

PROCEEDINGS

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OF THE

G E O L O G I C A L

AND

P O L Y T E C H N I C S O C I E T Y

OF THE

W E S T R I D I N G O F Y O R K S H I R E .

1839—42.

V O L U M E I .

L E E D S :

PRINTED BY EDWARD BAINES AND SONS.

1849.

P R E F A C E .

THE GEOLOGICAL AND POLYTECHNIC SOCIETY of the West Riding of Yorkshire originated at a meeting of the coal proprietors of that district, held in Wakefield, on Friday, December 1st, 1837, Thos. Wilson, Esq., of Banks Hall, near Barnsley, in the Chair. The extent and importance of the Yorkshire coal field, comprising not less than 462 square miles, and the imperfect information possessed respecting its numerous beds of coal and ironstone, having been considered, and also that in the winning and working of the same a large amount of capital was embarked, and extensive machinery and a numerous population employed, it was suggested that great advantages would result from the institution of a Society for collecting and recording Geological and Mechanical Information, with the accuracy and minuteness necessary for the successful prosecution of mining. These objects, it was hoped, would be most effectually attained by the formation of a collection of maps, plans, sections, models, mining records, and every kind of information respecting

the geological structure of the country; the construction ultimately of a complete geological map or model; the formation of a museum, as well of the various fossils and mineral products of the district, as of drawings and models of the machinery and tools employed in mining; the consideration of the various systems of ventilation in use; the holding of public meetings in the principal towns of the West Riding, for reading communications and discussing topics connected with these subjects; the publication of papers, reports, and transactions; and the corresponding and co-operating with the metropolitan and other similar societies. While these subjects would occupy the principal attention of the society, it was considered desirable (particularly as there was no other society embracing these objects) to extend its operation to whatever was connected with the staple manufactures of the West Riding; together with the bearings of geology and chemistry upon agriculture, and the application of mechanical inventions to the common arts of life.

This proposal having met with the unanimous approbation of the meeting, immediate steps were taken for organising the Society, of which forty gentlemen at once signified their wish to become members, and the Right Hon. Earl Fitzwilliam, F.R.S., accepted the office of President.

The preliminary business having occupied the first two or three sittings, Professor Johnston, of Durham, in May, 1838, delivered the first public lecture, "On the Economy of a Coal Field," which was published in a separate form.

The following papers were submitted at the subsequent Meetings, of which no permanent record is preserved except in the local journals of the period :—

- "On the Dislocations in the Valley of the Don," by H. Hartop, Esq.
- "Illustrations of the Geology of the Yorkshire Coal Field," by the Rev. W. Thorp.
- "On the Inefficiency of the Compass for Mineral Surveying, and Suggestions for taking the Magnitude of Angles," by C. Morton, Esq.
- "On the Mode of Ventilation adopted at Middleton Colliery," by T. W. Embleton, Esq.
- "On the Non-identity of the Haigh Moor and Rothwell Haigh Seams," by Henry Briggs, Esq.
- "A Comparison of the Yorkshire and Lancashire Coal Fields," by the Rev. W. Thorp.
- "On the Miners' Safety Fuze," by T. W. Embleton, Esq.
- "On an Improved Safety Lamp and Suggestions for Lighting Mines by means of the Fire Damp," by Mr. Fletcher.
- "Remarks on the Section from the Bradgate Rock to the Forty Yards Coal at Middleton," by T. W. Embleton, Esq.

- “ On the Causes of Explosions in Boilers of Packet Engines, and Suggestions for their Improvement,” by H. Hartop, Esq.
- “ On the Principle and Manufacture of the Patent Wire Ropes,” by Mr. Lear.
- “ On the Geology of the Neighbourhood of Sheffield,” by the Rev. W. Thorp.
- “ On the Utility of Geology as applied to Mining, Agriculture, and the Arts,” by C. Morton, Esq.

The printed Proceedings of the Society, therefore, commence with the Meeting held at Leeds, December 6th, 1839.

Leeds, 17th April, 1849.

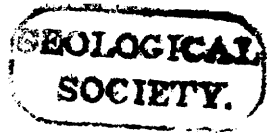
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REPORT OF THE PROCEEDINGS

OF

THE QUARTERLY MEETING

OF THE

GEOLOGICAL AND POLYTECHNIC SOCIETY

OF THE WEST RIDING OF YORKSHIRE,

HELD IN

THE HALL OF THE LEEDS PHILOSOPHICAL AND LITERARY SOCIETY,

ON THURSDAY, DECEMBER 6, 1839.

THE REV. W. F. HOOK, D.D., VICAR OF LEEDS, IN THE CHAIR.

LEEDS:

PRINTED FOR THE SOCIETY, BY R. FERRING, COMMERCIAL-STREET.

1839.

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to
The Geological Society of London,
by
The Yorkshire Polytechnic Society.