

dredging expeditions have thrown so much light on the molluscos fauna of the Unalashka region of North America.

Terebratulina (?) *murrayi*, n. sp. (Pl. II. fig. 1, *a, b, c*).

Shell small, obscurely trigonal, about as broad as long, broadest anteriorly, tapering posteriorly, white, surface marked by a small number of strong radiating ribs. Dorsal valve moderately convex, laterally auriculated close to the umbonal hinge-line. Hinge-line widely obtuse. Ventral valve convex, deeper than the opposite one. Beak very slightly incurved, and truncated by a largish incomplete foramen, margined laterally by small deltidial plates. In the interior of dorsal valve the hinge-plate is concave and wide, loop simple, short. Brachial appendages forming two branches, which curve inwards towards the centre of the shell, with spiral terminations. Cirri long. Length 4, width $3\frac{1}{4}$, depth 2 mm.

Habitat.—Dredged by the Challenger Expedition on the July 15, 1874, at Station 171, lat. $38^{\circ} 33' S.$, long. $177^{\circ} 50' W.$, near Kermadec Island, south of Fiji Islands, in a depth of 600 fathoms. Bottom temperature, $4^{\circ} 0 C.$ Rock.

Observations.—Some eleven or twelve examples were dredged alive by the Challenger Expedition, and none exceeded the dimensions above given. It is a remarkable and puzzling species, for its shell and loop partake of the character of *Terebratulina*, while its brachial appendages seem to differ very materially from those of the sub-genus to which it is provisionally referred. I sent a specimen to Mr Dall for examination, as I desired to have his valued opinion on the shell. He states—"By devoting about half-an-hour to this little shell, I have cleared away all the animal matter (in the mode I wrote to you¹), leaving the loop perfect. You will see at once that it is a young *Terebratulina*. I suspected this before I could see the loop, from the character of the punctuation which you will recollect is peculiar to the group." I had myself previously ascertained that the loop was short and simple, and that the mantle rises from the bottom of the shell near the loop, and adheres to its sides, as seen in fig. 1, *c*. It is singular, however, that, if a young shell, no example out of the eleven or twelve dredged by the Challenger Expedition attained larger proportions. It varies a good deal in shape and in the number of its ribs; some examples are also wider than long. I have named this species after John Murray, Esq., the able and obliging naturalist of the Challenger Expedition.

¹ To get at the delicate loop of any small Brachiopod without injuring it or the shell, first moisten in pure glycerine and allow the shell to lie twenty-four hours after it. Next immerse in a rather weak solution of caustic potash for two or three days. This will soften all the ligaments, so that they will admit of opening the shell to its normal extent. Then a small syringe will enable one to throw into the shell a steady stream of pure water, which will wash away nearly all the dried animal matter. After this is done, if some of the animal matter still remains, give the shell twenty-four hours more of potash solution, and repeat the syringing; while for an obstinate ligament, the tip of a fine stiff bristle, say from an ordinary old coat-brush, when the bristle is somewhat feathered, will often stroke it away.