# PROCEEDINGS OF THE MINERALOGICAL SOCIETY (1948)

### EXCERPT MINUTES OF COUNCIL MEETING

Held in the Apartments of the Geological Society, Burlington House, London, W., January 22, 1948, at 3.15 p.m.

Dr. W. CAMPBELL SMITH, President, in the Chair.

THE following were provisionally elected Ordinary Members of the Society: John Graham Comrie Anderson, John Angove, William Anderson Archibald, Norman Owen Clark, Norman Mederson Comber, Duncan Leitch, Ronald Keith Mitchell, William Anderson Mitchell, Joseph Patrick Roberts, Arthur William Scoble, Arnold Nigel Smith.

The deaths of Lord Rayleigh and Dr. W. R. Schoeller were announced. The names of R. B. Fisher and G. M. Yatsevitch were removed from the List of Members.

Reports were received from the Treasurer and the Editor. The Treasurer presented the audited accounts for 1947, which were approved.

Proposals for the modification of Bye-laws 5, 16, 17, and 18 were considered.

Dr. F. A. Bannister was appointed to represent the Society on the National Committee of the International Union of Crystallography.

The desirability of holding a Special Meeting of the Society during the International Geological Congress was discussed.

### SPECIAL GENERAL MEETING

Held in the Apartments of the Geological Society, Burlington House, London, W., January 22, 1948, at 5 p.m.

Dr. W. CAMPBELL SMITH, President, in the Chair.

The following alteration to the existing Bye-law 3 was approved:

Bye-law 3. Every candidate for Ordinary Membership shall be proposed by two Members, one, at least, of whom shall have personal knowledge of the candidate.

### Ixvi PROCEEDINGS OF THE MINERALOGICAL SOCIETY

The President indicated that the Council had considered the new Bye-law 5 at its meeting earlier in the afternoon and had thought it necessary to propose the following additional words so as to preclude the possibility of a member compounding when in arrears with his annual subscription. He therefore moved from the Chair the following amendment. That the words 'provided always that no member shall be entitled to compound who is in arrear with his annual subscription for the preceding calendar year' be added at the end of the proposed new Byelaw 5, as already circulated to members. The amendment was carried *nem. con.* and the following Bye-law was approved:

Bye-law 5. Ordinary Members shall pay an entrance fee of one guinea and an annual subscription of one guinea. They shall be entitled to compound for the annual subscription by a single payment of £30, but members who have paid their annual subscriptions for fifteen years shall be entitled to compound for £20 and those who have paid such subscriptions for twenty-five years shall be entitled to compound for £10, provided always that no member shall be entitled to compound who is in arrear with his annual subscription for the preceding calendar year.

### GENERAL MEETING

Held in the Apartments of the Geological Society, Burlington House, London, W., January 22, 1948, at 5.15 p.m.

Dr. W. CAMPBELL SMITH, President, in the Chair.

Fifty-two Members and nine Visitors were present.

The elections of eleven Ordinary Members of the Society provisionally made by the Council were confirmed.

The following exhibits were shown:

1. Colour changes in gemstones irradiated by X-rays: by Mr. R. Webster.

2. Silica-glass evaporating dish coloured by radioactive salts: by Mr. P. A. Sabine.

The following papers were read and discussed:

1. A note on the thermal decomposition of chrysotile: by Dr. M. H. Hey and Dr. F. A. Bannister (vol. 28, p. 333).

2. Dickite and collophane in the Magnesian Limestone of Durham: by Dr. K. C. Dunham, Dr. G. F. Claringbull, and Dr. F. A. Bannister (vol. 28, p. 338).

3. Sillenite from South Africa: by Dr. F. A. Bannister.

4. A simple dichroscope: by Dr. A. T. J. Dollar.

#### CLAY MINERALS GROUP

Held in the Apartments of the Geological Society, Burlington House, London, W., January 23, 1948, 9.55 a.m. and 2 p.m.

Dr. G. W. BRINDLEY in the Chair.

About seventy Members and Visitors were present. The meeting was devoted mainly to a discussion of 'Clay minerals as catalysts', followed, in the afternoon session, by general papers relating to industrial adsorption. The second Annual General Meeting on business matters of the Group was held at 5 p.m.

The following papers were read and discussed (abstracts in Clay Minerals Bulletin, no. 2, August 1948):

- 1. Clay minerals as catalysts: general introduction: by R. H. S. Robertson.
- 2. The use of activated clays as catalysts in polymerization processes: by F. E. Salt.
- 3. The use of montmorillonite catalysts in the cracking of petroleum fractions: by J. N. Haresnape.
- 4. The use of clays for fluid catalytic cracking (with film and demonstration): by T. H. Blakely.
- 5. The adsorption of dyestuffs by montmorillonites: by Miss B. S. Emödi.
- 6. The use of clays as bleaching agents, with a note on catalytic usage: by A. Ibison.
- 7. Separation of long-chain and compact molecules by adsorption on attapulgitecontaining clays: by J. Nederbragt.
- 8. Vapour-pressure/capillarity/temperature relationships in clays: by B. Vassiliou and J. White.
- 9. Some notes on free energy relations in clay complexes: by D. M. C. MacEwan.

