

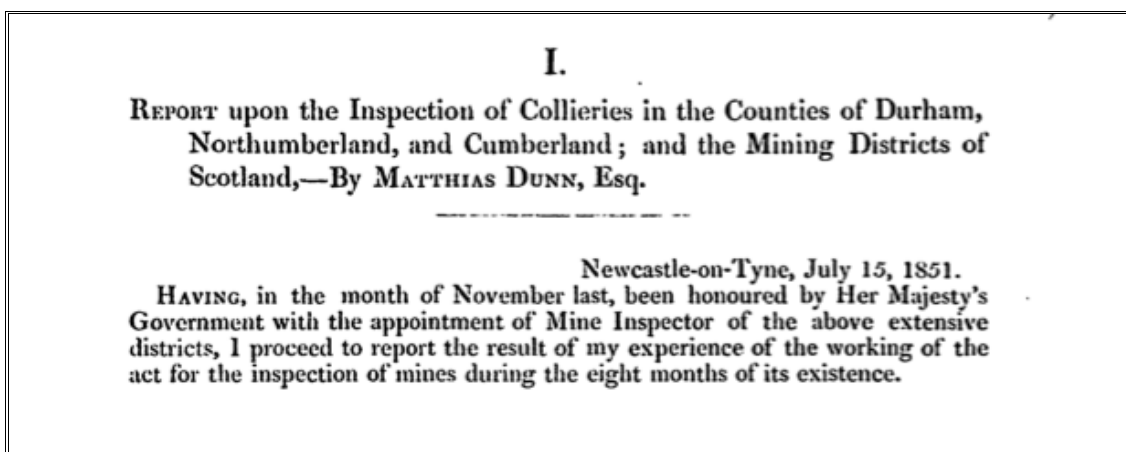
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# Mines Inspectors reports

## a guide

### Introduction

The Mines Inspectors reports comprise some tens of thousands of pages dealing with accidents, working procedures and other aspects relating to safety in all types of mines and in quarries. They give information on specific mines, accidents and people, but also can show trends and developments in safe working. Naturally, over more than a hundred years they change in content, purpose and organisation. This guide is to help users find their way around this important historical resource and covers reports from the first in 1850 up to around 1975. [Note that a year given for a report is for the period to which it refers, not the year of publication, which would be the following year, or occasionally even later.]



### Mines Inspectorate – key events

1843 Seymour Tremenheere is the first commissioner (inspector). Produced an annual report (1844-59) on working conditions/welfare in coal mines– not accident investigation. No routine underground inspection was undertaken. Laid the foundations for an Inspectorate.

1850 (November) Following new legislation four inspectors for coal mines were appointed.

1852 Two more inspectors

1855 Six more inspectors

1855 Requirement to make an annual report to Parliament, though most were making reports.

1873 Two inspectors appointed for metalliferous mines with new districts; 12 assistant inspectors for coal

1894 Responsibility now for quarries.

1901 No longer any specialist metalliferous mines inspectors.

1906 Now 12 inspectors, 26 assistant inspectors

1908 R.A.S.Redmayne appointed as first Chief Inspector  
 1908 First Electrical Inspector based in the Home Office – beginning of HQ staff  
 1914 Deputy Chief Inspector appointed  
 c1914 Inspectors of Horses (posts abolished after 1973)  
 1920 Inspectorate transferred from the Home Office to a Mines Department at the Board of Trade  
 1927 Medical Inspector  
 1930 Inspector - Special Duties (Dust Prevention)  
 1938 127 staff  
 1938 Royal Commission on Safety in Coal Mines recommends restructuring of the Inspectorate  
 1943 Inspectorate transferred to Ministry of Fuel and Power  
 1944 Inspector – Mechanical Engineering in Mines  
 1950 188 staff  
 1975 Inspectorate becomes part of the Health and Safety Executive.

