

PROCEEDINGS OF THE FORTY-EIGHTH ANNUAL  
MEETING OF THE MINERALOGICAL SOCIETY OF  
AMERICA AT NEW ORLEANS, LOUISIANA

RALPH J. HOLMES, *Secretary*.

The forty-eighth annual meeting of the Society was held on November 18–22, 1967 at the Roosevelt Hotel, New Orleans, Louisiana. The technical sessions were integrated with those of the Geological Society of America and affiliated societies.

The Annual Luncheon of the Society held on November 21 was attended by 167 members and guests. The luncheon was followed by the twenty-fifth presentation of the Roebing Medal to Linus Pauling and the seventeenth presentation of the Mineralogical Society of America Award to Alfred E. Ringwood.

Retiring President Felix Chayes addressed the Society on the morning of November 21 his subject being "Locating field boundaries by discriminant function analysis."

The Annual Business Meeting was held on the morning of November 20 at which time reports were given by the President, Secretary, Treasurer and Editor.

ACTIONS OF THE 1967 COUNCIL

The second meeting of the 1967 Council was held on November 18, 1967 but the lengthy agenda necessitated the holding of a second session on the evening of the 19th. The principal actions taken by the 1967 Council are summarized here:

*Awards*

The Council voted that the 1968 Roebing Medal be awarded to Tei-ichi Ito of Tokyo, Japan, and the Mineralogical Society of America Award to W. Barclay Kamb of Pasadena, California.

*Jewell Glass Bequest*

The late Jewell Glass made the Society the residual legatee of her estate. This is the first bequest to the Society by a deceased person, all previous gifts, including that of Roebing, having been made during the lifetime of the donor.

*Reprinting of The American Mineralogist*

The Treasurer was authorized to renegotiate a contract to renew the arrangement with the Kraus Reprinting Corporation. This contract, entered into by the Society in April 1963, licensed the Kraus Corporation to reproduce out-of-print volumes of *The American Mineralogist* for a five-year period. The reprinting program has been very successful and is nearly complete. It assures libraries and individuals that they can obtain complete runs of the *Journal*.

*Decennial Index*

The index to *The American Mineralogist* covering the period 1956–1965 (volumes 41 to 50) is now in process of publication.

*Dean Kraus' 92nd Birthday*

The Council congratulated Dean Kraus, the Society's Honorary President, on both the occasion of his 92nd Birthday (December 1st) and on his having had the Honorary Degree of Doctor of Science conferred on him by the University of Michigan, the institution he

served in numerous capacities so long and so well. Dean Kraus is now the oldest living member of the Geological Society of America.

#### *Fiftieth Anniversary Celebration*

Dr. George Faust, Convenor of the 50th Anniversary Celebration, is working on plans to hold the celebration, probably at Princeton, prior to the Annual Meeting in Atlantic City in November 1969.

#### *Fellowship*

The Council approved 74 of the 77 nominees submitted by the Nominating Committee for Fellows. Their names will appear on the ballot submitted to the membership in October 1968.

#### *Ad hoc Committee on Administration*

The limiting of the terms of office of the Secretary and Treasurer, called for by the amendment to the Constitution, adopted last year, made necessary a review of the business affairs of the Society. The 1966 Council set up an ad hoc Committee on Administration to study the drastic changes involved and make recommendations to the Council. This committee handed down a number of recommendations. Among those approved by the Council are the following: 1) that the office of the Society should remain in Washington, 2) that the Society should accept the AGI offer of space and clerical help, 3) that a "manager" established as an AGI employee, with responsibilities only for MSA duties during that portion of time, compensated for by MSA, will handle the Society's clerical affairs and be responsible to the Treasurer of MSA, 4) that the proposed arrangement be completed by November 1, 1968, 5) that a committee be appointed by the President and Council to carry out the negotiations with AGI, to advise the manager and report to the President periodically during the time necessary to complete the arrangements. This committee was appointed by the 1968 Council at its first meeting.

#### *Special Programs at the Mexico City Meeting*

The Council approved a motion that one session of the 1968 annual meeting in Mexico City be devoted to papers dealing with "absorption spectra as related to mineral structures."

The policy of conducting short courses in cooperation with AGI, in connection with the annual meetings, is to be continued for another year. Dr. J. V. Smith to whom we owe much of the success of the three previous courses, has expressed a willingness to organize one for the Mexico City Meeting.

It is possible that, by scheduling the AGI short course as a pre-convention class, there would be time to permit the introduction of a special session on sulfide minerals during the Mexico City meeting. The Program Policy Committee was given approval to work out the special programs, at its discretion.

#### *Summer Meeting*

The Council approved the Program Policy Committee's suggestion that a Summer Meeting be held in 1969, possibly in the Black Hills. There will be no summer MSA meeting in 1968.

#### *Problems of Technical Programming at the Annual Meeting*

Suggestions for improving the handling of the Technical Programs at the Annual Meetings were discussed by the Council. Among these were 1) the need for more clearly

defined ground rules in the selection of papers, and 2) an increase in the total amount of time available for technical sessions. The Council approved a motion that these and other problems related to programming be brought to the attention of the Council of the GSA.

#### *Financing The American Mineralogist*

The Council approved the establishment of a compulsory "page charge" of \$20 a page on all papers received by the Editor after 8/1/68. An announcement to this effect will be carried in each issue of *The American Mineralogist* beginning with the January-February issue.

#### *Special Issues of The American Mineralogist*

The Council agreed that it does not look with favor upon special issues of *The American Mineralogist*, in view of the many problems raised by them.

#### *Special Papers*

The Council approved the policy of accepting occasional suitable papers, too long for *The American Mineralogist*, which must, of necessity, be issued as Special Papers.

#### *Increase in Dues*

The Council, recognizing the need to raise dues, unanimously approved a motion that the 1968 ballot contain a proposed amendment by which Article 2, Section 1 of the By-Laws shall be changed to read "The annual dues of fellows and members shall be fixed by action of the Council." No action was taken on the actual raising of dues at this time.