### EXCERPT MINUTES OF COUNCIL MEETING

Held in the Apartments of the Geological Society, Burlington House, London, W., April 1, 1948, at 3.15 p.m.

#### Dr. W. CAMPBELL SMITH, President, in the Chair.

The following were provisionally elected Ordinary Members of the Society: Frederick William Bird, John Frederick Thomas Blott, George Charles Harry Clark, David Vanner Crawford, Rex William Grinishaw, John Raymund Foggan Joyce, Robert Joseph King, Edgar Wyndham Powell, William Rawlinson, Henry Martin Richardson, Robert Kenworthy Schofield, and Helen Towers.

Reports were received from the Treasurer and the Editor.

On behalf of the Clay Minerals Group Dr. D. M. C. MacEwan inquired whether the Council would be prepared to support an appeal to industry for a grant in support of the proposed monograph on clay mineral data. It was agreed that in the first place an application should be made to

#### lxviii proceedings of the mineralogical society

the Royal Society for a grant from the Parliamentary Grant-in-aid for Scientific Publications.

A report was received from the Committee on the Composition and method of election of the Council, and the proposed new Bye-laws relating to this were further discussed. After approval of the proposed new Bye-laws, it was agreed to submit them to the Society at a Special General Meeting to be held on June 24.

### GENERAL MEETING

### Held in the Apartments of the Geological Society, Burlington House, London, W., April 1, 1948, at 5 p.m.

Dr. W. CAMPBELL SMITH, President, in the Chair.

Thirty-two Members and twelve Visitors were present.

The elections of twelve Ordinary Members of the Society provisionally made by the Council were confirmed.

The following exhibits were shown:

1. Changes in the optical orientation of ganophyllite on dehydration: by Dr. W. Campbell Smith (vol. 28, p. 348).

2. Structure model of  $\alpha$ -quartz: by F. B. Johnson on behalf of Signals Research and Development Establishment (Ministry of Supply), Christchurch, Hants, demonstrated by Miss D. B. Fletcher.

3. Anorthoclase crystals from Mount Kenya: by Prof. F. E. Zeuner. The following papers were read and discussed:

1. The identification of minerals in boiler deposits. Examples of hydrothermal synthesis in boilers: by Dr. L. M. Clark (communicated by Dr. F. A. Bannister) (vol. 28, p. 359).

2. Davidite from Tete, Portuguese East Africa : by Dr. F. A. Bannister.

3. A simple method of determining the refractive indices of the felspars: by Miss O. Robins (communicated and read by Dr. A. K. Wells) (vol. 28, p. 367).

4. Catalogue of topographical mineralogies and regional bibliographies: by Dr. L. J. Spencer (vol. 28, p. 303).

### EXCERPT MINUTES OF COUNCIL MEETING

Held in the Apartments of the Geological Society, Burlington House, London, W., June 24, 1948, at 3.15 p.m.

Dr. W. CAMPBELL SMITH, President, in the Chair.

The following were provisionally elected Ordinary Members of the

Society: Stanley Hay Umphray Bowie, Ralph Jerome Holmes, Andrew Leigh Johnson, Walter David Keller, Stoyan Pavlović, Benjamin Martin Shaub, and Helmut Gustav Franz Winkler.

The deaths of Professor A. Lacroix, Honorary Member since 1900 and previously an Ordinary Member from 1885, and H. P. Whitlock were reported.

Reports were received from the Treasurer and the Editor.

The list of Officers and Council for 1948-49 was considered. The following were due to retire: President, Dr. W. Campbell Smith; Ordinary Members of Council, Dr. M. H. Hey, Dr. J. H. Taylor, Dr. A. E. J. Vickers, and Prof. L. R. Wager. The President proposed as his successor Prof. C. E. Tilley and this was unanimously approved. The following were proposed as Ordinary Members of Council: Dr. S. O. Agrell, Mr. H. G. Dines, Mr. G. S. Gowing, and Dr. S. I. Tomkeieff.

The Secretary stated that he had in hand five papers not yet read and that several others had been promised. It was desirable to hold an additional meeting for the reading of some of these papers, and it was agreed to hold such a meeting on October 7 and to postpone the Anniversary Meeting to November 25.

The following dates of meeting in 1949 were provisionally agreed: Thursdays, January 27, March 31, June 23, and November 3.