Further information in

Bryan, A. HM Inspectors of Mines: a centenary address *Transactions, Institution of Mining Engineers* **109** 1949, 875-888

Bryan, A.M. *The evolution of health and safety in mines*. 1975. Ch. 9 Organisation and role of Mines Inspectorate

Job, B. The British Mines Inspectorate: the early years 1850–1872, *Mining Engineer* **145** April 1986, 426–31

Stevenson, R. The role of HM Inspectorate of Mines, past, present and future. *Mining technology* **77** 1995, 309-314

## The role of Inspectors

Inspectors were mining experts with the power to inspect mines above and below ground for all matters related to safety and for compliance with appropriate legislation. They had to be notified of all fatal accidents and would gather various statistics. Inspection could be following an accident, on invitation or following a complaint. As the number of inspectors increased over the years routine, unplanned inspections began and became the dominant part of their work.

## Districts

**MR. WALES**, South Wales District.

**MR. WARDELL**, Yorkshire District.

**MR. WILLIS**, Newcastle-on-Tyne District.

**DR. C. LE NEVE FOSTER**, Anglesey, Brecon, Cardigan, etc. District.

**MR. BELL**, Durham District.

**MR. HALL**, Liverpool District.

Each inspector was responsible for a geographical region and produced a report for that region. The first four inspectors covered all of Great Britain between them, losing areas as further inspectors were appointed until by 1855 there were 12 regions or districts. The numbers of districts varied over the years between 6 and 12 (with additional ones for metalliferous mines from 1873-1901) as restructuring took place, or merging of districts was needed because of staff retirement or death.

1855-1908	12	1964-1968	7
1909-1912	8	1969	6
1913-1923	6	1970	5
1924-1937	8	1971	6
1938-1954	7	1972-76	9 in 7 reports
1955-1963	8	1977	9

Even if the number remained the same there could be changes as occasionally small or even substantial areas were moved between districts. Responsibility for Ireland was included from 1873-1921. From 1913 the main grouping was termed a division, comprising a number of smaller districts, but the annual report was for the division. In 1972 district was again the term used.

4	<p style="text-align: center;">LANCASHIRE, NORTH WALES, AND IRELAND DIVISION,          comprising part of Lancashire (namely, so much of the          County as is not included in No. 2 Division), part of          Cheshire (namely, so much of the County as is not included          in No. 6 Division), Anglesey, Carnarvon, Denbigh, Flint,          Merioneth, Montgomery, and Ireland.</p>	<p style="text-align: center;">A. D. Nicholson,          Elmsley Road,          Mossley Hill,          Liverpool.          [Inspecting, Liverpool.]</p>
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Details of districts with Inspectors' names (and sometimes home addresses) usually appear in reports from 1874. There are maps showing the districts from 1889 – 1914. Districts were numbered from 1888.

There are too many changes to list here, but as examples of districts at particular times:

1860

Northern; Durham; North & East Lancashire; West Lancashire & North Wales ; Derbyshire, Nottinghamshire, Leicestershire & Warwickshire; North Staffordshire, Cheshire & Shropshire; South Western; South Staffordshire & East Worcestershire; South Wales; East Scotland; West Scotland; Yorkshire.

1882

Manchester & Ireland; North Staffordshire; Scotland West; Midland; Scotland East; South Wales; Yorkshire; Newcastle-on-Tyne; Durham; Liverpool; South Western; South Staffordshire.

Anglesey, Brecon, Cardigan, Denbigh, Flint, Merioneth, Montgomery, Radnor and Shropshire, and in the Isle of Man [Metalliferous mines]

Cornwall, Devonshire, Dorsetshire and part of Somersetshire [Metalliferous mines]

1910

Scotland; Newcastle; Durham; York & North Midland; Manchester & Ireland; Liverpool & North Wales; South Wales; Midland & Southern.

1938

Scotland; Northern; Yorkshire; North Midlands; North Western; Cardiff & Forest of Dean; Swansea; Midland & Southern.

1961

Northumberland & Cumberland; West Midlands & Southern; South Western; East Midlands; North West; North East [ie. Yorkshire]; Scotland; Durham.

## Report series

1. Coal mines. Reports began in 1850 from the first four inspectors, but some early district reports were not published, eg Northumberland, Durham June 1851- June 1852. For each year there are separate reports from each Inspector. There are only brief ones for 1915-20 and none for 1939-46.

