REGULATIONS AND ORJERS

RELATING TO MINES UNDER THE COAL MINES ACT, 1911.

1926 EDITION.

(Including Orders up to 31st January, 1927.)

LONDÓN: PUBLISHEIN BY HIT MAJESTY'S STATIONERY OFFICE. To be purchased directly from H.M. STATIONERY OFFICE at the following addresses; Adastral House, Kingsway, London, W.C.3; 120, George Street, Edinburgh; York Street, Manchester; 1, St. Andrew's Crescent, Cardiff; 15, Donegall Square Weet, Beifast; or through any Bookseller.

1927.

Price 1s. 0d. Net.

ADVERTISEMENTS.



BRITISH PLANT FOR BRITISH COLLIERIES.



"HARDY" Patent Air Compressors.

Combine high volumetric efficiency with wonderful simplicity, silent running and freedom from repair.

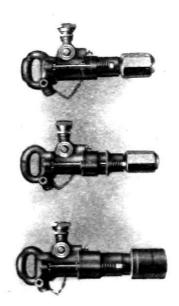
SPLASH LUBRICATION. UNIQUE VALVE ARRANGE-

MENTS.

" HARDY " CONSTRUCTION THROUGHOUT.

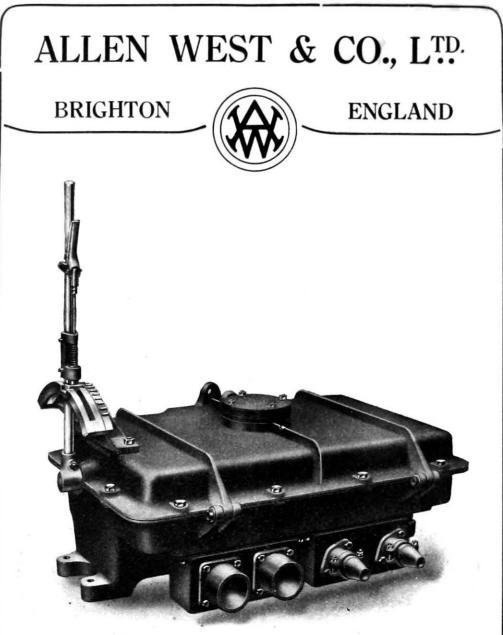
" HARDY-SIMPLEX " HAMMER DRILLS

are recognised as the best machines in the market, made in various sizes to suit all requirements (from steel forgings throughout). They stand supreme as fast boring machines of superb quality, finish and durability.



Sole Makers :

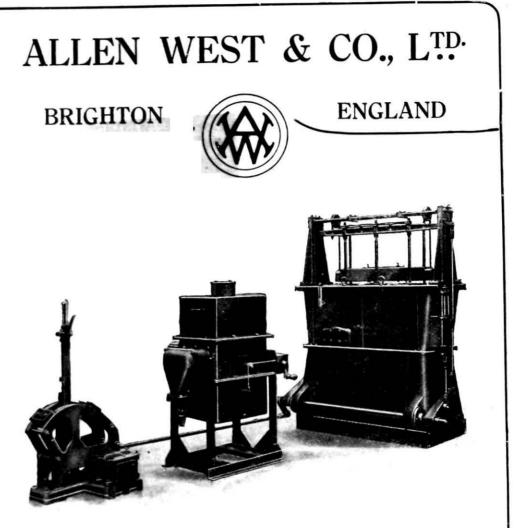
THE HARDY PATENT PICK Co., LTD., SHEFFIELD, ENGLAND.



ADVERTISEMENTS.

Oil-immersed Flame-proof Drum Type Reversing HAULAGE CONTROLLER for use with

3-Phase Slip-ring Induction Motors. Sheffield University Test Certificates are issued for these Controllers. Max. Capacity, 300 H.P., 3,300 Volts.



500 H.P. 3,300 Volt.

Liquid Type WINDER CONTROLLER comprising

REGULATOR with Automatic Acceleration, Oil-immersed Contactor-operated REVERSER and LEVER GEAR with MASTER SWITCH.

