

The dimensions which have been given by no means represent the entire range in size, for the specimens originally described by d'Orbigny, from West Indian shore-sands, were only one-tenth of a millimetre in diameter. No doubt individuals as minute as this are occasionally found, but about 0.5 mm. is the average measurement of recent specimens, as found in very deep or very shallow water, and such shells generally consist of five or six convolutions of nearly even width. The exceptionally large specimens frequently met with in localities rich in arenaceous Foraminifera, at depths of from 300 to 1000 fathoms or thereabouts, attain a diameter of nearly 3 mm., and often present from fifteen to twenty convolutions. In these the early whorls are narrow, and there is a slow gradual increase in width, which is rather more rapid in the later stages. The successive convolutions are sometimes slightly embracing, and as the peripheral edge of the test is always rounded, the shape of the tube in transverse section depends a good deal upon the extent to which its sides overlap, and may be oval, circular, semicircular, or crescentiform.

Turning for a moment from the consideration of the characters of the recent test, the following note from the Monograph of Carboniferous and Permian Foraminifera, p. 73, apropos of the earliest fossil representatives of the species, may not be out of place:—"Wherever it (*Ammodiscus incertus*) exists as a palaeozoic fossil it appears in large numbers, and the specimens present a correspondingly wide range of variation in minor characters. Many specimens are just such as might be dredged at the present day on our own shores, consisting of five or six convolutions in one plane of a non-septate tube, the convolutions nearly uniform in breadth, and the tube having an approximately circular transverse section. The examination of a large number of individuals reveals many little modifications of these simple typical characters. Sometimes the number of convolutions is smaller and their width greater, forming a test of similar diameter and without increase of thickness, and in such the tube presents a long oval instead of a circular transverse section. Other examples show a tendency in the successive convolutions each to embrace, to a limited degree, that immediately within it, and the section of the tube is then more or less crescentiform. In some of the larger complanate shells the spiral tube increases in width with each succeeding circlet. Lastly, it is not at all uncommon to find the shell-wall thickened, especially near the centre of the disc, the excavated sutural line filled up, and the test assuming thereby a more or less lenticular or biconvex figure. In these instances the calcareous cement is largely in excess of the arenaceous material, the surface of the test is nearly smooth, and even permits, by a sort of transparency, the course of the spiral cavity in the interior to be traced. These modifications, in addition to many irregularities in external contour, arise from what may be regarded as accidental circumstances, and present no ground for specific or varietal subdivision."

From this description it will be gathered that the *Ammodiscus incertus* of the Car-