PROCEEDINGS OF THE FORTY-FIFTH ANNUAL MEET-ING OF THE MINERALOGICAL SOCIETY OF AMERICA AT MIAMI BEACH, FLORIDA

GEORGE SWITZER, Secretary.

The forty-fifth meeting of the Society was held on November 19–21, 1964 at the Deauville Hotel, Miami Beach, Florida. The scientific sessions were integrated with those of the Geological Society of America and other affiliated societies. A total of 37 scientific sessions were held. Of these one was devoted to crystallography, one to mineralogy, three to petrology, one to organic geochemistry, two to inorganic geochemistry, one to planets and meteorites, and one to geochronology and geochemistry. In these sessions a total of 120 papers was presented.

The annual luncheon of the Society on November 20 was attended by 175 members and guests. Following the luncheon the twenty-second presentation of the Roebling Medal was made to Clifford Frondel and the fourteenth presentation of the Mineralogical Society of America Award was made to William Sefton Fyfe.

On the afternoon of November 20 the Society was addressed by Retiring President Leonard G. Berry on the subject "Recent Advances in Sulfide Mineralogy." The annual business meeting was held on the morning of November 21, at which reports were given by the Secretary, Treasurer, and Editor of *The American Mineralogist*.

ACTION OF THE 1964 COUNCIL AT ITS NOVEMBER 18, 1964 MEETING

The second meeting of the 1964 Council was held on November 18, 1964. The principal actions taken by the Council are summarized below:

Awards. The Council voted that in 1965 the Roebling Medal be awarded to Adolf Pabst and the Mineralogical Society of America Award to Peter J. Wyllie.

Election of Fellows. It was voted that a committee be appointed to restudy the criteria for Fellowship in the Society, and the procedure for nominating candidates for Fellowship.

The American Mineralogist. The Council passed the following motions with regard to The American Mineralogist:

- That the Editor be asked to consider the possibility of the employment of a professional assistant editor to comb through manuscripts to improve their style and reduce their length.
- That the Editor be asked to refer papers of purely local interest to appropriate journals.
- That the Editor consider a stricter policy regarding accepting papers of purely chemical interest.
- 4) That the Council authorizes publication of up to 1800 pages in volume 50 of The American Mineralogist, and that the preceding motions were made to aid the Editor in attaining this target.

Announcement of Awards. It was voted that the Roebling Medalist and MSA Award recipient for each year shall be announced at the first business meeting following the Council meeting at which the award recipients are selected.

Change in By-Laws. A petition signed by the required number of Fellows was submitted suggesting a change in By-Laws covering the election of Fellows. Accordingly, the Council directed the Secretary to place on the 1965 ballot (to be voted on by Fellows only) the following change:

to By-Laws, Art. IV, Sect. 2a, add:

Nominations for Fellowship will be reviewed by a Fellowship nominating committee of five, one of whom is a member of the Council. It will become the duty of the Fellowship nominating committee to document its reasons for recommending that a nominee be deferred and this information will be available to the Council at the meeting at which the nominee is considered. Each nominee who has received a defer vote will be considered individually by the Council.

ACTION BY THE 1965 COUNCIL

The 1965 Council held its first meeting on November 21, 1964.

Editor of the American Mineralogist. The Council appointed E. Wm. Heinrich Editor for the year 1965.

Associate Editors of The American Mineralogist. The terms of Associate Editors Howard T. Evans, Jr. and Carleton A. Chapman expired at the end of 1964. The Council expressed its thanks to these gentlemen for their devoted service to the Society and voted to replace them for a three-year term beginning January 1, 1965 with Daniel E. Appleman and Stephen E. Clabaugh.

Index of The American Mineralogist. At the business meeting on November 21, 1964 D. J. Fisher suggested that a 50-year index to the American Mineralogist be prepared, including redoing the present index to volumes 1–20. This suggestion was considered by the Council, which then passed the following motion: that the index to volumes 1–20 not be redone, that the index to volumes 41–50 be prepared separately and be issued for sale both separately and bound with the preceding indexes.

Single Slate of Nominees for Councilor. Considerable dissatisfaction has been expressed by the membership over the present system of a dual slate of nominees for election of Councilors. This matter was discussed at length and then it was voted that the Council generate the mechanics for a vote by the Society membership that the nominating committee present to the Council a single slate of nominees for vacancies for officers and councilors of the Society.

Solicitation of Funds from Industry. The Board of Past Presidents suggested to the Council that it might be possible to raise money from industry if it was requested for a specific project. Accordingly, the Council voted to establish a committee to look into the matter of soliciting funds from industry to support its publication program.

Summer Meeting, 1966. It was voted that a Summer 1966 Meeting of the Society be held, subject to future developments.

Jubilee Celebration. The Executive Committee was asked to formulate plans for a jubilee celebration of the founding of the Society, to report to the Council in November 1965.

Interim Meeting, 1967. L. G. Berry tendered an invitation to the Society to hold an interim meeting at Queen's University, Kingston, Ontario, in May 1967 with the Mineralogical Association of Canada and the Geological Association of Canada. The Council voted to accept the invitation.

Committee Appointments. President Faust made the following committee appointments, which were approved by the Council.