From 1859 to 1893 a statistical summary for the whole country precedes the Inspectors' reports.

2. Metalliferous mines. There were separate reports from the specialist inspector for the South West district for 1873-1891, and for the North Wales district for 1873-1900. These are

published with other district reports. Otherwise reports were part of each district Inspector's report from 1874 (with some in 1873) until 1926 and again from 1958.

3. Quarries. Reports were included in the Inspectors' Reports for 1895 to 1926.

A separate report for the whole country covering both Metalliferous mines and Quarries was published for 1927 to 1957.

4. There is an Annual General Report for all types of mine from 1894-96.

5. A Chief Inspector's report for all mines and quarries was first published for 1897. Until 1912 this is in 4 parts: Part I District statistics; Part II Labour; Part III Output; Part IV Colonial and foreign statistics. From 1913 to 1920 there is no Part IV.

From 1921 to 1938 there was a report from the Secretary of State for Mines covering broader aspects of the mining industry, which included the Chief Inspector's report.

There were no reports during World War II – a short report by the Chief Inspector for 1939-46 was published in 1948, after which there is an annual Chief Inspector's report.

6. Electrical Inspector's report - activity was included in the Chief Inspector's Report from 1908-1922 and from 1955; there was a separate report from 1923-54. That for 1947 appears as an appendix to the Chief Inspector's report.

## NEIMME holdings

District reports for 1850-1923, 1925-38, [none published for 1939-46], 1947-77, including the Statistical summary for 1859-1893.

Annual General Report for 1894-96.

Chief Inspector's reports are for the same years as the district reports from 1897, plus one report for 1939-46. (There is a combined report for 1954-6).

Electrical Inspector's report - 1923-36, 1938 in one vol.; 1938, 1954 as separate reports; 1948-54 bound with other Inspectors' reports for the year. 1947 is an appendix to the Chief Inspector's report.

Metalliferous Mines and Quarries report - 1931 and 1933-38 bound in one volume; 1951-53, 1954-56 (one report) bound with district, etc reports for the year.

## Contents lists

### REPORT UNDER THE COAL MINES REGULATION ACTS.

	PAGE
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<b>SECTION II.—MINERAL RAISED :</b>	
Output of Mineral for each County ... ..	3
Output per Person employed Underground, and per Person employed Above and Below Ground, in Counties, for the whole district... ..	4
<b>SECTION III.—ACCIDENTS :</b>	
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Summaries of Fatal and Non-fatal Accidents ... ..	5
Death-rate from Accidents ... ..	6
List of the Owners or Firms under whom the fatal accidents occurred, showing the Number of Fatal and Non-fatal Accidents under each ... ..	6
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Miscellaneous Underground Accidents ... ..	11
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<b>SECTION IV.—PROSECUTIONS</b> ... ..	15
<b>SECTION V.—GENERAL REMARKS</b> ... ..	16
Safety Lamps ... ..	19
Constitution of the Board of Examination and Names of the Examiners ... ..	22

Some district reports from the 1870s to 1895 and all thereafter have a contents list, sometimes called an Index. The detail shown varies.

The Annual general reports (1894-6) and the Chief Inspector's reports from 1897 have contents lists.

(3) WORKING OF THE COAL MINES ACT, 1911	..	..	..	74
(i) Ventilation (Sections 29–31).	..	..	..	74
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(vi) Care and Treatment of Animals (Section 45(2) and Third Schedule to Act)	..	..	..	77
(vii) “ Safety First ”	..	..	..	78
(viii) Prosecutions	..	..	..	80

## Indexes

The Annual general report 1894-1896 has a subject index and an index to district reports for 1894 and 1895.

The Chief Inspector's report from 1897 to 1912 has an index to all 4 volumes at the end of Part IV. (There was no Part IV after 1912.)

The index to the annual Secretary of State's report (published for 1921 to 1938) covers the Chief Inspectors' report too.

## Durham Mining Museum indexes

1. A searchable database of those killed in mines (<http://www.dmm.org.uk/names/index.htm>) - mainly in Cumberland, Westmorland, Northumberland, Durham, North Yorkshire. Inspectors' reports are one source used.

