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## ON THE GENUS *PANENKA*, BARRANDE, WITH A DESCRIPTION OF A SECOND SPECIES OF THAT GENUS FROM THE DEVONIAN ROCKS OF ONTARIO.

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(With one Plate.)

In the sixth volume of the "Système Silurien de la Bohême," which was published in two parts in 1881, Barrande proposed the name *Panenka* for a genus of lamellibranchiate bivalves from the Silurian rocks of Bohemia, and described and figured no less than 231 species of that genus. These species are all ornamented with radiating ribs, which give them a certain general but superficial resemblance to recent shells of the genus *Cardium*. But, upon closer examination it will be seen that in many of the *Panekas* the ribs are unequal in size and irregular in their distribution, and that their valves are usually longer than high. Their test, also, is said to be thin, and their hinge line to be entirely devoid of teeth properly so called. On the other hand, in the typical species of *Cardium* the ribs are exquisitely regular in their size and arrangement; their valves are higher than long; their test comparatively thick, and their hinge line provided with both cardinal and lateral teeth. Dr. Paul Fischer, in his "Manuel de Conchyliologie," places the genus *Panenka* in Rudolph Hoernes' family *Præcardiidae*, which consists exclusively of palæozoic genera and species.

Four years later, in 1885, Professor James Hall described and figured, or enumerated, seventeen species of *Panenka* from the Devonian rocks at several localities in the United States, in volume V, part I, Lamellibranchiata II, of the "Palæontology of the State of New York." And, in 1891, the present writer described and figured an unusually large and coarsely ribbed species of the genus, from the Corniferous limestone at St.

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Mary's, Ontario, under the name *Panenka grandis*, in the fourth volume of the "Canadian Record of Science."

The generic name *Panenka*, as stated by Barrande, is a Czech or Bohemian word, with the same significance as *puella* in Latin. But, although the seventeen species of *Panenka* enumerated by Hall are included by S. A. Miller in the list of "North American Palæozoic Fossils" in the first edition of his "North American Geology and Palæontology," published in 1889, yet in the First Appendix to that list, published in 1892, he says that the name *Panenka* is "not formed according to the rules of nomenclature and should be discarded." It had, however, as already explained, come into use by palæontologists on both sides of the Atlantic, so that its rejection would probably be attended with more inconvenience than its retention.

Quite recently, in November and December, 1901, the Rev. Thomas Nattress, of Amherstburg, Ontario, kindly sent to the writer, for identification, a few specimens of a fossil lamelli-branchiate bivalve from the immediate vicinity of Amherstburg. These, he writes, were collected by Mr. Harry Hodgman from pieces of solid rock blasted and dredged out of the bed of the Detroit River, at the Old Lime Kiln Crossing, Anderdon township, Essex county, a "few hundred yards only within the Canadian boundary, in the course of deepening the channel." They clearly belong to the genus *Panenka* and are obviously quite distinct from *P. grandis*. So far as the writer can see, they cannot be satisfactorily identified with any of the known species of *Panenka* from the American Devonian. Two of them as much more perfect than the rest, and both of these are represented on Plate XV. The original of figure 1 on that Plate represents a specimen with a subcircular marginal outline, which is somewhat similar in form to *P. multiradiata*, Hall, but which has broader and more oblique umbones, and a much longer hinge line posteriorly. Figure 2 represents a specimen with an elongate subovate marginal outline, which comes nearer to *P. robusta* and *P. dichotoma* of Hall, but which is more regularly and longitudinally subovate than either. In *P. robusta*, also, the ribs are much fewer and coarser, and in *P. dichotoma* the anterior end is represented as produced and subangular above. Under these circumstances it seems desirable to distinguish the



specimens from the Detroit River by a new specific name, and they may therefore be provisionally named and described as follows.

PANENKA CANADENSIS (sp. nov.).

Shell, or rather cast of the interior of the shell, of about the average size, valves regularly and rather strongly convex, varying in outline in different specimens from subcircular to longitudinally subovate, but always at least a little longer than high. Posterior side rather broader and much longer than the anterior, umbones broad, tumid, prominent, very oblique and placed considerably in advance of the midlength, beaks curved inward and forward; hinge line straight, horizontal, considerably prolonged behind in some specimens but apparently not so much so in others.

Test unknown; surface of the cast marked by numerous (about sixty) narrow but prominent ribs, with concave grooves between them. In the original of figure 1 on Plate XV, the ribs are slightly unequal in size. Most of them are simple but they occasionally bifurcate, and here and there a few shorter ribs are intercalated between the longer ones, that radiate from the umbones. In the original of figure 2 on the same Plate, the ribs are more regularly disposed, and they are all a little larger posteriorly than anteriorly.

Muscular impressions and hinge dentition unknown.

Dimensions of a comparatively high and short specimen (fig. 1); maximum length 74 mm., greatest height (inclusive of the umbo) 67 mm.: do. of a more elongate specimen (fig. 2) that is narrower in the direction of its height, length 77 mm.; greatest height, which happens to be behind the umbo, 60 mm.