### ACTION OF THE 1968 COUNCIL

The 1968 Council held its first meeting on November 22.

#### *Budget*

The Treasurer submitted a budget for 1968 sufficient to cover the very considerable changes in the business operation of the Society, mentioned above under the action of the 1967 Council. It is also sufficient to make possible an extra issue of *The American Mineralogist*, assuring a 1968 volume of approximately 2,000 pages.

#### *Committee and Other Appointive Officers*

A list of appointive officers for 1968 was presented by President Thompson and approved by vote of the Council. By Council action, this list is published throughout the year in *The American Mineralogist*—see the final page of this issue.

#### *Size of the American Mineralogist*

Although various ways of solving the problem presented by the ever-increasing flood of papers was considered, no action was taken on any of these. It was the sense of the Council that, for the present, the selection of papers should be left entirely to the discretion of the Editor.

#### *Committee on Committees*

An Ad hoc Committee was appointed to review the requirements for membership, terms of office, duties, etc. of all committee members, representatives and other appointed officers of the Society. A study of this type has not been made since 1953.

#### *Meetings for 1968*

The Annual Meeting of the MSA will be held in conjunction with that of the GSA and affiliated societies in Mexico City November 11 to the 13th, 1968. Since the International

Geological Congress and the International Mineralogical Association will meet in Prague this summer, there will be no MSA Summer Meeting in 1968.

*Nominations for Officers for 1969*

The following slate of elective officers for 1969, submitted by the Nominating Committee for Officers, was approved by the Council and will appear on the ballot submitted to the membership in October 1968.

*President*—Francis J. Turner  
*Vice President*—William F. Bradley  
*Secretary*—(not on the ballot—elected every two years)  
*Treasurer*—Alvin Van Valkenburg, Jr.  
*Councilors (1969–1971)*  
 (2 of 4 to be elected)  
 W. Gary Ernst  
 W. Barclay Kamb  
 Gunnar Kullerud  
 Bronson Stringham

REPORT OF THE SECRETARY FOR 1967

*To the Council of the Mineralogical Society of America:*

*Election of Officers and Fellows*

The ballots were counted on November 2 by the Teller's Committee composed of Isabella M. Drew, Emmy Booy and the Secretary, Ralph J. Holmes. One thousand sixty nine ballots were cast for officers and two hundred thirty five for fellows.

The officers elected to serve for 1968 are:

*President:* James B. Thompson  
*Vice President:* Francis J. Turner  
*Secretary:* Ralph J. Holmes (1968–1969)  
*Treasurer:* Marjorie Hooker  
*Councilors:* F. Donald Bloss  
 Charles L. Christ

In accordance with the provisions of the constitution, the following 26 candidates approved by the Council, were elected to fellowship.

John Theodore Alfors	James J. Papike
Yaacov K. Bentor	Raymond Laurence Parker
Charles Wilson Burnham	Francois Permingeat
Frank Dachtile	Charles Thompson Prewitt
Mario Fornaseri	Richard Allen Robie
Robert O. Fournier	Herbert R. Shaw
Armando A. Giardini	John Sinkankas
Gerald V. Gibbs	Maynard Slaughter
Peter Graham Harris	Kalman I. Sztrokay
William Davis Johns	Louis S. Walter
Jiri Konta	Hugo Birger Wiik
Donald Hale Lindsley	Harry L. Yakel
Philip Moore Orville	Walter Karl Zwicker

*Award of Life Fellowship*

Dr. James Phemister, retiring Editor of "Mineralogical Abstracts," has been honored by the award of Life Fellowship in the Society.

*Society Membership*

Society membership has shown a steady growth in recent years, but the increase in 1967 (172) is almost twice that of the two previous years, 1965 and 1966 (94 and 97 respectively). The total membership is now 2,630 consisting of 484 Fellows, 2,144 members, and 2 Honorary Fellows.

	1964	1965	1966	1967
Honorary Fellows.....	3	3	2	2
Fellows.....	488	478	460	484
Members.....	1,776	1,880	1,996	2,144
	<hr/>	<hr/>	<hr/>	<hr/>
	2,267	2,361	2,458	2,630

*Loss Through Death*

During 1967 the Society lost, through death, nine fellows:

Charles F. Davidson	11/1/67
Reynolds Denning	11/ /67
Adolph Knopf	11/23/66
Waldemar T. Schaller	9/28/67
Harrison Ashley Schmitt	10/26/66
Alfred Schoep	/67
Robert M. Thompson	4/15/67
E. Joseph Weiss	6/14/67
Peter Zodiac	1/27/67

Respectfully submitted,  
RALPH J. HOLMES, *Secretary*

REPORT OF THE TREASURER FOR 1967

(Year ending July 31, 1967)

*To the Council of the Mineralogical Society of America:*

SUMMARY STATEMENT

Operating cash, August 1, 1966.....	\$14,635.32	
Receipts, August 1, 1966-July 31, 1967.....	78,663.95	\$ 93,299.27
Disbursements, August 1, 1966-July 31, 1967.....	77,461.42	
Transfer to capital.....	4,753.34	
Operating cash, July 31, 1967.....	11,084.51	\$ 93,299.27
Assets, July 31, 1967		
Capital: Endowment Fund Securities (market value).....	\$254,008.00	
Cash Contingency Fund.....	27,549.77	
Operating cash.....	11,084.51	
Edward H. Kraus Crystallographic Research Fund.....	5,029.39	
		<hr/>
Total.....		\$297,671.67