2. An index to the names of Inspectors for various years from 1913-1965 (<http://www.dmm.org.uk/hmim/index.htm>) - mainly for the Northern Division but HQ and all divisions for some years. This is based on the Inspectors' Reports and other sources and includes addresses for some.

## Content

It is not possible to give a comprehensive coverage of the content of the reports over such a long period, so here is merely an indication of the most common sorts of comment, description and statistics that appeared.

### District/Division

Reports were under the Inspector's name, rather than the district until 1920.

The order within the year's reports is not obvious until district numbers were first used in 1888 and then in number order - approximately Scotland southwards.

From 1872 the title page has districts as well as Inspectors' names.

The content in early years was almost wholly concerned with recording and describing accidents. Gradually other safety related topics were considered.

Statistics: for example, employment by age; output by quantity, person, county and sometimes value; accidents (fatal and non-fatal), including by type; death rates.

Types of accident would include falls of ground, explosions of firedamp or coal dust, explosives, inrushes of water, falling into a shaft, things falling down shafts, chains/ropes breaking, fires,

run over by trams/tubs, electrical, machinery, etc., whether underground or on the surface. Output statistics were not included after 1938, other than some brief ones in 1947 and 1948.

**TABLE (4).**  
SUMMARY of FATAL and NON-FATAL ACCIDENTS, classified according to PLACE and CAUSE.

Place and Cause.	Fatal Accidents.		Non-Fatal Accidents reported to Inspector.*		All Non-Fatal Accidents disabling for more than 7 Days.	
	Number of Separate Accidents.	Number of Deaths.	Number of Separate Accidents.	Number of Persons Injured including those injured by accidents which proved Fatal to their Companions.	Number of Separate Accidents.	Number of Persons Injured.
<b>UNDERGROUND.</b>						
Explosions of fire-damp or coal dust ...	—	—	6	11	3	6
Falls in mine :—						
Falls of side ... ..	11	11	65	65	} 5,412	5,425
Falls of roof ... ..	45	45	148	151		
Total falls ... ..	56	56	213	216	5,412	5,425
Shaft Accidents :—						
Overwinding ... ..	—	—	—	—	—	—
Ropes or chains breaking ... ..	—	—	—	—	—	—
Whilst ascending or descending by machinery.	1	1	3	3	5	7
Falling into shaft from surface ...	—	—	—	—	} 3	3
Falling from part way down ... ..	1	1	—	—		
Things falling into shaft from surface	—	—	—	—	} 5	5
Things falling from part way down ...	—	—	—	—		
Miscellaneous ... ..	1	1	1	1	29	29

Accidents: as well as a statistics there would be a summary – by type or chronologically, but maybe also a table with mine name, owners, description, names of those killed or injured, etc.

**No. 20 accident.—Explosion of a shot in ramming.**

Deceased was engaged with others sinking a shaft, and in ramming a shot; the rammer struck fire either with the tamping material or with the rock, and exploded the shot.

LIST of the FATAL ACCIDENTS, and LOSS of LIFE arising therefrom, in Mr. WILLIS'S DISTRICT, comprising the COUNTIES of CUMBERLAND and NORTHUMBERLAND, and the NORTHERN PORTION of the COUNTY of DURHAM, during the Year 1875.

