

The spicules measure 0.5–0.09; 0.67–0.04; 0.89–0.05; 0.4–0.06; 0.06–0.015 mm.

*Habitat.*—Station 23, Sombrero Island; depth, 450 fathoms; bottom, Pteropod ooze.

3. *Acanella chiliensis*, n. sp. (Pl. IX. fig. 3).

Axis with root-like calcareous processes from base; branches from horny nodes in twos and threes forming irregular verticils; calcareous internodes smooth. Colony from 10 to 12 cm. in height. Polyyps prominent, arranged irregularly on the stem and branches. Some about 5 mm. in height are almost sessile, others 7 mm. in height are slightly stalked. Cœnenchyma thin, with echinulate fusiform spicules. Polyyps with fusiform spicules, of which six or eight form a protective calyx below the imperfectly retracted tentacles.

Spicules of the cœnenchyma are fusiform, some slightly curved, with spine-like projections, some broad, fusiform, others slightly club-shaped. Those of the tentacles small, irregular, dentate.

The spicules measure 1–0.1; 1.5–0.2; 0.86–0.09; 0.36–0.05; 0.13–0.03 mm.

*Habitat.*—Station 307, in the Messier Channel; depth, 175 fathoms; bottom, blue mud.

4. *Acanella rigida*, n. sp. (Pl. IX. fig. 4).

Colony about 14 cm. in height, bushy. Axis with calcareous root-like processes. Branches from horny nodes, two, three, or four in number, forming verticils. Calcareous internodes short near the base, long near the extremities of the axis and branches, grooved. Axial cœnenchyma thin. Polyyps prominent, with broad bases, often at right angles to the stem and branches; rigid, with large, curved, fusiform spicules which are twisted partly round the body of the polyp; several of the larger of these form a protective calyx extending from the base of the polyp to a little beyond the base of the imperfectly retractile tentacles.

Spicules very irregular in shape, large, some wavy in outline, others curved, or with one end narrow and the other irregularly expanded, all with more or less well-developed spines.

Some of the large, external, curved, spindle-shaped spicules surrounding the polyyps measure 3.5 mm. in length, with a diameter in the thickest portion of 1 mm., but others measure 2.5–0.3; 2.0–0.1 mm. The spicules on the cœnenchyma are much smaller and less curved.

The internal spicules measure 0.9–0.13; 0.87–0.07; 0.6–0.1; 0.8–0.08; 0.08–0.46; 0.25–0.04 mm.