PROCEEDINGS OF THE FORTY-FIRST ANNUAL MEETING OF THE MINERALOGICAL SOCIETY OF AMERICA AT DENVER, COLORADO

GEORGE SWITZER, Secretary.

The forty-first meeting of the Society was held on October 31–November 2, 1960, at the Denver Hilton Hotel, Denver, Colorado. The scientific sessions were integrated with those of the Geological Society of America and other affiliated Societies. A total of 43 scientific sessions were held. Of these two were devoted to mineralogy, one to crystallography, one to petrology, and four to geochemistry, at which 114 papers were presented.

The annual luncheon of the Society on November 1 was attended by 200 fellows, members and guests. Following the luncheon the eighteenth presentation of the Roebling Medal was made to T. F. W. Barth and the tenth presentation of the Mineralogical Society of America Award was made to Donald L. Graf.

On the afternoon of November 1, the Society was addressed by Retiring President Joseph Murdoch on the subject Crestmore—Past and Present. The annual business meeting was held on the morning of November 2, at which reports were given by the Secretary, Treasurer, and Editor. An announcement of an International Mineralogical Association meeting to be held in Washington, D. C., in April 1962 was made by International Mineralogical Association President, D. J. Fisher.

ACTION OF THE 1960 COUNCIL

The 1960 Council of the Society met on the afternoon and evening of October 30 and the morning of October 31 for a total of seven hours.

Mineralogical Abstracts. The International Mineralogical Association Abstracts Commission met in Copenhagen in August 1960 to discuss the ultimate goal of having an international abstracts journal. The most promising plan envisages the extension of Mineralogical Abstracts, presently owned jointly by the Mineralogical Society of America and the Mineralogical Society of Great Britain. To this end the following note was approved by the Councils of both societies, to be circularized by the Abstracts Commission to all known national societies or associations:

During the Copenhagen meeting of the International Mineralogical Association the new Commission on Abstracts discussed the organization of a comprehensive journal of mineralogical abstracts.

The most promising plan envisages the extension of *Mineralogical Abstracts*, at present owned jointly by the Mineralogical Society of Great Britain and the Mineralogical Society of America. With the approval of the Councils of both these societies, the Commission is sending this letter to all known national mineralogical societies in an effort to obtain their co-operation.

- I. Mineralogical Abstracts could be readily enlarged if more abstracts covering different countries were available. Regional or national societies can secure for all their members a 50% reduction in the cost by agreeing to contribute free of charge Engilsh abstracts comprising a comprehensive coverage of papers appearing in their region; they need undertake no other responsibility. Members of such societies would pay \$4.50 (U.S.) for personal annual subscription to Mineralogical Abstracts compared with the full subscription rate of \$9.00. National mineralogical societies in Canada, Japan, Norway and Switzerland are already partaking in this scheme.
- II. The question of a wider ownership of Mineralogical Abstracts is being considered but the British and American societies feel that it would be premature to extend

ownership prior to 1963. They feel that more experience of the present financial arrangement would be essential to devise an equitable scheme. Both the Brith and American societies put up appreciable capital sums in order to start *Mineralogical Abstracts* (as from vol. 14); moreover they have agreed to stand losses that *Mineralogical Abstracts* might incur. Members of the British society pay an annual subscription of the equivalent of \$3.00 for *Mineralogical Abstracts* and this is included in their subscription to the *Mineralogical Magazine*, i.e. they cannot contract out of buying *Mineralogical Abstracts*. Members of the American society can purchase *Mineralogical Abstracts* for \$3.00 which may be included in their dues at their discretion. The subscriptions appropriate to wider ownership would depend considerably on the number of participating countries.

Awards. The Council voted that in 1961 the Roebling Medal be awarded to Paul Ramdohr, and the Mineralogical Society of America Award be presented to Joseph V. Smith.

Election of Fellows. In 1960 there were 49 candidates for Fellow placed on the ballot. Following past procedures, the Secretary had printed a booklet giving biography and bibliography of each candidate. This required a 79 page booklet, and even though it was typed and produced by photo offset, the cost of preparing the booklet was nearly \$700. The Secretary suggested that in the future a method patterned after that used by the Geological Society of America and the Society of Economic Geologist be followed: The following form was suggested and approved by the Council:

To the Fellows of the Society:

The Secretary sends you herewith vita on the candidates on the enclosed ballot for election as Fellows. The candidates have been approved by the Council on recommendation by the Nominating Committee for Fellows. The complete bibliography of any candidate may be obtained by writing to the Secretary not later than August 1, 1961.

The vita on each candidate will consist of a brief biography, number of publications and general nature of major publications, and names of sponsors. This new short form will be followed in presenting candidates for election in 1961.

Financial Advisory Committee. The report of the Committee was accepted. The Council voted to drop the matter, raised the preceding year, of a commercial audit of the Society's books.

Membership List Publication. The Council voted that the Executive Committee bring to the 1961 Council recommendations for publishing the membership list separately by photo offset from addressograph plates.

Mistake in by-Laws. In November 1951 the Council recommended the following amendment in Article II, Section 3 of the By-Laws, and voted that it be placed on the ballot in 1952 for approval by the membership:

Fellows and members who have reached the age of 70 years, or have reached the official retirement age of the institution in which they have been serving, and have paid annual dues for 30 years, shall be exempt from further payment of dues but retain all rights and privileges. (From Proceedings, Am. Mineral., 37, 276, 1952.)

