## PROCEEDINGS

#### OF THE

## MINERALOGICAL SOCIETY

## EXCERPT MINUTES OF COUNCIL MEETING.

Held in the Apartments of the Geological Society, Burlington House, London, W., January 30, 1936, at 4.30 p.m.

Prof. P. G. H. Boswell, F.R.S., Vice-President, in the Chair.

Mr. Robert Walls was provisionally elected an Ordinary Member of the Society.

Reports were received from the Treasurer and the Editor.

The General Secretary gave notice that he wished to make some proposals about the accommodation of the Society's Library.

A letter was received from the Nomenclature Committee of the Mineralogical Society of America and was referred to our Nomenclature Committee.

A letter was received from the Geological Society granting permission for the use of its rooms as heretofore.

#### GENERAL MEETING.

Held in the Apartments of the Geological Society, Burlington House, London, W., January 30, 1936, at 5.30 p.m.

Prof. P. G. H. Boswell, F.R.S., Vice-President, in the Chair.

Forty-three Members and eight Visitors were present.

The election of Mr. Robert Walls as an Ordinary Member of the Society was confirmed.

Mr. Arthur Russell exhibited specimens of withamite from the new road in Glencoe and of almandine from Loch Garve, Ross-shire, collected in 1935.

The General Secretary exhibited small specimens in box-mounts for viewing with a binocular microscope as opaque objects.

The following papers were then read and discussed:-

1. The Morven meteorite, an aerolite from South Canterbury, New Zealand: by Mr. C. O. Hutton (communicated by Prof. W. N. Benson) (p. 265).

- 2. Eulysites and related rock types from Loch Duich, Ross-shire by Prof. C. E. Tilley (p. 331).
- 3. Gold and silver in the crystalline rocks of the Malvern Hills: by Prof. A. Brammall and Mr. D. L. Dowie (p. 260).
- 4. On the magnetite-plagioclase rocks of Magnet Heights, Bushveld, Transvaal: by Dr. A. K. Wells.
- 5. The role of Al-atoms in the two reaction series: by Prof. A. Brammall (p. 362).

## EXCERPT MINUTES OF COUNCIL MEETING.

Held in the Apartments of the Geological Society, Burlington House, London, W., March 26, 1936, at 4.30 p.m.

Sir Thomas H. Holland, F.R.S., President, in the Chair.

The following were provisionally elected Ordinary Members of the Society: Vivien Lindsey Aspland, Cecil Thomas Barber, John Alexander Dunn, Norman Fordyce McKerron Henry, Germaine Anne Joplin, Martin Alfred Peacock, and Bernard Smith.

The resignation of Mr. V. A. Eyles, received at the last meeting, was accepted.

The death of Dr. George Thurland Prior on March 8, 1936, was reported. The following resolution was passed unanimously: 'That this Society sends to Mrs. Prior its deep sympathy with her in the loss occasioned by the death of Dr. G. T. Prior, for many years General Secretary and subsequently President of the Society, and always held in affectionate respect by his fellow members.'

The General Secretary read a report on the Society's Library at present housed in the Mineral Department at the British Museum (Natural History). The report showed that the Library was practically not at all used by the Members apart from certain periodicals used by the editor. A sub-committee was appointed consisting of the General Secretary, the Editor, the Treasurer, and the Librarian; and it was decided to ask the Geological Society to select any books they may wish to have, and then to offer the Geological Survey an opportunity to purchase any books required by its library. Thereafter the residue should be offered to the Members.

#### GENERAL MEETING.

Held in the Apartments of the Geological Society, Burlington House, London, W., March 26, 1936, at 5.30 p.m.

Sir THOMAS H. HOLLAND, F.R.S., President, in the Chair.

Forty-three Members and twenty Visitors were present.

The elections of Mr. V. L. Aspland, Dr. C. T. Barber, Dr. J. A. Dunn, Mr. N. F. M. Henry, Miss G. A. Joplin, Dr. M. A. Peacock, and Dr. Bernard Smith as Ordinary Members of the Society were confirmed.

The following exhibits were explained: -

Pseudogaylussite dredged from the Clyde, from the collection of the late Prof. J. W. Gregory; linnaeite (var. carrollite) from N'Kana copper mine, Northern Rhodesia; columbite from Northern Nigeria; a 5½ oz. gold nugget from Tanganyika Territory; and villiaumite from Los Islands, French Guinea: by Prof. C. G. Cullis.

The method of mounting ore-specimens for polishing in bakelite as used by the United States Geological Survey: by Dr. F. C. Phillips.

