thorny (with numerous smaller, and three to five larger spines); one very large conical terminal spine on each pole of the main axis.

Dimensions.—Radius of the larger arm 0·3, of the smaller 0·15; distal breadth of the former 0·06, of the latter 0·04; basal breath 0·02.

Habitat—South Atlantic, Station 333, surface.

Genus 224. Amphymenium, Haeckel, 1881, Prodromus, p. 460.

Definition.—Porodiscida with two simple, undivided, chambered arms, opposite in one axis, connected by a patagium.

The genus Amphymenium differs from the preceding Amphibrachium, its ancestral form, by development of a patagium or connecticulum between both arms. This forms a latticed or more spongy envelop, which surrounds either the middle part of the shell, or the whole shell with exception of the distal ends of both arms. If the envelop become very spongy, the shell may be confounded with the cylindrical Ellipside Spongocore (nearly allied to Spongurus); possibly also Ommatogramma of Ehrenberg belongs to this genus.

Subgenus 1. Ommatogramma, Ehrenberg (?).

Definition.—Both opposite arms of the same size and form, blunt, without terminal spines.

1. Amphymenium pupula, n. sp. (Pl. 44, fig. 8).

Both arms equal, twice as long as broad, three-jointed; the terminal joint egg-shaped, as large as both other joints together; distal end rounded, blunt. Patagium nearly complete, enveloping the arms with exception of the distal end. Perimeter nearly spindle-shaped.

Dimensions.—Radius of each arm 0.17, greatest breadth 0.06; transverse breadth of the patagium 0.13.

Habitat.—Pacific, central area, Station 273, depth 2350 fathoms.

2. Amphymenium naviculare, Haeckel.

? Ommatogramma navicularis, Ehrenberg, 1872, Monatsber. d. k. preuss. Akad. d. Wiss. Berlin, p. 317; Abhandl. d. k. Akad. d. Wiss. Berlin, Taf. vi. fig. 7.

Both arms equal, three times as long as broad, spongy, not jointed; distal end a little clubshaped, blunt. Patagium nearly complete, enveloping the arms with exception of the distal end. Perimeter nearly lanceolate. The imperfect diagnosis and figure of Ehrenberg make it doubtful

1 Amphymenium = Shell with veil on both sides; ἀμΦί, ὑμήνιον.