

FIRST ANNUAL MEETING OF THE MINERALOGICAL SOCIETY OF AMERICA

The first annual meeting of the Mineralogical Society of America was held in Chicago, Illinois, in conjunction with the thirty-third annual meeting of the Geological Society of America. The Council of the Society met at lunch on Tuesday, December 28th, those present being: President Kraus, Vice-president Walker, Treasurer Peck, Editor Wherry, and Councilor Van Horn. Secretary Whitlock was unfortunately unable to be present, owing to illness; and Dr. Wherry acted as Secretary *pro tem*. The ballots for officers were counted, and the election of those proposed was found to be unanimous. It was announced that the Geological Society of America had voted in favor of affiliation with the Mineralogical Society. The plan adopted is that Fellows of the G. S. A. who so desire may become fellows of the M. S. A. upon payment to the latter society of the sum of \$2.00, the balance of the amount of this Society's dues to be made up by payment from the treasury of the G. S. A. (except in the case of life fellows, for whom only part of the balance would be paid). The Mineralogical Society, is authorized by its Council to publish in its JOURNAL the proceedings of the meetings, papers presented to it, and also any papers on mineralogical subjects which may be presented before the G. S. A., but which that Society does not wish to publish in its Bulletin and which space will permit.

The Constitution and By-Laws provisionally adopted at the organization meeting had been purposely left open to amendment by the Council, so that changes necessitated by such arrangements as the above affiliation with the G. S. A., etc., could be made, before final adoption. No changes were found necessary in the Constitution, but the By-Laws required a number of amendments. It was considered to be desirable, first, to simplify election to membership by requiring indorsement of the application only by the Secretary and Treasurer, to the effect that the candidate had paid his dues, instead of by fellows personally acquainted with the candidate, as is required in the case of election to fellowship. Next, a reduction in the amount required to be prepaid for life membership or fellowship in the case of those belonging to the affiliated Geological Society of America was indicated. A number of members having expressed privately to Councilors their feeling that members were not given an adequate share in the conduct of the Society by the provisional By-Laws, it was decided to permit members as well as fellows to vote for the officers of the Society. Finally, an article had to be inserted to specifically sanction affiliation with the Geological Society of America and other scientific organizations, and to arrange for representation upon the Councils of such societies. These changes have been incorporated in the final Constitution and By-Laws, which are printed in full below.

A number of other matters were considered by the Council at this and two or three subsequent meetings during the following two days, the most important of which are here listed. It was decided that a Committee on Nomenclature and Classification of Minerals should be appointed. Attention having been called to the burden which would be placed upon mineralogists in certain foreign countries who might desire to become members, by the unfavorable

rates of exchange, it was decided to adjust the cost of membership or fellowship in such a way that the Society and the member would share the loss equally. For 1921, with the franc at about 6½ cents, the dues for France and Belgium were fixed at 30 francs for members, and 50 francs for fellows.

MEETING OF THE SOCIETY

The stated meeting of the Society was called to order by President Kraus at about 9.45 A.M., Wednesday, December 29, 1920, in one of the class-rooms of Rosenwald Hall, University of Chicago. In the absence of Secretary Whitlock, Dr. Wherry was asked to act as Secretary. The chairman expressed the hope that the meeting might be to some extent informal, that those who so desired should feel at liberty to smoke, and that discussions of papers presented be actively participated in by everyone interested. Reports of officers were then called for, and the Treasurer presented his report, which is published in full below. Professors W. A. Tarr and A. L. Parsons were appointed a committee to audit the accounts of the Treasurer. The editor then presented his report, which is also printed below.

Professor T. L. Walker briefly addressed the Society on the subject of the desirability of arranging for exchanging of specimens among institutions, stating that the Royal Ontario Museum was ready to exchange Canadian minerals for those from other places. Professor W. S. Bayley then discussed the matter of back numbers of the *AMERICAN MINERALOGIST - JOURNAL OF THE MINERALOGICAL SOCIETY OF AMERICA*, pointing out that there was likely to be an increasing demand for these as the membership grew. The Treasurer, who has charge of the stock of back numbers, reported that while volumes 1 to 4 inclusive were practically exhausted, a considerable number of copies of all issues of volume 5 were on hand.

The results of the election of officers for the year 1921 were announced. The recommendation of the Council as to the appointment of a Committee on Nomenclature and Classification of Minerals was reported, and the Society voted to have this Committee consist of five members, to be appointed by the President.

