

they are also connected at the two parapylæ. The radiate operculum of the astropyle opens by a tubular prolongation or proboscis, which is very long in the former, shorter in the latter. The two parapylæ of the latter also bear short tubules. The protoplasm, enclosed in the inner membrane, contains numerous small circular vacuoles. The large central nucleus is sometimes spherical or ellipsoidal, at other times spheroidal or lenticular; it always contains numerous nucleoli. One specimen observed, with two nuclei, was apparently engaged in self-division (fig. 2).

The spherical gelatinous calymma, in the centre of which the central capsule is placed, has a diameter of 1 to 2 mm. In the specimen of *Phæodina tripylea*, which I observed living, it exhibited exactly the same shape as the figure of *Dictyocha stapedia* in Pl. 101, fig. 10; the only distinction in this latter being indicated by the pileated pieces of the skeleton on the surface. The jelly-sphere contained numerous roundish or globular alveoles of very different sizes, and between them an areolated network of protoplasm; the latter has arisen from the outer surface of the calymma in the form of very numerous, radiating, partly branched and anastomosing pseudopodia. The dark and opaque centre of the jelly-sphere is filled up by the granular, blackish-brown phæodium, which envelops the oral half of the central capsule completely; it exhibits the same characters as in all the other PHÆODARIA.

#### *Synopsis of the Genera of Phæodinida.*

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| Central capsule with a single opening (an astropyle on the oral pole), . . . . .           | 656. <i>Phæocolla</i> . |
| Central capsule with three openings (an oral astropyle and two aboral parapylæ), . . . . . | 657. <i>Phæodina</i> .  |

Genus 656. *Phæocolla*,<sup>1</sup> Haeckel, 1879, Sitzungsber. med.-nat. Gesellsch. Jena,  
Dec. 12, p. 4.

*Definition.*—Phæodinida with a single aperture to the central capsule (an astropyle with radiate operculum, placed on the oral pole of the main axis).

The genus *Phæocolla* may be regarded as the simplest form of all PHÆODARIA, and perhaps as the common ancestral form of this legion. It has no skeleton, and the central capsule exhibits only a single aperture on one pole of the main axis. In this it agrees with the Challengerida, Medusettida, and Castanellida, which have also no parapylæ or secondary openings.

#### 1. *Phæocolla primordialis*, n. sp. (Pl. 101, fig. 1).

Central capsule subspherical, or somewhat depressed in the direction of the main axis. The oral pole of the latter exhibits a large astropyle, or a radiate operculum, about as broad as the

<sup>1</sup> *Phæocolla* = Brown jelly; φαίος, κόλλα.