

**OFFICIAL AIME
ANNUAL REPORTS
FOR 1960**

**AMERICAN INSTITUTE OF
MINING, METALLURGICAL, & PETROLEUM ENGINEERS
29 WEST 39TH STREET
NEW YORK 18, N. Y.**

OFFICIAL AIME ANNUAL REPORTS COVERING THE YEAR 1960

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REPORT

of the

SECRETARY OF AIME

Each year one or more activities of the Institute stand out uniquely from those basic, continuing, publication and meeting services. In 1960 the appointment of an Inter-Engineering Society Cooperation Committee produced such activity. The Functional Plan, proposed recently by the American Institute of Electrical Engineers, had been expounded to the AIME Board of Directors but did not provide a satisfactory and sufficient plan for AIME. It did provide for the elimination of duplication of services; but coordination of services, particularly when duplicated for good reason, would be more acceptable as a sufficient step toward unity in the engineering profession.

Inter-Engineering Society Affairs

A drawback of the Functional Plan from AIME's standpoint is that so-called professional problems concerned with the welfare of individual engineers and legislative matters are to be referred to NSPE. AIME's federal tax classification is different from that of NSPE and AIME may not become involved in such matters. These matters could be referred to the Mining and Metallurgical Society of America, the American Petroleum Institute, the Mining Congress, the Iron and Steel Institute, and other similar organizations in which AIME members are active. NSPE, unlike EJC and ECPD, is not a federation of societies with representatives on its Board of Directors responsible to AIME. Its membership is limited to licensed Engineers and in several states examinations for engineering licenses are not given in some or all of AIME's fields - geological, mining, petroleum and metallurgical engineering. It is estimated that less than 3% of NSPE's membership are AIME members.

A past-presidents committee of the Founder Engineering Societies, after studying the problem of unity in engineering for over two years, recommended in August 1960 that the presidents and vice-presidents of EJC, ECPD and NSPE meet quarterly to provide the much needed coordination of the various engineering society activities.

In February 1960 Dr. Gillson appointed an Inter-Engineering Society Cooperation Committee (originally known as the Unity Committee) consisting of Will Mitchell, Jr., Chairman, R. M. Mahoney and Douglas Ragland. The October issues of the three Institute monthly journals carried the first report of this Committee. It traced the attempts to coordinate engineering activities in the past and gave the background of the organizations involved. In the February 1961 issues of these journals, the second report of the Committee describes the activities of EJC, ECPD and NSPE. A future report is expected to

make recommendations to further promote inter-engineering society cooperation and perhaps unity.

ECPD was recently classified 501(C)(3) for federal tax purposes as is AIME. EJC has requested and expects a similar classification in the near future. The AIME Board of Directors voted to have EJC, which is incorporated, and ECPD, which is not, amalgamate, if this can be done without tax difficulties. EJC and ECPD activities and organizations would continue as divisions of a single corporation. This would encourage coordination and minimize undesirable duplication. But more important, it would reduce confusion of both the public and engineers regarding these two organizations. This should increase the effectiveness of recommendations from engineering societies released by such an organization and increase the prestige of the engineering profession.

AIME participated in discussions concerning a revised Model Law for licensing of engineers. The previous Model Law endorsed by AIME was issued in 1946. Realizing that AIME must take an active and continuing part in the drafting of Model Laws to protect the public and to serve engineers in the AIME fields, AIME applied for membership in the National Council of State Boards of Engineering Examiners. This organization, in the same federal tax classification as AIME, is taking the leadership in preparing such a revised Model Law. NCSBEE's purpose is to improve professional engineering standards and to promote uniform and fair registration procedures in the various states.

United Engineering Center

Ground was broken for the new United Engineering Center on October 1, 1959 by former U. S. and AIME President Herbert Hoover. Construction began December 14. He laid the Cornerstone on June 16, 1960. At year end glass and curtain walls were complete on the lower half of this twenty story building. Barring further strikes, occupancy is scheduled for September 1, 1961. The official address will be United Nations Plaza at 47th Street, New York 17, New York.

The present building was sold for \$1,500,000. Approximately an equal amount more is available from the current building depreciation fund. At the end of 1960 industry contributions had risen to \$4,959,000. Member contributions from all societies totalled \$3,365,000. The Chemical Engineers, the Civil Engineers, The Industrial Engineers, and the Consulting Engineers had attained their quotas in pledges. AIME had then raised 86% of its \$500,000 quota.

The Society of Petroleum Engineers of AIME accepted a goal of \$150,000 or 30% of the quota for the Institute. At the end of 1960, 69% of the \$150,000 had been pledged. The Society of Mining Engineers and the Metallurgical Society accepted the

balance of AIME's quota as their joint goal. At the end of the year they had raised 94% of the \$350,000. The New York Section (Mining and Metals) was originally assigned a quota of almost \$130 per member or eleven times the \$11.50 per member assigned to other primarily Mining and Metals Sections. This was subsequently reduced to about \$96 per member and, by the end of 1960, \$136,000 had been raised by the New York Section, or \$87 per member. SPE asked to be responsible for campaigns within each of the AIME Local Sections with a preponderance of petroleum engineers. SPE assigned a uniform goal per member to all of these domestic Sections -- goals based on \$15 per SPE member as of January 1, 1958.

The 22 Sections which had made or exceeded their goals as of December 30, 1960 are as follows:

<u>Section</u>	<u>% of Goal</u>	<u>Section</u>	<u>% of Goal</u>
Oregon	352	Arizona	136
New York Petroleum	308	Gulf Coast	125
Uranium	235	Minnesota	121
Penn-Anthracite	179	Panhandle	109
Hugobon	161	San Francisco	107
Lehigh Valley	148	Pittsburgh	103
Montana	142	Philadelphia	102
Tri-State	142	Carlsbad Potash	102
Utah	140	Fort Worth	101
Florida	138	St. Louis	101
Ohio Valley	136	Hudson-Mohawk	100

Publications Program

Each of the Societies increased its service to members through publications in 1960. It is interesting to see how similar the programs now are though developed by different routes. The Society of Petroleum Engineers preprints its meeting papers by offset process without review by its Transactions Editorial Committee. These are available for sale at the meeting or at the Dallas Office. Acceptable papers are authorized for publication in the printed and bound Transactions. Those papers of broad interest are also published in the "Journal of Petroleum Technology". Starting in 1961 Transactions papers, not of broad interest, in addition to being available as offset meeting preprints and eventually in the bound Transactions volume will be distributed free in a new quarterly publication "SPE Journal" to those SPE members who request a subscription.

The Society of Mining Engineers continued its preprint program. A limited number of preprints, using a coupon system, is provided each SME member free with additional copies at a nominal charge. Some 22,600 preprints were distributed in 1960. Meeting papers are preprinted by offset process without review by the SME Transactions Editorial Committee. Papers

accepted after review by this committee are printed in the bound Transactions. In July 1960, SME discontinued the duplicate publication of Transactions papers in "Mining Engineering". Future bound Transactions volumes will be issued early in the year with the 1960 Volume available in February 1961. Each author of a Transactions paper is given 100 copies of his paper as it appears in the volume.

The Metallurgical Society previously discontinued the publishing of Transactions papers in the "Journal of Metals". Papers, after approval by the proper Division Publications Committee and the editor, are printed in the bi-monthly "Transactions of the Metallurgical Society of AIME" which is available to AIME members for \$5.00 per year. Two hundred preprints are furnished authors at a nominal charge prior to publication. These papers also appear in the annual bound Transactions volume. Some meeting papers are made available usually in mimeographed form by the authors at meetings. The large volume of papers published in the bi-monthly Transactions continues to be available only with an industry subsidy although the subscription income now pays the major portion of this cost. Some Metallurgical Society committees continue to finance conference proceedings through advertising and registration fees. Two conferences preprint most of their papers for free distribution to registrants. Through an arrangement of the Society with Interscience Publishers Inc. the proceedings of other conferences are published and offered for sale to the public with reduced rates to AIME members, particularly meeting registrants as part of the registration fee. This provides still more technical information without requiring capital, subsidy or dues support.

SPE joined with the International Oil Scouts Association in 1960 to issue a two-part statistics volume "International Oil and Gas Development Covering 1959". This publication replaced a previous society statistics volume and provided better coverage with less duplication of effort and published data. SPE has found considerable demand to Transactions reprint booklets. Technical papers on a specific subject published in the Transactions over a period of years are offset reprinted and bound in a single paperback volume.

Career Brochures

During the year the Society of Mining Engineers completed and published a career brochure in the mining field. "Opportunities Unlimited - Careers in the Mineral Industry" was subsidized by the Rocky Mountain Fund and is being sold to provide income for additional printings. The Metallurgical Society likewise completed and published "Careers in Metallurgy and Metallurgical Engineering". A grant from the National Science Foundation makes this booklet available in limited quantities, free except for shipping charges. The Society of Petroleum Engineers published a similar brochure "Careers in Petroleum

Engineering" two years ago with support from the Doherty Fund. For the first time AIME is now able to provide separate career brochures in all of its fields.

15 Year History

At the time of the Institute's 75th Anniversary, then Secretary A. B. Parsons, prepared a 116 page history of the Institute. This history was published as a chapter in the Anniversary Volume "Seventy-Five Years of Progress in the Mineral Industries". Soon thereafter, in 1949, E. H. Robie became Secretary and served until 1955. While on the staff as Secretary Emeritus, he started to prepare a supplement to this history but other duties prevented its completion. In 1960 Dr. Gillson asked him to prepare a fifteen year history of the Institute to have available at the 90th Annual Meeting in February 1961. This brochure covers a most interesting period of the Institute during which time: Four new Divisions were organized to provide at least one in the field of each member of the Institute; Divisions were grouped first into Branches and then Societies to provide better handling of publications and other services; both membership and the number of Local Sections more than doubled.

Finances

Dues and publication sales were both substantially higher in 1960 than in 1959 for all three societies. Publications income for Metals was up 20%. Major items of expense for each of the three societies were about the same as 1959 or less except appreciable increases for publications for Metals and Petroleum and for the Western Field Office with the filling of that vacancy in 1960. Both the Mining and Petroleum Societies operated well in the black in 1960. The Metallurgical Society received sufficient income to have the net effect of substantially reducing the subsidy from its Research Publications Fund. This industry-supplied Fund is necessary and used only for its bi-monthly Transactions. Endowment and custodian accounts of the Institute provided \$201,000 to make available additional services to members and the AIME professions beyond that which is possible from the \$618,000 in AIME dues and initiation fees, the \$376,000 in advertising income and the \$155,000 from sale of publications.