This above item appeared on the ballot distributed to the membership in 1952, but the result of the vote does not appear in the Proceedings of the following year or in subsequent years, nor in the Secretary's reports to the Council in subsequent years.

There has been no authority for any change in the wording of Article II, Section 3 of the By-Laws between the time that it appeared on the ballot in 1952 and in the revision of the By-Laws approved by the Council in 1957 and printed in 1958 (Am. Mineral., 43, 611-614). Therefore, this section in the 1958 printing of the By-Laws is incorrect.

The Council feels that the simplest way to correct the mistake is to place Article II, Section 3 of the By-Laws, as originally worded and recommended by the Council in 1951, and (probably) voted by the membership in 1952, on the 1961 ballot to be reaffirmed and thereby annul the error in the wording of this section in the revised By-Laws approved in November 1958. The Council, therefore, voted that the above proposed change be placed on the 1961 ballot for vote by the membership.

Use of Mailing List. The Council voted that the present practice be continued of selling the MSA mailing list to concerns such as book publishers, if by so doing a service would be rendered to the membership, and that the charge to be made for the use of the

list be left to the discretion of the Treasurer.

Storage of Back Issues of the American Mineralogist. The Council was informed by the Editor that the stock of most of the back issues of The American Mineralogist, now stored at the University of Michigan, must be moved within a year. The Council voted that the back issues be moved to Silver Spring, Maryland, and that storage, sales, and distribution of back issues be taken over by the Treasurer's office.

Funds for Travel to Annual Meeting. The Secretary pointed out that the 1946 Council authorized travel expenses of five cents per mile for the Secretary, Treasurer, and Editor to attend the annual meeting of the society. The Council reaffirmed this past Council action.

General Interest Articles in The American Mineralogist. Richard H. Jahns reported that he has compiled a list of 22 famous mineral localities, and is ready to inaugurate a series of articles of professional quality on famous mineral localities. The Council reiterated its approval of the project, and voted that Dr. Jahns and the Editor be empowered to use their best judgment in the selection of articles.

ACTION BY THE 1961 COUNCIL

Editor of The American Mineralogist. The Council appointed Lewis S. Ramsdell Editor of The American Mineralogist for the year 1961.

Co-Editor of The American Mineralogist. The Editor requested that the Council appoint a Co-Editor, to begin work immediately, and to take over full editorship of the journal at the end of 1961. The immediate duties of the Co-Editor would be to receive and evaluate all manuscripts, send them to referees, and to be responsible for all book reviews. These two functions represent about one-third of the editorial work load. The Council appointed E. W. Heinrich Co-Editor of The American Mineralogist for the year 1961.

American Geological Institute. The Council voted that the Mineralogical Society of America contribute no more than \$500 to the American Geological Institute in 1961, at the will of the Executive Committee.

International Mineralogical Association. The Council voted that \$150.00 be paid during 1961 as the Society's dues to the International Mineralogical Association.

Ten Year Index of The American Mineralogist. The Council voted that Joseph Murdoch be appointed Chief Indexer, to begin preparation of the next 10-year index of The American Mineralogist, for volumes 41–50.

International Mineralogical Association Meeting in Washington, D. C., in Spring 1962. The date of the meeting was set for April 18–20, 1962, with field excursions before and after the meeting. The Council voted that Alvin Van Valkenburg be appointed General Chairman of the local committee.

Archivist. The Society has never had an Archivist, and there is increasing danger as years pass that records relating to the Society's founding and early history will become lost. The Council voted that George T. Faust be appointed Archivist, and that he be requested to begin the task of assembling all pertinent papers and information.

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

1961 COMMITTEES OF THE MINERALOGICAL SOCIETY OF AMERICA

| Nominating Committees for | | M. L. Lindberg | |
|----------------------------|----------|-------------------------------|----------|
| R. Roy, Chairman | 1960-62 | G. L. Davis | |
| E. N. Cameron | 1959-61 | | |
| J. L. Kulp | 1959-61 | Nomenclature Committ | ee |
| C. F. Park, Jr. | 1960-62 | J. V. Smith, Chairman | 1959-61 |
| W. S. MacKenzie | 1961-63 | G. Tunell | 1959-61 |
| R. S. Cannon | 1961-63 | G. T. Faust | 1960-62 |
| | | A. Pabst | 1960-62 |
| Roebling Medal Commit | tee | M. Fleischer | 1961-63 |
| R. M. Garrels, Chairman | | C. Frondel | 1961-63 |
| C. A. Anderson | | 2001 1 20 10 | |
| H. L. James | | MSA Award Committee | ee. |
| H. Kuno | | E. W. Nuffield, Chairman | |
| C. E. Tilley | | W. F. Bradley | |
| G. Tunell | | I. H. Milne | |
| | | K. J. Murata | |
| Program Committee | | H. F. W. Taylor | |
| H. Winchell | | J. B. Thompson | |
| J. W. Peoples, alternate | | Financial Advisory Comn | rittee |
| Nominating Committee for C | Officers | E. P. Henderson, Chairman | 1959-61 |
| C. L. Christ, Chairman | | A. Montgomery | 1960-62 |
| J. C. Griffiths | | W. T. Pecora | 1961-63 |
| H. H. Hess | | | |
| A. L. Howland | | Endowment Committe | e |
| H. F. McMurdie | | C. B. Slawson | |
| R. G. Coleman | | 17: G 10 D 10 | 7.7 |
| 4 101 0 | | Advisory Committee on Russian | |
| Auditing Committee | | to the American Geological I | nstitute |