Vice-President Walker then took the chair. President Kraus reported the favorable action taken by the Geological Society of America on the matter of affiliation, and presented the amendments to the provisional By-Laws thereby made necessary, as stated in the record of the Council meeting above. It was voted to accept the amendments as proposed, and to adopt the Constitution and By-Laws as thus amended. These are printed in full below; further amendments can be made only in accordance with the provisions definitely stated in the final articles.

The presidential address, "The future of mineralogy in America," was then read by retiring President Kraus. It is printed in full in this number.

The session was then declared open for the reading of papers by members of the Society; but it was necessary to change somewhat the order in which these were to be read, from that originally announced, in order to suit the convenience of members who had engagements elsewhere which would prevent their attendance at the times assigned, and to place toward the end those requiring a lantern. Dr. H. S. Washington, of the Geophysical Laboratory, Carnegie Institution of Washington, was called upon to present his three papers first:

(1) Aphthitalite from Kilauea (with H. E. Merwin); the discovery of this mineral (double sodium and potassium sulfate), on some lava at Kilauea was announced, analyses and optical properties being given. The refractive indices show a definite relation to the composition. (2) Some suggestive general mineral characters; the limited replaceability of sodium and potassium in minerals was pointed out, as shown for instance in the micas, which are almost wholly potassic, in contrast with the pyroxenes and amphiboles, in which the alkali metal, when one is present, is almost entirely sodium; the remarkable presence of blue colors for which no simple cause can be assigned in a number of minerals was referred to, the sodalite group, the iron-amphiboles, and iolite (cordierite) being good examples; and in the discussion the fact that native sodium may cause a blue color, as in some halite, was pointed out. (3) Augites from Vesuvius and Etna; the results of a number of analyses were announced, with a statement as to the molecules shown to be present by recalculation of the analyses.¹ At 12.30 P.M. the Society adjourned for lunch.

Upon the reconvening of the Society shortly after 2 P.M., the Auditing Committee reported that the accounts of the Treasurer had been examined and found to be correct. President Kraus then appointed the Committee on Nomenclature and Classification of minerals, as follows: Chairman, Professor Thomas L. Watson, University of Virginia; members, Mr. William F. Foshag, U. S. National Museum, Professor Austin F. Rogers, Leland Stanford, Jr., University, Professor Thomas L. Walker, Royal Ontario Museum of Mineralogy and Dr. Edgar T. Wherry, Editor of the Society's Journal. The reading of papers was then continued.

Professor W. A. Tarr, University of Missouri: Mineralogy of the tourmaline mine near Canyon City, Colorado; a series of minerals of pneumatolytic origin were described.

Mr. William F. Foshag, U. S. National Museum: paper No. (1), The origin of the colemanite deposits of California, was read by Dr. Wherry in absence of the author; it pointed out that the evidence indicates the colemanite deposits to have originated in the alteration of ulexite by downward-circulating waters. (2) (with Edgar T. Wherry): Hydrous talcs; the extra molecule of water present in some talcs escapes on heating without producing essential changes in the optical properties, and is believed to be held by electrostatic forces in layers parallel to the cleavage of the mineral.

Dr. George F. Kunz, of Tiffany and Company, New York City, then gave a paper on: The diamonds of Pike Co., Arkansas; announcing that diamonds are at present actually being produced in that State, and that a systematic and scientific exploration of the deposit is being undertaken. The papers on the program were then taken up, as follows:

Professor T. L. Walker, University of Toronto: (1) "Allemontite" from British Columbia; this material, tho forming fine specimens, is not homogeneous, and not an isomorphous mixture of the elements, as often considered, but consists of successive layers of arsenic and antimony. (2) Skutterudite from Cobalt, Ontario; some small brilliant crystals supposed to be smaltite

¹This paper has subsequently been published, as follows: NOTE ON AUGITE FROM VESUVIUS AND ETNA. HENRY S. WASHINGTON and H. E. MERWIN. *Am. J. Sci.*, [4], 50 (1), 20-30, 1921.

prove on analysis to be isomorphous intergrowths of smaltite with a triarsenide, skutterudite.

Dr. Edgar T. Wherry, U. S. Bureau of Chemistry: (1) The non-existence of certain supposed cases of isomorphism; (a) among the mineral sulfides and sulfo-salts all the supposed instances of isomorphism between one atom of a bivalent element and two atoms of a univalent one (for instance Pb, Ag₂) have been found on mineralogical examination to be cases of admixture; (b) in the plagioclase feldspars the isomorphism is not between (SiO₄) and (Si₂O₆) groups, but between (Al₂Si₂O₈) and (AlSi₂O₈), which should be borne in mind in interpreting the compositions of other silicates; and (c) as already noted by Dr. Washington, potassium and sodium are isomorphous only in unusual cases.

