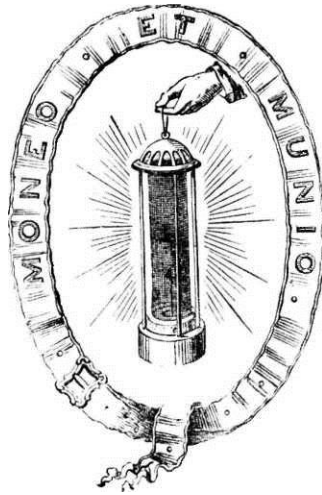


THE NORTH OF ENGLAND INSTITUTE
OF
Mining and Mechanical Engineers
ANNUAL REPORT OF THE COUNCIL
AND
ACCOUNTS FOR THE YEAR 1897-98;
LIST OF
COUNCIL, OFFICERS, AND MEMBERS,
FOR THE YEAR 1898-99;
THE CHARTER AND BYE-LAWS; ETC.

1897-98.



NEWCASTLE-UPON TYNE: PUBLISHED BY THE INSTITUTE
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THE NORTH OF ENGLAND INSTITUTE OF MINING AND MECHANICAL ENGINEERS.

ANNUAL REPORT OF THE COUNCIL, 1897-98.

The following table shows the number of members of the various classes during a few recent years:—

	1896.	August 1st, 1897.	1898.
Honorary Members	23	29	30
Members	767	829	859
Associate Members	78	98	115
Associates	83	91	103
Students	46	45	51
Subscribers	<u>23</u>	<u>23</u>	<u>22</u>
Totals	1,020	1,115	1,180

The Council are pleased to report a continued expansion of the membership as recorded in the preceding table, and urge the members to endeavour, at all times, to extend it. The class of Associates, comprizing persons employed in subordinate positions in mines, has proved successful, and has materially assisted in increasing the roll of members.

The members have to regret the deaths of Mr. Thomas John Bewick, Mr. Stephen Campbell Crone, and Mr. William Lishman (Sunderland), who had for many years been actively connected with the Institute, and had served on the Council.

With the view of rendering the Wood Memorial Hall more useful to the members, the Council have had plans prepared for lighting from the roof, extension of the book-shelving, erection of entrance-porch, furnishing, warming, decoration, etc., at an estimated cost of about £2,000. The work is now in progress, and it is hoped that the alterations will be completed on September 1st next ensuing.

With the view of reducing the expenses of the Institute, the Council have agreed to let Room No. 4, now held under lease, to the Coal Trade Associations, at a rental of £75 per annum, for a term of 7 years, from November 11th, 1897.

A portrait of the late Sir George Elliot has been presented by his grandson, Sir George Elliot. The Council trust that the series of portraits of Past-Presidents may be completed by gift or bequest, and that succeeding Presidents will each in rotation assist in maintaining the completion of this collection.

The meetings of Students and Associates have been continued, and one paper has been printed in the *Transactions*.

The revision of the composition, payable in lieu of the annual subscription, has been approved, as shown by the number of members who have so compounded. The Council will invest the amounts so received, as suitable investments are suggested to them.

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The additions to the Library by donation, exchange, and purchase have been :—

Bound volumes	286
Pamphlets, reports, etc.	246
A total of	532 titles.

and the Library now contains about 7,739 volumes and 1,750 unbound pamphlets. The Card Catalogue renders the books readily available for reference. The Library (including the books and weekly engineering-papers) is available to members residing in the vicinity, from 10 a.m. to 5 p.m. daily, and those residing at a distance may make use of the books by communication with the Secretary. Some of the files of publications have been rendered incomplete by the neglect of members to return borrowed books, and it is earnestly requested that members will return the missing volumes.

The Library would be rendered more valuable if members would present volumes, etc., which they can spare from their own libraries. Members would also render valuable service to the profession by bequeathing books, reports, plans, etc., to the Library, where they would be available for reference, and maintain the memory of the donor.

By arrangement with the Literary and Philosophical Society of Newcastle-upon-Tyne, whose premises are connected with the Library of the institute, members of either institution are permitted (on producing a member's pass) to refer to the books in the Library of either institution.

The publication of the *Sinkings and Borings* has been completed, and the series of six volumes may be purchased from the Secretary. Members are desired to send copies of any unpublished sections of strata in Durham or Northumberland, or their section-books on loan, to the Secretary, with the view of their being published in a supplementary volume.

The prices of the *Transactions* and other publications of the Institute have been reduced, and members are recommended to complete their sets before the stock is exhausted (volumes iii. to vi. are now out of print).

A General Index to volumes i. to xxxviii. of the *Transactions* of the Institute is in preparation, and the Council trust that it will be received with approval by the members.

The Council suggest that Indian and Colonial members should arrange local meetings for the reading and discussion of papers, and trust that success will attend such efforts.

The report of the Committee on Mechanical Ventilators is approaching completion, and will be issued during the current year to the members.

Mr. John Herman Merivale has been appointed to represent the Institute at the Conference of Corresponding Societies of the British Association for the Advancement of Science at Bristol in September next. Messrs. James McMurtrie and W. B. Harrison will represent the Institute at the meeting of the Sanitary Institute to be held in Birmingham in September next. Mr. John Dalglish acts on behalf of the Institute as a governor of the Durham College of Science, Newcastle-upon-Tyne. Mr. W. Cochrane is the Institute representative on the Science and Art Committee ; and Mr. Henry Ayton, on the Scholarships Committee of the Northumberland County Council.

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The Federated Institution of Mining Engineers has now become The Institution of Mining Engineers, and the Council urge the members, who may be interested in other societies, to use their influence in favour of federation, by which the success of the Institution will be completely assured.

The Institution of Mining Engineers has now completed its ninth year, during which General Meetings have been held in Edinburgh, on September 14th, 15th, and 16th, 1897 ; in Newcastle-upon-Tyne, on February 22nd, 23rd, and 24th, 1898 : and in London, on May 19th, 20th, and 21st, 1898. A meeting of students, associates, and junior members was held in Newcastle-upon-Tyne, on August 18th, 19th, and 20th, 1897. The meetings held in this district were well attended, and the thanks of the Institute are due to the Committees who made the arrangements, and to all of those who, by their services, contributed to the holding of these successful meetings.

The President's (Mr. George May) students' prize was awarded to Mr. G. P. Chaplin, for his paper on " Cornish Methods of Mine-timbering."

Prizes of books have been awarded the writers of the following papers, communicated to the members during the year 1896-7 :—

"The Gold-fields of the Hauraki Peninsula, New Zealand." By the Rev. Joseph Campbell.

"Cornish Methods of Mine-timbering." By Mr. G. P. Chaplin.

"The Mineral Resources of the Colony of Queensland." By Mr. William Fryar.

"Notes on the Coal-seams of the Transvaal, and Description of a Modern Pit-head Plant." By Mr. W. T. Hallimond.

"Notes upon Foreign Mining Laws and Adequate Areas for Mining Concessions." By Mr. H. D. Hoskold.

"The Education of Metallurgists." By Mr. Saville Shaw.

"Notes on the Sinking of Two Shafts at Claravale Colliery." By Mr. F. R. Simpson.

The papers communicated during the year comprize :— " Pyritic Smelting." By Mr. Wm. Lawrence Austin.

"Experiments with the Shaw Gas-tester." By Dr. P. P. Bedson and Mr. J. Cooper, B.Sc.

"Memoir of the late Mr. Thomas John Bewick, M. Inst. C E., F.G.S."

By Mr. T. B. Bewick. " Notes on Rearer Workings." By Mr. John Cadman.

"Secondary Haulage: Cost of Putting and Driving." By Messrs. T. E. Foirster and F. R. Simpson.

"Notes on the Geology of Finland." By Principal H. Palin Gurney.

"Notes on the Iron Industry in the Urals." By Prof. H. Louis.

"Presidential Address." By Mr. George May.
 "Occurrences and Mining of Manjak in Barbados, West Indies." By Mr. Walter Merivale.
 "The Siliceous Iron-ores of Northern Norway." By Mr. H. T. Newbigin.
 "The Gold-regions of Alabama, U.S.A." By Mr. Wm. B. Phillips.
 "Hydrothermal Gold-deposits at Peak Hill, Western Australia." By Mr. Frank Reed, Inspector of Mines.
 "A Method of dealing with Running-sand when met with in Borings." By Mr. Geo. B. Reynolds.

The members may be congratulated upon the number and varied nature of the papers printed in the *Transactions*, and the Council trust that similar contributions will be forwarded as liberally as heretofore.

In conclusion, the Council desire to impress upon the members that the success of the Institute in the future is dependent upon an increase in the membership, so as to meet the increased expences incurred by its connexion with The Institution of Mining Engineers.

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REPORT OF THE FINANCE COMMITTEE.

The Finance Committee submit herewith a statement of accounts from August 1st, 1897, to June 30th, 1898, covering a period of only eleven months. This is in consequence of the Council having decided that the books shall in future be closed on June 30th in each year, in order to allow greater time for the preparation and audit of the accounts than was possible when they were closed on July 31st and submitted to the annual meeting at the beginning of August. Owing to this change, a proper comparison with the accounts of the previous year cannot be instituted.

The total income during the period named was £2,749 9s. 6d. Of this amount. £113 was paid as life-compositions in lieu of annual subscriptions, and £89 11s. 10d. was received from the South Wales Institute of Engineers and The Institution of Mining Engineers, in repayment of moneys previously expended by this Institute in connexion with the Fan Committee's Report, leaving £2,546 17s. 8d. as the ordinary income.

The names of several members whose subscriptions were in arrear have been struck off the list of members, and the amounts written off in consequence are for the current year £48 6s. 0d., and arrears £67 4s. 0d.

The total expenditure amounted to £1,883 16s. 0d., and the sum of £950 has been placed on deposit with the bankers.

During the month of July, additional subscriptions have been received amounting to £114 9s. 0d., and payments have been made of £284 11s. 6d., including £200 on account of the alterations to the Wood Memorial Hall, so that the balance of capital at July 31st was £9,278 12s. 11d., as compared with £8,769 13s. 1d. at July 31st, 1897.

GEORGE MAY.

August 6th, 1898.

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GENERAL STATEMENT, JULY 31st, 1897.

LIABILITIES.

	£	s.	d.	£	s.	d.
Subscriptions paid in Advance during the year	73	10	0			

" carried over from previous year	2 2 0	
	-----	75 12 0
Capital		96 2 0
		9,448 15 5

		£9,620 10 2

ASSETS.

	£ s. d.	£ s. d.
Balance of Account at Bankers	674 2 5	
" in Treasurer's hands	66 17 0	
Outstanding amounts due for Authors' Excerpts	2 5 3	
	-----	743 4 8
Arrears of Subscriptions		393 15 0
146 Shares in the Institute and Coal Trade Chambers Co., Ltd. (at cost)	3,130 0 0	
Investment with the Institute and Coal Trade Chambers Co., Ltd. (Mortgage)	1,400 0 0	
	-----	4,530 0 0
Interest on ditto, half-year (Of the above amount, £350 is due to Life Subscriptions Account, leaving £323 12s. not invested.)		24 10 0
Deposit with Lambton & Co.		1,150 0 0
Value of Transactions and other Publications, as per Stock Account		579 7 6
Office Furniture and Fittings	450 0 0	
Books and Maps in Library	1,750 0 0	
	-----	2,200 0 0

		£9,620 10 2

I have examined the above accounts with the books and vouchers relating thereto, and certify that, in my opinion, it is correct. The Share Certificates and Mortgage Bonds have been produced to me.

JOHN G. BENSON,
CHARTERED ACCOUNTANT.

Newcastle-upon-Tyne,
August 5th, 1898.

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ACCOUNTS.

THE TREASURER IN ACCOUNT WITH THE NORTH OF ENGLAND INSTITUTE OF MINING AND MECHANICAL ENGINEERS FOR THE YEAR ENDING JULY 31ST 1898

DR.	£ s. d.	£ s. d.
July 31st, 1897.		
To Balance at Bankers	725 10 6	
„ in Treasurer's hands	100 0 0	
„ Outstanding Amounts due for Authors' Excerpts	£5 7 5	
Less—Written off	3 6 9	
	-----	2 0 8

		827 11 2
July 31st, 1898.		
To Dividend of 7 1/2 per cent. on 146 Shares of £20 each in the Institute and Coal Trade Chambers Co., Ltd., for year ending June, 1898	219 0 0	
„ Interest on Mortgage of £1,400 with Institute and Coal Trade Chambers Company, Ltd	24 10 0	

		-----	243 10 0
„ South Wales Institute of Engineers, proportion of Fan Committee Expenses		34 6 8	
„ The Institution of Mining Engineers, repayment of do.		55 5 2	
		-----	89 11 0
„ Sales of Transactions			52 3 8
To Subscriptions for 1897-98 as follows :—			
690 Members	@ £2 2s.	1,449 0 0	
69 Associate Members	@ £2 2s.	144 18 0	
79 Associates	@ £1 ls.	82 19 0	
35 Students	@ £1 ls.	36 15 0	
75 New Members	@ £2 2s.	157 10 0	
30 New Associate Members	@ £2 2s.	63 0 0	
15 New Associates	@ £1 ls.	15 15 0	
11 New Students	@ £1 ls.	11 11 0	

			1,1961 0 0
To Subscribing Firms, viz.: —	£ s. d.		
1 @ £4 4s	4 4 0		
1 @ £2 2s	2 2 0		

			6 6 0
To New Subscribing Firms, viz.			
2 @ £4 4s			8 8 0

			1,976 2 0
To Life Compositions :—			
2 Members	£41 0 0		
1 New Member	24 0 0		
2 New Associate Members	48 0 0		

			113 0 0

			2,089 2 0
Less—Subscriptions for current year paid in advance at the end of last year			49 7 0

			2,039 15 0
Add—Arrears received			250 19 0

			2,290 14 0
Add- Subscriptions paid in advance during current year			73 10 0

			2,364 4 0

			£3,577 0 8

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Cr.

June 30th, 1898.	£ s. d.	£ s. d.
By Printing and Stationery		151 6 6
„ Books for Library	30 11 9	
„ Prizes for Papers	11 11 0	
„ Incidental Expenses	49 14 7	
„ Postages	60 10 10	
„ Sundry Accounts	70 0 0	
„ Travelling Expenses	0 6 0	
„ Salaries	125 0 0	
„ Clerks' Wages	207 3 2	
„ Reporting	17 17 0	
„ Rent	58 17 2	
„ Rates and Taxes	20 3 5	
„ Insurance	8 6 1	

„ Furnishing and Repairs	7 7 3	
„ Coals, Gas, Water, and Electric Light	44 14 7	
„ Expenses of Meetings	20 14 5	
„ Explosives Committee, Rent	0 5 0	
„ General Index	17 16 6	
	-----	687 19 7
By The Institution of Mining Engineers— Subscriptions	1,050 15 5	
Less—Amounts paid by Authors for Excerpts	6 5 6	
	-----	1,044 9 11

		1,833 16 0
By Investments—		
Lambton & Co. Deposit Account		950 0 0

		2,833 16 0
By Balance at Bankers	674 2 5	
„ „ in Treasurer's hands	66 17 0	
Outstanding Amounts due for Authors' Excerpts	2 5 3	
	-----	743 4 8

		£3,547 0 8

We have examined the above account with the books and vouchers relating thereto, and certify that, in our opinion, it is correct.

JOHN G. BENSON AND SON.

CHARTERED ACCOUNTANTS.

Newcastle-upon-Tyne,
August 5th, 1898.

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Dr. THE TREASURER IN ACCOUNT WITH SUBSCRIPTIONS, 1897-98.

	£	s.	d.	£	s.	d.
To 829 Members.						
<u>1</u> „ not on printed list.						
830						
<u>2</u> paid Life Composition				41	0	0
828						
37 of whom are Life Members.						
<u>791</u>	@ £2 2s.			1,661	2	0
To 98 Associate Members.						
<u>7</u> of whom are Life Members.						
91	@ £2 2s.			191	2	0
To 91 Associates	@ £1 1s.			95	11	0
To 45 Students						
<u>1</u> Elected Associated Member						
44	@ £1 1s .			46	4	0
To 23 Subscribing Firms				90	6	0
To 75 New Members .	@ £2 2s			157	10	0
To 1 New Member, paid Life Composition				24	0	0
To 2 New Associate Members, paid Life Composition				48	0	0
To 30 New Associate Members	@ £2 2s.			63	0	0
To 15 New Associates	@ £1 1s.			15	15	0
To 11 New Students.	@ £1 1s			11	11	0
To 2 New Subscribing Firms				8	8	0

				2,453	9	0
To Arrears, as per Balance Sheet 1896-97	346	10	0			
Add—Arrears considered irrecoverable, but since paid	-46	7	0			

		395 17 0	
Less—Struck off as irrecoverable—Arrears	£67 4 0		
" " "Current year	48 6 0		
	-----	115 10 0	
		-----	280 7 0

To Subscriptions Paid in Advance			2,733 16 0
			73 10 0

			£2,807 6 0

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Cr.

		PAID	UNPAID
		£ s. d.	£ s. d.
By 690 Members, paid	@ £2 2s.	1,449 0 0	
By 96 " unpaid	@ £2 2s.		201 12 0
By <u>5</u> " dead	@ £2 2s.		10 10 0
791			
By 69 Associate Members, paid	@ £2 2s.	144 18 0	
By <u>22</u> " unpaid	@ £2 2s.		46 4 0
91			
By 79 Associates, paid	@ £1 1s.	82 19 0	
By <u>12</u> " unpaid	@ £1 1s.		12 12 0
91			
By 35 Students, paid	@ £1 1s.	36 15 0	
By <u>9</u> " unpaid	@ £1 1s.		9 9 0
44			
By 2 Subscribing Firms, paid		6 6 0	
By <u>21</u> " unpaid			84 0 0
23			
By 75 New Members, paid	@ £2 2s.	157 10 0	
By 2 Members, paid Life Composition		41 0 0	
By 1 New Member, paid Life Composition		24 0 0	
By 30 New Associate Members	@ £2 2s.	63 0 0	
By 2 New Associate Members, paid Life Composition		48 0 0	
By 15 New Associates, paid	@ £1 1s.	15 15 0	
By 11 New Students, paid	@ £1 1s.	11 11 0	
By 2 New Subscribing Firms, paid		8 8 0	
		-----	-----
Less—Struck off as irrecoverable		2,089 2 0	364 7 0
			48 6 0

By Arrears		250 19 0	316 1 0
By Subscriptions paid in advance		73 10 0	77 14 0
		-----	-----
		2,413 11 0	393 15 0
			2,413 11 0

			£2,807 6 0

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OFFICERS, 1898-91).

PRESIDENT.

Mr. WILLIAM ARMSTRONG, Wingate, Co. Durham.

VICE-PRESIDENTS.

Mr T. W. BENSON, 24, Grey Street, Newcastle-upon-Tyne.

Mr. THOMAS FORSTER BROWN, Guildhall Chambers, Cardiff.

Mr. J. L. HEDLEY, 2, Devonshire Terrace, Newcastle-upon-Tyne.
SIR WILLIAM THOMAS LEWIS, Bart., Mardy, Aberdare.
Mr. R. ROBINSON, Howlish Hall, near Bishop Auckland.
Mr. J. G. WEEKS, Bedlington, R.S.O., Northumberland.

COUNCIL.

Mr. HENRY AYTON, 122, Rye Hill, Newcastle-upon-Tyne.
Mr. W. C. BLACKETT, Acorn Close, Sacriston, Durham.
Mr. BENJAMIN DODD, Bearpark Colliery, near Durham.
Mr. THOMAS E. FORSTER, 3, Eldon Square, Newcastle-upon-Tyne.
Mr. WILLIAM F. HALL, Haswell Colliery, Haswell, *via* Sunderland.
Mr. THOMAS E. JOBLING, Bebside, Northumberland.
Mr. A. C. KAYLL, Gosforth, Newcastle-upon-Tyne.
Mr. H. LAWRENCE, 24, Grainger Street West, Newcastle-upon-Tyne.
Mr. WILLIAM LOGAN, Langley Park Colliery, Durham.
Prof. HENRY LOUIS, 11, Summerhill Terrace, Newcastle-upon-Tyne.
Mr. C. W. MARTIN, Newbottle Colliery Offices, Fence Houses.
Mr. J. H. MERIVALE, Togston Hall, Acklington, Northumberland.
Mr. HENRY PALMER, Medomsley, R.S.O., Co. Durham.
Mr. A. M. POTTER, Beaconfield, Corbridge-upon-Tyne.
Mr. J. A. RAMSAY, Sherburn and Littleton Collieries, near Durham.
Mr. T. O. ROBSON, Chowdene Cottage, Low Fell, Gateshead-upon-Tyne.
Mr. F. R. SIMPSON, Hedgefield House, Blaydon-upon-Tyne.
Mr. J. SIMPSON, Heworth Colliery, Felling, R.S.O., Co. Durham.

EX-OFFICIO - PAST PRESIDENTS -

LORD ARMSTRONG, C.B., LL.D., D.C.L., F.R.S., Craggside, Rothbury.
SIR LINDSAY WOOD, Bart., The Hermitage, Chester-le-Street.
Mr. G. B. FORSTER, Farnley Hill, Corbridge-upon-Tyne.
Mr. JOHN DAGLISH, Rothley Lake, Cambo, R.S.O., Northumberland.
SIR LOWTHIAN BELL, Bart., D.C.L., F.R.S., Rounton Grange, Northallerton.
Mr. W. COCHRANE, St. John's Chambers, Grainger Street West, Newcastle-upon-Tyne.
Mr. J. B. SIMPSON, Bradley Hall, Wylam-upon-Tyne.
Mr. A. L. STEAVENSON, Durham.
Mr. T. DOUGLAS, The Garth, Darlington.
Mr. GEORGE MAY, The Harton Collieries, South Shields.

RETIRING VICE-PRESIDENTS.

Mr. C. BERKLEY, Marley Hill, Swalwell, R.S.O., Co. Durham.
Mr. W. O. WOOD, South Hetton, Sunderland.

TREASURER.

Mr. REGINALD GUTHRIE, Neville Hall, Newcastle-upon-Tyne

SECRETARY.

Mr. M. WALTON BROWN, Neville Hall, Newcastle-upon-Tyne.

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LIST OF MEMBERS, AUGUST 6, 1898.

PATRONS.

His Grace the DUKE OF NORTHUMBERLAND

The Most Noble the MARQUIS OF LONDONDERRY
 The Right Honourable the EARL OF LONSDALE.
 The Right Honourable the EARL OF DURHAM.
 The Right Honourable the EARL GREY.
 The Right Honourable the EARL OF RAVENSWORTH
 The Right Honourable the EARL OF WHARNCLIFFE.
 The Right Reverend the LORD BISHOP OF DURHAM.
 The Very Reverend the DEAN AND CHAPTER OF DURHAM
 WENTWORTH B. BEAUMONT, Esq.
 BARON BARNARD.

HONORARY MEMBERS.

* Honorary Members during term of office only.

	Date of Election
1 The Right Honourable the EARL of RAVENSWORTH, Ravensworth Castle, Gateshead-upon-Tyne	Nov. 3, 1877
2*J. B. ATKINSON, H.M. Inspector of Mines, 10, Foremount Terrace, Glasgow	Aug. 4, 1888
3*W. N. ATKINSON, H.M. Inspector of Mines, Barlaston, Stoke-upon-Trent	Aug. 4, 1888
4*R. DONALD BAIN, H.M. Inspector of Mines, Springwell Hall, Durham	Dec. 12, 1896
5*W. BEATTIE-SCOTT, H.M. Inspector of Mines, Park Avenue, Handsworth, near Birmingham	Dec. 10, 1887
6*PROF. P. PHILLIPS BEDSON, Durham College of Science, Newcastle-upon-Tyne	Feb. 10, 1883
7 THOMAS BELL, 15, The Valley, Scarborough	Dec. 12, 1896
8*PROF. G. S. BRADY, Durham College of Science, Newcastle-upon-Tyne	Nov. 6, 1875
9 DR. BRASSERT. Bonn-on-the-Rhine, Germany	Dec. 8, 1883
10 JOSEPH DICKINSON, South Bank, Sandy Lane, Pendleton, Manchester	Dec. 13, 1852
11*C. LE NEVE FOSTER, H.M. Inspector of Mines, Llandudno	Aug. 4, 1888
12 PROF. WILLIAM GARNETT, 3, Foley Avenue, Well Walk, Hampstead Heath, London, N. W	Nov. 24, 1894
13 SIR ARCHIBALD GEIKIE, Director-General of the Geological Survey of the United Kingdom, 28, Jermyn Street, London, S.W	June 11, 1898
14*JOHN GERRARD, H.M. Inspector of Mines, Worsley, Manchester	June 11, 1892
15*REV. H. PALINGURNEY, Principal, Durham College of Science, Roseworth, Gosforth, Newcastle-upon-Tyne	Jan. 19, 1895
16*HENRY HALL, H.M. Inspector of Mines, Rainhill, Lancashire	March 4, 1876
17*J. L. HEDLEY, H.M. Inspector of Mines, 2, Devonshire Terrace, Newcastle-upon-Tyne	April 9, 1892
18 WILLIAM HENRY HEDLEY, 34, Beverley Terrace, Cullercoats	Dec. 12, 1896
19*PROF. A. S. HERSCHEL, Observatory House, Slough, Bucks.	Aug. 3, 1872
20*PROF. G. A. LEBOUR, Durham College of Science, Newcastle-upon-Tyne	Nov. 1, 1879
21*PROF. HENRY LOUIS, Durham College of Science, Newcastle-upon-Tyne. <i>Transactions</i> to be sent to The Secretary, Durham College of Science, Newcastle-upon-Tyne	Dec. 12, 1896

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	Date of Election.
22*J. S. MARTIN. H.M. Inspector of Mines, The Vikings, 16, Durdham Park, Bristol	Aug. 4, 1888
23 SIR CHARLES MARK PALMER, Bart., Grinkle Park, Loftus, R. S. O., Yorkshire. <i>Transactions</i> to be sent to The Mechanics' Institute, Felling-upon-Tyne	Feb. 12, 1898
24*JOSEPH T ROBSON, H.M. Inspector of Mines, Ravensworth, Eaton Grove, Swansea	Aug. 4, 1888
26*J. M. RONALDSON, H.M. Inspector of Mines, 44, Athole Gardens, Glasgow	Aug. 4, 1888
26*A. H. STOKES, H.M. Inspector of Mines, Greenhill, Derby	Aug. 4, 1888
27*PROF. H. STROUD, Durham College of Science, Newcastle-upon-Tyne	Nov. 5, 1892
28 M. E. VUILLEMIN, Mines d'Aniche, Nord, France	Sept. 7, 1878
29*FRANK N. WARDELL, H.M. Inspector of Mines, Wath-upon-Deerne, near	Feb. 4, 1865

Rotherham
 30*PROF. ROBERT LUNAN WEIGHTON, Durham College of Science, April 2, 1898
 Newcastle-upon-Tyne

MEMBERS.

Marked * have paid life composition.

