

his Fauna No. 3, the representative of the Silurian (Upper Silurian), as distinguished from what is now called the Cambro-Silurian or Ordovician System. In 1835, however, in volume V, part 1 (Lamellibranchiata) of the "Palæontology of the State of New York," Professor James Hall described and figured fifteen species of *Panenka* from the Devonian rocks of the United States. Some of these species had previously been referred to *Pterina* and *Monotis* by Conrad and S. A. Miller, and by Hall himself to *Cardiola*. The names of three additional species of *Panenka* from the Devonian of North America are given in S. A. Miller's "North American Geology and Palæontology," published in 1839.

This genus was, and still is, based exclusively upon the external characters of the shell, the hinge dentition, muscular impressions and pallial line of the interior of the valves being unknown. It is described as having no distinct cardinal area, like that of the *Arcadæ*, but some species are said to show obscure evidence of a ligamentary groove. The systematic position of *Panenka* is therefore quite uncertain. It is placed by Hall in the *Cardiidae*, but Rudolf Hörnes has constituted a special family, which he calls the *Præcardiidae*, for the reception of *Præcardium*, *Panenka* and several other similar and apparently closely related genera described by Barrande. This latter view of its relations, which seems to be the most satisfactory one in the present state of our knowledge, is adopted by Dr. Paul Fischer in his "Manuel de Conchyliologie." In that volume the family *Præcardiidae* is placed between the *Grammysiidae* and the *Pholadomyiidae*, but its author states that it seems to him to have closer relations with the *Anatinacea* than with any other suborder of the *Dibranchiata*. The species indicated by the four specimens collected by Mr. Lambe may be described as follows.

PANENKA GRANDIS. (Sp. nov.)

Plate 1.

Shell very large, attaining to a length of from six to nine