Mr. D. Foster Hewett, U. S. Geological Survey: Orientite, a new hydrous silicate of calcium and manganese from Cuba (with Earl V. Shannon); small orthorhombic crystals occurring in manganese deposits of hydrothermal origin at several places in Oriente province, Cuba, prove to represent a new hydrous silicate of calcium and manganic manganese, somewhat related to melanotekite and kentrolite, which is named after the locality.

Professor Otto von Schlichten, University of Cincinnati: A simple method of determining refractive indices of liquids with the microscope; a modification of the Smith method, in which a piece of slide glass is cut to fit into the slot provided for inserting the selenite plate, quartz wedge, etc., and a shallow concavity is ground in it; the liquid is placed in this concavity, covered with a piece of cover-slip, and the change in focus produced by this lens is measured; each microscope and lens system, (a low power objective giving the best results) is calibrated by means of a few liquids of known index, and a curve can then be drawn connecting focal change with index, from which the index of an unknown liquid can be read off with an accuracy of from 1 to 5 units in the third decimal place. The Society then moved into another room, in which a lantern was available, and the following papers were presented with the aid of slides:

Professor T. L. Walker: (1) The occurrence of cosalite in Ontario; minute needles prove on analysis to be cosalite; elongation is on the b axis, and several brachydomes new to the mineral are present.

(2) The crystal habit of orthoclase from Penticton, B. C.; well developed crystals several centimeters in diameter weather out of a porphyritic igneous rock; they are often twinned, on the several laws of the mineral, and the Carlsbad twins show some interesting relationships between size and frequency of certain habits.

Mr. E. Thomson, University of Toronto: A mineralogical study of "animikite" and "macfarlandite" from Silver Islet, Lake Superior; (with A. L. Parsons); these substances have proved to be mixtures of sulfides, arsenides, etc., showing some striking intergrowth relations, and resembling in certain respects the ores of Cobalt, Ontario.

Professor A. L. Parsons, University of Toronto: Calcite from Shangionah Island, Lake Superior; two generations of calcite are present, the earlier etched, the later dull on the surface but clear within; some peculiar forms are present, and the habit is regarded as representing that normal for calcite formed under surface conditions and at the temperature of the waters of Lake Superior.

Mr. C. B. Slawson, University of Michigan: A new simplified method for drawing crystals; by obtaining the analytical coordinates of face intersections, it is possible to prepare crystal drawings with ease and rapidly by the use of cross-section paper. The axial cross is first laid off on the paper, then the coordinates of each face intersection in turn are laid off, and by joining the points thus found with the ends of one or the other axis, the desired drawing is obtained.

The last paper presented was by Dr. Edgar T. Wherry, on The significance of crystal habit. It was pointed out that the acidity of solutions is often of considerable influence on crystal habit; calcium oxalate for example has been recently noted to become acicular in acid plant juices; the effect of parallel overgrowth of impurities in layers a few atoms or molecules thick in rendering the affected faces prominent was also pointed out, and the probability that this is the origin of the lamellar form of some calcite was suggested.

In the absence of their authors, the following papers were read by title: Professor A. S. Eakle, University of California: (1) Jurupaite, a new calcium-magnesium silicate from Crestmore, Cal.; (2) Further notes on eakleite. Professor Charles Palache, Harvard University: (1) Holdenite and cahnite, two new minerals from Franklin Furnace, N. J.; (2) Goldschmidt's interpretation of Miller indices as force symbols. Dr. Alfred C. Hawkins, Wilmington, Delaware: A hematite crystal from Manton, R. I. The meeting adjourned about 6 P.M.

These papers if so desired by their authors, will be published in the AMERICAN MINERALOGIST as soon as space permits. The manuscripts of several have already been submitted for this purpose.

No special dinner was arranged for the Mineralogical Society, but a number of the fellows took part in the Geological Society dinner, Wednesday evening, at the Chicago Beach Hotel. Professor Frank R. Van Horn spoke on behalf of the Mineralogical Society. Some of the mineralogists attended instead the American Association lecture by Professor R. W. Wood, on High-power fluorescence and phosphorescence.

