

*Primnoella flagellum*, Studer (Pl. XVIII. figs. 2, 2a; Pl. XXI. fig. 12).

*Primnoella flagellum*, Studer, Monatsber. d. k. preuss. Akad. d. Wiss. Berlin, p. 645, 1878.

Several colonies in the collection, which are unfortunately unattached, belong to this species.

The uniform thinness and flexibility of the entirely horny axis, which may be bent in every direction, at once separates this species from *Primnoella magellanica*.

The almost cylindrical polyps form whorls of from six to eight, which are placed so far from one another that the internodes are not quite covered. The calyx scales are larger than in *Primnoella magellanica*; three dorsal longitudinal rows are visible, which are arranged in eight to nine in the "Gazelle" specimens, in eight to eleven in the Challenger ones. The ventral scales are well developed and form two rows. The length of the cells reaches 2 to 2.5 mm., their diameter 1 mm. The opercular scales are triangular, and are produced at the end into a flat knob, which projects distinctly from the edge of the scale.

Spicules.—Calyx scales; the upper edge strongly convex in those nearer the mouth, those at the base with straighter upper and lower edge. The latter always strongly toothed. Length to breadth, 0.45–0.4; 0.29–0.34; 0.35–0.45 mm.; the latter near the base of the calyx. Opercular scales three-sided, smooth, with a blunt point; dorsal 0.63–0.29 mm.; ventral 0.37–0.15 mm. Spicules of the cœenchyma, longish oval, 0.23–0.13; 0.22–0.19 mm.

*Habitat*.—Station 308, off Tom Bay, Patagonia; depth, 175 fathoms; bottom, blue mud.

[Lat. 43° 56' 2" S., long. 60° 25' 2" W.; depth, 60 fathoms; bottom, sandy mud ("Gazelle").]

*Primnoella distans*, Studer (Pl. XVII. figs. 1, 1a).

*Primnoella distans*, Monatsber. d. k. preuss. Akad. d. Wiss. Berlin, p. 644, Tab. i. fig. 9, 1878.

This delicate form is represented in the Challenger collection by several specimens, and colonies are present which still retain the root-end, which was wanting in the original specimen. The root here consists of branched stolon-like calcareous lamellæ, whose edges are inflected and provided with little processes. In one case the root consists of two calcareous lamellæ, which are twisted spirally around the axis, then they fuse, again dividing into two divergent roots, each of which again divides into two terminal branches. Each forms a calcareous lamella, which is folded together so as to form a groove, from the edges of which small branched rootlets again come off. The entire structure forcibly calls to mind the stolon-like roots of *Strophogorgia* and *Ceratoisis*. The stem of the coral arises immediately from the root-lamella. The axis forms a flexible horny stem, having a diameter of 0.5 mm. at the base and is covered only by a