Dimensions.—Diameter of the central capsule 0·15 to 0·25, of the nucleus 0·06 to 0·1, of the calymma 0·8 to 1·2.

Habitat.—Mediterranean; Portofino, near Genoa (Haeckel); Messina (Hertwig).

2. *Phæodina cannopylea*, n. sp.

Central capsule subspherical, scarcely depressed in the direction of the main axis. Astropyle with a finely ribbed radiate operculum, about as broad as the radius of the capsule, prolonged into a slender, tubular proboscis which is S-shaped, about as long as the radius, and similar to that of *Phæocolla primordialis*, Pl. **101,** fig. 1. Parapylæ also tubular, with two slender prolongations, half as long and broad as the proboscis of the parapyle. Nucleus spheroidal, about half as broad as the capsule. This species differs from the preceding mainly in the cylindrical slender prolongations of the three apertures, which are similar to those of *Aulosphæra* and *Aularia* (Pl. **111,** fig. 2).

Dimensions.—Diameter of the central capsule 0·2, of the nucleus 0·1, of the calymma 1·2 to 1·5.

Habitat.—Tropical Atlantic, Station 347, depth 2250 fathoms.

Family LXXII. Cannorrhaphida, Haeckel, 1879 (Pl. 101, figs. 3–14; Pl. 114, figs. 7–13).

Cannorrhaphida, Haeckel, 1879, Sitzungsb. med.-nat. Gesellsch. Jena, Dec. 12, p. 4.

Definition.—Phæodaria with an incomplete skeleton, composed of numerous separate, not radially arranged pieces, which are either hollow tangential spicula or cap-shaped dishes, or fenestrated rings, scattered loosely in the calymma. Central capsule placed in the centre of the spherical calymma.

The family Cannorrhaphida comprises those Phæodaria in which the incomplete skeleton is represented by numerous separate pieces of silica, which exhibit very different forms, and are scattered tangentially on the surface of the spherical calymma, sometimes also throughout its jelly-mass. They agree in this peculiar character with the Thalassosphærida (among the Spumellaria) and bear the same relation to the skeletonless Phæodinida as the Thalassosphærida do to the Thalassicollida (compare pp. 10 and 29). The Cannorrhaphida represent the former group among the Phæodaria. They differ from the following family, the Aulacanthida, in the arrangement and position of the hollow spicula, which are never directed radially and never touch the central capsule, as is constantly the case in the latter.

Two genera of Cannorrhaphida have been hitherto known. The first species observed in a complete and living state (at Messina in 1859) was *Cannobelos cavispicula*, described in 1862 in my Monograph as *Thalassoplancta cavispicula* (*loc. cit.*, p. 261, Taf. iii. figs. 10–13). I there figured a complete living specimen with expanded pseudopodia and a double central capsule (in the stage of self-division). The latter was surrounded by an