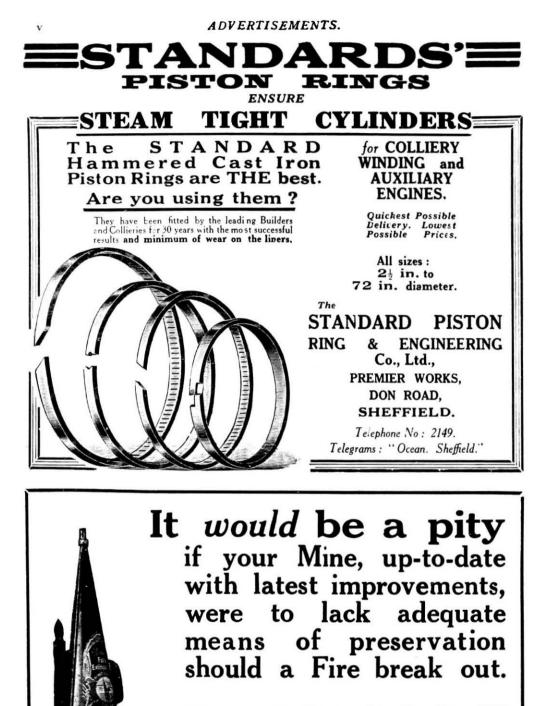
Also makers of

Flame-proof Air-break and Oil-immersed DRUM CONTROLLERS and SWITCHGEAR for which

Sheffield University Test Certificates are given.

CONTROL EQUIPMENT for Motors up to 5,000 H.P.

iv



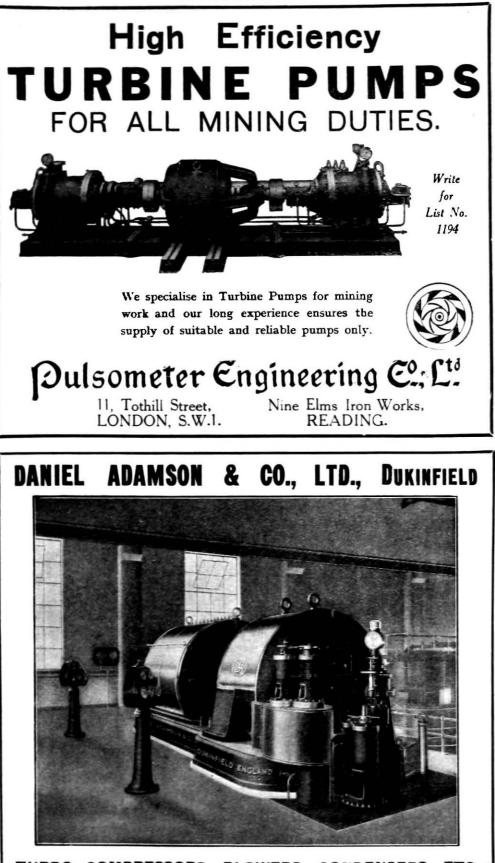
May we send you Leaflet No. 753 describing the world - renowned

**** MINIMAX **** Chemical Hand Fire Extinguisher which, free from all injurious fumes, forms *ideal Fire Protection* for Collieries.

The Sign of Security.

Head

MINIMAX, Ltd., Office and Works: FELTHAM, MDDX. ("Minimax"—Regd. Trade Mark.)



TURBO-COMPRESSORS, BLOWERS, CONDENSERS, ETC.







The Holman Pneumatic Coal Pick is almost entirely free from vibration.

Ð

big

points

about

olman

Coal Pick

The air consumption is the lowest possible.

It is a hard-hitting, fast driving tool, capable of more work than any other of like kind, given the same working conditions.

Strict laboratory treatment of all materials ensures long and efficient performance. Stringent tests throughout manufacture ensure a perfect tool.

'HE Holman Pick can be used for driving headings in even the hardest stone, and can pull down more in 6 hours than the sledge, wedge and mandril method can accomplish in a week. Better and safer progress can be made than by using the ordinary percussion drill and shot In every colliery firing. where these Picks have been demonstrated machines have been purchased.

CAMBORNE, ENGLAND London Offices : BROAD STREET HOUSE, E.C.2

Resident Engineers in Bristol, Cardiff, Darlington, Glasgow, Shefield, etc., etc.

O

BROS. LTD.

ADVERTISEMENTS.



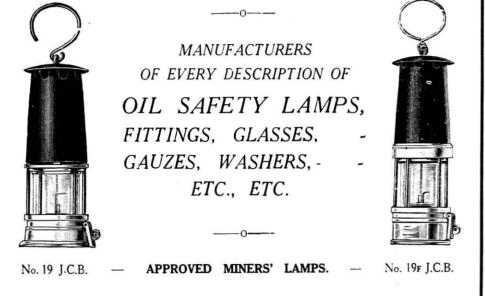
If you require Boilers to work at pressures approaching above, our experience as Pioneers in Boiler making is at your service.



"RECOVERY " & SUPER-LANCASHIRE BOILERS OVER 75 YEARS' EXPERIENCE DANIEL ADAMSON & CO., LTD., ENGINEERING WORKS, DUKINFIELD, MANCHESTER.

Commercial Engineering Co., 8 to 12, Commercial Street, Birmingham. Telephone-MIDLAND 555.

Purchasers of the business of JOSEPH COOKE & SON.