Several matters occupied a great deal of both the Board of Directors' and Board Committees' time but can be reported briefly here. A careful analysis of three Institute Departments was made during 1960. The Directors decided that the expenses of the Institute Secretary's Office should be distributed to the Societies on a membership basis as before. It was the decision of the Directors that the expenses of both the Business Office and the Institute Activities Office be allocated to the Societies on a use basis. The financing of Annual Meetings was carefully studied by a committee. A brochure to guide the host Local Section in making arrangements for an Annual Meeting was

prepared. It was decided to reimburse the Societies from Annual Meeting Registration Fees for specific services provided the Annual Meeting by the respective Society offices, for example, the preparation of program material and staff travel expenses. Institute Business Office procedures were studied in detail and it was recommended that improvements in business office procedures be watched carefully with the hope that once all of the Societies are in their new headquarters, central services for certain operations may be found to be more efficient.

Membership and Related Activities

Net membership increase, at 1474, exceeded 1959 by 162 in spite of high losses of 2774 corporate members. The RECORD 4248 NEW CORPORATE MEMBERS represented fine work on the part of Membership Committees and staff. Student Members again decreased from 2332 at the end of 1959 to 1893 at the end of 1960. Corporate members totalled 34,852 and the grand total for AIME was 36,745 on December 31, 1960.

Six years ago the Institute took a step forward and departed from a previous policy of temporary staff or voluntary publicity activities. A year-round, part-time publicity man was employed. In 1960 the Board of Directors asked the Society and Institute Secretaries to re-examine the Institute's publicity and public relations program. This has been done and an extensive report will be available in 1961.

Clifford Hicks was employed as Western Field Secretary in February 1960. He has travelled extensively and has been particularly effective in assisting Section and Regional Program Committees, in arranging visits to Sections by Institute and Society officials, in writing to college graduates to persuade them to maintain their membership or join the Institute and in helping students secure summer employment.

During the year 1960 five new Local Sections of the Institute were established as follows: Carolinas, Coastal Bend, East Tennessee, Netherlands and Wisconsin Sections. Three new Subsections were established: the Big Horn Basin Subsection of the Wyoming Petroleum Section, the East Kentucky Subsection of the Appalachian Petroleum Section and the Maricopa Subsection of the Arizona Section.

At the request of the Council of Section Delegates a Board of Directors Committee was appointed to recommend a reorganization of the Council of Section Delegates to improve efficiency. Although considerable time on the part of the appointed Committee and the Board of Directors itself was devoted to this subject during 1960, a decision had not been reached by the end of the year. The possibility of establishing an Engineering Management Committee or Council of the Institute was given consideration but further study is planned before a decision is reached.

Meetings

Information on some of the more important AIME, Society and Divisional meetings of the year is given below:

MEETING	PLACE	DATE	ATTENDANCE
Minnesota Section Annual Mtg.	Duluth	Jan 11	700
ISD Mechanical Working Conf.	Chicago	Jan 20	276
AIME Annual Meeting	New York	Feb 14-18	3800
Drilling & Production Conf.	Beaumont	Mar 18	286
Blast Furn & Open Hearth Conf.	Chicago	Apr 4-6	2029
S'west Metals & Minerals Conf.	Los Angeles	Apr 21-23	380
Pacific N'west Met & Min Conf.	Portland	Apr 28-30	520
Secondary Recovery Symposium	Wichita Falls	May 2-3	848
Joint CIM-AIME Petroleum Mtg.	Calgary	May 5-6	825
Annual Uranium Symposium	Moab, Utah	May 6-8	550
Refractory Metals & Alloys	Detroit	May 25-26	400
TMS New England Reg. Conf.	Boston	May 26-27	200
Columbium Metallurgy Symp.	Bolton Ldng, N.Y.	Jun 9-10	187
Joint Powder Metallurgy Mtg.	New York	Jun 13-15	750
High Velocity Deformation Conf.	Estes Park, Col	Jul 11-12	195
IMD Semiconductors Conf.	Boston	Aug 29-31	540
Coal Div. & St. L. Sec.	St. Louis	Sep 8-9	102
SPE Fall Meeting	Denver	Oct 2-5	2736
Rocky Mountain Minerals Conf.	Salt Lake City	Oct 5-7	490
TMS Fall Meeting	Philadelphia	Oct 17-20	1277
Annual Calif. Petr. Reg. Mtg.	Pasadena	Oct 20-21	382
Joint Solid Fuels Conf.	Charleston, W.Va.	Oct 24-25	240
Joint Pittsburgh Sections Mtg.	Pittsburgh	Nov 4	800
Formation Evaluation Symp.	Houston	Nov 21-22	900
Electric Furnace Conference	Chicago	Nov 30-Dec 2	1094
Ariz. Sec. Annual Meeting	Tucson	Dec 5	522

Bound Volumes Published in 1960:

AIME Transactions:

Society of Mining Engineers	-Vol. 214	-1959
The Metallurgical Society	-Vol. 215	-1959
Society of Petroleum Engineers	-Vol. 216	-1959
Industrial Minerals and Rocks 3rd Edition		-1960
Electric Furnace Steel Proceedings	-Vol. 17	-1959
Blast Furnace, Coke Oven, Raw Materials Prcdngs	-Vol. 18	-1959
Open Hearth Proceedings	-Vol. 42	-1959
Nuclear Metallurgy Vol. VII	IMD Series - No. 10	-1960
Props. of Elemental & Compound Semiconductors*	-Vol. 5	-1959
Flat Rolled Products 2: SemiFinished & Finished*	-Vol. 6	-1960
Extr. & Phys. Metallurgy of Plutonium & Its Alloys*		-1959
Statistics of Oil & Gas Devel. & Production	-Vol. 14	-1959
Elements of Petroleum Reservoirs--Norman J. Clark		-1960
Oil & Gas Property Evaluation & Res. Est.	Reprint Bk. #3	-1960

* Interscience Publishers Series

Honors and Awards

The following Honors and Awards were presented at the 1960 Annual Meeting held in New York City:

A CERTIFICATE OF HONORARY MEMBERSHIP to Andrew Fletcher, "for his outstanding leadership in the lead and zinc mining industries, and for his able and devoted services to the Institute as its Treasurer and President, and as a Director for many years."

A CERTIFICATE OF HONORARY MEMBERSHIP to John Meston Lovejoy, "for distinguished service to the Institute, for his outstanding contributions in furthering the professional status of petroleum engineers, for his pioneering in application of engineering to petroleum production, and for his outstanding record of public service on behalf of the petroleum industry."

A CERTIFICATE OF HONORARY MEMBERSHIP to Henry DeWitt Smith, "a mining engineer whose life and achievements have brought new luster to that great calling; who combined high professional skill with imagination and knowledge of operations, finance, and management to create vast new enterprises; and who as President and Director of the Institute contributed most effectively to the planning of its present sound and comprehensive structure."

A CERTIFICATE OF HONORARY MEMBERSHIP to Wilfred Sykes, "for distinguished service to the steel industry, particularly as a pioneer in the development of electrical equipment for steel mills; active member of many technical societies; effective Director and Vice-President of the Institute, contributor of important technical papers; leader in civic, economic and political affairs."

A CERTIFICATE OF HONORARY MEMBERSHIP to William Embry Wrather, "in recognition of his outstanding contributions to the profession as pioneer petroleum geologist and discoverer of the Desdemona Field, and his distinguished service to the public as Director of the United States Geological Survey in times of war and peace."

The JAMES DOUGLAS GOLD MEDAL to Augustus B. Kinzel "for outstanding contributions and inspiring leadership in the field of electrolytic and electrothermic winning of non-ferrous metals and for his notable administrative ability."

The BENJAMIN F. FAIRLESS AWARD to Charles M. White "for his ability, energy and determination in starting the top-pressure blast furnace and his foresight in providing it with prepared burdens which have created the world's dominant metal producer."

The HAL WILLIAMS HARDINGE AWARD to Samuel H. Dolbear, "eminent mineral consultant and engineer--first chairman, Industrial Minerals Division of AIME--first editor, 'Industrial Minerals and Rocks'--for the improvement and increase of industrial mineral knowledge."

The ANTHONY F. LUCAS GOLD MEDAL to Albert Chatfield Rubel "for his pioneering foresight in the application of engineering principles to petroleum development and production practices and for his fostering the development of many production techniques valuable to the petroleum industry. For his inspirational training and development of engineers not only to managerial, but also to social and political responsibilities."

The ERSKINE RAMSAY GOLD MEDAL to Raymond Ernest Salvati "for his outstanding contributions and achievements in the development and application of modern technology in underground coal mining and in the preparation of bituminous coal, and for his many years of distinguished leadership within the industry."

The ROBERT H. RICHARDS AWARD to Norman Weiss "for his contributions to mineral engineering and in particular for his development and application of differential flotation and cyanidation to complex base and precious metal ores, his outstanding work in mill design, his formulae for extraction and efficiency determinations, his contributions to the profession as an author of technical papers, and for his qualities of leadership, integrity, and devotion, and his never-failing willingness to help and inspire his fellow man, both professionally and personally."

The WILLIAM LAWRENCE SAUNDERS GOLD MEDAL to Robert J. Linney "for administrative leadership and aggressive determination in bringing into successful commercial operation mining and beneficiation of taconite iron ore."

The MINERAL INDUSTRY EDUCATION AWARD to Lester Charles Uren, "distinguished petroleum engineer, educator and author, whose pioneering work has outlined in detail present and future areas of petroleum engineering and research, particularly through his decimal classification for the filing of data pertaining to the petroleum and related industries and his publications."

The DANIEL C. JACKLING AWARD to Louis B. Slichter "for his pioneering work in applying the principles of geophysics to practical problems in mineral exploration and for his Lecture, 'Need For A New Philosophy For Prospecting'."

C. R. Kuzell was the Extractive Metallurgy Division Lecturer for 1960.

Robert F. Mehl was the Howe Memorial Lecturer for 1960.

The EXTRACTIVE METALLURGY DIVISION AWARD to L. S. Renzoni, R. C. McQuire, (posthumously), and W. V. Barker, for their paper, "Direct Electrorefining of Nickel Matte," Journal of Metals, June 1958.

The ROBERT W. HUNT SILVER MEDAL to T. E. Dancy, A. T. Sadler, and H. N. Lander, for their paper on "Process Analysis of Blast Furnace Operation with Oxygen and Steam," 1958 Blast Furnace, Coke Oven and Raw Materials Proceedings.

The J. E. JOHNSON, JR., AWARD to Harry Holiday "in recognition of his contribution to the production of very large tonnages in blast furnaces achieved through the skillful use of agglomerated materials and operating practices."

The ROSSITER W. RAYMOND MEMORIAL AWARD to Paul G. Shewmon for his paper, "The Redistribution of a Second Phase During Annealing in a Temperature Gradient," Transactions of The Metallurgical Society of AIME, October 1958.

ALFRED NOBLE PRIZE (joint award sponsored by the Four Founder Engineering Societies: AIME, ASCE, ASME, AIEE, and the Western Society of Engineers) to Paul G. Shewmon for his paper, "The Redistribution of a Second Phase During Annealing in a Temperature Gradient," Transactions of the Metallurgical Society of AIME, October 1958.