A new rock 'enderbite' from Proclamation Island, Enderby Land, Antarctica: by Prof. C. E. Tilley.

The following papers were then read and discussed :-

- 1. Two new meteoric stones from South Australia—Lake Labyrinth and Kappakoola: by Dr. L. J. Spencer (p. 353).
- 2. Some Malvernian hornblendes; their genetic relationships: by Prof. A. Brammall and Mr. J. G. C. Leech.
- 3. The effects of heat on the optical orientation of the plagioclase felspars: by Dr. C. T. Barber (communicated by Prof. C. E. Tilley) (p. 343).
- 4. X-ray studies on psilomelane, pyrolusite, and hollandite: by Mr. George Vaux.
- 5. Biographical notices of mineralogists recently deceased. (Sixth series): by Dr. L. J. Spencer (p. 277).

### EXCERPT MINUTES OF COUNCIL MEETING.

Held in the Apartments of the Geological Society, Burlington House, London, W., June 25, 1936, at 4.0 p.m.

Sir Thomas H. Holland, F.R.S., President, in the Chair.

Prof. Vincent Charles Illing was provisionally elected and Dr. Bernard Howard Knight (resigned 1934) provisionally re-elected Ordinary Members of the Society.

The resignation of Prof. A.C. Lane was accepted, and the death on May 5, 1936, of Mr. A.G. F. Gregory was reported.

The Treasurer, in the absence of the General Secretary, reported on the Society's Library. A list of twelve periodicals to be retained by the Society was approved. A request for reprints was received from the Mineral Department of the British Museum (Natural History).

The following dates for meetings in 1937 were decided upon: Thursdays, January 28, March 18, June 24, and November 4.

The list of Officers and Council for 1936-37 was considered. Those due to retire were Sir Thomas Holland (President), Sir William Bragg (Vice-President), and Mr. T. Crook, Dr. W. F. P. McLintock, Mr. L. R. Wager, and Dr. A. K. Wells. The following were proposed for submission to the Members: as President, Dr. L. J. Spencer; as Vice-President, Mr. T. Crook; as Members of Council, Dr. A. F. Hallimond and Prof. C. E. Tilley (previous members) and Mr. B. W. Anderson and Mr. M. H. Hey (new members). It was agreed that Dr. Spencer should continue as editor during the coming session.

## GENERAL MEETING.

Held in the Apartments of the Geological Society, Burlington House, London, W., June 25, 1936, at 5.30 p.m.

Dr. A. E. H. Tutton, F.R.S., Past-President, in the Chair.

Twenty-three Members and one Visitor were present.

The elections of Prof. V. C. Illing and Dr. B. H. Knight as Ordinary Members of the Society were confirmed.

Mr. M. H. Hey exhibited and explained a new model of the structure of edingtonite which accounted for the diffusion of water.

The following papers were then read and discussed:-

- 1. The paragenesis of kyanite-eclogites: by Prof. C. E. Tilley (p. 422).
- 2. The Tenham (Queensland) meteoritic shower of 1879 (or 1869?): by Dr. L. J. Spencer (p. 437).
- 3. Some unusual twin-laws observed in potash-felspars from Goodsprings, Nevada, U.S.A.: by Dr. J. L. E. Drugman.

#### EXCERPT MINUTES OF COUNCIL MEETING.

Held in the Apartments of the Geological Society, Burlington House, London, W., November 5, 1936, at 4 p.m.

Sir Thomas H. Holland, F.R.S., President, in the Chair.

The following were provisionally elected Ordinary Members of the Society: Ernest Henry Davison, William Alexander Deer, Colin Osborne Hutton, William Charles Simmons, and Robert Christopher Vance.

The deaths of Prof. Frédéric Wallerant, Honorary Member, on July 11, 1936, and of Dr. Bernard Smith on August 19, 1936, were reported. The resignation of Mr. G. L. English was accepted.

Mr. T. Crook and Mr. F. A. Bannister were appointed auditors for the accounts.

The draft Annual Report was read and approved.

A letter was received from the Royal Society containing proposals for the adoption of uniform bibliographical references and abbreviations. A sub-committee was appointed, consisting of the Editor, the General Secretary, Dr. McLintock, and Mr. Crook, to consider the proposals.

The Library sub-committee reported and recommended the presentation to the Geological Society of the books, separates, runs and odd copies of periodicals asked for with only three exceptions. They also recommended the presentation of 506 separates selected by the Mineral Department of the British Museum; and reported that H.M. Geological Survey did not wish to make any purchases. A draft notice to Members advertising the books and periodicals for sale was approved.