### SPECIAL GENERAL MEETING

### Held in the Apartments of the Geological Society, Burlington House, London, W., June 24, 1948, at 5 p.m.

The following alterations of the Bye-laws relating to the composition and method of election of the Council were unanimously approved:

11. The Society shall be governed by a Council consisting of a President, two Vice-Presidents, a General Secretary, a Foreign Secretary, a Treasurer, an Editor of the Journal, and twelve Ordinary Members, who shall be elected annually, together with the preceding President,\* who shall be entitled to remain on the Council for three years from the date of his retirement from the Chair, and ex officio the Managing Trustees of the Society.

\*Presidents who were elected previous to the date of the passing of this Bye-law may remain Life Members of the Council as provided in the original Bye-laws revised in 1931 and 1940.

14. The Officers, Vice-Presidents, Foreign Secretary, and Ordinary Members of Council shall be elected annually at the Anniversary Meeting, which shall be held in November each year or as near thereto as may be convenient.

15. Four Ordinary Members of Council shall retire annually at the Anniversary Meeting, and shall not be eligible for re-election as such until the next Anniversary Meeting.

#### lxx proceedings of the mineralogical society

16. At or before the end of June in each year the Council shall prepare a list of Members nominated by the Council as Officers, Vice-Presidents, Foreign Secretary, and as Ordinary Members of Council for the next ensuing year.

17. The list of Members nominated by the Council in accordance with the preceding Bye-law shall be sent by the General Secretary to every Member of the Society at his last known address not later than the next ensuing July 20.

18. Additional nominations may be made by Members of the Society, not being Members of the Council, subject to the following conditions:

- (a) All such nominations must be received by the General Secretary not later than the next ensuing September 1, and no nomination received after that date shall be valid.
- (b) Every Candidate, whether proposed as an Officer, Vice-President, Foreign Secretary, or Ordinary Member of Council, must be proposed by not less than eight Members of the Society, not being Members of the Council, who must all sign the Candidate's Nomination Form, which must be accompanied by a statement signed by the Candidate that he accepts nomination.
- (c) No Member of the Society may propose more than four Candidates.
- (d) No Candidate may be nominated for more than one position on the Council.
- (e) No Member of the Society whose name has been entered on the list of Candidates nominated by the Council for Ordinary Membership of Council may accept nomination under this Bye-law for any other position on the Council.

19. If through death or for any other reason a vacancy should be created on the list circulated by the Council, the Council shall have power to fill the vacancy thus created, and shall notify the Members of the Society of this change as soon as possible, in any case not later than on the notice convening the Anniversary Meeting.

20. If no more than nineteen Candidates are nominated and the nominations be in accordance with the provisions of these Bye-laws, the Candidates shall be declared duly elected at the next ensuing Anniversary Meeting.

21. If more Candidates are nominated for any of the positions on the Council set out in Bye-law 11 than there are places to be filled, then an election by Ballot shall be held.

22. In the event of an election by Ballot being required, the General Secretary shall issue to every Member of the Society at his last known address not later than the next ensuing September 30 a voting-paper containing the names of all Candidates duly nominated in accordance with the provisions of these Bye-laws, which list shall show the Office or other position on the Council for which each Candidate has been nominated.

23. No vote may be cast for any Candidate whose name is not entered on the voting list and no member may vote for more than nineteen Candidates in all.

24. Every Member voting shall place his voting-paper when duly completed in an envelope, which shall be closed and placed in another envelope for return to the scrutineers of the Ballot. The outer envelope must also be closed, must be inscribed 'Voting-Paper', and must bear the name of the Member voting, but no indication of the Voter's identity may appear on the voting-paper or on the inner envelope. Members voting may return their voting-papers enclosed in the manner prescribed to the General Secretary beforehand by post or other means or may deliver them to him at the commencement of the Anniversary Meeting.

#### PROCEEDINGS OF THE MINERALOGICAL SOCIETY

lxxi

25. As soon as may be convenient after the opening of the Anniversary Meeting the Chairman of the Meeting shall appoint from amongst the Members present two Members, not being Members of the Council or Candidates for election to the Council, to act as Scrutineers of the Ballot, to whom the outer envelopes containing the voting-papers received by the General Secretary shall be forthwith delivered unopened and when this has been done the Ballot shall be declared closed.

26. Upon completion of their examination of the voting-papers the Scrutineers shall present to the Chairman of the Meeting a list showing the result of the Ballot, and if the list be in accordance with the provisions of these Bye-laws, the Chairman shall declare the new Council to have been duly elected and to be constituted in accordance with the provisions of these Bye-laws.

27. If, however, any difficulty should arise in constituting the new Council in conformity with the provision of these Bye-laws from the list returned by the Scrutineers owing to an equality of votes or otherwise, the decision of the Chairman, who shall have a casting vote, shall be final, provided always that in no case shall the Chairman declare elected more than fifteen Members who were Members of the retiring Council.