1965 COMMITTEES OF THE MINERALOGICAL SOCIETY OF AMERICA

Nominating Committee for Fellows

E. J. Weiss 1963-1965

L. G. Berry, Chairman 1965-1967

C. Burri 1964-1966

M. E. Mrose 1963-1965

J. J. W. Rogers 1964-1966

L. B. Sand 1965-1967

Nominating Committee for Officers

R. M. Denning Chairman

M. L. Keith

S. C. Robinson,

H. S. Yoder

Ian Campbell

H. Winchell

Roebling Medal Committee

W. S. Fyfe, Chairman

J. W. Gruner

K. H. Wedepohl

S. O. Agrell

A. C. Waters

C. Frondel

MSA Award Committee

W. T. Pecora, Chairman

C. S. Hurlbut, Jr.

S. W. Bailey

L. H. Ahrens

G. Kullerud R. H. Jahns

Financial Advisory Committee

E. P. Henderson, Chairman 1965-1967

A. Montgomery 1965-1967

W. T. Pecora 1964-1966

Marjorie Hooker, ex officio

Program Committee

L. R. Page

Auditing Committee

Joan R. Clark, Chairman

P. E. Desautels

Chas. W. Burnham

Mineralogical Abstracts

This committee makeup is left to L. G.

Berry

Nomenclature Committee

G. T. Faust 1963-1965

A. Pabst 1963-1965

S. A. Forman 1964-1966

H. Winchell 1964-1966

Wilhelm Eitel 1965-1967

T. F. Bates, Chairman 1965-1967

Endowment Fund Committee

P. F. Kerr, Chairman

L. G. Berry

Marjorie Hooker

Archivist

George Phair

National Medal of Science

G. T. Faust, Chairman Ex-officio

J. R. Goldsmith

H. S. Yoder

E. F. Osborn

Representatives

American Geological Institute

Representative

Ian Campbell 1963-1965

Translations Committee

M. Fleischer

National Research Council

F. Chayes 1963-1966

J. J. Fahey (Advisory Board to Office of

Critical Tables)

International Mineralogical Association

Representative

D. J. Fisher

Members of Commissions

Abstracts-W. T. Holser

Data-G. T. Faust

New Minerals and Mineral Names-

A. A. Levinson

Museums—G. Switzer

Teaching-Henry E. Wenden

Ore Microscopy—E. N. Cameron

Cosmic Mineralogy-B. Mason

Nominations for Officers for 1965. The following slate was proposed by the Nominating Committee and approved by the Council:

President: Brian Mason Vice President: Felix Chayes Secretary: George Switzer

Treasurer: Marjorie Hooker

Councilors: (1966-1968, two to be elected)

E. N. Cameron A. J. Frueh, Jr. W. D. Keller W. S. MacKenzie

REPORT OF THE SECRETARY FOR 1964

To the Council of the Mineralogical Society of America

ELECTION OF OFFICERS AND FELLOWS

The ballots were counted on November 4, by a Tellers Committee composed of Hans H. Adler, David Gottfried, and the Secretary. Eight hundred and thirty-four ballots were cast in the election of officers and 211 in the election of fellows. The officers elected to serve in 1965 are:

President: George T. Faust Vice President: Brian Mason Secretary: George Switzer Treasurer: Marjorie Hooker Councilors: William S. Fyfe William T. Pecora

According to the provisions of the Constitution, the following have been elected to Fellowship:

Dirk de Waard
Donald O. Emerson
Robert M. Grogan
W. Barclay Kamb
J. H. Robert Kühn
Kurt E. Lowe
Haydn H. Murray

Joseph A. Pask Frank W. Stead Anantharama P. Subramaniam Robert E. Wallace

Henry E. Wenden Joe L. White Peter J. Wyllie

SUMMER MEETING

In July 1964 the Mineralogical Society of America held its first summer meeting, with the American Crystallographic Association, in Bozeman, Montana. There were two days of scientific sessions in which 41 papers were presented, and three days of field trips. The meeting was considered to be highly successful for a first attempt, and a second summer meeting, again with the American Crystallographic Association, has been scheduled for June 27-July 2, 1965 in Gatlinburg, Tennessee.

MEMBERSHIP STATISTICS

Membership in the Society in 1964 is shown in the following table. Figures for the preceding two years are given for comparison.

Novem	ber 1, 1964		
	1962	1963	1964
Honorary Fellows	4	4	3
Fellows	471	482	488
Members	1,593	1,670	1,776
			-
	2.068	2.156	2.267

During 1964 the Society lost through death nine fellows:

Isidor Fankuchen Henry J. Buttgenbach Joseph L. Gillson Paul D. Krynine Arthur A. Pegau Arie Poldervaart Sir Arthur Russell Chester B. Slawson Herman Yagoda

> Respectfully submitted, GEORGE SWITZER, Secretary

REPORT OF THE TREASURER FOR 1964

(Year ending July 31, 1964)

To the Council of the Mineralogical Society of America:

SUMMARY STATEMENT

Operating cash, August 1, 1963	\$ 6,052.20 70,466.60	76,518.80
Disbursements, August 1, 1963–July 31, 1964 Transfer to capital Operating cash, July 31, 1964	56,928.21 12,851.25 6,739.34	76,518.80
Assets, July 31, 1964 Capital: Endowment Fund (Securities at market value) includes Fifty-Plus Fund \$13,800.00 Museum Fund 100.00		222,717.00
Cash Contingency FundOperating cash.		28,919.65 6,739.34
		\$ 258,375.99
Receipts		

Dues		
Fellows	\$'3,148.00	
Members	11,745.58	
Student members	1,219.18	\$ 16,112.76
Publications		
American Mineralogist subscriptions	21,547.50	
Geological Society of American grant	1,600.00	
Publication charges	628,10	
Sales—Reprints	11,540.99	
Back issues	3,072.79	
Advance royalties	1,000.00	
Special Paper Number One	2,080.21	
Index, vols. 1–20.	75.10	
21–30	129.10	
31–40	252.35	

