perfected, largely by mineralogists of this country interested in the study of economic mineralogy.

The Method of Friedel and Laue

Within the last decade much progress has been made in the study of the molecular structure of crystalline substances. Friedel and Laue were the first to study the photographic projections of a beam of X-rays through a crystal plate. The continuation of such studies by Sir W. H. Bragg, his son Professor W. L. Bragg, and others has confirmed the hypothesis of mineralogists and crystallographers as to the lattice spacing of the crystal building units and has shed new light on the arrangements of the atoms of the substance within the fundamental particle. More recently workers in this field have learned how to determine the crystallographic constants for opaque minerals which have never been observed in any form of crystals. Owing possibly to their familiarity with the necessary technique and the possession of the laboratory equipment, most of the work in this field up to the present time has been carried on by physicists rather than by mineralogists.

With the passing of time, the introduction of new methods and the progress of the fundamental sciences there has been a repeated division of the field in which the early mineralogists worked. For our part it is desirable that we should keep in close touch with the branches which have separated and that the mineralogists of the future should be so widely trained that the broad interest in the earth sciences which we share jointly with the geologists, petrographers, and economic geologists, may be preserved.

THIRD ANNUAL MEETING OF THE MINERALOGICAL SOCIETY OF AMERICA

Frank R. VanHorn, *Secretary pro tem*

The Mineralogical Society of America held its third annual meeting at the University of Michigan, Ann Arbor, Michigan, on December 29, 1922, in affiliation with the Geological Society of America. The meeting in the Mineralogical Lecture room was called to order at 9:30 A. M. by President Thomas L. Walker. In the absence of the Secretary, Herbert P. Whitlock, it was moved, seconded, and carried that Frank R. VanHorn act as Secretary *pro tem.* On the motion of the Secretary, the reading of the minutes of the last annual meeting was dispensed with, in view of the fact that they have been printed on pages 45–50, Vol. 7, Number 3 of The American Mineralogist.

Election of Officers and Fellows

The Secretary announced that 64 ballots had been cast for the following Officers, nominated by the Council, who are, therefore, elected for 1923:—

President: Edgar T. Wherry, Bureau of Chemistry, Washington D. C.

Vice-president: George F. Kunz, New York City.

Secretary: Frank R. VanHorn, Case School of Applied Science, Cleveland, Ohio.

Treasurer: Albert B. Peck, University of Michigan.

Editor: Walter F. Hunt, University of Michigan.

Councilor, 1922–1926: Esper S. Larsen, U. S. Geol. Survey, Washington, D. C.

The Secretary also reported that the Council had elected the following Fellows:

Alfred Schoep, Professor of Crystallography and Mineralogy, University of Ghent, Belgium.

W. L. Uglow, Professor of Mineralogy and Petrography, University of British Columbia, Vancouver, B. C.

Dr. Frank A. Wilder, North Holston, Virginia.

Washington A. Roebling, Trenton, New Jersey.

Edward F. Holden, University of Michigan, Ann Arbor, Michigan.

Report of the Secretary for 1922

The Secretary reports that the roll of the Society now comprises 69 Fellows, and 167 Members, a gain of 3 Fellows and 12 Members for the year.

Respectfully submitted,
Herbert P. Whitlock, *Secretary*

Report of the Treasurer for 1922

To the Council of the Mineralogical Society of America:

The Treasurer herewith submits his report covering the year from December 1, 1921 to November 30, 1922.

Receipts

Cash on hand Dec. 1, 1921	$ 757.64
Dues and Subscriptions	1254.07
Advertising	267.75
Sale of back numbers, volumes and reprints	46.97
Goldschmidt reprints	19.91
Miscellaneous	34.41
	$2380.75

Expenditures

Printing Journal	$1394.10
Miscellaneous printing	73.51
Postage and miscellaneous	84.04
Goldschmidt reprints	289.60
Bonds-investment	295.25
	$2136.50
Cash in bank Nov. 30, 1922	244.25
	$2380.75

The Treasurer takes this opportunity to offer his thanks to all who co-operated in paying dues and subscriptions unsolicited except by the published notice and trusts that the response to such will continue.