## RECEIPTS

Dues		
Fellows	\$ 3,116.00	
Members	14,242.36	
Student members	1,455.06	\$ 18,813.42
Publications		
<i>American Mineralogist</i> subscriptions	24,798.74	
Sales: Reprints	12,311.01	
Back issues	5,816.06	
Royalties	835.75	
Special Paper No. 1	388.87	
Index, vols. 1-20	52.60	
21-30	100.10	
31-40	166.50	
IMA Guidebooks	119.75	
IMA World Directory, 1962 edition	24.00	
2d edition	4.00	
1965 Field Guidebook	44.00	
Mailing list	279.73	
Advertising	3,370.10	48,311.21
Investments		
Dividends	9,327.15	
Interest	1,056.07	10,383.22
Income for Investment		
Contributions	593.00	
Life memberships	480.00	1,073.00
Miscellaneous: Refunds	83.10	83.10
Total receipts		\$ 78,663.95

## DISBURSEMENTS

Publications		
<i>The American Mineralogist</i> (May 1966-April 1967)	\$50,355.87	
Reprints (March 1966-April 1967)	6,498.96	
Special Paper No. 1	756.00	
Ten-year Index (1956-1965)	277.97	
IMA World Directory	28.00	
Second edition, preparation	231.00	\$ 58,147.80
Meetings		
Annual, 1966: Room, Program, Announcements	1,308.72	
Summer, 1966: Deficit	175.00	
Summer, 1967: Announcement	400.61	1,884.33
Office Expense		
Editor: (August-November 1966)		
Secretarial	\$ 704.75	
Postage	240.44	
Telephone	87.70	
Supplies	59.16	
Travel	249.60	\$ 1,341.65
Editor: (November 1966-July 1967)		
Editorial assistant	2,554.70	

Secretarial . . . . .	245.20	
Office: Rent & maintenance . . . . .	685.00	
Telephone . . . . .	224.67	
Postage . . . . .	320.39	
Printing . . . . .	256.31	
Equipment . . . . .	509.07	
Supplies . . . . .	192.87	
Travel . . . . .	4.90	
Workmen's insurance . . . . .	20.00	
Fund advance . . . . .	935.40	5,948.51
Secretary: Assistant . . . . .	302.14	
Printing . . . . .	389.79	
Postage . . . . .	297.45	
Telephone . . . . .	93.26	
Supplies . . . . .	19.75	
Equipment . . . . .	74.59	
Travel . . . . .	242.71	1,419.69
Treasurer: Assistant . . . . .	166.50	
Postage . . . . .	1,010.55	
Printing . . . . .	1,042.34	
Telephone . . . . .	46.35	
Supplies . . . . .	92.46	
Travel . . . . .	242.71	
Legal fee . . . . .	140.00	
Zip coding . . . . .	309.21	
Office expense . . . . .	42.75	
Committee expense . . . . .	141.65	
Mineralogical Abstracts expense . . . . .	61.65	
Back issues: assistance . . . . .	286.50	
supplies . . . . .	39.60	
Mailing list expense . . . . .	58.52	
Publicity . . . . .	35.00	
Safety deposit box . . . . .	5.00	
Foreign exchange charges . . . . .	34.74	
Checks returned . . . . .	18.00	
Subscription refunds . . . . .	111.50	3,885.03
Honoraria: Editor (Heinrich: May–November 1966) . . . . .	750.00	
(Holser: November 1966–July 1967)	1,125.00	
Secretary (Switzer: August–November 1966) . . . . .	300.00	
(Holmes: November 1966–July 1967)	700.00	
Treasurer (Hooker: August 1966–July 1967) . . . . .	1,000.00	3,875.00
Contributions, awards, etc.		
International Mineralogical Association, dues . . . . .	150.00	
American Geological Institute . . . . .	460.00	
American Association for the Advancement of Science, dues . . . . .	20.00	
Roebbling Medal . . . . .	158.41	
MSA Award . . . . .	171.00	959.41

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\$ 77,461.42

## ENDOWMENT FUND

<i>Amount</i>	<i>Security</i>	<i>Cost</i>	<i>Value</i> <sup>1</sup>	<i>Income</i> <sup>2</sup>
<i>Bonds</i>				
5M	New York Central, 5 .....	\$ 4,300.00	\$ 3,825.00	\$ 250.00
5M	Southern Railway, 5 .....	5,743.75	4,663.00	250.00
		<u>\$ 10,043.75</u>	<u>\$ 8,488.00</u>	<u>\$ 500.00</u>
<i>Preferred stocks</i>				
60	Jones & Laughlin, 5 .....	\$ 4,987.50	\$ 5,280.00	\$ 300.00
500	Union Pacific, 4 .....	4,570.25	3,750.00	200.00
20	Virginia Electric Power, 4.80 .....	2,122.95	1,695.00	96.00
50	Virginia Electric Power, 5 .....	5,942.50	4,600.00	250.00
		<u>\$ 17,623.20</u>	<u>\$ 15,325.00</u>	<u>\$ 846.00</u>
<i>Common stocks</i>				
552	American Telephone & Telegraph .....	\$ 13,830.58	\$ 28,773.00	\$1,214.40
147	Buckeye International .....	3,819.08	5,586.00	197.40 <sup>3</sup>
300	Chase Manhattan Bank .....	12,682.91	20,400.00	630.00
150	Chesapeake & Ohio .....	8,643.57	10,219.00	600.00 <sup>4</sup>
400	Columbia Gas .....	8,057.97	10,650.00	560.00
200	Columbus & Southern Ohio .....	2,087.50	6,875.00	304.00
150	Continental Can .....	4,051.56	8,981.00	288.75
150	Denison Mines .....	3,096.00	11,006.00	168.30
369	Diana Stores .....	4,694.01	4,751.00	84.21 <sup>5</sup>
275	Emhart .....	4,750.00	8,697.00	315.00 <sup>6</sup>
150	FMC Corporation .....	4,792.90	5,137.00	300.00 <sup>7</sup>
70	General Motors .....	7,199.59	5,932.00	283.50
150	General Portland Cement .....	2,934.69	2,156.00	120.00
508	Greyhound Corporation .....	2,300.00	12,637.00	482.60
100	International Pipe & Ceramic .....	2,619.44	2,412.00	100.00
200	Kerr-McGee Corporation .....	8,128.26	28,100.00	381.49
100	Kimberly Clark .....	5,401.50	6,875.00	210.00
300	Kroger Company .....	3,245.35	6,825.00	390.00
100	Lear, Siegler Company .....	1,496.75	3,438.00	70.00
247	Marriott-Hot Shoppes .....	2,474.04	8,244.00	— <sup>8</sup>
50	Phelps Dodge Corporation .....	1,975.00	3,831.00	212.50
110	PPG Industries .....	6,312.83	6,958.00	286.00
200	Southern Natural Gas .....	3,600.00	7,800.00	260.00
100	Sunray DX Oil .....	2,342.63	3,625.00	140.00