On the morning of Thursday, December 29, the Society met informally to inspect some American-made apparatus which had been assembled. The chief object of interest was a two-circle goniometer designed and constructed by the Spencer Lens Company, of Buffalo, N. Y. This instrument is not provided with the devices for measuring the sizes of crystal faces and other attachments of the latest model developed by Professor Victor Goldschmidt but it has a number of advantageous features, notably as to ease of manipulation and of reading the circles. It is to be placed on the market during 1921.

There were also exhibited a precision pycnometer, made by the Empire Laboratory Supply Company of New York, suitable for the easy and accurate determination of specific gravities out to the 4th decimal place; a dropping bottle for refractive index liquids, supplied by the Arthur H. Thomas Company of Philadelphia; and a small nitrogen-filled tungsten "Mazda" incandescent electric lamp, with the filament coiled spirally to form a slender cylinder, giving an intense line of light well adapted for goniometer work and optical measurements.

The following twenty-six fellows and members of the Mineralogical Society attended the meetings (besides a number of visitors):

- W. S. Bayley, University of Illinois
 E. L. Bruce, Queen's University
 J. P. Connolly, S. D. School of Mines
 A. R. Crook, Illinois State Museum
 H. V. Ellsworth, Geol. Survey Canada
 D. J. Fisher, University of Chicago
 D. Foster Hewett, U. S. Geological Survey
 Walter F. Hunt, University of Michigan
 Edward H. Kraus, University of Michigan
 George F. Kunz, Tiffany and Company, N. Y.
 A. L. Parsons, University of Toronto
 Albert B. Peck, University of Michigan
 Heinrich Ries, Cornell University
 Chester B. Slawson, University of Michigan
 W. A. Tarr, University of Missouri
 E. Thompson, University of Toronto
 Frank R. Van Horn, Case School of Applied Science
 Otto von Schlichten, University of Cincinnati
 A. J. Walcott, Bausch and Lomb Optical Company.
 T. L. Walker, University of Toronto
 H. S. Washington, Geophysical Laboratory
 Thomas L. Watson, University of Virginia
 S. Weidman, University of Oklahoma
 Edgar T. Wherry, Bureau of Chemistry
 Frank A. Wilder, North Holston, Virginia
 A. N. Winchell, University of Wisconsin

REPORT OF THE SECRETARY FOR 1920

The Secretary herewith reports that approximately 62 fellows and 131 members joined the Society during the year 1920, and are accordingly entitled to charter fellowship and membership. The lists are printed in full on subsequent pages.

Respectfully submitted,

HERBERT P. WHITLOCK, *Secretary.*

REPORT OF THE TREASURER FOR 1920

TO THE COUNCIL OF THE MINERALOGICAL SOCIETY OF AMERICA:

The Treasurer herewith submits his report covering the interval between February 1, 1920 and November 30, 1920.

<i>Receipts</i>		<i>Expenditures</i>	
From AMERICAN MINERALOGIST	\$ 381.82	Printing JOURNAL	\$ 964.61
Dues and subscriptions	950.08	Stationery and office supplies	68.78
Advertising	219.96	Other printing	5.93
Sale back numbers and reprints	117.37	Postage	19.03
Miscellaneous, incl. gifts	23.16	Miscellaneous, incl. buying back numbers	22.90
	<u>1,692.39</u>		<u>1,081.25</u>
Cash in bank Nov. 30, 1920			611.14
			<u>1,692.39</u>

Since this is the first year of the Society no comparison of increase in membership over previous years can be made. It may be interesting to point out, however, that the number of paid up subscriptions on the books of

the AMERICAN MINERALOGIST December 31, 1919, was 267. The mailing list December 15, 1920, was as follows:

Fellows.....	48
Members.....	125
Subscriptions.....	130
Unpaid, for various reasons.....	17
	320

During the year 56 names were taken from the mailing list for failure to renew or become Fellows or Members of the Society. In view of this the net growth of the circulation is quite substantial.

Taking into consideration the usual difficulties attendant upon the launching of a new organization and the increased rates in the cost of printing the Journal which became effective May 1, 1920, one can not but feel that the future may be faced with confidence in a steady increase in membership, which in turn means a larger, better, and more useful Society and Journal.