32. Any Member of the Society appointed a Managing Trustee shall be appointed in the first instance for a period of 5 years, and he shall be eligible thereafter for reappointment for such further periods of 5 years at any one time as the Council may determine.

#### GENERAL MEETING

### Held in the Apartments of the Geological Society, Burlington House, London, W., June 24, 1948, at 5.15 p.m.

Dr. W. CAMPBELL SMITH, President, in the Chair.

Thirty-nine Members and seven Visitors were present.

The elections of seven Ordinary Members of the Society provisionally made by the Council were confirmed.

The following exhibits were shown:

1. Illustrated descriptions of two early microscopes: by Dr. A. F. Hallimond,

2. Harkerite from Skye, a new boron mineral: by Prof. C. E. Tilley. The following papers were read and discussed:

1. The application of phase-contrast microscopy to mineralogy and petrology: by Dr. F. Smithson (vol. 28, p. 384).

2. The lattice parameters and interplanar spacings of some artificially prepared melilites: by Dr. K. W. Andrews (communicated by Dr. F. A. Bannister) (vol. 28, p. 374).

3. The densest and least dense packing of equal spheres: by Mr. S. Melmore (vol. 28, p. 479).

On the delimitation of diorite and gabbro and related rocks: by Mr.
 E. Ellis (communicated by Dr. W. Campbell Smith) (vol. 28, p. 447).

1. On the occurrence of anatase in sedimentary kaolin: by Dr. G. Nagelschmidt, Mr. H. F. Donnelly, and Mr. A. J. Morcom (vol. 28, p. 492).

2. A list of catalogues of meteorite collections: by Dr. L. J. Spencer (vol. 28, p. 471).

3. Clinozoisite from Camaderry Mountain, Co. Wicklow: by Mr. R. W. Johnston (communicated by Prof. C. E. Tilley) (vol. 28, p. 505).

4. An optical and X-ray examination of the basic slag mineral, silicocarnotite: by Dr. D. P. Riley and Mr. E. R. Segnit (vol. 28, p. 496).

5. Two olivines from South African melilite-basalts: by Dr. Morna Mathias (vol. 28, p. 486).

### EXCERPT MINUTES OF COUNCIL MEETING

### Held in the Apartments of the Geological Society, Burlington House, London, W., November 25, 1948, at 3.15 p.m.

Dr. W. CAMPBELL SMITH, President, in the Chair.

The following were provisionally elected Ordinary Members of the Society: Yehia Anwar, Frederick Charles Michell Bawden, William Robert Dearman, Mrs. Audrey Mary Brasnett Douglas, Robert Brian Elliott, Peter Godwin Embrey, Paolo Gallitelli, Jack Hartley, George Mueller, Martyn Edward Pease, Eric Harold Timothy Whitten.

The death of E. W. Tunbridge was reported. The resignation of W. F. Fleet was accepted.

Mr. T. Deans and Dr. David Williams were appointed auditors for 1949.

Reports were received from the Treasurer and the Editor. The Secretary reported that the number of copies of the Magazine held in stock for nos. 188–195 (vol. 27, 1945–46) was very low; and it was decided to proceed with the reprinting of no. 194, of which only three copies were left.

The draft Annual Report, that had already been circulated to members of Council, was amended and approved.

### GENERAL (ANNIVERSARY) MEETING

Held in the Apartments of the Geological Society, Burlington House, London, W., November 25, 1948, at 5 p.m.

Dr. W. CAMPBELL SMITH, President, in the Chair.

Forty-three Members and nine Visitors were present.

### lxxiv proceedings of the mineralogical society

The elections of eleven Ordinary Members of the Society provisionally made by the Council were confirmed.

The General Secretary read the following:

#### ANNUAL REPORT OF THE COUNCIL FOR 1947-48.

Membership.—The total membership on October 31, 1948, was 411 against 351 on October 31, 1947. Sixty-seven new members were elected during the year, but the election of one of these was subsequently declared void. The Society has lost by death its senior Honorary Member, Professor A. Lacroix, and four Ordinary Members. On October 31 the membership consisted of 6 Honorary Members and 405 Ordinary Members of whom 68 are Life Members. The increase in membership during the past twelve months is the greatest in the history of the Society.

Meetings.—The total attendance at the five meetings held during the session 1947/48 was 207 members and 45 guests, giving an average of 50 per meeting. At these meetings 24 papers have been read and 10 exhibits shown.

In connexion with the International Geological Congress and at the very kind invitation of Sir Arthur Russell the Society was able to invite its overseas members to Swallowfield Park, Reading, and give them the opportunity of seeing Sir Arthur's collection.

Clay Minerals Group.—Two meetings have been held in London during the year. The first of these, in January, occupied two sessions at which nine papers were read; the second, during the International Geological Congress, occupied three sessions and about fifteen papers were read. All the meetings were well attended. A second number of the Clay Minerals Bulletin has been issued during the year.

