II. Microscleres. 3. Large oxyasters with three or two actines. 4. Small oxyasters with four, three, or two actines.

Colour.—Clear yellowish. Size, 20 mm. in basal diameter, 5 mm. high. Habitat.—Naples.

Family II. PACHASTRELLIDÆ.

Streptastrosa in which the chief megascleres are calthrops; triænes being absent. The microscleres may be spirasters, spherasters, or microrabds.

The choanosomal mesoderm is sarcenchymatous, and the chamber system aphodal.

Genus 1. Pachastrella, O. Schmidt.

Pachastrellidæ in which the megascleres are calthrops and oxeas; the microscleres spirasters and microstrongyles.

Pachastrella abyssi, O. Schmidt (Pl. XI.; Pl. X. fig. 15).

Pachastrella abyssi, O. Schmidt, Spong. Atlant. Gebiet., p. 64, pl. vi. fig. 4, 1870; Spong. Meerb. Mexico, p. 68, 1880.

,, Carter, Ann. and Mag. Nat. Hist., ser. 4, vol. xviii. pp. 405, 407, 410; 1876.

Sponge (Pl. XI. fig. 1).—Massive, free, an irregular, horizontally extending, plate-like mass, irregularly thickened, with rounded edges; osculiferous surface somewhat depressed below the general margin, incrusted with foreign matter; poriferous surface irregularly convex, free from incrusting material; oscules small, numerous, simple, opening at the level of the surface, not sphinctrate; confined to one side of the plate; pores simple, confined to the side of the plate opposite to that bearing the oscules.

The excurrent canals, which are wider than the oscules, descend perpendicularly into the sponge, and repeatedly branching in their course, extend up to the poriferous surface; nearly as far as which they are traceable by the unaided eye. The incurrent canals are smaller, more numerous, and not traceable without the aid of a lens.

The ectosome is from 1.0 to 1.5 mm. thick, and consists of collenchyma, including abundant granule-clusters. The choanosomal mesoderm is a sarcenchyme approaching a granular collenchyma.

The flagellated chambers are somewhat large, about 0.0355 mm. wide, and 0.0237 mm. long; both the apopyle and prosopyle are usually wide, often 0.0158 mm. in diameter.