

PROCEEDINGS
OF THE
MINERALOGICAL SOCIETY

EXCERPT MINUTES OF COUNCIL MEETING.

*Held in the Apartments of the Geological Society, Burlington House,
London, W., January 14, 1930, at 4 p.m.*

Dr. G. T. PRIOR, F.R.S., President, in the Chair.

The resignations of Messrs. H. W. Monckton, G. W. Sneesby, and W. R. Storr were received and accepted.

The name of Mr. E. L. Johnson was ordered to be erased from the List of Members in accordance with Bye-law 7.

Prof. Frank Robertson Van Horn and Mr. Lawrence Rickard Wager were provisionally elected Ordinary Members of the Society.

Reported that owing to the illness of Mr. T. Crook, Mr. F. A. Bannister had been asked to act as auditor in his place for the accounts of 1929.

The audited accounts and balance-sheet for the year ending December 31, 1929, were presented by the Treasurer and approved.

The Treasurer was authorized to spend a sum not exceeding £15 on boxes for storing the stock of the Journal.

A letter was received from Dr. Viktor Zsivny, of Budapest, agreeing to abstract the Hungarian literature for 'Mineralogical Abstracts'.

The Librarian reported that the catalogue of separates in the Society's Library had been completed.

A letter was received from Mr. S. Henson acknowledging the President's congratulations on attaining his fiftieth year as a Member of the Society.

GENERAL MEETING.

*Held in the Apartments of the Geological Society, Burlington House,
London, W., January 14, 1930, at 5.30 p.m.*

Dr. G. T. PRIOR, F.R.S., President, in the Chair.

Twenty-one Members and one Visitor were present.

The elections of Prof. F. R. Van Horn and Mr. L. R. Wager as Ordinary Members of the Society were confirmed.

Dr. L. J. Spencer read excerpts from the following papers:—

1. The occurrence of potassium nitrate near Goyder's Pass, McDonnell Ranges, Central Australia: by Sir Douglas Mawson (p. 231).

2. A new occurrence of zunyite near Postmasburg, South Africa: by Dr. L. T. Nel (p. 207).

In connexion with the second paper Dr. Spencer described some recent work of his own on the twinning of tetrahedral crystals, illustrating his remarks with paper models.

Mr. W. Campbell Smith exhibited lantern slides and thin sections of volcanic rocks from Kenya Colony. The thin sections were demonstrated by Mr. A. F. Hallimond with the aid of a small Leitz projection microscope kindly lent by H.M. Geological Survey.

Mr. F. N. Ashcroft exhibited fine specimens of minerals which he had recently collected at Broken Hill, Northern Rhodesia, and other localities.

EXCERPT MINUTES OF COUNCIL MEETING.

*Held in the Apartments of the Geological Society, Burlington House,
London, W., March 18, 1930, at 4 p.m.*

Dr. G. T. PRIOR, F.R.S., President, in the Chair.

Mr. Thomas Clifford Fitzwilliam Hall and Dr. Frederick Walker were provisionally elected Ordinary Members of the Society.

Letters were received from the Association of Scientific Workers referring to the financial position of the Science Library, and the President reported that he had attended a conference on this matter at the House of Commons on March 17.

GENERAL MEETING.

*Held in the Apartments of the Geological Society, Burlington House,
London, W., March 18, 1930, at 5.30 p.m.*

Dr. G. T. PRIOR, F.R.S., President, in the Chair.

Twenty-eight Members and twenty-four Visitors were present.

The elections of Mr. T. C. F. Hall and Dr. F. Walker as Ordinary Members of the Society were confirmed.

Prof. W. L. Bragg then delivered a lecture on 'The structure of silicates', in which he presented in a masterly manner the results achieved by himself and his research students at Manchester. He showed how the oxygen atom, formerly almost taken as granted by the chemists in their analyses, determines by its size the pattern of both close-packed and open structures. The three chief types of structure are: (1) those in which chains of linked silicon-oxygen tetrahedra form the basis of the structure; (2) those in which the tetrahedra link up to form sheets, limited, curiously enough, to hexagonal patterns; and (3) those in which the tetrahedra form three-dimensional cage-like structures. He also drew attention to the importance of oxygen in silicate formulae, and the success with which the results of X-ray determinations have been applied to settling doubtful formulae, such as, for example, those of diopside and tremolite.