IN	IA Guidebooks	230.50	
IN	IA Symposia	223.80	
IN	IA World Directory	124.90	
M	ailing list	146.42	
Ad	lvertising	1,536.45	44,188.21
Investments	3		
Dividends		7,587.14	
		961.86	8,549.00
Income for			
	Committee	344.00	
Contribut	ions	172.46	
Life mem	berships	480.00	996.46
Miscellaneou			
IMA reim	bursement	102.15	
Legal tee	reimbursement	518.02	620.17
Total receip	ts		\$ 70,466.60
	DISBURSEMENTS		
Publications			
The Amer	ican Mineralogist (July 1963-June 1964)	\$ 37,558.46	
	May 1963–June 1964)	6,193.53	
Special Pa	per #1 (supplementary)	410.14	
	and Abstracts	330.09	
Ten-year	Index (1956–1965)	364.02	
Reprinting	g, National Capital Guidebook	150.00	
	es, storage	357.84	
	supplies	33.84	
	postage	300.00	
Mailing lis	st rental	51.88	
IMA Sym	posia payments	372.84	
IMA Worl	d Directory payments	137.90	
		518.02	
	on refunds	92.10	46,870.66
Office expens			
Editor:	Secretarial	891.30	
	Postage	167.26	
	Supplies	132.40	
	Telephone	105.85	
0	Travel	77.28	1,374.09
Secretary:	Secretarial	246.00	
	Printing	1,562.95	
	Supplies	2.27	
	Postage	406.60	
	Telephone	27.83	
TD.	Travel	28.20	2,273.85
Treasurer:	Secretarial	169.50	
	Printing.	886.18	
	Supplies	594.29	

Postage

483.29

1 Ostage				403 . 29		
Telephone				43.12		
Travel				28.20		
Annual meeting				63.45		
Miscellaneous				8.00		2,276.03
rs' Honoraria						
tor (July 1963–June 1964)				1,125.00		
etary (August 1963-July 1964)	- 1414	Administration		1,000.00		
asurer (August 1963–July 1964)				1,000.00		3,125.00
butions, awards, etc.						
rnational Mineralogical Association du	es,	1964		150.00		
erican Geological Institute, 1964				482.00		
				147.08		
A Award, 1963	100			168.00		947.08
llaneous (Check charges, etc.)				61.50		61.50
					\$	56,928.21
Endowme	NT.	Fund				
nt Security		Cost		Value ¹		Income ²
Bonds						
New York Central	\$	4,300.00	\$	4,375.00	\$	250.00
Southern Railway		5,743.75		5,294.00		250.00
	S	10,043.75	\$	9,669.00	\$	500.00
Preferred stocks						
Fairbanks Whitney		-				120.00^{3}
Jones and Laughlin, 5	\$	4,987.50	\$	6,300.00	\$	300.00
Potomac Electric Power, 2.44		2,000.00		2,060.00		97.60
Union Pacific, 4		4,570.25		4,750.00		200.00
United States Steel, 7		6,946.20		8,450.00		385.00
Virginia Electric Power, 5		5,942.50		5,413.00		250.00
	\$	24,446.45	\$	26,973.00	\$1	,352.60
Common stocks		,		,		
American Telephone and Telegraph	\$	13,830.58	\$	39,606.00	\$1	1,009.604
				1,950.00		90.00
Buckeye Steel Castings		3,800.00		3,775.00		105.00
Chase Manhattan Bank		11,378.04		20,989.00		502.055
Chase Mainattan Dank				,		
Chesapeake and Ohio Railway		5,237.44		7,813.00		400 00
		5,237.44 5,174.72		7,813.00 8,700.00		400 00 357.00
	Telephone Travel Annual meeting Miscellaneous s' Honoraria for (July 1963–June 1964) etary (August 1963–July 1964) surer (August 1963–July 1964) butions, awards, etc. rnational Mineralogical Association durican Geological Institute, 1964 bling Medal, 1963 A Award, 1963 A Award, 1963 Laneous (Check charges, etc.) ENDOWME A Security Bonds New York Central Southern Railway Preferred stocks Fairbanks Whitney Jones and Laughlin, 5 Potomac Electric Power, 2.44 Union Pacific, 4 United States Steel, 7 Virginia Electric Power, 5 Common stocks American Telephone and Telegraph Boston Insurance.	Telephone Travel Annual meeting Miscellaneous s' Honoraria for (July 1963–June 1964) etary (August 1963–July 1964) usurer (August 1963–July 1964) butions, awards, etc. rnational Mineralogical Association dues, erican Geological Institute, 1964 bling Medal, 1963 A Award, 1963 A Award, 1963 New York Central Southern Railway **Preferred stocks** Fairbanks Whitney Jones and Laughlin, 5 Potomac Electric Power, 2.44 Union Pacific, 4 United States Steel, 7 Virginia Electric Power, 5 **Common stocks* American Telephone and Telegraph \$ Boston Insurance.	ENDOWMENT FUND A Ward, 1963 Bounds New York Central Southern Railway Fairbanks Whitney Jones and Laughlin, 5 Potomac Electric Power, 2.44 United States Steel, 7 Common stocks A Mary (1963–July 1964) ENDOWMENT FUND ENDOWMENT FUND A 4,300.00 5,743.75 **10,043.75 **10,043.75 **2,000.00 Union Pacific, 4 Common stocks American Telephone and Telegraph Boston Insurance. **13,830.58 1,500.00	Telephone Travel Annual meeting Miscellaneous s' Honoraria for (July 1963–June 1964) etary (August 1963–July 1964) butions, awards, etc. rnational Mineralogical Association dues, 1964 bling Medal, 1963 A Award, 1963 A Award, 1963 Ianeous (Check charges, etc.) ENDOWMENT FUND At Security Cost Bonds New York Central Southern Railway 5,743.75 \$10,043.75 Preferred stocks Fairbanks Whitney Jones and Laughlin, 5 Potomac Electric Power, 2.44 United States Steel, 7 Common stocks American Telephone and Telegraph Boston Insurance 13,830.58 Boston Insurance 13,830.58 1,500.00	Telephone	Telephone 43.12 Travel 28.20 Annual meeting 63.45 Miscellaneous 8.00 s' Honoraria for (July 1963–June 1964) 1,125.00 etary (August 1963–July 1964) 1,000.00 butions, awards, etc. rnational Mineralogical Association dues, 1964. 150.00 erican Geological Institute, 1964 482.00 bling Medal, 1963. 147.08 A Award, 1963. 168.00 laneous (Check charges, etc.) 61.50 ENDOWMENT FUND The Security Cost Value ENDOWMENT FUND Southern Railway 5,743.75 5,294.00 ENDOWMENT FUND The Security Cost Value ### Security Fund ### Security ### Se