Date.	No. of Accidents.	Name of the Mine or Colliery.	Where situate.	Owner's or Company's Name.	Persons killed.	Occupation.	Reported Age.	Cause of Death, and Remarks.	No. of Lives lost.					
									Explosions of Fire-damp.	Falls of Roof and Sides.	In Shafts.	Miscellaneous Underground.	Above Ground.	
1875.														
Jan. 5	1	Pegwood	Morpeth	J. Frazer and Co.	Andrew Lee	Screenman	48	Crushed by a waggon at the screens	—	—	—	—	—	1
" 13	2	Byermoor	Gateshead	J. Bowes and Partners	George Knott	Driver	12	Run over by tubs	—	—	—	—	—	1
" 18	3	Washington	Ditto	W. Stobart	George Dixon	Hewer	29	Fall of stone	—	1	—	—	—	—
" 25	4	Cowpen	Blyth	Cowpen and North Seaton Coal Co.	John Armstrong	Ditto	33	Fell on a block of coal	—	—	—	—	—	1
" 26	5	Wearmouth	Sunderland	Bell, Stobart, and Co.	David Ramage	Driver	14	A horse fell on him, whose trace he had attached to a rope in motion.	—	—	—	—	—	1
" 27	6	North Biddick	Washington	Sir G. Elliot and Co.	Thomas Kirsop	Hewer	47	Crushed by tubs	—	—	—	—	—	1
Feb. 5	7	Bedlington	Morpeth	Bedlington Coal Co.	Barney Coggan	Pumper	55	Run over by tubs on an inclined	—	—	—	—	—	1

There was a more detailed description of some accidents and their investigation – with causes, names, questioning of witnesses, recommendations - until the 1880s, when separate reports for major incidents became normal and only a brief mention would be in the Inspector's report.

Names of those killed were usually included until 1914 and then in some district/division reports in the early 1920s.

Other topics that were covered at various times but not always by all districts:

- prosecutions by the Inspectorate and by mine owners
- methods of working
- guidelines for owners in complying with the law
- protective equipment
- lamp statistics
- ventilation
- coal cutting machinery
- electrical power in use

*Electricity in Mines.*—A summary is given in the following table of the horse power in use during the year for various purposes in and about the mines in the different counties in the Division, and also the increase and decrease of horse power used as compared with the previous year :—

- fires
- airborne dust
- explosives use
- Certificates of competence gained
- exam questions for colliery managers

*Mines Regulation Act, 1887.*

You are not to answer more than *four* questions.

NOTE.—The writing of candidates for second class certificates will be judged from this paper.

1. What are the provisions of the Act with regard to the inspection of mines by workmen? Why, in your opinion, are these inspections so seldom made? (5.)
2. What are the restrictions as to the age of persons employed in or about a mine? (5.)
3. State the provisions of the Act as to the use of safety-lamps. (5.)
4. State the precautions to be observed before firing a shot in a fiery and dusty mine. (5.)
5. What inspections of the mine are required by the Act? (5.)

- horses' welfare and accidents

CARE AND TREATMENT OF HORSES

TABLE 17.

Year ending 30th June.	Number used.	Number died or required to be destroyed			Number of cases of injury or ill-treatment reported to Managers (exclusive of cases included under the preceding heading).		
		From Injury by Accident.	From Disease.	Total.	Injury.	Illtreatment.	Total.
1932 .. ..	14,861	409	410	819	1,216	11	1,227
1931 .. ..	15,798	487	468	955	1,273	26	1,299

- ambulance and rescue services
- welfare
- training
- lists of abandoned mines where plans have been deposited (mainly 19C)
- lists of mines – 1872-1883
- lists of new pits sunk

Illustrations were initially line drawings, but photographs began to be used occasionally from the 1890s and became common in the 1920s.

#### Statistical summary

Output by mineral and county, employees by age, accidents by type and district.

#### Annual general report

Production, employment by district, accidents, output, lamps; comparison with other countries.

#### Chief Inspector's report

1897-1920

Part I: Statistics. Employees; output; accidents – fatal and non-fatal; death rates;

Part II: Labour. Deals with similar topics to Part 1 but the statistics have more detailed breakdown and there is discussion, analysis and comparison, drawing on the district reports.

#### COAL CUTTING MACHINERY.

Statistics have again been obtained with reference to the use of coal cutting machines in the United Kingdom. From Table 106 it appears that in 1908 there were 414 collieries where coal cutting machines were at work as against 390 in the preceding year. The total number of machines employed was 1,659 (as against 1,493 in 1907), of which 737 were worked by electricity and 922 by compressed air; the total quantity of mineral obtained in 1908 by the aid of these machines was 13,590,358 tons,—this is an increase of 659,102 tons compared with 1907. The East Scotland District (No. 1) takes the lead as regards the number of machines employed, next comes the Yorkshire and Lincolnshire (No. 5). In South Wales and in the Southern District the number of machines in use is small.

