

The opercular scales are small discs, and are not capable of completely closing the opening of the calyx.

The calyx scales are rectangular, very broad and flat, with an upper smooth edge and a toothed lower edge; the edge of that scale which is laterally covered by the next is likewise toothed. Near the base the scales become somewhat higher, and their form irregular. Height to breadth, 0·12–0·26; 0·13–0·29; 0·15–0·3; 0·13–0·26 mm.

The opercular scales are short, relatively broad little plates, which appear truncated, with the exception of the dorsal ones, which are pointed at the end. Height to breadth, 0·06–0·07; 0·11–0·1; 0·12–0·1 mm. The scales of the cœnenchyma are irregularly triangular or polygonal, 0·26–0·14; 0·27–0·12; 0·17–0·13 mm.; in the lower layer they form warty spindles which are at times forked, 0·09 and 0·07 mm. long.

*Habitat*.—Station 308, off Tom Bay, Patagonia; lat. 50° 10' S., long. 74° 42' W.; depth, 175 fathoms; bottom, mud.

*Primnoella australasiæ*, Gray (Pl. XVIII. figs. 1, 1a; Pl. XXI. fig. 15).

*Primnoa australasiæ*, Gray, Proc. Zool. Soc. Lond., 1849, p. 146, pl. ii. figs. 8, 9.

*Primnoella australasiæ*, Gray, Ann. and Mag. Nat. Hist., ser. 2, vol. v. p. 510, 1850.

“ “ Gray, Proc. Zool. Soc. Lond., 1857, p. 286; 1859, p. 483.

“ “ Gray, Cat. Lithophytes Brit. Mus., 1870, p. 50.

“ “ Verrill, Bull. U.S. Nat. Mus., 1876, No. 3, p. 76.

Several specimens of *Primnoella* from the Challenger collection may be referred to this species. The numerous cells which constitute the whorls and are provided with two dorsal longitudinal rows of scales coming together at an angle, easily characterise the species. The figures of Gray show (*loc. cit.*, fig. 9) a whorl of polyps seen from the side, and (fig. 8) a piece of the stem with a row of six whorls. Although many details are left unrepresented in the figure, yet the species may be recognised thereby. The description of the species, as is usual with Gray, is very short; and only in his later publications was the generic diagnosis of *Primnoella* given. In 1876 Verrill (*loc. cit.*), with his usual ability, gave a detailed description.

Of the several specimens which must be distinctly referred to this species as found in the Challenger collection, the largest has a length of 500 mm.; the thickness of the axis at its base is 2 mm. Sixteen to twenty calyces are to be found, each 2 mm. long, on each closely packed whorl. Typical pieces come from Port Jackson, Australia, from a depth of 30 to 35 fathoms.

Near to this station, in Twofold Bay, specimens were dredged from a depth of 150 fathoms, which in the form of the calyces and scales appear to belong to the same species, but differ with regard to the number of calyces which constitute a whorl.