A. Van Valkenburg, Chairman

Earl Ingerson, Chairman

| Representatives | | | | | | |
|--|------------|----------|-------------------------|---------|--------|--------------|
| American Geological Inst | itute | New | Minerals | | 1,0,,, | Mineral |
| Board of Directors: | | 2100 | mes—D. M | | ıell | |
| R. M. Grogan | 1960-61 | | ums—G. Sv | | | |
| J. F. Schairer | 1961-62 | Teach | ning of Mir | neralog | gy—C. | S. Hurl- |
| Government Relations Committee: | | but, Jr. | | | | |
| P. F. Kerr | 1959–61 | American | Association | for t | he Adv | ancement |
| International Mineralogical A | ssociation | | of Se | cience | | |
| Representative: | | P. F. K | err | | | |
| A. Pabst | | E. E. W | ahlstrom | | | |
| Members of Commissions: Abstracts—H. Winchell Data—G. T. Faust | | W. F. E | Tational Res Bradley | search | | l 1960–63 |
| | | | | | | |

Nominations for Officers for 1962. The following slate was proposed by the Nominating Committee and approved by the Council:

President: Ian Campbell, California Division of Mines, San Francisco, Calif.

Vice-President: Cornelius S. Hurlbut, Jr., Harvard University, Cambridge, Mass.

Secretary: George Switzer, U. S. National Museum, Washington, D. C. Treasurer: Marjorie Hooker, U. S. Geological Survey, Washington, D. C.

Councilors: (1962-64, two to be elected)

R. B. Ferguson, University of Manitoba, Winnipeg, Canada

Harold L. James, U. S. Geological Survey, Menlo Park, Calif.

Francis J. Turner, University of California, Berkeley, Calif.

Hatten S. Yoder, Jr., Geophysical Laboratory, Washington, D. C.

REPORT OF THE SECRETARY

To the Council of the Mineralogical Society of America

ELECTION OF OFFICERS AND FELLOWS

Nine hundred and forty-nine ballots were cast in the election of officers, 131 by Fellows and 818 by Members. The officers elected to serve in 1961 are:

President: E. F. Osborn, The Pennsylvania State University, University Park, Pennsylvania Vice-President: Ian Campbell, State Division of Mines, San Francisco, California.

Secretary: George Switzer, U. S. National Museum, Washington, D. C.

Treasurer: Marjorie Hooker, U. S. Geological Survey, Washington, D. C.

Councilors: (1961-1963) Robert M. Garrels, Harvard University, Cambridge, Massachu-

O. F. Tuttle, The Pennsylvania State University, University Park, Pennsylvania.

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

John W. Adams, U. S. Geological Survey, Denver, Colorado.

George Baker, C.S.I.R.O., University of Melbourne, Parkville N. 2., Victoria, Australia.

Fernand A. J. Blondel, 18 rue Leonardo da Vince, Paris, France.

Esther W. Claffy, Naval Research Laboratory, Washington, D. C.

Robert G. Coleman, U. S. Geological Survey, Menlo Park, California.

William A. Deer, The University, Manchester, England.

Reynolds M. Denning, The University of Michigan, Ann Arbor, Michigan.

F. Donald Eckelmann, Brown University, Providence, Rhode Island.

Judith Weiss Frondel, 20 Beatrice Circle, Belmont, Massachusetts.

José M. Fuster, Museo Nacional Ciencias Naturales, Madrid, Spain.

William S. Fyfe, University of California, Berkeley, California.

John C. Hathaway, U. S. Geological Survey, Denver, Colorado.

Norman Herz, U. S. Geological Survey, A.P.O. 676, New York, N. Y.

Allen Van Heyl, Jr., U. S. Geological Survey, Washington, D. C.

Sven Hjelmqvist, The University, Lund, Sweden.

Floyd A. Hummel, The Pennsylvania State University, University Park, Pennsylvania.

Horst H. Kedesdy, Signal Research and Development Laboratory, Fort Monmouth, New Jersey.

Arthur W. G. Kingsbury, University Museum, Oxford, England.

Jack A. Kohn, Signal Research and Development Laboratory, Fort Monmouth, New Jersey.

James F. McAllister, U. S. Geological Survey, Menlo Park, California.

James L. McAtee, Jr., Baylor University, Waco, Texas.

*Graham S. MacKenzie, University of New Brunswick, Fredericton, New Brunswick. Canada.

Robert C. Mackenzie, Macaulay Institute for Soil Research, Aberdeen, Scotland.

Henry G. Midgley, Building Research Station, Harpenden Herts, England.

Louis Moyd, 136 Park Ave., Yonkers, New York.

Kaarlo J. Neuvonen, University of Turku, Turku, Finland.

Ernest H. Nickel, Department of Mines and Technical Surveys, Ottawa, Canada.

Ronald W. B. Nurse, Building Research Station, Harpenden, Herts, England.

Ke'ichi Omori, Tohoku University, Sendai, Japan.

Fred D. Ordway, Jr., National Bureau of Standards, Washington, D. C.

James Phemister, 19 Grange Terrace, Edinburgh, Scotland.

Alan T. Prince, Department of Mines and Technical Surveys, Ottawa, Canada.

Donald H. Richter, U. S. Geological Survey, Hawaii National Park, Hawaii.

George R. Rigby, Canadian Refractories, Ltd., Grenville, Quebec, Canada.

Gershon D. Robinson, U. S. Geological Survey, Denver, Colorado.

Harold P. Rooksby, The General Electric Company, Ltd., Wembley, Middlesex, England.