	Date of Election and of Transfer.
1 Abraham, David, Pencoedcae, Merthyr Tydvil	June 8, 1895
2 Aburrow, Charles, P.O. Box 534, Johannesburg, Transvaal	Feb. 13, 1892
3 Ackroyd, William, The Wheatleys, Birkenshaw, near Leeds	Feb. 7, 1880
4 Adams, Henry Hopper, Waihi, New Zealand	April 10, 1897
5 Adamson, Thomas, Kurhurbaree Colliery, E.I.R., Bengal, India	Feb. 10, 1894
6 Agassiz, Alexander, Museum of Comparative Zoology, Cambridge, Massachussets, U.S.A.	Feb. 9, 1895
7 Ainsworth, J. W., Bridgewater Trustees Colliery, Walkden, Bolton, Lancashire	Dec. 14, 1895
8 Aitkin, Henry, Falkirk, N.B	March 2, 1865
9 Alexander, William Edward Cayley, Thermo-Hyperphoric Ore Treating Syndicate, Limited, 168 and 169, Dashwood House, New Broad Street, London, E.C.	Oct. 9, 1897
10 Allan, John F, Apartado de Corrco, No. 121, Mexico, D.F.	A.M. Feb. 10. 1883
	M. June 8, 1889
11 Allan, T. Alexander, c/o Gibbs, Bright and Company, Melbourne, Australia	Feb. 11, 1893
12 Allchurch, Enrique, Calle Las Heras, 273, Buenos Aires, Argentine Republic	June 8, 1895
13 Allison, J. J. C, Woodland Collieries, Butterknowle, R.S.O., Co. Durham	A.M. Feb. 13, 1886
	M. June 8, 1899
14 Andersen, Carl, P.O. Box 120, Denver, Colorado, U.S.A.	Oct. 12. 1895
15 Anderson, C. W., Cleadon Park, Sunderland	Aug. 21, 1852
16 Anderson, R, Hay, Apartado Postal 866, Mexico, D.F.	Aug. 4, 1894
17 Anderson, R. S., Benwell View, Bentinck Road, Newcastle-upon-Tyne	S. June 9, 1883
	A.M. Aug. 4, 1888
	M. Aug. 3, 1889
18 Andrews, Charles Fitz-Hugh, Isaac's Harbour, Guysborough County, Nova Scotia	Feb. 13, 1897
19 Angus, James, Ochiltree House, Ochiltree, Ayrshire, N.B.	Oct. 8, 1892
20*Angwin, B., P.O. Box 2050, Johannesburg, Transvaal	Nov. 24, 1894
21 Appleby, W. R., 911, Fifth Street, S.E., Minneapolis, Minnesota, U.S.A	April 14, 1894
22 Archer, Oakeley, 156, Hereford Street, Christchurch, New Zealand	June 13, 1890
23 Archer, T., 11, Regent Terrace, Gateshead-upon-Tyne	July 2, 1872
24 Archer, William, Victoria Garesfield, Lintz Green	A. Aug. 6, 1892
	M. Aug. 3, 1895
25 Argall, Philip, P.O. Box 1095, Denver, Colorado, U.S.A.	June 21, 1894
26 Armstrong, Lord, C.B., LL.D., D.C.L F.R.S., Cragside, Rothbury (Past- President, Member of Council)	May 3, 1866
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	Date of Election and of Transfer.
27 Armstrong, Henry, Chester-le-Street	A.M. April 14, 1883
	M. June 8, 1889
28 Armstrong, William, Wingate, Co. Durham (President, Member of Council)	S. April 7, 1867
	M. Aug. 6, 1870
29 Ashcroft, Edgar Arthur, 13, Victoria Street, Westminster, London, S.W.	Aug. 3, 1895
30 Ashcroft, Harry, Borrea Coal Company, Limited, Seetarampore, Bengal, India	Aug. 4, 1894
31 Ashmobe, G. Pebcy, c/o G. Harris Ganteaume Agent, Caratal (New) Mines, Limited, Cuidad Bolivar, Venezuela, South America, via Trinidad	Feb. 13, 1897
32 Ashworth, John, 8, King Street, Manchester	April 25, 1896
33 Asquith, T. W., Harperley Hall, Tantobie, R.S.O., Co. Durham	Feb. 2, 1867
34 Atherton, James, 13, Mawdsley Street, Bolton	Aug. 1. 1896
35 Atkinson. Claude W., Glendale, Woodland Place, Penarth, South Wales	Aug. 6, 1892
36 Atkinson, L. B., 10, Westbourne Road, Penarth, South Wales	Aug. 6, 1892

37 Atkinson, R. H. M. Buddle, Riding Mill-upon-Tyne	April 10, 1897
38 Aubrey, R. C.	Feb. 5, 1870
39 Austin, W. Lawrence, P.O. Box 941, Denver, Colorado, U.S.A .	June 21, 1894
40 Ayton, Ernest F., El Bote Mining Negociacion, Zacatecas, Republic of Mexico	Aug. 1, 1891
41 Ayton, Henry, 122, Rye Hill, Newcastle-upon-Tyne (Member of Council)	S. March 6, 1875 M. June 8, 1889 A.M. Aug. 2, 1884
42 Backhouse, Frank Herbert, Coolgardie, Western Australia	June 13, 1896
43 Bailes, E. T., Wingate, Ferryhill	A.M. June 7, 1879 M. June 8, 1889
44 Bailes, T Jesmond Gardens, Newcastle-upon-Tyne	Oct. 7, 1858
45 Bailey, Edward Trenholm, Mining Engineer, Sandakan, British North Borneo	A.M. June 13, 1896 M. June 12, 1897
46 Bailey, Samuel, 30, Waterloo Street, Birmingham	June 2, 1859
47 Bain, R. Donald, H.M. Inspector of Mines, Springwell Hall, Durham	S. March 1, 1873 M. Aug. 5, 1876
48 Bainbridge, E., 4, Whitehall Court, London, S. W.	S. Dec. 3, 1863 M. Aug. 1, 1868
49 Ballard, Robert, Menzies, Western Australia	April 10, 1897
50 Banks, Thomas, 60, King Street, Manchester. Transactions to be sent to 17, Park Avenue, Eccles, near Manchester	Aug. 4, 1877
51 Barker, M. W., 110, Stapleton Hall Road, Stroud Green, London, N.	April 8, 1893
52 Barnard, Robert, Gangootia Colliery, Desherghur P.O., Barakar, Bengal, India	Dec. 11, 1897
53 Barrett, C, R., Whitehill Hall, Chester-le-Street	S. Nov. 7, 1874 A.M. Aug. 7, 1880 M. Dec. 11, 1886
54*Bartholomew, C. W., Blakesley Hall, near Towcester	Dec. 4, 1875
55 Bates, Sidney, Mickley Colliery Offices, Stocksfield-upon-Tyne	A. Feb. 8, 1890 M. June 8, 1895
56 Bates, Thomas, The Grange, Prudhoe-upon-Tyne	Feb. 9, 1895
57 Batey, John. Newbury Collieries. Coleford, Bath	Dec. 5, 1868
58 Baumgartner, W. O., Whitburn, near Sunderland	S. Sept. 6, 1879 M. Aug. 3, 1889
59 Bawden, James Barnet, c/o Hannan's Star Gold Mines, Kalgoorlie, Western Australia	Dec. 11. 1897
60 Bayldon, Daniel Henry, New Zealand Mines Trust, Limited, Mutual Life Buildings, Martin Place, Sydney, New South Wales	Feb. 8, 1890
61 Beanlands, Arthur, Palace Green, Durham	March 7, 1867
62 Becher, Septimus J., Geological Survey Office, Perth, Western Australia	Feb. 13, 1897.
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	Date of Election and of Transfer.
63 Bell, Sir Lowthian, Bart., D.C.L., F.R.S., Rounton Grange, Northallerton (Past-President, Member of Council)	July 6, 1854
64 Bell, George Fred., H.M. Inspector of Mines, 20, Wentworth Place, Newcastle-upon-Tyne	S. Sept. 6. 1879 A.M. Aug. 6, 1887 M. Aug. 3, 1889
65 Bell, Walter, c/o Pyman, Bell and Company, Hull	S. Oct. 8, 1889 M. Feb. 10, 1894
66 Bellingham, George, Bayley Street, Coolgardie, WesternAustralia	Nov. 24, 1894
67 Bennett. Alfred H., Dean Lane Collieries, Bedminster, Bristol	A.M. April 10, 1886 M. June 8, 1889
68 Benson, J. G., 12, Grey Street, Newcastle-upon-Tyne	Nov. 7, 1874
69 Benson, T. W., 24, Grey Street, Newcastle-upon-Tyne (Vice-President, Member of Council)	Aug. 2, 1866
70 Berkley, C, Marley Hill, Swalwell, R.S.O., Co. Durham (Retiring Vice-President, Member of Council)	Aug. 21, 1852
71 Berkley, Frederick, Hamsterley Colliery, Ebchester, R.S.O., Co. Durham	A.M. Dec. 9, 1882 M. June 8, 1889
72 Berkley, R. W., Marley Hill, Swalwell, R.S.O., Co. Durham	S. Feb. 14, 1874 A.M. Aug. 7, 1880 M, June 8, 1889

73 Beynon, J C. S., P.O. Box 1364, Johannesburg, Transvaal	June 10, 1893
74 Bibby, William, Raub Australian Gold Mining Company, Limited, Raub, Pahang, Malay Peninsula	Jan. 19, 1895
75 Bigg-Wither, Harris, 10, Swinley Road, Wigan, Lancashire	Jan. 19, 1895
76 Bigland, J., Henknowle, Bishop Auckland	June 3, 1857
77 Bilgrami, Syed Ali Shamsul Ulama, Director-General of Mines, Hyderabad, Deccan, India	April 11, 1891
78 Bishop, James, Grey Valley Coal Company, Brunnerton, Greymouth, New Zealand	April 13, 1889
79 Black, W., Lovaine House, Lovaine Place, Newcastle-upon-Tyne	April 2, 1870
80 Blackburn, William Stevenson, Aire Villas, Astley, Woodlesford, near Leeds	Dec. 10, 1887
81 Blackett, W. C., Acorn Close, Sacriston, Durham (Member of Council)	S. Nov. 4, 1876 A.M. Aug. 1, 1885 M. June 8, 1889
82 Blakemore, W., Glace Bay, Cape Breton, Canada	Oct. 12, 1895
83 Bolam, Philip, North Walbottle Colliery, Newcastle-upon-Tyne	A. Dec. 12, 1891 M. Aug. 3, 1895
84 Bolton, Edgar Ormerod, Executor of Colonel Hargreaves, Colliery Offices, Burnley	April 12, 1890
85 Bolton, H. H., Newchurch Collieries, near Manchester	Dec. 5, 1868
86 Borlase, W. H., Brown How, Ulleswater, Glenridding, near Penrith	Aug. 4, 1894
87 Boucher, A. S., Kempsey House, near Worcester	Aug. 4, 1883
88 Bowman, Andrew H., McClure Coke Company, Scottsdale, Westmoreland County, Pennsylvania, U.S.A.	Oct. 9, 1897
89 Bradford, George, Newton House, Darlington	Oct. 11, 1890
90 Bramwell, Hugh, Great Western Colliery, near Pontypridd, Glamorganshire	S. Oct. 4, 1879 A.M. Aug. 6, 1887 M. Aug. 3, 1889
91 Breakell, John E., The Transito Company. Limited, Transito Mine, Ibaque, Tolima, Republic of Colombia, South America. Transactions to be sent to Brassington-by-Wirksworth, Derbyshire	April 25, 1896
92 Breakell, Thomas, Brassington, near Derby	Feb. 11, 1893
93 Breckon, J. R., 53, John Street, Sunderland	Sept. 3, 1864
94 Brierley, Brandon Talfouro, Bellayre, Lymm, Cheshire	June 13, 1896
95 Britten, T. J., P.O. Box 494, Johannesburg, Transvaal	June 21, 1894
96 Broja, Geheimer Bergrath Richard, 77, Kaiser-Wilhelm-strasse, Breslau, Germany	Nov. 6, 1880
97 Bromly, A. H., 18, Eldon Street, London, E.C	Nov. 24, 1894
98 Broome, George Herbert, The Westport Cardiff Coal Company, Limited, Seddonville, via Westport, New Zealand	Oct. 9, 1897

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	Date of Election and of Transfer.
99*Brough, Bennett H., 28, Victoria Street, London, S. W.	A.M. Dec. 10, 1887 M. June 8, 1889
100 Brough, Thomas, New Seaham Colliery, Sunderland	S. Feb. 1, 1873 A.M. Aug. 2, 1879 M. June 8, 1889
101 Brown, Archibald T., 372, Flinders Lane, Melbourne, Australia	Aug. 5, 1893
102 Brown. Myles, Nirshachetty P.O., Shampore, via Barakar, E.I.R., Bengal, India	April 10, 1897
103 Brown, M. Walton, 10, Lambton Road, Newcastle-upon-Tyne (Secretary, Member of Council)	S. Oct. 7, 1871 M. Aug. 3, 1878
104 Brown, Robert, Equitable Coal Company, Limited, Desherghur, via Barakar, E.I.R., Bengal, India	April 10, 1897
105 Brown, Thomas, District Manager. Westport Coal Company, Millerton, Westport, New Zealand	April 13, 1889
106 Brown, Thomas Forster, Guildhall Chambers, Cardiff (Vice-President, Member of Council)	Aug. 1, 1861
107 Brown, Westgarth Forster, Fairview, Dynas Powis, near Cardiff	S. Aug. 6, 1887 M. Aug. 5, 1893
108 Bruce, John, Port Mulgrave, Hinderwell, R.S.O., Yorkshire	S. Feb. 14, 1874 A.M. Aug. 7, 1880

109 Bryham, W., Douglas Bank Collieries, Wigan	M. June 8, 1889
110 Bug lass, J., Stobswood, via Acklington, Northumberland	Aug. 3, 1865
111 Bcklky, F. Groendyoke, Denver, Colorado, U.S.A.	A. Dec. 10. 1892
112 Bulman, E. H., North Randfontein Gold Mining Company, Limited, Mine Office, Krugersdorp, South African Republic	M. Aug. 3, 1895
113 Bulman, H. F., Rosville, Richmond Hill Avenue, Clifton, Bristol	Oct 12, 1895
114 Bunkell, Henry B., P.O. Box 1463, Johannesburg, Transvaal	Feb. 13, 1892
115 Bunning. C. Z., c/o The Borax Company Limited, 2, Maori Khan, Constantinople	S. May 2, 1874
116*Burls, Herbert T.	A.M. Aug. 6, 1881
117*Burn, Fkank H., 22, Windsor Terrace, Newcastle-upon-Tyne	M. June 8, 1889
118 Burnett, Cuthbert, Grange Iron Works, Durham	April 8, 1893
119*Burns, David, Scotland Road, Stanwix, Carlisle	S. Dec. 6, 1873
120 Burrows, J. S Green Hall, Atherton, near Manchester	A.M. Aug. 5, 1882
121 Butt, Thomas Philip Edward, Aktien-Gesellschaft Elektricitatswerke, Langenthal, Bern, Switzerland	M. Oct. 8, 1887
122 Butters, Charles, 20, Bishopsgate Street Within, London,E.C.	Feb. 9, 1889
123 Cameron, Ian, Keeler, California, U.S.A.	A. Aug. 4, 1894
124 Campbell, H. H., Sutton Hall, St. Helens, Lancashire	M. Aug. 3, 1895
125 Campbell, The Rev. Joseph, Te Aroha, New Zealand	June 8, 1895
126 Campbell, W. Young, P.O. Box 357, Johannesburg, Transvaal	May 5, 1877
127 Campbell-Johnston, R. C. Nelson, British Columbia	S. Oct. 11, 1873
128*Candler, T. E., East Lodge, Crook, Co. Durham	M. Aug 4, 1877
129 Carnes, Charles Spearman. Cornwall House, Marton Colliery, Sunderland	Dec. 11, 1897
130 Carr T. , Lilywhite Terrace, Four Lane Ends, Hetton-le-Hole, R.S.O., Co. Durham	Feb. 10, 1894

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	Date of Election and of Transfer.
131 Chalmers, J. A., c/o J. S. Sheldrick, 96, Gresham House, Old Broad Street, London, E.C.	Dec. 9, 1893
132 Chambers, J. S., Little Italienskaja No. 5, St. Petersburg, Russia	Oct. 10, 1896
133 Chandley, Charles, P.O. Box 221, Coolgardie, Western Australia	S. Nov. 6, 1880
134 Channing, J. Parke, 34, Park Place, New York City, U.S. A	A. Aug. 3, 1889
135 Chapman, H. R., Victoria Works, Gateshead-upon-Tyne	M. Dec. 12, 1896
136 Charleton, A. G., 5, Avonmore Road, Kensington, London, W.	April 25, 1896
137 Charlton, William, Guisbrough, Yorkshire	Nov. 24, 1894
138 Charlton, William, Linares, Provincia de Jaen, Spain	Aug. 6, 1892
139 Charlton, William John, Ashington Colliery, Morpeth, Northumberland	Feb. 12, 1898
140 Chater, Joseph, Bengal Nagpur Coal Company, Limited, Evelyn Lodge, Kumarpur, Asansol, Bengal, India	April 8, 1893
141 Cheesman, E. Taylor, Claravale Colliery, Ryton-upon-Tyne	April 25, 1896
142 Cheesman, Herbert, Hartlepool	Dec. 9, 1893
143 Cheesman, I. T., Throckley Colliery, Newcastle-upon-Tyne	A. Aug.2, 1890
144 Cheesman, W. T., 4, Bridgford Road, Nottingham	M. Aug.6, 1892
145 Childe, Henry S., Mining Engineer, Wakefield	Aug. 6, 1892
146 Clark, C. F., Garswood Coal and Iron Company, Limited, near Wigan	Feb.1, 1873
147 Clark, Robert, Hyderabad Deccan Company, Limited, Secunderabad, India	Feb. 5, 1876
	A.M. Feb 12.1887
	M. Aug. 3, 1889
	Aug. 2, 1866
	Feb. 15, 1896

148 Clark, R. B., Springwell Colliery, Gateshead-upon-Tyne	S. May 3, 1873 M. Aug. 4, 1877
149 Claudet, Arthur C, 6 and 7, Coleman Street, London, E.C	Aug.3, 1895
150 Clifford, William, Pittsburg, Pennsylvania, U.S.A.	Feb. 9, 1895
151 Clough. James. Bomarsund House, Bomarsund, Bedlington, R.S.O., Northumberland	S. April 5, 1873 A. M. Aug.3 1878 M. June 8, 1889 Dec. 6, 1866 Aug. 1, 1861
152 Cochrane, B., Aldin Grange, Durham	
153 Cochrane, W., St. John's Chambers, Grainger Street West, Newcastle-upon-Tyne (Past-President, Member of Council)	
154 Cockson, Charles, Wingates, Hayes, Middlesex	A.M. April 22, 1882 M. Aug. 3, 1889 Dec. 9, 1893
155 Coghlan, F. M., Catorce, S.L.P., Mexico	Feb. 13, 1892
156 Collins, Arthur Launcelot. 14 and 15, Broad Street Avenue, London, E.C.	Aug. 4, 1894
157 Collins, Horatio, General Manager, Modderfontein Extensions, Limited, P.O. Box 735, Johannesburg, Transvaal	
158 Collins, H. B., 121, West George Street, Glasgow	April 14, 1894
159 Colquhoun, T. Grant, General Manager, Cassell Coal Company, Limited, Springs, South African Republic	Dec. 14, 1889
160 Commans, R. E., 6, Queen Street Place, London, E.C.	Nov. 24, 1894
161 Comstock, Theo. B., Prescott Development Syndicate, Limited, 535, Stimson Block, Los Angeles, California. U.S.A	Feb. 13, 1897
162 Cook, J., Washington Iron Works, Washington, Co. Durham	May 8, 1869
163 Cook, Joseph, Jun., Washington Iron Works, Washington, Co. Durham	Oct. 9, 1897
164 Cook, J. Watson, Teesdale House, Princes Street, Bishop Auckland	Oct. 14, 1893
165 Cooke, Gervase, No. 1, The Bund, Shanghai, China	June 11, 1898
166 Cooke, Henry Moore Annesley, Pestarena United Gold Mining Company, Limited, Pestarena, Vail Anzasca, Novara, Italy	Dec. 12, 1896
167 Corbett, V. W., Chilton Moor, Fence Houses	Sept. 3, 1870

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	Date of Election and of Transfer.
168 Corbitt, M., Springfield, Durham Road, Gateshead-upon-Tyne	Dec. 4, 1875
169 Corbould, W. H., P.O. Box 796, Rossland, British Columbia, via New York	June 8, 1895
170 Cork, F. Lawrence	Dec. 9, 1893
171 Corlett, George Stephen, Wigan	Dec. 12, 1891
172 Coulson, F 10. Victoria Terrace, Durham	S. Aug. 1, 1868 M. Aug. 2, 1873
173 Coulthard. Francis, Arica Villa, Whitehaven	June 8, 1889
174 Cox. John H., 10, St. George's Square, Sunderland	Feb. 6, 1875
175 Craven, Hiram, Jun., Mechanical Engineer. Sunderland	April 12, 1890
176 Craze, James Mayne, Coolgardie, Western Australia	Aug. 7, 1897
177 Crighton, John, Union Iron Works, Stewart Street, Stockport	June 11, 1898
178 Crone, E. W., Killingworth, near Newcastle-upon-Tyne	S. March 5, 1870 M. Aug. 5, 1876
179 Crone, J. R., Tudhoe House, via Spennymoor	Feb. 1, 1868
180 Crookston, Andrew White, 188, St. Vincent Street, Glasgow	Dec. 14, 1895
181 Cross, John, 77, King Street, Manchester	June 5, 1869
182 Croudace, C. J., Bettisfield Colliery Company, Limited, Bagillt, North Wales	Nov. 2, 1872
183 Croudace, Frank, The Scottish Australian Mining Company, Limited, Lambton, Newcastle, New South Wales	Aug. 3, 1895
184 Croudace, T., West House, Haltwhistle	Dec. 9, 1893
185 Croudace, Thomas, Lambton Lodge, Lambton, Newcastle, New South Wales	Nov. 6, 1862
186 Currie, Walter, P.O. Box 220, Buluwayo, Rhodesia, South Africa	April 25, 1896
187 Daghish, John, Rothley Lake, Cambo, R.S.O., Northumberland (Past-President, Member of Council)	Aug. 21, 1852
188 Daghish, William Charlton, Littleburn Colliery, near Durham	Dec. 12, 1896
189 Dakers, W. R., The Loggins, Tudhoe Colliery, via Spennymoor, Durham	A. M. Oct. 14, 1882

	M. Aug. 3, 1889
190 Dale, Sir David, Bart., West Lodge, Darlington	Feb. 5, 1870
191 Dan, Takuma, c/o Mitsui Mining Company, No. 4, Suruga-cho, Nihonbashi-Ku, Tokio, Japan	April 14, 1894
192 Daniel, Peter Francis, Greymouth, New Zealand	April 8, 1893
193 Darby, J. H., Pen y Garth, Brymbo, Denbighshire	Feb. 9, 1895
194 Darling, Fenwick. South Durham Colliery, Darlington	Nov. 6, 1875
195 Darlington, James, Black Park Colliery. Ruabon, North Wales	S. Nov. 7. 1874 M. Aug. 4, 1877
196 Davey, George, Waitekauri Gold Mining Company, Waitekauri, Auckland, New Zealand	June 10, 1893
197 Davey, Henry, 3, Princes Street, Westminster, London. S. W.	Oct. 11, 1873
198 Davies, John, Hartley House, Coundon, Bishop Auckland	April 10, 1886
199 Davies, J. Hubert. P.O. Box 455, Johannesburg. Transvaal	April 8. 1893
200 Davis, Kenneth, Dudley Colliery, Northumberland	April 13, 1889
201 Davison, J. Ford, Yarlside, Dalton-in-Furness	Oct. 13, 1894
202 Daw, Albert William, 11, Queen Victoria Street, London, E.C	June 12, 1897
203 Daw, John, Jun., Brooklands, Rosemont Road, Acton, London, W.	Dec. 14, 1895
204 Dees, J. Gibson, Floraville, Whitehaven	Oct. 13, 1883
205 Dees. R. R., Newcastle-upon-Tyne	Oct. 7, 1871
206 Delprat, G. D, The Broken Hill Proprietary Company, Limited, Broken Hill, New South Wales	Feb. 10, 1894
207 Denny, G. A., No. 3, Grusonwerk, Marshall Square, Johannesburg, Transvaal	Dec. 8, 1894
208 Dewhurst, John Hubert, Grove House, Walton-le-Dale, Preston, Lancashire	April 2, 1898
209 Dickinson, Arthur, Warham Road, South Croydon, Surrey	April 14, 1894

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	Date of Election and of Transfer
210 Diest, Edmond C. van, San Luis, Costilla County, Colorado, U.S.A	July 14, 1896
211 Dixon, D. W., Lumpsey Mines, Brotton, Saltburn-by-the-Sea	Nov. 2, 1872
212* Dixon, James S., Fairleigh, Bothwell, N.B	Aug. 3, 1878
213 Dixon, Jonathan, Manager, Greta Collieries, New South Wales	Oct. 13, 1894
214 Dixon, R., Sankey Wire Mills and Ropeworks, Warrington	June 5, 1875
215 Dixon, William, Cleator, Cumberland	April 10, 1897
216 Dobb, T. G., Moorland House, Aspull, near Wigan, Lancashire	Dec. 8, 1894
217 Dobbs, Joseph, Jarrow Colliery, Castlecomer, Co, Kilkenny	April 14, 1894
218 Dodd, Benjamin, Bearpark Colliery, near Durham (Member of Council)	S. May 3, 1866 M. Aug. 1, 1868
219 Dodd, M., Lemington Hall, Lemington-upon-Tyne	S. Dec. 4, 1875 A.M. Aug. 7, 1880 M. June 8, 1889
220 Dodd, Thomas Robert, P.O. Box 317, Johannesburg, Transvaal	June 13, 1896
221 Donald, John Macintosh, Bantjes Consolidated Mines, Limited, Florida, South African Republic	A.M. July 14, 1896
222 Donkin, W., General Manager, Witbank Colliery, Per Special Post Bag, via Pretoria, South Africa	M. Oct. 10, 1896 S. Sept. 2, 1876 A.M. Aug. 1, 1885 M. June 8, 1889
223* Douglas, C. P., Thornbeck Hill, Carmel Road, Darlington	March 6, 1869
224 Douglas, John, 4, Brandling Terrace, Felling, R.S.O., Co. Durham	A.M. April 22, 1882 M. Aug. 3, 1889
225 Douglas, M. H., Usworth Colliery, Washington, R.S.O., Co. Durham	A.M. Aug. 2, 1879 M. Aug. 3, 1889
226 Douglas, T., The Garth, Darlington (Past-President, Member of Council)	Aug, 21, 1852
227 Dowdeswell, H., Butterknowle Colliery, via Darlington	S. April 5, 1873 M. Aug. 7, 1875
228 Doyle, Patrick, Indian Engineering, 19, Lall Bazar, Calcutta, India	A.M. March 1. 1879 M. Aug. 3, 1889
229 Draper, David, P.O. Box 3517, Johannesburg, Transvaal	Feb. 15, 1896
230 Dudley, Uriah, The White Rock Silver Mine, Limited, Drake, New South Wales	April 14, 1894
231 Dumat, Alfred, 1, Loop Street, Pietermaritzburg, Natal	April 8, 1893
232 Dyson, T. Ingleby, Aldershot, near Maryborough, Queensland, Australia	Feb. 9, 1895

