

rounded or polygonal area. The few recent specimens that have come under my notice have tolerably regular and well-formed apertures, as shown in the figure; but the edges are somewhat square and abrupt, and it is not improbable that they may have a similar origin to those occasionally found in bottom specimens of *Orbulina universa*.

The earliest satisfactory drawing of *Orbulina porosa* is that given by Terquem under the name *Orbulina liasica*; but in his description of the species it is stated that the organism is the same as that which he had previously named *Globulina porosa*. Having the choice of two specific terms, I have preferred the earlier, not only on the ground of precedence, but because it happens to be more appropriate to a still-living organism.

Orbulina porosa is an exceedingly rare Foraminifer. It does not occur in any of the pelagic collections, although *Globigerinæ* with similar superficial markings are not uncommon at certain points; and it has only been recognised in the bottom dredgings from one Challenger Station,—off Culebra Island, West Indies, 390 fathoms. It has, however, been found by the Rev. A. M. Norman in two of the "Valorous" soundings in the North Atlantic, namely, Station 9, depth 1750 fathoms, and Station 15, depth 1485 fathoms.

In the fossil state it has been observed in the Lias of the Moselle (Terquem), in the White Jura of St. Veit, near Vienna (Karrer), and in the Pliocene Sands of the neighbourhood of Rome (Terrigi).

Hastigerina, Wyville Thomson.

Nonionina, pars, d'Orbigny [1839], Ehrenberg.

Lituola, pars, Jones and Parker [1860].

Globigerina, pars, Parker and Jones [1865].

Hastigerina, Wyville Thomson [1876], Brady.

The genus *Hastigerina* was instituted by Sir Wyville Thomson for certain *Globigerina*-like organisms, obtained by means of the tow-net from the surface-water of mid-ocean. Similar specimens had been collected many years previously, under the same conditions, by d'Orbigny, but were assigned by him to the genus *Nonionina*.

Hastigerina is essentially a pelagic type. The surface-specimens present considerable variety of contour, but they are all referrible to a single species, the salient characters of which are set forth in the subjoined description.

forward to comparatively recent periods. The spherules are not of organic origin, but are the result of the coalescence of precipitated or finely comminuted carbonate of lime, in accordance with purely physical laws (*vide*, Monogr. Carb. and Perm. Foraminifera, p. 5). So far as I am aware, *Orbulinæ* have never been found in the fossil condition in sufficient numbers to constitute any sensible proportion of a geological deposit.