Respectfully submitted,
ALBERT B. PECK, *Treasurer.*

An auditing committee consisting of Dr. E. T. Wherry and Professor A. L. Parsons was appointed by the President, and at a later session reported that they found the books of the Treasurer, correct.

REPORT OF THE EDITOR FOR 1922

During the past year there has been no marked change in policy with regard to the conduct of the Journal. We still have the Journal divided into two major divisions, the original articles printed in 10-point type, and book reviews, proceedings of societies, notes and news, new minerals and abstracts, which comprise the second division, characterized by 8-point type.

The 1922 volume (7) of The American Mineralogist contained 214 pages of text and 86 pages of covers, advertisements and indexes. This is an increase of 38 and 15 pages, respectively, over the preceding year. This increase of 21.5% in the size of the Journal within one year is most gratifying and especially so as the cost of volume 7 was slightly less than volume 6.

At the time of the editor's report a year ago many expressed the hope that the number of abstracts recorded the following year might be increased. Progress has also been made in that direction for volume 7 contains 195 entries of new minerals and abstracts. Compared with the 119 entries of 1921 there has been an increase of 76 in the number of abstracts printed. For this portion of the work we are all greatly indebted to Dr. E. T. Wherry and Mr. E. F. Holden who have given so much of their time and energy to this important division of the Journal.

The accompanying tables record not only a summary covering the general distribution of subject matter in volume 7, but also a complete analysis of each of the twelve issues. It will be noted that during the past year 59.1% of the space was devoted to original articles, 22.3% to proceedings of societies, notes and news and book reviews, leaving 18.3% for new minerals and abstracts.

TABLE 1. DISTRIBUTION OF SUBJECT MATTER IN VOLUME 7

Subjects	*Articles*	*Pages*
Original articles	37	126½
Proceedings of societies	18	21
Notes and news	59	10⅔
Book reviews	17	16⅙
Abstracted accounts of new minerals (including redefinition of species)	40	18⅙
Abstracts of crystallographic literature	40	8⅔
Abstracts of mineralogic literature	115	12⅚
Total of Text	326	214
Illustrations	22	
Covers, advertisements, indexes		86
Total		300

TABLE 2. PAGE DISTRIBUTION OF SUBJECT MATTER IN EACH ISSUE.

	January	February	March	April	May	June	July	August	September	October	November	December	Total	% of total	
Original articles	13½	10½	8⅔	10⅔	12	12	12⅔	12½	11	9	7½	6½	126½	59.1	
Proceedings of societies	½	1⅓	11⅓	1⅓	½	1½	1½	½	0	0	1	1½	21	9.8	
Notes and news	1	1	0	0	⅔	1	1⅓	3	1	½	⅔	½	10⅔	5.0	22.3
Book reviews	2	2	2	2½	1½	0	1	⅔	1½	1½	½	1	16⅙	7.5	
Abstracts—New minerals	0	0	0	3½	0	0	1½	1⅓	2	4	3⅓	2½	18⅙	8.5	
Abstracts—Crystallography	0	2½	0	0	0	1½	0	0	0	3	1⅔	0	8⅔	4.1	18.6
Abstracts—Mineralogy	1	⅔	0	0	3⅓	2	0	0	2½	0	3⅓	0	12⅚	6.0	
Total of Text	18	18	22	18	18	18	18	18	18	18	18	12	214		
Covers, Advertisements, Indexes	+2+4	+2+4	+2+4	+2+4	+2+4	+2+4	+2+4	+2+4	+2+4	+2+4	+2+4	+16+4	86		
Total	24	24	28	24	24	24	24	24	24	24	24	32	300		

RESPECTFULLY SUBMITTED,
WALTER F. HUNT, *Editor*.