233 Eastlake, Arthur W., Balham London, S.W	June 11, 1892
234 Ede, Francis J., Silchar, Cachar, India	Aug 1, 1896
235 Ede, Henry Edward, c/o The New Explosives Company, Stowmarket, Suffolk	July 14, 1896
236 Eden, C. H, c/o Vivian and Sons. Swansea	June 14, 1890
237 Edge, J. H., Coalport Wire Rope and Chain Works, Shifnal. Salop	A.M. Sept. 7, 1878 M. Aug. 3, 1889
238 Edwards, Edward, Maindy Pit, Ocean Coal Company, Ton Pentre, South Wales	Feb. 9, 1895
239 Edwards, Telford, Tati, Matabeleland, South Africa ; and 1, Bradenham Place, Penarth, South Wales	Dec. 12, 1896
240 Eissler, M., 5, Post Office Chambers, Sydney, New South Wales	Feb. 15, 1896
241 Ellis, W. R., Wigan	June 1, 1878
242 Elsdon, Robert, "Esperanza," 381, Hagley Road, Edgbaston, Birmingham	Nov. 7, 1876
243 Elwen, Thomas Lee, Brandon Colliery, Durham	Oct. 13, 1888
244 Embleton, H. C., Central Bank Chambers, Leeds	April 14, 1894
245 Embleton, T. XV., The Cedars, Methley, Leeds	S. Sept. 2, 1865 M. Aug. 1, 1868
246 Epton, W. Martin, P.O. Box 737, Johannesburg, Transvaal	Oct. 12, 1895
247 Esuman-Gwira, John Buckman, Cape Coast Castle, West Africa	April 2, 1898

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	Date of Election and of Transfer.
248 Etherington, J., 39a, King William Street, London Bridge, London, E.C	Dec. 9, 1893
249 Evans, Lewis, P.O. Box 2691, Johannesburg, Transvaal	Oct. 14, 1893
250 Everard, J. B., 6, Millstone Lane, Leicester	March 6, 1869
251 Fairley, James, Craghead and Holmside Colliery, Chester-le-Street	A.M. Aug. 7, 1880 M. Aug. 3, 1889
252 Faragher, Louis, Cape Copper Company, Limited. Ookiep, Namaqualand, South Africa	April 8, 1893
253 Farmer, A., Seaton Carew, near West Hartlepool	March 2, 1872
254 Fellows, Alfred, The Bede Metal and Chemical Company, Limited, Hebburn, Newcastle-upon-Tyne	June 13, 1896
255*Fenwick, Barnabas, 37, Osborne Road, Newcastle-upon-Tyne	Aug. 2, 1866
256 Ferens, Frederick J., Silksworth Colliery, Sunderland	S. Dec. 4, 1880 A.M. Aug. 4, 1888 M. Aug. 3, 1889
257 Fergie, Charles, Drummond Colliery, Westville, Nova Scotia	Dec. 9, 1893
258 Ferguson, C, Walbottle Colliery, Scotswood-upon-Tyne	Feb. 12, 1898
259 Ferguson, D c/o James Ferguson, 115, Buccleuch Street, Glasgow	A.M. Dec. 8, 1883 M. Aug. 3, 1889
260 Ferguson, James, P.O. Box 253, Johannesburg, Transvaal	Dec. 12, 1896
261 Figari, Alberto, Apartado, 405, Lima, Peru	April 25, 1896
262 Fisher, Edward R., Blaina Lodge, Llandebie, R.S.O., Carmarthenshire	A.M. Aug. 2, 1884 M. Aug. 3, 1889
263 Fishwick, R., Binchester Colliery, Co. Durham	Aug. 6, 1892
264 Fletcher, James, Whickham and Bullock Island Coal Company, Limited, Carrington, New South Wales	Dec. 9, 1893
265 Fletcher. Lancelot, Brigham Hill. Cockermouth	A.M. April 14, 1888 M. June 8, 1889
266*Fletcher, Walter, The Hollins, Bolton, Lancashire	Dec. 14, 1895
267 Flint, John, Broomhill Colliery, Acklington, Northumberland	Jan. 19, 1895
268 Foote, Arthur de Winte, P.O. Box 491, Grass Valley, California, U.S.A	Feb. 13, 1897
269 Ford, Mark, Sherburn Colliery, near Durham	Aug. 3, 1895
270 Ford, Stanley H, P.O. Box 2056, Johannesburg, Transvaal	June 10, 1893
271 Forrest, J. C . Holly Bank Colliery, Essington. Wolverhampton	April 12, 1884
272 Forster, G. B., Farnley Hill, Corbridge-upon-Tyne (Past-President, Member of Council)	Feb. 5, 1857
273 Forster, J. R , Water Company's Office. Newcastle-upon-Tyne	July 2, 1872
274 Forster. Thomas E., 3. Eldon Square, Newcastle-upon-Tyne (Member of Council)	S. Oct. 7, 1876 A.M. Aug. 1, 1885 M. June 8, 1889
275 Fowler, R., Washington Colliery, Washington Station, R.S.O., Co. Durham	Nov. 24, 1894
276 Frecheville, William, Claremont, Nutfield, Redhill, Surrey	Feb. 15, 1896

277 Frossard, J. D., Orthes, Basses Pyrenees, France	Dec. 14, 1890
278 Fryar, John William, Jobs Hill, Crook, via Darlington	A. June 14, 1890
	M. June 12, 1897
279 Fryar, Mark, Denby Colliery, Derby	S. Oct. 7, 1876
	A.M. Aug. 4, 1883
	M. June 8, 1889
280 Fryar, William, Inspector of Mines, Brisbane, Queensland, Australia	April 10, 1897
281 Galloway. T. Lindsay, Argyll Colliery, Campbeltown, N.B.	Sept. 2, 1876
282 Galloway, William, Cardiff	April 23, 1887
283 Gallwey, Arthur P., P.O. Box 138, Johannesburg, Transvaal	S. Oct. 2, 1880
	M. Oct. 10, 1891
284 Gardiner, E T., 8, South View Terrace, Bishop Auckland	Dec. 8, 1894

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	Date of Election and of Transfer.
285 Geddes, George H., 21, Young Street. Edinburgh	Oct. 1, 1881
286 Gerrard, James. 9, Meek Buildings, Wigan	S. March 1 1873
	A.M. Aug. 2, 1879
	M. June 8, 1889
287 Gerrard, John, H.M. Inspector of Mines, Worsley, Manchester	S. March 5 1870
	M. Aug. 1 1874
288 Gifford, Henry J., 36, St. John's Road, Clifton, Bristol	Oct. 14, 1893
289 Gilchrist. J. R., Garesfield Colliery, Lintz Green. Newcastle-upon-Tyne	S. Feb. 3, 1877
	A.M. Aug. 1, 1885
	M. June 8, 1889
290 Gill, William, Apartado, 42, Bilbao, Spain	June 13, 1896
291 Gillman, Federico, Ingeniero de Minas, Gergal, Provincia de Almeria, Spain	A.M. Dec. 8, 1894
	M. June 8, 1895
292 Gilroy, S B., Mining Engineer, Mansfield	Sept 5 1868
293 Gipps, F. G. de Visme, Coolgardie, Western Australia	April 25, 1896
294 Gjers, John, Bournemouth, Bournemouth	June 7. 1873
295*Gledhill, Edward, c/o Andrew Hallett, Solicitor, Portland Street, Southampton	Dec. 9 1893
296 Goerz, A., Manor House, St. John's Wood Park, London, N. W.	April 14, 1894
297 Goldsworthy, Arthur, Linares, Provincia de Jaen, Spain	Aug. 3, 1895
298 Goldsworthy, Christopher, Newquay, Cornwall	June 12, 1897
299 Goolden, Walter T., c/o Easton, Anderson and Goolden, Limited, 2, St. Nicholas' Buildings, Newcastle-upon-Tyne	Aug. 6, 1892
300 Gordon, Robert, Imperial Chambers, Coolgardie, Western Australia	Dec. 12, 1896
301 Gouldie, Joseph, The Gill, Wigton, Cumberland	Aug. 5, 1893
302 Graham, Edward, Jun., East Howie Colliery, Ferryhill	Aug. 1, 1896
303 Greaves, J. O., Westgate, Wakefield	Aug. 7, 1862
304 Green, J. T., Southside, Sneyd Park, Clifton, Bristol	Dec. 3, 1870
305 Greener, Henry, South Pontop Colliery, Annfield Plain, R.S.O., Co. Durham	A.M. Dec. 9, 1882
306 Greener, T. Y., West Lodge, Crook, Darlington	M. Aug. 3, 1889
	S. July 2, 1872
	A.M. Aug. 2, 1879
	M. June 8, 1889
307 Greenwell, G. C, Jun., Poynton, near Stockport	S. March 6, 1869
	M. Aug. 3, 1872
308 Gregorie, Charles, Aberdare, South Wales	Oct. 9, 1897
309 Gregson, G. Ernest, 11, Chapel Street, Preston, Lancashire	A.M. Dec. 8, 1894
	M. Feb. 9, 1895
310 Gresley, W. S., Erie, Pennsylvania, U.S.A	A.M. Oct. 5, 1878
	M. Aug. 3, 1889
311 Grey, C. G., Ballycourcy, Enniscorthy, Co. Wexford	May 4, 1872
312 Grey, Frederick William, Dashwood House, 9, New Broad Street, London, E.C.	July 14, 1896
313 Griffith, N. R., Plasnewydd, Ruabon, North Wales	Aug. 1, 1867
314 Griffith, William, Waterloo House, Aberystwyth, South Wales	Dec. 9 1893
315 Griffiths, Edward	A. June 13, 1891
	M. Aug. 1, 1896
316 Grimshaw, E. J., 23, Hardshaw Street, St. Helen's, Lancashire	Sept. 5, 1868
317*Grundt, James, 27, Chowringhee Road, Calcutta, India	June 13, 1896

318 Guthrie, James K., Prudential Buildings, Newcastle-upon-Tyne	Aug. 3, 1889
319 Haddock, W. T., Sutherland Reef, Limited, Leydsdorp, Zoutpansberg, South African Republic	S. Oct. 7, 1876 A.M. Aug. 1, 1885 M. June 8, 1889
320 Haggie, D. H., Wearmouth Patent Rope Works, Sunderland	March 4, 1876
321 Haggie, Peter Sinclair, Gateshead-upon-Tyne	A.M. April 14, 1883 M. Aug. 3, 1889
322 Hague, Ernest. Castle Dyke, Sheffield	S. March 2, 1878 M. Aug. 3, 1878
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	Date of Election and of Transfer.
323 Halder, Albert H., P.O. Box 213, Johannesburg, Transvaal	April 8, 1893
324 Hall, Frederick, Fernleigh, Highfield, Workington	Oct. 14, 1893
325 Hall, Fred. W., Tamworth Colliery, Alvecote, near Tamworth	S. June 8, 1889 M. Feb. 10, 1894
326 Hall, George William. Coolgardie, Western Australia	Dec. 12, 1896
327 Hall, John Charles, Pegswood Colliery, near Morpeth	A. Dec. 14, 1889 M. Aug. 3, 1895
328 Hall, M., Lofthouse Station Collieries, near Wakefield	Sept. 5, 1868
329 Hall, M. S., 8, Victoria Street. Bishop Auckland	Feb. 14, 1874
330 Hall, Tom, Ryhope Colliery, via Sunderland	June 8, 1889
331 Hall, William F., Haswell Colliery, Haswell, via Sunderland (Member of Council)	May 13, 1858
332 Hallas, G. H., Huyton, near Liverpool	S. Oct. 7, 1876 A.M. Aug. 4, 1883 M. June 8, 1889
333 Hallimond, William Tasker, General Manager, Cape Collieries, Limited, Molteno, Cape Colony	Dec. 14, 1889
334 Halse. Edward, Sucre, Puerto Berrio, Estado de Antioquia, Republic of Colombia, South America	A. M. June 13, 1885 M. Aug. 3, 1889
335 Hamilton, E., Rig Wood, Saltburn-by-the-Sea	S. Nov. 1, 1873 A.M. Aug. 2, 1879 M. June 8, 1889
336 Hancock, H. Lipson, Moonta Mines, South Australia	Dec. 14, 1895
337 Hancock, H. R., Moonta Mines, South Australia	A.M. Aug. 4, 1894 M. Nov. 24, 1894
338 Hannah, David, Brynderwen, Ferndale, South Wales	Feb. 9, 1895
339 Hardman, John E	Dec 9, 1893
340 Hare. Samuel, Bedlington Collieries, Bedlington, R.S.O., Northumberland	S. Aug. 2, 1879 M. Aug. 1, 1891
341 Hargreaves, Joseph, Gwaun Cae Gurwen Collieries, Brynamman, R.S.O.	Aug. 5, 1893
342 Harle, Peter, Page Bank Colliery, Co. Durham	Oct. 8, 1892
343 Harle, Richard, Browney Colliery, Durham	April 7, 1877
344 Harris, G. E., Margherita, Debrugarh, Upper Assam	Feb. 10, 1894
345 Harris, W. S., Kibblesworth, Gateshead-upon-Tyne	S. Feb. 14, 1874 A.M. Aug. 7, 1880 M. June 8, 1889
316 Harrison, C. A., North Eastern Railway, Newcastle-upon-Tyne	June 21, 1894
347 Harrison, G. B., Swinton, near Manchester	Aug. 6, 1892
348 Harrison, Jonathan, Kimihia, Auckland, New Zealand	June 8, 1895
349 Harrison, W. B., Brownhills Collieries, near Walsall	April 6, 1867
350 Harvey, W. Pellew, Vancouver, British Columbia	June 8, 1895
351 Haselden, Arthur, Linares, Provincia de Jaen, Spain	A.M. Dec. 11, 1897 M. April 2, 1898
352 Haselden, Eugene Kinnaird, Jardines No. 3, La Carolina, Provincia de Jaen, Spain	A.M. Dec. 11, 1897 M. June 11, 1898
353 Hawker, Edward William, Adelaide Club, Adelaide, South Australia	Oct. 12, 1895
354 Hay, J., Jun., Widdrington Colliery, Acklington	S. Sept. 4, 1869 M. Aug. 4, 1874
355 Head, Jeremiah, 47, Victoria Street, Westminster, London, S.W	Aug. 3, 1889
356 Hedley, J. L., H.M. Inspector of Mines, 2, Devonshire Terrace, Newcastle-	S. Feb. 5, 1870

upon-Tyne (Vice-President, Member of Council)	M. Aug. 2, 1873
357 Hedley, Septimus H., Langholme, Roker, Sunderland	S. Feb. 15, 1879
	A.M. Aug. 1, 1885
	M. Aug. 3, 1889
358 Hedley, William, Ouston House, Chester-le-Street	Feb. 13, 1897
359 Heinze, F. Aug., Trail, British Columbia	Dec. 11, 1897
360 Henderson. H., Pelton Colliery, Chester-le-Street	Feb. 14, 1874
361 Hendersons Joseph J., U.S. Engineer's Office, Kingsbridge, New York, U.S.A	June 13, 1891
362 Hendy, J. C. B., Etherley, via Darlington	Oct. 14, 1893

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	Date of Election and of Transfer.
363 Hepburn, Wheldn, Littleton Colliery, near Durham	Aug. 3, 1895
364 Heppell, T., Leafield House, Birtley, Chester-le-Street	Aug. 6, 1863
365 Heslop, C, Woodside. Marske Mill Lane, Saltburn-by-the-Sea	S. Feb.1, 1868
	M. Aug. 2, 1873
366 Heslop, Grainger, Deptford Hall, Sunderland	Oct.5, 1872
367 Heslop, Michael, Rough Lea Colliery, Willington, Co.Durham	A. Feb. 10, 1894
	M. June 21, 1894
368 Heslop, Septimus, New Beerbhoom Coal Company, Limited,Asansol, Bengal, India	Oct. 12, 1895
369 Heslop, Thomas. Storey Lodge Colliery, Cockfield. viaDarlington	S. Oct. 2, 1880
	A.M. Aug. 4, 1888
	M. Aug. 3, 1889
	Aug. 3, 1895
370 Heslop, William Taylor, P.O. Box 93, Boksburg, South African Republic	
371 * Hewitt, G. C., Serridge House, Coalpit Heath, near Bristol	June 3, 1871
372 Hewlett. A., Haseley Manor. Warwick	March 7, 1861
373 Hewlett, Erne, Ammanford Colliery Company, Limited, Ammanford, R.S.O., Carmarthenshire	Oct. 10. 1896
374 Higby, Robert George, Borrea Coal Company, Limited, Salanpore Collieries, Seetarampore, Bengal, India	Dec. 9, 1893
375 Higson, Jacob, 18. Booth Street, Manchester	Aug. 7, 1862
376 Hill, Leslie, Rossland, British Columbia	A.M. Aug.1, 1896
	M. Dec. 12, 1896
	A.M. June 9, 1883
	M. Aug. 3, 1889
377 Hill, William. Dordon, Tarnworth	S. Dec. 7, 1867
	M. Aug. 6, 1870
378*Hilton. J., Woodcock Hall, Newburgh, near Southport	Aug. 3, 1865
379 Hilton, T. Wigan Coal and Iron Company, Limited, Company, Wigan	April 25, 1896
380 Hobson, J. B., Cariboo Hydraulic Mining Limited, Vancouver, British Columbia	
381 Hodge, Francis, Coromandel, near Auckland, New Zealand	April 14, 1894
382 Hodgson, Jacob, Corsay Colliery, Co. Durham	June 8, 1895
383 Hodgson, John. Edmondsley Colliery. Chester de-Street	Oct. 8, 1889
384 Hoffman, Charles, Per Private Bag, P.O. Box 1022, Johannesburg, Transvaal	June 13, 1896
385 Hogg, C. E., 1, St. Helen's Place, London, E.C	Oct. 12, 1895
386 Holliday, Martin F., Langley Grove, Durham	May 1, 1875
387 Hollis, Henry William, Whitworth House. Spennymoor	June 8, 1889
388 Holt, John, Jun., 109, Manchester Road, Swinton, Lancashire ; and The Hollies. Heywood, Lancashire	Aug. 5,1893
389 Hood, A., 6. Bute Crescent. Cardiff	May 2, 1861
390 Hooper, Edward, c/o Bewick, Moreing and Company, Broad Street House, New Broad Street, London, E.C.	A.M. June 4, 1881
391 Hooper, G. G, General Manager, The Afrikander Gold Mining Company, Limited, Kleiksdorp, South African Republic	M. April 14, 1894
	A.M. Aug 4, 1894
	M. Oct. 13, 1894
392 Hope, Edmund Louis, Dandot, Ihelum, Punjaub, India	Oct. 9, 1897
393 Hopkins, Edward, 13. Harrington Gardens, London. S.W.	Oct. 8, 1889
394 Hosking, James, Roskear, Camborne, Cornwall	June 21, 1894
395 Hoskold, Carlos A. Lynes, First Engineer, Inspector of the National Department of Mines and Geology, Calle Charcas, 1222, Buenos Aires, Argentine Republic	June 8, 1895

396 Hoskold, H. D., Inspector General of Mines of the Argentine Republic, and Director of the National Department of Mines and Geology, Buenos Aires, Argentine Republic	April 1, 1871
397 House, John, Rosebridge and Douglas Bank Collieries Company, Limited, Wigan	June 13, 1896
398 Howes, Frank T., Singareni Collieries, Hyderabad Deccan Company, Limited, Secundarabad, India	A. Dec. 10, 1892 M. Oct. 14, 1893
399 Howley, James Patrick, Geological Survey of Newfoundland, Museum and Office, P.O. Building, St. John's, Newfoundland	Aug. 1, 1896
400 Hudson, James O., Menzies, Western Australia	April 2, 1898
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	Date of Election and of Transfer.
401 Humble, William, Lawson Street, Hamilton. Newcastle, New South Wales	Oct. 14, 1893
402 Hurst, George, 9, Framlington Place, Newcastle-upon-Tyne	S. April 14, 1883 M. Aug. 1, 1891
403 Hutchinson, R. L., 83, Howard Street, North Shields	June 13, 1896
404 Jackson, W. G., High Prestwick. Chiddingfold. Surrey	June 7, 1873
405 Jaffrey, William, 3, Victoria Street, London, S.W.	Feb. 13, 1897
406 James, John, c/o Mrs. Corkhill, 13, Gladys Road, West Hampstead, London, N.W.	June 12, 1897
407 James, William Henry Trewartha. 38. Aberdare Gardens, West Hampstead, London, N.W	Dec. 12, 1896
408 Jeffcock. T. W 18, Bank Street. Sheffield	Sept. 4, 1869
409 Jefferson, Frederick, Whitburn Colliery, South Shields	Dec. 11, 1897
410 Jenkins, Charles Warren Bowen, Kalgoorlie Central Gold Mine, P.O. Box 153, Kalgoorlie, Western Australia	Oct. 9, 1897
411 Jenkins, W., Ocean Collieries. Treorchy, Glamorganshire	Dec. 6, 1862
412 Jepson, H., 39, North Bailey, Durham	S. July 2, 1872 A.M. Aug. 2, 1879 M. June 8, 1889
413 Jobling, John William, Clifton Cottage, Burnley, Lancashire	June 13, 1896
414*Jobling, Thomas E., Bebside, Northumberland (Member of Council)	S. Oct. 7, 1876 A.M. Aug. 4, 1883 M. June 8, 1889
415*Johns, J. Harry, P.O. Box 1021, Johannesburg, Transvaal	June 21, 1894
416 Johnson, Algernon Edward, County Court Building, Wrexham	April 25, 1896
417 Johnson, J., The Terrace, Stairfoot, near Barnsley	March 7, 1874
418 Johnson, W., Abram Colliery, Wigan	S. Feb. 14, 1874 A.M. Aug. 2, 1879 M. June 8, 1889
419 Johnston, Duncan Stuart, P.O. Box 116, Johannesburg, Transvaal	Feb. 15, 1896
420 Johnston, J. Howard, c/o Backus and Johnston, Lima, Peru, South America	Feb. 10, 1894
421 Joicey, J. G., Forth Banks West Factory, Newcastle-upon-Tyne	April 10, 1869
422 Joicey, W. J., Sunningdale Park, Berkshire	March 6, 1869
423 Jones, John Arthur, Gijon, Asturias, Spain	April 8, 1893
424 Jones. Jacob Carlos, Bellambi, New South Wales	Aug. 6, 1892
425 Jones, Thomas, 1, Princes Street, Great George Street, London, S.W	June 12, 1897
426 Kanda. Reiji, Shikaibetsu Silver and Lead Mines, Yoichi, Hokkaido, Japan	A. M. Aug. 4, 1894 M. Nov. 24, 1894
427 Kaufman, Charles, St. George's Terrace, Perth, Western Australia	Oct. 12, 1895
428 Kay, Robert, South Tanfield Colliery, Stanley, R.S.O., Co. Durham	Aug. 4, 1894
429 Kayll, A. C. Gosforth, Newcastle-upon-Tyne (Member of Council)	S. Oct. 7, 1876 M. Aug. 3, 1889
430 Kayser, H. W. Ferdinand, The Mount Bischoff Tin Mining Company, Waratah, Tasmania	Nov. 24, 1894
431 Kebler, Julian A., Boston Building, Denver, Colorado, U.S.A	June 13, 1896
432 Kellett, Matthew H., St. Helen's Colliery, Bishop Auckland	S. April 11, 1891 M. Aug. 3, 1895
433 Kellett, William, Portland Bank, Southport	June 1, 1878
434 Kennedy, Prof. George Thomas, King's College, Windsor, Hants County, Nova Scotia	A.M. Oct. 10, 1896
435 Kennedy, William, 509, West Sixth Street, Austin, Texas, U.S.A	M. April 2, 1898
436 Kerry, Thomas Caradoo, 168 and 169, Dashwood House, New Broad	Jan. 19, 1895 April 10, 1897

Street, London, E.C

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	Date of Election and of Transfer.
437 Kidd, Thomas, Jun., Linares, Provincia de Jaen, Spain. Transactions to be sent to c/o Thomas Kidd, 104, Balham Park Road, Balham, London, S.W.	Aug. 3, 1895
438 Kirkby, J. W., Kirkland, Leven, Fife	Feb. 1, 1873
439 Kirkup, Austin, Newbottle Colliery, Bunker Hill, Fence Houses	S. April 9, 1892
440 Kirkup, J. P., Burnhope, Lanchester	M. June 12, 1897
441 Kirkup, Philip, Cornsay Colliery Office, Esh, near Durham	April 11, 1891
	S. March 2, 1878
	A.M. Aug. 7, 1886
	M. Aug. 3, 1889
442 Kirton, Hugh, Kimblesworth Colliery, Chester Je-Street	S. April 7, 1877
	A.M. Aug. 1, 1885
	M. June 8, 1889
443 Klauke, Josef, High Green, Tankersley, near Barnsley	Feb. 13, 1897
444*Knowles, Robert, Ednaston Lodge, Derby	April 10, 1886
445 Kondo, R., 7, Setomoncho, Nihonbashi, Tokio, Japan	June 21, 1894
446*Kwang, Kwong Yung, Chinese Engineering and Mining Company, Lin Si Colliery, Tientsin, North China	June 8, 1895
447 Labram, George Frederick, De Beers Consolidated Mines. Limited, Kimberley, South Africa	Aug. 7, 1897
448 Lamb, R. O., West Denton, Newcastle-upon-Tyne	Aug. 2, 1866
449 Lancaster, John, Ashlawn, Rugby	March 2, 1865
450 Lancaster, John, Auchinheath, Southfield and Fence Collieries, Lesmahagow	Sept. 7, 1878
451 Landale, A., Comely Park Place, Dunfermline	Dec. 2, 1858
52 Landero, Carlos F. de, c/o Real del Monte Company, P.O. Box 1, Pachuca, Mexico	Feb. 15, 1896
453*Laporte, H. 57. Rue de la Concorde, Brussels	May 5, 1877
454 Laverick, John Wales, Tow Law Colliery Office, Tow Law, R.S.O., Co. Durham	A.M. Dec. 9, 1882
455 Laverick, Robert, West Rainton, Fence Houses	M. Aug 3, 1889
456 Lawn, James Gunson, South African School of Mines, Kimberley, South Africa	Sept. 2, 1876
457 Lawrence, H., 24, Grainger Street West, Newcastle-upon-Tyne (Member of Council)	July 14, 1896
458 Lawrence, H. L. 19, Walpole Terrace, Brighton	Aug. 1, 1868
459 Laws, W. G., Town Hall, Newcastle-upon-Tyne	April 8, 1893
460 Leach, C. G., Seghill Colliery, Northumberland	Oct. 2, 1880
	S. March 7, 1874
	A.M. Aug. 6, 1881
	M. Aug. 4, 1883
461 Lebour, G. A., Durham College of Science, Newcastle-upon-Tyne	Feb. 1, 1873
462 Leck, William, H.M. Inspector of Mines, Cleator Moor, Cumberland	Nov. 24, 1894
463 Leckie, Robert G., Londonderry Iron Company, Limited, Londonderry, Nova Scotia	Dec. 9, 1893
464 Lee, J. W. R., 70, St. Helen's Gardens, North Kensington, London, W.	Aug. 5, 1893
465 Lewis, H. R., Finsbury Circus Buildings, London, E.C.	April 14, 1894
466 Lewis, John Dyer, H.M. Inspector of Mines, 183, Richmond Road, Roath, Cardiff	Oct. 9, 1897
467 Lewis. Sir William Thomas, Bart., Mardy, Aberdare (Vice-President, Member of Council)	Sept. 3, 1864
468 Liddell, John	July 14, 1896
469 Liddell, J. M., 3, Victoria Villas, Newcastle-upon-Tyne	S. March 6, 1875
	A.M. Aug. 6, 1881
	M. June 8, 1889
470 Liebert, R. A. D.	April 8, 1893
471 Linday, George, Blackett Colliery, Haltwhistle	June 10, 1893
472 Lindop, A. B., Westport Coal Company, Limited, Denniston, Westport, New Zealand	Dec. 9, 1893
473 Lishman, R. R., Bretby Colliery, Burton-upon-Trent	S. June 9, 1883
	M. Aug. 1, 1891