PITHEAD BATHS

OUR PLANT IS INSTALLED AT THE FOLLOWING COLLIERIES:

BULLCROFT NUNNERY HANDSWORTH TREETON BARNSLEY MAIN TINSLEY PARK ROB ROYD WATH MAIN BARNBRO'



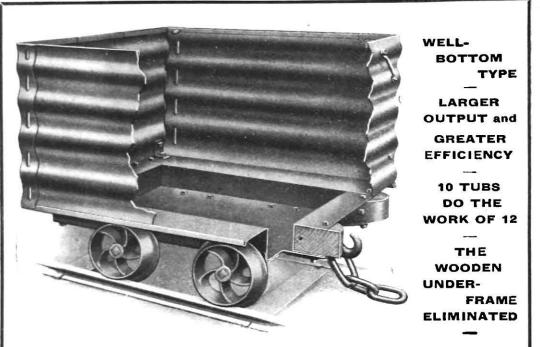
CORTON WOOD MALTBY TAMWORTH LYNTON BLIDWORTH BOLDON ORGREAVE WALESWOOD

PUT YOUR WORK INTO EXPERIENCED HANDS GUMMERS LTD. EFFINGHAM VALVE WORKS, ROTHERHAM

ROTHERHAM, LONDON OFFICE: 31-37 WYBERT ST., N.W.1 GUMMER,

ADVERTISEMENTS.



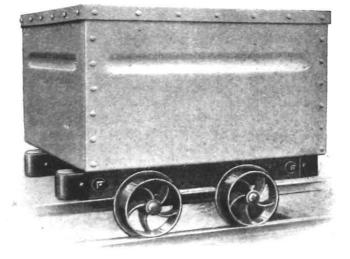


CORRUGATED STEEL

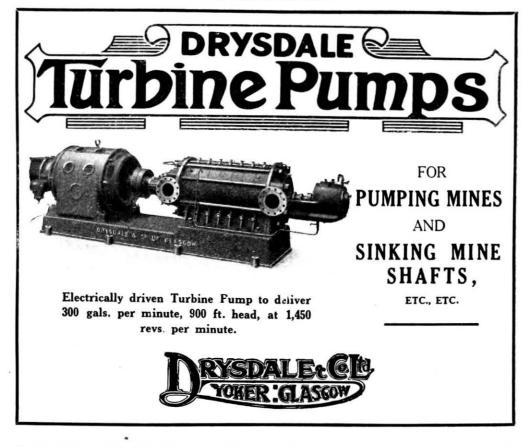
WE ARE PIT TUB SPECIALISTS AND CAN SUPPLY TO ANY SPECIFICATION.

FLAT RIVETTED STEEL WITH ONLY ONE CORRUGA-TION TO EACH PLATE,

PLEASE SEND US YOUR ENQUIRIES.



ROBERT MORRIS LTD., FARNWORTH, BOLTON, LANCS.



The "MAXILUX"

(MOST LIGHT)

The Latest Improvement in Miners' Lamps.

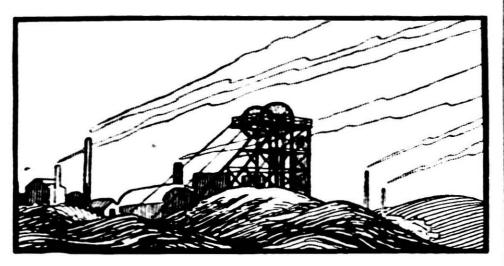
Only Two Parts. Only Two Pillars. No Loose or Leaky Cells. No Fragile Parts. Smallest Upkeep Costs. Least Labour in Lamp Room. Most Satisfactory in use. Bulb fitted on springs to withstand any jar, so very little breakage, no flickering, cannot work loose as screw bulbs do. Fitted with the Alklum Battery. Nickel-Steel Type. Four years guarantee, but lasts much longer. Highest continuous illumination with no drop in candle power. Although first cost is higher than lamp with an unreliable lead battery, if averaged through the life of the lamp, it only costs a quarter.

IMMEDIATE LIGHT [IN ANY POSITION.

THE LAMP, THAT WILL GUARANTEE YOU INCREASED OUTPUT AT LEAST EXPENSE.

MANUFACTURED BY WORSNOP & CO., LTD., LAMP WORKS, HALIFAX, ENGLAND.

ADVERTISEMENTS.

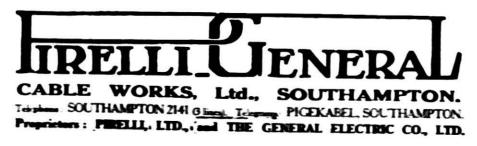


Colliery Cables

IRELLI UENERAL Cable Works, Ltd.

manufacture and install all classes of Colliery Cables. Paper and Vulcanised Bitumen Insulated Cables, "PIGELITE" and other SPECIAL INSULATION CABLES TO MEET SPECIAL NEEDS.