Sir Henry Miers and Prof. A. Hutchinson both paid eloquent tribute to the lecturer, expressing the indebtedness of the Society to him for giving to the Society this first account of his immensely important researches. A vote of thanks to the lecturer was put from the Chair and carried with acclamation.

EXCERPT MINUTES OF COUNCIL MEETING.

*Held in the Apartments of the Geological Society, Burlington House,
London, W., June 3, 1930, at 4 p.m.*

Dr. G. T. PRIOR, F.R.S., President, in the Chair.

Dr. William Richard Jones and Mr. Arthur Eric Jarvis Vickers were provisionally elected Ordinary Members of the Society.

The following changes in the list of Officers and Council were proposed: Sir John S. Flett to be President, and Prof. C. Gilbert Cullis to be a Vice-President. Ordinary Members of Council to be asked to stand for election: past members, Mr. A. F. Hallimond and Dr. F. H. Hatch; new members, Sir Albert E. Kitson and Prof. W. L. Bragg. The four senior Ordinary Members due to retire were Mr. A. J. Bull, Prof. C. Gilbert Cullis, Prof. Harold Hilton, and Dr. W. F. P. McLintock. The President, Dr. G. T. Prior, also retires on the completion of three years' service.

It was decided to hold the meetings in 1931 on the following dates : Tuesdays—January 13, March 17, June 9, November 3.

A letter was received from Prof. Henry Louis thanking the Society for their letter of congratulation on the completion of his fifty years of membership.

An invitation was received from the Congrès International des Mines, de la Métallurgie et de la Géologie appliquée to send a delegate, and Dr. W. F. P. McLintock was nominated to attend the sixth meeting on June 22–28, 1930, at Liège.

An invitation was received from the Société Géologique de France for the President, accompanied by a delegation, to be present at their Centenary Celebrations on June 30 and the following days. The President regretted his inability to attend. Prof. A. Hutchinson, the Treasurer, and the General Secretary were appointed as the Society's delegation, and it was decided to print a suitable address for presentation.

GENERAL MEETING.

Held in the Apartments of the Geological Society, Burlington House, London, W., June 3, 1930, at 5.30 p.m.

Dr. G. T. PRIOR, F.R.S., President, in the Chair.

Seventeen Members and four Visitors were present.

The elections of Dr. W. R. Jones and Mr. A. E. J. Vickers as Ordinary Members of the Society were confirmed.

The following papers were read :—

1. A new meteoric iron from Piedade do Bagre, Minas Geraes, Brazil : by Dr. L. J. Spencer (p. 271).
2. Notes on British barytes : by Miss Jessie M. Sweet (p. 257).
3. On face- and zone-symbols referred to hexagonal axes : by Mr. M. H. Hey (p. 283).
4. Biographical notices of mineralogists recently deceased (fourth series) : by Dr. L. J. Spencer (p. 387).
5. A tholeiitic phase of the quartz-dolerite magma of central Scotland : by Dr. F. Walker (p. 368).
6. On pink epsomites and fauserite : by Mr. M. H. Hey.

EXCERPT MINUTES OF COUNCIL MEETING.

*Held in the Apartments of the Geological Society, Burlington House,
London, W., November 4, 1930, at 4 p.m.*

Dr. G. T. PRIOR, F.R.S., President, in the Chair.

Prof. Shukusuké Kôzu, Prof. Béla Mauritz, and Mr. Herbert Marcus Powell were provisionally elected Ordinary Members of the Society.

The resignations of Mr. A. D. Lumb and L. Zutshi were received and accepted. The death of Mr. S. Henson on June 9, 1930, was announced.

Prof. C. G. Cullis and Mr. F. A. Bannister were elected auditors of the accounts for the year ending December 31, 1930.

Authority was given to have reprints made of p. 3 of the wrapper of the Magazine for distribution.

The Annual Report of the Council, submitted by the Secretary, was read and approved.

A letter was received from Dr. W. T. Schaller, and Sir John S. Flett, Sir Henry A. Miers, and Dr. L. J. Spencer (secretary) were appointed to form a committee on mineralogical nomenclature, to co-operate with the corresponding committee of the Mineralogical Society of America, and to report.

GENERAL (ANNIVERSARY) MEETING.