Chalmer J. Roy, Iowa State University, Ames, Iowa.

Edgar R. Segnit, C.S.I.R.O., Highett, Victoria, Australia.

Thomas W. Stern, U. S. Geological Survey, Washington, D. C.

Lorin R. Stieff, U. S. Geological Survey, Washington, D. C.

William Uytenbogaardt, Free University, Amsterdam, Netherlands.

John S. Vhay, U. S. Geological Survey, Spokane, Washington.

Ewart A. Vincent, University Museum, Oxford, England.

Oleg von Knorring, The University, Leeds, England.

Charlotte M. Warshaw, The Pennsylvania State University (3703 Stewart Drive, Chevy Chase, Maryland).

James White, University of Sheffield, Sheffield, England.

Ray E. Wilcox, U. S. Geological Survey, Denver, Colorado.

Allan F. Wilson, University of Queensland, St. Lucia, Brisbane, Australia.

^{*} Deceased

CHANGE IN BY-LAWS

A proposed change in Article II of the By-Laws was passed by a vote of 640 for and 138 against. Article II of the By-Laws now stands as follows:

Article II-Dues

- Section 1. The annual dues for members and fellows shall be eight dollars (\$8) payable in January. Members who are students shall pay one-half the dues of other members.
- Section 2. No person shall be accepted as a fellow of the Mineralogical Society of America unless he pays dues for the year within three months after notification of his election.

MEMBERSHIP STATISTICS

The membership of the society continues to grow, as shown in the following table:

| | November 1, 1 | .960 | |
|------------------|---------------|-------|-------|
| | 1958 | 1959 | 1960 |
| Honorary Fellows | 0 | 3 | 4 |
| Fellows | 360 | 376 | 419 |
| Members | 1,185 | 1,501 | 1,623 |
| | 12-2-4 | | - |
| | 1,545 | 1,880 | 2,046 |

During 1960 the society lost through death eight Fellows: Harold L. Alling, Ciro Andreatta, Harold E. Buckley, Burnham S. Colburn, Austin B. Edwards, Guerdon S. Holden, John T. Lonsdale, and Graham S. MacKenzie.

Respectfully submitted, George Switzer, Secretary

REPORT OF THE TREASURER FOR 1960

(Year ending July 31, 1960)

To the Council of the Mineralogical Society of America:

SUMMARY STATEMENT

| Cash on hand, August 1, 1959 | \$ 1,931.15 43,567.02 | |
|--|--------------------------------------|--------------|
| Total | \$ 45,498.17 | \$ 45,498.17 |
| Disbursements, August 1, 1959–July 31, 1960. Transfer to capital. Cash on hand, July 31, 1960. | \$ 34,924.09 3,515.79 7,058.29 | |
| Total | \$ 45,498.17 | 45,498.17 |
| Assets, July 31, 1960 Cash on hand (as shown above) Capital: Securities (market value) Endowment Fund cash | \$ 7,058.29 151,285.00 403.50 | |
| Total | \$158,746.79 | 158,746.79 |

RECEIPTS

| TELEMA TO | | |
|--|-------------|---|
| Dues | Ø 1 5/6 1/ | |
| Fellows. | \$ 1,546.14 | e e 421 66 |
| Members | 6,875.52 | \$ 8,421.66 |
| | | |
| Publications | 0 000 00 | |
| Geological Society of America grant | 8,000.00 | |
| Subscriptions to American Mineralogist | 7,655.80 | |
| Sale of reprints | 3,285.78 | |
| Sale of back numbers | 2,706.87 | |
| Sale of Index, vols. 31-40 | 852.00 | |
| vols. 21–30 | 336.40 | |
| vols. 1–20. | 176.20 | |
| Advertising | 1,779.13 | |
| Mailing list | 80.24 | 24,872.42 |
| Endowment Fund | | |
| Dividends and interest | 7,214.61 | |
| Fifty-Plus Committee | 2,520.00 | |
| Contributions. | 225.00 | |
| Life Memberships | 200.00 | 10,159.61 |
| Life Memberships | 200.00 | , |
| Special Funds | | |
| Museum Fund. | 100.00 | 100.00 |
| Exchange credits and collections | 13.33 | 13.33 |
| Exchange creates and concentration | | |
| Total receipts | | \$43,567.02 |
| | | |
| DISBURSEMENTS | | |
| Honoraria | | |
| Secretary (August 1, 1958-July 31, 1960). | \$ 750.00 | |
| Treasurer (November 15, 1958-July 31, 1960) | 677.09 | * |
| Editor (April 1, 1959-March 31, 1960) | 750.00 | \$ 2,177.09 |
| Publications | | |
| American Mineralogist (July 1959-April 1960) | 22,616.03 | |
| Reprints | 3,570.40 | |
| Program and abstracts | 591.36 | |
| Microtext of out-of-print issues | 348.04 | |
| Purchase of out-of-print issues | 105.00 | |
| National Science Foundation refund on index sales, May | | |
| 1959-April 1960 | | |
| Postage and express | | |
| | 1 = 2 = = | |
| Assistance. | | |
| Supplies | | |
| Mailing list charge | | 28,694.33 |
| Subscription refunds | 20.00 | 20,072.00 |

