $R = 24$ mm.; $r = 10$ mm. $R < 2 \cdot 5 r$.

Marginal contour stellato-pentagonal. Rays well developed, slender, springing from the disk with a gradual taper, which is continued to the extremity; the upper surface of the ray arched rather than rounded. Abactinal surface of the disk slightly inflated above the level of the marginal plates, and with a prominent conical peak in the centre of the area. The minor radius is in the proportion of 41·6 per cent. Interbrachial arcs well rounded.

The abactinal area is covered with a thick integument, uniformly beset with well-spaced pseudo-paxillæ, which are very small and regular, each composed of three or four spinelets, those with the latter number being by far the most numerous. The paxillæ do not extend along the rays, but are confined to the actual disk-area; a blank space is thus left at the base of the rays, which has the appearance of being closely plated with small round scales imbedded in the integument. In the neighbourhood of the conical peak the paxillæ become very small and crowded. Around this as a centre, and at some little distance away, a number of larger paxillæ made up of more spinelets are arranged; these are congregated with more or less regularity into round groups, of which, roughly speaking, there is one opposite the median line of each ray, with a smaller group intermediate between each of the larger ones. The larger groups consist of ten to twelve large paxillæ of