*Held in the Apartments of the Geological Society, Burlington House,
London, W., November 4, 1930, at 5.30 p.m.*

Dr. G. T. PRIOR, F.R.S., and afterwards

Sir JOHN S. FLETT, K.B.E., F.R.S., President, in the Chair.

Thirty-six Members and five Visitors were present.

The President nominated Mr. F. A. Bannister and Mr. H. G. Smith to act as scrutineers of the voting-papers for the election of Officers and Council. The scrutineers reported that eighty-nine voting-papers had been returned to the Secretary, and that the list as nominated by the Council was approved, namely:—

President. Sir John S. Flett, K.B.E., M.A., LL.D., D.Sc., F.R.S.

Vice-Presidents. Dr. G. F. Herbert Smith, M.A., D.Sc., F.G.S.,
F.R.A.S.

Prof. C. Gilbert Cullis, D.Sc., F.G.S.

Treasurer. F. N. Ashcroft, M.A., F.G.S., F.C.S.

General Secretary. W. Campbell Smith, M.C., T.D., M.A., F.G.S.

Foreign Secretary. Dr. J. W. Evans, C.B.E., D.Sc., LL.B., F.R.S.

Editor of the Journal. Dr. L. J. Spencer, M.A., Sc.D., F.R.S.

Ordinary Members of Council.

Colonel N. T. Belaiew, C.B., F.C.S.	Miss W. M. Porter, B.Sc.
Harvey Collingridge, B.Sc., F.G.S.	A. F. Hallimond, M.A., F.G.S.
Henry Dewey, F.G.S.	Dr. F. H. Hatch, O.B.E., Ph.D., F.G.S.
Prof. Arthur Holmes, D.Sc., F.G.S.	Sir Albert E. Kitson, C.M.G., C.B.E., F.G.S.
Dr. A. Brammall, Ph.D., M.Sc., F.G.S.	Prof. W. L. Bragg, O.B.E., M.A., F.R.S.
G. M. Davies, M.Sc., F.G.S.	
Prof. W. G. Fearnside, M.A., F.G.S.	

The elections of Prof. S. Kôzu, Prof. B. Mauritz, and Mr. H. M. Powell as Ordinary Members of the Society were confirmed.

The General Secretary then read the following

ANNUAL REPORT OF COUNCIL.

During the session 1929-30 four ordinary meetings have been held, by kind permission, in the apartments of the Geological Society, Burlington House, London, W.

Twelve papers have been read during the year, and at the March meeting Prof. W. L. Bragg delivered a lecture on 'The structure of silicates', in which he presented the results achieved by himself and his research students at Manchester.

Four numbers of the Journal of the Society (nos. 127-130) have been issued. They contain seventeen papers occupying 223 pages with ten plates, and 559 abstracts occupying 192 pages. The figures supplied by the Society's publishers show that the number of regular subscribers to the Journal is steadily increasing. The stock of the Journal has been re-arranged and re-counted, and is now stored in metal boxes and is much more readily accessible than formerly. The stock of some ten or more numbers is now very low, including three numbers issued as recently as 1928.

The balance-sheet for the year ending December 31, 1929, shows an excess of assets (exclusive of the Library and stock of the publications) over liabilities of £2,034 19s. 11d. The value of the stock invested in the names of the Trustees of the Society was on December 31, 1929, £1,713 17s. 0d. An examination of the accounts since the foundation of the Society in 1876 shows the stocks held to have cost, including brokers' charges, £1,976 9s. 5d. The depreciation shown is thus £362 12s. 5d., or 13.28 per cent. on the purchase price, which, considering

the depreciation in value of trustee stocks in general during that period, is much less than might have been expected.

The Council regrets to announce the death of Mr. Samuel Henson on June 9, 1930; he was elected a member in 1879. Five Ordinary Members have resigned, and one has been removed from the List of Members in accordance with By-law 7. Thirteen new members have been elected, bringing the total membership on October 31 to 227, including eleven Honorary Members.

The Society's Library has received during the year 187 parts of periodicals and 19 reprints of papers. 32 volumes have been borrowed. The catalogue of separate copies of papers has been completed by the Librarian.