STUDENT PRIZE-PAPER CONTEST prizes were awarded in 1960 in the Graduate Division to: John Sikkar for his paper entitled "An Application of Quality Control in Mining Industry", entered by the Montana Section; to Ted Cobb for his paper entitled "A Study of Several Variables Affecting the Gravitational Separation of Solid-Gas Systems", entered by the Oklahoma City Section.

Prizes in the Undergraduate Division were awarded to: Leo A. Rogers for his paper entitled "Spectrophotometric Analysis of Niobium", entered by the Utah Section; to John D. Culter for his paper entitled "Effect of Permeability Cut-Off on Analytical Water Drive Recovery Predictions", entered by the Mid-Continent Section.

LEGION OF HONOR INSIGNIA were conferred upon the following fifteen AIME Members: W. W. Charles, William R. Chedsey, Maurice D. Cooper, John Daniell, Jr., Milton H. Fies, E. C. Harder, Thomas S. Harrison, Frank C. Laurie, Pomeroy C. Merrill, Charles S. Mitke, Alfred W. Stickney, Stephen Taber, John Tyssowski, William Rogers Wade and Hugh M. Wolflin.

Other national awards made during the year, but not presented during the Annual Meeting were:

JOHN FRANKLIN CARLL AWARD. To: Ralph Judson Schilthuis

CEDRIC K. FERGUSON MEDAL. To: Charles B. Ammann

N. F. Mott was the Institute of Metals Division Lecturer for 1960.

ROBERT LANSING HARDY GOLD MEDAL. To: John Price Hirth

LEO F. REINARTZ-AIME-NOHC SCHOLARSHIP.

To: Thomas H. McGough

PERCY NICHOLS AWARD. (Joint Award of the Coal Division of the Society of Mining Engineers of AIME and Fuels Division of ASME). To: Carl Eugene Lesher

F. B. MCKUNE MEMORIAL AWARD. To: W. P. Connor and D. J. Miller for their paper, "Aluminum Capped Steel".

OPEN HEARTH CONFERENCE AWARD. To: Raymond A. Hinnebusch and Jack A. McKinnon for their paper, "A Practical Method for Statistical Evaluation of Open Hearth Problems".

JOURNAL OF METALS AWARD. To: Y.C. Chang for his paper, "Optimum Operation in the Recovery of Light Oil".

In Memoriam

The death on December 30, 1959, of Bradley Stoughton, former Secretary of the Institute and Legion of Honor member of the Class of 1897, was not reported in the 1959 Official AIME Annual Reports. On June 10, 1960 Miss Maria Onorata, an Institute employee, died after being on sick leave for about a year. Their service to AIME is gratefully noted.

Appreciation

Those compiling the lists of literally thousands of Section, Division, Society, Council and Institute Committee members for the Directory Supplement each Spring realize the tremendous amount of voluntary work provided by the members of the Institute. A list of authors for the year would also number in the thousands. It is most fitting that this report express appreciation to both authors and committee members for providing their services. The Institute Secretary is also aware that, with the inspiration of these voluntary workers, the staff members devote far more than normal effort to their work.

Intended for inclusion in the above appreciation, of course, are the Society and Institute Officers and Directors.

On March 1, 1960, Joseph L. Gillson, the then newly installed President of AIME, retired as Chief Geologist for E. I. DuPont de Nemours & Company with a limited but liberal expense account for his year in office. The Institute was most fortunate to have as able and devoted a President spend almost full time on AIME activities in 1960. He had already served two years as chairman of the AIME Member Gifts Committee for the new building and continued his interest when Lloyd Elkins took over the chairmanship. He had visited many Local Sections and increased his pace to finally visit 48 Sections over the two-year period, some more than once. In addition to Local Section visits his itinerary included most of the increasing number of regional and national conferences. He took particular interest in and devoted considerable time to registration of engineers, reorganization of the Council of Section Delegates, the Institute publicity program and a fair allocation of income and expenses to the Societies. He made an outstanding effort to increase interengineering society cooperation both outside the Institute and among AIME's own Societies. "Togetherness" might well have been his motto. Joe Gillson took a personal interest in almost every Institute problem. The Secretary is deeply appreciative of his unlimited help and valuable counsel.

Conclusion

The year 1960 brought about a greater understanding of the challenges facing the Institute and the engineering profession. Changes have been made or suggested to provide more effective operation of the Institute. Membership and non-dues income continue to increase to provide for both inflation and increased services. Adequate space and facilities for the Institute headquarters are in sight in 1961. With every reason to anticipate the continuing enthusiasm and effort on the part of officers, committee members and staff, 1961 will also bring an increase in AIME membership and services.

AMERICAN INSTITUTE OF MINING, METALLURGICAL AND PETROLEUM
ENGINEERS, INC.

REPORT OF THE TREASURER

FOR

YEAR ENDED DECEMBER 31, 1960

February 16, 1961
New York, N. Y.

Respectfully Submitted

GEORGE I. BRIGDEN
TREASURER

AMERICAN INSTITUTE OF MINING, METALLURGICAL, AND PETROLEUM ENGINEERS, INC.

BALANCE SHEET

DECEMBER 31, 1960 AND DECEMBER 31, 1959

ASSETS

<u>WORKING FUND</u>	<u>DECEMBER 31, 1960</u>	<u>DECEMBER 31, 1959</u>
Cash-Unappropriated.....	\$ 84,500	\$ 364,167
Marketable Securities - Short Term	271,946	-
Members Dues Receivable.....	25,178	21,348
Accounts Receivable.....	71,653	58,891
Inventories:		
Publications on hand.....\$ 18,071		\$ 14,201
Paper Stock.....	3,839	4,062
Postage Stationery & Supplies.	7,514 29,424	6,893 25,156
Equipment Furniture & Fixtures\$ 144,369		\$ 140,230
Less: Reserve for Depreciation	104,700 39,669	96,330 43,900
Prepaid Exp., Deferred Charges	32,355	36,933
Annual Meeting Deficit Suspense	-	6,639
TOTAL WORKING FUND.....	\$ 554,725	\$ 557,034
<u>ENDOWMENT & CUSTODIAN FUNDS</u>		
Investments at cost.....\$2,408,394		\$2,153,871
Cash in Banks..... 166,186	\$2,574,580	118,073 2,271,944
<u>PROPERTY FUND</u>		
Founder's interest in Real Estate and Other Assets of United Engineering Trustees..	265,000	265,000
	<u>\$3,394,305</u>	<u>\$3,093,978</u>

LIABILITIES AND RESERVES

<u>WORKING FUND</u>		
Accounts Payable - General....\$ 74,311		\$ 81,063
Taxes Payable..... 414	74,725	857 81,920
Nat'l Science Foundation Grant	10,000	-
Life Membership Fund.....	27,980	30,740
Special Fund for Publications.	26,690	26,690
Annual Meeting Surplus Fund...	2,188	-
Deferred Income, Members Dues:		
Received in Advance.....\$ 291,134		\$ 307,678
Current Dues.....	25,178	21,348
Other Deferred Credits.....	54,996 371,308	57,656 386,682
Surplus beginning of year.....\$ 31,002		\$ 36,915
Unexpended Income.....	11,899	626
Amounts transferred to Funds.. (1,067)	41,834	(6,539) 31,002
TOTAL WORKING FUND.....	\$ 554,725	\$ 557,034
<u>ENDOWMENT & CUSTODIAN FUNDS</u>		
Endowment Funds.....\$2,331,350		\$2,071,793
Custodian Fund..... 243,230	2,574,580	200,151 2,271,944
<u>PROPERTY FUND</u>		
AIME portion of contribution from A Carnegie and others....	265,000	265,000
	<u>\$3,394,305</u>	<u>\$3,093,978</u>

INCOME AND EXPENSE STATEMENT
TWELVE MONTHS ENDING DECEMBER 31, 1960

INCOME:				
Members dues and fees rec:	MINING	METALS	PETROLEUM	TOTAL
Current	\$205,828.18	\$132,520.25	\$205,987.36	\$ 544,335.79
Arrears	1,865.50	457.00	1,674.75	3,997.25
New	10,208.02	8,735.05	12,633.39	31,576.46
Entrance Fee	12,414.03	9,865.97	15,582.03	37,862.03
TOTAL	\$230,315.73	\$151,578.27	\$235,877.53	\$ 617,771.53
Publications Sales:				
Advertising (net)	\$138,979.93	\$ 76,657.28	\$160,792.01	\$ 376,429.22
Journals	11,478.23	18,911.58	8,372.71	38,762.52
Statistics Volumes	-	-	19,984.16	19,984.16
Transactions Volumes	8,348.59	17,145.74	13,955.08	39,449.41
Reprint Sales	4,981.44	15,360.97	6,192.30	26,534.71
Mining Preprint Sales	2,642.91	-	-	2,642.91
Bi-monthly Trans.Sales	-	27,669.13	-	27,669.13
TOTAL	\$166,431.10	\$155,744.70	\$209,296.26	\$ 531,472.06
OTHER INCOME:				
Dividends & Interest & Misc.	\$ 2,857.17	\$ 1,852.48	\$ 3,139.79	\$ 7,849.44
TOTAL INCOME	\$399,604.00	\$309,175.45	\$448,313.58	\$1,157,093.03
EXPENSES:				
Membership & Sections:				
Local Sect., Stud. Ch.Tvl.	\$ 17,237.50	\$ 9,994.65	\$ 22,155.62	\$ 49,387.77
Society Offices	40,762.27	39,818.51	77,124.42	157,705.20
Special Membership Act.	5,533.29	1,871.11	9,377.88	16,782.28
Institute Activities	25,401.98	12,082.65	9,263.65	46,748.28
Library Assessment	6,399.18	4,148.92	7,032.07	17,580.17
TOTAL	\$ 95,334.22	\$ 67,915.84	\$124,953.64	\$ 288,203.70
Publication Expenses:				
Journals - Advertising	\$ 78,011.13	\$ 39,969.26	\$ 79,280.23	\$ 197,260.62
Journals - Regular	118,024.24	79,286.96	99,140.11	296,451.31
Bi-monthly Trans. Exp.	-	54,389.30	-	54,389.30
Statistics Volumes	-	-	32,536.63	32,536.63
Transactions Volumes	4,677.42	7,251.14	17,384.18	29,312.74
Preprint & Reprint Exp.	7,488.67	10,941.91	4,981.18	23,411.76
Directory	11,996.38	3,277.70	6,280.57	21,554.65
TOTAL	\$220,197.84	\$195,116.27	\$239,602.90	\$ 654,917.01
General & Administrative:				
Secretary's Office - N.Y.	\$ 15,720.17	\$ 10,192.19	\$ 17,274.91	\$ 43,187.27
Secretary's Office - S.L.C.	10,967.74	2,141.36	896.17	14,005.27
Business Office	31,702.71	20,554.51	34,838.14	87,095.36
Pensions & Related Exp.	11,669.43	7,565.89	12,823.54	32,058.86
Insurance Expense	425.03	275.57	484.26	1,184.86
Provision for Depreciation	3,046.69	1,975.33	3,348.02	8,370.04
Miscellaneous Expense	6,066.80	5,433.41	6,666.81	18,167.02
TOTAL	\$ 79,598.57	\$ 48,138.26	\$ 76,331.85	\$ 204,068.68
TOTAL EXPENSES	\$395,130.63	\$311,170.37	\$440,888.39	\$1,147,189.39
	\$ 4,473.37	\$ (1,994.92)	\$ 7,425.19	\$ 9,903.64
From Metals Research Pub.Fund	-	1,994.92	\$ -	1,994.92
Income Over Expense	\$ 4,473.37	\$ - 0 -	\$ 7,425.19	\$ 11,898.56
To AIME Surplus	\$ 1,118.34	\$ - 0 -	\$ 1,856.30	\$ 2,974.64
To Society Surplus	\$ 3,355.03	\$ - 0 -	\$ 5,568.89	\$ 8,923.92