Bye-laws.—The Bye-laws concerning composition fees and the method of election of the Council have been revised.

Publications.—Four numbers (199–202) of the *Mineralogical Magazine* have been issued during the year, containing the Proceedings in 14 pages, 18 papers in 217 pages with 11 plates and 45 text-figures, and 725 abstracts in 204 pages.

In consequence of the increase in membership of the Society and subscribers to the Magazine, the present printing of 1000 copies per issue will be increased to 1050 with the December number.

Financial.—The accounts for the calendar year 1947 published in the March number of the Magazine show an excess of assets (exclusive of the stock of the Magazine and the Society's other effects) over liabilities of £3896. 6s. 1d. against £3417. 2s. 6d. at the close of 1946. The value of the securities standing in the name of the Custodian Trustee was on December 31, 1947: General Reserve £2839. 1s. 6d., Miers Memorial Fund £435. 0s. 0d.

The balances standing to the credit of the General Purposes Account at the close of 1947 amounted to £737. 9s. 0d. against £494. 18s. 2d. at the close of 1946, and that standing to the credit of the Miers Memorial Fund £30. 15s. 2d. against £15. 4s. 2d. The outstanding liabilities at the close of 1947 amounted to £283. 1s. 3d. against none at the close of 1946.

The receipts from Entrance Fees and Annual Subscriptions have been satisfactory. For the period January 1 to October 31 the marked increase which was shown in 1947 has been maintained for the corresponding period in 1948. The effect of raising substantially the charges for the Magazine which came into force on June 1, 1947, is seen in the receipts from the Society's publisher for sales of the *Mineralogical Magazine* during the year April 1, 1947, to March 31, 1948, which were £902. 15s. 0d. against £361. 5s. 10d. for the previous year. The net receipts from sales by the Custodian of the stock of the Magazine in 1947 totalled £109. 2s. 3d. against £39. 10s. 0d. in 1946. The gross receipts from this source from January 1 to October 31, 1948, were £3. 1s. 0d.

Although the present financial position of the Society is satisfactory, it will require careful watching in the immediate future. In 1947 the outgoings on the Magazine totalled  $\pounds$ 710. 13s. 3d. against  $\pounds$ 699. 18s. 1d. in 1946. The expenditure on the four numbers (nos. 196–199) due for issue in 1947 was  $\pounds$ 983. 17s. 6d. against  $\pounds$ 695. 18s. 1d. in respect of the previous four numbers. Three numbers have been issued since the beginning of the current year which have cost  $\pounds$ 693. 12s. 1d. inclusive of the cost of authors' separate copies, and it is estimated that the figure for the four numbers issued and to be issued in 1948 will be about  $\pounds$ 940.

The Society has received through the Royal Society a grant of £250 from the Parliamentary Grant-in-aid for Scientific Publications for the purpose of producing a monograph of X-ray and other data of clay minerals.

Composition Fees totalling £231. 0s. 0d. were received during 1947. Since January 1 further Composition Fees totalling £99. 5s. 0d. have been received. All have been invested except £9. 13s. 0d.

The balances at Bankers, in the Post Office Savings Bank, and in hand on October 31 were: General Purposes Account £1150. 18s. 6d., Miers Memorial Fund £34. 16s. 2d., Publication Grant from Royal Society £250. 0s. 0d. The bills for the March, June, and September numbers of the Magazine together with those for authors' separate copies have been paid. The outgoings for the remainder of the year are estimated at approximately £340 and the receipts at approximately £95. On this basis the cash available for future use (exclusive of that standing to the credit of the Miers Memorial Fund and the Royal Society Grant) at the close of the year should be about £905 against £737. 9s. 0d. brought in from 1947.

On the proposal of Dr. K. C. Dunham, seconded by Mr. P. M. Game, the adoption of the Annual Report of the Council was carried unanimously.

A vote of thanks to the Geological Society for the use of its apartments was proposed by Mr. P. A. Sabine and seconded by Mr. B. W. Anderson, and carried with acclamation.

The President read the following list of Officers and Council elected for the session 1948–49, and invited the new President to take the Chair. In doing so he thanked the Officers, Council, and Members for their support during his term of office which had been a memorable and happy one to him.

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

Vice-Presidents. Mr. C. E. N. Bromehead, B.A., F.G.S.; Mr. B. W. Anderson, B.Sc., F.C.S.

Treasurer. Dr. A. J. Bull, M.Sc., Ph.D., F.Inst.P., F.G.S.

General Secretary. Dr. G. F. Claringbull, B.Sc., Ph.D., F.G.S.

Foreign Secretary. Mr. F. N. Ashcroft, M.A., F.G.S., F.C.S.

