

formations, such as the Miocene of Dax near Bordeaux, and of Jamaica, and the Crag of Suffolk.

Operculina ammonoides, Gronovius, sp. (Pl. CXII. figs. 1, 2).

Nautilus ammonoides, Gronovius, 1781, Zooph. Gron., p. 282, No. 1220, and p. v.

„ *balthicus*, Schroeter, 1783, Einleitung, vol. i. p. 20, pl. i. fig. 2.

Operculina complanata, Parker and Jones, 1857, Ann. and Mag. Nat. Hist., ser. 2, vol. xix. p. 285, pl. xi. figs. 3, 4.

Nonionina elegans, Williamson, 1858, Rec. For. Gt. Br., p. 35, pl. iii. figs. 74, 75.

Operculina ammonoides, Parker and Jones, 1862, Introd. Foram., Appendix, p. 810.

Nummulina perforata, var. (*Operculina*) *ammonoides*, Parker and Jones, 1865, Phil. Trans., vol. clv. p. 398; pl. xiv. fig. 44; pl. xvii. figs. 62, 63.

Nonionina elegans, Fischer, 1870, Actes Soc. Linn. Bordeaux, vol. xxvii. p. 396, No. 45.

This is a starved variety, the test of which is of comparatively small dimensions, but proportionately thicker than that of typical *Operculina complanata*; and it is further characterised by having strongly limbate sutures. The diameter seldom much exceeds $\frac{1}{4}$ th inch (0.56 mm.).

Operculina ammonoides is not uncommon at moderate depths on the shores of Norway, Denmark, Great Britain, and France. It occurs at fourteen "Porcupine" Stations and one Challenger Station in the North Atlantic, at depths of 45 to 1630 fathoms, the most southerly point being off the Canaries. It has also been observed in the Mediterranean, 320 fathoms, and in the Gulf of Suez, 30 fathoms; off the Cape of Good Hope, 150 fathoms; on the coast of Australia, 17 fathoms; at three points south of Papua, 129 to 800 fathoms; off the Philippines, 95 fathoms; in Hong Kong Harbour, 7 fathoms; and south of Japan, 345 fathoms.

It was one of the Foraminifera obtained by the late Prof. M. Sars from the Post-tertiary beds of Norway, and it is mentioned doubtfully by Seguenza amongst the Pliocene fossils of Calabria.

Heterostegina, d'Orbigny.

Heterostegina, d'Orbigny [1826], Bronn, Reuss, Rüttimeyer, Carpenter, Jones and Parker, Carter, Karrer, Kaufmann, Gümbel, Hantken, Brady, Moebius, Seguenza, &c.

The test of *Heterostegina* bears a general analogy to that of *Operculina*. It has the same external contour, and attains like dimensions; and the chambers though differing in certain points are arranged on a similar plan. The primary distinction between the two genera rests upon the fact that whilst the chambers of *Operculina* are simple and entire, those of *Heterostegina* are subdivided by transverse septa into chamberlets. In other words, the mutual relationship of *Operculina* and *Heterostegina* is precisely that which exists between *Peneroplis* and *Orbiculina*, amongst the porcellanous types.

The subdivision of the chambers, however, gives rise to a well-marked difference in the