

Tertiary beds of the neighbourhood of Vienna, somewhat thinner also, and with scarcely so many segments in the outermost convolution. But these are variable characters, in which considerable latitude may properly be allowed. Recent specimens are occasionally as much as 1.0 mm. in diameter, and seldom have more than three chambers in the final whorl, whilst those from the Miocene are stated to be about one-third smaller, and have usually four peripheral segments.

So far as can be gathered from the Challenger material, the present distribution of *Hauerina compressa* is restricted to a very small area. It occurs in two dredgings in the narrow sea between the northernmost part of Australia and the island of New Guinea, namely, off Booby Island, 6 to 8 fathoms, and off Raine Island, 155 fathoms, and a few small and doubtful specimens have been found in an adjoining locality; but beyond these limits it has not been observed. Some years ago the species was included in a list of Foraminifera obtained from Dr. Gwyn Jeffreys' Hebrides dredgings,<sup>1</sup> but these specimens must now be referred to the genus *Planispirina*.

Of its geological history nothing is known beyond its occurrence at one or two points in the Miocene of the Vienna Basin.

*Hauerina circinata*, H. B. Brady (Pl. XI. figs. 14–16).

*Hauerina circinata*, Brady, 1881, Quart. Journ. Micr. Sci., vol. xxi., N. S., p. 47.

Test nautiloid, thin, complanate; composed of two or three convolutions, the last of which, consisting of six or seven segments, completely encloses those previously formed, segments arched, thin and rounded at their peripheral margins; sutural lines marked by external constrictions. Colour milky white, sufficiently translucent to show the outline of the inner whorl of chambers. Aperture consisting of a number of perforations distributed irregularly over the septal face of the terminal segment. Diameter,  $\frac{1}{25}$ th inch (1 mm.).

*Hauerina circinata* is distinguished from the typical *Hauerina compressa*, not only by its more regularly nautiloid form and the larger number of chambers in each circuit, but by its embracing segments and thin diaphanous shell. The almost complete investment of each convolution by the succeeding one, and the presence at the same time of the true Hauerine aperture, mark the species as a connecting link between *Hauerina* and *Planispirina*.

In distribution *Hauerina circinata* appears to be limited to the same narrow area as the typical form. It has only been found in four shallow-water dredgings, amongst the islands lying between Australia and Papua, namely,—off Booby Island, 6 to 8 fathoms; off Wednesday Island, 8 fathoms; Flinders Passage, 7 fathoms; and Torres Strait, 3 to 11 fathoms.

<sup>1</sup> Report Brit. Assoc., Nottingham Meeting, 1866, Trans. Sections, p. 69.