Office Expense

| 0 | | | | | | | |
|-----------|--|------------|-----------|----|--------------------|-----|---------------------|
| Secret | tarial and clerical assistance. | 808.0 | | \$ | 895.40 | | |
| Omce | rs' travel | | | | 48.00 | | |
| Printi | ng | | | 1 | ,102.88 | | |
| Suppi | ies | | | | 431.85 | | |
| Posta | ge | | | | 705.04 | | |
| Telep | hone and telegrams | | weeks: | | 25.57 | \$ | 3,208.74 |
| Internat | ional Mineralogical Association, 1960-61 | er can ne | | | 150.00 | | |
| America | n Geological Institute, 1959–60 | ome L | | | 500.00 | | 650.00 |
| | | | | | 300.00 | | 030.00 |
| Roebling | g Medal (1959) | | **** | | 151.63 | | |
| MSA AV | ward certificate | | | | 9.00 | | 160.63 |
| Checks 1 | returned | | | | 22 20 | | 22.44 |
| | | | 3.7555555 | | 33.30 | | 33.30 |
| Total dis | sbursements | ()#()#()#(| ***** | | | \$3 | 34,924.09 |
| | | | | | | π - | -,,, |
| | | | | | | | |
| Amount | ENDOWMENT F | UN | _ | | | | |
| rinoun | t Security Bonds | | Cost | | Value ¹ | | Income ² |
| 6M | 7740 | | | | | | |
| 5M | Atlantic Coast Line, 4½ | \$ | , | \$ | - , | | 270.00 |
| 5M | New York Central, 5 | | 4,300.00 | | 3,438 | | 250.00 |
| 5111 | Southern Railway, 5 | | 5,743.75 | | 5,200 | | 250.00 |
| | | 8 | 15,301.25 | • | 14,623 | \$ | 770.00 |
| | | Ψ | 15,501.25 | φ | 14,023 | Ф | 110.00 |
| | Preferred stocks | | | | | | |
| 150 | Fairbanks Whitney | \$ | 4,487.50 | \$ | 3,431 | \$ | 480.003 |
| 60 | Jones and Laughlin, A5 | 76 | 4,987.50 | ψ | 5,820 | φ | 300.00 |
| 40 | Potomac Electric Power, 2.44 | | 2,000.00 | | 1,940 | | 97.60 |
| 200 | Southorn California Eli 400 | | -,000.00 | | 1,710 | | 21.00 |

5,250.00

4,570.25

6,946.20

5,942.50

\$ 34,183.95 \$ 33,257

5,000

4,063

7,865

5,138

244.00

200.00

385.00

250.00

\$1,956.60

Southern California Edison, 4.88

Union Pacific, 4.....

United States Steel, 7....

Virginia Electric Power Co., 5

200

500

55

50

¹ Approximate market value, July 31, 1960.

² Fiscal year ending July 31, 1960, except where noted.

³ Includes accumulated dividend.

| | Common Stocks | | | | |
|--------------|--------------------------------------|---|-----------|-----|--------------|
| 249 | American Telephone and Telegraph. | \$ 11,255.98 | \$ 22,380 | \$ | 821.72 |
| 50 | Boston Insurance | 1,500.00 | 1,694 | | 90.00 |
| 100 | Buckeye Steel Castings | 3,800.00 | 2,675 | | 150.00 |
| 177 | Chase Manhattan Bank | 11,281.25 | 10,797 | | 181.204 |
| 50 | Chesapeake and Ohio Railway | 2,368.75 | 2,944 | | 200.00 |
| 300 | Columbia Gas | 5,174.72 | 5,963 | | 265.00^{5} |
| 100 | Columbus and Southern Ohio | 2,087.50 | 4,725 | | 165.00 |
| 150 | Denison Mines, Ltd. | 3,096.00 | 1,418 | | 134.51 |
| 180 | Diana Stores | 2,800.30 | 3,150 | | 180.00 |
| 210 | Greyhound Corporation. | 2,300.00 | 4,645 | | 210.00 |
| 261 | Kroger Company | 2,034.03 | 8,287 | | 274.07 |
| 50 | Phelps Dodge Corporation | 1,975.00 | 2,425 | | 150.00 |
| 100 | Pittsburgh and West Virginia | 2,787.50 | 1,238 | | - |
| 100 | Plymouth Cordage | 4,750.00 | 5,750 | | 290.00 |
| 350 | Potomac Electric Power Co. | 5,066.73 | 10,500 | | 451.50 |
| 50 | Public Service Electric and Gas | 1,586.40 | 2,000 | | 90.00 |
| \leftarrow | Sinclair Oil Corporation | - | | | 150.00^{6} |
| 100 | Southern Natural Gas | 3,600.00 | 3,688 | | 200.00 |
| 50 | Spencer Kellogg | 1,258.33 | 757 | | 40.00 |
| 175 | Standard Oil of New Jersey | 1,761.65 | 7,131 | | 393.75 |
| 60 | United Fruit | 3,067.50 | 1,238 | | 15.00^7 |
| - | U. S. Playing Card | - | | | 30+008 |
| | Merrill Lynch (interest) | s = 4 + 4 s s s s s s s s | | | 6.26 |
| | | \$ 73,551.64 | \$103,405 | \$4 | ,488.01 |
| | | \$123,036.84 | | \$7 | ,214.61 |
| | Cash balance, Endowment Fund account | , Riggs Natior | al Bank | | 403.50 |

⁴ Additional shares purchased December 1959 and July 1960.

The summary statement and tables of figures show that the financial standing of the society has shown progress during the year and is satisfactory at the present time. We are faced, however, with several situations which bear directly on both our income and expenditures, and the solutions of some of these are not immediately evident. The comments that follow will elaborate the figures in the tables and relate them to the circumstances as they affect both our present and future position.

