1. Cælodasea ramosissima, Haeckel.

Cœlodendrum ramosissimum (partim), Haeckel, 1862, Monogr. d. Radiol., p. 363, Taf. xiii. fig. 4.

Spongy framework of the spherical bivalved mantle very dense and thick, produced by very numerous, irregular anastomoses of the lateral and terminal branches, which arise from the hollow tubes. The last and thinnest terminal branches are forked, as seen in the radial section of fig. 4 (loc. cit.), their ends are closed and armed with some very small denticles (not open, as figured in fig. 4). In my Monograph I had confounded this species with Calodendrum ramosissimum, which however, may possibly be its ancestral form.

Dimensions.—Diameter of the spongy spherical mantle 2 to 2.5, of the central valves 0.15. Habitat—Mediterranean (Messina), surface.

2. Cælodasea spongiosa, n. sp.

Spongy framework of the bivalved mantle rather loose, not nearly so thick and dense as in the preceding species. The last and thinnest terminal branches are prolonged into denticulate, zigzagged, radial filaments, which bear at their distal end an anchor with two recurved teeth (similar to Cælodrymus ancoratus, Pl. 121, figs. 9, 10).

Dimensions.—Diameter of the spongy spherical mantle 3 to 3.2, of the central valves 0.24. Habitat.—Equatorial Atlantic, Station 347, depth 2250 fathoms.

Family LXXXV. CCLOGRAPHIDA, n. fam. (Pls. 122, 126-128).

Definition.—Phæodaria with a bivalved lattice-shell, composed of two hemispherical valves, a dorsal and a ventral. A conical cupola or a helmet-shaped galea arises on the apical pole of each valve, therefore on the opposite poles of the sagittal axis. The cavity of the galea communicates with the sagittal rhinocanna, a peculiar nasal tube, which rests upon the valve, and is connected with the galea by a simple or double frenulum; its opening being directed towards the proboscis. Three or more branched hollow radial tubes arise from each valve, and are symmetrically disposed. Sometimes their branches form an outer bivalved mantle. The central capsule is so enclosed between the two inner valves, that its three openings lie in the open frontal fissure between them.

The family Cœlographida, the last family of the Phæodaria, exhibits the highest degree of morphological development, not only in this group, but among all Radiolaria. They attain also the greatest size of all members of the class, since the diameter of their body is sometimes more than 20 mm., and in a few species even more than 30 mm. The complexity of their structure attains at the same time such a high degree, that they may be regarded as the most complicated, and (in a morphological sense) as the most highly developed of all Protozoa. Nevertheless their body always remains a single cell,