¹ Approximate market value, August 1, 1964.

² Fiscal year ending July 31, 1964, except where noted.

³ Sold, May 1964; two quarter dividend.

⁴ Stock dividend, March 1964; stock split, July 1964.

⁵ Stock split, March 1964.

⁶ Stock split, June 1964.

100	Continental Can	4,051.56	5,138.00	200.00
150	Denison Mines	3,096.00	2,213.00	124.87
312	Diana Stores	4,694.01	3,473.00	7
150	General Portland Cement.	2,934.69	3,713.00	180.00
508	Greyhound Corporation	2,300.00	12,954.00	330.208
109	Hot Shoppes	2,420.58	2,807.00	9
100	International Pipe and Ceramics	2,619.44	2,100.00	50.00^{10}
200	Kerr-McGee Company.	8,128.26	8,950.00	60.00^{11}
300	Kroger Company	3,245.35	10,500.00	287.12^{12}
100	Link Belt	4,792.90	6,325.00	270.00
50	Phelps Dodge Corp	1,975.00	3,419.00	150.00
102	Pittsburgh Plate Glass	5,756.37	6,936.00	239.70
100	Plymouth Cordage Co	4,750.00	8,300.00	320.00
100	Richfield Oil Corp	4,348.83	5,775.00	315.00^{13}
100	Southern Natural Gas Co.	3,600.00	5,838.00	220.00
100	Sunray DX Oil	2,342.63	3,100.00	280.0014
50	Washington Steel	1,293.75	1,238.00	15
100	Wisconsin Power and Light	2,304.75	2,363.00	16
		\$107,662.40	\$186,075.00	\$5,734.54
	Total	\$142,152.60	\$222,717.00	\$7,587.14

CASH CONTINGENCY FUND

Account	Amount
National Permanent Savings and Loan Association	\$15,125.43
Columbia Federal Savings and Loan Association.	13,665.87
Riggs National Bank	128.35

\$28,919.65

Income and Expense

The year 1963–1964 has been one of continuing financial growth, with an increase in the value of our investments and a satisfactory margin between income and expense. There was a substantial gain in total income over that for the previous year, as shown in Table 1. The gain was the direct result of the increased subscription rate for *The American Mineralogist* and the revised schedule of reprint charges, both of which were Council actions to offset the withdrawal of Penrose funds and an anticipated increase in the cost of *The American Mineralogist*. The number of subscriptions to *The American Mineralogist*, both domestic and foreign, shows an increase. At the present time, 1596 copies are distributed on a paid basis compared with 1542 last year. Of these, 626 are delivered to sub-

⁷ Stock dividend, November 1963, April 1964.

⁸ Stock split, July 1964.

⁹ Stock dividend, June 1964.

¹⁰ Purchased, December 1963; two quarter dividend.

¹¹ Purchased, May 1964; one quarter dividend.

¹² Additional shares purchased, May 1964.

^{13 100} shares sold, May 1964.

^{14 100} shares sold, May 1964.

¹⁵ Purchased, May 1964; no dividend received within the fiscal year.

¹⁶ Purchased, May 1964; no dividend received within the fiscal year.

scribers in all fifty states, the District of Columbia and Puerto Rico, and 970 are sent abroad to 82 countries on all continents.

Last year, the Society negotiated a contract with the Kraus Reprint Corporation of New York for reprinting in the original form, volumes 20 through 32 inclusive (1935–1947), and these will be ready for distribution in October 1964. This year, a second contract was negotiated with the same company for volumes 1–19 (1916–1934). With the completion of this reprinting, all volumes of the Journal will be in print. The issues of volumes 1–32 still in print have been placed with Kraus Periodicals, Inc. on consignment.

TABLE 1. INCOME

Income source	1962-1963		1963-1964	
income source	Amount	Percentage	Amount	Percentage
Dues	\$15,972.17	27.9	\$16,112.76	22.9
Publication program	28,670.08	50.1	44,188.21	62.7
Investments	8,164.68	14.3	8,549.00	12.1
Income for investment	3,362.34	5.9	996.46	1.4
Reimbursement	1,072.49	1.8	620.17	0.9
	\$57,241.76	100.0	\$70,466.60	100.0

Table 2. Disbursements

Disbursement	1962-1963		1963-1964	
Disbursement	Ámount	Percentage	Amount	Percentage
Publication program	\$46,329.10	87.8	\$46,870.66	82.3
Office expense	3,643.69	6.9	5,923.97	10.4
Officers' honoraria	1,750.00	3.3	3,125.00	5.5
Contributions, etc	815.88	1.5	1,008.58	1.8
IMA fund advance	231.79	0.4	-	-
	\$52,770.46	100.0	\$56,928.21	100.0

The Society also negotiated on March 6, 1964 an agreement with University Microfilms, Inc. of Ann Arbor, Michigan, under which they will refrain from further reproduction or sale of the microfilm or copies of *The American Mineralogist*. University Microfilms had previously microfilmed and offered for sale volumes 1–46 (1916–1961) without prior permission of the Society.