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

[Continued on p. lxxx

## MINERALOGICAL

## ABSTRACT OF RECEIPTS AND PAYMENTS

	TTDO 1	Innor	<b>U</b> 1	1013		τN	1211	1				
								GE	NEI	RAL	PU	R-
		RECEIF	TS				£	8.	d.	£	8.	d.
By Balances brought in from 194	7	TOROPHI	10				-					
							ดะจ	19	4			
1. At Bankers on Current A		•	•	•	•	•	$\frac{252}{482}$					
2. In Post Office Savings Ba 3. In Office	nĸ.	•	·	•	·	•		18				
3. In Office	·	•	•	•	·	•		10		737	9	0
Entrance Fees		•	•	•	•	•				59		Ŏ
Annual Subscriptions-												
1. Current year							295	1	0			
2. Arrears							6	6	0			
3. Advance	•	•	•	•	•	•	30	9	0	0.07	• •	~
										331	16	0
Sale of Publications—												
1. By Publisher, April 1, 19	47–Mar	ch 31, 1	948.	Sales	s at su	b-						
scription rate £874. 0s.	0d. and	d other s	sales :	£400.	11s.0	d.						
less trade discount and		ssion $\pounds3$	52. Os	a. 4d.	and d	is-			-			
tribution charges £28.	9s. 1d.		;,	• • •		•	894	1	7			
2. By Custodian of Stock,	1948, £	95.48.0	d. les	s dist		on a						
$\cos ts \pm 2$ . 13s. 3d. and $\cos ts \pm 2$	ost or sec	cona-nar	ia cor	nes p	urcnas	eu	65	1	9			
$\pounds 27. 9s. 0d.$	•	•	•	•	·	·	00	-		959	3	4
Advertisement Fees £10. 14s.	1 Jose	oommiee	ion f	2 0.0	11d						13	5
Auvertisement rees 210, 148.	ea. less	commiss	1011 24	5. 08.	110.	•				Ŭ	10	0
Interest on Investments, inclu-	ding Ind	ome Te	<b>v</b> reec	were	d							
	~			100100			20	19	6			
1. $\pm 1685$ 3½% War Loan,	1952 ar	osz	•	•	·	•	4	4	Ő			
2. £105 4% Consolidated 3. £100 4% Funding Loar	1060 LUAN, 1	997 00	•	•	·	·	4	$\overline{0}$	ŏ			
4. $\pounds 146. 10s. 0d. 3\%$ War	I, 1900-	055 50	·	•	•	•	4	7	8	:		
4. $\pm 140$ . 103. 0 <i>a</i> . $5/_{0}$ war 5. $\pm 255$ 3% Defence Bond	Loan, I		·	•	•	·	_	13	ŏ			
6. £250 3% Savings Bond	a 1960.	-70	·	•	·	·		10	ŏ			
7. £100 3% Savings Bond	s, 1965	-75	•		•		-	10	ŏ			
8. $\pm 275$ 2 $\frac{1}{2}$ % Consolidated					÷	÷	$\tilde{4}$	7	i			
0. <i>22.0 22/8</i> comonactor	, obooti	•	•	•	•					92	11	3
Transfers from Miers Memoria	l Fund	•	•	•	•					30	0	0
Donations-												
	tower De	hlication	na Ca	ant)			250	0	0			
1. Royal Society (Parliamer 2. Other Donations	nary ru	ioncatio	ns Gr	amij	•	·		12	6			
2. Other Donations	•		•	•	•	·	JI	14	-	281	12	6
Clay Minerals Group, notices t	o non-n	nembers	•	•	•	·					$12^{12}$	ě
Small items			•	•	•					0	0	3
Interest on Post Office Saving	Bank	deposit			•					18	6	0
									£	2531	1	3
									=			_