May we have your enquiries?



BRITISH



Used all over the world by the leading Collieries, Railways and Engineering Companies



"Top-Dog" Brake Lining

8'' wide \times $\frac{3}{4}''$ thick with oak backing, moulded to Radius.

Supplied to The Rothervale Collieries of Messrs. The United Steel Co., Ltd. "TOP-DOG"

MADE

linings give satisfaction where others fail

May we have your enquiry when next you are in the market?

"TOP-DOG"

for economy, efficiency, and silent braking have no superior.

"THE PERFECT BRAKE LINING"

SOLE MANUFACTURERS OF " TOP-DOG" FRICTION LININGS : HUBERT H. P. TRIST & COMPANY BRISTOL, England.

Telegraphic & Cable Address : Specialities, Bristol. Works : Redfield, Bristol. Telephone : (2 lines) 5593-4.

Telephones: Grosvenor 2963 (5 lines).



Telegrams : Britrope, Wesdo, London.

British Ropes

Made by British Labour of British Material in Great Britain

The combined knowledge and experience of the best-known manufacturers of Colliery Haulage and Winding Ropes are always at your service.

Prominent among these are-Allan, Whyte & Co., Ltd., Glasgow. W. B. Brown & Co. (Bankhall), Ltd., Globe Works, Liverpool. Bullivant & Co., Ltd., Dagenham Dock, Essex. Caledonian Wire Rope Co., Ltd., Airdrie, Scotland. Geo. Cradock & Co., Ltd., Wire Rope Works, Wakefield. Craven & Speeding Bros., Ltd., Sunderland. The Excelsior Wire Rope Co., Ltd., Cardiff. Haggie Bros., Ltd., Gateshead-on-Tyne. D. H. & G. Haggie, Ltd., Sunderland. R. S. Newall & Son, Ltd., Linacre, Liverpool. Fredk. W. Scott & Co., Ltd., Reddish, Nr. Stockport. Thos. & Wm. Smith, Ltd., Newcastle-on-Tyne. John Stephens & Son, Ltd., Falmouth. Wilkins Wire & Wire Ropes, Ltd., Eastwood, Notts.

These names are a guarantee of the finest quality and service obtainable, and are an assurance that we can efficiently cope with any and every order for any rope requirement. The interests of our customers are our first consideration, and the services of our experts in the solution of any difficulties in connection with ropes are gladly given without any charge.

> BRITISH ROPES, LTD. 32, Cavendish Square, London.

W. 1.

MINES AND QUARRIES

OFFICIAL PUBLICATIONS

Reports of H.M. Divisional In	nspector	rs of M	ines f	for 1	925			
Scotland Division	•••	•••		ls.	0d.	(ls.	1 1 d.)	
Northern Division		•••		1s.	0d.	(1s.	0 <u>1</u> d.)	
Yorkshire Division	•••	•••		1s.	0d.	(1s.	1] d.)	
North Midland Division		•••	•••	İs.	0d.	(Is	. 1d.)	
Lancashire and North Wale	es Divis	ion	•••	ls.	0d.	(ls	. 1d.)	
Cardiff and Newport Divisi	on	•••	•••	1s.	0d.	(ls	. 1d.)	
Swansea Division	•••	•••	•••	1s.	0d.	(1s	. 1d.)	
Midland and Southern Div	ision	•••	•••	ls.	0d.	(ls.	1 <u>1</u> d.)	
Report of H.M. Electrical Inspector of Mines for 1925 6d. (7d.) Fifth Annual Report of the Secretary for Mines, for 1925 (including the Annual Report of H.M. Chief Inspector of Mines for the same period) 6s. 0d. (6s. 3d.)								
List of Mines in Great Britai Man (1925)				18	is. 6	d. ([18 s.]	l 1d.)
List of Quarries in Great Bri Man (1922)					55s.	0d.	(35s.	5d.)
For Particulars of other Gou	ernmeni	Public	ation	s rei	latin	a ta	Mines	and

For Particulars of other Government Publications relating to Mines and Quarries, reference should be made to Mines and Quarries Form No. 1, which may be obtained in the same manner \dots \dots Price 2d. (2¹/₂d.)

All prices are net, and those in parentheses include postage.

.

HIS MAJESTY'S STATIONERY OFFICE

LONDON, EDINBURGH, MANCHESTER, CARDIFF, BELFAST.



xviii

ADVERTISENENTS.

HOPKINSON'S PATENT MINE SIGNAL INDICATORS.

ELECTRICAL and MECHANICAL IYPES.

BANK UNIT for 4 levels with luminous level indicator.

ELECTRICAL INDICATOR.