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	Date of Election and of Transfer.
474 Lishman, T., Hetton Colliery, Hetton-le-Hole, R.S.O, Co. Durham	S. Nov. 5, 1870 M. Aug. 3, 1872
475 Lishman, William, Holly House, Witton-le-Wear	April 1, 1858
476 Lishman, W. Ernest. Boldon Colliery, U.S.O., Co. Durham	June 10, 1893
477 Lisle, J., Cambrian House, Kimberley, South Africa	S. July 2, 1872 A.M. Aug. 3, 1878 M. June 8, 1889
478 Little, Gilbert, Transport Appliance Works, Smethwick, Birmingham	April 27, 1895
479 Liveing, E. H., 52, Queen Anne Street, Cavendish Square, London, W	S. Sept. 1, 1877 A.M. Aug. 2, 1884 M. Aug. 3, 1889
480 Livesey, C, Bradford Colliery, near Manchester	Aug. 3, 1865
481 Livesey, T., Bradford Colliery, near Manchester	S. Nov. 7, 1874 M. Aug. 7, 1875
482 Llewellyn, David Morgan, Glanwern Offices, Pontypool	May 14, 1881
483 Lloyd, G. Hamilton, 7, St. Mildred's Court, Poultry, London, E.C.	Dec. 9, 1893
484 Lockwood, Alfred Andrew, c/o Indo-China Company, 29, Cornhill, London, E.C	June 12, 1897
485 Logan, William, Langley Park Colliery, Durham (Member of Council)	Oct. 5, 1867
486 Longridge, Captain Cecil Clement, Grove Cottage, Gravesend	Aug. 1, 1896
487 Longridge, Jethro, Burradon and Hazelrigg Collieries, South Gosforth, Newcastle-upon-Tyne	Dec. 14, 1889
488 Lord, Edward Iveagh, Greymouth, Westland, New Zealand	Dec. 12, 1896
489 Louis, D. A., 77, Shirland Gardens. London. W.	April 8, 1893
490 Louis, Henry, 11, Summerhill Terrace, Newcastle-upon-Tyne (Member of Council)	Feb. 15, 1896
491 Lovely, W. H. C, 101, Leadenhall Street, London, E.C	June 8, 1895
492 Lowdon, Thomas, Hamsteels, near Durham	Dec. 14, 1889
493 Lupton, A., 6, De Grey Road, Leeds	Nov. 6, 1869
494 MacArthur, John S., 108a, Hope Street, Glasgow	April 8, 1893
495 MacCabe, H. O., Russell Vale, Wollongong, New South Wales	Sept. 7, 1878 A. M. Aug. 7, 1880 M. Aug. 3, 1889
496 McCarthy, E. T., c/o Colonel Pigott, Archer Lodge, Charles Road, St. Leonards-on-the-Sea	A. M. Oct. 8, 1887 M. Aug. 3, 1889
497 McCreath, J., 208, St. Vincent Street, Glasgow	March 5, 1870
498 McGeachie, Duncan, Waratah Colliery, Charlestown, near Newcastle, New South Wales	Nov. 24, 1894
499 Mackintosh, James, Lamancha P.O., Peeblesshire	Oct. 12, 1895
500 McMurtrie, George Edwin James, Foxes Bridge Colliery, Cinderford, Gloucestershire	S. Aug. 2, 1884 M. Dec. 12, 1891
501 McMurtrie, J., Radstock Colliery, Bath	Nov. 7, 1863
502 McNeill, Bedford, 25a, Old Broad Street, London, E.C.	Dec. 11, 1897
503 Maddison, Thomas R., Dirtcar House, near Wakefield	S. March 3, 1877 A.M. Aug. 6, 1881 M. June 8, 1889
504 Maddison, W. H. F., The Lindens, Darlington	June 14, 1890
505 Maling, C. T., Ellison Place, Newcastle-upon-Tyne	Oct. 5, 1872
506 Mammatt, J. E., 1, Albion Place, Leeds	Aug. 3, 1865
507 Manning, Arthur Hope, P.O. Box 88, Heidelberg, Transvaal	Dec. 11, 1897
508 Markham, G. E., Coundon, Bishop Auckland	S. Dec. 4, 1875 A.M. Aug. 7, 1880 M. June 8, 1889
509 Marks, Herbert T., New Broad Street House, London,	Feb. 15, 1896
510 Marley, J. W., Thornfield, Darlington	S. Aug. 1, 1868 M. Aug. 2, 1873
511*Marriott, Hugh Frederick, c/o H. Eckstein and Company, P.O. Box 149, Johannesburg, Transvaal	Dec. 12, 1896

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Date of Election
and of Transfer.

512 Marten, E.B., Pedmore, near Stourbridge	July 2, 1872
513 Martin, C. W., Newbottle Colliery Offices, Fence Houses (Member of Council)	Aug. 6, 1892
514 Martin, Henry W., Trewern, Dowlais, Glamorganshire	Oct. 9, 1897
515 Martin, Ralph, The Cardigan Stone Company, Limited, Llandyssil, South Wales	Oct. 12, 1895
510 Mason, Francis Herbert, Queen Building, Hollis Street, Halifax, Nova Scotia	June 8, 1895
517 Mathieson, Alexander. Hetton Colliery, Carrington, near Newcastle, New South Wales	Nov. 5, 1892
518 Matthew, William	June 21, 1894
519 Matthews, D. H. F., H.M. Inspector of Mines, Hoole, Chester	Nov. 24, 1894
520 Matthews, J, c/o R. and W. Hawthorn, Newcastle-upon-Tyne	A.M. April 11, 1885 M. Aug. 3, 1889
521 Matthews, R. F., Harehope Hall, Alnwick	March 5, 1857
522 Mawson, R. Bryham, Brick House, Westleigh. near Manchester	June 11. 1892
523 May, George, The Harton Collieries, South Shields (Past-President, Member of Council)	March 6, 1862
524 Meldrum, J. J., Atlantic Works, City Road, Manchester	Nov. 24, 1894
525 Mellon, Henry, Brook Lea, Askam-in-Furness	April 25, 1896
526 Merivale, J. H, Togston Hull, Acklington, Northumberland (Member of Council)	May 5, 1877
527*Merivale, W., Managing Director, Barbados Railway, Barbados, W.I	A.M. March 5, 1881 M. Aug. 3, 1889
528 Merritt, W. Hamilton, 90, Bloor Street East, Toronto, Ontario, Canada	Oct. 14, 1893
529 Metcalf, A. T., Joe's Reef United (Sheba), Limited, Eureka City, De Kaap, South African Republic	June 21, 1894
530 Meyse-Thompson, A. H., Sun Foundry, Leeds	A.M. April 3, 1889 M. Aug. 3, 1889
531 Middleton, Robert, Sheep Scar Foundry, Leeds	Aug. 1, 1891
532 Miller, George Appleby Bartram, Barnsley House, Leighton Road, Southville, Bristol	June 13, 1896
533 Miller, James, Minas de Sao Bento, Santa Babara de Matto Dentro, Minas Geraes, Brazil	Aug. 4, 1894
534 Miller, J. P. K., H. C. Frick Coke Company, Scottsdale, Pennsylvania, U.S.A	Dec. 14, 1895
535 Mitchinson, R., Pontop Colliery, Annfield Plain, R.S.O., Co. Durham	Feb. 4, 1865
536 Mole, William Frederick de, Coolgardie, Western Australia	Dec. 12, 1896
537 Molson, C. Atkinson, c/o Montana National Bank, Helena, Montana, U.S.A.	Oct. 12, 1895
538 Monkhouse, Joseph, Gilcruix, Carlisle	June 4, 1863
539 Moore, R. T., 156, St. Vincent Street, Glasgow	Oct. 8, 1892
540 Moore, R. W., Somerset House, Whitehaven	S. Nov. 5, 1870 M. Aug. 4, 1877
541 Moore, William, Loftus Mines, Loftus-in-Cleveland, R.S.O.	A.M. Nov. 19, 1881 M. Aug. 3, 1889
542 Moreing, C. A., Broad Street House, Old Broad Street, London, E.C	Nov. 7, 1874
543 Morgan, John, Norseman Gold Mining Company, Limited, Norseman, Western Australia	Aug. 7, 1897
544 Morison, John, Cramlington House, Northumberland	A.M. Dec. 4, 1880 M. Aug. 3, 1889
545 Morland-Johnson, Edward Thomas, Brynn Bowydd, Blaenau Festiniog, North Wales	April 10, 1897
546 Morris, William, Waldrige Colliery, Chester-le-Street	Oct. 8, 1892
547 Morse, Willard S., Apartado 207, Monterey, Nuevo Leon. Mexico	June 13, 1896
548*Morton, U. J., 2, Westbourne Villas, Scarborough	Dec. 5, 1856
549 Moses, William, The Transvaal Coal Trust Company, Limited, Brakpan Colliery, Johannesburg, Transvaal, per Brakpan Private Bag	June 21, 1894

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	Date of Election and of Transfer.
550 Mountain, William C, Forth Banks, Newcastle-upon-Tyne	April 9, 1892
551 Mundle, Arthur, Bank Chambers, 24, Grainger Street West, Newcastle-upon-Tyne	S. June 5, 1875 M. Aug. 4, 1877

552*Nasse, Geheimer Oberbergrath Rudolph, Dornbergstrasse, 6, Berlin W., Germany	Sept. 4,1869
553 Neave, Henry Edward, c/o Post Office, Rossland, British Columbia	A.M. Aug. 1, 1896 M. Dec. 12, 1896
554 Nevin, John, Littlemoor, Mirfield, Normanton	S. May 2, 1868 M. Aug. 5, 1871
555 Newbigin, H. Thornton, 15, Chester Crescent. Newcastle-upon-Tyne	Oct. 13, 1894
556 Newton, James, Whitehaven Colliery, Whitehaven	Nov. 5.1892
557 Nichol, W'lliam, De Beers Mine, Kimberley, South Africa	A.M. Oct. 9, 1886 M. Aug. 3, 1889
558 Nicholson, Arthur Darling, H.M. Inspector of Mines, 14, Chatsworth Square, Carlisle	S. June 13, 1885 A. Aug. 4, 1894 M. Feb. 12, 1898
559 Nicholson, J. Cook, Collingwood Street, Newcastle-upon-Tyne	Feb. 10, 1894
560 Nicholson, J. H., Cowpen Colliery Office, Blyth	S. Oct. 1, 1881 A. Aug. 3. 1889 M. April 8, 1893
561 Nicholson, Marshall, Middleton Hall, Leeds	Nov. 7,1863
562 Noble, Thomas George, Sacriston Colliery, Durham	A. Feb. 13, 1892 M. June 8, 1895
563 North, F. W., 18, St. Swithin's Lane, London, E.C.	Oct. 6, 1864
564 Northcott, Cecil E., c/o G. Graves Gifford and Company, Chancery Chambers, Coolgardie, Western Australia	A.M. June 13, 1896 M. Feb. 13, 1897
565 Gates, Robert J. W., Manager, Government Central Provinces Collieries, Umaria, via Katni, CP., India	S. Feb. 10, 1883 A.M. Aug. 1, 1891 M. Dec. 12, 1891
566 O'Donahue, Thomas Aloysius, 35, Princess Street, Wigan	A.M. Dec. 14, 1895 M. Oct. 9, 1897
567 Oldham, George, 25, Western Hill. Durham	Nov. 5. 1892
568 Oliver, Septimus, Tyne House, Tynemouth	Nov. 24, 1894
569 Orchard, Albert John Alfred, The White House, Nailstone Colliery, near Leicester	Feb. 12, 1898
570*Oshima, Rokuro, Hokkaido Colliery and Railway, Sapporo, Japan	April 10, 1897
571 Ornsby, Robert Embleton, Seaton Delaval Colliery, Northumberland	June 11, 1898
572 Palmer, Claude B., Wardley Hall, near Newcastle-upon-Tyne	A.M. Nov. 5, 1892 M. June 8, 1895
573 Palmer, Henry, Medomsley, R.S.O., Co. Durham (Member of Council)	S. Nov. 2, 1878 A.M.Aug. 4,1883 M. Aug. 3, 1889
574 Pamely C., Wye Cliffe House, Welsh Street, Chepstow	S. Sept. 5,1868 M. Aug. 5, 1877
575 Panton, F. S., Silksworth Colliery, Sunderland	S. Oct. 5, 1867 M. Aug. 4, 1874
576 Parrington, M. W., Wearmouth Colliery, Sunderland	S. Dec. 1, 1864 M. Aug. 6, 1870
577 Parsons, Hon. Charles Algernon. Holeyn Hall, Wylam- upon-Tyne	A.M. June 12, 1886 M. Aug. 3, 1889
578 Pascoe, Thomas, Bank of Australasia, London	A.M. April 10, 1897 M. June 12, 1897
579 Peake, R. C., Dunston House, near Stafford	S. Feb. 7, 1880 A.M. Aug. 7. 1886 M. Aug. 3, 1889
580 Pease, Sir J.W., Bart., Hutton Hall, Guisbrough, Yorkshire	March 5, 1857
581 Peel, Robert, New Brancepeth Colliery, Durham	Aug. 6,1892
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	Date of Election and of Transfer.
582 Peile, William, c/o S. Neumann and Company, P.O. Box 485, Johannesburg, Transvaal	S. Oct. 1, 1863 M. Aug. 6, 1870
583 Percy, C. M., King Street, Wigan	Dec. 14, 1895
584 Pernolet, Arthur, 87, Rue Lafayette, Paris, France	Dec. 14, 1895
585 Phillips, William Battle, P.O. Box 346, Birmingham, Alabama, U.S.A.	June 12, 1897
586 Pile, William, P.O. Box 1093, Johannesburg, Transvaal	Aug. 7, 1897
587 Plummer, John, H.M. Inspector of Mines, Bishop Auckland	June 8, 1889
588 Potter, A. M., Beaconfield, Corbridge-upon-Tyne (Member of Council)	S. Feb. 3, 1872

589 Potter, C. J., Heaton Hall, Newcastle-upon-Tyne	M. Aug. 5, 1876
590 Price, S. R., c/o Forster Brown and Rees, 12, Victoria Street, Westminster, London, S. W.	Oct. 3, 1874 S. Nov. 3, 1877 A.M. Aug. 1, 1885 M. Aug. 3, 1889
591 Price, S. Warren, 25, Lochaber Street, Cardiff	Aug. 3, 1895
592 Price-Williams, R., Victoria Mansions, 32, Victoria Street, London, S.W.	Feb. 10, 1894
593 Pringle, Edward, Choppington Colliery, Northumberland	Aug. 4, 1877
594*Prior, Edward G., Victoria, British Columbia. Transactions, etc., to be sent to William McGregor, Nanaimo, British Columbia	Feb. 7, 1880
595 Pritchard, Edward, 37, Waterloo Street, Birmingham	Dec. 12, 1896
596 Pritchett, C. W., Jun., Apartado Postal, 856, Mexico, D.F.	Dec. 9, 1893
597 Prout, James, 16, Claremont Road, Redruth, Cornwall	Feb. 10, 1894
598 Proust, Rene	June 21, 1894
599 Ramsay, J. A., Sherburn and Littleton Collieries, near Durham (Member of Council)	March 6, 1869
600 Ramsay, William, Tursdale, Co. Durham	Sept. 11, 1875
601 Randolph, Beverley S., Frostburg, Maryland, U.S.A.	Aug. 4, 1894
602 Ravenshaw, H. W., 110, Cannon Street, London, E.C.	Feb. 15, 1896
603 Redmayne, R. A. S., Seaton Delaval Colliery, Newcastle-upon-Tyne	S. Dec. 13, 1884 M. Dec. 12, 1891
604 Redwood, Boverton, Glenwathen, Church End, Finchley, London, N.	June 21, 1894
605 Reed, Frank, Perth, Western Australia	April 25, 1896
606 Rees, Robert Thomas, Glandare, Aberdare, South Wales	Aug. 7, 1897
607 Rees, William Thomas. Maesyffynon, Aberdare, South Wales	A.M. Oct. 9, 1897 M. Feb. 12, 1898
608 Reid, A. H., 20, South African Chambers, St. George Street, Cape Town	June 21, 1894
609 Reid, Francis, 13, Railway Arches, Westgate Road, Newcastle-upon-Tyne	April 9, 1892
610 Renwick, T. C, Lumley Thicks, Fence Houses	April 14, 1894
611 Rhodes, C. E., Car House, Rotherham	Aug. 4, 1883
612 Rhodes, F. B. F., Superintendent of the National Smelting and Refining Company, South Chicago, Illinois, U.S. A	Feb. 10, 1894
613 Rich, William, Minas de Rio Tinto, Provincia de Huelva, Spain	A.M. June 9, 1888 M. Aug. 3, 1889
614 Richards, Arthur	June 13, 1896
615 Richards, T. J	Oct. 10, 1896
616 Richardson, T.L, Backworth Colliery, Newcastle-upon-Tyne	March 2, 1865
617 Richardson, Ralph, Barrow Collieries, Barnsley	S. June 9, 1883 M. Aug. 1, 1891
618 Richardson, Robert, Blaydon Main Colliery, Blaydon-upon-Tyne	A. Feb. 8, 1890 M. Aug. 3, 1895
619 Ridley, N. B., 2, Collingwood Street, Newcastle-upon-Tyne	June 8, 1895
620 Ridley, William, Gilpin House, Houghton-le-Spring	April 10, 1897
621 Ridyard, J., Hilton Bank, Little Hulton, Bolton-le-Moors, Lancashire	Nov. 7, 1874
622 Ritson, U. A., 15, Queen Street, Newcastle-upon Tyne	Oct. 7, 1871
623 Roberts, James, Jun., Perranporth, R.S.O., Cornwall	Dec. 14, 1895

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	Date of Election and of Transfer.
624 Roberts, Robert, Oakley Slate Quarries Company, Limited, Blaenau Festiniog, North Wales	Oct. 12, 1895
625 Robertson, Andrew, 49, Mining Exchange, Ballarat, Victoria, Australia	Aug. 7, 1897
626 Robertson, D. A. W., Metropolitan Colliery, Helensburgh, near Sydney. New South Wales	Aug. 6, 1892
627*Robertson, J. R. M., Linton, Pitt Street, Milson's Point, Sydney, New South Wales	Aug. 2, 1890
628 Robertson, W., 123, St, Vincent Street, Glasgow	March 5, 1870
629 Robeson, Anthony Maurice, De Beers Consolidated Mines, Limited, Kimberley, South Africa	June 13, 1896
630*Robins, Samuel M., Nanaimo, British Columbia	Oct. 12, 1895
631 Robinson, C., Steenkampskraal, Hanover, Cape Colony	Dec. 9, 1893
632 Robinson, G. C, Brereton and Hayes Colliery, Rugeley, Staffordshire	Nov. 5, 187
633 Robinson, John, The Grange, Haydock, near St. Helens, Lancashire	Aug. 1, 1896

634 Robinson, J. B., Hedley Hill Colliery, Waterhouses	Aug. 5, 1893
635 Robinson, John Thomas, South Medomsley Colliery, Dipton, R.S.O	Feb. 13, 1892
636 Robinson, R., Howlish Hall, near Bishop Auckland (Vice-President, Member of Council)	Feb. 1, 1868
637 Robson, J. S., Butterknowle Colliery, via Darlington	May 15, 1862
638 Robson, T. O., Chowdene Cottage, Low Fell, Gateshead-upon-Tyne (Member of Council)	S. Sept. 11, 1875 A.M. Aug. 2, 1884 M. June 8, 1889
639 Rochester, William, River View, Blaydon-upon-Tyne	Dec. 13, 1891
640 Rogers, J. M., Wingfield House, Mount Hawk, near Scorrier, St. Agnes, Cornwall	June 13, 1896
641 Rolker, Charles M., Mining and Financial Trust Syndicate, Limited, 6, Drapers Gardens, London, E.C.	June 8, 1895
642 Ronaldson, J. H., 76, Pitt Street, Sydney, New South Wales	Aug. 6, 1892
643 Roscamp, J., Shilbottle Colliery, Lesbury, R.S.O., Northumberland	Feb. 2, 1867
644 Ross, Alexander, Newcastle Wallsend Coal Company, Wallsend, New South Wales	Dec. 8, 1894
645 Ross, Hugh, Croxdale Colliery Office, Durham	Aug. 6, 1892
646 Ross, J. A. G., 9, Dean Street, Newcastle-upon-Tyne	July 2, 1872
647 Rothwell, R. P., 253, Broadway (P.O. Box 1833), New York, U.S.A	March 5, 1870
648 Routledge, W. H., Bedwelty House, Tredegar, Monmouth, South Wales	S. Oct. 7, 1876 A.M. Aug. 1, 1885 M. June 8, 1889
649 Rowe, Daniel, c/o Mrs. D. Rowe, Mount Ambrose, Redruth, Cornwall	June 21, 1894
650 Rowe, William Henry, 9, Earl Terrace, Douglas, Isle of Man	June 13, 1896
651 Rowley, Walter, 20, Park Row, Leeds	Aug. 5, 1893
652 Russell, Robert, Coltness Iron Works, Newmains, N.B.	Aug. 3, 1878
653 Rutherford, W., South Derwent Colliery, Annfield Plain, Lintz Green	Oct. 3, 1874
654 Saint, William, H.M. Inspector of Mines, Kersal Bank, Higher Broughton, Manchester	Oct. 10, 1896
655*Saise, Walter, Giridih, E.I.R., Bengal, India	A.M. Nov. 3, 1877 M. Aug. 3, 1889
656 Sam, T. B. F., c/o F. and A. Swanzy, Cape Coast Castle, West Africa	Aug. 5, 1893
657 Samborne, John Stukely Palmer, Timsbury House, Bath	Aug. 1, 1891
658 Sandeman, John J., 73, Carleton Road, Tufnell Park, London, N	Fe. 12, 1898
659 Saner, C. Taylor, Rietfontein A, Limited, Per Private Bag, Johannesburg, Transvaal	Oct.13, 1894
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	Date of Election and of Transfer.
660 Saunders, David William Alban, Worcester Chambers, Swansea	A.M. Feb 12, 1898 M. June 11, 1898
661 Saunders, William Thomas, Ivydene, West Cross, R.S.O., near Swansea	June 12, 1897
662*Sawyer, A. R., P.O. Box 2233, Johannesburg, Transvaal; and Hilhouse, Woking, Surrey	S. Dec. 6, 1873 A.M. Aug. 2, 1879 M. June 8, 1889
663 Schmitz-Dumont, G., Inspector of Mines, Barbeton, Transvaal	Dec. 11, 1897
664 Schroller, William, c/o Simon-Carves Bye-Product Coke Oven Construction and Working Company, Limited, 20, Mount Street, Manchester	Aug. 4, 1894
665 Scott, C. F., Grove Cottage, Leadgate, Co. Durham	S. April 11, 1874 M. Aug. 4, 1877
666 Scott, Elgin, Ropienka Oil Wells, Ropienka, Galicia, Austria	Aug. 4, 1894
667 Scott, Ernest, Close Works, Newcastle-upon-Tyne	April 9, 1892
668 Scott, F. Bowes, c/o Bowes Scott and Company, 81, Cannon Street, London, E.C	Dec. 14, 1895
669 Scott, Joseph, Ngahire, via Greymouth, New Zealand	Aug. 5, 1893.
670 Scott, Joseph S., Trimdon Hall, Trimdon Grange, R.S.O., Co. Durham	S. Nov. 19, 1881 M. April 9, 1892
671 Scouler, G, St. Bees, Cumberland	July 2, 1872
672 Seccombe, Alfred F., 44, Hill Park Crescent. Plymouth	Dec. 9, 1893
673 Selby, John Baseley, Leigh, Lancashire	April 25, 1896
674 Selkirk. John Gunsen, Dalton-in-Fumess	April 8, 1893
675 Settle, Joseph Burton, Black Horse Hotel, Farnworth, near Bolton, Lancashire	Dec. 11, 1897
676 Seymour, L. Irving, P.O. Box 149, Johannesburg, Transvaal	Feb 14, 1891

677 Shaw, F. George	June 10, 1893
678*Shaw, James, Stanley House, Kent Town, Adelaide, South Australia	Dec. 12, 1896
679 Shaw. J. Leslie, Somerset House. Whitehaven	Oct. 8, 1892
680 Sheaffer, A. Whitcomb, Pottsville, Pennsylvania, U.S.A.	Aug. 4, 1894
681 Shiel, John, Framwellgate Colliery, Co. Durham	May 6, 1871
682 Shipley, T. B., P.O. Box 97, Heidelberg, Transvaal. Transactions to be sent to c/o Andrew Reid and Company, Limited, Newcastle-upon-Tyne	A. M. Aug. 2, 1884 M. Aug. 3, 1889
683 Shore, William Martin, Kaitangata Railway and Coal Company's Collieries, Otago, New Zealand	A.M. April 13, 1889 M. Aug. 3, 1889
684 Shotton, John, Ottoman Railway Company, Smyrna, Asia Minor	Oct. 14, 1893
685 Shute, C. A., High Terrace, Darlington	April 11, 1874
686 Sibold, C. W., Public Works Department, Soane Circle, Arrah, Bengal. India	Dec. 9, 1893
687 Simon, Frank, P.O. Box 2986, Johannesburg, Transvaal	Dec. 14, 1895
688 Simpson. C. L Engine Works. Grosvenor Road. Pimlico, London	April 8, 1893
689 Simpson, F. L. G., Mohpani Coal Mines, Gadawarra, CP., India	A.M. Dec. 13. 1884 M. Aug. 3, 1889
690 Simpson, F. R., Hedgefield House, Blaydon-upon-Tyne (Member of Council)	S. Aug. 4. 1883 M. Aug. 1, 1891
691 Simpson, Gilbert Pitcairn, 3, Cornwall Terrace, Regent's Park, London, N. W	Oct. 10, 1896
692 Simpson, J., Heworth Colliery. Felling, R.S.O., Co. Durham (Member of Council)	S. Dec. 6, 1866 M. Aug. 1, 1868
693 Simpson, J. B., Bradley Hall, Wylam-upon-Tyne (Past-President, Member of Council)	Oct. 4, 1860
694 Sladden, Harry, P.O. Box 2844, 6, Barnato Buildings, Johannesburg, Transvaal	Nov. 24, 1894
695 Slinn, T., 19, Edwards Road, Whitley, Northumberland	July 2, 1872
696 Slooten, William van, 52, Sidney Place, Brooklyn, New York, U.S.A	Feb. 13, 1897
697 Smailes, Jno., Hebbum Colliery, Newcastle-upon-Tyne	June 8, 1895
698 Smart, A., c/o Frazer and Chalmers, Limited, Frith, Kent	Feb. 10, 1894