STATEMENT OF DISBURSEMENTS FROM FUNDS

In addition to expenditures made from dues, advertising income, etc. to carry on the operating functions of the Institute a large number of disbursements are made to accomplish the purposes for which various Endowment and Custodian Funds have been set up. These amounts do not appear on our financial statement as expenses of AIME. They are instead charged directly against appropriate funds after the requisite approvals have been obtained. A compilation of the principal payments made from these funds totaling \$201,350.00 for 1960 is given herewith.

<u>AMOUNT</u>	<u>FUND</u>	<u>PURPOSE</u>
\$ 3,800.00	James Douglas Library Fund	To defray in part, AIME library assessment.
\$11,700.00	Charles Hayden Memorial Fund	To defray in part costs of mailing publications to Student Associates.
\$16,000.00	Rocky Mountain Club Fund	\$6,000.00 transferred to defray costs of Salt Lake City office. \$10,000.00 to defray expenses of Mining Society Careers Booklet.
\$45,000.00	Seeley W. Mudd Memorial Fund	Primarily free books to new Junior Members, includes also cost of binding other volumes to be sold and cost of publishing Industrial Minerals and Rocks Volume. Proceeds of sales are credited to the fund.
\$ 300.00	Student Relation Prize Fund	Student Chapters award and prize papers.
\$ 750.00	Leo F. Reinartz	Tuition payments.
\$14,000.00	Institute of Metals Division Fund	Payments for meetings of IMD Publication of Nuclear Metallurgy Volume 7, Proceedings and additional costs for previous Volumes.
\$17,000.00	Daniel C. Jackling Building Fund	Fund raising Activities in connection with new building.

<u>AMOUNT</u>	<u>FUND</u>	<u>PURPOSE</u>
\$ 600.00	Coal Division AIME Scholarship Fund	Tuition payments.
\$12,000.00	Metallurgical Society Projects Fund	Payments for a series of Volumes being published. Costs are to be recouped from Royalties and Sales.
\$22,000.00	Open Hearth Proceedings Fund	Publication of Proceedings Volume and operation of meeting. These payments are recouped from sales of Volumes, advertising in Volumes, registration fees, etc.
\$29,000.00	Electric Furnace Steel Proceedings Fund	Publication of Proceedings Volume and operation of meeting. These payments are recouped from sales of Volumes, registration fees, advertising in Volumes, etc.
\$27,000.00	Blast Furnace, Coke Oven and Raw Material Proceedings Fund	Publication of Proceedings Volume and operation of meetings. These payments are recouped from sales of Volumes, registration fees, etc.
\$ 5,700.00	George D. Barron Memorial Fund	ECPD appropriation.
\$11,500.00	Karl Eilers Memorial Fund	Portion of ECPD appropriation and AGI contribution.
\$ 5,000.00	Various Award Funds	For various medals and awards made by AIME.

Registration fees at meetings provide for membership service in the form of meetings. Such income is not shown in the Income and Expense Statement of the Institute.

AMERICAN INSTITUTE OF MINING, METALLURGICAL, AND PETROLEUM ENGINEERS, INC.
COMPOSITION OF BALANCE SHEET CAPTIONS

ASSETS

WORKING FUND

Cash - Unappropriated:

Cash in commercial banks unallocable to funds arising for the most part from members' dues received, payments received on accounts receivable for sale of advertising, certificates of membership, members' pins, etc., sale of Transactions Volumes, Journal subscriptions, etc.

Investment In Marketable Securities:

Surplus Institute cash invested in U. S. Treasury Bills and commercial paper which are converted into cash as the need arises.

Members' Dues Receivable:

Amount of unpaid dues billed to members for 1960 and amounts unpaid by members who have partially paid 1959 dues.

Accounts Receivable:

Amounts due on unpaid invoices from advertisers and from sale of books, subscriptions, members' certificates, pins, etc.

Inventories:

Publications on Hand:

Inventory of unsold Transactions Volumes published through 1960.

Paper Stock:

Inventory of unused Journal paper stock held by printers.

Postage, Stationery and Supplies:

Inventory of unused balance in postage meter, stamps on hand, stationery and office supplies.

Equipment, Furniture and Fixtures:

Office equipment, furniture and fixtures, the property of AIME located in New York, Dallas and Salt Lake City.

Reserve for Depreciation:

Valuation reserve on the above.

Prepaid Expenses, Deferred Charges:

Includes such deferred charges to expense as cost of printing overrun of Transactions pages of magazines to appear in subsequent year's volume, Journal expenses applicable to subsequent month's magazines, unliquidated travel allowances to employees, prepaid insurance, checks returned by bank pending redeposit, net expenses in excess of proceeds of sale of miscellaneous AIME volumes unsponsored by any fund, and miscellaneous other items applicable to future periods.

ENDOWMENT AND CUSTODIAN FUNDS

Investments, cash and accrued interest of Endowment and Custodian Funds administered by AIME.

PROPERTY FUND

AIME interest as a founder society in real estate and other assets of United Engineering Trustees, owners of building occupied by AIME.

LIABILITIES AND RESERVESWORKING FUND

Accounts Payable General:

Includes accounts payable to vendors for AIME purchases received, but unpaid at close of year. Balances maintained by overseas members for subsequent dues or back orders, etc. Commissions payable to advertising agencies and salesmen, taxes held by AIME as agent for subsequent payment, amounts due to Pension Fund Trustees.

National Science Foundation Grant:

Special account payable to National Science Foundation pending publication of backlog of Transactions papers.

Taxes Payable:

AIME portion of F.I.C.A. taxes.

Life Membership Fund:

Payments received from members for life membership, of which \$20.00 per year is applied to current dues.

Special Fund for Publications:

Balance of fund set up to cover excess costs of technical papers.

Deferred Credits to Income:

100% offset to like asset and/or dues received in advance.

ENDOWMENT AND CUSTODIAN FUNDS

Principal and income of unused balance of Endowment and Custodian Funds administered by AIME.

PROPERTY FUND

AIME portion of contribution from Andrew Carnegie and others to finance Engineering Societies' Building.

AMERICAN INSTITUTE OF MINING, METALLURGICAL, AND PETROLEUM ENGINEERS, INC.
COMPOSITION OF INCOME AND EXPENSE ACCOUNTS

INCOME:

Members' Dues and Fees Received:

Current Dues - Amount received from membership other than new and reinstated members for 1960 dues.

Arrears - 1959 dues paid in 1960.

New - Receipts from new members and reinstatements during the year.

Entrance Fees - Receipts from men elected to membership in 1960 and partial payments of members elected in previous years.

Publications Sales:

Advertising (net) - Receipts from advertising space sold, less agency commission paid and 2% cash discount taken by payor for prompt payment.

Journal Sales - Proceeds from sales of subscriptions and individual sales of current and prior year's Journals.

Statistics Volumes - Proceeds from sales of current and past Petroleum Statistics Volumes.

Transactions Volumes - Proceeds from sales of current and prior year's Transactions Volumes.

Reprint Sales - Proceeds from sales of Reprints of Journal Articles.

Mining Preprint Sales - Proceeds from sales of preprinted papers presented at SME meetings.

Bi-monthly Transactions Sales - Receipts from sales of MS Bi-monthly Transactions Journal.

OTHER INCOME:

Dividends and Interest - Interest on AIME surplus cash invested. Interest on British Bond held by the Institute and transfer from Hayden Fund income earned from Investments. The income of the Hayden Fund is used to help underwrite the low income from Student Members due to their nominal dues.

Miscellaneous Other Income - Profit on sales of outside books sold to members at a discount, members' pins, charms, certificates of membership and plaques less salaries applicable thereto. Also includes cash discounts taken on purchases by AIME and sundry other items such as collections made on accounts previously written off.

EXPENSES

Membership and Sections:

Local Sections Expense - Rebates to local sections and student chapters for members on record on 1/1/60; rebates of entrance fee to local sections during 1960.

Society Offices - Salaries, rent and office expense of various Society Secretaries and their staffs, expenses of Division Chairmen, Division appropriations, etc., less credit for proration of Metals Society Secretary's office expense charges to Conferences.

Special Membership Activity - Expenses related to promotion in obtaining new members.

Institute Activities - Salaries, rent and expenses related to Institute Activities, includes Meetings and processing and maintaining membership records.

Library Assessment - United Engineering Trustees assessment for use of Library less income of J. Douglas Library Fund applied.

Publications Expenses:

Journals (Advertising) - Expenses for travel, salary, rent, paper printing and other costs pertaining to advertising pages of the various Journals and commissions paid to advertising representatives.

Journals (Editorial) - Expenses for salaries, rent, travel, office expense, cost of paper and printing of editorial section of Journals excluding MS Bi-monthly Transactions.

Bi-monthly Transactions - Cost of printing MS Bi-monthly Transactions.

Transactions Volumes - Cost of printing and binding Transactions which appeared in the previous year's Journals plus applicable percentage of salaries.

Statistics Volumes - Cost of printing and binding Petroleum Statistics Volumes.

Preprint and Reprint Expense - Cost of printing reprints (usually in bulk) of papers appearing in monthly Journals, plus applicable salaries. The cost of SME preprints is also included.

Directory - Cost of printing Society Directories and Directory supplement.

General and Administrative:

Secretary's Office - Salaries, rent, travel and miscellaneous expenses of the Institute Secretary's office and duties delegated to others. Also includes expenses of Salt Lake.

Business Office - Salaries, rent and office expenses of Accounting, IBM and Tabulating, Billing, Change of Address, Purchasing, Filing and Shipping departments less charges for certain services to other departments.

