

or round in transverse section; whilst the most aberrant condition of all occurs in the delicate linear shells of *Peneroplis lituus* (e.), in which the spiral portion is relatively very small, and the remainder consists of a long string of ovoid, Nodosariform segments.

The whole of the foregoing modifications are characterised by differences in the conformation of the test, that is to say, by the shape of the segments and their mode of combination; but there are others in which the condition of the surface of the shell has been made the ground of specific distinction. It has been already stated that the genus is for the most part characterised by the striate condition of the exterior. The striæ or plicæ are usually regular and parallel, and traverse the surface of the chambers in a transverse or an oblique direction. There are, however, occasional specimens which are devoid of ornament, and present a perfectly smooth exterior. These are either of the nautiloid sort, thick-shelled, and often with slightly limbate sutures, like *Peneroplis carinatus* (d.), or of the broad complanate form with the shell of extreme tenuity, as in *Peneroplis lævigatus* (g.).

The aperture of the test in *Peneroplis* in its normal condition takes the form of a number of circular pores, which are either arranged more or less regularly in a single or double row, or scattered without order over the face of the terminal chamber. In certain cases the shell presents a single irregular dendritic orifice, apparently the result of the coalescence of a number of pores. This form of orifice has been magnified into a character of generic importance, but it has been shown by Carpenter (*loc. cit.*) that amongst the recent varieties of the genus, distinctions depending solely on trifling differences in the nature of the aperture are of no real zoological value.

The geographical distribution of the genus is very wide, and appears to be governed only by latitude and depth of water. It supplies some of the commonest Foraminifera of the shallow-water margins of tropical and subtropical seas, as far north as the Mediterranean. I am unable to concur in Dr. Carpenter's statement that the Dendritine varieties are confined to tropical latitudes, and that the Spiroline forms replace the others in deep water ("Introd.," p. 92). D'Orbigny gives "the Mediterranean near Toulon" as a locality for *Dendritina*, and the most beautiful specimens in my own cabinet, though they are not of large size, are from the opposite coast of Tripoli; and the so-called *Spirolineæ* have been found with allied forms at every depth from 8 to 250 fathoms. To judge by the Challenger collections the smooth non-striate varieties (*f.* and *g.*) appear to affect the greatest depths. They occur at Stations 24 and 33 (off Culebra Island and off Bernuda) in 390 and 435 fathoms respectively; but as shells of precisely similar character have been met with near the Cape de Verde Islands, in the Gulf of Suez, and elsewhere, at from 10 to 15 fathoms, it is manifest that they afford no evidence of any general rule. The deepest Challenger dredging in which living shells of the ordinary striate forms have been found is from Station 174 A., off Kandavu, Fiji, 255 fathoms, and the