cephalon suggests a form more or less similar to that of *Amphilichas*. However, this fragment of a glabella was not actually found attached to any specimen which could be identified confidently as *Amphilichas harrisi*.

The species originally described by S. A. Miller (Jour. Cincinnati Soc. Nat. Hist., vol. I, 1878, p. 106, pl. 3, fig. 9) as *Lichas harrisi* is a typical *Amphilichas*, a genus characterized by a pygidium in which the axial lobe anteriorly is marked by two transverse rings, while posteriorly it terminates in a point; there are three pairs of pleural segments with free ends. The lateral lobes of the glabella not only reach the neck furrow but are extended along the latter for some distance. *Lichas halli*, Foerste, and the pygidium recently figured by the writer from the Richmond formation at Richmond, Indiana (Jour. Cincinnati Soc. Nat. Hist., vol. 22, No. 2, 1917, page 43, pl. 1, fig. 2) evidently belongs to another genus, possibly *Arctinurus*.

The specimens of *Calymene* occurring in the cherty Richmond are not sufficiently well preserved to be referred to any definite species, although fragments are not uncommon.

Two figures of cephalons of trilobites are here presented in the hope that they may prove of interest, although not belonging to the fauna here under discussion. They serve at least to fill spaces which otherwise would have been left vacant on the plate. *Synhomalonotus christyi* (Hall), Fig. 29, from the upper part of the Waynesville member of the Richmond, is represented by a slightly crushed cephalon. *Pterygometopus carleyi* (Meek), Fig. 30, is represented by an entire enrolled specimen, lacking only the genal spines; but only the cephalon and the outline of the axial part of the first segment of the thorax is here presented. It was obtained in the Fairmount member of the Maysville group, at Cincinnati, Ohio.

BOLLIA PERMARGINATA, sp. nov., Figs. 33 A, B, C. Carapace only three-fourths of a millimeter in length, closely resembling the specimen from the Arnheim member of the Richmond identified by Ulrich and Bassler (New American Paleozoic Ostracoda, Proc. U.S. Nat. Mus., 1908, p. 288, fig. 13) as *Bollia regularis* (Emmons). It differs chiefly in the prominence and continuity of the ventral part of the marginal ridge. The two middle ridges are slightly more elevated than the anterior and posterior branches of the marginal ridge, and are connected at the base so as to produce a more or less U-shaped aspect. They vary from vertical to slightly divergent, with the basal part inclining slightly toward the rear, especially in case of the anterior one of this pair. The anterior branch of the marginal ridge tends to be vertical, and as far separated from the anterior one of the middle pair as the latter are separated from each other. It is located at a distinct interval from the anterior margin of the carapace. The posterior branch of the marginal ridge, however, is marginal, and tends