REPORT OF THE COMMITTEE ON NOMENCLATURE AND CLASSIFICATION OF MINERALS

Final Report on Topics 1 and 2

The preliminary, tentative report on these topics was submitted at the Amherst meeting (1921) and in accordance with the vote was mimeographed and sent to every fellow and member of the Society. All suggestions received were fully considered by the Committee, and many of them made use of in framing the final report, which is submitted herewith.

Topic 1

In connection with our definitions of mineral species and variety, it should be pointed out that we realize that the situations existing in certain isomorphous series are not fully covered in these definitions; these are to be made the subject of further consideration and report at a future time. With reference to the amorphous minerals, we feel that the recognition of these is fully provided for by the expression ". . . possessing *usually* a crystalline structure. . ." It may be further noted that the nomenclature to be accorded to varieties is also to be made the subject of future consideration. Finally, the Committee feels that at present there is no need for such division as "sub-species" and therefore proposes no definition.

Definition of Mineral Species

A mineral species is a naturally occurring homogeneous substance of inorganic origin, in chemical composition either definite or ranging between certain limits, possessing characteristic physical properties and usually a crystalline structure.

Provision for Mineral Variety

If a mineral species ranges notably in chemical composition, or shows peculiar variations in physical features, varieties of it may be recognized.

Topic 2

Termination of the Names of Mineral Species

As far as practicable names of mineral species should terminate uniformly in *ite* (or *lite*), and proposers of new names are urged to follow this rule.

The following 38 exceptions are so well fixed in the literature that we recommend no effort to change them; they are here arranged in alphabetical order:

Allophane	Glaucophane
Andesine	Gypsum
Anorthoclase	Hornblende
Beryl	Hyalophane
Borax	Hypersthene
Calomel	Ice
Chrysoberyl	Lepidomelane
Chrysocolla	Microcline
Corundum	Niter
Diamond	Oligoclase
Epidote	Opal
Orpiment	Stilpnomelane

Orthoclase	Talc
Psilomelane	Topaz
Pyrope	Tourmaline
Quartz	Turquois
Realgar	Uranophane
Rutile	Water
Spinel	Zircon

Additional to the above list are all the chemical elements, and the following names given by Dana as species but now regarded as rocks, groups of species, etc.:

Amalgam (group; chief member arquerite).
Amphibole (group).
Calamine (ore; chief mineral hemimorphite).
Chloritoid (group; chief member ottrelite).
Chloropal (rock; chief mineral nontronite).
Garnet (group).
Iridosmine (group; comprises iridosmium and osmiridium).
Pyroxene (group).
Serpentine (rock; chief mineral antigorite).

In the opinion of the majority of the Committee the following names in Dana's System ending otherwise than in *ite* should be given this uniform ending, since it can be done without obscuring the derivation or euphony of the name. The pronunciations of these new forms of the names will be taken up and reported on at a future date.

Dana form	**Recommended**
Alumian	Alumianite
*Alunogen	Alunogenite
*Botryogen	Botryogenite
*Cinnabar	Cinnabarite
Clinochlore	Clinochlorite
Cuspidine	Cuspidite
Diaspore	Diasporite
*Dioptase	Dioptasite
Dysanalyte	Dysanalite
Euclase	Euclasite (not a feldspar)
Eudialyte	Eudialite
Glaucodot	Glaucodotite
*Galena or Galenite	Galenite (galena may be retained for the ore)
Harmotome	Harmotomite
Humboldtine	Humboldtite
Kornerupine	Kornerupite
Massicot	Massicotite
*Metavoltine	Metavoltite
Minium	Miniumite
Natron	Natronite
Nordenskioldine	Nordenskioeldite
Periclase	Periclasite (not a feldspar)

Dana form	Recommended
*Polycrase	Polycrasite
Pyrochlore	Pyrochlorite
Sal Ammoniac	Salammonite
*Sapphirine	Sapphirite
*Soda Niter (Nitratine)	Nitratite
*Spodumene	Spodumenite
Titan-olivine	(A variety; omit)
Trona	Tronite
*Xenotime	Xenotimite

The Committee has not reached unanimous conclusion on all of these changes, and individual members reserve the privilege of using the Dana form of the starred names in their own writings.