Respectfully submitted,

ALBERT B. PECK, *Treasurer.*

REPORT OF THE EDITOR FOR 1920

The 1920 volume of the AMERICAN MINERALOGIST contained 212 pages of text and 85 pages of covers, advertisements, and indexes. The subject matter included may be roughly classed as follows:

Subject	Articles	Pages
New minerals: descriptions of new species, discussions of the status of old ones, etc.....	10	21
Localities: descriptions of famous mineral localities, announcements of new occurrences, etc.....	14	20½
Crystallographic methods: series of papers on the Goldschmidt two-circle method of measurement, also optical methods.....	24	101
Miscellaneous: descriptions of methods of developing mineral specimens, museum exhibits, etc.....	2	5
TOTAL ORIGINAL ARTICLES.....	<u>50</u>	
Proceedings of Societies.....	21	18
Personal notes and news, book reviews, etc.....	41	11½
Accounts of new minerals described elsewhere.....	20	9
Abstracts of crystallographic literature.....	60	14
Abstracts of mineralogic literature.....	71	12
TOTAL ABSTRACTS AND NEWS ITEMS.....	<u>213</u>	
Illustrations,.....	48	
Pages.....		212

Five new mineral species were described in this volume for the first time,—echellite, flagstaffite, higginsite, plazolite, and vonsenite; while two, guadalcazarite and sarcopside, heretofore regarded as varieties, were raised to specific rank.

It has been the desire of the editor to devote approximately equal space to articles of scientific or technical nature, on the one hand, and those of more

elementary or popular character, on the other. The decision to publish the series devoted to the Goldschmidt two-circle method led to an undue amount of space being allotted to the former type, but in the next volume it is hoped to return to the adopted plan. There has been neither difficulty in obtaining articles, nor, fortunately, necessity of refusing to publish articles submitted; altho the limitations of space imposed by the condition of our finances have led to a delay disagreeable to the editor as well as to authors. It is hoped, however, that in the coming volume, we will be able to publish with reasonable promptness all articles received, provided authors continue to favor us with brief, concise articles in moderate number, as in the past.

While the policy of publishing abstracts of every article of mineralogical or crystallographic character issued since the beginning of the year 1916 has been adhered to, lack of space has led to the temporary withholding of many abstracts from publication during the latter part of the year. It is proposed to print these early in the next volume, however. Two other journals containing abstracts of mineralogical articles were started during 1920, *Mineralogical Abstracts*, published as a supplement to the *Mineralogical Magazine* (Great Britain) and *Revue de Géologie et des sciences connexes* (Belgium). The compilers of these collections of abstracts have located a considerable number heretofore missed by us, which will be duly noted, giving proper credit. What might appear at first sight to be an undesirable duplication of effort—the publication of three more or less identical series of abstracts—is thus shown to have redeeming features. Moreover, very few people have access to more than one of these publications, so that no change in plan on the part of ours, at least, seems called for.

Respectfully submitted,

EDGAR T. WHERRY, *Editor*.

NOTES

On invitation of the Department of Geology and Mineralogy of Amherst College, the next annual meeting of the Mineralogical Society of America is to be held at Amherst, Massachusetts, in conjunction with that of the Geological Society of America and other affiliated societies. The exact date has not been fixed, but it will be on or about December 29th.

At the recent Chicago scientific meeting a new organization was started, the Society of Economic Geologists. This, like the Mineralogical Society of America, is to be closely affiliated with the Geological Society of America.

CONSTITUTION AND BY-LAWS OF THE MINERALOGICAL
SOCIETY OF AMERICA

CONSTITUTION

Article I.—Name

This Society shall be known as the Mineralogical Society of America.

Article II.—Object

The object of this Society shall be the advancement of mineralogy, crystallography, and allied sciences.

Article III.—Officers

The officers of the Society shall be a president, a vice-president, a treasurer, a secretary, and an editor, who shall be elected annually. There shall be an executive council consisting of the above officers, the retiring president, and four fellows at large, to be elected for terms of four years each.

Article IV.—Membership

Section 1. The general membership of the Society shall be composed of Fellows, Members, and Patrons. There may also be Correspondents.

Section 2. Fellows shall be persons who have published results of research in mineralogy, crystallography, or allied sciences, and who upon nomination by the council shall have been duly elected to fellowship in the Society.

Section 3. Members shall be persons not Fellows who are engaged or interested in mineralogy, crystallography, or allied sciences.

Section 4. Patrons shall be persons who have bestowed important favors upon the Society. Election to patronship carries with it the rights and privileges of Members.

Section 5. Fellows, Members, and Patrons shall be entitled to vote in the transaction of the regular business of the Society. Only Fellows are eligible to office in the Society.

Section 6. Correspondents shall be persons distinguished for their attainments in mineralogy, crystallography, or allied sciences and not resident in North America.