Engine House Unit with two dial Indicators. Separate dials can be supplied for additional levels if desired and any number up to five can be mounted on one stand.

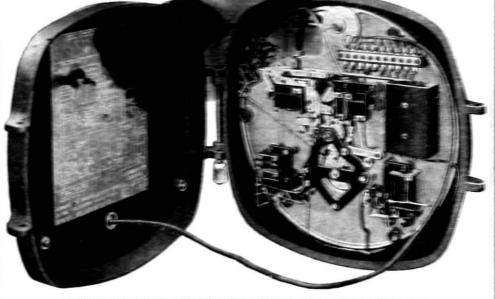
CANCELLATION GEAR.

Neets the most stringent requirements; operates on slightest movement of engine in either direction and permits signalling during winding for next wind. "Men" signal remains on during full wind. THE STARS THAT STERN PROPERTY TALVE STERN PROPERTY

Bottom and level unit.

A676/1502

HOPKINSON'S PATENT MINE SIGNAL INDICATORS. ELECTRICAL AND MECHANICAL TYPES. NON-CUMULATIVE



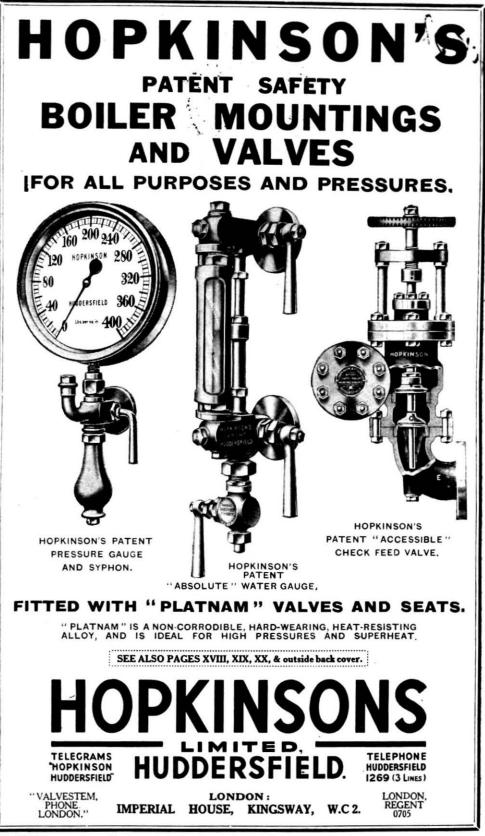
INTERIOR VIEW OF HOPKINSON'S PATENT ELECTRICAL INDICATOR SHOWING ACCESSIBILITY OF WORKING PARTS.

The Hopkinson System permits of simultaneous signals being given, and comprises a full range of Dial Indicators, Luminous Level Indicators, Cancellation Apparatus, Bells, Ringing Keys, Hooters, Terminal and Joint Bokes, etc.

SPECIAL FEATURES.

Adaptable to either Wall or Pedestal Mounting. Fully meets Mines Dept. Requirements. "Men" Signal on during Complete Wind. High Speed Operation. Interlocked Pointers.





A676/1504

MINES DEPARTMENT.

REGULATIONS AND ORDERS

RELATING TO MINES UNDER THE COAL MINES ACT, 1911.

1926 EDITION.

(Including Orders up to 31st January, 1927.)

LONDON:

PUBLISHED BY HIS MAJESTY'S STATIONEBY OFFICE To be purchased directly from H.M. STATIONEBY OFFICE at the following addresses: Adastral House, Kingsway, London, W.C.2; 120, George Street, Edinburgh; York Street, Manchester; 1, St. Andrew's Orescent, Cardiff; 16, Donegall Square West, Belfast; er,through any Bookseiler.

1927.

.

Price 1s. + Net.

NOTE.

This book contains the Orders (including Regulations) of a general nature relating to mines under the Coal Mines Act, 1911, which were in force on the 31st January, 1927, together with the new Rules made by the Board for Mining Examinations, prescribing the qualifications of applicants for certificates of competency, which come into force on the 1st March, 1927 (see page 97).

To facilitate reference, all Orders are printed to read continuously in the form in which they have effect and a general index (under general subject headings and headings for the different classes of persons employed) is included at the end.

The Safety Lamps and Safety Lamps Glasses Orders, the Breathing Apparatus Orders and the Explosives in Coal Mines Orders containing or relating only to the approval of particular types of safety lamps, safety lamps glasses, breathing apparatus or permitted explosives are too long to reprint in full and, instead, lists have been inserted of :—

- Approved types of Safety Lamps
- (2) Approved types of Safety Lamps Glasses
- (3) Approved types of Breathing Apparatus, and

with a reference to the Orders containing the detailed specification of each type.

