First publised in 1882 The History of Coal Mining in Great Britain not only describes in great detail the struggles of the early miners but details the development of modern society as a result of coal mining. A truly amazing record of the evolution of not only coal, but man kind.

The Preface includes:

## PREFACE.

In the following pages an endeavour is made to delineate the principal features in the growth of the great coal industry, with special reference to improvements in engineering, by means of which it has become possible for the miners to open out their deep "subterranean cities" and to procure and bring to the surface the vast quantities of coal which are now annually drawn from the mines of this country.

Apart from the value of coal as the mainspring of the great industrial pre-eminence of the kingdom, it is hoped that the narrative may not be without interest of another kind, inasmuch as it furnishes an account of the origin of some of the most useful inventions of modern times—as, for example, railways, the steam-engine, and the locomotive—which were almost called into existence by mining requirements, and were long employed by the mining community before they came to be adopted, in a more improved form, by the public in general.

At no time were more vigorous efforts being made to promote the safety of the miners in their dangerous occupation than at present. Should the account here given of what has been accomplished in this direction tend to throw any light upon the matter, the circumstance would afford the writer the greatest satisfaction.

RYTON-ON-TYNE, 9th May, 1882.

## The Chapters include:

- 1. COAL LATE OF COMING INTO COMMON ITSE. FIRST EMPLOYED BY ARTISANS. ITS USE IN LONDON PROHIBITED BY ROYAL PROCLAMATION
- 2. COAL COMES INTO USE FOR DOMESTIC PURPOSES IN THE COAL DISTRICT& NUMBERS OF COLLIERIES OPENED OITT IN THE NEWCASTLE-ON-TYNE COAL-FIELD. KING EDWARD III. PATRONIZES AND REGULATES THE COAL TRADE. EARLY COAL MINING
- 3. THE INCREASING SOAROITY OF WOOD OAUSES COAL TO COME INTO GENERAL IME FOR DOMESTIC PURPOSES. FIRST DIFFICULTIES IN THE MINES
- 4. COMBINATION AMONG THE COAL-OWNERS AT NEWCASTLE. TAXES IMPOSED ON COAL. THE HEARTH-MONEY OR CHIMNEY Tax THE COAL FLEET

- 5. DIFFICULTIES EXPERIENCED IN SUBSTITUTING COAL FOR WOOD AND CHARCOAL IN MANUFACTURING PROCESSES, MORE ESPECIALLY IN THE SMELTING OF IRON
- 6. INCREASE OF MINING DIFFIOULT}ES. IMPROVEMENTS IN MINING APPLIANCES. INVENTION OF RAILWAYS
- 7. NOXIOUS GASES PREVALENT IN THE MINES. ACCIDENTS OCCASIONED THEREBY. SMALL EXPLOSIONS OF FIRE-DAMP BECOME FREQUENT
- 8. INADEQUACY OF THE WATER-RAISING MACHINERY. INVENTION OF THE STEAM-ENGINE
- 9. STATE OF MINING AT THE COMMENCEMENT OF THE EIGHTEENTH CENTURY. FIRST GREAT EXPLOSIONS IN THE NORTH OF ENGLAND COLLIERIES
- 10. THE COAL TRADE OF THE WEST COAST. WHITEHAVEN MINE& CARLISLE AND JAMES SPEDDING. INVENTION OF THE UZEL MILL, AND COURSING THE AIR
- 11. REVIVAL OF THE IRON TRADE. GREAT BUILDING OF STEAM- ENGINE IN THE NORTH OF ENGLAND. INCREASING DEPTH OF THE PITE. VARIOUS APPLIANCES FOR VENTILATING THE MINE& EXPLOSIONS OF FREQUENT OCCURENCE
- 12. FIRST EMPLOYMENT OF IRON IN RAILWAY CONSTRUCTION. THE STEAM-ENGINE INDIRECTLY APPLIED TO DRAW THE COAL OITT OF THE PITS THROUGH THE MEDITJM OF WATER-WHEELS. CURR'S IMPROVEMENTS IN SHAFT FITTINGS AND UNDER-GROUND CONVEYANCE
- 13. GREAT DIFFICULTIES ENOOUNTERED IN OPENING OUT THE FAMOUS WALLSEND COLLIERY.
  JOHN BUDDLE, SEN. CAST-IRON TUBBING
- 14. VARIOUS METHODS OF DEALING WITH INFLAMMABLE GAS. THE DILUTING SYSTEM, THE NEUTRALIZING SYSTEM, THE FIRING SYSTEM, THE DRAINING SYSTEM
- 15. THE SYSTEM OF COURSING THE AIR BECOMES INADEQTJATE. CREEPS. MR. BUDDLE INTRODUCES COMPOUND OR DOUBLE VENTILATION, AND PANEL-WORKING
- 16. INVENTION OF THE BAFETY-LAMP
- 17. EXTENDED USE OF THE STEA?&EI NGINE; THE LOOOMOTIVE STEAM BOATS. INTRODUCTION OF GAS LIGHTING
- 18. DEEPER AND MORE DIFFICULT WINNINGS
- 19. INVENTION OF CAGES, AND IRON-WIRE ROPES
- 20. INTERVENTION OF THE LEGISLATURE IN MINING OPERATION
- 21. GREAT IMPROVEMENT IN THE VENTILATION OF COLLIERIES. THE . 'STEAM JET TRIED AND ABANDONED. MECHANICAL VENTILATORS COME INTO EXTENSIVE USE
- 22. RECENT INVENTIONS, EXPERIMENTS, AND IMPROVEME
- 23. MODERN MINING. MEASURES OF SAFETY AGAINST EXPLOSION