The disbursements during 1963–1964 are higher than last year. The amount paid out for the total of the various items in the publication program remains about the same, even though there have been changes within the program. The number of copies of the Program and Abstracts purchased from the Geological Society of America was considerably less as a result of the revised method of distribution. Office expense has risen, due in part to normal increases in printing and postage costs attendant on increased membership,

subscriptions and other business activity. This year, however, approximately \$1,000 of the Secretary's office expense is attributable to the cost of printing and distributing the announcements, program, and abstracts for the first summer meeting held in Bozeman, Montana, July 26–31, 1964, in conjunction with the meeting of the American Crystallographic Association.

Endowment Fund and Cash Contingency Fund

The book value of the Endowment Fund securities on August 1, 1964, was \$142,152.60 compared with \$136,280.54 on August 1, 1963. Of this amount, 7.1% is in bonds, 17.2% in preferred stock, and 75.7% in common stock. The market value, computed on the same date, was \$222,717.00. Dividends and interest from the securities totaled \$7,587.14, near to the estimated figure of \$7,500.00. From the current holdings, an income of \$7,750.00 is estimated for 1964–1965. The percentage yields of each type of security, at both book and market values, are given in Table 3.

Table 4 lists the amounts received for investment from members of the Fifty-Plus Committee and constitutes the final report of the committee as a separate entity. As anticipated, the total has exceeded \$13,000.00.

Class	Book value	Percentage Yield	Book market	Percentage Yield
Bonds	10,043.75	4.98	9,669.00	5.17
Preferred stock	24,446.45	5.53	26,973.00	5.02
Common stock.	107,662.40	5.33	186,075.00	3.08
	\$142,152.60	5.33	\$222,717.00	3.41

TABLE 3. SECURITIES

		_	_	
TABLE	4	FIFTV.	PLUS.	FILIND

Year	Amount Paid In	Cumulative total (with interest)
1958–1959	3,719.00	3,719.00
1959–1960	2,520.00	6,389.00
1960–1961	2,050.00	8,694.00
1961–1962	1,816.00	10,858.00
1962-1963	1,647.00	12,939.00
1963-1964	344.00	13,800.00

Mineralogical Abstracts

Four numbers of *Mineralogical Abstracts* (vol. 15, no. 8; vol. 16, nos. 1–3) were published in 1963 and distributed approximately as follows: 1235 copies to members of the two societies—750 members of the British society and 835 members of the American society (350 of these are members of both societies and therefore receive their copies as members of the British society), and 640 copies on a paid basis to various institutional subscribers.

In recent months the British society has been changing from a calendar fiscal year to one ending June 30. The figures given here thus cover an eighteen-month period, January 1963 through June 30, 1964. Total income was approximately \$21,000, this amount reflecting the increased subscription rate that went into effect at the beginning of 1963 for both members and subscribers. Expenses totaled approximately \$24,000, covering the cost of the normal six issues for the interval and in addition the cost of one of the two issues in arrears of payment, about \$2,600. Thus the gap between income and expense has been closed to a certain extent, but imminent increases in publication costs resulting from enlargement of the journal make a reassessment of subscription rates desirable and necessary.

ACKNOWLEDGMENTS

The continuity of operation of the Treasurer's office depends on several individuals to whom I extend my sincere thanks at this time—specifically, Harriet Evans, for her superior work on the 1964 membership directory; Rita Ehrmann, for her competent direction of advertising in The American Mineralogist; Edward P. Henderson, Arthur Montgomery, and William T. Pecora, of the Financial Advisory Committee, for their capable management of our investments; Stanly Carr and Herbert Allen of Merrill Lynch, custodian of our portfolio; Joseph Dinsmore Murphy, of Steadman, Leonard, & Hennessey, for legal guidance; Irwin H. Wensink and Jane Gibson, of the George Banta Company Washington office; Alvin A. Lang and Gerald J. Schutkoske, of the George Banta Company in Menasha, Wisconsin, printers of the Society publications. In addition to these people and their particular responsibilities, I extend my personal thanks to the members of the society and to our many business associates for their faithful and cheerful cooperation.

Respectfully submitted,
MARJORIE HOOKER, Treasurer

REPORT OF THE AUDITING COMMITTEE

To the President of the Mineralogical Society of America

On October 29, 1964, the auditing committee examined the accounts of the Treasurer of the Society and found them in excellent order for the fiscal year, August 1963–July 1964. The Treasurer is once again to be highly commended for her efficient care and organization of the accounts of the Society.

The Treasurer, as was suggested in last year's auditing report, has prepared a list of the nature, value and location of the office equipment belonging to the Society. This list is on file with the Secretary.

In the opinion of the auditing committee the Society is now in excellent financial condition.

Respectfully submitted,
DAVID B. STEWART, Chairman
JOAN R. CLARK
PAUL E. DESAUTELS

REPORT OF THE EDITOR FOR 1964

Publication Results

For 1964 the Council of Mineralogical Society of America authorized an increase of 300 pages for *The American Mineralogist* to a total of 1800. I am happy to report that we have been able to adhere closely to that directive: the total for 1964 is 1803 pages. This includes 97 major papers, and 70 Notes.

MANUSCRIPT RECEIPTS

The year was marked by a major increase in both number of manuscripts received and in total volume:

	Major MS	Notes MS	Total
1963	116	79	195
1964		92	244
Increase, 1964	31%	16%	

Thus, although we have increased our printed total by 20%, we have not managed to stay even with the increase in our receipts.