During the year the Society ceased to be a constituent member of the Federal Council of Chemistry. Mr. F. N. Ashcroft and Mr. W. Campbell Smith acted as the Society's delegates at the Centenary Celebrations of the Geological Society of France and presented an address. Dr. W. F. P. McLintock represented the Society at the International Congress of Mines, Metallurgy, and Applied Geology at Liège. Dr. G. F. Herbert Smith has continued to represent the Society on the Miscellaneous Minerals Committee of the Mineral Resources Department of the Imperial Institute.

On the motion of Lady McRobert, seconded by Dr. L. Hawkes, the report was adopted.

Captain G. M. Puckle proposed, and Dr. A. E. H. Tutton seconded, a vote of thanks to the Geological Society for the use of their rooms, which was carried unanimously.

Prof. W. T. Gordon exhibited a large crystal of emerald from Russia, and Mr. Francis Jones exhibited specimens of analcime and chabazite from Croft, Leicestershire.

The following papers were then read:—

1. An account of British mineral collectors and dealers in the seventeenth, eighteenth, and nineteenth centuries (Part I): by Mr. Arthur Russell.

2. Cupriferous melanterite from the Skouriotissa mine, Cyprus: by Mr. M. H. Hey (p. 413).

3. The dolerite-chalk contact-zone of Scawt Hill, Co. Antrim. The production of basic alkali-rocks by the assimilation of limestone by basaltic magma: by Dr. C. E. Tilley, with chemical analyses by Dr. H. F. Harwood (p. 439).

4. A simple method of observing the magnetic properties of mineral grains: by Dr. Frank Smithson (p. 419).

The following papers were taken as read:—

5. A contribution to the study of moonstone from Ceylon and other areas and of the stability-relations of the alkali-felspars: by Dr. Edmondson Spencer (p. 291).

[continued on p. lx.]

MINERALOGICAL ABSTRACT OF RECEIPTS AND PAYMENTS

	RECEIPTS.		GENERAL PUR.			
	£	s.	d.	£	s.	d.
By Balances brought forward from 1929—						
1. At Bankers:						
(a) Deposit Account	170	0	0			
(b) Current Account (£10 3s. 8d., less						
• £1 14s. 2d. 'in trust for a member'						
transferred to Temporary Suspense						
Account) ¹		8	9	6		
2. In Office		0	9	9		
				178	19	3
Entrance Fees				10	10	0
Annual Subscriptions—						
1. Current year	152	2	11 ²			
2. Arrears		3	3	0		
3. Advance		5	5	0		
				160	10	11
Composition Fees				31	10	0
Sale of Publications—						
1. By Publishers, April 1, 1929–March 31, 1930.						
Subscription Payments £256 0s. 0d., and						
other sales £49 13s. 6d., less trade discount						
and commission £80 11s. 2d., and distribu-						
tion charges £14 16s. 10d.	210	5	6			
2. By Custodian of Stock, 1930. £8 12s. 9d.,						
less distribution charges £1 7s. 7d.		7	5	2		
				217	10	8
Advertisement Fees £34 18s. 4d., less commission £6 19s. 8d.				27	18	8
Interest on Investments as received—						
1. £1,580 5% War Loan 1929–47 Inscribed Stock	79	0	0			
2. £105 4% Consolidated Loan 1957 Inscribed						
Stock		4	4	0		
3. £100 4% Funding Loan 1960–90 Inscribed						
Stock		3	0	0		
				86	4	0
Deposit Interest				3	13	7
Donation by Dr. E. Spencer (direct part payment for Illustrations)				8	13	6
Donation by F. N. Ashcroft (direct part payment for Metal Cases)				6	18	9
Small Receipts				0	2	11
				£732	12	3

¹ The item 'In trust for a member, £1 14s. 2d.', shown in the General Purposes Account and Balance Sheet for 1929, has been transferred to a Temporary Suspense Account (not published) to which certain moneys received and paid during 1930 have properly been credited and debited. The balance standing to the credit of this Account on December 31, 1930, was £6 11s. 9d., and is taken into account in the Balance Sheet for the year ending on that day.

² Includes a part payment being balance due.

SOCIETY

FOR THE YEAR ENDING DECEMBER 31, 1930

POSES ACCOUNT.