<sup>1</sup> Approximate market value, August 1, 1967.<sup>2</sup> Fiscal year ending July 31, 1967.<sup>3</sup> Stock dividend, November 1966.<sup>4</sup> Additional shares purchased, August 1966.<sup>5</sup> Stock dividend, November 1966 and April 1967.<sup>6</sup> Stock dividend, December 1966.<sup>7</sup> Formerly Link-Belt Co., merged July 1967.<sup>8</sup> Stock dividend, May 1967.



150	Union Carbide Corporation.....	9,676.00	7,987.00	275.00 <sup>9</sup>
100	Wisconsin Power & Light.....	2,304.75	2,300.00	108.00
		<u>\$132,516.91</u>	<u>\$230,195.00</u>	<u>\$7,981.15</u>
	Total.....	\$160,183.86	\$254,008.00	\$9,327.15

## CASH CONTINGENCY FUND

National Permanent Savings & Loan, Acct. No. 310-2580.....	\$ 8,113.06
Columbia Federal Savings & Loan, Acct. No. 8822.....	9,141.26
Riggs National Bank, Deposit certificate A-436.....	10,000.00
Riggs National Bank, Acct. No. 11-071-051-126.....	272.35
Riggs National Bank, Acct. No. G65042.....	23.10
	<u>\$27,549.77</u>

## EDWARD H. KRAUS CRYSTALLOGRAPHIC RESEARCH FUND

100 shares, Goodyear Tire & Rubber Co.	
Certificates NH/O 758491; CL/O 82428 (market value 8/1/67) (held in Safety Deposit Box 1326, Riggs National Bank, Federal Office).....	4,912.50
Riggs National Bank, Savings Acct. FED 67156.....	116.89
	<u>\$ 5,029.39</u>

## OPERATING CASH

Riggs National Bank, Federal Office, Acct. No. 11-07-051-118.....	\$ 8,048.21
Merrill, Lynch, Pierce, Fenner & Smith, Washington, D. C. Custodian Account No. 798093221.....	3,036.30
	<u>\$11,084.51</u>

<sup>9</sup> Additional shares purchased, August 1966.

*Income and Expense*

Last year's income (1965-1966) showed a large non-recurrent increase of more than \$6,000 through the contributions to the Kerr Festschrift Fund. This year's income (1966-1967) drops back to a more normal total, which reflects increases in receipts from dues and in income from investments. The main sources of income and the relative percentages have not changed to any great extent. This may be the time and place, however, to look at the income sources in more detail.

The amounts from dues and institutional subscriptions are standard and show increases over last year, reflecting increases in membership and the number of subscribers. Income from reprints purchased by authors and their institutions remains at the same level. The income from the sale of back issues has shown a large gain. This results in part from 1) establishment of many new colleges both in the United States and abroad, whose libraries wish to have complete sets of *The American Mineralogist*, and 2) publication of Michael Fleischer's Index to New Minerals in volumes 1-50 as the August 1966 issue of the *Journal*. Sales of this issue alone have accounted for \$877.78 of the \$5,816.06 total for back issues. The desire on the part of libraries for complete sets underscores the wisdom of reprinting the early volumes of the *Journal*. The reprinting was arranged with the Kraus Reprint Corporation in New York in the form of two licensing contracts, each carrying a \$2,000

advance of royalties. From the reprinting of volumes 20-32, the Society has now received \$835.75 over the \$2,000 advance and from the reprinting of volumes 1-19, of which only volumes 1-10 have been completed so far, the Society now has a credit for more than \$500 against the advance.

September 1966 saw the close of the three-year period during which proceeds from the sale of Special Paper Number One have been refunded to the National Science Foundation. In this period \$3,513.63 has been refunded representing the sale of 615 copies. The three cumulative indexes to *The American Mineralogist* (vols. 1-20, 21-30, 31-40) enjoy a steady sale of about 50 copies a year. They are an indispensable tool for anyone making extensive use of the journal and with the anticipated publication next year of the Index to volumes 41-50, prepared by Joseph Murdoch, will become even more so. Two of the guidebooks issued at the time of the International Mineralogical Association meeting in Washington in 1962 are still available, and the "Visitor's Guide to the National Capital Area" has proved to be a best seller. The 1965 Field Guidebook, issued in connection with the summer meeting in Gallinburg, Tennessee, is not so well known but is still available. Income from the IMA World Directory is turned over to the IMA, as we sell the copies on consignment. The sale of the mailing list to selected publishers or others is a small income source. Advertising in the *Journal* is maintained primarily as a service to our members but contributes a small amount to income.

The dividend income from our investments has shown a steady upward climb as a result of small addition of new investments each year, and in the past two or three years it has sputtered as a result of increased dividend payments. The respective amounts in the past five years are \$7,456.27, \$7,587.14, \$8,019.98, \$8,636.72, and \$9,327.15.