Article V.—Amendments

This constitution shall be amended when the proposed amendment is favored by four-fifths of all the Fellows voting upon it. A copy of the proposed amendment shall be mailed to the general membership of the Society at least thirty days before a vote is taken. Voting shall be by mail ballot.

BY-LAWS

I. *Membership*

Section 1. Eligibility. Any person who has, in the opinion of the Council, contributed materially to the advancement of mineralogy, crystallography, or allied sciences, shall be eligible to fellowship in the Society. Any person or corporation interested in mineralogy, crystallography, or allied sciences, shall be eligible to membership.

Section 2. Election. (a) *Fellows.* Nominations for fellowship must be made by two Fellows according to a form to be provided by the Council. One of these Fellows must be personally acquainted with the nominee and his qualifications. The Council will submit the nominations received by them, if approved, to a vote of the Fellows in the manner provided in the By-Laws. The result may be announced at any stated meeting, after which notice shall be sent to the elected. (b) *Members.* Nominations for membership must be made on blanks provided by the Council, and receive the endorsement of the Secretary and Treasurer of the Society.

Section 3. Termination. Membership in the Society may be terminated or the names of the members may be placed upon the inactive list by vote of the Council.

II. *Dues*

Section 1. No person shall be accepted as a Fellow of the Mineralogical Society of America unless he pay the dues for the year within three months after notification of his election. The annual dues for Fellows shall be five dollars (\$5), payable at or before the annual meeting in advance.

Section 2. The annual dues for Members shall be three dollars (\$3). No person shall be accepted as a Member unless he pay the dues for the year within three months after notification of his election. The annual dues shall be payable at or before the annual meeting in advance.

Section 3. An arrearage in payment of annual dues shall deprive a Fellow or Member of the privilege of taking part in the management of the Society and of receiving the publications of the Society. An arrearage continuing over two (2) years shall be construed as notification of withdrawal.

Section 4. A single prepayment of one hundred dollars (\$100) shall be accepted as commutation for life for either Fellows or Members. In the case of Fellows, who are also Fellows of the Geological Society of America, a single prepayment of fifty dollars (\$50) shall be accepted as commutation for life.

Section 5. Any person eligible under Article IV of the Constitution may be elected Patron upon the payment of one thousand dollars (\$1000) to the Society.

III. *Duties of Officers*

Section 1. Officers. The duties of the president, vice-president, treasurer, secretary, and editor of the Society shall be the usual ones performed by such officers.

Section 2. Executive Council. The Executive Council shall direct all affairs and activities of the Society not otherwise provided for by the Constitution, as well as perform those duties specifically assigned to it.

Section 3. Committees. The president shall appoint, with the approval of the Council, such committees as may further the objects of the Society, including a Board of Associate Editors. The treasurer, the secretary, the editor, and the chairmen of the various committees shall make formal reports to the Society at least once each year.

IV. *Election of Officers*

Nominations for office shall be made by the Council. The list shall be mailed to the general membership for its information at least three months before the annual meeting. Any five Fellows or Members may forward to the Secretary other nominations for any or all offices. All such nominations reaching the Secretary at least 40 days before the annual meeting shall be printed, together with the names of the nominators as special ballots. The regular and special ballots shall then be mailed to the general membership. The results shall be announced at the annual meeting, and the officers thus elected shall enter upon duty at the adjournment of the meeting.

V. *Publications*

The Society shall publish a Journal devoted to the advancement of mineralogy, crystallography, and allied sciences. The general membership of the Society shall be entitled to receive the Journal.

VI. *Affiliation with other Scientific Organizations.*

The Council shall have authority to arrange for affiliation with other scientific organizations and, as occasion may arise, to appoint Fellows to represent the Society on the Councils of such organizations. In the case of the Geological Society of America, the representative so appointed shall also be a Fellow of the Geological Society of America, and shall be recommended to the Council of said society for confirmation as one of its nominees for the vice-presidency.

VII. *Local Sections*

Local sections of the Society may be formed in any locality, with the advice and consent of the Council, for the purpose of holding meetings and promoting coöperation. The affairs of such local sections shall be entirely in their own hands.

VIII. *Meetings*

There shall be an annual meeting of the Society and such other meetings as may be called by the Council. The annual meeting shall be held, whenever practicable, at the same time and place as that of the Geological Society of America.

IX. *Revision of the By-Laws*

After recommendation by the Council, By-Laws may be enacted, amended, or suspended by a two-thirds vote, by ballot, of the general membership of the Society.