	PAYMENTS.	£ s. d.	£ s. d.
To Printing and distributing the Mineralogical Magazine Nos. 128-131 inclusive (Oxford University Press)—			
1. Printing		295 11 0	
2. Illustrations		54 15 0	
3. Authors' Separate Copies		28 18 3	
4. Distribution Charges		14 0 6	
		—————	393 4 9
Printing and distributing notices of Meetings and other annual miscellaneous printing			17 6 3
Miscellaneous Printing, &c. (not annual)			0 19 0
Expenses at Meetings, 1930—			
1. Operator of lantern		2 2 0	
2. Porter		1 0 0	
3. Tea		2 10 0	
		—————	5 12 0
Care of Stock of Publications—			
Annual fee, 1930, J. Mugford		1 1 0	
Metal Cases purchased		21 18 9	
Re-arrangement and re-count of stock, fee		2 10 0	
		—————	25 9 9
Editor's Honorarium, 1930			50 0 0
Postage—			
1. Hon. Secretary		1 1 4	
2. Editor		1 4 10	
3. Hon. Treasurer (not charged)		—	
		—————	2 6 2
Address to the Société Géologique de France			3 5 0
Stationery			5 12 0
Bank charges and other small items			0 1 2
Investments, purchase of £50 4% Funding Loan, 1960-90 Inscribed Stock, commission and stamp			45 4 3
Transferred to Library Fund Account			5 5 0
Balance, December 31, 1930—			
1. At Bankers:			
(a) Current Account		12 17 11	
(b) Deposit Account		165 0 0	
2. In Office		0 9 0	
		—————	178 6 11
			£732 12 3

Examined and compared with vouchers and found correct.

F. A. BANNISTER }
 C. GILBERT CULLIS } Auditors.

F. N. ASHCROFT, Hon. Treasurer.

January 8, 1931.

		LIBRARY FUND	
RECEIPTS.		£ s. d.	£ s. d.
By Balances brought forward from 1929—			
1. At Bankers		1 1 9	
2. In Office		0 1 10	
		<hr/>	1 3 7
Transferred from General Purposes Account			5 5 0
			<hr/>
			<u>£6 8 7</u>

BALANCE

		DECEMBER	
LIABILITIES.		£ s. d.	£ s. d.
By Cash in hand as per Temporary Suspense Account .			6 11 9

Excess of Assets over Liabilities		2143 4 8
		<hr/>
		<u>£2149 16 5</u>

ACCOUNT.

	PAYMENTS.	£ s. d.	£ s. d.
To Librarian's Honorarium, 1930			5 0 0
Postage and other small items			0 6 1
Balance, December 31, 1930—			
1. At Bankers		1 1 9	
2. In Office		0 0 9	
		1 1 9	
			1 2 6
			£6 8 7

Examined and compared with vouchers and found correct.

F. A. BANNISTER }
C. GILBERT CULLIS } Auditors.

January 8, 1931

F. N. ASHCROFT, Hon. Treasurer.

SHEET

31, 1930.

	ASSETS.	£ s. d.	£ s. d.
To Balances—			
I. General Purposes Account:			
1. At Bankers:			
(a) Current Account		12 17 11	
(b) Deposit Account		165 0 0	
2. In Office		0 9 0	
		178 6 11	
II. Library Fund Account—			
1. At Bankers: Current Account		1 1 9	
2. In Office		0 0 9	
		1 2 6	
III. Temporary Suspense Account—			
At Bankers: Current Account			6 11 9
Sale of Publications—			
1. By Publishers, April 1 to Dec. 31, 1930		107 14 3	
2. By custodian		0 5 0	
		107 19 3	
Advertisement Fees			29 8 6
Investments at Broker's Valuation—			
1. £1,580 5% War Loan 1929-47 Inscribed Stock at 103		1627 8 0	
2. £105 4% Consolidated Loan 1957 Inscribed Stock at 91½ ex div.		96 1 6	
3. £100 4% Funding Loan 1960-90 Inscribed Stock at 94½		94 10 0	
		1817 19 6	
Arrears of Annual Subscriptions, &c., valued at			8 8 0
			£2149 16 5

The value of the Library and that of the Stock of Publications are not included in the above assets.

January 17, 1931.

F. N. ASHCROFT, Hon. Treasurer.

6. An electromagnetic separator for mineral powders: by Mr. A. F. Hallimond (p. 377).

7. On the orientation of kamacite in meteoric iron: by Mr. J. Young (p. 382).

8. Studies on the zeolites. Part I. General review: by Mr. M. H. Hey (p. 422).