In 1961, the advice of the Financial Advisory Committee to maintain a portion of our Endowment Fund in a cash account was followed and in the next four years, this cash fund was built up to \$30,000. This fund has been called the Cash Contingency Fund for good reason. A contingency is a possible but not certain event; a contingency fund is a good cushion to have against unexpected items of expense that cannot be covered out of normal annual income. At the time, work on the decennial index to volumes 41-50 was going forward and the printing was a known future expense for which there was no other provision. In April 1962, the Special Paper series was initiated, and it was recognized that funds should be available for any issues subsequent to Number One which, since it was to be the Proceedings of the IMA meeting, was being financed by the National Science Foundation. Since 1964, the Cash Contingency Fund has provided, through the interest it earns annually, a welcome sum of more than \$1,000 toward current expense. It should be realized, moreover, that this Cash Fund is an integral part of the Endowment Fund, whose primary duty is to earn income, and is not money waiting to be spent. As soon as it is spent, it no longer earns income and its usefulness in that respect is lost. At the present time, with rising expenses and as yet no definite action to provide additional income by other means, the use of the Cash Contingency Fund as a first resort for meeting items for current expense would be imprudent.

As shown in the tabulated figures, income is slightly more than expense this year, but this situation will not continue into next year, and actually has been anticipated and emphasized in my reports for the past two years. Expenses have been steadily rising as a result of increased activity, increased publication, and increased costs of both materials and services. The income derived from new members and subscribers, increased sales and the rise in investment income cannot and has not kept pace with the increased expenses. One possible solution for this situation was initiated by the Council in 1965 in the form of an Endowment Fund Committee to invite supplementary support for *The American*

TABLE 1. INCOME

	1965-1966		1966-1967	
	<i>Amount</i>	<i>Percent</i>	<i>Amount</i>	<i>Percent</i>
Dues .....	\$17,280.09	20.94%	\$18,813.42	23.92%
Publication Program .....	52,790.77	63.97	48,311.21	61.41
Investments .....	9,853.01	11.94	10,383.22	13.20
Income for Investment .....	1,410.50	1.71	1,073.00	1.36
1965 Meeting .....	1,190.06	1.44	—	—
Miscellaneous .....	4.50	—	83.10	.11
	\$82,528.93	100.00%	\$78,663.95	100.00%

TABLE 2. DISBURSEMENTS

	1965-1966		1966-1967	
	<i>Amount</i>	<i>Percent</i>	<i>Amount</i>	<i>Percent</i>
Publication Program .....	\$65,951.16	84.32%	\$58,147.80	75.07%
Meetings .....	2,034.47	2.60	1,884.33	2.43
Office expense .....	5,739.84	7.34	12,594.88	16.26
Officers' Honoraria .....	3,500.00	4.47	3,875.00	5.00
Contributions, etc. ....	993.34	1.27	959.41	1.24
	\$78,218.81	100.00%	\$77,461.42	100.00%

*Mineralogist* through contributions by our industrial subscribers. The Committee received favorable responses to its initial efforts and contributions of \$1,100. Further activity ceased when the Committee was terminated in late 1966 by President Chayes. Figures showing the range of additional income to be expected from variously scaled increases in dues and subscription prices have been presented to the Council but no action has been taken. As any dues increase must be submitted to a membership vote before going into effect, and as any increase in subscription price is necessarily tied to the dues rate, it is only too evident that action in this area has been delayed too long. At the present rate of estimated income and expenditure, therefore, it is likely that the financial statement for next year will show a deficit.

The distribution of *The American Mineralogist* on a paid subscription basis increased by 63 copies or 3.5% from 1746 copies in 1966 to 1,809 in 1967. The increase is almost equally divided between domestic and foreign subscribers. Of the total 1,809 copies, 722 (40%) go to domestic destinations and 1,087 (60%) go to destinations in 89 countries on all continents. The table, an eight-year summary, shows that the increase of total subscriptions has been 26% between 1960 and 1967, with the domestic and foreign subscriptions maintaining a fairly consistent 40:60 ratio.

	Copies to domestic destinations	Copies to foreign destinations	Total copies	Number of foreign countries
1960	517	808	1,325	76
1961	537	908	1,445	78
1962	577	951	1,528	80
1963	607	935	1,542	79
1964	626	970	1,596	82
1965	659	1,032	1,691	84
1966	688	1,058	1,746	88
1967	722	1,087	1,809	89
1960-1967 Increase	205	279	484	13

#### *Endowment Fund and Cash Contingency Fund*

The book value (cost) of the Endowment Fund securities on August 1, 1967, was \$160,183.86 compared with \$155,574.33 on August 1, 1966. Of this amount 6.35% is in bonds, 11.0% is in preferred stocks, and 82.7% is in common stocks. The market value on August 1, 1967, was \$254,008 or 14% above that of August 1, 1966, reflecting the upward movement of the market during the year. Dividends and interest from the securities totaled \$9,327.15, well above the estimated figure of \$8,600.00 and the result generally of dividend increases. From current holdings, an income of \$9,500 is estimated for 1967-1968. The percentage yields of each type of security, at both cost and market value, are given in Table 3.

The Cash Contingency Fund is held primarily in two savings and loan accounts and one deposit certificate, as shown in the listing. Interest on these items and a small amount on money invested from the Merrill Lynch account amounted to \$1,056.07. At the present time, the Cash Contingency Fund is earmarked in part to meet the cost of the forthcoming Decennial Index to Volumes 41-50 (1955-65) of *The American Mineralogist* which is now in press and in part to meet the cost of Special Paper No. 2, which is still in the future.

TABLE 3. YIELD PERCENTAGE OF SECURITIES

Class	Book Value	Yield	Market Value	Yield
Bonds	\$ 10,043.75	4.98%	\$ 8,488	5.89%
Preferred stock	17,623.20	4.80	15,325	5.52
Common stock	132,516.91	6.02	230,195	3.47
Total	\$160,183.86	5.82%	\$254,008	3.67%

#### *Edward H. Kraus Crystallographic Research Fund*

During the past year, Dean Kraus transferred another fifty shares of Goodyear Tire and Rubber Company common stock to the Society, to be added to the Crystallographic Research Fund. Dividends accruing from the Fund are held in a Riggs National Bank savings account and with interest now amounting to \$116.89.