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	Date of Election and of Transfer.
699 Smith, Eustace, Newcastle-upon-Tyne	A. M. June 11, 1887 M. Aug. 3, 1889
700*Smith, R, Clifford, Ashford Hall, Bakewell	Dec. 5, 1874
701 Sopwith, A., Cannock Chase Collieries, near Walsall	Aug. 6, 1873
702 Southern, E. O., Ashington Colliery, near Morpeth	S. Dec. 5, 1874 A.M. Aug. 1, 1885 M. June 8, 1889
703 Southern, R., Burleigh House, The Parade, Tredegarville, Cardiff	Aug. 3, 1865
704 Southworth, Thomas, Hindley Green Collieries, near Wigan	May 2, 1874
705 Spargo, Edmund, 3, Cable Street, Liverpool	June 10, 1893
706 Sparkes, J. S., 15, Northcote Street, Cardiff	April 9, 1892
707 Spence, R. F., Backworth, R.S.O., Northumberland	S. Nov. 2, 1878 A.M. Aug. 2, 1884 Aug. 4, 1889 Dec. 13, 1890
708 Spencer, Francis H., Bonanza Gold Mining Company, P.O. Box 149, Johannesburg, Transvaal	
709 Spencer, John, Westgate Road, Newcastle-upon-Tyne	Dec. 4, 1869
710 Spencer, John W., Newburn, near Newcastle-upon-Tyne	May 4, 1878
711 Spencer, T., Ryton, near Newcastle-upon-Tyne	Dec. 6, 1866
712 Squire, J. B., The Wynd, Streatham Park, London, S.W.	June 8, 1895
713 Stanley, James, 3, Chancery Chambers, Coolgardie, Western Australia	Dec. 12, 1896
714 Stansfeld, Harold Sinclair, High Hazels Colliery, Darnall, Sheffield	Oct. 13, 1888 Aug. 3, 1889
715 Stanton, John, 11 and 13, William Street, New York, U.S.A.	June 8, 1895
716 Steavenson, A. L., Durham (Past-President, Member of Council)	Dec. 6, 1855
717 Steavenson, C. H., Redheugh Colliery, Gateshead-upon-Tyne	S. April 14, 1883 A.M. Aug. 1, 1891 M. Aug. 3, 1895
718 Steele, Wardle	April 27, 1895
719 Stephenson, G. R., Ben Braich, Tilehurst Road, Reading	Oct. 4, 1860

720 Stevens, A. J., Uskside Iron Works. Newport, Monmouthshire	April 8, 1893
721 Stevens, James, 9, Fenchurch Avenue, Loudon, E.C.	Feb. 14, 1885
722 Stewart, William, Tillery Collieries, Abertillery, Monmouthshire	June 8, 1895
723 Stobart, F., BiddickHall, Fence Houses	S. Aug. 2, 1873
	A.M. Aug. 5, 1882
	M. June 8, 1889
724 Stobart, H. T., Wearmouth Colliery, Sunderland	S. Oct. 2, 1880
	A.M. Aug. 4, 1888
	M. Aug. 3, 1889
725 Stobart, W., Pepper Arden, Northallerton	July 12, 1872
726 Stobart, William Ryder, Etherley Lodge, Darlington	Oct. 11, 1890
727 Stoiber, Edward G., P.O. Box 129, Silverton, Colorado, U.S.A	A. M. Oct. 12, 1895
	M. Feb. 15, 1896
728 Stoker, Arthur P., Birtley, near Chester-le-Street	S. Oct. 6, 1877
	A.M. Aug. 1, 1885
	M. Aug. 3, 1889
729 Stone, Arthur, Heath Villas, Hindley, Wigan	June 13, 1896
730 Straker, J. H., Howden Dene, Corbridge-upon-Tyne	Oct. 3, 1874
731 Streatfield, Hugh S., Ryhope, near Sunderland	A.M. June 8, 1889
	M. Aug. 3, 1889
732 Stuart, Donald M. D., Redland, Bristol	June 8, 1895
733 Sullivan, C. D., Bonang, Delegate, New South Wales	Feb. 9, 1895
734 Swallow, J., Catchgate, Annfield Plain, R.S.O., Co. Durham	May 2, 1874
735 Swallow, R. T., Simonside House, Simonside, South Shields	Feb. 5, 1863
736 Swan, H. F., North Jesmond, Newcastle-upon-Tyne	Sept. 2, 1871
737 Swan, J. G, Upsall Hall, near Middlesbrough	Sept. 2, 1871

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	Date of Election and of Transfer.
738 Tate, Simon, Trimdon Grange Colliery, Co. Durham	Sept. 11, 1875
739 Tattley, William, Taupiri Extended Coal Mining Company, Limited, Huntly, Waikato, New Zealand	Aug. 3, 1895
740 Tatum, Lawrence W., c/o Dwight, Furness and Company, San Luis de la Paz, Guanajuato, Mexico ,	A.M. Aug. 7, 1897
741 Taylor, Hugh, East Holywell Office, Quay, Newcastle-upon-Tyne	M. Dec. 11, 1897
742 Taylor, T., Quay, Newcastle-upon-Tyne	Sept. 5, 1850
743 Teasdale, Thomas, Middridge, via Heighington, R.S.O.	July 2, 1872
744 Telford, W. H., HedleyHope Collieries, Tow Law, R.S.O., Co. Durham	April 9, 1892
	S. Oct. 3, 1874
	A.M. Aug. 6, 1881
	M. June 8, 1889
745 Thackthwaite, Thomas Michael, Beechfield, Farnham Royal, Bucks	Oct. 10, 1896
746 Thomas, Arthur, The British Gold Mines of Mexico, Limited, Mina "El Carmen," El Oro, Tultenango, Estado de Mexico	Aug. 7, 1897
747 Thomas, Edward, The Shieling, Auburn, Sydney, New South Wales	Aug. 4, 1894
748 Thomas, J. J., Newnham Cottage, Kendal	June 21, 1894
749 Thomlinson, William, Seaton Carew, R.S.O	April 25, 1896
750 Thompson, Charles Lacy, Farlam Hall, Brampton Junction, Cumberland	A.M. Feb. 10, 1883
751 Thompson, Francis William, 15, Wood Street, Bolton, Lancashire	M. Aug. 3, 1889
	June 8, 1895
752 Thompson, John G., Bamfurlong, Wigan	June 8, 1895
753 Thompson, W., 58, New Broad Street, London, E.C.	Aug. 4, 1888
754 Thomson, John, Eston Mines, by Middlesbrough	April 7, 1877
755 Thomson, Joseph F., Manvers Main Colliery, Rotherham	Feb. 6, 1875
756 Tinker, J. J., Hyde, Manchester	April 9, 1892
757 Todd, John T., Blackwell Collieries, Alfreton	S. Nov. 4. 1876
	A.M. Aug. 1, 1885
	M. June 8, 1889
758 Tonkin, J. J., Linares, Provincia de Jaen, Spain	Oct. 14, 1893
759 Touzeau, E. M Leadenhall Buildings, Leadenhall Street. London, E.C	Aug. 6, 1892
760 Treadwell, G. A., Nevada City, California, U.S.A.	Aug. 3, 1895
761 Trelease, W. Henwood, Pesterena United Gold Mining Company, Limited, Pestarena, Vail Anzasca, Novara, Italy	April 8, 1893

762 Tulip, Samuel, Bunker Hill, Fence Houses	June 12, 1897
763 Turnbull, John James, East Indian Coal Company, Limited, Jherria P.O., District Manbhoom, Bengal, India	Feb. 12, 1898
764*Tyers, John E., Singareni Collieries, c/o The Hyderabad Deccan Company, Limited, Secunderabad, Deccan, East India	A.M. Dec. 10, 1877
765 Tyzack, David, Bellingham, Northumberland	M. Aug. 3, 1889
766 Upton, Prescott, P.O. Box 1026, Johannesburg, Transvaal	Feb. 14, 1874
767 Varty, Thomas, Skelton Park Mines, Skelton, R.S.O., Cleveland	June 12, 1897
768 Vaughan, Cedric, Hodbarrow Iron Ore Mines, Millom, Cumberland	Feb. 12, 1887
769 Vaughan, John. Balaclava House. Dowlais. Glamorganshire	Dec. 10, 1892
770 Vautin, Claude, 66, Old Broad Street, London, E.C.	Feb. 12, 1898
771 Veasey, T. F., 5, Copthail Buildings, London, E.C.	July 14, 1896
772 Veasy, Harvey C , Burrakur Coal Company, Limited, Barakar, Bengal, India	Oct. 12, 1895
773 Verschoyle, William Denham, Alpha Gold Mining Company, Westland, New Zealand	June 21, 1894
774 Vezin, Henry A., P.O. Box 256, Denver, Colorado, U.S.A.	A.M. April 22, 1882
775 Vitanoff, George N, Sophia, Bulgaria	M. Aug. 3, 1889

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	Date of Election and of Transfer
776 Vivian, John, Vivian's Boring and Exploration Company, Limited, 42, Lowther Street, Whitehaven	March 3 1877
777 Waddle, Hugh, Llanmore Iron Works, Llanelly, South Wales	Dec. 13, 1890
778 Wadham, E., Millwood, Dalton-in-Furness	Dec. 7, 1867
779 Wagner, John R., The Cross Creek Coal Company, Drifton, Luzerne County, Pennsylvania, U.S.A.	Oct. 9, 1897
780 Wales, H. T., Western Mail Chambers, Cardiff	Feb. 11, 1893
781 Walker, Henry Blair, Die Rietfontein Colliery, Springs, Johannesburg, Transvaal	Oct. 9, 1897
782 Walker, J. S., Pagefield Iron Works, Wigan, Lancashire	Dec. 4, 1869
783 Walker, Sydney Ferris, Cardiff Electrical Works, Severn Road, Cardiff	June 11, 1898
784 Walker, Thomas A., Pagefield Iron Works. Wigan, Lancashire	June 8, 1895
785 Walker, W., Hawthorns, Saltburn-by-the-Sea	March 5, 1870
786 Walker, William, Jun., H.M. Inspector of Mines, Durham	Aug. 3, 1889
757 Walker, William Edward, Lowther Street, Whitehaven	Nov. 19, 1881
758 Wall, Henry, Rowbottom Square, Wallgate, Wigan	June 8, 1895
789 Wallace, Henry, Trench Hall, Gateshead-upon-Tyne	Nov. 2, 1872
790 Wallwork, Jesse, Bolton Road, Atherton, Lancashire	Feb. 9, 1895
791 Walsh, G. Paton, 564, Heirengracht, Amsterdam, Holland	Nov. 24, 1894
792 Walton, J. Coulthard, Writhlington Colliery, Radstock, via Bath	S. Nov. 7, 1874
	A.M. Aug. 6, 1881
	M. June 8, 1889
793 Walton, Thomas, Habergham Colliery, Burnley	Aug. 3, 1895
794 Ward, A. H., c/o Bengal Coal Company, Limited, Calcutta, India	April 14, 1894
795 Ward, H., Rodbaston Hall, near Penkridge, Stafford	March 6, 1862
796*Ward, T. H, Birwadih Bungalow. Giridih, E.I.R., Bengal, India	A.M. Aug. 5, 1882
	M. Aug. 3, 1889
797 Watkyn-Thomas, W., Workington	A.M. Feb. 10, 1883
	M. Aug. 3, 1889
798 Watson, Edward South Pelaw Colliery, Chester-le-Street	S. Feb. 13, 1892
	M. Aug. 4, 1894
799 Watson, Thomas, Trimdon Colliery, Trimdon Grange	Oct. 11, 1890
800 Watts, J. Whidbourne, General Manager, United Ivy Gold Mining Company, Limited, Barberton, Transvaal	Dec. 12, 1896
801 Watts, William, Sheffield Corporation Water Department, Little Don Valley Works, Engineer's Office, Langsett, near Penistone	June 13, 1896
802 Webster, Alfred Edward, 30, George Street, Worksop, Notts	June 12, 1897
803 Webster, H. Ingham, Mainsforth Hall, Ferryhill, S.O., Co. Durham	A.M. April 14, 1883
	M. Aug. 3, 1889
804 Webster, John, 29, Macaulay Road, Clapham, London, S.W	A.M. July 14, 1896
	M. Oct. 10, 1896
805 Weeks, J. G., Bedlington, R.S.O., Northumberland (Vice-President, Member of Council)	Feb. 4, 1865

806 Weeks, R. L., Willington, Co. Durham	A.M. June 10, 1882
	M. Aug. 3, 1889
807 Welch, David William, Dixie Gold Mines, Limited, Black Flag, Western Australia	Dec. 12, 1896
808 Western, C. R., Broadway Chambers, Westminster, London, S W	June 10, 1893
809 Westmacott, P. G. B., Benwell Hill, Newcastle-upon-Tyne	June 2, 1866
810 Whalley, Frederick Herbert, Queen Street, Auckland, New Zealand	Oct. 9, 1897
811 White, C. E., Wellington Terrace, South Shields	S. Nov. 4, 1876
	A.M. Aug. 1, 1885
	M. Aug. 3, 1889
812 White, H, Walker Colliery, Newcastle-upon-Tyne	S. March 2, 1867
	M. Aug. 5, 1871
813 White, J. F., 15, Wentworth Street, Wakefield	S. July 2, 1872
	M. Aug. 2, 1873

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	Date of Election and of Transfer.
814 White, I. W. H., 1, Albion Place, Leeds	Sept. 2, 1876
815 Whitehead, John James, Bracklyn, Stretford, Manchester	S. Dec. 12, 1891
	M. Feb. 15, 1896
816 Whitelaw, John, 118, George Street, Edinburgh	Feb. 5, 1870
817 Widdas, C., North Bitchburn Colliery, Howden, Darlington	Dec. 5, 1868
818 Wight, Edward S., Taupiri Reserve Colliery, Kimihia, Auckland, New Zealand	A.M. Dec. 12, 1885
	M. Aug. 3, 1889
819 Wight, W. H., Cowpen Colliery, Blyth	Feb. 3, 1877
820 Wilcox, Henry, Miners' Safety Explosive Works, Stanford-le-Hope, Essex	June 8, 1895
821 Wilklns, William Glyde, Westinghouse Building, Pittsburg, Pennsylvania, U.S.A.	Dec. 11, 1897
822*Wilkinson, William Fischer, Rand Club, Johannesburg, Transvaal	Oct. 10, 1896
823 Williams, Ernest, c/o Bewick, Moreing and Company, A.M. P. Buildings, St. George's Terrace, Perth, Western Australia	Oct. 10, 1891
824 Williams, Gardner F., De Beers Consolidated Mines, Limited, Kimberley, South Africa	Oct. 12, 1895
825 Williams, H. J. Carnegie, c/o J. McDonald, 43, Threadneedle Street, Loudon, E.C	Oct. 12, 1895
826 Williams, Luke, Curtin-Davis Proprietary Mine, Ringville, West Coast, Tasmania	April 10, 1897
827 Williams, Richard, The Johnsons Reef Gold Mines Company, California Gulley, Bendigo, Victoria, Australia	A.M. June 13, 1898
	M. Aug. 1, 1896
828 Williams, Robert, 30, Clements Lane, Lombard Street, London, E.C	June 13, 1896
829 Williams, Samuel Herbert, Golden Cement Claims, Limited, Kanowna, Western Australia	July 14, 1896
830 Williamson, W. Duncan, c/o John Williamson, Cumberland Cyanide Works, Cumberland, North Queensland	April 27, 1895
831 Wilson, Archibald Laurence, Glenoven House, Westcombe Hill, Blackheath, London	A.M. June 12, 1897
	M. April 2, 1898
832 Wilson, J. B., Wingfield Iron Works and Colliery, Alfreton	Nov. 5, 1852
833 Wilson, Joseph R., 1001, Chesnut Street, Philadelphia, U.S.A	Oct. 12, 1895
834 Wilson, Lloyd, Flimby Colliery, Maryport	Jan. 19, 1895
835 Wilson, P. O., P.O. Box 57, Klerksdorp, South Africa	Dec. 9, 1893
836 Wilson, W. B., Thornley Colliery, Thornley, R.S.O Co.Durham	Feb. 6, 1869
837 Winchell, Horace V., Butte, Montana, U.S.A .	Nov. 24, 1894
838 Winstanley, Robert, 28, Deansgate, Manchester	Sept. 7, 1878
839 Wood, C. L., Freeland, Forgandenny, Perthshire	Aug. 3, 1854
840 Wood, Ernest Seymour, c/o The Bengal Coal Company, Old Court House Street, Calcutta, India	Oct. 10, 1891
841 Wood, John, Coxhoe Hall, Coxhoe, R.S.O., Co. Durham	S. June 8, 1889
	A.M. Aug. 4, 1894
	M. Aug. 3, 1895
842*Wood, Sir Lindsay, Bart., The Hermitage, Chester-le-Street (Past-President, Member of Council)	Oct. 1, 1857
843 Wood, Robert Arna, c/o N. R. Griffith, 18, Queen Victoria Street, London, E.C.	April 10, 1897
844 Wood, Thomas, North Hetton Colliery Office, Moorsley, Hetton-le-Hole, R.S.O., Co. Durham	S. Sept. 3, 1870
	M. Aug. 5, 1871

845 Wood, W. H., Coxhoe Hall, Coxhoe, R.S.O Co. Durham	Aug. 6, 1857
846 Wood, W. O., South Hetton, Sunderland (Retiring Vice-President, Member of Council)	Nov. 7, 1863
847 Woodburne, T. J., De Beers Consolidated Mining Company. Limited, Kimberley, South Africa	Feb. 10, 1894
848 Woodward, Harry Page, 59. Irwin Street, Perth, Western Australia. All Transactions, Circulars, etc to be sent to 129, Beaufort Street, Chelsea, London, S. W.	A.M. June 10, 1893 M. Oct. 10, 1896
849 Woolcock, J. H, 49, Lowther Street, Whitehaven	June 10, 1893.
850 Wormald, C. F., Mayfield Villa, Saltwell, Gateshead-upon-Tyne	A. M. Dec. 8, 1883 M. Aug. 3, 1889

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	Date of Election and of Transfer.
851 Wrightson, T., Stockton-upon-Tees	Sept. 13, 1873
852 Wynne, T. Trafford, c/o Touzeau and Janson, A.M.P. Buildings, 216, Queen Street (P.O. Box ,530), Auckland, New Zealand	Oct. 12, 1895
853 Yeoman, Thomas P., Manager, Bengal Coal Company's Collieries, Laikdih, via Barakar, E.I.R., Bengal, India	S. Feb. 14, 1885 A. Aug. 4, 1894 M. Oct. 13, 1894
854 Young, Henry William, Greymouth, New Zealand	Dec. 12, 1896
855 Young, James, 19, Wentworth Place, Newcastle-upon-Tyne	Oct. 9, 1897
856 Young, John A., 3, Fountain Avenue, Gateshead-upon-Tyne	A.M. Dec. 10, 1887 M. Aug. 3, 1889
857 Young, John Huntley, Wearmouth Colliery, Sunderland	June 21, 1894
858 Young, William Alexander, 16, St. Helen's Place, London, E.C	Feb. 13, 1897
859 Zumbuloglon, G. C., Mahmoudie-Han, Stamboul, Turkey	S. Feb. 14, 1891 A. Aug. 4, 1894 M. Aug. 3, 1895

ASSOCIATE MEMBERS.
Marked * have paid life composition.

	Date of Election and of Transfer.
1 Ainsworth, H. S., "Belvedere," Marine Terrace, Geraldton, Western Australia	Feb. 15, 1890
2 Archibald, John Wilson, Coolgardie, Western Australia	Feb. 15, 1896
3 Armstrong, Albert Montague, 3 and 4, Crooked Lane, King William Street, London, E.C	Aug. 7, 1897
4 Armstrong, J. H., St. Nicholas' Chambers, Newcastle-upon-Tyne	Aug. 1, 1885
5 Armstrong, T. J., Hawthorn Terrace, Newcastle-upon-Tyne	Feb. 10, 1883
6 Atkinson, G. B., Prudential Assurance Buildings, Mosley Street, Newcastle-upon-Tyne	Nov. 5, 1892
7 Audus, T., Mineral Traffic Manager, North Eastern Railway, Newcastle-upon-Tyne	Aug. 7, 1880
8 Banks, Charles John, Westwood, Washington, R.S.O., Co. Durham	Feb. 12, 1898
9 Banyer, B. R., Kapunda, South Australia	Oct. 13, 1894
10* Bell, Hugh, Middlesbrough-upon-Tees	Dec. 9, 1882
11 Beneke, G.	Feb. 9, 1895
12 Bigge, Edward Ellison, General Mining Association, Dashwood House, 9, New Broad Street, London, E.C. Transactions, etc., to be sent to K. H. Brown, Sydney Mines, Cape Breton, Nova Scotia	Aug. 1, 1891
13 Blenkiron, J. Ernest, Zomba, British Central Africa	Feb. 11, 1893
14 Blue, Archibald, Bureau of Mines, Toronto, Ontario, Canada	Feb. 10, 1894
15 Bree, John, Bleak House, Litlington, near Royston, Herts.	June 13, 1896
16 Burdon, A. E., Hartford House, Cramlington, Northumberland	Feb. 10, 1883
17 Capell, Rev. G. M., Passenham Rectory, Stony Stratford	Oct. 8, 1892
18* Carr, William Cochran, 91, Jesmond Road, Newcastle-upon-Tyne	Oct. 11, 1890
19 Chaplin, George P., Ouspensky Mines, Kotschar, Orenburg, Russia	S. Feb. 15, 1896 A.M. Oct. 9, 1897
20 Chapman, C. W., The Australian Smelting Company, Limited, 39, Queen	Feb. 15, 1896

Street, Melbourne, Australia	
21*Chewings, Dr. Charles, Albany, Western Australia	April 25, 1896
22 Cleland, E. Davenport, Bayley Street, Coolgardie, Western Australia	June 13, 1896
23 Cochrane, Ralph D., Hetton Colliery Offices, Fence Houses	June 1, 1878
24 Cockburn, W. G. 1, St. Nicholas' Buildings, Newcastle-upon-Tyne	Oct. 8, 1887

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	Date of Election and of Transfer.
25 Colquhoun, A. J., School of Mines, Vancouver, British Columbia	July 14, 1890
26 Cooper, E. F. X., P.O. Box 66, Pretoria, South Africa	Feb. 15, 1896
27 Cooper, R. W., Newcastle-upon-Tyne	Sept. 4, 1880
28 Cory, Clifford J., c/o Cory Brothers and Company, Limited, Cardiff	Dec. 11, 1897
29 Crosby, A	Aug. 7, 1897
30 Dickson, Berkly Gillespie	Oct. 9, 1897
31 Duncan, G. T., 96, Brighton Grove, Newcastle-upon-Tyne	Aug. 5, 1893
32 Eccles, Edward, King Street, Newcastle-upon-Tyne	Oct, 13, 1894
33 Edwards, F. H., Forth House, Bewick Street, Newcastle-upon-Tyne	June 11, 1887
34 Ellam, Albert Spencer, 20, Bucklersbury, London, E.C.	April 25, 1896
35 Ferguson, C. A., 41, Lovaine Place, Newcastle-upon-Tyne	July 14, 1896
36 Foster, T. J., Coal Exchange, Scranton, Pennsylvania, U.S.A .	Dec. 12, 1891
37 Goodland, Gillmore, Ravenswood, Queensland, Australia	July 14, 1896
38*Graham, John, Findon Cottage, near Durham	Oct. 9, 1897
39 Griffin, Noel, Geelong Gold Mines, Gwanda, Matabeleland, South Africa	Feb. 13, 1897
40 Gue. T. R., P.O. Box 520, Halifax, Nova Scotia	Feb. 15, 1896
41 Guthrie, Reginald, Neville Hall, Newcastle-upon-Tyne ;Treasurer, Member of Council)	Aug. 4, 1888
42 Gwyn, A. E. W., 114a, Queen Victoria Street, London, E.C.	Aug. 4, 1894
43 Hardy, Thomas Edward, Kalgoorlie, Western Australia	April 10, 1897
44 Harris, David	June 12, 1897
45 Harvey, Francis G., Plu Le Desir, Canal No. 1, Demerara, British Guiana	July 14, 1896
46 Hedley, J. Hunt, John Street, Sunderland	June 13, 1891
47 Heeley, George, 61, Kyle Park, Uddingston, near Glasgow	Dec. 14, 1895
48 Henderson, C. W. G, the Riding, Hexham	Dec. 9, 1882
49 Henzell, Robert, Prudential Buildings, Mosley Street, Newcastle-upon-Tyne	April 11, 1891
50 Heyworth, Colonel Lawrence, Chadacre Hall, Bury St. Edmunds, Suffolk	Dec. 14, 1895
51 Hodgetts, Arthur, 300, Rookery Road, Handsworth, Birmingham	Oct. 9, 1897
52 Hodgson, Albert, c/o F. G. Borissow and Companv, 24, Charles Street, Bradford	Feb. 13, 1897
53 Holland, Williamson, 65, William Street, Heywood, Lancashire	Feb. 13, 1897
54 Holliday, Henry, Consett Iron Company, Limited, Blackhill, Co. Durham	Feb. 12, 1898
55 Hopper, J. I., Wire Rope Works. Thornaby-upon-Tees	Dec. 8, 1888
56 Humphreys-Davies, G., 8, Laurence Pountney Hill, Cannon Street, London, E.C	Oct, 8, 1892
57 Hunter, C. E., Selaby Park, Darlington	April 27, 1895
58 Irvine, J. R., Hendon Ropery, Sunderland	Dec. 10, 1887
59 James, Henry M., Colliery Office, Whitehaven	June 10, 1893
60 Jeffrey, Joseph Andrew, c/o The Jeffrey Manufacturing Company, Columbus, Ohio, U.S.A	Dec. 11, 1897
61 Jobson, Edward, 5, Bath Terrace, Tynemouth	Oct. 9, 1897
62*Joicey, James John, Holyrood, Laurie Park Road, Sydenham, London, S.E.	Oct. 10, 1891
63 Kirkup, Frederic O., Langley Park, Durham	S. April 9, 1892 A.M. April 25, 1896
64 Krohn, H. A., 103, Cannon Street, London, E.C.	Oct. 14, 1893

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	Date of Election and of Transfer.
65 Lamb, Edmund George, Old Lodge, Salisbury	Feb. 12, 1898
66 Larsen, A 10, Welbeck Mansions, Inglewood Road, West Hampstead, London, N.W.	April 27, 1895
67 Lawrance, David H., c/o Cuthbert and Companv, P.O. Box 326, Vancouver,	Feb. 12, 1898