(4) "Permitted Explosives," stating the permissible maximum charge of each explosive and giving a reference to the Order in which the explosive is defined.

Lists are also included in the Appendix of :---

- (5) Institutions approved under subsection (6) of Section 9 (Managers' and Under-Managers' certificates).
- (6) Institutions approved under subsection 1 (b) of Section 15 (Firemen's certificates).
- (7) Courses of training approved under the Coal Mines (Qualifications of Surveyors) Order, and
- (8) Societies whose First Aid certificates have been approved for the purposes of the General Regulations, and of the Rules made by the Board for Mining Examinations as to the qualifications of applicants for first and second class certificates of competency.

Section 1 of the Mining Industry Act, 1920, established a "Mines Department" of the Board of Trade under a Secretary for Mines, and enacted that all powers and duties of the Board of Trade in relation to mines and the mining industry shall, subject to the directions of the Board, be exercised and performed through the Secretary for Mines; while Section 2 transferred to the Board of Trade all the powers of a Secretary of State under enactments relating to mines and quarries. Accordingly, in all the Orders made by the Secretary of State which are printed herein for "Secretary of State" and "Secretary of State for the Home Department" read "Board of Trade"; and for "Home Office" read "Mines Department."

Mines Department, Dean Stanley Street, Millbank, S.W.1. 'January, 1927.

TABLE OF CONTENTS.

Coal Mines Act, 1911.

.

PAGE

GENERAL REGULATIONS :---

1. DATED JULY 10, 1913, AS AMENDED MAY 19, 1914, AND JULY 30, 1920.---

	Pa	rt I.					
General	••			• •			1
	••	••	••		• •	• •	5
The Under-Manager		••	••		••	•• '	6
Officials other than the Ma	anager	and l	Under-	Manage	er, and	the	_
Firemen, Examiners, or			••	••	••		6
Firemen, Examiners, and I			••	••	••	••	7
Winding Enginemen	•••	••	••	• •	••	••	9
Persons in charge of ventil	ating	machi	nes	••	••	••	9
Boiler minder	••	••	••	••	••	••	10
•	Par	t II.			•		
Air measurements [Section	1 <mark>29</mark> (2	201					11
Use of electric lamps other	than l	ocked			Section	1 32]	11
Character of winding appa	ratus,	&c. [S	ection	40 (1)]	••		11
Capping of winding and h	auling	ropes	[Section	ons 40 (5) and	46]	12
Exemptions from provision	n requ	uring t	two ma	ain inta	ike airi	ways	
[Section 42 (1)]	•••	••		·		••	12
Construction of stoppings	[Section	on 42 ((3)]	••	••		13
Signalling (except in sinki				3]:—			
Winding Hauling	••	••	• •	••	••	••	14
	••	••	••	• •	••	• •	15
Telephones [Section 54]	• • • • • • • • • • • • • • • • • • • •	ee atiom 7	••	••	• •	••	16
Barometer and Hygromet Sanitary conveniences [Se	er [Se		1]	• •	••	••	16
Storage and use of candle	a and ·	70] 5353ffi	••	• •	••	••	16 17
Storage and use of candle	s anu	haram	u wax	••	••		17
	Par	4 III.					•
Electricity [Section 60] :-	_						•
Below Ground	••	• •	••	••	••	••	18
Above Ground	• •	••	••	••	••	••	27
	Pa	rt IV.					
Decision and Ambellance M		. 051					
Rescue and Ambulance [5 (a) Rescue		1 85]—	-				~ ~ ~
(a) Rescue (b) Ambulance	••	••	••	••	••	•••	34
(0) 11110414100	••	••	••	••	••	••	37
	Pa	art V.					
Surface lines and sidings	••	•••	••	••	••	••	39
	Pa	rt VI.					
Additional regulations for	r sinki	ing	••	••	••		41
	Dan	- t VII.					
Repeal	E 67	• • 11.					40
2. DATED AUGUST 29, 191	2	••	••	••	* •	••	43
Accommodation and fa	cilities	for	aking	baths	and d	rving	
clothes: constitution,	power	rs and	dutie	s of co	mmitte	es of	
management (Section	77]	••	••	••		••	44

Ρ	AGR
-	<u></u>

,

٠

.