## GENERAL (ANNIVERSARY) MEETING.

Held in the Apartments of the Geological Society, Burlington House, London, W., November 5, 1936, at 5.30 p.m.

Sir Thomas H. Holland, F.R.S., President, in the Chair.

Forty-five Members and eleven Visitors were present.

Drs. A. G. MacGregor and G. F. Claringbull were appointed as scrutineers of the voting-papers for the election of Officers and Council.

The elections of Messrs. E. H. Davison, W. A. Deer, C. O. Hutton, W. C. Simmons, and R. C. Vance as Ordinary Members were confirmed.

The General Secretary then read the following:-

ANNUAL REPORT OF COUNCIL FOR 1935-1936.

During the session 1935 to 1936 there have been four ordinary meetings, at which nine exhibits have been shown and sixteen papers read. The total attendance at the four meetings was 181, including 36 visitors.

The Council regrets to record the deaths of one honorary member, Dr. Frédéric Wallerant, and three ordinary members, Dr. George Thurland Prior, a past-President of the Society, Mr. A. G. F. Gregory, and Dr. Bernard Smith. One ordinary member has resigned, and thirteen members have been elected, bringing the total membership on October 31, 1936, to 243, including 7 honorary members, as against 236 in the previous year.

During the year there have been issued four numbers of the Magazine (nos. 151-154), containing 18 papers occupying 186 pages, 53 text-figures, and 5 plates; also 14 pages of proceedings. Mineralogical Abstracts published with these numbers occupied 192 pages containing 619 abstracts.

The accounts for the year ending December 31, 1935, showed an excess of assets over liabilities of £1250 13s. 5d. against £1247 10s. 4d. on December 31, 1934. These assets do not include the Library and unsold stock of publications, nor the Securities allocated to the Composition Fees Account. The value of the securities standing in the names of the Trustees on December 31, 1935, was: General Reserve £996 11s. 7d., Composition Fees Account £1055 17s. 0d., against £990 0s. 8d. and £1081 12s. 7d. respectively on December 31, 1934.

The Society's Library has received during the year 126 parts of periodicals and 4 separate copies of papers. 68 parts or volumes have been borrowed.

The Library Sub-Committee appointed by the Council in March, consisting of the Editor, the Treasurer, the Librarian, and the General Secretary, to consider the future of the Society's Library, held a meeting on October 22 and issued the following report:

'The Council has decided to dispose of the Society's Library as and when opportunity offers, retaining only sets of certain important mineralogical periodicals. The Geological Society was invited to select such books and parts

of periodicals as were required for its Library. Nineteen books and parts of sixteen periodicals were selected and have been presented. 506 separates have been presented to the Mineral Department of the British Museum (Natural History). The Council has decided that the remainder of the Library shall be offered for sale in the first place to members.'

Dr. H. von Eckermann acted as the Society's delegate at the Jubilee Celebrations of the Geological Society of Finland on October 22, and conveyed the congratulations of our Society.

The adoption of the Report having been proposed from the Chair. was carried unanimously.

A vote of thanks to the Geological Society for allowing the use of its rooms was proposed by Major J. G. C. Leech and seconded by Mr. M. H. Hey and carried unanimously.

The scrutineers reported that 51 voting-papers for the Officers and Council for the ensuing year had been received and that the list nominated by the Council had been approved. The President declared these Officers and Ordinary Members of Council elected: -

President. Dr. L. J. Spencer, C.B.E., M.A., Sc.D., F.R.S. Vice-Presidents. Prof. P. G. H. Boswell, O.B.E., D.Sc., A.R.C.S., F.R.S.

Mr. T. Crook, A.R.C.Sc.I., F.G.S.

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

General Secretary. W. Campbell Smith, M.C., T.D., M.A., F.G.S. Foreign Secretary. Prof. A. Hutchinson, O.B.E., M.A., Ph.D., F.R.S. Editor of the Journal. Dr. L. J. Spencer, C.B.E., M.A., Sc.D., F.R.S.

## Ordinary Members of Council.

Prof. A. Brammall, Ph.D., D.Sc., | Dr. Gilbert Wilson, Ph.D., M.Sc., F.G.S.

C. W. Mathews, F.G.S.

Dr. T. C. Phemister, Sc.M., Ph.D.

Broughton Edge, M.B.E., A.R.S.M., F.G.S.