## SOCIETY

### FOR THE YEAR ENDING DECEMBER 31, 1948

POSES ACCOUNT

		PAYME	INTS				£	8.	d.	£	8.	d.
To Printing and distributing the 203 (Oxford University	e <i>Mineral</i> y Press)—	ogical 1 -	Maga:	zine, I	Nos. 1	99–						
<ol> <li>Illustrations</li> <li>Authors' Separate Copie</li> </ol>	s (Nos. 19	98–202)	•			• • •		$\begin{array}{c} 0\\ 2\\ 19\end{array}$				
4. Distribution Charges	• •	•	·	٠	•	•	<b>24</b>	4	9	1100	-	
Reprinting of Mineralogical 1	Magazine	No. 192	2.	•		•				1192 76	$\frac{7}{12}$	4 6
Miscellaneous Printing, not a	nnual .	•	•	•		•				36	17	0
Printing and distributing No		feeting	s and	l othe	r ann	ual						
$\operatorname{printing}$	• •	•		٠	•	·				38	18	7
Expenses at Meetings-												
1. Operator of Lantern							3	3	0			
2. Porter 3. Tea	• •	•	·	•	•	•	$\frac{4}{3}$	$\frac{15}{9}$	$\frac{0}{5}$			
5. 1ea	• •	•	•	•	•	•		9		11	7	5
Editor's Honorarium .		•	•			•				50	0	0
Care of Stock of Publications	, J. Mugfe	$\mathbf{ord}$	•		•					1	1	0
Clay Minerals Group, Expens	es .	•			•	•				13	<b>5</b>	3
International Geological Cong	ress											
1. Fees of Delegates .	•••	•					4	0	0			
2. Excursion to Swallowfiel		٠	·	·	•	•	$\frac{25}{1}$	4 0	0			
3. Secretary's expenses	• •	•	·	·	•	•				30	4	0
Bank Charges, Exchange Los	ses, and o	other Sı	nall ]	[tems	•	•				1	19	8
Postage—												
1. Hon. Secretary .	• •	•	•		•			12	6			
2. Hon. Treasurer .	• •	·	•	·	·	·	6	0	0	14	12	6
Balances, December 31, 1948-	<u> </u>											Ŭ
1. At Bankers on Current		•	•		•		53		3			
2. In Post Office Savings B 3. In Office	ank .	•	·	•	·	٠		$\frac{3}{16}$				
5. In Onice	• •	•	·	•	·	•				1063	16	0

£2531 1 3

Examined and compared with Vouchers and found correct.

T. DEANS D. WILLIAMS $Auditors.$	A. J. BULL, Hon. Treasurer.
-------------------------------------	-----------------------------

January 21, 1949.

## MIERS MEMORIAL FUND, YEAR

Receipts							
By Balance brought in from 1947—							
At Bankers on Current Account	30	15	<b>2</b>				
Donation	<b>21</b>	0	0				
Interest on Investments, including Income Tax recovered	13	1	0				
	E64	16	2				

## COMPOSITION FEES (INVESTMENT) ACCOUNT,

Receipts						£	<i>s</i> .	d.	
By Balance brought in from 1947-									
At Bankers on Current Account							10	14	0
Composition Fees received during year	•	•	•				169	<b>5</b>	0
						-	179	19	0
Note:-The total sum received as Co	ompos	ition	Fees.	of wh	lich	-			_

£79. 13s. 0d. was then uninvested, was on December 31, 1948, £1796. 15s. 0d.

.

## BALANCE

										DEC	ЕМВ	ER
		LTARI	LITIES	l l			£	8	đ.	£	8	d.
To General Funds:—			DIIID				~	•••				
Annual Subscriptions received in	advar	nce										
Received in 1948 for 1949							<b>27</b>	6	0			
Received in 1948 for 1950							1	1	Ō			
Received in 1948 for 1951							1	ī	- Õ			
Received in 1948 for 1952							ī	1	Õ			
	•	•	•	•	•	•				30	9	0
											-	-
Sundry Creditors—												
Oxford University Press (Printers	3)											
1. For Authors' separate copie		n No.	203	of the	Min	era-						
logical Magazine estimate					•		12	0	0			
2. For Distribution Charges for								Ů	Ū			
Magazine estimated at							6	0	0			
<i>y</i>		-	-	•		•				18	0	0
											Ū	Ŷ
Special Funds:—												
Miers Memorial Fund										469	16	9
more removal rund	•	•	•	•	•	•				±00	10	2