Pensions and Related Expenses - Pension plan costs, pension payments not under plan, miscellaneous payroll expenses which include Institute's share of hospitalization and Major Medical Plans, New York State Disability Insurance, F. I. C. A. taxes and group insurance.

Insurance - Miscellaneous insurance costs, including workman's compensation, employee's bond, fire, safe and burglary, etc.

Provision for Depreciation - Depreciation on furniture and fixtures over a ten year period.

Miscellaneous Expenses - Includes EJC Assessment- Cost of professional services, exchange on checks, miscellaneous postage and supplies, furniture and fixtures maintenance, construction expense not capitalized.

1961 BUDGET

<u>INCOME:</u>	<u>MINING</u>	<u>METALS</u>	<u>PETROLEUM</u>	<u>TOTALS</u>
Membership:				
Current dues	\$211,000	\$141,000	\$216,000	\$ 568,000
New Membership dues	9,200	8,300	11,000	28,500
Entrance fees	9,400	9,000	13,000	31,400
Dues in arrears	2,000	500	2,000	4,500
TOTAL	\$231,600	\$158,800	\$242,000	\$ 632,400
Publications:				
Monthly Journal Adv. (net)	\$150,000	\$ 75,000	\$155,000	\$ 380,000
Monthly Journal Sales	9,500	18,500	9,000	37,000
Quarterly Journal Advertising	-	-	4,000	4,000
Quarterly Journal Sales	-	-	2,000	2,000
Statistics Volumes Sales	-	-	11,000	11,000
Transactions Volumes Sales	17,900	17,000	14,000	48,900
Bi-monthly Advertising	-	1,000	-	1,000
Bi-monthly Transactions Sales	-	29,000	-	29,000
Reprint Sales	3,000	13,500	3,000	19,500
Mining Preprint Sales	2,900	-	-	2,900
TOTAL	\$183,300	\$154,000	\$198,000	\$ 535,300
Other Income:				
Interest & Dividends (1)	\$ 2,485	\$ 1,722	\$ 2,793	\$ 7,000
Annual Meeting Credit	6,500	5,000	1,500	13,000
Miscellaneous	100	-	-	100
TOTAL	\$ 9,085	\$ 6,722	\$ 4,293	\$ 20,100
TOTAL INCOME	\$423,985	\$319,522	\$444,293	\$1,187,800

EXPENSES:

Membership and Sections:				
Local Section Student Chapter	\$ 22,000	\$ 12,500	\$ 22,000	\$ 56,500
Society Secretary's Offices	46,125	46,900	80,000	173,025
Special Membership Activity	6,000	2,900	10,000	18,900
Institute Activities (2)	12,952	12,987	9,161	35,100
Public Relations (3)	4,530	2,576	2,394	9,500
Library Assessment	6,390	4,428	7,182	18,000
TOTAL	\$ 97,997	\$ 82,291	\$130,737	\$ 311,025
Publications:				
Journals Advertising Exp.	\$ 75,500	\$ 39,000	\$ 81,000	\$ 195,500
Monthly Journal-Prod. & Edit.	127,500	80,900	101,000	309,400
Quarterly Journal-Adv. Exp.	-	-	1,000	1,000
Quarterly Journal-Prod. & Edit.	-	-	8,000	8,000
Statistics Volume - Expenses	-	-	16,000	16,000
Transaction Volume - Expenses	12,800	8,500	19,000	40,300
Bi-monthly Advertising Exp.	-	500	-	500
Bi-monthly Transactions Exp.	-	60,000	-	60,000
Reprint Expenses	3,000	10,000	2,000	15,000
Mining Preprint Expenses	6,000	-	-	6,000
Directory	10,000	2,200	6,500	18,700
TOTAL	\$234,800	\$201,100	\$234,500	\$ 670,400
General and Administrative:				
Secretary's Office-N.Y. (1)	\$ 17,750	\$ 12,300	\$ 19,950	\$ 50,000
Secretary's Office-S.L.C. (4)	9,600	1,800	600	12,000
Business Office (5)	33,397	26,481	31,122	91,000
Pensions & Related Expenses	11,360	7,872	12,768	32,000
Expired Insurance Premiums (1)	533	369	598	1,500
Provision for Depreciation (1)	2,840	1,968	3,192	8,000
Miscellaneous Expenses (1)	6,390	4,428	7,182	18,000
TOTAL	\$ 81,870	\$ 55,218	\$ 75,412	\$ 212,500
TOTAL EXPENSES	\$414,667	\$338,609	\$440,649	\$1,193,925
Less received from Funds - net	\$ -	\$ 20,000	\$ -	\$ 20,000
TOTAL NET EXPENSES	\$414,667	\$318,609	\$440,649	\$1,173,925
INCOME OVER EXPENSES	\$ 9,318	\$ 913	\$ 3,644	\$ 13,875

NOTES TO 1961 BUDGET

- (1) These items are distributed on the membership rates percentage existing at the time of billing for 1961 dues. These percentages for 1961 are:

Mining - 35.5% Metals - 24.6% Petroleum - 39.9%

- (2) Institute Activities Expenses are Net after certain items chargeable against Annual Meeting.
The use percentage agreed upon for 1961 is:

Mining - 36.9% Metals - 37.0% Petroleum - 26.1%

- (3) Public Relations - \$6,000 allocated on Membership ratio, balance up to the individual Society.

- (4) Secretary's Office - Salt Lake City - Total estimated expense \$18,000 less \$6,000 chargeable to Rocky Mountain Fund. Net expense of \$12,000 distributed as follows:

Mining - 80% Metals - 15% Petroleum - 5%

- (5) Business Office Expense - allocated on agreed percentage of use basis:

Mining - 36.7% Metals - 29.1% Petroleum - 34.2%

REPORT
OF THE
BUSINESS MANAGER

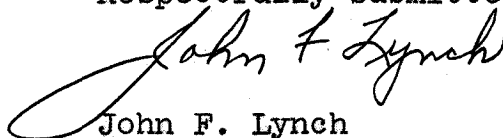
The Business Office functions as a service organization for the AIME, the three Societies, and the Membership.

Functions of the Business Office are departmentalized as follows: Accounting, Purchasing, Filing, Order (sales and billing), Change of Address, Tabulating and Mailing.

Nineteen sixty witnessed an increase in the work load for most of these departments due to the increased membership and Society activity. It is particularly gratifying to report that even with the heavier work load there was a reduction in expenses from the previous year.

Thanks are due to the staff of the Business Office and to all Institute and Society personnel for their loyal and devoted service. We wish especially to thank AIME Treasurer, Mr. George I. Brigden, for his helpful advice and assistance.

Respectfully submitted,



John F. Lynch
Assistant Treasurer
Business Manager

REPORT
of the
INSTITUTE ACTIVITIES DEPARTMENT

At the close of 1960, this department was operated by five persons. Two devoted the major portion of their time to processing applications for the Admissions Committees and the relevant work connected with it before and after Committee action. The Manager and his Secretary handled all correspondence, dealt with Local Section matters, convention planning and wind-up, Council of Education matters, prizes and awards, running membership statistics and a myriad of other details. One person, devoted the major portion of his time to public relations.

Membership

Statistics on all phases of membership for 1960 are given in the reports contained herein.

Meetings

The meetings through the year were all financially successful and in many instances showed new highs in attendance. A guide for future Annual Meetings was developed.

Publicity

Much attention was given to the area of publicity through the year. Further discussions will be undertaken in the future.

In the course of the year, a sixth employee resigned and was not replaced. The ability of those on this staff to spread the work-load and operate on a current basis is to be commended.

Respectfully submitted by,

H. Newell Appleton, Manager

REPORT

of the

CHAIRMEN OF THE ADMISSIONS COMMITTEES

Applications for new memberships, reinstatements and changes of status, to the number of 3,999, came before the Committees during 1960.

The statistical record of Committee actions is given in the following tabulation.

The Chairmen gratefully acknowledge the painstaking work of the Committee.

Aurel H. Smith
Chairman, Admissions Committee
Society of Petroleum Engineers
AIME.

W. L. Brytzuk
Chairman, Admissions Committee
The Metallurgical Society
AIME.

Sanford S. Cole
Chairman, Admissions Committee
Society of Mining Engineers
AIME.

Classification of Applications Received and Elections Made by the Admissions Committees

New Applications and Reins.:		1957		1958		1959		1960		Mining	Metals	Petr.
Members	Associates	1,533	1,425	1,504	1,420	1,504	1,420	1,471	1,399	1,550	1,550	1,550
		508	404	439	548	439	548	175	89	284	284	284
Junior Members		868	654	625	578	625	578	112	161	305	305	305
	Total	2,909	2,483	2,568	2,546	2,568	2,546	758	649	1,039	1,039	1,039
Applications for C/S												
Associate Member to Member		313	317	336	273	336	273	66	12	195	195	195
Junior Member to Member		46	89	169	137	169	137	55	28	54	54	54
Junior Member to Associate Mbr.		1	3	1	13	1	13	1	12	---	---	---
Student Member to Member		1	4	2	1	2	1	---	1	---	---	---
Student Member to Associate Mbr.		---	---	3	---	3	---	---	---	---	---	---
Student Member to Junior Member		---	2	14	7	14	7	---	1	6	6	6
Total		361	415	525	431	525	431	122	54	255	255	255
Applications for Student Members		1,652	1,488	1,314	1,022	322	315	385				
Grand Total		4,922	4,386	4,407	3,999	1,202	1,018	1,679				

Automatic Changes of Status are not included in above figures due to the fact that applications are not necessary.



AMERICAN INSTITUTE OF MINING, METALLURGICAL, AND PETROLEUM ENGINEERS, INC.

29 WEST THIRTY-NINTH STREET

NEW YORK 18, N. Y.

January 19, 1961

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TO THE BOARD OF DIRECTORS OF AIME:

Your All-Institute Membership Committee is pleased to report an increase in the number of members in each of the Societies of the Institute during the calendar year of 1960. The total number of corporate members has reached 34,852 from 33,378 at the close of last year for an increase of 1,474. After adding 1,893 Student Members the total number of all classes of membership in the Institute is 36,745.

The distribution of Institute membership in the three Societies is summarized in Table 11 of the attached report. The total number of Members in the Mining Society is 13,083 or 35.6% of the Institute, Metals 8,856 or 24.1% and Petroleum 14,806 or 40.3%.

After the total number of new member applications and new members obtained from graduating students were reduced by the various losses in membership, the following net gains are shown in the three Societies: Petroleum 639, Metals 544 and Mining 291 accounting for the net gain in the Institute corporate members of 1,474.

The Membership Committee wishes to thank the many members in every Section and Sub-section, the Faculty Sponsor in the Universities, the New York and Dallas staffs who have contributed toward the membership effort in the past year. We are most pleased and very fortunate that the President of AIME this past year has been willing to contribute so much of his time and talents to the membership efforts.