Prof. H. H. Read, D.Sc., F.G.S. Arthur Russell, M.B.E.

R. C. Spiller, M.A.

F.G.S.

Dr. A. F. Hallimond, M.A., Sc.D., F.G.S.

Prof. C. E. Tilley, B.Sc., Ph.D., F.G.S.

B. W. Anderson, B.Sc., F.C.S.

M. H. Hey, M.A., B.Sc., F.C.S.

The retiring President (Sir Thomas Holland) thanked Members for their good attendance, and welcomed Dr. L. J. Spencer to the chair.

## MINERALOGICAL

## ABSTRACT OF RECEIPTS AND PAYMENTS

	G	ENE	RAL	PU	R-
Receipts. £	8.	d.	£	8.	d.
By Balances brought forward from 1935— 1. At Bankers:					
	9 0				
2. In Office	) 1	0	212	10	6
Entrance Fees	•	•	13	13	0
Annual Subscriptions—	1 10	^			
	16 58	-			
	14	_	200	18	0
Sale of Publications—					·
2. By Custodian of Stock, 1936. £48 0s. 6d., less distribution charges £17s. 8d., and cost	3 1 3 0	2	256	2	0
£3 18s. 5d			15	13	11
Interest on Investments as received—  1. £640 3½% War Loan 1952 and after, Inscribed Stock.  2. £105 4% Consolidated Loan 1957, Inscribed		-			
3. £100 4% Funding Loan 1960-90, Inscribed	1 4 1 0	-			
4. £140 Metropolitan Water Board 3% 'B'	1 17	•			
		<del></del>	32	-	11
Income Tax recovered	•	:	0 1 0	16	5 2 0
Transfers from other accounts—					
From Composition Fees Account, being Interest on Investments			34	19	8
			£768	7	7

## SOCIETY

# FOR THE YEAR ENDING DECEMBER 31, 1936

## POSES ACCOUNT

PAYMENTS.					£	8.	d.	£	8.	d.
To Printing and distributing the Magazine Nos. 152-155 inc University Press)—	e M clusi	linera ive (	logica Oxfor	d d						
1. Printing					284		6			
2. Illustrations.		•	•			18	0			
3. Authors' Separate Copies 4. Distribution Charges	•	•	•	•		15 10				
1. Distribution Charges .	•	•	•	•	10	10		363	8	0
Printing and distributing Notices other annual miscellaneous pr				d				16	4	0
Miscellaneous Printing, &c. (not a	nnu	• I)								
1. Treasurer's Notices .	11114	w1)			9	11	в			
2. Secretary's Notices		:	•	:		17	6			
·	•	•	•	•				3	9	0
Expenses at Meetings—										
						2	0			
2. Porter		•	•	•	1 4		0			
3. 168	•	•	•	•	4		6	7	5	6
Care of Stock of Publications, J. I	Mug	ford,	Annu	al Fe	9			ì	ì	ŏ
Editor's Honorarium	. `		•				•	50	0	0
Librarian's Honorarium .		•	•	•	•	•	•	5	0	0
Postage-										
1. Hon. Secretary					o	18	6			
2. Editor	:					.3				
3. Librarian					_	0				
4. Hon. Treasurer (not charged	)	•	•	•	0	0	0			10
Bank charges, Cheque Book, and	othe	r sma	ll ite	ms .		•	-	_	2 12	
Investments—										
Purchase of £89 12s. 0d. Metroj	polit	an W	ater			%'	В,			
Stock, Inscribed		•	•	•		•	•	88	18	11
Balance, December 31, 1936—  1. At Bankers:										
(a) Current Account .	_	_		_	34	16	7			
(b) Deposit Account .		:		:	195					
2. In Office					0	8	11			
	-							230	5	6
								£768	7	7
Examined and compared with Vo	uche	ers an	d fou	nd co	rrec	t.		===		
•		F. A	. BA	NNIS'	TER	;	} A	uditor	s.	
January 14, 1937.							n. T	reasu	rer.	

