2. *Spongodictyon cavernosum*, n. sp.

Spongy framework of the cortical shell rather compact in the inner part, which immediately envelops the double medullary shell; very loose, with large caverns in the outer part, caverns of the surface larger than the medullary shell. Both medullary shells with regular circular pores, three times as broad as the bars.

Dimensions.—Diameter of the cortical shell 0·3 to 0·4, outer medullary shell 0·1, inner 0·03.

Habitat.—Tropical Atlantic, Station 338, surface.

Subgenus 2. *Spongodictyoma*, Haeckel.

Definition.—Spongy cortical shell on the inner surface with a smooth lattice-plate (or third medullary shell), which is connected by radial beams with the inner double medullary shell.

3. *Spongodictyon trigonizon*, Haeckel.

> *Spongodictyon trigonizon*, Haeckel, 1862, Monogr. d. Radiol., p. 459, Taf. xxvi. figs. 4–6.
> *Dictyosoma trigonizon*, Haeckel, 1860, Monatsber. d. k. preuss. Akad. d. Wiss. Berlin, p. 841.

Spongy framework of the cortical shell very loose, with very large, for the most part triangular meshes, which are two to six times as large as the enclosed double medullary shell. From the surface of the latter arise numerous radial beams, which are connected by a spherical lattice-plate, forming the smooth inner surface of the spongy sphere (or a third medullary shell). The structure of the framework reminds one of the PHÆODARIUM *Sagena* (Pl. **108**). Pores of both medullary shells regular circular, twice as broad as the bars.

Dimensions.—Diameter of the cortical shell 0·5 to 1·15, outer medullary 0·05, inner 0·035.

Habitat.—Mediterranean, Messina, surface.

4. *Spongodictyon arcadophoron*, n. sp.

Spongy framework of the cortical shell in the inner part very loose, in the outer part more compact; outer meshes scarcely as large as the inner medullary shell (or only half as large), inner meshes two to four times as large. From the surface of the double medullary shell arise numerous radial beams, which are forked at equal distances from the centre; the fork branches are curved and united together by dichotomous branches, like elegant arcades; and these arcades form together the large polygonal meshes on the inside of the cortical shell (or a third medullary shell). Both medullary shells with regular circular pores, of the same breadth as the bars.

Dimensions.—Diameter of the cortical shell 0·2, outer medullary shell 0·04, inner 0·02.

Habitat.—Tropical Atlantic, Station 349, surface.