Income and Expense

The income is derived from three principal sources, either directly or from activity concerned with them.

| Source | Amount | Per Cent 1959-60 | Per Cent 1958-59 |
|---------------------|-------------|---------------------|---------------------|
| Dues | \$ 8,421.66 | 19.4 | 18.2 |
| Publication program | 24,872.42 | 57.2 | 56.2 |
| Endowment Fund | 10,159.61 | 23.4 | 25.6 |

⁵ Additional shares purchased December 1959.

⁶ August 1959-July 1960. Sold in July 1960.

⁷ One quarter dividend only.

⁸ One quarter dividend. Sold in October 1959.

The percentages of income from these sources remain substantially the same as the previous year. The amount received in dues is \$1000.00 more than last year, reflecting the continued rise in membership. The total agrees very well with the amount to be expected from a membership of 2000. The income from various parts of the publication program is apportioned about the same as last year. About 30% is derived from the sale of subscriptions to The American Mineralogist, amounting this year to \$7655.80. At the present time, 1325 copies are distributed on a paid subscription basis; 517 are despatched within the United States to all fifty states and Puerto Rico; the other 808 are sent to 76 foreign countries. The figure for reprints, although larger this year, is only an apparent increase resulting from the distribution of payments in relation to the fiscal year. The income from the sale of indexes shows a 23% gain over last year. The figure for advertising represents income for more than one year due to a change in the method of invoicing; the portion for 1959-60 is larger due to an increase in both the amount of advertising and the rates. The total income from the Endowment Fund is of the same order as last year and will be discussed separately.

Expenditures are grouped as follows:

| Item | Amount | Per Cent 1959-60 | Per Cent 1958-59 |
|-------------------------------------|-------------------------|---------------------|---------------------|
| Officers' honoraria | \$ 2,177.09 3,208.74 | 6.2 | 3.2 8.9 |
| Office expense Publication program | 28,694.33 | 82.3 | 85.3 |
| Support of other organizations, etc | 810.63 | 2.3 | 2.6 |

The percentages of expenditures are also substantially the same as last year. Publication and related expense make up by far the major portion, with the printing and distribution of *The American Mineralogist* as the largest single item. Note should be made that the amount shown for this item at the close of the fiscal year covers only five issues; normal cost for six issues is approximately \$27,000. The figure for officer's honoraria is higher than normally for it includes two years' payments to the Secretary and Treasurer as well as an increase in stipends. Office expense has remained at the same level in spite of increased business in the offices of the Editor, Secretary, and Treasurer. Of the unusually high amount for supplies, about 80% can be charged to the purchase of new record cards for the Treasurer's office for the decade 1961–70, an item recurring each ten years.

Endowment Fund

The book value of the Endowment Fund securities was \$123,036.84 on July 31, 1960. Of this amount, 12.4% is in bonds, 27.8% in preferred stocks, and 59.8% in common stocks. The market value, computed on July 31, 1960, was \$151,285.00. Funds invested during the year have been derived chiefly from payments on Fifty-Plus Committee pledges (see *The American Mineralogist*, May-June, 1960, pages 747-748, for statement and list of names). Dividends and interest accruing from the securities totaled \$7214.61 and exceeded the estimated income of \$6850 chiefly as a result of payment of accumulated dividends by the Fairbanks Whitney Corporation. From securities now held, an income of \$7200 is estimated for 1960-1961. The percentage yield of the portfolio, and of each type of security, at both book and market values, is given below. These compare favorably with the current 3.4% average yield from industrial common stocks and the 4.6% average return on corporate bonds as reported by Merrill Lynch in August 1960.

| | YIELD |) | | |
|--------------|-------|-------|--------------------|-----------------|
| | Total | Bonds | Preferred stock | Common stock |
| Book value | 5.86 | 5.03 | 5.72 | 6.09 |
| Market value | 4.76 | 5.26 | 5.88 | 4.33 |

Mineralogical Abstracts

During 1959, the first year of co-publication of *Mineralogical Abstracts*, volume 14, numbers 1–4, was issued quarterly under the capable editorship of James Phemister. Copies were distributed to 683 members of the British society, 265 members of our society (in addition to about 260 who are members of the British society), and approximately 400 library subscribers. Total income from all 1959 subscriptions was about \$6400.00 and the total cost of publication was about \$11,400.00. Taking into account the initial joint contribution of \$2800.00 (of which \$500 had been used in 1958), that part of 1959 expense not covered by income amounted to \$2700.00 (\$1350 each society). In order to make *Mineralogical Abstracts* self-supporting, steps have been taken to reduce publication costs and to increase the income from subscriptions. These have resulted in some savings in cost, in spite of a 5% printer's increase as of January 1960, and enough of an increase in subscription revenue to make the overall picture for 1960 more assuring.

Income-Expenditure Outlook

It almost goes without saying that we are in the midst of a period of rising costs and that we must accept and resolve this fact. Our printing contract with George Banta Company, Inc. was rewritten this year to include a 6% increase to meet the higher cost of labor. Increases in membership and subscriptions, while admittedly desirable, bring with them increased expense, and we have had a net gain of 33% in the past 18 months. The Geological Society of America, in line with intentions outlined in November 1958, has found it necessary to initiate a schedule for the gradual decrease over a five-year period and termination in 1965 of our annual grant of \$8000, given to us as an affiliated society to assist in publication of *The American Mineralogist*.

