gest breadth slightly above the middle. The alar prolongations of the sutures in the last-formed chambers are distinct, 5—6 of them at a suture, whereas the other ornamentation consists of some irregular knobs. The margin is rounded.

The specimens seem to belong to *Bolivinoides polonica* Pozaryska (Acta Geologica Polonica, Vol. 4, Wardzawa, 1954, p. 252, fig. 1). This species was described from Gora Pulawska. in a drilling, 24 m, in Danian marls.

When we consider that the highest developed *Bolivinoides* in the Cretaceous of Holland and Belgium, *Bolivinoides gigantea,* in its utmost ornamentation is found in the Lower Cr 4 and reworked in the overlying Ma, and that in the thick layers (thickness up to 50 m) of the whole M-complex no *Bolivinoides* occur, this discovery is of much importance. Pozaryska mentioned, that the Danian deposits yield a rich foraminiferal fauna, some of them bearing type characters of the Tertiary fauna, since such genera as *Uvigerina, Alabamina* and *Coleites* are to be found there (p. 63 of the reprint, summary in English). Quite the same can be said of the Upper Md fauna; here also the Tertiary character of the Foraminifera is striking. In this respect the finding of this species of *Bolivinoides,* the last known form of the cretaceous group of *Bolivinoides decorata,* together with many other species with Tertiary character, as in Poland, seems to be of importance.

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## FORAMINIFERA FROM THE CRETACEOUS OF SOUTHERN LIMBURG, NETHERLANDS. XVII.

by J. HOFKER

### *LAGENA ACUTICOSTA* Reuss. Pl. 3.

*Lagena acuticosta* Reuss, Sitz. ber. Math. Nat. Cl. k. Akad. Wiss. Vienna, Vol. 44, 1861 (1862), p. 305, pl. 1, fig. 4.

*Lagena acuticosta* Reuss, Visser 1950 Thesis Leiden, p. 234, pl. 2, fig. 1.

Test globular or slightly elongate, covered by 12 rounded, often somewhat irregular costae, running from the base of the test towards the protruding aperture, but not reaching it, and ending at the base into a very short spine. Base rounded to flattened; wall in most cases shining, with very fine pores between the costae. Wall thick. Aperture provided with inconspecuous and fine radial openings, closed at its end. Never a real neck is formed.

Length 0,75 mm, or somewhat smaller( thickth 0,55 mm.

Brotzen (1936, Sver. geol. Unders., Ser. C, 396, p. 112) believes that his *Lagena isabella* d'Orbigny from the Santonian of Sweden and *L. acuticosta* Reuss may be the same species. But not only his specimens lack the closed aperture, but also they are much smaller with much finer costae. Visser described one single specimen, which is very small, from the Mc of South Limburg, where it is always very rare.

The species is not found in any sample from the Ma, the lower Mb; it occurs in several samples, always rarely, from the basal conglomerate with Kunrade habitus of the lowest Mc upward, and becomes more abundant to common in samples from the lower Md; in the upper Md it is equally missing or extremely rare.

*L. acutocosta* has been found also in many samples from the Kunrade chalk, especially those which seem to be of the lower Md time.

Striking is, that the specimens seem to lack the typical antapical closed part at the centre of the base, always found in Lagenae. So it may belong to quite a different group.

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## FORAMINIFERA FROM THE CRETACEOUS OF SOUTHERN LIMBURG, NETHERLANDS. XVIII.

by J. HOFKER

### *EPONIDES TOULMINI* (Brotzen). Pl. 4.

*Eponides boueana* Toulmin, 1941, p. 601, pl. 81, figs. 6, 7.

*Eponides toulmini* Brotzen, 1948, p. 78, pl. 10, fig. 16.

*Pseudoparrella meeterenae* Visser, 1950, p. 278, pl. 7, fig. 9.

*Eponides gratus* (Reuss), Van Bellen, 1946, p. 57, pl. 7, figs. 4—9.

Test slightly oval, lenticular, ventral side sometimes more convex than dorsal side. Chambers at ventral side somewhat inflated and thus forming a small umbilical depression.