

THIRD REPORT OF PROGRESS
OF THE
GEOLOGICAL SURVEY OF MISSOURI,
BY
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SINCE my last Report in December, 1854, the labors of the Geological Survey have progressed towards completion as rapidly as the means placed at my disposal, and a thorough examination of the regions passed over, would permit.

At the first session of the last General Assembly, two propositions were before the Committee on the Geological Survey:

1st. *To complete the Survey on the plan adopted for the general preliminary examinations;*

2d. *To make much more careful and detailed examinations, and report the same by counties, together with good geographical, topographical, and geological maps, in accordance with the plan pursued in the Surveys and Reports on St. Louis, Marion, Moniteau, and other counties, which have been published.*

It was then estimated that the Survey could be completed in two years, if the first plan were adopted; but should the latter course be pursued, it would require much more time. The superior advantages, which would evidently result from the more detailed surveys and reports by counties, led the committee to recommend this course, and it was adopted almost unanimously by the Legislature. The labors of the Survey have, since that time, been conducted in accordance with these views.

THE WORK DONE IN 1855.

In addition to the usual labors of the Survey, I was directed by an act, passed in March of this year, to superintend the publication of the First and Second Reports of our Survey. The duties incident upon the publication of such a report as would be most serviceable to our State, required my own personal labors and attention, for a large portion of the season suitable for field operations. What time could be spared from these duties, was devoted to some important examinations in the neighborhood of

the Iron Mountain, in Saline county, and in a section of country, extending from Columbia, in Boone county, through Callaway, Montgomery and Pike, to Louisiana.

Dr. Litton, in addition to the labors of the laboratory, rendered important services in the publication of the Reports and in the examinations made in the neighborhood of the Iron Mountain.

Dr. Shumard made the surveys of Ozark and Wright counties, and rendered essential services in the preparation and publication of the Reports.

Mr. Meek made the surveys of Morgan and Miller counties, a part of Cole, and assisted in the examination of Saline, when his connection with the Survey ceased.

Mr. Price, in addition to the labors of his department, assisted in the Geological examinations.

Mr. Warwick Hough, of Jefferson City, was appointed Assistant Geologist and attached to Dr. Shumard's company, where he rendered important services in the field.

It will be seen that the field operations for this year, were very limited, in consequence of the time necessarily devoted to the publication of the Reports. In this connection, it may not be improper to state, that it required a vast amount of labor to prepare and arrange so much and such varied materials, and publish them in such form and style as would render them most useful to science and the practical pursuits; and, at the same time, reflect credit upon the scientific abilities and artistic and mechanical skill of our young State.

THE WORK DONE IN 1856.

Howard, Scotland, Schuyler, Putnam, Scott, Mississippi, New Madrid, Pemiscot, Dunklin and Stoddard counties, and a part of Adair and Knox, were examined by myself.

Dr. Shumard made the Surveys of Clark, Lewis, Jefferson, Cape Girardeau, Bollinger and Perry counties, and a part of Ste. Genevieve.

Dr. Litton devoted his time to the analysis of soils, minerals, and mineral waters.

Mr. Price assisted in the field of operations when his peculiar duties did not demand his attention.

Mr. Hough assisted Dr. Shumard in the surveys made by his company.

The Surveys of this year were extended over a large portion of the State, and resulted in the discovery of a large amount of mineral wealth not before known to exist; although the explorations were made in portions of the State which had not been considered very rich in mineral resources. They have also fully confirmed our previously expressed opinion of the vast mineral wealth of our State.

Large quantities of coal were discovered in Putnam, Schuyler, Adair, Howard and Clark counties, and some considerable in Saline and Lewis.

Iron was found in vast beds in Dunklin, Stoddard and Scott counties, and, in considerable quantities, in New Madrid, Mississippi, Perry, Bollinger, and Jefferson.

The agricultural resources of the North Eastern counties, are very great, and the "timber" and "prairie" are so admirably distributed that the labors of the pioneer farmer, are comparatively light.

The "Swamp Country," so called, of South Eastern Missouri, has a soil of wonderful fertility, a large portion of which sustains a very heavy growth of excellent timber. It can be reclaimed from the annual overflows and be made one of the most productive portions of the country. It already contains many of the most extensive and productive farms in the West.

The facts collected previous to our last communication, compelled us to report such unbounded agricultural resources and mineral wealth that some were induced to doubt, or believe with some hesitation, our estimates. But the facts upon which those estimates were based, have commanded the belief of the scientific and practical men of this and other countries, who had looked upon our reputed mineral wealth as somewhat fabulous.

It is also a matter of gratification that our own subsequent explorations, as well as the hammer of the artizan and the pick of the miner, have proved the accuracy of our most extravagant estimates. We now have still stronger evidence that more than 26,000 square miles of our State, are underlaid with workable coal beds. The unprecedented yield of lead in the South West, fully confirm the opinion expressed, in our last Report, that those mines are as rich as any in our country.

One at least of the many marble quarries we pointed out, has been wrought and proved as beautiful and desirable as any in the country.

Such evidence* of our natural resources, has swelled the tide of immigration (probably far greater during the past year than ever before) to our agricultural and mineral districts, and increased the crowd of settlers and speculators who have thronged our land offices.

If the work is to be continued under the present organization, I would respectfully suggest that no detailed reports be published until more of the State is completed; otherwise, it will be advisable for the present company to report the results of their own labors.

*Though the number of our Geological Reports sent abroad, has been small, yet several widely circulated Journals, (such as "*The Mining Journal*" and "*The Mining Chronicle and Railway Guide*," of New York,) have republished in their columns the most important parts of them.