1 D 1- 1- 1010	PAGE
3. DATED APRIL 1, 1913.— Hours of employment of winding enginemen [Section 57]	47
4. DATED MAY 19, 1914, AS AMENDED JULY 30, 1920.— Special provisions for Mines served by a Central Rescue Corps Definition of "Breathing Apparatus"	49 51
5. DATED JUNE 3, 1920 Ganister mines	51
6. DATED JULY 30, 1920, AS AMENDED NOVEMBER 20, 1924	
Propertions against Spontaneous Combusties	54 56
Additional Dogulations dealing with Deserve	58
Regulations for use of Electricity on the Surface	63
Precautions when working under Moss, &c.	64
Certain miscellaneous provisions	64
7. DATED FEBRUARY 10, 1922.— Use of horses and other animals	65
EXPLOSIVES IN COAL MINES ORDERS [SECTION 61] :	
Dated September 1, 1913 (as amended by subsequent Orders)	
(omitting Schedules 1 and II)	66
List of Permitted Explosives	77
SAFETY LAMPS ORDERS [SECTION 33]	
List of Approved Safety Lamps (with date of Order containing	{
detailed specification)	79
Approved Glasses	91
CERTIFICATES OF COMPETENCY FOR MANAGERS AND UNDER-MANAGERS [Sections 7 to 13].	
1. Times and places for holding examinations	93
2. Rules for the conduct of examinations	94
3. Rules as to the qualifications of applicants	97
4. Fees to be paid by applicants for certificates	104
5. Fees for copies of lost certificates	105
FIREMEN'S, EXAMINERS' AND DEPUTIES' CERTIFICATES [Section 15].	5
1. Form of certificate of qualification	106
2. Form of certificate as to Eyesight and Hearing	107
SURVEYORS' CERTIFICATES [Sections 20 and 21].	
Prescribing the qualifications of surveyors	108
Times and places for holding examinations	93
Fees to be paid by applicants for surveyors' certificates	104
SAFETY LAMP MINES [SECTION 35].	
1. Use below ground of apparatus for the electrical relighting of	
safety lamps	110
2. Search of persons employed for prohibited articles	111
MISCELLANEOUS.	
1. Hours of employment of winding enginemen. Prescribing date under Section 57 (3)	112
2. Procedure and costs of references in regard to cost of main-	,
tenance of washing and drying accommodation [Section 77 (3)]	113 ⊾3
(B 41/2252)r	

	PAGE
3. Manner of settling disputes under the Act: time and manner of serving notices [Section 116]	115
4. Rules as to proceedure before referees and cost of proceedings	110
[Section 117 (2)]	116
5. Procedure for ascertaining and certifying views of workmen	119
[Section 118] 6. Manner of testing horses for glanders [Third Schedule]	
6. Mainter of testing norses for granders [1mid Schedule]	122

Coal Mines Regulation Act, 1908, Section 1 (5).

Procedure and costs of references	• •	••	• •	••	123
-----------------------------------	-----	----	-----	----	-----

Notice of Accidents Act, 1906, Section 5.

Requiring notification of certain classes of dangerous occurrences 125

APPENDICES.

×

I.—Order dividing the United Kingdom into Divisions for	
the purposes of inspection	125
II.—Memorandum on the Test of Explosives '	127
III.—Memorandum on the Storage of Explosives	130
IV.—Memorandum on the Test of Safety Lamps	136
V.—Memorandum on the Test of Rescue Apparatus	142
V1.—Rescue Work. Approved Schemes of Training and Practice, Prescribed tests of Breathing Apparatus and for Members of Rescue Corps, &c., List of Approved Societies and List of Approved Breathing	
Apparatus	146
VII.—Precautions against Coal Dust : Special prescribed tests	
for certain dust mixtures	152
VIII Managers' and Under-Managers' Certificates. List of	
approved Institutions	153
IX.—Surveyors' Certificates. List of approved Institutions.	155
X.—Firemen's, &c., and shotfirers' certificates. Memoran- dum, List of approved Schools, Institutions and Authorities, and Scale of Fees	
	156
List of Orders, Regulations, and Miscellaneous Official	
Publications relating to Coal Mines	161

GENERAL INDEX

••

••

••

. .

٠.

.. 171

ADVERTISEMENTS.

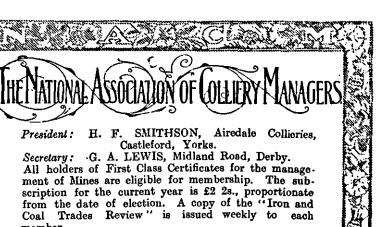
Index to Advertisers.

