Shell.—Like one of the old drinking-horns, short, stumpy, and a good deal bent, rather thin; the newer growth porcellanous, the older chalky, and given to break off in flakes, leaving a perfectly smooth brilliant porcellanous core. Sculpture: The surface is covered with close-set annular striæ, which, especially on the longitudinal ribs, show like minute, crisp, round threads. The longitudinal ribs are very much stronger, but still are fine, rounded, parted by rounded furrows much like the ribs; both, but especially the furrows, are irregular in size, fresh riblets arising in the hollows. There are from 30 to 35 toward the apex, and from 70 to 80 toward the mouth. Colour pure white. Edge thin and broken at the mouth; at the apex there is an irregular ragged fissure in the convex curve. L. 1.8 in. B. at mouth 0.3, at apex 0.07.

One specimen from Station 246 is much less curved than the others. That from Station 299 (distant more than 7500 miles in a straight line, 4500 miles N. and S., and 6000 miles E. and W.) is much broader (L. 1.7 in., B. 0.36) and much more bent, but is obviously identical.

The distance by sea from the Pacific, off Valparaiso, to the Gulf of Mexico, is so enormous that Mr. Dall's identification of his species with this one seemed to need confirmation, and a specimen was accordingly sent to him for comparison. Mr. Dall sent me a sketch of his solitary specimen with the following remarks, which his sketch confirms, "Yours is older, has lost much tip, and widened at the mouth; the tip is perhaps slightly more curved. The sculpture in mine, perfectly preserved, is a little more cleanly cut than in yours, but otherwise identical. Mine was dead and surface not glossy, yours living (though eroded) and in places quite glossy. If the two had been dredged together I think no question would have arisen as to their being the same. From such different localities there is always more doubt, though, in these abyssal things without much reason for it. Mine has no notch, but I find such differences in this character in the same species that I put no value on it unless it is uniform in many specimens. There do not seem to be any other differences. After a most careful scrutiny, I think there are no specific or even definable varietal differences between them."

This, compared with *Dentalium amphialum*, Wats., is more curved; the longitudinal striæ are much narrower, more distinct, and more persistent. Than *Dentalium grande*, Desh., this is a much smaller and especially shorter and stumpier form, without the regular circular liræ, and the longitudinal ribs are much weaker and are closer set. Compared with *Dentalium capillosum*, Jeffr., which it superficially resembles, it differs in texture, form, and sculpture.

5. Dentalium diarrhox, Watson (Pl. I. fig. 5).

Dentalium diarrhox, Watson, Prelim. Report, pt. 2, Journ. Linn. Soc. Lond., vol. xiv. p. 511.

Station 169. July 10, 1874. Lat. 37° 34′ S., long. 179° 22′ E. N.E. from New Zealand. 700 fathoms. Blue mud. Bottom temperature 40°.

Animal.—Mantle white, body pale yellow. Captacula many, fine, long, and equal, with small ovoid points. Foot and collar those of a true Dentalium.