Respectfully submitted,
W. F. FOSHAG
A. F. ROGERS
T. L. WALKER
H. S. WASHINGTON
E. T. WHERRY
T. L. WATSON, *Chairman.*

University of Virginia.
December 1, 1922.

On the submission of this report before the meeting, it was moved and carried that it be accepted, but not adopted as official by the Society. Anyone desiring to quote or use the definitions or spellings given should accordingly describe them as *recommended by the Committee* on Nomenclature and Classification of the Mineralogical Society of America, or for short, "recommended by a committee of the M. S. A."

In the discussion connected with this action, it was brought out that the definition of a mineral requires a more explicit statement of what is to be done with minerals developing in connection with organic products (crystals in plant cells, secondary minerals in guano, etc.) which is not adequately covered by the single word "inorganic." It was also urged that the setting up of new name endings should not be done independently, but should await the proposed revision of Dana's System of Mineralogy. It was then moved and carried that the Committee should modify the report in accordance with the suggestions made, and submit it again at a future meeting.

The Committee herewith urges all who are interested in proposing changes in this definition, or in recommending the manner in which the possible desirability of altering name endings should be presented, to send in their views to the Chairman as soon after the publication of this report as practicable, in order that we may take advantage of their suggestions in the preparation of a supplementary report to be presented at the 1923 meeting.

The report on Topic 3, *The Spelling of Mineral Names*, and Topic 4, *How shall Minerals be divided into Families, and in what Order shall these be taken up*, was read, accepted, and ordered mimeographed and sent to the membership. It was moved, seconded, and carried that the Committee consider the advisability of numbering mineral species.

It was moved by Professor E. H. Kraus, also seconded and carried that the Society extend a vote of thanks to the Committee, for its efforts during the last two years. It was noted that such work has become possible only through the organization of the Mineralogical Society of America.

It was moved, seconded and carried that the greetings of the Society be extended to Professor Paul von Groth, and Victor Goldschmidt on the approaching anniversaries of their 80th. and 70th. birthdays.

There being no further business the Society proceeded to the reading of the papers. The first of these was the Presidential Address of Professor Thomas L. Walker on "*The Development of Mineralogical Methods,*" which is printed in full in this number. Other papers with abstracts follow:

ALEXANDER H. PHILLIPS, PRINCETON UNIVERSITY: *A Possible Source of Metallic Sulphides in Limestone.* Analyses of the tissues of various animals found in the neighborhood of Tortugas Island, Gulf of Mexico were given. The animals include: Fasciolaria (Horse Conch), Strombus, Limulus, Gorgonia, and certain Holothuroidea. All of these show appreciable amounts of copper, iron and manganese. All but the Holothuroidea show zinc, and these sea cucumbers show considerable vanadium. Lead was found in traces only in the Fasciolaria. The mud bottom around these coral islands showed copper, zinc, iron, and manganese, which indicates that the metals became fixed two feet below the ocean floor. The fresh water Unio also contains copper and zinc.

ELLIS THOMSON, UNIVERSITY OF TORONTO: *Mineralography as an Aid to Milling.* The application of this phase of mineralogy to the microscopic study of ore and mill products was illustrated by microphotographs.

A. L. PARSONS, UNIVERSITY OF TORONTO: *The formation of kaolin at moderate depths.* A discussion of the reactions that would probably be involved in kaolinization, with particular mention of kaolin deposits at the Helen Mine, Ontario, and Huberdeau, Quebec, which are attributed by the writer to be due to carbon dioxide derived largely from siderite and limestone.