Part III: Output. Detailed tables of output of coal and other minerals – quantity, value, productivity by person; output by region and/or mine; exports; transport by rail.

Part IV: Colonial and foreign statistics. Employment, output, accidents, etc worldwide.

From 1921 there is one report with similar content to Parts I to III.

#### NUMBERS EMPLOYED, DAYS WORKED AND WAGES.

##### Employment.

11.	Number of <b>persons employed</b> at mines and quarries, classified according to (i) the mineral got, and (ii) the Acts under which the safety regulations are administered .. .. .	100
12.	Number of <b>persons employed</b> at all mines from 1873 .. .. .	102
13.	Number of <b>persons employed and tonnage of minerals produced</b> at quarries from 1895 .. .. .	103
14.	Number of <b>persons employed</b> at coal mines in each colliery district, <b>classified by age and sex</b> .. .. .	104
15.	Number of <b>days on which pits wound coal or were idle</b> in each colliery district .. .. .	106
16.	Number of <b>persons employed</b> at mines and quarries (except those producing coal), <b>classified by age and sex</b> .. .. .	108
17.	Number of <b>workpeople employed</b> and number of <b>man-shifts worked</b> at mines, quarries, etc., during each quarter of 1929 and 1930 .. .. .	110



From 1898 to 1938 there are comparative tables on employment, output, deaths, death-rates in mines and quarries from 1873 to the year of the report.

TABLE I  
General summary for coal mines<sup>1</sup>

Year	Output of mineral	Coal power loaded	Persons employed <sup>1</sup>	Manshifts worked <sup>2</sup>	Number of persons killed annually	Number of serious or reportable injuries <sup>3</sup>	Total number of injuries <sup>4</sup>	Rates per thousand persons employed		
	Million tons (1)	(2)	Thousands (3)	Hundred thousands (4)	(5)	(6)	(7)	Deaths (8)	Serious or reportable injuries <sup>5</sup> (9)	Total number of injuries <sup>6</sup> (10)
1853-1862	71.5	—	259.5	..	1012	..	..	3.90	..	..
1863-1872	113.5	—	340.8	..	1069	..	..	3.14	..	..
1873-1882	152.2	—	503.4	..	1129	..	..	2.24	..	..
1883-1892	182.6	—	571.7	..	1032	..	..	1.81	..	..
1893-1902	215.8	—	732.4	..	1015	..	..	1.39	..	..
1903-1912	267.7	—	957.8	..	1275	5729 <sup>1</sup>	154,293 <sup>2</sup>	1.33	5.5 <sup>3</sup>	148.1 <sup>4</sup>
1913-1922 <sup>1</sup>	260.7	—	1085.5	2798	1298	4692	151,254	1.20	4.2	130.7
1923-1932 <sup>2</sup>	252.1	—	1019.5	2545	1064	4197	170,056	1.04	4.1	166.8

From 1957 to 1974 there is a summary of output, employees, fatalities, etc for coal mines over long periods - for some its from 1853.

Electrical Inspector's report

Equipment and power in use, accidents description and statistics - from trailing cables to equipment faults.

Metalliferous Mines and Quarries report

This covers the whole country and has similar content to the Chief Inspector's reports.

APPENDIX.—STATISTICAL TABLES.

(Except where otherwise stated the particulars relate to the year 1936)

(i) QUARRIES UNDER THE QUARRIES ACT, 1894

Table		Page
1.	Number of <i>persons employed</i> and the number of <i>quarries at work</i> (by divisions) ... ..	38
2.	Tonnage and value of <i>mineral obtained</i> (by divisions) ... ..	39
3.	Number of <i>persons killed and injured</i> (by divisions) ... ..	42
4.	Quantity of <i>explosives used</i> (by divisions) ... ..	44
5.	Particulars of <i>electrical equipment</i> (by divisions) ... ..	45
6.	Particulars of <i>electrical equipment</i> (by divisions) during the five years 1932-1936 ... ..	46

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