To maintain our ability to continue publication of *The American Mineralogist* and *Mineralogical Abstracts* at the present high standard, the Council has taken several actions. It has recommended that the membership approve an increase in dues for both fellows and members. It has approved the advance of the subscription price of *The American Mineralogist* to an annual rate of \$10.00. In November 1959, it appointed an Advertising Manager to solicit more advertising for the *Journal*. Your Treasurer has also explored several smaller avenues for reducing costs and supplementing income. A postal permit, allowing special rates for domestic mailing, was secured this year. The schedule of reprint charges has been revised in line with our new printing contract. The strip announcement distributed with the annual dues bill has been responsible for the increased sale of indexes reported in the past two years. A comparable strip, sent to subscribers, has had a similar response with respect to index sales and has increased the number of subscriptions to *Mineralogical Abstracts*. A complete set of *The American Mineralogist*, with all out-of-print numbers, is now offered for sale. Other possible sources of income are being considered and the Treasurer will welcome suggestions from the membership.

During the past year, the Mineralogical Society of America received notification from the Internal Revenue Service of tax-exempt status as an educational and scientific organization. Contributions and bequests to the society are therefore deductible items under the provisions of the Internal Revenue Code. The society was also notified by the Commissioners of Inland Revenue (Great Britain) that it had been placed on the list of societies approved for purposes of tax deductions by British members.

The Treasurer's office depends on several individuals for continuity of operation and I should like to place on record here my warm thanks to Catherine Skinner, for her able assistance with the records; Edward P. Henderson, Samuel S. Goldich, and Arthur Montgomery, of the Finance Committee, for their cooperation and competent advice; Stanly Carr and Herbert Allen, of Merrill Lynch, custodian of our securities; Irwin H. Wensink and Alvin A. Lang, of George Banta Company, Inc., printer of *Th. American Mineralogist*. And to those members of the society who have responded generously when called on for advice and assistance, a special thank you and my appreciation.

Respectfully submitted,
MARJORIE HOOKER, Treasurer

REPORT OF THE AUDITING COMMITTEE

To the President of the Mineralogical Society of America:

The Auditing Committee has examined and verified the accounts of the Treasurer of the Mineralogical Society of America for the fiscal year beginning August 1, 1959 and ending July 31, 1960. It is the Committee's opinion that the Treasurer has done an excellent job, and she should be commended for the admirable manner in which she has kept the Society's books.

Respectfully submitted,
Marie L. Lindberg
Alvin Van Valkenburg
Gunnar Kullerud, Chairman

REPORT OF THE EDITOR FOR 1960

The 1960 volume of *The American Mineralogist* contained 1343 pages, very close to that of 1959, in both size and number of articles. There were 74 major and 65 shorter articles. The authors represented 28 U. S. educational institutions, 9 Federal agencies, and 11 private or industrial laboratories, 15 foreign educational institutions and 6 laboratories, giving a total of 69 institutions. Seven new minerals were described. There were 21 book reviews, and 72 items under Dr. Fleischer's valuable section on New Mineral Names.

The editor is grateful to the associate editors, and to many other individuals who have read manuscripts, and reported on them as to their suitability for *The American Mineralogist*. Likewise, the editor wishes to express his appreciation to the publisher of our *Journal*, George Banta Company, Inc. Their printing skill is evidenced by the excellent appearance of the *Journal*, and their splendid cooperation makes the editorial task much easier.

A summary of the contents of Vol. 45 is given in the following table.

DISTRIBUTION OF SUBJECT MATTER IN VOL. 45

| Subjects. | Number | Pages | % of Tota |
|---------------------------------|--------|-------|-----------|
| Leading articles | 74 | 949 | 76.0 |
| Short articles | 65 | 211 | 16.8 |
| | | 1,1 | 160 |
| Memorials | 2 | 8 | |
| Awards | 2 | 11 | |
| Society proceedings | 1 | 21 | |
| bottot, processings | | - | |
| | | | 40 3.2 |
| Book Reviews | 21 | 13 | |
| New Mineral Names | 72 | 31 | |
| Notes | 20 | 7 | |
| | | | |
| | | | 51 4.0 |
| | | | _ |
| Total | | 1,2 | 251 100.0 |
| Membership list | | | 66 |
| Index, Title Page, Table of Cor | | | 26 |
| | | - | 5_5 |
| Grand Total | | 1,3 | 343 |

Respectfully submitted, LEWIS S. RAMSDELL, Editor

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 1925–1935 Charles Palache 1949–1954 Edward H. Kraus 1955–

| Presidents | VICE-PRESIDENTS |
|-----------------------|----------------------------|
| 1920 Edward H. Kraus | 1920 Thomas L. Walker |
| 1921 Charles Palache | 1921 Waldemar T. Schaller |
| 1922 Thomas L. Walker | 1922 Frederick A. Canfield |
| 1923 Edgar T. Wherry | 1923 George F. Kunz |