British Columbia	
68 Loevy, J., P.O. Box 778, Johannesburg, Transvaal	June 13, 1896
69 Lumsden, John Alder, Umaria Colliery, Umaria, CP., India	Dec. 11, 1897
70 Marshall, P., College and Grammar School, Auckland, New Zealand	June 12, 1897
71 Minard, Frederick Horace, 409, Equitable Building, Denver, Colorado, U.S.A	Dec. 11, 1887
72 Monckton, G. F., School of Mines, Vancouver, British Columbia	July 14, 1896
73 Nason, Frank L., 5, Union Street, New Brunswick, New Jersey	Aug. 4, 1894
74 Palmer, A. M., 1, Jesmond High Terrace, Newcastle-upon-Tyne.	Nov. 24, 1894
Transactions to be sent to the Anglo-American Club, Freiburg, Saxony, Germany	
75 Perkins, Charles. Middleton Hall, Belford, Northumberland	Aug. 6, 1892
76*Pickup, P. W D., Rishton Colliery, Rishton, near Blackburn	Feb. 12, 1898
77 Pringle, John, Chinese Engineering and Mining Company, Tong Shan, Tientsin, North China	Feb. 13, 1897
78*Proctor, John H., 22, Hawthorn Terrace, Newcastle-upon-Tyne	June 8, 1889
79 Richter, F., Osborne Villas, Newcastle-upon-Tyne	Oct. 10, 1891
80 Ridley, J. Cartmell, 3. Summerhill Grove. Newcastle-upon-Tyne	Feb. 11, 1893
81 Ridley, Sir Matthew W., Bart., Blagdon, Northumberland	Feb. 10, 1883
82 Ritson, J. Ridley, Burnhope Colliery, Lanchester	S. April 11, 1891 A.M. Aug. 3, 1895
83 Roberts, William Murray, P.O. Box 413, Johannesburg, Transvaal	Oct. 9, 1897
84 Robinson, John Walton, 6, Gladstone Terrace, Gateshead-upon-Tyne	Dec. 12, 1893
85 Robson, Henry Naunton. Post Office, Yokohama, Japan	Dec. 12, 1890
86 Rogerson, John E., Oswald House, Durham	June 8, 1895
87 Saunders, G. B., Messrs. Saunders, Todd and Company, Maritime Buildings, King Street, Newcastle-upon-Tyne	Jan. 19, 1895
88 Scott, John Oliver, The Glebe, Riding Mill-upon-Tyne	Dec. 11, 1897
89 Shaw, Saville, Durham College of Science, Newcastle-upon-Tyne	April 13, 1889
90 Sherlaw, James Linn, Coolgardie Gold Syndicate, Coolgardie, Western Australia	Aug. 1, 1896
91 Sjogren. Hj., Osmo-Nynas, Sweden	April 25, 1896
92 Smith, C. A., 20, Alexandra Place, Newcastle-upon-Tyne	Dec. 8, 1894
93 Smith, Percy Webster, Crichtons, Romford	Feb. 13, 1897
94 Snowball, Francis John, Seaton Burn House, Dudley, Northumberland	Dec. 12, 1891
95 Stewart, Samuel, 16, Great George Street, Westminster, London, S.W. ; and Parkhurst, Park Road, Wallington, Surrey	Feb. 12, 1898
96 Stokes, H. G., Silver Spur Silver Mines, Texas, via Stanthorpe, Queensland, Australia	Dec. 11, 1897
97 Strange, Harold Fairbrother, Johannesburg Consolidated Investment Company, Limited, P.O. Box 590, Johannesburg, Transvaal	Dec. 11, 1897
98 Swinburne, U. P., c/o R. Chamberlain, 39, Cadogan Square, London, S.W	Aug. 4, 1894
99 Tattley, Ernest William, Taupiri Extended Coal Mining Company, Limited, Aline Manager's Office, Waikato, Auckland. New Zealand	June 12, 1897
100 Thom, John, Canal Works, Patricroft, near Manchester	June 8, 1890
101 Todd, James, Elvet Bridge, Durham	Aug. 6, 1892

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	Date of Election and of Transfer.
102 Tunnington, Albert, Mawsons Reward Company, Dundas, Western Australia	Oct. 9, 1897
103 Turner, Basil William, 40, Collins Street, Annandale, Sydney, New South Wales	Feb. 13, 1897
101 Wall, G. Young, Halmote Court Office, New Exchequer Building, Durham	Nov. 24, 1894
105 Walmesley, Oswald, 2, Stone Buildings, Lincoln's Inn, London, W.C	June 8, 1895
106 Warren, Henry B., Vancouver, British Columbia	June 12, 1897
107 Watson, Arthur, Burnopfield, Co. Durham	Oct. 13, 1894
108 Weatherburn, John, Meynell House, Rowlands Gill, Burnopfield, R.S.O., Co. Durham	Oct. 13, 1894
109 Wehner, Fred C, c/o Senor Don Carlos Wagner, Arequipa, Peru, South America	Feb. 13, 1897
110 Wesley, W. H., Sen., The Anchor Tin Mine, Limited, Lottah, Tasmania	Dec 11, 1897

111 Whitehead. Thomas, Brindle Lodge, near Preston, Lancashire	June 12, 1897
112 Wills, Louis. Coolgardie, Western Australia	Aug. 1, 1896
113 Wilson, Arthur P., Mansion House Chambers, Queen Victoria, Street, London, E.C	Aug. 3, 1889
114*Wood, Arthur Nicholas Lindsay, The Hermitage, Chester-le-Street	July 14, 1896
115 Wood, E. P	Aug. 3, 1895

ASSOCIATES.

	Date of Election and of Transfer.
1 Bainbridge, James	June 10, 1893
2 Baker, George, Bedlington Colliery, Bedlington, R.S.O.	Aug. 3, 1895
3 Barrass, M., Tudhoe Colliery, Spennymoor	S. Feb. 9, 1884 A. Aug. 1, 1891
4 Battey, Thomas, Percy Terrace, Backworth Colliery	Oct. 13, 1894
5 Bell, John, Wardley Colliery, Newcastle-upon-Tyne	Feb. 8, 1890
6 Bell. W. Ralph, Wearmouth Colliery, Sunderland	Oct. 13, 1894
7 Berry. Thomas. 1, Middleton, Swalwell, R.S.O	Nov. 5, 1892
8 Bewick, George, Dudley Colliery, Northumberland	April 10, 1897
9 Bolam, J. T., The View. Beamish, Chester-le-Street	Oct. 14, 1893
10 Bowes, Thomas, Pontop House, Annfield Plain, R.S.O.	Feb. 13, 1892
11 Bowman, Frank, Auckland Park Colliery, near Bishop Auckland	June 8, 1895
12 Brown, John	Feb. 15, 1896
13 Brown, Robert O., Throckley Colliery, near Newcastle-upon-Tyne	S. Oct. 8, 1892 A. Aug. 3, 1895
14 Carroll, John, 14, Garden Street, Newfield, Willington, Co. Durham	Feb. 12, 1898
15 Clark, Thomas. Dipton Colliery, Lintz Green Station	Oct. 11, 1890
16 Clifford, E. Herbert, c/o W. Y. Campbell, P.O. Box 357, Johannesburg, Transvaal	S. Oct. 13, 1894 A. Aug. 6, 1898
17 Clough, John, 1, Melton Terrace, Seaton Delaval Colliery, R.S.O., Northumberland	Feb. 13, 1897
18 Cockburn, Edmund, 28, Gerrie Street, Boosbeck Skelton-in-Cleveland, Yorkshire	Dec. 11, 1897
19 Cockburn, Evan, Page Bank Colliery, via Spennymoor, Co. Durham	Aug. 5, 1893
20 Cowell, J. Stanley, Hylton Colliery, near Sunderland	Oct. 13, 1894
21 Cowx, H. F., Thornley Collieries, via Trimdon Grange, R.S.O	April 14, 1894
22 Crown, William, 39, Fifth Row, Ashington, Morpeth	April 14, 1894
23 Davis, James E., South Medolmsley Colliery. Dipton, R.S.O., Co. Durham	Feb. 12, 1898
24 Davison, Francis, 58, Hedlev Hill Terrace, Waterhouses, Co. Durham	Feb. 12, 1898

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	Date of Election and of Transfer.
25 Davison, Mathew, Hedley Hill Colliery, Waterhouses, Co. Durham	Feb. 12, 1898
26 Daykin, George, 116, High Gurney Villa, near Bishop Auckland	July 14, 1896
27 Dixon, Joseph A., Ravensworth Road, Dunston-upon-Tyne	Feb. 15, 1896
28 Dormand, R. B., Waldrige Colliery, Chester-le-Street	Dec. 9, 1893
29 Draper, William, New Seaham Colliery, Sunderland	Dec. 14, 1889
30 Dunnett, Samuel, 32, Dale Street, North Blyth, Northumberland	June 8, 1895
31 Eltringham, G., Eltringham Colliery, Prudhoe-upon-Tyne, R.S.O	Dec. 8, 1894
32 Elves, Edward, Middridge Colliery, Heighington, R.S.O., Co. Durham	June 13, 1896
33 Fairs, John, 35 and 37, Laygate Lane, South Shields	Oct. 14, 1893
34 Fawcett, Edward, 27, Eastbourne Gardens, Walker-upon-Tyne	June 11, 1892
35 Fewster, John, 4, Belgrave Terrace, Felling, R.S.O., Co. Durham	Feb. 13, 1897
36 Forster, J. H. B., Cramlington Colliery, Northumberland	S. Nov. 24, 1894 A. Aug. 7, 1897
37 Foster, John William, Whitburn Colliery, South Shields	Dec. 14, 1889
38 Gordon, George Stoker, Louisa Terrace, West Stanley	Feb. 15, 1898
39 Hampson, Alexander, St. Helen's Colliery, Bishop Auckland	Feb. 12, 1898
40 Handyside, William, Jun., Ravensworth Avenue, Dunston-upon-Tyne	June 12, 1897
41 Hare, George, Seghill Colliery, Northumberland	Feb. 12, 1898

42 Harle, R. A., Wallsend Colliery, Wallsend-upon-Tyne	April 14, 1894
43 Hedley, A. M., Medomsley, R.S.O., Co. Durham	Nov. 24, 1894
44 Henderson, William, Wheatley Hill Colliery, via Trimdon Grange	Aug. 5, 1893
45 Henry, James, Howgill Staith, Whitehaven	June 8, 1895
46 Herron, Edward, Holly Terrace, Stanley, R.S.O .	Feb. 15, 1896
47 Hindmarch, John, Isabella Pit, Newsham, Blyth	Aug. 3, 1895
48 Hobson, Moses, Shildon, via Darlington	Aug. 5, 1893
49 Hodgson, E., Black Boy Colliery, Bishop Auckland	Aug. 6, 1892
50 Hornsby, Demster, Herrington Pit, New Herrington, Fence Houses	Feb. 12, 1898
51 Hughes, James Nicholson, Hedley Hill Colliery, Waterhouses, Co. Durham	Feb. 12, 1898
52 Hunter, A., Felling Colliery, near Newcastle-upon-Tyne	Feb. 13, 1897
53 Hunter, Christopher, 18, Stanley Street, Blyth, Northumberland	Dec. 10, 1892
54 James, Alexander A., Croxdale, near Durham	June 10, 1893
55 Johnson, William, Framwellgate Moor. Durham	Aug. 6, 1892
56 Kellett, Robert, Littletown, near Durham	Feb. 12, 1898
57 Lightley, John, Front Street, Sherburn Colliery, Durham	April 25, 1898
58 Linday, Robert, 3, Sebastopol Terrace, Seaham Harbour	Dec. 8, 1894
59 Lishman, T. A	S. Nov. 24, 1894
	A. Aug. 7, 1897
60 Little, William, Linton Colliery, Morpeth	Feb. 12, 1898
61 Littlejohn, Albert, Mount Kembla Colliery, Wollongong, New South Wales	S. Nov. 24, 1894
	A. Aug 7, 1897
62 MacKinlay, Edward, 20, Fourth Street, Heworth Village, Felling, R.S.O., Co. Durham	June 11, 1892
63 Mackintosh, Thomas, Watt's Farm, Blyth	April 11, 1891

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	Date of Election and of Transfer.
64 Manderson, John Tom, Labium and Borneo, Limited, Labuan, Borneo	Feb. 13, 1897
65 Marr, James Heppell, Birtley, Chester-le-Street	Feb. 13, 1897
66 Marshall, John, Cheetham Lane, Swinton, near Manchester	Feb 12, 1898
67 Mascal, W. H., Meadow View, Etherley Lane, Bishop Auckland	S. Nov. 5, 1892
	A. Aug. 7, 1897
68 Mason, Benjamin, Burnopfield Colliery, Burnopfield, R.S.O., Co. Durham	April 11, 1891
69 Milburn, William, Cornsay House, Cornsay, Durham	June 8, 1895
70 Miller, J. H., South Hetton, Sunderland	Dec. 8, 1894
71 Minto, George William, 2, Chapel Row, Ouston, Chester-le-Street	Oct. 10, 1891
72 Mordy, William, Ardyngnook, West Lane, Baildon, Yorkshire	S. April 11, 1891
	A. Aug. 3, 1895
73 Naisbit, John, No. 48, Tudhoe Colliery, Spennymoor	April 27, 1895
74 Owen, William Rowland, 32, Duke Street, Millom, Cumberland	Feb. 12, 1898
75 Parkinson, W., 6, Ivy Terrace, South Moor, Chester-le-Street	June 13, 1891
76 Pedelty. Simon, Clara Vale. Ryton-upon-Tyne	Dec. 10, 1892
77 Pratt, G. Ross, Springwell Colliery, Gateshead-upon-Tyne	June 8, 1895
78 Pratt, Miles, 33, Black Boy, via Bishop Auckland	July 14, 1896
79 Proctor, Thomas, Woodhorn Colliery, Morpeth	Oct. 13, 1894
80 Ramsay, John, Tursdale Colliery, Ferryhill	April 27, 1895
81 Ramsay. J. G Page Bank Colliery, via Spennymoor, Co. Durham	Dec. 10. 1892
82 Ridley, George D., Tudhoe Colliery, Spennymoor	Feb. 8, 1890
83 Rivers, John, Bow Street, Thornley Colliery, Durham	Feb. 9, 1895
84 Robson, Robert, 2, Thornley Terrace, Tow Law, R.S.O., Co. Durham	Oct. 12, 1895
85 Robson, William, Jun., West Hunwick Colliery, Hunwick, R S.O., Co. Durham	S. June 11, 1892
	A. Aug. 3, 1895
86 Saner, Charles B., Mine Office, Rietfontein, South African Republic	April 10, 1897
87 Scott, E. Charlton, 20, Henrietta Street, Swansea	Oct. 8, 1892
88 Severs, William, Beamish View, via Chester-le-Street	Nov. 5, 1892
89 Shaw, John, Belmont Villa, Chapeltown, near Sheffield	April 11, 1891
90 Simpson, Nelson Ashbridge, Bradley Hall, Wylam-upon-Tyne	S. Aug. 1, 1891
	A. Aug. 7, 1897
91 Southern, John, Heworth Colliery, Newcastle-upon-Tyne	Dec. 14, 1889
92 Spry, John. Murton Colliery, Durham	Feb. 11, 1893
93 Stephenson, William, Hewitson Terrace, Felling, R.S.O., Co. Durham	Dec. 13, 1890
94 Stokoe, James, 10, The Avenue, Murton Colliery, Co. Durham	Nov. 24, 1894
95 Swallow, P. C., Ynscedwyn Colliery, Ystradgynlais, Swansea	April 14 1894

96 Tarbuck, Harold, Pemberton Collieries, near Wigan, Lancashire	Feb. 15, 1896
97 Thompson, John W., Greenfield House, Crook, R.S.O., Co. Durham	June 10, 1893
98 Thompson, Joseph	April 8, 1893
99 Turner, George, Cornsay Colliery, Co. Durham	June, 8, 1895
100 Urwin, John, Inkerman House, Usworth Colliery	Feb. 15, 1896
101 Walton, Matthew, Dearham Colliery, Carlisle	Dec. 14, 1889
102 Watson, Thomas, East Hedley Hope, Tow Law, R.S.O.	Aug. 3, 1895
103 Wilson, R. G., Pelton Colliery, Chester-le-Street	Aug. 6, 1892

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STUDENTS.

	Date of Election.
1 Allport, E. A., 89, Dodworth Road, Barnsley, Yorkshire	April 14, 1894
2 Archer, M. W., High Priestfield, Lintz Green, Co. Durham	June 8, 1895
3 Bell, William, Elswick Collieries, Newcastle-upon-Tyne	Feb. 13, 1897
4 Booth, F. L., Ashington Colliery, Morpeth	Feb. 10, 1894
5 Burne, Cecil A., Langley Park Colliery, Durham	Aug. 4, 1894
6 Cowan, H. D., Elswick Collieries, Newcastle-upon-Tyne	Jan. 19, 1895
7 Coxon, William B., Langley Park Colliery, Durham	Feb. 12, 1898
8 Denton, John, Montgomery Chambers, Hartshead, Sheffield	June 21, 1894
9 Dixon, George, Trimdon Grange, Co. Durham	June 13, 1896
10 Falcon, Michael, 23, Cemetery Road, Treorchy, South Wales	Oct. 13, 1894
11 Greene, Charles G, South Durham Colliery, Eldon, Bishop Auckland	Feb. 15, 1896
12 Griffith, N. M., c/o Broughton and Plas Power Coal Company, Limited, Wrexham	Nov. 24, 1894
13 Hall, Joseph Percival, Cornsay Colliery, Durham	Oct. 9, 1897
14 Hetherington, J. R., c/o Mr. Burnley, Sisters Villas, Garforth Colliery, near Leeds	Aug. 4, 1894
15 Holliday, Norman Stanley, Langley Grove, Durham	April 10, 1897
16 Jaeger, Bernard, c/o Mr. Kollman, Zeche Hasenwinkel, Dahlhausen a. d. Ruhr, Germany	June 12, 1897
17 Jones, William, East Hetton Colliery, Coxhoe, R.S.O., Co. Durham	Aug. 4, 1894
18 King, Fred. 1, Shankhouse Row, Shankhouse, near Cramlington, Northumberland	Oct. 8, 1892
19 Latimer, Hugh, South Durham Colliery, Eldon, Bishop Auckland	Feb. 15, 1896
20 McGowan, Ernest, c/o Griffith and Company, 14, Royal Arcade, Newcastle-upon-Tyne	Oct. 13, 1894
21 Middleton, H. W., Trimdon Grange Colliery, Trimdon Grange, R.S.O., Co. Durham	Aug. 4, 1894
22 Minns, Thomas Tate, Jun., Greenhill House, Murton Colliery, Sunderland	April 10, 1897
23 Murray, Frank Douglas, 9, Stratton Street Piccadilly, London, W	Aug. 7, 1897
24 Musgrove, William, Throckley Colliery Office, Throckley Colliery, near Newcastle-upon-Tyne	June 8, 1895
25 Nesbit, John Straker, Cramlington Collieries, Northumberland	Oct. 9, 1897
26 Nisbet, Norman, 17, Latimer Street, Tynemouth	Nov. 24, 1894
27 Noble, Algernon, c/o The Griff Colliery Company, Limited, Nuneaton	Oct. 14, 1893
28 Parrington, T. E., Hill House, Monkwearmouth	Aug. 3, 1895
29 Peel, J. W., Etherley, Bishop Auckland	Aug. 4, 1894
30 Peterkin, John Alexander, 13, Swinley Road, Wigan, Lancashire	June 12, 1897
31 Raine, Fred. J., Cornsay Colliery, Co. Durham	Feb. 15, 1896
32 Richardson, Nicholas, Heworth Colliery, Felling, R.S.O., Co. Durham	Dec. 12, 1896
33 Richardson, Sydney, South Pelaw Colliery, Chester-le-Street	Oct. 9, 1897
34 Routledge, Robert, Murton Colliery, near Sunderland	Feb. 13, 1897
35 Sample, J. B., Tanfield Lea, Tantobie, R.S.O., Co. Durham	Jan. 19, 1895
36 Severs, Jonathan, Stanley, R.S.O., Newcastle-upon-Tyne	June 8, 1890

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	Date of Election
37 Simpson, K. R., 11, Haldane Terrace, Jesmond, Newcastle-upon-Tyne	Aug. 3, 1895
38 Simpson, Thomas V., Heworth Colliery, Felling, R.S.O., Co. Durham	Dec. 14, 1895
39 Snowdon, Thomas, Jun., Oakwood, Cockfield, R.S.O., Co. Durham	June 12, 1897
40 Southern, Stephen, Heworth Colliery, Felling, R.S.O., Co. Durham	Dec. 14, 1895
41 Stratton, H. S., West Cramlington Collieries, Northumberland	Feb. 9, 1895
42 Swallow, W. A., Tanfield Lea, Tantobie, R.S.O., Co. Durham	Dec. 9, 1893

43 Tate, W. O., Trimdon Grange, Co. Durham	Oct, 12, 1895
44 Thornton, Norman, Pelton Colliery, Chester-le-Street	April 27, 1895
45 Tweddell, John Smith, Seaton Delaval Colliery, Northumberland	Feb. 13, 1897
46 Walton, Arthur John, Seghill Colliery, Northumberland	Feb. 12, 1898
47 Waters, Edward, Throckley Colliery, Newcastle-upon-Tyne	April 14, 1894
48 Welsh, Arthur, 3, Model Street, New Seaham Colliery, Sunderland	Aug. 1, 1896
49 White, Harold E., Cornsay Colliery, near Durham	Oct. 10, 1896
50 Wilbraham, Arthur G. B., Anglo-American Club, Freiburg, Saxony, Germany	Dec. 11, 1897
51 Willis, Henry Stevenson, Whickham, R.S.O., Co. Durham	Feb. 13, 1892

SUBSCRIBERS.

- 1 Owners of Ashington Colliery, Newcastle-upon-Tyne.
- 2 Birtley Iron Company (3), Birtley.
- 3 Bridgewater Trustees (2), Bridgewater Offices, Walkden, Bolton-le-Moors, Lancashire.
- 4 Marquess of Bute, Bute Estate Offices, Aberdare, South Wales.
- 5 Butterknowle Colliery Company. Darlington.
- 6 Cowpen Coal Company, Limited (2), F, King Street, Newcastle-upon-Tyne.
- 7 Earl of Durham: (2), Lambton Offices, Fence Houses.
- 8 Elswick Coal Company, Limited, Newcastle-upon-Tyne.
- 9 Hetton Coal Company (5), Fence Houses.
- 10 Joicey, James, and Company, Limited (2), Newcastle-upon-Tyne.
- 11 Lambton Collieries, Limited (2), E, Queen Street, Newcastle-upon-Tyne.
- 12 Marquis of Londonderry (5), c/o V. W. Corbett, Esq., Londonderry Offices, Seaham Harbour.
- 13 North Brancepeth Coal Company, Limited, Crown Street Chambers, Darlington.
- 14 Owners of North Hetton Colliery (3), Fence Houses.
- 15 Ryhope Coal Company (2), Ryhope Colliery, near Sunderland.
- 16 Owners of Seghill Colliery, Seghill, Northumberland.
- 17 Owners of South Hetton and Murton Collieries (2), 50, John Street, Sunderland.
- 18 Owners of Stella Colliery, Hedgefield, Blaydon-upon-Tyne.
- 19 Owners of Throckley Colliery, Newcastle-upon-Tyne.
- 20 Owners of Victoria Garesfield Colliery, Victoria Garesfield Colliery, Lintz Green, Co. Durham.
- 21 Owners of Wearmouth Colliery (2), Sunderland.
- 22 Westport Coal Company. Limited (2). Manager. Dunedin, New Zealand.

ENUMERATION.

	August 6, 1898.
HONORARY MEMBERS	30
MEMBERS	859
ASSOCIATE MEMBERS	115
ASSOCIATES	103
STUDENTS	51
SUBSCRIBERS	22
TOTAL	1,180

Members are desired to communicate all changes of address, or any corrections or omissions in the list of names, to the Secretary.

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LIST OF COMMITTEES, 1898-09.

Finance Committee

Mr. T. W. BENSON.	Mr. T. DOUGLAS.	Mr. J. B. SIMPSON.
Mr. W. COCHRANE.	Mr. G. B. FORSTER.	Mr. J. G. WEEKS.
Mr. J. DAGLISH.	Mr. J. L. HEDLEY.	Sir LINDSAY WOOD, Bart.

Library Committee.

Mr. H. AYTON.	Prof. H. LOUIS.	Mr. T. O. Robson.
Mr. T. E. FORSTER.	Mr. J. H. MERIVALE.	Sir LINDSAY WOOD, Bart.
Mr. G. B. FORSTER.	Mr. H. PALMER.	

Prizes Committee

Mr. T. W. BENSON.	Mr. T. E. FORSTER.	Mr. F. R. SIMPSON.
Mr. W. COCHRANE.	Mr. T. E. JOBLING.	Mr. J. B. SIMPSON.
Mr. G. B. FORSTER.	Mr. J. H. MERIVALE	

Arrears Committee

Mr. H. AYTON.	Mr. G. B. FORSTER.	Mr. R. ROBINSON.
Mr. T. W. BENSON.	Mr. J. L. HEDLEY.	Mr. JOHN SIMPSON.
Mr. W. COCHRANE.	Mr. A. C. KAYLL.	Mr. J. B. SIMPSON.
	Mr. H. PALMER.	

Reference Committee for Papers to Read

(a) Coal Mining.

Mr. G. B. FORSTER	Mr. JOHN SIMPSON.	Mr. J. G. WEEKS.
Mr. H. PALMER.	Mr. A. L. STEAVENSON.	Sir LINDSAY WOOD, Bart.

(b) Metalliferous Mining.

Mr. T. W. BENSON	Prof. H. LOUIS.	Mr. A. L. STEAVENSON.
Mr. W. COCHRANE	Mr. J. H. MERIVALE.	

(c) Geological.

Mr. J. L. HEDLEY.	Prof. H. LOUIS.	Mr. H. PALMER.
	Mr. J. H. MERIVALE.	

(d) Mechanical and Electrical Engineering.

Mr. W. COCHRANE.	Mr. J. H. MERIVALE.	Prof. H. STROUD.
Mr. H. LAWRENCE.	Mr. W. C. MOUNTAIN.	Mr. J. G. WEEKS.
	Mr. R. ROBINSON.	

(e) Civil Engineering.

Mr. T. E. FORSTER.	Prof. H. Louis.	Mr. J. B. SIMPSON.
	Mr. A. M. POTTER.	

(f) Chemical.

Dr. P. P. BEDSON.	Sir LOWTHIAN BELL, Bart.	Prof. H. LOUIS.
	Mr. W. COCHRANE.	

Fan Ventilation Committee.

Mr. W. ARMSTRONG.	Mr. G. B. FORSTER.	Mr. J. H. MERIVALE.
Mr. M. WALTON BROWN.	Mr. W. GARNETT.	Mr. A. L. STEAVENSON.
Mr. T. FORSTER BROWN.	Prof. A. S. HERSCHEL.	Prof. H. STROUD.
Mr. J. DAGLISH.	Mr. G. MAY.	Sir LINDSAY WOOD, Bart

N.B. -The President is *ex officio* on all Committees.

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LIST OF TRANSACTIONS AND JOURNALS OF SOCIETIES ETC., IN THE
LIBRARY.

* Exchanges. † Exchanges. ‡ Presented.

*Academie Royale des Sciences, des Lettres et des Beaux-Arts de Belgique, Brussels. *Annuaire*, complete from 1882. *Bulletin*, complete from vol. iii. *Acts of Parliament*.

‡African Review. Complete from vol. x. *By the Publishers*.

*American Academy of Arts and Sciences, Boston. *Memoirs*, complete to vol. xii. parts 1 to 3, 1893. *Proceedings*, complete.

*American Institute of Mining Engineers, New York City. Transactions, complete from 1871.

‡American Machinist, New York, 1891 to date. *By the U.S.A. Consul.*

*American Society of Civil Engineers, New York City. Proceedings, complete from 1872. Transactions, complete from 1872.

*American Society of Mechanical Engineers, New York City. Transactions complete from 1880.

*Annales des Mines, Paris. Memoires, complete except series 2, 3, and 4. Lois Decrets etc., complete, except series 1, 2, 3. and 4.

†Annales des Mines do Belgique, Brussels. Memoires, complete.

