

The *Cortical Shell* is commonly simple (Pl. 39, figs. 12, 18), sometimes composed of two concentric shells (Pl. 39, fig. 13), rarely of three. As in the Artiscida, also in the Cyphinida, from both poles of the main axis solid spines or hollow fenestrated tubes are often developed (Pl. 39, figs. 14, 16-18).

The *Central Capsule* of the Cyphinida (Pl. 39, fig. 13) is of the same form as in the Artiscida, generally ellipsoidal, but with an equatorial ring-like stricture, which divides it into two equal halves. It encloses the simple or double medullary shell, and is perforated by the radial beams starting from this. From the inner surface of the surrounding cortical shell it is separated by a thicker or thinner jelly-layer, the calymma. (Compare also Taf. xxii. fig. 14 of my Monograph, 1862.)

### Synopsis of the Genera of Cyphinida.

Cortical shell without peculiar spines or hollow fenestrated tubes on both poles of the main axis.	Cortical twin-shell simple.	{ Medullary shell simple, . . . 155. <i>Cyphanta</i> .
		{ Medullary shell double, . . . 156. <i>Cyphonium</i> .
	Cortical twin-shell double or triple; medullary shell double.	{ Cortical shell double, . . . 157. <i>Cypassis</i> .
		{ Cortical shell triple, . . . 158. <i>Cyphocolpus</i> .
Cortical shell simple, with peculiar spines or hollow fenestrated tubes on both poles of the main axis.	Two opposite polar spines (or bunches of spines).	{ Medullary shell simple, . . . 159. <i>Cyphinus</i> .
		{ Medullary shell double, . . . 160. <i>Cyphinidium</i> .
	Two opposite hollow fenestrated polar tubes.	{ Medullary shell simple, . . . 161. <i>Cannartiscus</i> .
		{ Medullary shell double, . . . 162. <i>Cannartidium</i> .

#### Genus 155. *Cyphanta*,<sup>1</sup> n. gen.

*Definition*.—Cyphinida with simple cortical shell and simple medullary shell, without polar spines or tubes.

The genus *Cyphanta* is the most simple of all Cyphinida, and can be regarded as the common ancestral form of this family. It may be derived phylogenetically from *Druppula* by a ring-like constriction in the equatorial plane of the ellipsoidal cortical shell, or from *Artiscus* by secondary formation of a central (spherical or ellipsoidal) medullary shell.

#### Subgenus 1. *Cyphantella*, Haeckel.

*Definition*.—Surface of the cortical shell smooth, without spines or thorns.

<sup>1</sup> *Cyphanta* = Κύφαντα, Mediterranean port in Laconia.