MANUSCRIPT BACKLOG

As of February 1, 1965 there were on hand the following (not including manuscripts in press for the January-February number, 1965):

	Major MS	Notes MS	Total
Accepted for publication	43	28	71
Being reviewed or revised	41	18	59
	-		
Totals	84	46	130

These totals include a very small number of manuscripts held over from 1963, owing to delay in revision by authors.

MANUSCRIPT EVALUATION

Obviously the marked increase in manuscripts received (both total number and volume) requires even more careful scrutiny and quality control. The problem is complicated by a number of factors:

- Lack of referees who are willing to review manuscripts and also are capable of
 preparing critically significant reviews on highly specialized subjects. On several
 cases the opinions of a second referee were in opposition to those of the first.
- Lack of information on the previous history of a manuscript. Several cases were discovered in which a manuscript had previously been reviewed for another journal, had been rejected or returned for revision and then was submitted without change for consideration to our office.
- Strong efforts on the part of a very few authors to reject any and all criticism of their manuscripts.

During 1964 strenuous efforts were made to evaluate all manuscripts more critically than ever before, but it is clear that these efforts must be intensified still more.

The results of manuscript evaluation, 1964, may be expressed as follows:

Rejected or withdrawn,	Major MS	12%
	Notes MS	14%
Returned for revision or rewriting	Major MS	59%
	Notes MS	28%
Accepted with only minor changes	Major MS	29%
or accepted as is	Notes MS	58%

It is clear, however, that even with greater quality control of manuscripts and with continued larger size of the 1965 volume, the "publication interval," i.e., the time between acceptance of a manuscript and its appearance in print will be increased somewhat next

year over that which we have enjoyed during 1963 and 1964, namely an average of 6-7 months.

DISTRIBUTION OF MANUSCRIPTS BY SOURCE

The international nature of authorship continues as in previous years. Countries represented outside of the United States include (with number of published papers): Australia (5), Brazil (3), Canada (8), Chile (1), England (6), Germany (1), India (5), Israel (1), Japan (3), Malaysia (1), Netherlands (1), Scotland (4), South Africa (1), Switzerland (1), Tasmania (1), Wales (1), and Yugoslavia (2). The percentage of papers of foreign origin was 23%.

For the first time an analysis has been made on the basis of the nature of the organization to which the author belongs:

	% of papers
Universities and Colleges	61
U. S. Geological Survey.	
Other federal agencies	2
State geological surveys.	<1
Commercial research laboratories.	12
Endowed research laboratories	ca. 1
Foreign geological surveys	
	100
Endowed research laboratories	ca. 1

Critics

The society owes much to the abilities and generosity of its Associate Editors, who have worked diligently and with distinction in attempting to prove and improve the quality of manuscripts: Carleton A. Chapman, Howard T. Evans, Jr., Donald L. Graf, Alfred J. Frueh, Jr., Ivan H. Milne and William T. Holser.

Others who have served as critics during 1964 include:

H. H. Adler	W. G. Ernst	A. A. Levinson
Isadore Adler	H. P. Eugster	R. J. P. Lyon
A. L. Albee	G. T. Faust	B. H. Mason
D. E. Appleman	D. J. Fisher	J. B. Mertie
S. W. Bailey	Michael Fleischer	Charles Meyer
Fred Barker	M. D. Foster	R. S. Mitchell
W. A. Bassett	Clifford Frondel	E. A. Monroe
T. F. Bates	J. W. Frondel	M. E. Mrose
F. D. Bloss	R. B. Graf	D. C. Noble
F. R. Boyd, Jr.	R. E. Grim	E. W. Nuffield
W. F. Bradley	R. L. Hay	Adolf Pabst
L. I. Briggs	P. M. Hurley	D. R. Peacor
G. W. Brindley	H. W. Jaffe	E. C. Robertson
E. N. Cameron	E. A. Jenne	E. H. Roseboom, Jr.
E. C. T. Chao	W. D. Keller	D. M. Shaw
Felix Chayes	W. C. Kelly	L. T. Silver
P. L. Cloke	P. F. Kerr	D. R. Simpson
A. J. Cohen	J. A. Kohn	B. J. Skinner
R. M. Denning	F. J. Kuellmer	J. V. Smith
J. D. H. Donnay	Gunnar Kullerud	Hugo Steinfink

J. D. Stephens Hugo Strunz George Switzer T. P. Thayer J. B. Thompson

A. H. Truesdell George Tunell O. F. Tuttle Alvin Van Valkenburg, Jr. J. A. Vance A. Volborth C. E. Weaver A. D. Weeks Horace Winchell H. S. Yoder, Jr.

Respectfully submitted, E. Wm. Heinrich Editor, The American Mineralogist

LIST OF FORMER OFFICERS AND MEETING PLACES

By recommendation of the Council, a complete list of past officers is printed in the proceedings of the annual meeting of the Society:

Honorary Presidents

†Edward S. Dana †Charles Palache 1925–1935 1949–1954 1955–

Edward H. Kraus

PRESIDENTS

VICE-PRESIDENTS

1920 Edward H. Kraus †1921 Charles Palache †1922 Thomas L. Walker 1923 Edgar T. Wherry †1924 Henry S. Washington †1925 Arthur S. Eakle 1926 Waldemar T. Schaller †1927 Austin F. Rogers †1928 Esper S. Larsen †1929 Arthur L. Parsons †1930 Herbert E. Merwin †1931 Alexander H. Phillips †1932 Alexander N. Winchell †1933 Herbert P. Whitlock †1934 John E. Wolff 1935 Clarence S. Ross †1936 William S. Bayley †1937 Norman L. Bowen †1938 Ellis Thomson †1939 Max N. Short †1940 William F. Foshag †1941 Frederick E. Wright 1942 Arthur F. Buddington 1943 John F. Schairer 1944 R. C. Emmons 1945 Kenneth K. Landes 1946 Paul F. Kerr 1947 M. J. Buerger