*Acknowledgments*

A number of individuals, in various capacities, are essential to the daily work of the Treasurer's office and I should like to take this opportunity to name and thank them. They are Andrew Robertson, for his assistance with order shipments; Marion Godshaw, for her management of advertising in the *Journal*; Isidore Fischer of Atlas Press, whose printed forms are well known to all of you; William H. Paul, of Ward & Paul, Inc. for duplicating service; Irwin H. Wensink and Jane Gibson of the George Banta Company, Inc., in Washington, and Alvin A. Lang and Gerald J. Schutkoske of the home office in Menasha, Wisconsin, for their able management of the printing and distribution of *The American Mineralogist*; Herbert Allen of Merrill Lynch, custodian of our portfolio; Ernest W. Robinson, of the Riggs National Bank; and Jos. Dinsmore Murphy, for legal counsel. I owe very special thanks to my Financial Advisory Committee, Edward P. Henderson, Thomas W. Stern, and Arthur Montgomery, for their constant interest and competent advice in regard to our investments. And last but not least by any means, I wish to thank the ever-growing roster of members and subscribers for their cooperation and support.

Respectfully submitted,  
MARJORIE HOOKER, *Treasurer*

## REPORT OF THE AUDITING COMMITTEE FOR 1967

On November 6, 1967, the Auditing Committee examined the accounts of the Treasurer of the Society, including inspection of the contents of the Safety Deposit Box in the Federal Office of the Riggs National Bank. We have found them to be in order for the fiscal year, August 1, 1966-July 31, 1967, and are truly represented by the Report of the Treasurer. The Treasurer, as has come to be expected, has maintained the financial records with exceptional care. The Treasurer is also to be commended for the voluntary care of the reserve stocks of back issues of *The American Mineralogist*, with all the duties involved, to the financial benefit of the Society.

Respectfully submitted,  
GORDON L. DAVIS, *Chairman*  
ALLEN V. HEYL, JR.  
PRIESTLEY TOULMIN, III

November 6, 1967

## REPORT OF THE EDITOR FOR 1967

*To the Council of the Mineralogical Society of America:*

My duties began as of November 1, 1966, and this report covers activities of the Editor's office from that date, although the statistics are for the calendar year 1967.

## EDITORIAL OFFICE OPERATIONS

The transfer involved a major change in the physical operation of the Editor's office. Although for convenience mail is received at Chevron Research Company, the operations are centered in a quiet retreat at 840 N. Idaho Street, La Habra. Here at various odd hours three semi-persons help get your manuscript into print. The editorial assistant, Mrs. Elizabeth Paine, has principal responsibility for marking accepted manuscript for the press, collating author's corrections from the galleys to the page dummies, and getting the issue finally ready for press. The secretary, Mrs. Arlynn Bishop, types and dispatches the stacks of mail regarding manuscripts in process. That leaves for me, in addition to checking

all of these operations (particularly on technical points), the frustrating functions of choosing referees, adding to their comments, and deciding to print or not to print. During this year we have encountered many minor problems in getting this operation under way, and if this has sometimes delayed return of a receipt or a manuscript, I fully expect that our experience will help us to give you better service in the coming year. Hopefully, I can even cut down on the number of glaring typos (did you notice?) that are now unfortunately part of our printed records.

## PUBLICATION RESULTS

Volume 52 for 1967 totals 1,950 pages, including 120 major papers and 65 notes. Twenty-five percent of the authors were from 15 countries outside the U.S.A. Half of the work was done at universities, and sixty percent of that received some government support. Direct governmental research accounted for another quarter of the projects, and the remainder was evenly divided between industry and private foundations.

The volume described the new minerals rivadavite, rosenhahnite, ameghinite, iowaite and switzerite. A series of five important papers on the determination and distribution of feldspars published early in the year, will be followed next January by a further series in this field. Papers on crystal structure have emphasized refinements and theoretical interpretations, particularly of the silicates. This year has also seen the beginning of what will undoubtedly be a field of increasing interest to mineralogists—the detailed measurement and interpretation of spectra: *uv to ir*, EPR and Mössbauer. Chemical analysis of rocks and minerals, aided by X-ray fluorescence and the microprobe, has increased the productivity of mineralogists to the point where we should give more emphasis to interpretation and statistics, without necessarily printing all of the individual analyses. These are only a few of the features that grace the year of solid scholarship represented by this volume.

The following ledger attempts to show both how manuscripts have moved during the year, and how the size of the pile at year's end differs from our beginning.

*Status as of January 1, 1967:*

	<i>Major</i>	<i>Notes</i>	<i>Total</i>
In press (51, nos. 11–12; 52, nos. 1–2)	32	13	45
Accepted manuscripts	63	17	80
Manuscripts with reviewer or author			67
			<hr/>
Total manuscripts on hand			147

*Operations: January 1, 1967–January 1, 1968:*

Published (51, nos. 11–12; 52, nos. 1–10)	110	63	173
Sent to Press (52, nos. 3–12; 53, nos. 1–2)	125	74	199
Manuscripts received			271
Manuscripts accepted			172
Manuscripts rejected			82

*Status as of January 1, 1968:*

In Press (53, nos. 1–2)	46	22	68
Accepted manuscripts	28	26	54
Manuscripts with editor			8
Manuscripts with referee			36
Manuscripts with author			39
			<hr/>
Total manuscripts on hand			137

The backlog of manuscripts seems a little lower than at the beginning of the year, or looking at it another way—we have sent to press more papers than we have accepted.

Compared to reports for last year, it looks as if we are receiving about the same number of papers, rejecting a larger fraction (30% instead of 20%) of papers received, and getting more papers (35 instead of 25) into each issue, but it is probably premature to either accept these as trends or attribute them to editorial policy. Certainly the interim increases in pages budgeted (total about 150 pages), which were approved by the Council during the year, were of some help.

