

the entrance to Davis Strait; two Stations in the South Atlantic, 2200 and 2900 fathoms respectively; seven in the South Pacific, from 2 fathoms to 2600 fathoms; and five in the North Pacific, from 7 fathoms to 3125 fathoms.

Its geological range is correspondingly extensive. It makes its appearance in the Lower Carboniferous rocks of Yorkshire, and occurs subsequently in the Upper Lias of Yorkshire (Tate); in the Lower Tertiary sands of Cassel in Germany (Reuss); and in the Miocene of Baden near Vienna (d'Orbigny).

Haplophragmium pseudospirale, Williamson, sp. (Pl. XXXIII. figs. 1-4).

Protonina pseudospiralis, Williamson, 1858, Rec. For. Gt. Br., p. 2, pl. i. figs. 2, 3.

Lituola nautiloidea, "feeble form," Parker and Jones, 1862, Introd., Foram., Appendix, p. 309.

Haplophragmium pseudospirale, Siddall, 1879, Catal. Brit. Rec. For., p. 4.

"Test thin, compressed; at first exhibiting a tendency towards a spiral growth, but afterwards projected in a nearly straight line. Texture coarsely arenaceous and granular. Septal aperture oblong, at the extremity of the produced portion, but irregular and sometimes scarcely perceptible. Length, $\frac{1}{20}$ th inch" (1.25 mm.).

To the foregoing description Prof. Williamson adds that he had "detected no trace of segmentation in this species, its interior consisting of an undivided cavity" and that "it obviously presents a rude and imperfectly developed example of a type of growth which assumes a completely symmetrical and concamerated condition in *Cristellaria* and its allies."

I have found it extremely difficult to determine, by means of sections or otherwise, the condition of the interior of the test, owing to the roughness of the inner as well as the outer surface. Williamson's conclusion is probably in the main correct; but in some cases the cavity appears to be divided in a rudimentary way, though the partitions are too irregular and imperfect to be regarded as septa.

Haplophragmium pseudospirale is not uncommon amongst the islands on the west coast of Scotland, at depths of 30 to 60 fathoms; it occurs in two of the "Porcupine" dredgings from the west of Ireland, 90 fathoms and 370 fathoms respectively; and the Rev. A. M. Norman has specimens from off Valentia, 110 fathoms.

Haplophragmium calcareum, n. sp. (Pl. XXXIII. figs. 5-12).

Test elongate compressed, the two surfaces nearly equally convex, peripheral edge blunt or angular; consisting of numerous segments, the earlier of which are arranged in a flat spire, the later ones in a straight or curved linear series; aperture simple, terminal. Of the spiral chambers, only the last convolution visible externally; those of the linear