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								EM	BER		
LIABILITIES.						8.	d.	£	8.	d.	
To Annual Subscriptions received	l in ad	vanc	e								
1. Received in 1936 for 1937	. `				9	13	0				
2. Received in 1936 for 1938	•	•	•	•	1	1	0	10	14	0	

Excess of Assets over Liabilities				1363 18	4
				£1374 12	4
					==

## COMPOSITION FEES ACCOUNT

RECEIPT	S.					£	8.	d.	£	8.	d.
By Composition Fees received Composition Fee received d				coun	t .	1149 15	15 15	0			
Income-								_	1165	10	0
Hicome											
1. Interest on Investments	88 T	eceiv	ed-								
1. £975 31 % War Loai	. 10	150	nd	Hom	Tn.						
scribed Stock .				·		34	2	6			
2. £10 4s. 8d. 3% Conv	rersi	on L	oan l	1948-	53,						
Inscribed Stock .						0	6	0			
3. £26 14s. 0d. Metropol	itan	Wat	er Bo	ard 3	0/2						
'B' Stock, Inscribed		. ,,			,	. 0	10	0			
2. Income Tax recovered		_			_	0	1	2			
	•	•	•	•					34	19	8
									£1200	9	8
									===	==	

## SHEET

3	ı.	1936.
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31, 1936.						
Assets.	£	8.	d.	£	8.	d.
By Balances—						
1. At Bankers:						
(a) Current Account	34 195	16 0				
2. In Office	0	8	11	230	5	6
Sundry Debtors				200	Ü	U
Publishers (Oxford University Press):						
(a) For sales of Publications, April 1-Dec. 31,	74	4	0			
(b) For advertisement Fees, April 1-Dec. 31, 1936	13	3	6			
I				87	7	6
Investments at Broker's Valuation—						
1. £640 3½ % War Loan 1952 and after, Inscribed Stock, at 105½ %	675	4	0			
2. £105 4 % Consolidated Loan 1957, Inscribed Stock, at 1127 %	118	16	4			
3. £100 4% Funding Loan 1960-90, Inscribed Stock, at 1161%.	116					
4. £140 Metropolitan Water Board 3 % 'B'		·	•			
Stock, Inscribed, at 99 %	138	12	0	1048	11	4
Annual Subscriptions in arrear (£9 9s. 0d.) esti-						
mated to realize	٠	•		. 6	6 2	
Entrance rees in arrear	•	•		£1374		4
				21074		=
Note.—The value of the Library, that of the unso and the Securities allocated to the Composition Fees in the above assets.						
January 14, 1937. F. N. ASHC	ROFI	ľ, E	lon.	Treas	ırer	·.
YEAR ENDING DECEMBER 31, 1936						
PAYMENTS.	£	8.	d.	£	8.	d.

PAYMENTS.	£	8.	d.	£	в.	d.
To Investments as per last Account—						
1. £975 3½ % War Loan 1952 and after, Inscribed Stock, valued by Brokers at £1028 12s. 6d.						
$(105\frac{1}{2}\%)$ , at cost	1128	15	0			
2. £10 4s. 8d. 3 % Conversion Loan 1948-53, Inscribed Stock, valued by Brokers at £10 11s. 6d.						
(103} %), at cost	10	10	0			
3. £26 14s. 0d. Metropolitan Water Board 3% 'B' Stock, Inscribed, valued by Brokers at						
£26 8s. 8d. (99 %), at cost	26	· 5	0			
				1165	10	0
Income transferred to General Purposes Account	•	•	•	34	19	8

£1200 9 8

Examined and compared with Vouchers and found correct.

F. A. BANNISTER GILBERT WILSON Auditors.

January 14, 1937.

F. N. ASHCROFT, Hon. Treasurer.

A vote of thanks to the retiring President, Vice-President (Sir William Bragg), and Ordinary Members of Council (Dr. W. F. P. McLintock, Mr. L. R. Wager, and Dr. A. K. Wells) was proposed by Prof. W. G. Fearnsides and seconded and was carried unanimously.

Prof. C. E. Tilley exhibited pyroxmangite- and rhodonite-bearing schists from the Lewisian of Glenelg; Dr. A. T. J. Dollar an integrating stage for micrometric analysis; and Mr. Arthur Russell specimens of kyanite, zoisite, and garnet from Scotland.

The following papers were then read and discussed:—

- 1. Demonstrations in petrogenesis from Kiloran Bay, Colonsay. I. The transfusion of quartzite: by Miss D. L. Reynolds (with analyses by Agnes Gibbs and others) (p. 367).
- 2. Transfusion of quartz xenoliths in alkali basic and ultrabasic lavas, south-west Uganda: by Prof. Arthur Holmes (p. 408).
- 3. An occurrence of greenalite-chert in the Ordovician rocks of the southern uplands of Scotland: by Dr. W. Q. Kennedy (p. 433).
- 4. The composition and paragenesis of the biotites of the Carsphairn igneous complex: by Mr. W. A. Deer (communicated by Prof. C. E. Tilley) (p. 495).