ALFRED C. HAWKINS, ROCHESTER, N. Y.: *Hisingerite from Delaware.* Hisingerite occurs at Wilmington, Delaware, in the Brandywine quarry, on the creek of that name. The material was found about 35 years ago by Mr. Frederick Hilbiber. The hisingerite occurs as a dark brown crystalline crust on surfaces of vein quartz associated with a granitic intrusion which cuts the gabbro of this region. Associated minerals are bornite, pyrite, chalcopyrite, calcite, quartz, stilbite, natrolite, chabazite, laumontite. The hisingerite polarizes strongly under the microscope, and one small specimen is now found to show distinct crystals which are believed to be measurable. This is the first reported occurrence of this mineral in crystallized form. Full discussion of details will be given in a later article in this Journal.

W. F. FOSHAG, U. S. NATIONAL MUSEUM, WASHINGTON, D. C.: *Catapleiite from Magnet Cove.* In the absence of the author, the essentials of the paper were given by E. T. Wherry.

EDGAR T. WHERRY, BUREAU OF CHEMISTRY, WASHINGTON, D. C.: *The Composition of Thomsonite.* On plotting soda against silica in about 60 dependable analyses of thomsonite, two species appear to be represented, while some of the analyses have evidently been made on mixtures of one of these with natrolite or mesolite. There is no evidence of isomorphism between calcium and sodium, or between SiO_4 and Si_3O_8. Thomsonite is a definite mineral, $NaCa_2(Al_5Si_5O_{20}).6H_2O$,

and faroelite, which is optically distinct and deserves species rank, is probably $Na_2Ca_3(Al_8Si_9O_{31}).9H_2O$.

EDGAR T. WHERRY, BUREAU OF CHEMISTRY, WASHINGTON, D. C.: *Volume Isomorphism in the Silicates.* It is pointed out that many peculiar cases of isomorphism, and of the lack of it where expected, can be explained by considering the volumes occupied by the atoms concerned, as shown by X-ray measurement. The paper has been published in the January number.

W. T. SCHALLER, U. S. GEOL. SURVEY, WASHINGTON, D. C. *The Uranite Group (Autunite, Carnotite, Sincosite, etc.).* [Owing to the absence of the author the paper was read by the secretary.] The paper points out that the crystallographic, optical, and chemical properties of the minerals of the uranite group, among which are autunite and torbernite, which are given in the literature, are often conflicting, or are not known, and the minerals should all be studied again. An easily changing water content is responsible for the consequent change in the physical properties, especially optical ones, which has resulted in much conflicting data for the same minerals. The author is making a resurvey of the whole uranite group and all the details will be presented in a complete paper at some future date.

EDWARD H. KRAUS, UNIVERSITY OF MICHIGAN: *The Use of Projection Apparatus in Teaching Certain Phases of Mineralogy.* The teaching of optical mineralogy to comparatively large classes is greatly facilitated by the use of the epidiascope which permits the various phenomena observable with the ordinary mineralogical microscope to be projected upon the screen. In demonstrating the use of the epidiascope the Becke line, the various observations usually made in parallel and convergent polarized light, with and without test plates, were shown in rapid succession. Accessory apparatus permitted the projection upon the screen of the double refraction of light as observed through calcite rhombs together with the determination of the vibration directions of the emergent rays. In order that this demonstration might be readily followed an ordinary projection lantern was used to throw, at the same time, upon an adjacent screen a reference slide showing the phenomena to be observed for the various positions of the rhombs. This accessory apparatus served further as a dichroscope, the colored images being projected on the screen. Further demonstrations included the growth of crystals by various methods from solution, and from fusion, as also the remarkable changes to be observed in the interference figure of gypsum when it is subjected to marked changes in temperature.

