polyarthra, exhibits five pairs of chambers on both sides of the meridian plane of the cortical shell, the centre of which includes a double medullary shell. It represents the most simple form of all Zygartida, and may be derived phylogenetically from Cyphonium simply by multiplication of the chambers of the cortical shell, growing on both poles of the main axis.

Subgenus 1. Ommatocampium.

Definition.—Surface of the cortical shell smooth or rough, without thorns or spines, also without polar spines.

1. Ommatocampe polyarthra, Ehrenberg.

Ommatocampe polyarthra, Ehrenberg, 1872, Abhandl. d. k. Akad. d. Wiss. Berlin, p. 279, Taf. vi. fig. 9.

Cortical shell with smooth surface, composed of six to ten chambers of the same size and form. Every chamber kidney-shaped, about twice as broad as long, with three transverse rows of circular, subregular pores, twice to three times as broad as the bars. Both medullary shells spherical.

Dimensions.—Length of the six-chambered cortical shell 0·15; greatest breadth of each chamber 0·04; pores 0·005 to 0·007, bars 0·002 to 0·003.

Habitat.—Californian Sea, depth 2600 fathoms, Ehrenberg; Pacific, central area, Station 268, depth 2900 fathoms; fossil in the Tertiary rocks of Barbados, Haeckel.

2. Ommatocampe increscens, Stöhr.

Ommatocampe increscens, Stöhr, 1880, Palæontogr., vol. xxvi. p. 90, Taf. ii. fig. 2, a, b.

Cortical shell with rough surface, composed of six to ten chambers of nearly the same size and form; the breadth of the chambers a little increasing towards both poles. Every chamber kidney-shaped, the proximal chambers twice as broad as long, with four or five transverse rows of pores; the distal chambers three to four times as broad as long, with two or three transverse rows of pores. Form of the pores irregular, roundish, bars between them in the distal part smaller, in the proximal part larger than the pores. Both medullary shells compressed lenticular.

Dimensions.—Length of the six-chambered cortical shell 0.22; greatest breadth of the chambers 0.09 to 0.1; pores and bars 0.003 to 0.006.

Habitat.—Fossil in the Tertiary rocks of Sicily, Grotte, Stöhr.

3. Ommatocampe annulata, n. sp.

Cortical shell with smooth surface, composed of six to twelve chambers of nearly the same size and form. Each chamber kidney-shaped, twice as broad as long, with four to five transverse rows of