During Volume 52 the mean time from receipt of manuscript to issue date fluctuated from 8 to 12 months, and for manuscripts being received now it is about 9 months. At the present rate of editorial processing, we have a backlog of about one extra issue that could be printed immediately, reducing the lead time to 7 months.

The above times are based on the imprint date, which for this year has been a fictional six weeks before the actual mailing date. Much (but not all) of this delay has been in the Banta press. We are now working out a more realistic schedule, which will allow about 3 months for the publishing cycle, and which I hope will slide the mailing date back to what it says on the cover. Adding another month for an average publication interval, and at least a month to average out the fluctuations of manuscript inflow (for a constant number of pages per issue), I come up with an average time from acceptance to mailing of at least 5 months. Manuscripts have been circulating among referee, author and editor for about 3 months. Even if this could be cut down a little, we are still faced with a realistic goal, for the minimum time from receipt to mailing, of 7 or 8 months.

Manuscript receipts fluctuate considerably, but over the long range they have risen perhaps 10 percent per year. Consequently, the above goals will become even more difficult to meet in the future.

In order to cope with the long-range pile-up of manuscripts, the President appointed a committee under E. W. Heinrich to consider solutions, and I join them in recommendations such as the institution of page charges to cover much of the publishing (as distinct from printing and distribution) costs of the journal.

#### INNOVATIONS

Through the devoted and painstaking work of Joseph Murdoch, the decennial index to volumes 41–50 is now in press. Preparation of the decennial index involves a complete evaluation of each paper for proper index terms. As you may know, the annual index has contained entries for only one (rarely two) words of the title itself. As a step toward better coverage in the annual index, volume 52 uses the *Key Word In Context—KWIC*—style of computer sorting to permute into the index every significant word of the title, and even, you may have noticed, some insignificant words. This change followed a trial run on a similar index for 1966, for which, however, there was not time for wide dissemination and comment. I believe the *KWIC* index is an improvement, and I believe that it can be improved. In addition, as the computer index is accumulated for future volumes, we may be able to store sufficient other key words that are not in the title, to allow instant compilation of the deeper index issued every ten years.

The Instructions to Authors, last revised in 1963, was brought up to date, with the help of the Associate Editors, and discussed by the Council and at the Business Meeting. The principal change has been a codification of certain standards that have become available recently and which were informally introduced this year into the journal: The U.S.A. Standard for abbreviating journal titles, the IUCr standard for recording crystal data, and the ICTA standard for recording thermal data. A meeting of the new Association of Earth Science Editors, held in Columbus, Ohio, October 11–12, was helpful to me in seeing how

others solve the same problems. Such meetings will hopefully lead to more uniformity of editorial standards and style among geological journals.

#### ACKNOWLEDGEMENTS

I am grateful, and I believe the Society is also, for the support and encouragement from Chevron Research Company that made it possible for me to accept the position as Editor. In addition to donating a part of my working day and travel to meetings, they have generously loaned half of the furniture in our Idaho Street office, and provided certain specific services, such as computer time for the *KWIC* index.

It is only fair to mention once again that this Editor's job, demanding though it may be, is concerned only with getting your paper to press. In fact, the George Banta Company, Inc., is much more than a printer, in getting copy ready for press, Marjorie Hooker is much more than a Treasurer, in handling the mailing list, reprint bills and back issues, and Mrs. Marion Godshaw keeps the advertising coming without any help from me.

The Associate Editors, Daniel E. Appleman, Stephen E. Clabaugh, Vernon J. Hurst, Arthur F. Hagner, George W. Brindley and W. Barclay Kamb gave generously of their time, both in reading manuscripts and in revising the Instructions to Authors. Michael Fleischer has continued his able editing of *New Mineral Names*. A large number of referees, some referred through the Associate Editors, have helped both us and the authors with comment and judgement; many of these have been particularly conscientious in their detailed evaluations. The following have acted as referees during 1967:

L. L. Ames, Jr.	J. D. H. Donnay	H. C. Helgeson
A. T. Anderson, Jr.	J. B. Droste	C. J. Hodgson
E. E. Angino	Wilhelm Eitel	H. D. Holland
R. J. Arnott	Celeste Engel	C. S. Hurlbut
Fabrizio Aumento	R. C. Erd	M. L. Jackson
G. W. Berg	W. G. Ernst	P. F. Kerr
L. G. Berry	J. H. Fang	K. B. Krauskopf
G. K. Billings	D. J. Fisher	W. D. Keller
F. D. Bloss	E. M. Flanigen	Gunnar Kullerud
L. C. Bonham	Michael Fleischer	H. W. Lakin
W. F. Bradley	O. W. Flörke	P. N. La Mori
George Brown	R. B. Forbes	B. F. Leonard
C. W. Burnham	M. D. Foster	M. L. Lindberg
J. F. Burst, Jr.	W. R. Foster	J. L. McAtee
E. N. Cameron	Clifford Frondel	Alexander McBirney
C. A. Chapman	L. H. Fuchs	Duncan McConnell
Felix Chayes	W. S. Fyfe	D. B. McIntyre
Arthur Chodos	R. M. Garrels	A. L. Mackay
C. L. Christ	R. J. Gibbs	J. A. Mandarino
John Christie	Julian Goldsmith	B. H. Mason
S. P. Clark	J. B. Goodenough	W. L. Medlin
R. N. Clayton	D. L. Graf	W. M. Meir
Paul Cloke	Jack Green	Charles Milton
A. A. Colville	R. G. Greene-Kelly	P. B. Moore
K. S. Deffeyes	F. S. Grimaldi	M. E. Mrose
G. W. DeVore	E. B. Gross	Arnulf Muan
F. H. Dickson	A. J. Gude, III	German Müller
Gabrielle Donnay	Anna Heitanen-Makela	Kurt Nassau