4697	<b>2</b>	<b>5</b>
£5215	7	7

### ENDING DECEMBER 31, 1948

ENDING DECEMBER	51, 1948										
	$\mathbf{P}_{\mathbf{A}}$	AYMENTS							£	8.	d.
To Balance, December 31, 1 Provision of plates in Nor									30	0	0
<ul> <li>Provision of plates in Nos.</li> <li>At Bankers on Current Ac</li> </ul>		· ·	•	•	:	•		:	30 34	0 16	$\frac{0}{2}$
									£64	16	2
Framinad and compared with	th Vouchers an	d found o	annoat					=			_
Examined and compared wi		a iouna c	orrect	•							
January 21, 1949.	T. DEANS D. WILLIAN	as Aud	itors.	А.	J.	BUL	L, 1	Hon	. Trea	lsur	e <b>r</b> .
YEAR ENDING DECI	EMBER 31,	1948									
	$\mathbf{P}_{\mathbf{z}}$	AYMENTS							£	8.	d.
To Investments; purchase of	f £100 3% Savi	ings Bond	s						100	6	0
At Bankers on Current Acco	unt .	· ·	·	•	·	•		•	79	13	0
									179	19	0
	T. DEANS	MS }Aud	:		т	тл	<b>T</b> 1	= س	Tra		
January 21, 1949.	D. WILLIAN	MS $Aud$	nors.	А	. J.	DUL	نه وسله	er on	i. rea	asur	er.
SHEET											
31, 1948											
	A	SSETS				£	<i>s</i> .	d.	£	8.	d.
By General Funds:—											
Investments at Broker's V		on at 109	7.0/			1749	10	6			
1. £1685 3½% War Loa 2. £105 4% Consolidate	d Loan, 1957.	at 109 5 9	16 70	•	÷	1742 114		7			
2. £105 4% Consolidate 3. £100 4% Funding Lo	oan, 1960–90, a	t 1141%	•			114	5	Ó			
4. £146. 10s. 0d. 3% W	ar Loan, 1955–	59, at 105	518%	•	•	155	0	3			
5. £255 3% Defence Bo 6. £250 3% Savings Bo	nds 1960–70 s	.t. 103 5 %	•	•	٠	$\frac{255}{258}$	11	10			
7. £100 3% Savings Bo	nds, 1965–75, a	at $102\frac{7}{8}\%$	· ·	•	÷	102		6			
8. $\pm 275 \ 2\frac{1}{2}\%$ Consolidat	ed Stock at 80	% .	•		•	220	0	0	2000	0	0
Sundry Debtors—									2963	8	8
Oxford University Pres	s (Publishers)										
(a) For sales of publi					•	609		3			
(b) For Advertisemen	it Fees, April 1	-Decembe	er 31,	1948	·	14	4	6	623	10	9
Entrance Fees in Arrear	· .								4	4	Ő
Annual Subscriptions in A	rrear, estimate	ed to reali	ze						10	10	0
Balances											
1. At Bankers on Curre		• •	•		·	133		3'	k		
2. In Post Office Saving 2. In Office	~	• •	•	• .	٠	1001	- 3 - 16				
		• •	•	•	•		10		1143	9	0
Special Funds:—											
Miers Memorial Fund-											
Investments £435 3% Defence 1	Bonds at par					435	0	0			
Balance	, in the second	• •	•	•	•	100	0	v			
At Bankers on Current	Account .					34	16	2			
									469	16	<b>2</b>
* Including £79. 13s. 0 the credit of the	<i>t.</i> being uninve Composition Fe	sted balar	nce sta ment	anding	to nt			_			
vio create of the	composition re	~9 (10 vest	.ment	<i>j</i> <b>zacco</b> u				-	£5215	7	7
								-			_

Note:—The value of the periodicals retained after the disposal of the Library, that of the unsold stock of Publications, and that of the Society's other effects are not included in the above Assets.

January 27, 1949.

A. J. BULL, Hon. Treasurer.

Ordinary Members of Council.

Mr. T. Deans, M.A., F.G.S.	Prof. W. Q. Kennedy, D.Sc., Ph.D.,
Dr. W. A. Deer, M.Sc., Ph.D., F.G.S.	<b>F.G.S.</b>
Mrs. Kathleen Lonsdale, D.Sc., F.R.S.	Dr. S. O. Agrell, B.A., Ph.D., F.G.S.
Mr. R. C. Spiller, M.A.	Mr. H. G. Dines, A.R.S.M., F.G.S.,
Dr. G. W. Brindley, M.Sc., Ph.D.,	A.I.M.M.
F.Inst.P.	Mr. G. S. Gowing, M.A., F.G.S.
Dr. F. Dixey, O.B.E., D.Sc., F.G.S.	Dr. S. I. Tomkeieff, M.Sc., D.Sc., F.G.S.
Prof. L. Hawkes, D.Sc., F.G.S.	

Professor Tilley, on taking the Chair, thanked the Members for the honour done to him. A vote of thanks to the retiring President and Ordinary Members of Council was proposed by Sir Arthur Russell and seconded by Mr. A. F. Seager.

The following exhibits were shown:

1. Examples of the contact-film method of opaque mineral identification: by Mr. F. M. Nakhla and Dr. David Williams.

2. A faceted specimen of the new artificial (Linde) rutile showing a brilliant display of prismatic colours: by Mr. B. W. Anderson.

The following papers were read and discussed:

1. Baryte-bearing nodules from the Middle Lias of the east Midlands: by Dr. J. H. Taylor.

2. X-ray studies of halloysite and metahalloysite. Part I. The structure of metahalloysite, an example of a random layer lattice: by Dr. G. W. Brindley and Dr. K. Robinson (vol. 28, p. 393).

3. X-ray studies of halloysite and metahalloysite. Part II. The transition of halloysite to metahalloysite in relation to relative humidity: by Dr. G. W. Brindley and Dr. J. Goodyear (vol. 28, p. 407).

4. X-ray studies of halloysite and metahalloysite. Part III. Effect of temperature and pressure on the transition from halloysite to metahalloysite: by Dr. G. W. Brindley, Dr. K. Robinson, and Dr. J. Goodyear (vol. 28, p. 423).

The following paper was taken as read:

Crystallization of basaltic magma as recorded by variation of crystalsize in dikes: by Dr. H. G. F. Winkler.

lxxx