

more or less jagged at the edges. They measure 0·16–0·04; 0·08–0·03; 0·1–0·05 mm. All the spicules are of a light colour.

*Habitat.*—Bahia; depth, 10 to 20 fathoms.

Station 310, Sarmiento Channel; depth, 400 fathoms; bottom, blue mud.

*Leptogorgia arbuscula* (Philippi) (Pl. XXXIV. fig. 4).

*Plexaura arbuscula*, R. A. Philippi, Archiv f. Naturgesch., Jahrg. xxxii. Bd. i. p. 118, 1866.

Dr. R. A. Philippi, in his brief descriptions of some Chilian Zoophytes (*loc. cit.*), gives the following description of an Alcyonarian which he believes to be near to *Plexaura miniacea*, Ehrbg. "Pl. 4–6 pollicaris, a basi inde in formam fruticuli divisa, rosea-coccinea; ramis subdichotomis, omnibus libris; ramulis ultimis  $1\frac{3}{4}$  lin crassis."

A specimen in the Challenger collection from Patagonia may perhaps be referred to this species, though Philippi's description leaves a good deal to be desired.

The colony, attached by a small disc, is branched, branches all in the one plane; the total height of the colony is 150 mm., with a diameter of the main axis at its base of 2 mm. At a height of about 30 mm. from the base a branch is given off from both sides, that to the right attains a length of 115 mm., it divides into several smaller branches, which are given off in nearly the same plane as the larger branch; of these several again divide and ramify. The branch to the left is 80 mm. long, and gives origin to four very short and simple twigs. Above the two chief branches other branches are given off from the main stem at intervals of from 10 to 20 mm., these are either simple or but feebly branched.

The axis is horny, fibrous, tough, with very fine terminal prolongations. The cœnenchyma is thin; the outer layer with warty spindles. The polyps are arranged in a lateral manner on the branches; on the lower portions of the stem and of the large branches they are not very numerous; there are distinct verrucæ; both polyps and their tentacles are retractile, leaving oval slit-like openings in the cœnenchyma.

The spicules of the cœnenchyma are but feebly calcareous. The spiny spindles, which are irregular in form, measure 0·36–0·04; 0·3–0·03; 0·24–0·04; 0·2–0·025; 0·2–0·04 mm. Those of the polyps measure 0·12–0·02; 0·1–0·02 mm.

The colour in spirits is a brick-red.

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

*Leptogorgia torresia*, n. sp. (Pl. XXXIV. fig. 2).

The colony is branched in various planes; forming a bushy mass of about 400 mm. in height and 5 mm. in diameter at its base. The main axis springs from an irregular creeping base, which grows over part of the valve of a Mollusc, and measures 30 by