*Annales des Ponts et Chaussees, Paris. Memoires et Documents, complete from series 6. Lois, Decrets, etc., complete from series 6. Personnel, complete from 1881.

*Annales des Travaux Publics de Belgique, Brussels. Complete, except vols. vii. and viii.

*Anthracite Coal Operators' Association, New York. Complete from August, 1897. Arms and Explosives, London. Complete, from 1892.

*Association des Ingenious sortis de l'Ecole de Liege, Liege. Annuaire, complete. Bulletin, complete.

Association of Engineering Societies, Philadelphia. Journal, vols, ii.-vi., and complete from vol. viii.

*Atti della Societa Toscana di Scienze Naturali, Pisa. Memorie, complete from 1877. Processi Verbali, complete.

*Australasian Association for the Advancement of Science, Sydney, New South Wales. Reports, complete to 1895.

†Australasian Institute of Mining Engineers. Transactions, complete from vol. i.

*Barrow Naturalists' Field Club, Barrow. Complete from vol. i.

Berg- und Huttenmannisches Jahrbuch der Bergakademien zu Leoben und Pribram und der Koniglich-ungarischen Bergakademie zu Schemnitz, Vienna. Complete from vol. xxxi., 1583.

Berg- und Huettenmannisclie Zeitung, Leipzig. Complete from vol. xlii. 1883.

*Birmingham Philosophical Society, Birmingham. Proceedings, complete to 1893.

Board of Trade Journal, London. Complete from 1886.

Boiler Explosions Acts, 1882 and 1890, London. Reports, complete.

‡British Association for the Advancement of Science. Complete from 1831. *By the Association.*

†British Society of Mining Students, Cinderford. Journal, complete from vol. ix.

Brown's Export List, Newcastle-upon-Tyne. Complete from 1853.

‡California State Mining Bureau, Sacramento. Annual Reports of the State Mineralogist. 5th to 12th. *By the State.*

*Canadian Institute, Toronto. Annual Reports, complete from 1887. Transactions complete, except yearly volumes for 1807, 1809, 1870, 1872, and 1874-1883.

Canadian Mining Review, Ottawa, Complete from vol. xi.

Cassier's Magazine, London. Complete from vol. viii.

†Chemical and Metallurgical Society of South Africa. Proceedings, complete from vol. i. Journal, complete from vol. i.

*Chesterfield and Midland Counties Institution of Engineers, Chesterfield. Transactions complete.

*Cleveland Institution of Engineers, Middlesbro'. Proceedings, complete from 1869.

‡Coal and Iron, London, vols, iii.-vi. *By the Publishers.*

Colliery Guardian, London. Complete from vol. ii., except vols. ix. to xiii.

‡Colliery Manager, London. Complete from 1885. *By the Publishers.*

*Colonial Museum and Geological Survey of New Zealand, Wellington. Manual of the New Zealand Coleoptera, by T. Broun, complete, parts 1-7. Meteorological Reports, except for 1881, 1880, 1887, 1888, 1889, 1890, and 1891. Studies in Biology for New Zealand Students, 1887, parts 1 and 2. Palaeontology of New Zealand for 1880, parts 1, 2, and 3, and all after 4.

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*Connecticut Academy of Arts and Science, New Haven. Transactions, complete, except title-page and index to vol. iv.

‡Contract Journal and Specification Record, London. Complete from vol. v. *By the Publishers.*

Digest of Physical Tests and Laboratory Practice, Philadelphia. Complete.

Dinglers Polytechnisches Journal, Stuttgart. Complete from vol. ccxlvii., 1883.

‡Durham University Calendar, Durham. Complete from 1873, except for the years 1870, 1881, 1888, and 1891. *By the College.*

Engineer, London. Complete from 1850, except vols. xxvii. to xxxii.

*Engineering Association of New South Wales, Sydney. Minutes of Proceedings, complete from 1855 to vol. ix. for 1894.

*Engineering, London. Complete from 1800, except vols. i. and ii. and vii. to xii.

Engineering Magazine, Chicago. Complete.

*Engineering and Mining Journal. New York. Complete, from vol. xx., 1875.

*Engineers' Club of Philadelphia, Philadelphia. Proceedings, complete from 1880.

‡Engineers' Gazette, London. Complete from vol. ix. *By the Publishers.*

†Federated Canadian Mining Institute. Journal, complete from vol. i., 1896.

Foreign Office Reports, London. Complete from 1880.

†Franklin Institute of the State of Pennsylvania, Philadelphia. Journal, complete from vol. iv., except vol. cxviii., part 6.

†General Mining Association of the Province of Quebec. Journal, complete to 1895.

*Geological Institution of the University of Upsala, Upsala. Bulletin, complete.

*Geological and Natural History Survey of Canada, Montreal. Complete, except Mesozoic Fossils, vol. i., part 4 ; and Paleozoic Fossils, all after vol. ii., part 1, except vol. iii., part 1.

*Geological Society, London. Quarterly Journal, complete from 1813.

*Geological Society of Australasia. Transactions, vol. i., parts 1 to 6, 1892.

*Geological Society of South Africa. Transactions, complete from vol. i.

Geological Survey of India, Calcutta. Memoirs, complete to 1885, except vol. i., all except part 3; vol. ii.; vol. iii., all except part 2. Records, complete.

*Geological Survey of Iowa, Des Moines. Annual Reports, complete from vol. i.

†Geological Survey of New South Wales, Department of Mines, Sydney. Records, complete from 1889 to 1895. Mineral Resources, complete from 1898.

*Geological Survey of Pennsylvania, Philadelphia, Complete to 1891.

*Geological Survey of the United States, Washington. Annual Reports. complete from vol. iii. Bulletin, complete except title-pages and indexes for all volumes after vol. viii.

*Geological Survey of Victoria, Melbourne. Complete, except publications after Report of Progress for 18*3.

*Geologiska Forening, Stockholm. Forhandlingar, complete from 1872.

*Geologists' Association, London. Proceedings, complete from 1859.

*Gluckauf, Essen. Complete from 1883.

‡Indian Engineering, Calcutta. Complete from 1887. *By the Publishers.*
 Industries and Iron, London. Complete from vol. xv.
 *Institut Geologique du Mexique, Mexico. Boletin, complete from 1890.
 *Institution of Engineers and Shipbuilders in Scotland, Glasgow. Transactions, complete from 1857, except vol. ii.
 *Institution of Civil Engineers, London. Minutes of Proceedings, complete from 1837.
 *Institution of Civil Engineers of Ireland, Dublin. Transactions complete from 1840, except vols. xxi. and xxii.
 *Institution of Mechanical Engineers, London. Proceedings, complete from 1847.
 †Institution of Mining and Metallurgy, London. Transactions, complete from vol. i.
 *Institution of Naval Architects London. Transactions, complete.
 Iron and Coal Trades Review, London. Complete from vol. iii., 1869.
 *Iron and Steel Institute, London. Journal, complete from 1871.

Jaarboek van het Mijnwezen in Nederlandsch Oost-Indie, Amsterdam. Complete from 1878.

*Jahrbuch fur das Berg- und Huttenwesen im Konigreiche Sachsen. Freiberg. Complete, except 1878.

*Kaiserliche Akademie der Wissenschaften. Vienna. Sitzungsberichte, complete from vol. xlix., except Mathematik, Physik, Chemie, etc vols. lx. to lxxviii. ; and Mineralogie, Botanik, Zoologie, etc., vols. lxxiii. to 1 lxxviii.

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*Kaiserlich-koniglich Geologische Reichsanstalt, Vienna. Jahrbuch, complete from 1860.

*Kaiserlich Leopoldinisch-Carolinische Deutsche Akademie der Naturforscher Halle. Complete from vol. xxxvi.

*Koninklijk Instituut van Ingenieurs, 's-Gravenhage. Complete from 1881.

*Koniglich Preussischen Geologischen Landesanstalt und Bergakademie zu Berlin. Annual volumes for 1880-81, 1892-95.

*Koniglich Ungarische Geologische Anstalt, Budapest. Jahresberichte, from 1882. Mittheilungen, complete.

*Konigliche Bayerische Akademie der Wissenschaften, Munchen. Abhandlungen der Mathematisch-physikalischen Classe, vols. vi. and vii. Sitzungsberichte, complete.

‡Labour Gazette, London. Complete. *By the Publishers.*

‡L'Echo des Mines et de la Metallurgie, Paris. Complete from 1894. *By the Publishers.*

*Le Genie Civil, Paris. Complete from 1880.

*Liverpool Engineering Society, Liverpool. Complete from 1881.

‡Liverpool Geological Association, Liverpool. Transactions, complete from 1880 to vol. x., 1890, except vols. iv. and viii.

*Liverpool Geological Society, Liverpool. Complete from 1860.

*L'Union des Charbonnages, Mines et Usines Metallurgiques de la Province de Liege. Complete from 1872.

‡Machinery Market and Exporter. 1895-96, incomplete; complete from 1897. *By the Publishers.*

*Magyarhoni Foldtani Tarsulat, Budapest. Foldtani Kozlony, complete from 1871.

*Manchester Association of Engineers, Manchester. Transactions, complete from 1887.

*Manchester Geographical Society, Manchester. Journal, complete from vol. vi.

†Manchester Geological Society, Manchester. Transactions, complete from 1840, except vols. iii., vii., and ix.

*Manchester Literary and Philosophical Society, Manchester. Memoirs, complete except all volumes in first series. Proceedings, complete from 1887.

†Massachusetts Institute of Technology, Society of Arts, Boston. Complete from vol. xi.

*Master Car-Builders' Association, Chicago. Proceedings, complete from 1882.

‡Mechanical Engineer. Vol. i complete to date. *By the Publishers.*

*Midland Institute of Mining, Civil, and Mechanical Engineers, Barnsley. Transactions complete from 1869.

*Mineralogical Society of Great Britain and Ireland, London. Journal, complete from 1870.

Mineral Statistics of the United Kingdom, London. Complete from 1853.

Mines, List of Plans of Abandoned Mines, London. Complete.

Mines, List of Mines Worked, London. Complete.

‡Mines and Minerals, Scranton, Pennsylvania. Complete from vol. viii. *By the Publishers.*

*Mining Association and Institute of Cornwall, Camborne. Transactions, complete to vol. iv., part 1, 1893.

‡Mining Engineering. Complete from vol. i., 1897. *By the Publishers.*

*Mining Institute of Scotland, Hamilton. Transactions, complete.

Mining Journal, London. Complete from vol. xviii.

†Mining Society of Nova Scotia, Halifax. Transactions, complete to vol. iii., 1895.

*Natural History Society of Northumberland and Durham, Newcastle-upon-Tyne. Complete from 1838.

*Naturforschende Gesellschaft zu Freiburg im Breisgau, Freiburg. Transactions, complete from 1886.

Neues Jahrbuch für Mineralogie, Geologie, und Palaontologie, Stuttgart. Complete from 1888. except Supplement, part 1.

Newcastle Daily Journal, Newcastle-upon-Tyne. Complete from March, 1869.

†New South Wales, Annual Report of the Department of Mines. Complete from 1881.

*New York Academy of Sciences, New York. Transactions, complete from 1881, except vol. iii. Annals, complete from 1879.

*New Zealand Institute. Wellington. Transactions and Proceedings, complete except vol. ii. (1869), vol. iii. (1870), vol. iv. (1871).

*New Zealand Institute of Mining Engineers. Transactions, complete from vol. i., 1897.

*New Zealand Mines Department, Wellington. Reports, complete from 1879.

*North-East Coast Institution of Engineers and Shipbuilders, Newcastle upon-Tyne. Transactions, complete from vol. i., 1884.

*North Staffordshire Institute of Mining and Mechanical Engineers, Newcastle-under-Lyme. Transactions, complete to vol. xi. ; vol. xii., parts 2 to 5; vol. xiii., parts 1 to 5.

*Nova Scotia Department of Mines, Halifax. Reports, complete to 1892 except for the year 1870.

*Nova Scotian Institute of Natural Science, Halifax, N.S. Proceedings and Transactions, vol. vi., parts 1 and 4; vol. vii., parts 2, 3, and 4; vol. viii., 1894; vol. ix., parts 1-2.

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Oberhessische Gesellschaft für Natur- und Heilkunde, Giessen. Complete from 1847, except vol. iii.

Oesterreichische Zeitschrift für Berg- und Hüttenwesen, Vienna. Complete from vol. xxxi., 1883.

Official Year Book of Scientific and Learned Societies, London. Complete from 1884.

‡Ontario Bureau of Mines, Reports. Complete from 1891.

*Patent Office, London. Abridgements of Specifications, complete. Illustrated Official Journal, complete.

*Patents and Patentees of Victoria, Melbourne. Indexes, complete to 1888.

*Pennsylvania State College, Centre County, Pennsylvania. Mining Bulletin, complete from vol. i.

*Philosophical Society of Glasgow, Glasgow. Proceedings, complete from 1841.

‡Practical Engineer, London. Complete from 1887.

*Reale Comitato Geologico d'Italia, Roma Bollettino, complete from 1870, except vols. iii. and iv.

Reports to the Secretary of the Board of Trade upon the Working of the Boiler Explosions Acts, 1882 and 1890, London. Complete.

Reports of H.M. Inspectors of Mines, London. Complete from 1870.

Revista Minera, Metalurgica, y de Ingenieria, Madrid. Complete from vol. xxxi v., 1883.

Revue de la Legislation des Mines en France et en Belgique, Paris. Complete from 1884.

*Revue Technique, Paris. Complete from 1894.

†Revue Universelle des Mines, de la Metallurgie, etc., Liege. Complete, except series 1, vol. xiv. (1863).

*Rochester Academy of Science, Rochester. Proceedings, complete from vol. i.

*Royal Cornwall Polytechnic Society, Falmouth. Annual Reports, complete from 1870.

*Royal Dublin Society, Dublin. Proceedings, complete from 1856. Transactions, complete from 1877.

*Royal Geological Society of Cornwall, Penzance. Transactions, complete from vol. v. to vol. xi., except parts 3, 6, and 7.

*Royal Institution of Great Britain, London. Proceedings, complete from 1851.

*Royal Institute of British Architects, London. Transactions, complete from 1841, except vol. i., part 1, 1857 to 1862, 1867 to 1870, and 1873 to 1876. Journal of Proceedings, complete from 1881.

*Royal Institution of Cornwall, Truro. Journal, complete from 1856.

*Royal Scottish Society of Arts, Edinburgh. Transactions, complete from vol. ix., 1872.

*Royal Society of Canada, Montreal. Proceedings and Transactions, complete from 1882.

*Royal Society of Edinburgh, Edinburgh. Proceedings, complete from vol. xi., 1880.

*Royal Society, London. Proceedings, complete from 1800.

*Royal Society of New South Wales, Sydney. Journal and Proceedings, complete from vol. vii.

*Royal Society of Victoria, Melbourne. Transactions, complete, except vols. i. and vi.

*Royal United Service Institution, London. Journal, complete from 1857, except Nos. 4, 6, 27, 28, 29, 62, 64, 65, 66, 70, 71, 74, 94, 95.

*Sanitary Institute of Great Britain, London. Transactions, complete from 1880.

‡Science and Art of Mining, Wigan. Complete from 1890. *By the Publishers.*

‡Scientific American, New York. Complete from 1893. *By the U.S.A. Consul.*

Seismological Society of Japan, Yokohama. Transactions, complete from 1880.

‡Shipping World and Herald of Commerce. Complete from vol. i. ; except vol. xvi., incomplete. *By the Publishers.*

*Smithsonian Institution, Washington, U.S.A. Annual Report of the Board of Regents. complete from 1862.

*Societe des Ingenieurs Civils, Paris. Memoires, complete from 1849. Comptes-rendus, complete from 1879.

*Societe des Ingenieurs sortis de l'Ecole Provinciale d'Industrie et des Mines du Hainaut, Liege. Memoires, complete from 1850.

*Societe Geologique de Belgique, Liege. Annalen, complete from 1874.

*Societe Geologique de France, Paris. Memoires, complete from series 3, except vol. iii., part 2. Bulletin, complete from beginning, except series 2.

*Societe Geologique du Nord, Lille. Annales, complete from vol. vii., except vol. ix.

*Societe de l'Industrie Minerale, St. Etienne. Bulletin, complete from vol. vii., series 2. Comptes-rendus, complete from 1877. Atlases, complete from vol. vi.

*Societe Industrielle du Nord de la France, Lille. Bulletin, complete from No. 30, 1880.

*Societe Scientifique Industrielle de Marseille, Marseille. Bulletin, complete.

*Society of Chemical Industry, London. Journal, complete from 1882.

*Society of Engineers, London. Transactions, complete from 1861, except 1890.

*South African Association of Engineers and Architects, Johannesburg. Complete from vol. i.

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†South African Republic. Reports of State Mining Engineer, 1896.

*South Staffordshire Institute of Iron and Steel Works Managers, Stourbridge. Complete from vol. ii., 1881.

†South Wales Institute of Engineers, Cardiff. Transactions, complete from vol. i., 1857.

Stahl und Eisen, Dusseldorf. Complete from vol. xiv.

‡Steamship, Leith. Complete from 1889. *By the Publishers.*

‡Stevens' Indicator, Hoboken, New Jersey. Complete from vol. vi., 1889. *By the Institute.*

*Surveyors' Institution, London. Transactions, complete from 1868.

*Teknisk Ugeblad, Udgivet af Den Norske Ingenior—og Arkitekt-Forening og Den Polytekniske Forening, Kristiania. Complete from vol. iii., except vol. viii., part 6, and vol. ix., parts 1, 2, and 3.

Times, London. Complete from March, 1869.

Times, Index, London. Complete from January, 1864.

Trade and Navigation Accounts, London. Complete from 1865.

*U.S. Naval Institute, Annapolis. Proceedings, complete from vol. viii., 1882.

*United States Patent Office, Washington. Official Gazette, from vol. lxxviii., 1894.

Vereins-Mittheilungen, Beilage zur Oesterreichischen Zeitschrift fur Berg-und Huttenwesen, Vienna. Complete from 1884.

*Victoria, Department of Mines, Melbourne. Reports, complete from 1874. Special Reports, complete from 1892. Gold-fields of Victoria, Mining Record, complete from 1897; Monthly Return, complete from 1898.

*Victorian Institute of Surveyors, Melbourne. Transactions and Proceedings, vols. i. and iii., 1893.

‡Western Australia, Department of Mines. Reports, complete from 1895. Gold Mines Statistics, complete from 1896. *By the Government.*

*Western Society of Engineers, Chicago. Journal, complete; from vol. i.

*West of Scotland Iron and Steel Institute. Journal, complete from vol. iv.

*Wisconsin Academy of Sciences, Arts, and Letters, Madison. Transactions, complete to 1895.

Zeitschrift des Vereines Deutscher Ingenieure, Berlin. Complete from vol. xxvi., 1883.

Zeitschrift fur das Berg-, Hutten- und Salinen-Wesen im Preussischen Staate, Berlin, Complete from 1854.

*Zeitschrift fur Praktische Geologie, Berlin. Complete from 1893.

The Library comprises over 8,000 Volumes, etc., treating of geology, and Mining, mechanical and civil engineering.

August 1st, 1898.

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CHARTER OF THE NORTH OF ENGLAND INSTITUTE OF MINING AND
MECHANICAL ENGINEERS.

FOUNDED 1852.
INCORPORATED NOVEMBER 28TH, 1876.

VICTORIA, by the Grace of God, of the United Kingdom of Great Britain and Ireland, Queen, Defender of the Faith, TO ALL TO WHOM THESE PRESENTS SHALL COME, GREETING :

WHEREAS it has been represented to us that NICHOLAS WOOD, of Hetton, in the County of Durham, Esquire (since deceased) ; THOMAS EMERSON FORSTER, of Newcastle-upon-Tyne, Esquire (since deceased) ; SIR GEORGE ELLIOT, Baronet (then George Elliot, Esquire), of Houghton Hall, in the said County of Durham, and EDWARD FENWICK BOYD, of Moor House, in the said County of Durham, Esquire, and others of our loving subjects, did, in the year one thousand eight hundred and fifty-two, form themselves into a Society, which is known by the name of THE NORTH OF ENGLAND INSTITUTE OF MINING AND MECHANICAL ENGINEERS, having for its objects the Prevention of Accidents in Mines and the Advancement of the Sciences of Mining and Engineering generally, of which Society LINDSAY WOOD, of Southill, Chester-le-Street, in the County of Durham, Esquire, is the present President. AND WHEREAS it has been further represented to us that the Society was not constituted for gain, and that neither its projectors nor Members derive nor have derived pecuniary profit from its prosperity: that it has during its existence of a period of nearly a quarter of a century steadily devoted itself to the preservation of human life and the safer development of mineral property ; that it has contributed substantially and beneficially to the prosperity of the country and the welfare and happiness of the working members of the community ; that the Society has since its establishment diligently pursued its aforesaid objects, and in so doing has made costly experiments and researches with a view to the saving of life by improvements in the ventilation of mines, by ascertaining the conditions under which the safety lamp may be relied on for security ; that the experiments conducted by the Society have related to accidents in mines of every description, and have not been limited to those proceeding from explosions : that the various modes of getting coal, whether by mechanical appliances or otherwise, have received careful and continuous attention, while the improvements in the mode of working and hauling belowground, the machinery employed for preventing the disastrous falls of roof underground, and the prevention of spontaneous combustion in seams of coal as well as in cargoes, and the providing additional security for the miners in ascending and descending the pits, the improvements in the cages used for this purpose, and in the safeguards against

what is technically known as "overwinding," have been most successful in lessening the dangers of mining, and in preserving human life ; that the Society has held meetings at stated

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periods, at which the results of the said experiments and researches have been considered and discussed, and has published a series of Transactions filling many volumes, and forming in itself a highly valuable Library of scientific reference, by which the same have been made known to the public, and has formed a Library of Scientific Works and Collections of Models and Apparatus, and that distinguished persons in foreign countries have availed themselves of the facilities afforded by the Society for communicating important scientific and practical discoveries, and thus a useful interchange of valuable information has been effected ; that in particular, with regard to ventilation, the experiments and researches of the Society, which have involved much pecuniary outlay and personal labour, and the details of which are recorded in the successive volumes of the Society's Transactions, have led to large and important advances in the practical knowledge of that subject, and that the Society's researches have tended largely to increase the security of life ; that the Members of the Society exceed 800 in number, and include a large proportion of the leading Mining Engineers in the United Kingdom. AND WHEREAS in order to secure the property of the Society, and to extend its useful operations, and to give it a more permanent establishment among the Scientific Institutions of our Kingdom, we have been besought to grant to the said LINDSAY WOOD, and other the present Members of the Society, and to those who shall hereafter become Members thereof, our Royal Charter of Incorporation. Now KNOW YE that we, being desirous of encouraging a design so laudable and salutary, of our especial grace, certain knowledge, and mere motion, have willed, granted, and declared, and do, by these presents, for us, our heirs, and successors, will, grant, and declare, that the said LINDSAY WOOD, and such others of our loving subjects as are now Members of the said Society, and such others as shall from time to time hereafter become Members thereof, according to such Bye-laws as shall be made as hereinafter mentioned, and. their successors, shall for ever hereafter be, by virtue of these presents, one body, politic and corporate, by the name of "THE NORTH OF ENGLAND INSTITUTE OF MINING AND MECHANICAL ENGINEERS," and by the name aforesaid shall have perpetual succession and a Common Seal, with full power and authority to alter, vary, break, and renew the same at their discretion, and by the same name to sue and be sued, implead and be impleaded, answer and be answered unto, in every Court of us, our heirs and successors, and be for ever able and capable in the law to purchase, acquire, receive, possess, hold, and enjoy to them and their successors any goods and chattels whatsoever, and also be able and capable in the law (notwithstanding the statutes of mortmain) to purchase, acquire, possess, hold and enjoy to them and their successors a hall or house, and any such other lands, tenements, or hereditaments whatsoever, as they may deem requisite for the purposes of the Society, the yearly value of which, including the site of the said hall or house, shall not exceed in the whole the sum of three thousand pounds, computing the same respectively at the rack rent which might have been had or gotten for the same respectively at the time of the purchase or acquisition thereof. AND WE DO HEREBY GRANT our especial license and authority unto all and every person and persons and bodies politic and corporate, otherwise competent, to grant, sell, alien, convey or devise in mortmain unto and to the use of the said Society and their successors, any lands, tenements, or hereditaments not exceeding

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with the lands, tenements or hereditaments so purchased or previously acquired such annual value as aforesaid, and also any moneys, stocks, securities, and other personal estate to be laid out and disposed of in the purchase of any lands, tenements or hereditaments not exceeding the like annual value. AND WE FURTHER will, grant, and declare, that the said Society shall have full power and authority, from time to time, to sell, grant, demise, exchange and dispose of absolutely, or by way of mortgage, or otherwise, any of the lands, tenements, hereditaments and possessions, wherein they have any estate or interest, or which they shall acquire as aforesaid, but that no sale, mortgage, or other disposition of any lands, tenements, or hereditaments of the Society shall be made, except with the approbation and concurrence of a General Meeting. And our will and pleasure is, and we further grant and declare that for the better rule and government of the Society, and the direction and management of the concerns thereof, there shall be a Council of the Society, to be appointed from among the Members thereof, and to include the President and the Vice-Presidents, and such other .office-bearers or past office-bearers as may be directed by such Bye-laws as hereinafter mentioned, but so that the Council, including all *ex-officio* Members thereof, shall consist of not more than forty or less than twelve Members, and that the Vice-Presidents shall be not more than six or less than two in number. AND WE DO HEREBY FURTHER will and declare that the said LINDSAY WOOD shall be the first President of the Society, and the persons now being the Vice-Presidents, and the Treasurer and Secretary, shall be the first Vice-Presidents, and the first Treasurer and Secretary, and the persons now being the Members of the Council shall be the first Members of the Council of the Society, and that they respectively shall continue such until the first election shall be made at a General Meeting in pursuance of these presents. AND WE DO HEREBY FURTHER will and declare that, subject to the powers by these presents vested in the General Meetings of the Society, the Council shall have the management of the Society, and of the income and property thereof, including the appointment of officers and servants, the definition of their duties, and the removal of any of such officers and servants, and generally may do all such acts and deeds as they shall deem necessary or fitting to be done, in order to carry into full operation and effect the objects and purposes of the Society, but so always that the same be not inconsistent with, or repugnant to, any of the provisions of this our Charter, or the Laws of our Realm, or any Bye-law of the Society in force for the time being. AND WE DO FURTHER will and declare that at any General Meeting of the Society, it shall be lawful for the Society, subject as hereinafter mentioned, to make such Bye-laws as to them shall seem necessary or proper for the regulation and good government of the Society, and of the Members and affairs thereof, and generally for carrying the objects of the Society into full and complete effect, and particularly (and without its being intended hereby to prejudice the foregoing generality), to make Bye-laws for all or any of the purposes hereinafter mentioned, that is to say : for fixing the number of Vice-Presidents, and the number of Members of which the Council shall consist, and the manner of electing the President and Vice-Presidents, and other Members of the Council, and the period of their continuance in office, and the manner and time of supplying any vacancy therein ; and for regulating the times at which General Meetings of the Society and Meetings of the Council shall be held,

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and for convening the same and regulating the proceedings thereat, and for regulating the manner of admitting persons to be Members of the Society, and of removing or expelling Members from the Society, and for imposing reasonable fines or penalties for non-performance of any such Bye-laws, or for disobedience thereto, and from time to time to annul, alter, or change any such Bye-laws so always that all Bye-laws to be made as aforesaid be not repugnant to these presents, or to any of

the laws of our Realm. AND WE DO FURTHER will and declare that the present Rules and Regulations of the Society, so far as they are not inconsistent with these presents, shall continue in force, and be deemed the Bye-laws of the Society until the same shall be altered by a General Meeting, provided always that the present Rules and Regulations of the Society and any future Bye-laws of the Society so to be made as aforesaid shall have no force or effect whatsoever until the same shall have been approved in writing by our Secretary of State for the Home Department. IN WITNESS WHEREOF WE HAVE CAUSED THESE OUR LETTERS TO BE MADE PATENT. Witness Ourselves at our Palace, at Westminster, the 28th day of November, in the fortieth year of our reign.