†1920 Thomas L. Walker 1921 Waldemar T. Schaller †1922 Frederick A. Canfield †1923 George F. Kunz †1924 Washington A. Roebling †1925 Herbert P. Whitlock †1926 George Vaux, Jr. †1927 George L. English †1928 Lazard Cahn †1929 Edward Wigglesworth †1930 John E. Wolff †1931 William F. Foshag †1932 Joseph L. Gillson †1933 Frank B. Guild †1934 William A. Tarr †1935 Ellis Thomson †1936 Harold L. Alling †1937 H. V. Ellsworth 1938 Kenneth K. Landes †1939 Burnham S. Colburn 1940 Ian Campbell †1941 William J. McCaughey 1942 Martin J. Buerger 1943 John W. Gruner †1944 Harry Berman 1945 George Tunell 1946 S. B. Hendricks 1947 Carl Tolman 1948 A. Pabst

1949 J. D. H. Donnay

† Deceased.

PRESIDENTS (Cont.)

VICE-PRESIDENTS (Cont.)

†1948 M. A. Peacock 1949 John W. Gruner 1950 George Tunell 1951 A. Pabst 1952 Michael Fleischer 1953 J. D. H. Donnay 1954 Sterling B. Hendricks 1955 Harry H. Hess 1956 Clifford Frondel 1957 D. Jerome Fisher 1958 George E. Goodspeed 1959 Ralph E. Grim 1960 Joseph Murdoch 1961 E. F. Osborn 1962 Ian Campbell 1963 C. S. Hurlbut, Jr. 1964 Leonard G. Berry

1950 Ralph E. Grim
1951 Michael Fleischer
1952 J. D. H. Donnay
1953 Sterling B. Hendricks
1954 Harry H. Hess
1955 Clifford Frondel
1956 D. Jerome Fisher
1957 George E. Goodspeed
1958 Ralph E. Grim
1959 Joseph Murdoch
1960 E. F. Osborn
1961 Ian Campbell
1962 C. S. Hurlbut, Jr.
1963 Leonard G. Berry
1964 George T. Faust

SECRETARIES

1920–1922 Herbert P. Whitlock
1923–1933 Frank R. Van Horn
1933–1934 Albert B. Peck
1934–1944 Paul F. Kerr
1944–1959 C. S. Hurlbut, Jr.
1959— George Switzer

Treasurers

1920–1923 Albert B. Peck 1924–1929 Alexander H. Phillips 1929–1930 Albert B. Peck 1930–1940 Waldemar T. Schaller 1941–1958 Earl Ingerson 1958– Marjorie Hooker

EDITORS

1920–1921 Edgar T. Wherry 1922–1956 Walter F. Hunt 1957–1961 Lewis S. Ramsdell 1962– E. Wm. Heinrich

Councilors

1920 Arthur S. Eakle, Frank R. Van Horn, Fred E. Wright, Alexander H. Phillips.
1921 Frank R. Van Horn, Fred E. Wright, Alexander H. Phillips, Austin F. Rogers.
1922 Fred E. Wright, Alexander H. Phillips, Austin F. Rogers, Thomas L. Watson.
1923 Alexander H. Phillips, Austin F. Rogers, Thomas L. Watson, Esper S. Larsen.
1924 Austin F. Rogers, Thomas L. Watson, Esper S. Larsen, Arthur L. Parsons.
1925 Thomas L. Watson, Esper S. Larsen, Arthur L. Parsons, William F. Foshag.
1926 Esper S. Larsen, Arthur L. Parsons, William F. Foshag, William A. Tarr.
1927 Arthur L. Parsons, William F. Foshag, William A. Tarr, Alexander N. Winchell.
1928 William F. Foshag, William A. Tarr, Alexander N. Winchell, Ellis Thomson.
1929 William A. Tarr, Alexander N. Winchell, Ellis Thomson, Clarence S. Ross.
1930 Alexander N. Winchell, Ellis Thomson, Clarence S. Ross, Paul F. Kerr.
1931 Ellis Thomson, Clarence S. Ross, Paul F. Kerr, William S. Bayley.
1933 Paul F. Kerr, William S. Bayley, William J. McCaughey, Kenneth K. Landes.

[†] Deceased.