Respectfully submitted

D. C. Hilty, Chairman
All-Institute Membership

DCH:ref
attached

ANNUAL REPORT ON MEMBERSHIP ACHIEVEMENT FOR THE YEAR 1960

During the year 1960, 4,248 Corporate Members were added to the membership rolls of AIME. Reductions in the membership totalled 2,439. These losses came about through 185 deaths, 364 resignations, and 1201 suspended for non-payment of dues, 108 failed to accept election and 581 failed to accept the automatic change of status.

In using IBM statistics, Table I shows apparent difference between the final 1958 figure and the starting 1959 figure. This difference is due to inclusion of automatic change of status from Student Member to Junior Member on IBM records prior to the billing of dues. Thus in 1959 and subsequent years the group of Student Members who became Automatic Junior Members for that year is the group which is added at the end of the year rather than at the beginning.

The resultant net gain was 1,474 Corporate Members.

Table I

	Corporate Members, AIME			
	1957	1958	1959	1960
Total January 1	26,298	28,823	32,066	33,378
Total Gains, 12 Months	3,682	3,937	3,954	4,248
Total Losses, 12 Months	1,157	2,207	2,642	2,774
Net Gains	2,525	1,730	1,312	1,474
Total Jan 1. of following year	28,823	30,553	33,378	34,852

Gains and losses in the Institute are detailed for each Society in Table 2 indicating a net gain in Corporate membership for the Societies, as follows: Mining 291, Metallurgy 544, and Petroleum 639, totaling 1,474 for the Institute.

Table 2

Corporate Membership Gains and Losses for 1960 by Societies

Society of Mining Engineers	Gain	Loss	Net
Mining & Exploration	536	406	130
Minerals Beneficiation	416	74	342
Coal	113	99	14
Industrial Minerals	23	41	(-18)
Council of Education	10	11	(- 1)
Council of Economics	8	13	(- 5)
Unclassified	349	520*	(-171)
Total	1455	1164	291

*Losses in unclassified totalling 335 were actually transferred to particular Divisions. These specific losses do not enter the total loss figure in the opening paragraph.

<u>Metallurgical Society of AIME</u>	<u>Gain</u>	<u>Loss</u>	<u>Net</u>
Iron and Steel	309	97	212
Extractive Metallurgy	200	47	153
Institute of Metals	288	167	121
Council of Education	1	19	(-18)
Council of Economics	--	19	(-19)
Unclassified	218	123	95
Total	1016	472	544
<u>Society of Petroleum Engineers</u>	<u>Gain</u>	<u>Loss</u>	<u>Net</u>
Petroleum	1736	1124	612
Council of Education	17	9	8
Council of Economics	24	5	19
Total	1777	1138	639
Grand Total	4248	2774	1474

Table 3 summarizes the status of student membership for 1960 showing a net loss of 439 Student Members.

Table 3

	<u>Student Membership, AIME</u>			
	1957	1958	1959	1960
Total January 1	3,415	3,974	2,557	2,332
Total Gains, 12 Months	1,934	1,502	1,597	1,155
Total Losses, 12 Months	1,375	1,719	1,822	1,594
Net Gain or Loss, 12 Months	559	(-217)	(-225)	(-439)
Total Jan 1, of following year	3,974	3,757	2,332	1,893

Table 4 combines the data for Corporate Members and Students and indicates that there was a total of 36,745 members of all classifications in the AIME on December 31, 1960, as compared to 35,710 on January 1, 1960, an increase of 1,035 members. Here too, the starting figure for 1960 was adjusted to IBM data.

Table 4

	<u>Total Corporate and Student Members, AIME</u>			
	1957	1958	1959	1960
Total January 1	29,713	32,797	34,623	35,710
Total Gains, 12 Months	4,787	4,054	5,551	5,403
Total Losses, 12 Months	1,703	2,541	4,464	4,368
Net Gains, 12 Months	3,084	1,513	1,087	1,035
Total Jan 1, of following year	32,797	34,310	35,710	36,745

Total AIME membership by Member classification is shown in Table 5 for 1957 through 1960.

Table 5

Total AIME Membership 1957 through 1960

	<u>1957</u>	<u>1958</u>	<u>1959</u>	<u>1960</u>
<u>Classification of Members on December 31</u>				
Honorary Members	17	17	16	19
Members	17,603	18,621	19,843	20,843
Associate Members	3,605	3,851	4,838	4,596
Junior Members	7,558	8,025	8,658	9,372
Rocky Mountain Members	40	39	23	22
Total Corporate Members	28,823	30,553	33,378	34,852
Student Members	3,974	3,757	2,332	1,893
Total All Members	32,797	34,310	35,710	36,745

President's Banner Award

Each year the Institute conducts a membership application contest among the Local Sections. The Sections are arranged in five groups. "A" to "E" according to the number of members in the Sections. Results of the contest are shown in Table 6. The following Sections submitted the greatest number of membership applications in proportion to their membership and are the recipients of the President's Award. The Membership Chairman is shown for each Section.

<u>Section</u>	<u>Membership Chairman</u>
Group "A" - Utah Coal	Robert Lee Jensen
Group "B" - Appalachian Petroleum	John Galpin
Group "C" - Mississippi	W. F. Ellis
Group "D" - Denver Petroleum	James M. Taylor
Group "E" - Pittsburgh	H. A. Franke

The Sections submitting the largest number of applications in relation to other Sections within their group are presented with a prize. The following are the recipients of this prize.

<u>Section</u>	<u>Membership Chairman</u>
Group "A" - Wyoming Min. & Metals	Raymond Lindloff
Group "B" - Hobbs	E. H. Furrey, Jr.
Group "C" - Mississippi	W. F. Ellis
Group "D" - Cleveland	F. Franklin
Group "D" - St. Louis	R. P. Matson
Group "E" - Pittsburgh	H. A. Franke

These Sections are complimented for the excellent work they have done in obtaining the award.

AIME Student Chapter Contest

The Chapter at Colorado School of Mines submitted 70 student member applications to win first prize of \$100. for the greatest number of applications submitted by a Student Chapter. Results of the contest are shown in Table 7.

Each of the five Chapters submitting the next highest number of Student Member applications receives a banner in recognition of their efforts. They are:

University of Texas
Missouri School of Mines & Metallurgy
Louisiana State University
Montana School of Mines
Polytechnic Institute of Brooklyn

These Universities are to be complimented on the fine work they have done in membership.

**Membership Contest - All AIME Sections
January 1 to December 31 inclusive**

<u>Name of Section</u>	<u>Base</u>	<u>Jan-Dec.</u>	<u>Percent</u>
<u>Group A-00-99</u>			
Alaska	48	5	10.
Arkansas	59	3	5.
Balcones	80	4	5.
Black Hills	74	2	3.
California Coastal	65	6	10.
Carlsbad Potash	80	2	3.
Four Corners	93	14	15.
Hugoton	99	14	14.
Northern Oklahoma	94	11	12.
Philippine	78	19	24.
Roswell	60	15	25.
Snyder	49	17	35.
South Plains	93	13	14.
Southwest Alaska	85	5	6.
Southwest, New Mexico	62	5	8.
Sumatra	26	1	4.
Tri-State	58	4	7.
Upper Mississippi	33	--	--
Uranium	63	4	6.
Utah Coal	37	15	41.
Williston Basin	51	16	31.
Wyoming Min. & Met.	90	21	23.
TOTAL	1477	196	

Group B-100-199

Adirondack	144	11	8.
Appalachian Petroleum	152	36	24.
Billings Petroleum	107	9	8.
East. Venezuela	130	17	13.
Great Bend	102	11	11.
Hobbs	184	39	21.
Kansas	166	16	10.
Hudson Mohawk	160	15	9.
Oregon	148	5	3.
Panhandle	154	17	11.
Saudi Arabia	155	19	12.
Upper Peninsula	198	7	4.
West Central Texas	167	8	5.
TOTAL	1967	210	

Group C-200-299

Caracas	248	6	2.
Central New Mexico	220	32	15.
Colorado Plateau	200	18	9.
East Texas	226	19	8.
El Paso	209	9	4.
Florida	261	13	5.
Fort Worth	232	9	4.
Illinois Petroleum Basin	251	27	11.

Group C-200-299 cont'd

Lehigh Valley	292	20	9.
Low-Ark	239	18	8.
Mexico	238	13	5.
Mississippi	203	44	22.
Montana	239	19	8.
Nevada	243	28	3.
Niagara Frontier	249	18	7.
North Texas	290	27	9.
North Pacific	281	9	3.
Penn.-Anthracite	261	27	10.
Peru	232	22	9.
San Joaquin	257	13	5.
Spindletop	279	22	9.
Wyoming Petroleum	215	36	17.
West Venezuela	244	40	16.
TOTAL	3639	469	

Group D-300-599

Boston	374	30	8.
Central Appalachian	368	42	11.
Cleveland	555	57	10.
Colorado	534	32	6.
Columbia	332	14	4.
Connecticut	313	21	7.
Denver Petroleum	366	51	14.
Detroit	395	33	9.
Evangeline	333	17	5.
Minnesota	524	37	7.
New York Petroleum	314	21	7.
Ohio Valley	422	20	5.
Oklahoma City	432	26	6.
Philadelphia	462	30	6.
St. Louis	510	57	11.
Southeast	596	42	7.
Southwest Texas	462	33	7.
Washington, D.C.	556	34	6.
TOTAL	7848	597	

Group E-600 & Over

Arizona	737	48	7.
Chicago	1214	89	8.
Dallas	867	29	3.
Delta	619	52	8.
Gulf Coast	1859	127	7.
Los Angeles Basin	694	32	5.
Mid Continent	761	61	8.
New York	1653	131	8.
Permian Basin	763	59	8.
Pittsburgh	1702	148	9.
San Francisco	976	40	4.
Southern Calif.	647	26.	4.
Utah	658	29	4.
TOTAL	13150	881	
Out of Section	3337	539	16.

Following were approved as Sections after January 1 and are not eligible for contest.