R. E. Newnham	Ryoichi Sadanaga	Yoshio Takeuchi
J. J. Norton	C. J. Schneer	J. B. Thompson, Jr.
P. M. Orville	C. B. Sclar	S. R. Titley
E. F. Osborn	D. M. Shaw	Priestley Toulmin, III
Adolf Pabst	L. T. Silver	George Tunell
N. J. Page	B. J. Skinner	F. J. Turner
J. A. Pask	Maynard Slaughter	O. F. Tuttle
D. R. Peacor	J. V. Smith	E. A. Vincent
E. H. Poindexter	K. G. Snetsinger	D. R. Waldbaum
J. L. Powell	J. R. South	W. B. White
R. C. Reynolds, Jr.	L. W. Staples	R. T. Wilcox
R. W. Rex	R. H. Steiger	J. F. G. Wilkinson
R. A. Robie	H. Steinfink	T. L. Wright
Edwin Roedder	Bronson Stringham	E. J. Zeller
H. P. Rooksby	V. Stubican	Josef Zemann
E. H. Roseboom, Jr.	Ichiro Sunagawa	E-an Zen
J. L. Rosenfeld	Ada Swineford	Tibor Zoltai
Malcolm Ross	George Switzer	Jack Zussman

Respectfully submitted,  
 WILLIAM T. HOLSER, *Editor*

LIST OF FORMER OFFICERS AND MEETING PLACES

HONORARY PRESIDENTS

Edward S. Dana	1925-1935
Charles Palache	1949-1954
Edward H. Kraus	1955-

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

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1922	Frederick A. Canfield
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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

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 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  
 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 Fondel  
 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  
 1965 George T. Faust  
 1966 Brian H. Mason  
 1967 Felix Chayes

## 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.  
 1959-1966 George Switzer  
 1966- Ralph J. Holmes

## EDITORS

1920-1921 Edgar T. Wherry  
 1922-1956 Walter F. Hunt  
 1957-1961 Lewis S. Ramsdell

VICE-PRESIDENTS (*Cont.*)

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  
 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  
 1965 Brian H. Mason  
 1966 Felix Chayes  
 1967 James B. Thompson

## 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

## 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.  
1932 Clarence S. Ross, Paul F. Kerr, William S. Bayley, William J. McCaughey.  
1933 Paul F. Kerr, William S. Bayley, William J. McCaughey, Kenneth K. Landes.  
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.  
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, Jr.  
1964 Francis J. Turner, Hatten S. Yoder, Jr., W. F. Bradley, Howard T. Evans, Jr., Harold L. James, Joseph V. Smith.  
1965 W. F. Bradley, Howard T. Evans, Jr., Harold L. James, Joseph V. Smith, William T. Pecora, William S. Fyfe, Walter D. Keller.  
1966 Harold L. James, Joseph V. Smith, William S. Fyfe, Walter D. Keller, Eugene N. Cameron, William S. MacKenzie.  
1967 Eugene N. Cameron, Robert G. Coleman, William S. Fyfe, Donald L. Graf, Walter D. Keller, William S. MacKenzie.

## Annual Meeting Places

1920 Chicago, Illinois.	1944 No meeting held
1921 Amherst, Massachusetts	1945 Pittsburgh, Pennsylvania
1922 Ann Arbor, Michigan	1946 Chicago, Illinois
1923 Washington, D. C.	1947 Ottawa, Canada
1924 Ithaca, New York	1948 New York, New York
1925 New Haven, Connecticut	1949 El Paso, Texas
1926 Madison, Wisconsin	1950 Washington, D. C.
1927 Cleveland, Ohio	1951 Detroit, Michigan
1928 New York, New York	1952 Boston, Massachusetts
1929 Washington, D. C.	1953 Toronto, Canada
1930 Toronto, Canada	1954 Los Angeles, California
1931 Tulsa, Oklahoma	1955 New Orleans, Louisiana
1932 Cambridge, Massachusetts	1956 Minneapolis, Minnesota
1933 Chicago, Illinois	1957 Atlantic City, New Jersey
1934 Rochester, New York	1958 St. Louis, Missouri
1935 New York, New York	1959 Pittsburgh, Pennsylvania
1936 Cincinnati, Ohio	1960 Denver, Colorado
1937 Washington, D. C.	1961 Cincinnati, Ohio
1938 New York, New York	1962 Houston, Texas
1939 Minneapolis, Minnesota	1963 New York, New York
1940 Austin, Texas	1964 Miami Beach, Florida
1941 Boston, Massachusetts	1965 Kansas City, Missouri
1942 No meeting held	1966 San Francisco, Calif.
1943 No meeting held	1967 New Orleans, La.

## Recipients of the Roebling Medal

1937 Charles Palache	1955 Alexander N. Winchell
1938 Waldemar T. Schaller	1956 Arthur F. Buddington
1940 Leonard James Spencer	1957 Walter F. Hunt
1941 Esper S. Larsen, Jr.	1958 Martin J. Buerger
1945 Edward H. Kraus	1959 Felix Machatschki
1946 Clarence S. Ross	1960 Tom F. W. Barth
1947 Paul Niggli	1961 Paul Ramdohr
1948 William Lawrence Bragg	1962 John W. Gruner
1949 Herbert E. Merwin	1963 John Frank Schairer
1950 Norman L. Bowen	1964 Clifford Frondel
1952 Fred E. Wright	1965 Adolf Pabst
1953 William F. Foshag	1966 Max H. Hey
1954 Cecil Edgar Tilley	1967 Linus Pauling

## Recipients of the Mineralogical Society of America Award

1951 Orville G. Tuttle	1959 Harry F. W. Taylor
1952 Frederick H. Stewart	1960 Donald L. Graf
1953 L. H. Ahrens	1961 Joseph V. Smith
1954 Hatten S. Yoder, Jr.	1962 Douglas S. Coombs
1955 Julian R. Goldsmith	1963 Nobuo Morimoto
1956 George C. Kennedy	1964 William S. Fyfe
1957 Rustum Roy	1965 Peter J. Wyllie
1958 Charles E. Weaver	1966 David B. Stewart

1967 Alfred E. Ringwood