Name.	Address.	Telephone No.	Page.
Ackroyd & Best, Ltd	Morley, Nr. Leeds	Morley 86	xxxi.
Adamson, Daniel, & Co., Ltd	Dukinfield, Nr. Manchester	Ashton-U-Lyne	
		9 & 609	vi & ix.
Allen, Alfred, & Sons Ltd	Lower Gernal, Nr. Dudley	Dudley 2106	XXX.
	Brighton		
	Soho Foundry, Birmingham		xxiii.
	32, Cavendish Square, London, W.1		xvi.
	11, Commercial St., Birmingham		ix.
	. Oldbury Boiler Works, Birmingham		xxiii.
	Yoker, Glasgow		xiii.
FRANCOIS CEMENTATION CO., LTD	Bentley Works, Doncaster	Doncaster 413	
		iv, xxv, xxvi, xxvii	
	Kingsway, London, W.C.2.		vi1.
	Effingham Valve Works, Rotherham		x.
	· Heeley, Sheffield		ii.
	Camborne		viii-
HOPKINSONS, LTD	Britannia Works, Huddersfield	Huddersfield 1269	· ·
Lenne B. Dienne Bier		xviii, xix, xx, xxi	-
	Hay Mills, Birmingham		xi.
	Feltham, Middlesex		v.
	Farnworth, Nr. Bolton	Farnworth 09	xii.
NATIONAL ASSOCIATION OF COLLIERY	r • Midland Road, Derby	Darks 545	xxxiii.
	 Buckingham Gate, London, S.W.I 		xxxiii.
	Southampton		******
FIRELLI-GENERAL CABLE WORKS, LID	. Southampton	Southampton 2141	xiv.
PULSOMETER ENGINEERING CO., LTD	. Nine Elms Iron Works, Reading		vi.
	· Didsbury, Manchester		xxxiv.
ROBEY & CO. LTD.	. Lincoln	Lincoln 660	xxii.
	. 639/643, Salisbury House, E.C.2		i.
	187, Westminster Bridge Rd., S.E.I		
STANDARD PISTON RING & ENGINEERI	NG		
Со., Ltd	. Don Road, Sheffield		۷.
STEWARTS & LLOYDS, LTD	- Glasgow	(Glasgow)	
		Central 6900	XXXV.
	. 50, Victoria St., Bristol		¥v.
VLASTO, CLARK & WATSON	- Stockton Heath, Nr. Warrington		
When a I A	DILL N. M. L.	17	xxix.
	Didsbury, Nr. Manchester		XXXI.
WORSNOP & CO., LTD	Halifax	- FIALITAX IUU	xiii.

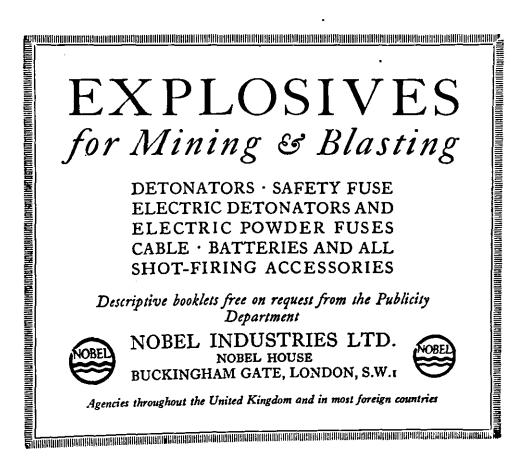
Applications for advertisement space in subsequent issues of this Publication should be addressed to :--Walter Judd, Ltd., 47, Gresham Street, London, E.C.2. Telephone : Central 8343.

WALTER JUDD LTD. Advertising Service Agents 47, GRESHAM ST., LONDON, E.C.

Executives are invited to write for a useful solder on sales organisation and advertising.



member. Special terms have been arranged for the insurance of members against accident, death, etc., with a Company of the highest standing. For information, apply to the Secretary as above.



THE ESSENTIALS OF SUCCESSFUL TRANSMISSION

POWER transmission medium A to function satisfactorily must be positive and flexible, it must also be reliable and eliminate breakdown delays and expenses. Gears with their noise and vibration, and belts with their attendant slip, do not transmit power efficiently or economically. On one occasion, a belt drive having been coated with an antislipping compound, containing apparently some resin, was the cause of a disastrous fire in a gas works. Renold Chain Drives possess all the essentials of the successful transmission medium. They are as positive as gears, flexible as belts, and they combine the advantages of both with greater economy and safety.

RENOLD CHAIN DRIVES

POSITIVE, FLEXIBLE, ECONOMICAL and SAFE

Renold Hollow Stud Chain for Conveying and Elevating.

HANS RENOLD LTD. — DIDSBURY — M A N C H E S T E R Renold Slandard Chain Drives for universal application.

Send for Literature on Chain Driving

WELDED and WELDLESS STEEL TUBES

For

MINING PURPOSES

With

VICTAULIC JOINTS LOOSE FLANGE JOINTS SPIGOT and SOCKET JOINTS For Lead and Yarn

or

JOINTS FOR WELDING INTO CONTINUOUS MAINS AT SITE.

Catalogues on Application.

STEWARTS AND LLOYDS LTD.

GLASGOW

BIRMINGHAM

LONDON

41, Oswald Street, C.1, Broad Street Chambers. Old

Winchester House, Old Broad Street, E.C.2.

ALLENTISEMEN