Corniferous formation, Anderdon township, Essex county, Ontario: a few specimens collected by Mr. Harry Hodgman, U. S. Inspector, in October and December, 1901. According to Mr. Nattress they are from a brown dolomite which underlies the true Corniferous limestone in that neighbourhood.

*Explanation of Plate XV.*

PANENKA CANADENSIS.

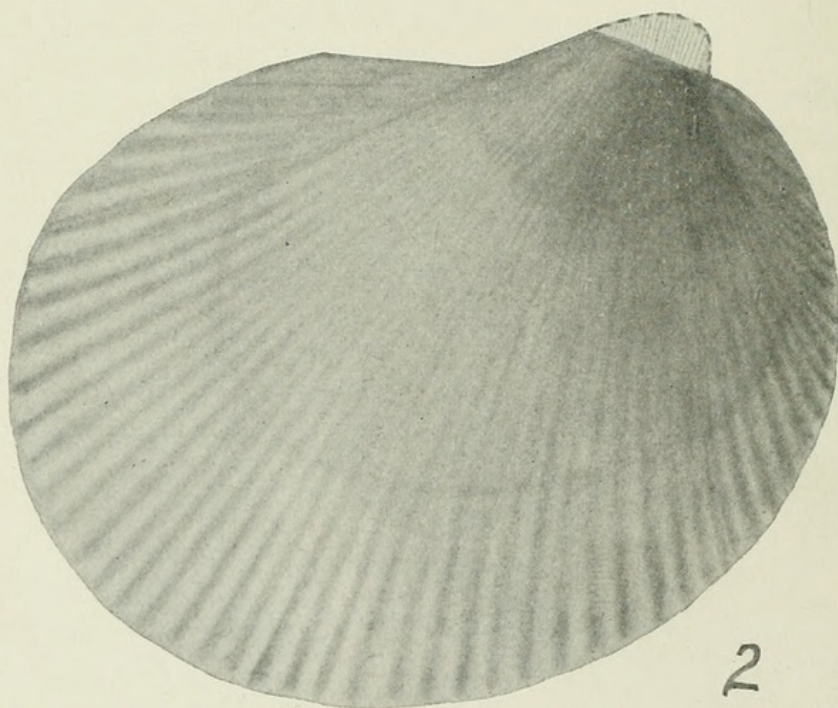
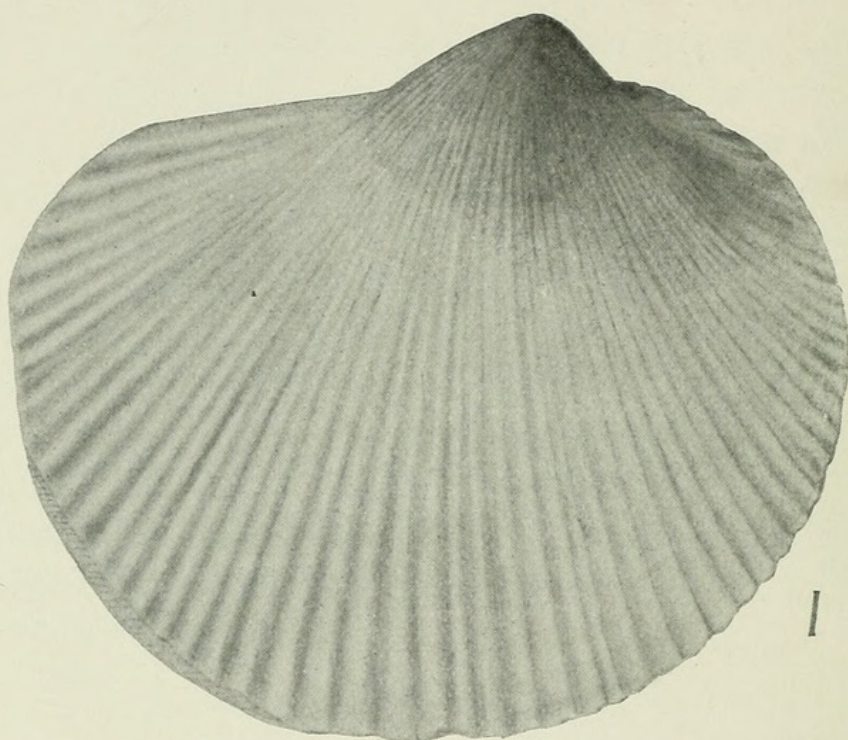
Fig. 1.—Side view, natural size, of a right valve of a specimen with subcircular marginal outline, and comparatively long hinge line behind.

Fig. 2.—Similar view of the right valve of a longitudinally subovate specimen, with a comparatively short hinge line.

Both of these specimens are in Mr. Hodgman's collections.

Ottawa, Feb. 15th, 1902.





C. F. King del..

To illustrate paper by Dr. Whiteaves on a species of Panenka.



Whiteaves, Joseph Frederick. 1902. "On the Genus *Panenka*, Barrande, with a Description of a Second Species of that Genus from the Devonian Rocks of Ontario." *The Ottawa naturalist* 15(12), 263–265.

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