H. S. WASHINGTON, GEOPHYSICAL LABORATORY, WASHINGTON, D. C.: *An Occurrence of Leucite in the Alban Hills.* At Villa Senni, near Grotta Ferrata, on the north slope of the Alban Volcano, is a thick mass of leucitic tuff. This is composed in part of leucitite lapilli, of small fragments of compact leucititite, and of very abundant loose crystals of leucite. There are also present large blocks of italite, the purely leucitic effusive rock described recently and the locality of which was erroneously given as San Carlo, Rocca Monfina.[1] Blocks of a friable rock made up of small prisms of augite and decomposed leucite, and some blocks consisting wholly of brilliant black, granular phlogopite, also occur.

The leucite crystals may be picked out with the fingers like plums from a pudding. They are very uniform in size, from one-half to one cm. in diameter, colorless and almost water-clear, and are for the most part very well-formed, some of them showing the typical leucitohedron in almost ideal symmetry. It is thought

[1] H. S. Washington, *Am. Jour. Sci.*, **50**, 33, 1920.

that they are derived, by the breaking up by the volcanic explosions, from an underlying flow of italite; which is very friable, and in which the leucite crystals are of about the same size and characters as those which occur loose.

T. L. WALKER, UNIVERSITY OF TORONTO: *The crystallographic and optical properties of a uranium mineral (Schoepite) from Kasolo, Belgian Congo.* A sulphur yellow mineral possessing very perfect cleavage $c(001)$. $\alpha=1.690$, $\beta=1.714$, $\gamma=1.735$, all $\pm .003$. X colourless, Y and Z lemon yellow. Biaxial—, $Bx_a \perp c(001)$. Qualitative tests showed uranium and carbon dioxide. $p_o : q_o : r_o = 2.053 : .875 : 1$. Forms, $c(001)$, $a(100)$, $b(010)$, $m(110)$, $d(011)$, $f(021)$, $e(041)$, $x(104)$, $o(122)$, $q(124)$, $p(111)$.

T. L. WALKER AND A. L. PARSONS, UNIVERSITY OF TORONTO: *Ellsworthite, a new hydrous uranium columbate from Hybla, Ontario.* An isotropic mineral associated with calcite, quartz, zircon, and a dark brown radio-active mineral in a feldspar deposit. $n>1.74$. H=4. S.G.=3.608. Fracture small conchoidal, lustre brilliant resinous, colour amber brown (Ridgway). Streak pale brownish yellow.

CHARLES PALACHE, HARVARD UNIVERSITY: *Vanadium Deposits of the South-West African Protectorate.* Descloizite and mottramite, vanadates of lead, zinc and copper, occur in veins and impregnations in the Otavi Dolomite at several localities in the vicinity of Tsumeb and Grootfontein. Mining is being done, chiefly of residual deposits of these minerals lying on solution surfaces of the dolomite.

CHARLES PALACHE, HARVARD UNIVERSITY: *The Diamond Mines of South Africa.* The author gave a very interesting paper on the geological occurrence of the diamonds, as well as the methods of mining and milling of the same, which will appear in full in a later issue of the Journal.

The following fellows, members and guests attended the various sessions of the Society:

R. M. Bagg, Appleton, Wisconsin.
A. R. Crook, State Museum, Springfield, Illinois.
G. C. VanEsbroek, Columbia University, New York City.
D. J. Fisher, Chicago University, Chicago, Illinois.
Alfred C. Hawkins, Rochester, New York.
E. F. Holden, University of Michigan, Ann Arbor, Michigan.
Walter F. Hunt, University of Michigan, Ann Arbor, Michigan.
E. H. Kraus, University of Michigan, Ann Arbor, Michigan.
Esper S. Larsen, U. S. Geological Survey, Washington, D. C.
Wm. J. McCaughey, Ohio State University, Columbus, Ohio.
Charles Milton, Urbana, Illinois.
Donald J. Monroe, Chicago, Illinois.
Charles Palache, Harvard University, Cambridge, Massachusetts.
Walter J. Paquette, Toledo, Ohio.
A. L. Parsons, University of Toronto, Toronto, Canada.
Albert B. Peck, University of Michigan, Ann Arbor, Michigan.
Alexander H. Phillips, Princeton University, Princeton, New Jersey.
Floyd Poindexter, Cynthiana, Kentucky.
Lewis S. Ramsdell, University of Michigan, Ann Arbor, Michigan.