| Presidents (Cont.) | Vice-Presidents (Cont.) |
|----------------------------|-----------------------------|
| 1924 Henry S. Washington | 1924 Washington A. Roebling |
| 1925 Arthur S. Eakle | 1925 Herbert P. Whitlock |
| 1926 Waldemar T. Schaller | 1926 George Vaux, Jr. |
| 1927 Austin F. Rogers | 1927 George L. English |
| 1928 Esper S. Larsen | 1928 Lazard Cahn |
| 1929 Arthur L. Parsons | 1929 Edward Wigglesworth |
| 1930 Herbert E. Merwin | 1930 John E. Wolff |
| 1931 Alexander H. Phillips | 1931 William F. Foshag |
| 1932 Alexander N. Winchell | 1932 Joseph L. Gillson |
| 1933 Herbert P. Whitlock | 1933 Frank B. Guild |
| 1934 John E. Wolff | 1934 William A. Tarr |
| 1935 Clarence S. Ross | 1935 Ellis Thomson |
| 1936 William S. Bayley | 1936 Harold L. Alling |
| 1937 Norman L. Bowen | 1937 H. V. Ellsworth |
| 1938 Ellis Thomson | 1938 Kenneth K. Landes |
| 1939 Max N. Short | 1939 Burnham S. Colburn |
| 1940 William F. Foshag | 1940 Ian Campbell |
| 1941 Frederick E. Wright | 1941 William J. McCaughey |
| 1942 Arthur F. Buddington | 1942 Martin J. Buerger |
| 1943 John F. Schairer | 1943 John W. Gruner |
| 1944 R. C. Emmons | 1944 Harry Berman |
| 1945 Kenneth K. Landes | 1945 George Tunell |
| 1946 Paul F. Kerr | 1946 S. B. Hendricks |
| 1947 M. J. Buerger | 1947 Carl Tolman |
| 1948 M. A. Peacock | 1948 Adolf Pabst |
| 1949 John W. Gruner | 1949 J. D. H. Donnay |
| 1950 George Tunell | 1950 Ralph E. Grim |
| 1951 A. Pabst | 1951 Michael Fleischer |
| 1952 Michael Fleischer | 1952 J. D. H. Donnay |
| 1953 J. D. H. Donnay | 1953 Sterling B. Hendricks |
| 1954 Sterling B. Hendricks | 1954 Harry H. Hess |
| 1955 Harry H. Hess | 1955 Clifford Frondel |
| 1956 Clifford Frondel | 1956 D. Jerome Fisher |
| 1957 D. Jerome Fisher | 1957 George E. Goodspeed |
| 1958 George E. Goodspeed | 1958 Ralph E. Grim |
| 1959 Ralph E. Grim | 1959 Joseph Murdoch |
| 1960 Joseph Murdoch | 1960 E. F. Osborn |
| | |

SECRETARIES

| | Herbert P. Whitlock | 1920-1923 | Albert B. Peck |
|-----------|---------------------|-----------|-----------------------|
| | Frank R. Van Horn | | Alexander H. Phillips |
| 1933-1934 | | | Albert B. Peck |
| | Paul F. Kerry | | Waldemar T. Schaller |
| 1944-1959 | C. S. Hurlbut, Jr. | | Earl Ingerson |
| 1959– | 0 0 1 | | Mariorie Hooker |

EDITORS

1920-1921 Edgar T. Wherry

1922–1956 Walter F. Hunt 1957—Lewis S. Ramsdell

Treasurers

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 M. 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. Schaierer.

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, Michiel 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. Osborn 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

Annual Meeting Places

1920 Chicago, Illinois

1921 Amherst, Massachusetts

1922 Ann Arbor, Michigan

1923 Washington, D. C.

1924 Ithaca, New York

1925 New Haven, Connecticut

ANNUAL MEETING PLACES (Cont.)

| 1926 Madison, Wisconsin | 1944 No meeting held |
|-------------------------------|--------------------------------|
| 1927 Cleveland, Ohio | 1945 Pittsburgh, Pennsylvania |
| 1928 New York, N. Y. | 1946 Chicago, Illinois |
| 1929 Washington, D. C. | 1947 Ottawa, Canada |
| 1930 Toronto, Canada | 1948 New York, N. Y. |
| 1931 Tulsa, Oklahoma | 1949 El Paso, Texas |
| 1932 Cambridge, Massachusetts | 1950 Washington, D. C. |
| 1933 Chicago, Illinois | 1951 Detroit, Michigan |
| 1934 Rochester, New York | 1952 Boston, Massachusetts |
| 1935 New York, N. Y. | 1953 Toronto, Canada |
| 1936 Cincinnati, Ohio | 1954 Los Angeles, California |
| 1937 Washington, D. C. | 1955 New Orleans, Louisiana |
| 1938 New York, N. Y. | 1956 Minneapolis, Minnesota |
| 1939 Minneapolis, Minnesota | 1957 Atlantic City, New Jersey |
| 1940 Austin, Texas | 1958 St. Louis, Missouri |
| 1941 Boston, Massachusetts | 1959 Pittsburgh, Pennsylvania |
| 1942 No meeting held | 1960 Denver, Colorado |
| 1943 No meeting held | |

Recipients of the Roebling Medal

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

Recipients of the Mineralogical Society of American Award

| 1951 Orville F. Tuttle | 1956 | George C. Kennedy |
|---------------------------|------|--------------------|
| 1952 Frederick H. Stewart | 1957 | Rustum Roy |
| 1953 L. H. Ahrens | 1958 | Charles E. Weaver |
| 1954 Hatten S. Yoder, Jr. | 1959 | Harry F. W. Taylor |
| 1955 Julian R. Goldsmith | 1960 | Donald L. Graf |

1960 ANNUAL MEETING AT DENVER, COLORADO

The meetings of the following societies were held on October 30-November 2, 1960.

The Geological Society of America—73rd The Paleontological Society—52nd The Mineralogical Society of America—41st Society of Economic Geologists—41st The Geochemical Society—5th

Abstracts of the papers presented are printed in the Bulletin of the Geological Society of America, Vol. 71, Number 12, Part 2, pp. 1811–2010.