Carolinas	7
Tennessee	10
Northern Oklahoma	3
Netherlands	21
Wisconsin	5
Coastal Bend	11

1960 AIME Student Chapter Contest

37

<u>University</u>	<u>Base</u>	<u>Jan.-Dec.</u>	<u>Total</u>
<u>Group A-60 and above</u>			
Colorado School of Mines	119	70	
Louisiana State Univ.	72	54	
Missouri School of Mines	142	60	
Texas Tech. College	74	35	
University of Arizona	65	19	
Michigan College of Min. & Tech.	65	25	
University of Texas	80	66	
<u>Group B-40-59</u>			
Penn State	53	30	
M. I. T.	46	11	
Montana School of Mines	53	50	
Texas A & I	56	22	
University of Oklahoma	42	18	
Univ. of Tulsa	41	28	
New Mex. School of Mines	47	1	
University of Minnesota	50	13	
<u>Group C-20-39</u>			
Texas A & M. (Petr.)	32	12	
Texas Western	31	23	
Univ. of Houston	29	17	
C. C. N. Y.	20	14	
Marietta	23	18	
Purdue	35	10	
So. Dakota School of Mines	33	27	
Texas A & M (Min.)	28	--	
University of California	29	6	
Univ. of Illinois	37	18	
Univ. of Pittsburgh	20	10	
Univ. of Wisconsin	36	10	
Carnegie Institute	37	13	
Colorado School of Mines (Petr.)	21	4	
West Virginia	22	15	
Oklahoma State	24	14	
Univ. of Michigan	24	13	
Univ. of Utah	33	26	
<u>Group D-10-19</u>			
Louisiana Poly. Inst.	12	6	
University of Alaska	17	5	
University of Kansas	19	9	
Case	10	3	
Columbia Univ.	15	6	
Illinois Inst. of Tech.	12	5	
N. Y. U.	18	5	
North Carolina State	17	4	
Ohio State	15	5	
Oregon	12	3	
St. Louis Univ.	12	10	

Group D-10-19 cont'd

Univ. of Alabama	12	8.
Univ. of Nevada	12	19
Univ. of Oregon	12	7
Univ. of S. California	14	3
Univ. of Wyoming	18	3
Va. Poly. Inst.	19	10
Wayne Univ.	11	7
Cornell	10	4
Lehigh Univ.	10	6
Stanford	19	15
Univ. of Kentucky	12	6
Univ. of N. Dakota	11	3
Washington Univ.	12	6

Group E-Under 10

Univ. of Idaho	9	14
Southwest La. Inst.	6	4
Univ. of Pennsylvania	7	11
Univ. of Washington	8	17
Lafayette	2	2
Poly. Inst. of Brooklyn	8	47
Princeton	8	1
Syracuse	9	4
Univ. of Wichita	2	--
Washington State	4	5
Wisconsin Inst. of Tech.	6	8
Yale	5	13

Table 8
Membership Data

American Institute of Mining, Metallurgical,
and Petroleum Engineers, Inc.

		1871 to 1961			
<u>Year</u>	<u>Members</u>	<u>Year</u>	<u>Corporate Members</u>	<u>Student Members</u>	<u>Total</u>
	22				
1871	157	1915	4,650		4,650
1872	254	1916	5,880		5,880
1873	273	1917	6,597		6,597
1874	345	1918	7,237	619	7,856
1875	554	1919	7,385	1,041	8,426
1876	628	1920	8,388	1,920	10,308
1877	732	1921	8,879	1,326	10,205
1878	734	1922	8,085	1,328	9,413
1879	788	1923	7,813	1,315	9,128
1880	832	1924	7,555	1,263	8,818
1881	1,031	1925	7,569	1,157	8,726
1882	1,213	1926	7,385	1,131	8,516
1883	1,345	1927	7,434	1,004	8,438
1884	1,467	1928	7,488	1,000	8,488
1885	1,439	1929	7,823	1,033	8,856
1886	1,504	1930	7,831	1,162	8,993
1887	1,615	1931	7,843	1,131	8,974
1888	1,714	1932	7,685	975	8,660
1889	1,857	1933	7,155	672	7,827
1890	2,000	1934	6,887	628	7,515
1891	2,134	1935	6,916	1,006	7,922
1892	2,258	1936	7,326	1,620	8,946
1893	2,392	1937	8,279	2,147	10,426
1894	2,391	1938	9,005	2,898	11,903
1895	2,437	1939	9,614	3,760	13,374
1896	2,390	1940	10,828	4,171	14,999
1897	2,455	1941	11,334	4,179	15,513
1898	2,562	1942	11,675	3,489	15,164
1899	2,564	1943	12,081	2,707	14,788
1900	2,450	1944	12,334	1,497	13,831
1901	2,897	1945	12,910	1,088	13,998
1902	3,262	1946	14,119	1,737	15,856
1903	3,741	1947	15,000	3,117	18,117
1904	3,530	1948	15,580	4,069	19,649
1905	3,886	1949	16,315	4,952	21,267
1906	4,048	1950	17,082	4,534	21,616
1907	4,191	1951	17,482	2,229	19,711
1908	4,241	1952	18,643	1,964	20,607
1909	4,284	1953	19,718	2,195	21,913
1910	4,210	1954	21,816	2,179	23,995
1911	4,169	1955	23,723	2,825	26,548
1912	4,290	1956	26,298	3,415	29,713
1913	4,284	1957	28,823	3,974	32,797
1914	4,150	1958	30,553	3,757	34,310
		1959	33,378	2,332	35,710
		1960	34,852	1,893	36,745

Trends Established in the Growth of AIME

In the last decade, the total members in Mining have increased from approximately 9,855 to 13,083, Metallurgy 5,342 to 8,856, and Petroleum 4,514 to 14,806. Total members in the Institute increased from 19,711 to 36,745. The distribution of total members by Societies in the Institute during the last decade is shown in Table 9.

Table 9

Distribution of Members in Societies During Last Decade as Approximate Percentage

Date	Mining Members %	Metallurgical Members %	Petroleum Members %
December 31, 1951	50.0	27.1	22.9
December 31, 1952	51.0	25.0	24.0
December 31, 1953	48.5	25.5	26.0
December 31, 1954	46.4	25.7	27.9
December 31, 1955	44.7	24.8	30.5
December 31, 1956	42.2	24.0	33.8
December 31, 1957	39.1	23.0	37.9
December 31, 1958	37.5	22.8	39.7
December 31, 1959	36.0	23.5	40.5
December 31, 1960	35.6	24.1	40.3

IBM Member Card Data

The advent of the IBM punched card for each member in AIME has permitted the accurate determination of members in each of the Societies, Divisions and Councils. The data shown in Table 10 is for each Section as of December 31, 1960. Totals obtained for each Society by Divisions and Councils on page 2 of Table 10 are compiled in Tables 11, 12 and 13.

MEMBERSHIP DATA AS OF JANUARY 1, 1961

SOCIETY OF MINING ENGINEERS				METALLURGICAL SOCIETY				SOCIETY OF PETROLEUM ENGINEERS														
NO.	SECTION NAME	MINING AND EXPLORATION A	M.B.D. B	COAL F	IND MINERALS H	EDUC. J	ECON. K	UNCLAS.	TOTAL	IRON AND STEEL C	EXT. MET. D	INST. MET. E	EDUC. J	ECON. K	UNCLAS.	TOTAL	PETROLEUM G	EDUC. J	ECON. K	TOTAL	GRAND TOTAL	
1	Alaska	32	—	1	—	—	1	8	42	—	—	—	—	—	—	—	—	6	—	—	6	48
2	Arizona	443	120	2	10	5	10	77	667	3	40	10	—	—	—	22	75	19	—	—	19	761
3	Black Hills	27	16	2	3	3	1	—	52	—	3	2	—	—	—	5	10	3	—	—	3	65
4	Boston	53	18	5	6	1	6	11	100	27	25	147	—	1	66	264	23	—	—	—	23	389
5	Carlsbad Potash	31	14	3	15	—	—	4	67	—	3	—	—	—	2	5	—	—	—	—	—	72
6	Central Appalachian	48	8	253	12	4	2	35	362	10	6	8	—	—	7	31	5	—	—	5	398	
7	Chicago	73	46	80	30	2	4	43	278	487	36	183	1	1	123	831	59	—	—	59	1168	
8	Cleveland	50	37	31	14	—	2	19	153	255	7	151	1	2	31	447	2	—	—	2	602	
9	Colorado	225	120	21	15	6	8	44	439	17	20	18	1	1	18	75	2	—	—	2	516	
10	Columbia	168	37	1	12	—	11	22	251	3	23	13	1	—	11	51	3	—	—	3	305	
11	Connecticut	15	4	3	—	—	2	4	28	31	24	153	1	2	27	238	6	—	—	6	272	
12	Delta	11	8	—	4	—	—	2	25	2	5	—	—	—	1	8	601	—	1	602	635	
13	Detroit	34	15	1	9	2	1	11	73	114	15	141	—	—	41	311	44	—	—	44	428	
14	East Texas	12	1	—	—	—	—	2	15	7	—	1	—	—	2	10	196	—	—	196	221	
15	El Paso	68	19	1	1	—	2	21	112	2	34	6	1	—	8	51	31	—	—	31	194	
16	Gulf Coast	42	14	1	7	—	1	—	65	16	3	3	—	—	4	42	1710	—	2	1712	1819	
17	Kansas	15	—	1	3	—	—	6	25	2	1	4	—	—	3	10	150	—	—	150	185	
18	Lehigh Valley	69	35	20	16	3	5	21	169	58	19	41	1	—	16	135	3	—	—	3	307	
19	Mid Continent	12	—	4	2	—	3	1	22	2	5	2	—	—	2	11	762	1	1	764	797	
20	Minnesota	272	141	4	4	—	10	67	498	15	7	11	1	—	18	52	10	—	—	10	560	
21	Montana	104	38	1	2	2	2	25	174	1	58	5	2	—	5	71	—	—	—	—	245	
22	Nevada	143	29	—	12	—	3	17	204	20	9	—	—	—	6	35	1	—	—	1	240	
23	New York	426	181	29	45	3	59	121	864	139	231	385	3	25	122	905	6	—	—	6	1775	
24	North Texas	4	—	—	—	—	—	3	7	—	—	—	—	—	—	—	261	—	—	261	268	
25	North Pacific	117	26	8	4	3	1	20	179	12	23	32	—	—	22	89	13	—	—	13	281	
26	Ohio Valley	33	18	49	6	1	4	19	130	93	22	127	—	—	50	292	9	—	—	9	431	
27	Oklahoma City	1	—	—	1	—	—	4	6	—	—	3	—	—	—	3	439	—	—	439	448	
28	Oregon	52	8	2	12	1	3	22	100	7	23	7	—	—	6	43	10	—	—	10	153	
29	Penn-Anthracite	22	7	175	3	3	1	12	223	11	2	4	—	—	7	24	4	—	—	4	251	
30	Permian Basin	10	—	—	—	—	—	4	14	1	—	—	—	—	1	2	801	—	—	801	817	
31	Philadelphia	60	31	20	32	4	3	17	167	126	26	97	—	—	42	291	26	—	—	26	484	
32	Pittsburgh	103	47	264	16	3	10	44	487	662	56	336	—	2	131	1187	162	1	—	163	1837	
33	Pittsburgh	172	33	56	16	9	4	41	331	74	44	47	—	1	24	190	5	—	—	5	526	
34	St. Louis	395	140	7	50	1	25	66	684	55	48	88	—	1	33	225	120	1	1	122	1031	
35	San Francisco	395	140	7	50	1	25	66	684	55	48	88	—	1	33	225	120	1	1	122	1031	
36	Southeast	94	28	118	18	2	2	27	289	38	6	18	—	—	11	73	21	—	—	21	383	
37	Southern California	202	44	8	39	—	13	60	366	45	45	146	—	1	42	279	15	—	—	15	660	
38	Southwest Texas	9	6	—	—	—	—	—	15	1	5	1	—	—	2	9	450	2	—	452	476	
39	Southwestern New Mexico	36	11	—	—	—	—	6	53	—	5	—	—	—	—	5	—	—	—	—	58	
40	Tri-State	35	5	5	1	—	1	4	51	1	4	1	—	—	—	6	2	—	—	2	59	
41	Upper Peninsula	118	29	—	—	2	2	32	183	1	4	4	—	—	3	12	—	—	—	—	195	
42	Utah	316	103	11	14	6	14	40	504	22	61	9	1	3	19	115	31	—	1	32	651	
43	Washington, D.C.	157	29	55	36	3	28	22	330	27	36	86	1	3	26	179	82	—	—	82	591	
44	Wyoming Petroleum	2	—	—	—	—	—	—	2	—	—	—	—	—	—	—	256	—	1	257	259	
45	Spindletop	—	—	—	—	—	—	1	1	—	—	1	—	—	—	1	259	—	—	259	261	
46	Florida	85	60	—	39	3	4	25	216	9	6	16	1	—	3	35	26	—	—	26	277	
47	Philippines	58	5	1	1	—	4	6	75	2	1	3	—	—	—	6	9	—	—	9	90	
48	Mexico	115	18	4	10	3	8	2	160	18	11	3	1	1	2	36	34	—	—	35	231	
49	Southwestern Alaska	41	—	15	1	—	2	12	71	—	1	—	—	—	2	3	15	—	—	15	89	
50	West Central Texas	3	1	—	—	—	—	4	8	—	—	—	—	—	—	—	157	—	—	157	165	
51	Adirondack	69	16	1	13	1	1	6	107	5	5	19	—	—	7	36	3	—	—	3	146	
52	Peru	116	35	—	3	—	15	22	191	1	23	2	1	—	4	31	20	—	—	20	242	
53	Lou-Ark	8	—	—	—	—	—	—	8	—	—	1	—	—	—	1	253	—	—	—	262	

