

calices, Auctt.) are seated on the upper end of slender tubes or pedicels, which are produced into a single or double point on one side at the top; at its base the pedicel dilates into a thick barrel-shaped cylinder (Pl. IX. fig. 7), which is covered by a transparent, ringed, chitinous envelope (Pl. X. fig. 1), lined with a strong muscular layer, the cavity being occupied by a very delicate fibro-cellular tissue (Pl. IX. fig. 14). The chitinous pedicels have four more or less regular longitudinal series of funnel-shaped perforations. These polypiferous peduncles are seated in a cup-shaped hollow, and attached by a much restricted termination in a spiral direction around the upright stems, communication with the interior of which is maintained through a fine funnel-shaped orifice (Pl. XI. figs. 12, 13). The polypides are of the usual pedicelline character, and have a very short flexible stalk, which is attached just within the upper edge of the chitinous pedicels, and when young is continuous with the inner cellular tissue; when mature the polypides appear to be quite cut off from the pedicels on which they are placed, and from which they bud in succession (Pl. IX. fig. 5). The tentacles vary in number from twenty in a bud to twenty-six or twenty-eight in an adult, and are arranged more or less bilaterally and symmetrically. The pedicels and stems are of a bright light brown colour usually; the stems turning nearly black when old. The polypides are white and the barrels white or nearly so, the transparent chitinous envelope being so thin that the white inner layer shows through.

The total length of the calyx and peduncle is 3.5 to 3.8 mm. The polypide measuring about 0.65×0.5 mm., the pedicel 2.3×0.07 mm., and the barrel 0.75×0.5 mm.

Habitat.—Station 163A, off Twofold Bay, 150 fathoms.

[Port Philip Heads.]

The arborescent growth of this beautiful species distinguishes it at once from all other known Pedicelline forms, but the rest of its structure leaves no doubt as to its belonging to that order.

At first sight it is difficult to observe that the tentacles are not arranged in a perfectly regular and continuous circle, but here and there indications may be noticed that a wider space does occur between two at opposite sides of the circumference, viz., at the two ends of the symmetrical plane of the animal; the bilateral arrangement is most clearly seen in a young budding Polypide (Pl. X. fig. 2) which appears closely to resemble the figures given by Hatschek¹ in his paper on *Pedicellina echinata*, and also the figure and description by Salensky.² The buds arise in succession spirally and somewhat in pairs (Pl. X. fig. 1) round the growing ends of the chitinous stems and branches. Fresh polypides also bud from the ends of the pedicels after others have died and dropped off; that this also occurs in *Pedicellina* has been noticed and described by Salensky,³ and

¹ *Zeitschr. f. wiss. Zool.*, Bd. xxix. pl. xxx. figs. 39, 40, 45. ² *Ann. d. Sci. Nat.*, sér. 6, t. v. p. 36, pl. xv. fig. 36.

³ *Loc. cit.*, pp. 30, 31.