- 1934 William S. Bayley, William J. McCaughey, Kenneth K. Landes, E. P. Henderson.
- 1935 William J. McCaughey, Kenneth K. Landes, E. P. Henderson, J. F. Schairer.
- 1936 Kenneth K. Landes, E. P. Henderson, J. F. Schairer, Arthur F. Buddington.
- 1937 E. P. Henderson, J. F. Schairer, Arthur F. Buddington, Arthur P. Honess.
- 1938 J. F. Schairer, Arthur F. Buddington, Arthur P. Honess, R. C. Emmons.
- 1939 Arthur F. Buddington, Arthur P. Honess, R. C. Emmons, Carl Tolman.
- 1940 Arthur P. Honess, R. C. Emmons, Carl Tolman, D. Jerome Fisher.
- 1941 R. C. Emmons, Carl Tolman, D. Jerome Fisher, Martin A. Peacock.
- 1942 Carl Tolman, D. Jerome Fisher, Martin A. Peacock, Adolf Pabst.
- 1942 Carl Tolman, D. Jerome Fisher, Martin A. Peacock, Adolf Pabst.
 1943 D. Jerome Fisher, Martin A. Peacock, Adolf Pabst, C. S. Hurlbut, Jr.
- 1944 Martin A. Peacock, Adolf Pabst, Michael Fleischer, S. J. Shand.
- 1945 Adolf Pabst, Michael Fleischer, S. J. Shand, R. E. Grim.
- 1946 Michael Fleischer, S. J. Shand, R. E. Grim, Joseph Murdoch.
- 1947 S. J. Shand, R. E. Grim, Joseph Murdoch, H. H. Hess.
- 1948 R. E. Grim, Joseph Murdoch, H. H. Hess, Clifford Frondel.
- 1949 Joseph Murdoch, H. H. Hess, Clifford Frondel, Lewis S. Ramsdell.
- 1950 H. H. Hess, Clifford Frondel, Lewis S. Ramsdell, E. F. Osborn.
- 1951 Clifford Frondel, Lewis S. Ramsdell, E. F. Osborn, George T. Faust.
- 1952 Lewis S. Ramsdell, E. F. Osborn, George T. Faust, Victor T. Allen.
- 1953 E. F. Osborn, George T. Faust, Victor T. Allen, C. Osborne Hutton.
- 1954 George T. Faust, Victor T. Allen, C. Osborne Hutton, Felix Chayes.
- 1955 Victor T. Allen, C. Osborne Hutton, Felix Chayes, L. G. Berry.
- 1956 C. Osborne Hutton, Felix Chayes, L. G. Berry, C. B. Slawson, A. O. Woodford.
- 1957 Felix Chayes, L. G. Berry, C. B. Slawson, A. O. Woodford, S. S. Goldich.
- 1958 L. G. Berry, C. B. Slawson, A. O. Woodford, S. S. Goldich, B. H. Mason, R. H. Jahns, C. Milton.
- 1959 S. S. Goldich, B. H. Mason, R. H. Jahns, C. Milton, W. R. Foster, E. W. Nuffield.
- 1960 R. H. Jahns, C. Milton, W. R. Foster, E. W. Nuffield, J. R. Goldsmith, Horace Winchell.
- 1961 W. R. Foster, E. W. Nuffield, J. R. Goldsmith, Horace Winchell, R. M. Garrels, O. F. Tuttle.
- 1962 J. R. Goldsmith, Horace Winchell, R. M. Garrels, O. F. Tuttle, Francis J. Turner, Hatten S. Yoder, Jr.
- 1963 R. M. Garrels, O. F. Tuttle, Francis J. Turner, Hatten S. Yoder, Jr., W. F. Bradley, Howard T. Evans.
- 1964 Francis J. Turner, Hatten S. Yoder, Jr., W. F. Bradley, Howard T. Evans, Harold L. James, Joseph V. Smith.

Annual Meeting Places

1939 Minneapolis, Minnesota

1920 Chicago, Illinois 1930 Toronto, Canada 1921 Amherst, Massachusetts 1931 Tulsa, Oklahoma 1922 Ann Arbor, Michigan 1932 Cambridge, Massachusetts 1923 Washington, D. C. 1933 Chicago, Illinois 1924 Ithaca, New York 1934 Rochester, New York 1925 New Haven, Connecticut 1935 New York, New York 1926 Madison, Wisconsin 1936 Cincinnati, Ohio 1927 Cleveland, Ohio 1937 Washington, D. C. 1928 New York, New York 1938 New York, New York

1929 Washington, D. C.

1940	Austin, Texas	1953	Toronto, Canada
1941	Boston, Massachusetts	1954	Los Angeles, California
1942	No meeting held	1955	New Orleans, Louisiana
1943	No meeting held	1956	Minneapolis, Minnesota
1944	No meeting held	1957	Atlantic City, New Jersey
1945	Pittsburgh, Pennsylvania	1958	St. Louis, Missouri
1946	Chicago, Illinois	1959	Pittsburgh, Pennsylvania
1947	Ottawa, Canada	1960	Denver, Colorado
1948	New York, New York	1961	Cincinnati, Ohio
1949	El Paso, Texas	1962	Houston, Texas
1950	Washington, D. C.	1963	New York, New York
1951	Detroit, Michigan	1964	Miami Beach, Florida
1952	Boston, Massachusetts		

Recipients of the Roebling Medal

1937 Charles Palache	1954 Cecil Edgar Tilley
1938 Waldemar T. Schaller	1955 Alexander N. Winchell
1940 Leonard James Spencer	1956 Arthur F. Buddington
1941 Esper S. Larsen, Jr.	1957 Walter F. Hunt
1945 Edward H. Kraus	1958 Martin J. Buerger
1946 Clarence S. Ross	1959 Felix Machatschki
1947 Paul Niggli	1960 Tom F. W. Barth
1948 William Lawrence Bragg	1961 Paul Ramdohr
1949 Herbert E. Merwin	1962 John W. Gruner
1950 Norman L. Bowen	1963 John Frank Schairer
1952 Fred E. Wright	1964 Clifford Frondel
1953 William F. Foshag	

Recipients of the Mineralogical Society of America Award

1951 Orville F. Tuttle	1958 Charles E. Weaver
1952 Frederick H. Stewart	1959 Harry F. W. Taylor
1953 L. H. Ahrens	1960 Donald L. Graf
1954 Hatten S. Yoder, Jr.	1961 Joseph V. Smith
1955 Julian R. Goldsmith	1962 Douglas S. Coombs
1956 George C. Kennedy	1963 Nobuo Morimoto
1957 Rustum Roy	1964 William S. Fyfe

1964 ANNUAL MEETING AT MIAMI BEACH, FLORIDA

The meetings of the following societies were held November 19-21, 1964.

The Geological Society of America—77th The Paleontological Society—56th The Mineralogical Society of America—45th Society of Economic Geologists—45th The Geochemical Society—9th