By Her Majesty's Command.

CARDEW



BYE-LAWS.

I.—CONSTITUTION.

1. —The North of England Institute of Mining and Mechanical Engineers shall consist of Members, Associate Members and Honorary Members. The Institute shall in addition comprise Associates and Students.

2. —The Officers of the Institute, other than the Treasurer and the Secretary, shall be elected from the Members and Associate Members, and shall consist of a President, six Vice-Presidents, and eighteen Councillors, who, with the Treasurer and the Secretary (if Members of the Institute) shall constitute the Council.

All Past-Presidents shall be *ex-officio* Members of the Council, so long as they continue Members or Associate Members of the Institute; and Vice-Presidents who have not been re-elected or have become ineligible from having held office for three consecutive years, shall be *ex-officio* Members of the Council for the following year.

II.—QUALIFICATIONS OF MEMBERS, ASSOCIATE MEMBERS, HONORARY MEMBERS, ASSOCIATES AND STUDENTS.

3.—MEMBERS.—Every candidate for admission into the class of Members, or for transfer into that class, shall come within the following conditions:—He shall be more than twenty-three years of age, have been regularly educated as a Mining or Mechanical Engineer, or in some other

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branch of Engineering, according to the usual routine of pupilage, and have had subsequent employment for at least two years in some responsible situation as an Engineer, or if he has not undergone the usual routine of pupilage, he must have been employed or have practised as an Engineer for at least five years. This class shall also comprise every person who was an Ordinary Member, Life Member, or Student on the first of August, 1877.

4. —ASSOCIATE MEMBERS shall be persons connected with or interested in Mining or Engineering, and not practising as Mining or Mechanical Engineers, or in some other branch of Engineering.

5. —HONORARY MEMBERS shall be persons who have distinguished themselves by their literary or scientific attainments, or who have made important communications to the Society.

6. —ASSOCIATES shall be persons acting as under-viewers, under-managers, or in other subordinate positions in mines, or employed in analogous positions in other branches of Engineering.

7. —STUDENTS shall be persons who are qualifying themselves for the profession of Mining or Mechanical Engineering, or other branch of Engineering, and such persons may continue Students until they attain the age of twenty-five years.

III.—ELECTION AND EXPULSION OF MEMBERS.

8. —Any person desirous of becoming a Member, an Associate Member, an Associate or a Student, shall be proposed according to the proper Form in the Appendix, in which Form the name, usual residence, and qualifications of the candidate shall be distinctly specified. The Form must be signed by the proposer and at least two other Members or Associate Members, certifying a personal knowledge of the candidate, who shall himself sign the undertaking contained therein.

Any person qualified to become an Honorary Member shall be proposed according to the proper Form in the Appendix, in which Form the name, usual residence, and qualifications of the candidate shall be distinctly stated. This Form must be signed by the proposer and at least five other Members or Associate Members, certifying a personal knowledge of the candidate, who shall himself sign the undertaking contained therein, and the Council shall have the power of defining the time during which, and the circumstances under which the candidate shall be an Honorary Member.

Any Associate or Student desirous of becoming a Member, shall be proposed and recommended according to the proper Form in the Appendix, in which Form the name, usual residence, and qualifications of the candidate shall be distinctly specified. This Form must be signed by the proposer and at least two other Members or Associate Members, certifying a personal knowledge of the candidate, who shall himself sign the undertaking contained therein, and the proposal shall then be treated in the manner hereinafter described.

Every proposal shall be delivered to the Secretary, and by him submitted to the next meeting of the Council, who, on approving the qualifications, shall determine if the candidate is to be presented for ballot, and if it is so determined, the Chairman of the Council shall sign such proposal. The same shall be read at the next Ordinary General Meeting, and afterwards be exhibited in the Institute's Hall until the following Ordinary General Meeting, when the candidate shall be balloted for.

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A Student may become an Associate at any time after attaining the age of twenty-one years

9. —The balloting shall be conducted in the following manner :—Each Member or Associate Member attending the meeting, at which a ballot is to take place, shall be supplied (on demand) with a list of the names of the persons to be balloted for, according to the proper Form in the Appendix, and shall strike out the names of such candidates as he desires shall not be elected, and return the list to the scrutineers appointed by the presiding Chairman for the purpose, and such scrutineers shall examine the lists so returned, and inform the meeting what elections have been made. No candidate shall be elected unless he secures the votes of two-thirds of the Members and Associate Members voting.

10. —Notice of election shall be sent to every person within one week after his election, according to the proper Form in the Appendix, and the person elected shall send the amount of his annual subscription, or life composition, within four months from the date of such election, which otherwise shall become void.

11. —Every Member having signed a declaration according to the proper Form in the Appendix, and having likewise made the proper payment, shall receive a certificate of his election, according to the proper Form in the Appendix.

12. —Any Member, Associate Member, Associate or Student elected at any meeting between the Annual Meetings shall be entitled to all Transactions issued in the Institute's year, so soon as he has signed and returned a declaration according to the proper Form in the Appendix, and paid his subscription.

13. —The Transactions of the Institute shall not be forwarded to those whose subscriptions are in arrear on the first of November in each year.

14. —Any person whose subscription is more than one year in arrear shall be reported to the Council, who shall direct application to be made for it, according to the proper Form in the Appendix, and in the event of its continuing one month in arrear after such application, the Council shall have the power, after remonstrance by letter to his last recorded address in the books of the Society, according to the proper Form in the Appendix, of declaring that the defaulter has ceased to be a Member.

15. —In case the expulsion of any person shall be judged expedient by ten or more Members or Associate Members, and they think fit to draw up and sign a proposal requiring such expulsion, the same being delivered to the Secretary, shall be by him laid before the next meeting of the Council for consideration. If the Council, after due inquiry, do not find reason to concur in the proposal, no entry thereof shall be made in any minutes, nor shall any public discussion thereon be permitted, unless by requisition signed by one-half of the Members or Associate Members of the Institute ; but if the Council do find good reason for the proposed expulsion, they shall direct the Secretary to address a letter, according to the proper Form in the Appendix, to the person proposed to be expelled, advising him to withdraw from the Institute. If that advice be followed, no entry on the minutes nor any public discussion on the subject shall be permitted ; but if that advice be not followed, nor an explanation given which is satisfactory to the Council, they shall call a General Meeting for the purpose of deciding on the question of expulsion ; and if a majority of the Members and Associate Members present at such meeting (provided

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the number so present be not less than forty) vote that such person be expelled, the Chairman of that meeting shall declare the same accordingly, and the Secretary shall communicate the same to the person, according to the proper Form in the Appendix.

IV.—SUBSCRIPTIONS

16. —The annual subscription of each Member and Associate Member shall be £2 2s., of each Associate and Student £1 5s., payable in advance, and shall be considered due on election, and afterwards on the first Saturday in August of each year.

17. —Any Member, Associate Member, Associate or Student may, at any time, compound for all future subscriptions by a payment in accordance with the following scale :—

Under 30 years of age, the sum of	£31
Over 30 " " "	27
" 40 " " "	24
" 50 " " "	21
" 60 " " "	17

or on such other conditions as the Council may, in writing, accept. Every person so compounding shall be a Member, Associate Member, Associate or Student for life, as the case may be. Any Associate Member, Associate or Student so compounding who may afterwards be qualified to become a Member, may do so, by election in the

manner described in Bye-law 8. All compositions shall be deemed capital money of the Institute.

18.—In case any Member, Associate Member or Associate, who has been long distinguished in his professional career, becomes unable, from ill-health, advanced age, or other sufficient cause, to carry on a lucrative practice, the Council may, on the report of a Sub-Committee appointed by them for that purpose, if they find good reason for the remission of the annual subscription, so remit it. They may also remit any arrears which are due from a Member, or they may accept from him a collection of books, or drawings, or models, or other contributions, in lieu of the composition mentioned in Bye-law 17, and may thereupon release him from any or all future subscriptions, and permit him to resume his former rank in the Institute.

19, —Owners of Collieries, Engineers, Manufacturers, Railway Companies, and Employers of labour generally, may subscribe annually to the funds of the Institute, and each such subscriber of £2 2s. annually shall be entitled to tickets to admit two persons to the rooms, library, meetings, lectures, and public proceedings of the Society ; and. for every additional £2 2s., subscribed annually, two other persons shall be admissible ; and each such subscriber shall also be entitled for each £2 2s. subscription to have a copy of the Transactions of the Institute sent to him.

V.—ELECTION OF OFFICERS.

20. —The President, Vice-Presidents, and Councillors shall be elected at the Annual Meeting in August (except in cases of vacancies) and shall be eligible for re-election to any office, with the exception of any President who may have held office for the two immediately preceding years, or Vice-President who may have held office for the three immediately preceding years, and such six Councillors as may have attended the fewest

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Council Meetings during the past year, and when any such attendances are equal, the Council shall decide between them ; but any such Member or Associate Member shall be eligible for re-election after being one year out of office.

Any Retiring Vice-President or Councillor who may be ineligible for re-election shall nevertheless be eligible to any other office.

21. —Each Member and Associate Member shall be at liberty to nominate in writing, and send to the Secretary not less than eight days prior to the Ordinary General Meeting in June, a list, duly signed, of Members and Associate Members suitable to fill the offices of President, Vice-Presidents, and Members of Council for the ensuing year. The Council shall prepare a list of the persons so nominated, together with the names of the Officers for the current year eligible for re-election, and of such other Members and Associate Members as they deem suitable for the various offices. Such list shall comprise the names of not less than thirty persons. The list so prepared by the Council shall be submitted to the Ordinary General Meeting in June, and shall be the balloting list for the annual election in August. (See proper Form in the Appendix.) A copy of this list shall be posted at least seven days previous to the Annual Meeting to every Member and Associate Member, who may erase any name or names from the list, and substitute the name or names of any other Member or Associate Member eligible for each respective office ; but the number of names on the list, after such erasure or substitution, must not exceed the number to be elected to the respective offices. Papers which do not accord with these directions shall be rejected by the scrutineers. The votes for any Member who may not be elected President or Vice-Presidents shall count for them as Members of the Council, but in no case shall he receive more than one vote from each voter. The Chairman shall appoint four scrutineers, who shall receive the balloting papers, and, after making the necessary scrutiny, destroy the same, and sign and hand to the Chairman a list

of the elected Officers. The balloting papers may be returned through the post, addressed to the Secretary, or be handed to him, or to the Chairman of the meeting, so as to be received before the appointment of the scrutineers for the election of Officers.

22. —In case of the decease, expulsion, or resignation of any Officer or Officers, the Council, if they deem it requisite that the vacancy shall be filled up, shall present to the next Ordinary General Meeting a List of persons whom they nominate as suitable for the vacant office or offices, and a new Officer or Officers shall be elected at the first succeeding Ordinary General Meeting.

23. —The Treasurer and the Secretary shall be appointed by the Council, and shall be removable by the Council, subject to appeal to a General Meeting. One and the same person may hold both these offices.

VI.—DUTIES OF THE OFFICERS AND COUNCIL.

24. —The President shall take the chair at all meetings of the Institute, the Council, and Committees, at which he is present (he being *ex-officio* a member of all), and shall regulate and keep order in the proceedings.

25. —In the absence of the President, it shall be the duty of the senior Vice-President present to preside at the meetings of the Institute, to keep order, and to regulate the proceedings. In case of the absence of

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the President and of all the Vice-Presidents, the meeting may elect any Member of Council, or in case of their absence, any Member or Associate Member present, to take the chair at the Meeting.

26. —At Meetings of the Council, five shall be a quorum. The minutes of the Council's proceedings shall be at all times open to the inspection of the Members and Associate Members.

27. —The Treasurer and the Secretary shall act under the direction and control of the Council, by which body their duties shall from time to time be defined.

28. —The Council may appoint Committees for the purpose of transacting any particular business, or of investigating any specific subject connected with the objects of the Institute. Such Committees shall make a report to the Council, who shall act thereon, and make use thereof as they see occasion.

VII.— COMMUNICATIONS AND MEMOIRS.

29. —All papers shall be sent for the approval of the Council at least twenty-one days before a General Meeting, and after approval, shall be read before the Institute. The Council shall also direct whether any paper read before the Institute shall be printed in the Transactions, and immediate notice shall be given to the writer whether it is to be printed or not.

30. —The copyright of all papers communicated to, and accepted for printing by the Council, and printed within twelve months, shall become vested in the Institute, and such communications shall not be published for sale or otherwise, without the written permission of the Council.

31. —Twenty copies of each paper printed by the Institute shall be presented to the author for private use.

32. —All proofs of reports of discussions, forwarded to any person for correction, must be returned to the Secretary within seven days from the date of their receipt, otherwise they will be considered correct and be printed off.

33. —The Institute is not, as a body, responsible for the statements and opinions advanced in the papers which may be read, nor in the discussions which may take place at the meetings of the Institute.

VIII.—MEETINGS OF THE INSTITUTE.

34. — An Ordinary General Meeting shall be held on the first Saturday of every month (except January and July) at two o'clock, unless otherwise determined by the Council; and the Ordinary General Meeting in the month of August shall be the Annual Meeting, at which a report of the proceedings, and an abstract of the accounts of the previous year, shall be presented by the Council.

35. —All donations to the Institute shall be acknowledged in the Annual Report of the Council.

36. —A Special General Meeting shall be called whenever the Council may think fit, and also on a requisition to the Council, signed by ten or more Members or Associate Members. The business of a Special Meeting shall be confined to that specified in the notice convening it.

37. —The Members, Associate Members, Honorary Members, Associates and Students, shall have notice of, and the privilege to attend, all Ordinary General Meetings and Special Meetings.

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38. —Every question, not otherwise provided for, which shall come before any meeting, shall be decided by the votes of the majority of the Members and Associate Members then present.

39. — Invitations shall be forwarded to any person whose presence at the discussions the Council may think advisable, and strangers so invited shall be permitted to take part in the proceedings but not to vote.

Any Member or Associate Member shall have power to introduce two strangers (see proper Form in the Appendix) to any General Meeting, but they shall not take part in the proceedings except by permission of the meeting.

IX.—PROPERTY OF THE INSTITUTE.

40. —The Funds of the Society shall be deposited in the hands of the Treasurer, and shall be disbursed or invested by him according to the direction of the Council.

41. —The Institute Hall and Reading Room shall be open to the Members, Associate Members, Honorary Members, Associates and Students on every week day, from 10 a.m. to 5 p.m. except on such special day or days when the Council shall think it expedient to close the rooms and suspend the circulation of Books. Books shall be issued according to regulations from time to time approved by the Council.

42. —No duplicate copies of any portion of the Transactions shall be issued to any Member, Associate Member, Associate or Student, unless by order from the Council.

X.—ALTERATION OF BYE-LAWS.

43. —No alteration shall be made in the Bye-laws of the Institute, except at the Annual Meeting, or at a Special Meeting for that purpose, and the particulars of every such alteration shall be announced at a previous Ordinary Meeting, and inserted in its minutes, and shall be exhibited in the room of the Institute fourteen days previous to such Annual or Special Meeting, and such Meeting shall have power to adopt any modification of such proposed alteration of the Bye-laws.

I hereby approve the foregoing Bye-laws.

M. W. RIDLEY,

ONE OF HER MAJESTY'S PRINCIPAL SECRETARIES OF STATE.

Whitehall,

23rd September, 1898.

APPENDIX TO THE BYE-LAWS.

FORM A. MEMBER OR HONORARY MEMBER.

A. B. [Christian Name, Surname, Occupation, and Address in full], born on the day of 189, being desirous of belonging to The North of England Institute of Mining and Mechanical Engineers, I recommend him from *personal knowledge*, as a person in every respect worthy of that distinction, because—

[Here specify distinctly the qualifications of the Candidate, according to the spirit of Bye laws 8 or 5.]

On the above grounds, I propose him to the Council as a proper person to belong to the Institute.

Signed Member or Associate Member,

Dated this day of 189

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We, the undersigned, concur in the above recommendation, from *personal knowledge*, being convinced that A. B. is in every respect a proper person to belong to the Institute.

..... }
..... } Two Members or Associate Members, or by Five Members or Associate Members in the case of the nomination of an Honorary Member.

[Undertaking to be signed by the Candidate.]

I, the undersigned, do hereby promise that, in the event of my election, I will be governed by the Royal Charter and Bye-laws of the Institute for the time being, or as they may hereafter be altered, amended, or enlarged under the powers of the said Royal Charter; and that I will promote the objects of the Institute as far as may be in my power, and will not aid in any unauthorised publication of the proceedings, and will attend the meetings thereof as often as I conveniently can; provided that whenever I shall signify in writing to the Secretary that I am desirous of withdrawing my name therefrom, I shall (after the payment of any arrears which may be due by me at that period) cease to belong to the Institute.

Signed

Dated this day of 189

[To be filled up by the Council.]

The Council, having considered the above recommendation, present A. B. to be balloted for as a Member of The North of England Institute of Mining and Mechanical Engineers.

Signed Chairman.

Nominated at the Ordinary General Meeting 189

Passed by the Council 189

Elected at the Ordinary General Meeting 189 Age, years.

FORM B. ASSOCIATE MEMBER, ASSOCIATE OR STUDENT.

A. B. [Christian Name, Surname, Occupation, and Address in full], born on the day of .189, being desirous of belonging to The North of England Institute of Mining and Mechanical Engineers, I recommend him, from *personal knowledge*, as a person in every respect worthy of that distinction, and propose him to the Council as a proper person to belong to the Institute.

Signed Member or Associate Member.

Dated this day of 189 .

We, the undersigned, concur in the above recommendation, from *personal knowledge*, being convinced that A. B. is in every respect a proper person to belong to the Institute.

] Two Members
] or Associate Members.

[Undertaking to be signed, by the Candidate.]

I, the undersigned, do hereby promise that, in the event of my election, I will be governed by the Royal Charter and Bye-laws of the Institute for the time being, or as they may hereafter be altered, amended, or enlarged under the powers of the said Royal Charter; and that I will promote the objects of the Institute as far as may be in my power, and will not aid in any unauthorised publication of the proceedings, and will attend the meetings thereof as often as I conveniently can : provided that whenever I shall signify in writing to the Secretary that I am desirous of withdrawing my name therefrom, I shall (after the payment of any arrears which may be due by me at that period) cease to belong to the Institute.

Signed

Dated this day of 189

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[To be filled up by the Council.]

The Council, having considered the above recommendation, present A. B. to be balloted for as a of The North of England Institute of Mining and Mechanical Engineers.

Signed Chairman.

Nominated at the Ordinary General Meeting 189

Passed by the Council 189

Elected at the Ordinary General Meeting 189 Age, years.

FORM C, TRANSFER TO MEMBER or ASSOCIATE MEMBER.

A. B. [Christian Name, Surname. Occupation, and Address in full], born on the day of 189 , at present a of The North of England Institute of Mining and Mechanical Engineers, being desirous of becoming a Member of the said Institute, I recommend him, from *personal knowledge*, as a person in every respect worthy of that distinction, because—

[Here specify distinctly the qualifications of the Candidate, according to the spirit of Bye-laws 3 and 4.]

On the above grounds. I propose him to the Council as a proper person to be admitted a Member.

Signed Member or Associate Member.

Dated this day of 189

We, the undersigned, concur in the above recommendation, from *personal knowledge*, being convinced that A. B. is in every respect a proper person to be admitted a Member.

] Two Members
] or Associate Members.

[Undertaking to be signed by the Candidate.]

I, the undersigned, do hereby promise that, in the event of my election, I will be governed by the Royal Charter and Bye-laws of the Institute for the time being, or as they may hereafter be altered, amended, or enlarged under the powers of the said Royal Charter; and that I will promote the objects of the Institute as far as may be in my power, and will not aid in any unauthorised publication of the proceedings, and will attend the meetings thereof as often as I conveniently can ; provided that

whenever I shall signify in writing to the Secretary that I am desirous of withdrawing my name therefrom, I shall (after the payment of any arrears which may be due by me at that period) cease to belong to the Institute.

Signed

Dated this day of 189 .

[To be filled up by the Council.]

The Council, having considered the above recommendation, present A. B. to be balloted for as a Member of The North of England Institute of Mining and Mechanical Engineers

Signed Chairman.

Nominated at the Ordinary General Meeting 189

Passed by the Council 189

Elected at the Ordinary General Meeting 189 Age years.

FORM D.

List of the names of persons to be balloted for at the Ordinary General Meeting on the day of 189

MEMBERS :—

ASSOCIATE MEMBERS :—

HONORARY MEMBERS :—

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ASSOCIATES :---

STUDENTS : —

Strike out the names of such persons as you desire should *not* be elected, and hand the list to the Chairman.

FORM E.

SIR,—I beg leave to inform you that on the day of you were elected a of The North of England Institute of Mining and Mechanical Engineers. In conformity with its Bye-laws your election cannot be confirmed until your first annual subscription be paid, the amount of which is £ , or. at your option, a life-composition in accordance with the following

scale :—

Under 30 years of age	£31
Over 30 " „	27
" 40 „	24
" 50 „	21
„ 60 „ „	17

If the subscription is not received within four months from the present date, the election will become void under Bye-law 10.

All annual subscriptions are due on the first Saturday in August of each year.

I am, sir, yours faithfully, Dated 189 Secretary.

FORM F.

THE NORTH OF ENGLAND INSTITUTE OF MINING AND MECHANICAL ENGINEERS.
Founded 1852. Incorporated, by Royal Charter, A.D. 1876.

These are to certify that A. B. [Christian Name, Surname, Occupation, and Address in full] was elected a Member of The North of England Institute of Mining and Mechanical Engineers, at an Ordinary General Meeting held on the day of 189

Witness our hands and seal this day of 189
President.

(Seal)

Secretary.

FORM G.

SIR.—I am directed by the Council of The North of England Institute of Mining and Mechanical Engineers to draw your attention to Bye-law 14, and to remind you that the sum of £ of your annual subscriptions to the funds of the Institute remains unpaid, and that you are in consequence in arrear of subscription. I am also directed to request that you will cause the same to be paid without further delay, otherwise the Council will be under the necessity of exercising their discretion as to using the power vested in them by the Article above referred to. I am, sir, yours faithfully,

Secretary.

Dated 189

FORM H.

SIR, ---I am directed by the Council of The North of England Institute of Mining and Mechanical Engineers to inform you that, in consequence of non-payment of your arrears of subscription, and in pursuance of Bye-law 14, the Council have determined that unless payment of the amount £ is made previous to the day of..... next, they will proceed to declare that you have ceased to be a Member of the Institute.

But, notwithstanding this declaration, you will remain liable for payment of the arrears due from you.

I am, sir, yours faithfully,

Secretary.

Dated 189.

FORM I.

SIR.—I am directed by the Council of The North of England Institute of Mining and Mechanical Engineers to inform you that, upon mature consideration of a proposal which has been laid before them relative to you, they feel it their duty to advise you to withdraw from the Institute, or otherwise they will be obliged to act in accordance with Bye-law 15.

I am, sir, yours faithfully,

Secretary.

Dated 189

FORM J.

SIR,—It is my duty to inform you that, under a resolution passed at a Special General Meeting of The North of England Institute of Mining and Mechanical Engineers, held on the day of 189 according to the provisions of Bye-law 15, you have ceased to be a of the Institute.

I am, sir, yours faithfully,

Secretary.

Dated 189

FORM K, BALLOTING LIST.

Ballot to take place at the Annual Meeting on 189 at Two o'clock, p.m.

The names of persons for whom the voter docs *not* vote must be erased, and the names of other persons eligible for re-election may be inserted in their place, provided the number remaining on the list does not exceed the number of persons to be elected.

PRESIDENT—Not more than ONE NAME to be returned, or the vote will be lost.

.....President for the current year eligible for re-election.*

.....New Nominations.* _

VICE-PRESIDENTS—Not more than Six NAMES to be returned, or the vote will be lost.

The Votes for any Member who may not be elected President or Vice-Presidents shall count for them as Members of the Council, but in no case shall he receive more than one vote from each voter.

.....Vice-Presidents for the current year eligible for re-election.

.....

.....New Nominations.

.....

COUNCIL -Not more than EIGHTEEN NAMES to be returned, or the vote will be lost.

.....Members of the Council for the current year eligible for re-election.

.....

.....

.....New Nominations.

.....

* To be inserted when necessary.

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EX-OFFICIO MEMBERS of the Council for the ensuing year :—

.....Past-Presidents,

.....

.....Retiring Vice-Presidents.

.....

Any list returned with a greater number of names than

One President,

Six Vice Presidents,

Eighteen Councillors,

Will be rejected by the Scrutineers as informal, and the Votes will consequently be lost.

Bye-law 21.

Each Member and Associate Member shall be at liberty to nominate in writing, and send to the Secretary not less than eight days prior to the Ordinary General Meeting in June, a list, duly signed, of Members and Associate Members suitable to fill the offices of President, Vice-Presidents, and Members of Council for the ensuing year. The Council shall prepare a list of the persons so nominated, together with the names of the Officers for the current year eligible for re-election, and of such other Members and Associate Members as they deem suitable for the various offices. Such list shall comprise the names of not less than thirty persons. The list so prepared by the Council shall be submitted to the ordinary General Meeting in June, and shall be the balloting list for the annual election in August. [See proper Form in the Appendix.] A copy of this list shall be posted at least seven days previous to the Annual Meeting to every Member and Associate Member, who may erase any name

or names from the list, and substitute the name or names of any other Member or Associate Member eligible for each respective office ; but the number of names on the list, after such erasure or substitution, must not exceed the number to be elected to the respective offices. Papers which do not accord with these directions shall be rejected by the scrutineers. The votes for any Member who may not be elected President or Vice-Presidents shall count for them as Members of the Council, but in no case shall he receive more than one vote from each voter. The Chairman shall appoint four scrutineers, who shall receive the balloting papers, and. after making the necessary scrutiny, destroy-the same, and sign and hand to the Chairman a list of the elected Officers. The balloting papers may be returned through the post, addressed to the Secretary, or lie handed to him, or to the Chairman of the meeting, so as to be received before the appointment of the scrutineers for the election of Officers.

Names substituted for any of the above are to be written in the blank spaces opposite those they are intended to supersede.

The following Members are ineligible from causes specified in Bye-law 20 :—

As PRESIDENT

As VICE-PRESIDENTS

As COUNCILLORS

FORM L.

Admit

of

to the Ordinary General Meeting on Saturday, the

(Signature of Member, Associate Member, Associate or Student)

The Chair to be taken at Two o'clock p.m. I undertake to abide by the Bye-Laws of The North of England Institute of Mining and Mechanical Engineers, and not to aid in any unauthorised publication of the Proceedings.

(Signature of Visitor)

Not transferable.