H. Ries, Cornell University, Ithaca, New York.
Otto C. VonSchlichten, Cincinnati University, Cincinnati, Ohio.
M. W. Senstius, Chicago University, Chicago, Illinois.
Chester B. Slawson, Ann Arbor, Michigan.
Frank R. Van Horn, Case School of Applied Science, Cleveland, Ohio.
Albert J. Walcott, Northwestern University, Evanston, Illinois.
Thomas L. Walker, University of Toronto, Toronto, Canada.
Henry S. Washington, Geophysical Laboratory, Washington, D. C.
Thomas L. Watson, University of Virginia, Charlottesville, Va.
Edgar T. Wherry, Bureau of Chemistry, Washington, D. C.
Albert S. Wilkerson, Cincinnati, Ohio.
Fred E. Wright, Geophysical Laboratory, Washington, D. C.[1]

FELLOWS OF THE MINERALOGICAL SOCIETY OF AMERICA

(*Indicates charter fellow.)

*Dr. Elliot Quincy Adams, Research Dept., Nela Park, Cleveland, Ohio.
*Frederick Noel Ashcroft, M.A., 37 Palace Court, Bayswater, London W 2. [Life fellow.]
*Miss F. Bascom, Bryn Mawr College, Bryn Mawr, Pa.
*Prof. William S. Bayley, University of Illinois, Urbana, Ill.
Prof. O. B. Bøggild, Univ. of Copenhagen, Copenhagen, Denmark.
*Dr. N. L. Bowen, Geophysical Laboratory, Carnegie Inst., Washington, D. C.
*Dr. Oliver Bowles, Bureau of Mines, Washington, D. C.
*Dr. E. L. Bruce, Queen's University, Kingston, Ontario.
*Dr. Henry L. Buttgenbach, Université de Liege, Liege, Belgium.
*Dr. Frederick A. Canfield, Dover, N. J.
*Robert W. Clark, Commerce Bldg., Okmulgee, Oklahoma.
*Prof. Charles Wilford Cook, Univ. of Michigan, Ann Arbor, Michigan.
*Prof. R. D. Crawford, 1050 Tenth Street, Boulder, Colorado.
*Dr. A. R. Crook, State Museum, Springfield, Ill.
*Prof. E. S. Dana, Yale University, New Haven, Connecticut.
*Prof. A. S. Eakle, University of California, Berkeley, California.
*Dr. H. V. Ellsworth, Dept. of Mines, Geological Survey, Ottawa, Canada.
*John Eyerman, 2012 La Brea Terrace, Hollywood, Cal.
*Dr. Chas. R. Fettke, Carnegie Inst. of Technology, Pittsburgh, Pa.

[1] In addition to the above list the following fellows and members of the Society were registered as attending the sessions of the various affiliated Societies but were not present at the meetings of the Mineralogical Society of America. N. L. Bowen, Geophysical Laboratory, Washington, D. C.; W. S. Bayley, University of Illinois, Urbana, Illinois; J. P. Connolly, South Dakota School of Mines, Rapid City, S. D.; C. W. Cook, University of Michigan, Ann Arbor, Mich.; E. O. Hovey, American Museum of Natural History, New York City; A. C. Lane, Tufts College, Mass.; J. Volney Lewis, Rutgers College, New Brunswick, N. J.; G. D. Louderback, Univ. of California, Berkeley, California; E. B. Mathews, John Hopkins University, Baltimore, Md.; C. H. Richardson, Syracuse University; J. J. Runner, Iowa State University, Iowa City, Iowa; R. C. Wells, U. S. Geological Survey, Washington, D. C.; L. G. Westgate, Ohio Wesleyan University, Delaware, Ohio.