

*Observations.*—This is one of the most interesting species of deep-sea Brachiopoda dredged during the Challenger Expedition. The shell is of such extreme thinness that it is almost transparent; indeed, the valves when separated are really so, and the muscular impressions may be seen through its transparency. It is also exceedingly brittle. I separated the valves of a specimen in order to be able to study its animal and loop, the latter, which I was very much surprised to find short, is in every respect similar to that of *Terebratula* proper, to which genus the species must be referred, notwithstanding its outward *Waldheimia*-like appearance. It bears much resemblance to several species of the last-named genus occurring in the Jurassic and Cretaceous formations and especially so to *Terebratula boneti*, Zeuschner, from the Kimmeridge of Switzerland, and from which some of the Challenger specimens are scarcely distinguishable, either by size or shape.

Prior to making a complete examination of its interior characters I had provisionally referred it to *Waldheimia*. We find but few recent species with such a thin shell, but among these last may be named the far-spread *Discina atlantica*, King, *Atretia gnomon*, Jeffreys, *Waldheimia tenera*, Jeffreys, *Rhynchonella lucida*, Gould, and one or two others. When quite young and up to 4 or 5 mm. in length, the shell shows no mesial depression, this begins at a more advanced age. I have much pleasure in naming this species after Sir Wyville Thomson, F.R.S., the distinguished director of the civilian staff on board the Challenger.

*Terebratula cubensis*, Pourtales (Pl. II. figs. 10, 11).

*Terebratula cubensis*, Pourtales, Bull. Mus. Comp. Zool., vol. i., No. 7, p. 109, 1867.

*Terebratula cubensis*, Dall, Report on the Brachiopoda obtained by the United States Coast Survey Expedition, Bull. Mus. Comp. Zool., vol. iii., pl. i. fig. 2, 1871.

Shell globose, somewhat trigonal or obscurely pentagonal, longer than wide, smooth, marked at intervals by concentric lines of growth, nearly white; broadest anteriorly, tapering posteriorly. Dorsal valve convex, without fold or sinus, front-line nearly straight or slightly curved; margin of valves laterally flexuous; ventral valve somewhat deeper than the opposite one, longitudinally and broadly flattened, the sides of the flattened portion sloping away rapidly and rather abruptly on either side, giving the valve a somewhat subquadrangular aspect. Beak moderately incurved and truncated by a circular foramen separated from the hinge-line by a narrow deltidium. Loops, short simple. Length 28, width 22, depth 18 mm.

*Habitat.*—Two examples were dredged off Ascension Island on April 3, 1876, at Station 334. Depth, 420 fathoms. Hard ground.

*Observations.*—The two living specimens dredged by the Challenger Expedition agreed in every respect with those obtained by M. de Pourtales, in from 100 to 300 fathoms off the Florida Reefs, or off Havana in 270 fathoms. The shell was briefly described in 1867 by M. de Pourtales, and subsequently in 1871 with minute details by Mr W. H. Dall. The loop