

**COAL AND IRON IN SOUTHERN OHIO:
THE MINERAL RESOURCES OF
HOCKING VALLEY: BEING AN
ACCOUNT OF ITS COALS, IRON-ORES,
BLAST-FURNASES, AND RAILROAGS**

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T. STERRY HUNT

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PREFACE.

It was in 1874, that after having spent some time in examining the coal-measures of the Hocking Valley, in south-eastern Ohio, and having collected from public and from private sources what was then known of the region, I published an account of it, long since out of print.* At that date the Geological Survey of the State was in progress; but of the final report only volume I. had appeared, though volume II. was published in the same year. In 1878, appeared volume III., including three chapters, one each by Profs. Read, Andrews and Orton, on the region in question, which added much to our knowledge of its geology and mineral resources.

03-19-41 M.E.C.
Since that time, despite the financial depression of 1874-78, considerable activity has prevailed in the Hocking Valley, which has attracted a large amount of capital. New railroads, opening up the region, have been built, and new coal-mines opened, while the shipments of coal therefrom have much more than doubled, and promise great increase for 1881. Moreover, a new industry, that of smelting the native iron-ores with the raw coal of the region, has been established, and within the period named thirteen blast-furnaces have been erected and put in successful operation, besides which, two more of the largest size are now in process of construction.

Having all these facts in view, and moreover, having during the years 1879 and 1880 made numerous visits to the region, and spent much time in the examination of various parts of it, I have in the following pages attempted to give a summary of the geology of the Hocking Valley, as far as now known, together with an account of its resources in coal and

* The Hocking Valley Coal-Field and Iron-Ores, with Notices of Furnace-Coals and Iron-Smelting, followed by a View of the Coal Trade of the West. By T. Sterry Hunt, LL. D., pp. vi, 78, with two maps. Salem, Mass.: Naturalists' Agency, 1874. (This was published in May, 1874.)

iron-ores, and a history of its blast-furnaces and iron-smelting, with a brief notice of its railway connections. In carrying out this plan I have made free use of the volumes of the Geological Survey, especially that of 1870, containing Dr. Wormley's report on the chemical composition of coals and iron-ores, and also volume III. of the final report, already mentioned as published in 1878; supplementing the information thus obtained with the results of my own examinations, and with facts gathered from a great variety of other sources. I have here to thank Dr. J. S. Newberry, Director of the Geological Survey of Ohio, for information, and for many personal favors, and at the same time to express my great obligations to the late lamented Prof. E. B. Andrews, of Lancaster, Ohio; to President Edward Orton, of the State University at Columbus, Ohio; and to Prof. M. C. Read, of Hudson, Ohio, for much valuable information, always cheerfully given; as also to the Rev. J. P. Wethee, of Millfield, Trimble, Ohio, whose familiarity with the geology of the Sunday Creek Valley has enabled him to throw light on many obscure points. To Col. I. B. Riley, C. E., the superintendent of the furnaces now being erected by the Buchtel Iron Co., at Floodwood, Ohio; to the officers of the Hocking Iron Co., both in Ohio and in Boston, and especially to Mr. Gilbert Attwood, secretary, and Mr. John B. Pearse, consulting engineer of the two companies just named, both of Boston; to Mr. J. M. Welch, of Athens, Ohio; to Mr. H. T. Niles, of Aurora, Ohio; to Dr. Rannels, of McArthur; to Mr. Buchtel, president of the Akron Iron Co.; to Mr. Shields, president of the Licking Iron Co.; to Gen. J. C. Hamilton, of Shawnee; to Mr. Walter Crafts, of Columbus, president of the Crafts Iron Co.; and especially to Gen. Samuel Thomas, also of Columbus, president of the Columbus Rolling Mill Co. and of the Thomas Iron Co., a pioneer in the development of this mineral region, I am indebted for much information and many courtesies.

I have also to express my obligations to Mr. Walston H. Brown, of New York, one of the directors of the Ohio Central R. R. Co., for data concerning that road; and to acknowledge my great indebtedness to Mr. W. H. Jennings, of Columbus, chief engineer of the Columbus and Hocking Valley R. R., for notes of surveys, levels, and other observations, which he has with great liberality placed at my service. To give the names of explorers and others who, in the field and otherwise, have

aided me would make too long a list; but I may mention, especially, Mr. Jos. W. Jones, of Trimble, Ohio, Mr. Daniel Fulton, of Dover, Mr. Falloon, of Athens, and Mr. J. C. Parker and Mr. J. Edington, of Nelsonville.

As to the geology of the region, some uncertainty exists with regard to the coals above the Great Vein, and I have, on page 22 and succeeding pages, referred to the difficulties attending their study. Farther researches may not improbably lead to a revision of some of the opinions expressed by myself, and by others, as to the horizon of certain of these coals, especially in the valleys of Monday Creek and Sunday Creek. I shall at all times be obliged for new observations, or for corrections of errors in the account of the region here given, which I cannot hope to have wholly avoided.

In discussing the questions of coal-mining and iron-smelting, I have called attention to some points connected with these subjects, which, although familiar to technical students, will, it is hoped, not be without value to others who may be interested in the region. With the same end in view, I have added some statistics with regard to coal and iron-ores and the iron and steel manufactures of the country. For many of these I am indebted to Mr. Fred. E. Seward's valuable manual, entitled *The Coal Trade*, for 1880, and to the excellent annual report for 1880, of Mr. James M. Swank, secretary to the American Iron and Steel Association. Readers will find that pages 73-86, including coal-analyses and many details connected with coal, are copied, with some additions and revisions, from my little treatise of 1874. Some notes with regard to clays and salt-wells, I have reserved for an Appendix, where also will be found a detailed inquiry into the dip of the strata, as deduced from observations on the Great Vein in different parts of the coal-field.

The accompanying map has been prepared with great care by Mr. W. H. Jennings, chief engineer of the C. & H. V. R. R., and will be found to give a correct view of the region, with its completed and projected railroads and its blast-furnaces.

T. S. H.

MONTREAL, CANADA, Jan. 25, 1881.

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