

KENTUCKY GEOLOGICAL SURVEY, J. R. PROCTER, DIRECTOR.

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# Kentucky Fossil Shells

A MONOGRAPH OF THE FOSSIL SHELLS

OF THE

## Silurian and Devonian Rocks of Kentucky

BY HENRY NETTELROTH, C. E.

1889.

FRANKFORT, KENTUCKY

ELECTROTYPED AND PRINTED BY E. POLK JOHNSON, PUBLIC PRINTER AND BINDER

1889.

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## LETTER FROM THE AUTHOR.

MR. JOHN R. PROCTER,

*Director Kentucky Geological Survey:*

DEAR SIR: The work of describing the fossil shells, or Mollusca, from the Falls of the Ohio, which you kindly assigned to me some years ago, has, unfortunately, been delayed by severe illness of several years' duration. It was only during the past winter that I regained sufficient strength to complete it. This monograph contains about two hundred and twenty species, forty-three of which are new, and originally described by me. The descriptions and illustrations of the balance are scattered over many different State Reports, Monographs and Periodicals, accessible to only a few persons in Kentucky, and, for this reason, it was necessary either to copy those figures and descriptions, or to reproduce them from our own material. All of our illustrations are original, with the exception of three or four, which are copied from Prof. Hall's 27th Regents' Report. The drawing and engraving was done by Mr. Chas. Starck, of the Louisville Lithographing Co., who deserves great credit for the pains taken and the skill shown in the execution of this work. Of the original descriptions of known species, I copied some entirely. Coming, as they were, from the skillful pen of Prof. Hall, it was impossible to improve them. Others I have remodeled, and some set aside and replaced by new ones. In many cases, the descriptions were made from single, not well preserved, specimens, which rarely showed the true characters of the shells in their original condition, and, therefore, led to errors in the descriptions. The large and excellent material now found in about a dozen collections here in the Falls Cities, while enabling me to correct those mistakes, has also compelled me to change descriptions coming from far superior palæontologists. The larger number of our fossil shells were, heretofore, described and figured by Prof. James Hall, of Albany, New York, in his numerous reports and pamphlets, most all of which he presented to me, with the kind permission to make the broadest use of his illustrations and descriptions. For such exceptional generosity I can thank him only by this public acknowledgment. The material used in the preparation of this monograph belongs partly to my own cabinet, and partly to the collections of the following gentlemen:

Major Wm. J. Davis, Profs. Wm. J. McConathy and J. T. Gaines and Dr. James Knapp, of Louisville, Ky., Prof. A. C. Goodwin, of Charlestown, Messrs. Orlando Hobbs, Henry Peters and Mr. Fogg, of Jeffersonville, Indiana. These gentlemen have rendered me all the assistance I desired or needed, for which I here express my thanks. To Major Wm. J. Davis, the author of "Kentucky Fossil Corals," I am especially indebted for much valuable information given me, while on our numerous collecting trips, and during the preparation of this work. It has pained me to see the valuable collection of the late Dr. James Knapp, from which Prof. Hall received most of his Ohio Falls specimens, leave our State. Though in corals it was greatly inferior to the cabinet of Major Wm. J. Davis, and in shells not equal to my own, it contained some very rare specimens which it may be impossible to replace.

Our shells have generally retained their original form, not having suffered from compression or distortion, as is the case with so many fossils from other localities, and their silicification has prevented all wear and rubbing after separation from their matrix, while, on the other hand, their changing into hornstone has, in many instances, obliterated the original fine surface-markings, for the study and description of which we have to acquire material from other localities.

The descriptions of fossils I have prefaced by a short article on geology and palæontology in general, containing information indispensable to anyone who wishes to gain an understanding of the fossil remains of the fauna and flora of former ages. In preparing said article, I have made extensive use of the works of Dana, Lyell and others.

Hoping that this monograph will meet with your approval, and that it may be of service to the students of geology, in spite of its many shortcomings, which, knowing your kind disposition, I feel assured you will overlook or excuse, I express here to you, dear sir, my many thanks for your kind consideration and indulgence, and remain

Very respectfully, your obedient servant,

HENRY NETTELROTH.

LOUISVILLE, 1887.