Table 11

Summary of Society Membership in AIME
From IBM Member Cards
December 31, 1960

Society of Mining Engineers of AIME

Mining & Exploration Division	6,400
Minerals Beneficiation Division	2,133
Coal Division	1,426
Industrial Minerals Division	661
Council of Education	83
Council of Economics	335
Unclassified	<u>1,393</u>

Total Corporate Members 12,431

Student Members 652

Total Corporate & Student Members 13,083 (35.6%)

The Metallurgical Society of AIME

Iron and Steel Division	2,881
Extractive Metallurgy Division	1,360
Institute of Metals Division	2,815
Council of Education	22
Council of Economics	47
Unclassified	<u>1,184</u>

Total Corporate Members 8,309

Student Members 547

Total Corporate & Student Members 8,856 (24.1%)

Society of Petroleum Engineers of AIME

Petroleum	14,085
Council of Education	8
Council of Economics	<u>19</u>

Total Corporate Members 14,112

Student Members 694

Total Corporate & Student Members 14,806 (40.3%)

AIME Total Corporate Members 34,852

AIME Total Student Members 1,893

AIME Total Corporate & Student Members 36,745

Table 12

Summary of Council of Education Membership in
Each Society
From IBM Member Cards
December 31, 1960

<u>Council of Education of AIME</u>	
Society of Mining Engineers of AIME	83
The Metallurgical Society of AIME	22
Society of Petroleum Engineers of AIME	<u>8</u>
Total	113

Table 13

Summary of Council of Economics Membership in
Each Society
From IBM Member Cards
December 31, 1960

<u>Council of Economics of AIME</u>	
Society of Mining Engineers of AIME	335
The Metallurgical Society of AIME	47
Society of Petroleum Engineers of AIME	<u>19</u>
Total	401

REPORT
of the
WESTERN FIELD SECRETARY

Effective liaison between AIME members in the West and Institute headquarters in New York City is the responsibility of the Western Field Office located in Salt Lake City, Utah. Activities carried out by this office, in the fulfillment of that charge, cross Society boundaries and are performed with a maximum of personal contact. During the Institute year of 1960, the Western Field Secretary visited twenty-six Local Sections and Subsections and attended twelve regional meetings. All trips were made with the following aims in mind:

1. To personally acquaint members and prospective members with the benefits of AIME membership and the available services of the Western Field Office.
2. To aid Local Sections and Student Chapters in the resolution of internal problems and assist in the formulation of plans for regional conferences and symposia.
3. To help National Officers, Directors and Staff Members in making their visits in the West more efficient and effective.

Arrangements were made and visits completed in 1960 to thirty-five Western Sections, Subsections and regional meetings by elected Officers of the Institute.

Student Members

Realizing the importance of a vigorous program in the gaining and advancement of AIME Student Members, this office continued the established practice of requesting lists of students receiving degrees from nineteen Western Minerals Engineering Schools. The listings were forwarded to the New York office where the Student Members of AIME were indicated by check mark. Marked lists were returned to Salt Lake City and individual questionnaires were sent to the Student Members. These forms supply information regarding the Student Members in relationship to their future career plans. During 1960, 275 questionnaires were sent out and 161 have been completed and returned. Follow-up letters were sent to the young men entering industry informing them of the location and Officers of their appropriate Local Section. The Section Officers were alerted with the name, address and business affiliation of the new arrival in their area. Student Members entering the Armed Forces or continuing in Graduate School were informed by letter of their appropriate benefits. The non-member graduates

listed were contacted by National Membership.

Various Student Chapters and informal student gatherings were visited during the year. Problems relating to student activities were discussed and the AIME student program explained. Questions relating to the summer employment of Minerals Engineering students by industry constantly recurred. The ever rising cost of a college level technical education, coupled with the same trend in living costs, must in many cases be offset by summer employment. If the student's academic interests and the nature of the summer job in industry are roughly parallel, his education and financial position are both favorably supplemented.

Membership

In addition to supplying routine aids to Local Section Membership Chairmen and giving talks familiarizing prospective members and students with the functions and aims of AIME, the Western Field Office has put various other sources of potential members to good use. Conference registration lists were screened for non-member participants. The names, addresses and company affiliations of these men were sent with a letter of transmittal to the appropriate local Section Chairman, Secretary and Membership Chairman. The names of prospective members mentioned in trade journals, industrial communications and newspapers were treated in a like manner.

United Engineering Center Building Fund

Repeated references to the United Engineering Center Building Fund accenting the necessity of continued efforts in fund raising were made by the Western Field Secretary whenever it was thought appropriate.

Local Sections and Subsections Visited by C. J. Hicks in 1960

- | | |
|----------------------------------|---------------------------------|
| 1. Arizona Section | 15. Minnesota Section |
| 2. Arkansas Section | 16. Nevada Section |
| 3. Black Hills Section | 17. North Pacific Section |
| 4. Carlsbad Potash Section | 18. Oregon Section |
| 5. Central New Mexico Section | 19. San Francisco Section |
| 6. Colorado Section | 20. Southern California Section |
| 7. Colorado MBD Subsection | 21. Southwestern New Mexico |
| 8. Colorado Plateau Section | Section |
| 9. Columbia Section | 22. St. Louis Section |
| 10. Coeur d'Alene Subsection (2) | 23. Utah Section (6) |
| 11. Snake River Subsection | 24. Utah Coal Section (2) |
| 12. Spokane Subsection | 25. Utah Uranium Section |
| 13. El Paso Section | 26. Wyoming Mining & Metals |
| 14. Montana Section (2) | Section |

Meetings attended by C. J. Hicks in 1960

- | | |
|----------------------------------------------|----------------------|
| 1. Annual Meeting, AIME | New York, New York |
| 2. IMD Technical Conference | Estes Park, Colorado |
| 3. Annual Meeting, SPE | Denver, Colorado |
| 4. Southwest Metals and Minerals Conference, | Los Angeles, Calif. |
| 5. Northwest Metals and Minerals Conference, | Portland, Oregon |
| 6. Wyoming Mining Association | Jackson, Wyoming |
| 7. Rocky Mountain Minerals Conference | Salt Lake City, Utah |
| 8. American Mining Congress | Las Vegas, Nevada |
| 9. New Mexico Mining Association | Santa Fe, New Mexico |
| 10. Geological Society of America | Denver, Colorado |
| 11. Northwest Mining Association | Spokane, Washington |
| 12. Uranium Symposium | Moab, Utah |

Plans for 1961

Plans are to continue all aforementioned services and functions. In addition, the Student Summer Employment Program will be reactivated in the West. The success of this service depends entirely upon the degree to which industry is willing and able to employ students of Minerals Engineering on a short term basis. There are numerous advantages for both employer and employee in such a program.

Helpful comments, willing cooperation and warm hospitality from all quarters greeted the Western Field Secretary during 1960. Sincerest thanks are offered to the many Institute members who made the past year a most rewarding experience.

Respectfully submitted,

Clifford J. Hicks
Western Field Secretary, AIME

REPORT

of the

SOCIETY OF PETROLEUM ENGINEERS OF AIME SECRETARY

Publications: Journal of Petroleum Technology

Net income from advertising in 1960 was \$164,141, an increase of \$9,195 (6 percent) over net advertising income in 1959. Total number of advertising pages published in Journal of Petroleum Technology during 1960 decreased to 419, as compared with 430 pages in 1959. The increased advertising income is due to a rate increase which took place in January 1960.

Total editorial pages published were 855, an increase over the 820 published in 1959. In addition, 150 pages of technical material were published in Petroleum Transactions Volume 219 only, with summaries of these papers in Journal of Petroleum Technology.

Publications: Transactions

Transactions Volume 219, to be available about March 1, 1961, will contain 448 pages of technical material, including 41 Technical Publications and 21 Technical Notes. Of these, 19 Technical Publications and Technical Notes were published in the Transactions volume only without prior publication in Journal of Petroleum Technology. Beginning in 1961, the types of papers which recently have been published in the Transactions volume only will be printed in Society of Petroleum Engineers Journal, a new quarterly publication to be sent free upon request to SPE members.

Income to the Society Activities Fund during 1960 from reprinted Petroleum Transactions (1925-1953) amounted to \$865.

Transactions Reprint Booklet No. 3, "Oil and Gas Property Evaluation and Reserve Estimates", was published through the Society's Activities Fund during 1960. It contains 200 pages of the most outstanding papers on this subject from the AIME literature. Net income for 1960 from the sale of this booklet amounted to \$2,160.

Sales continued during 1960 on Reprint Booklet No. 1, "Well Logging", and Booklet No. 2, "Water Flooding". Net income during year from sales of "Well Logging" was \$1,703 and from "Water Flooding" \$3,530.

Publications: Statistics

Two statistical volumes covering 1959 were published during 1960, in cooperation with the International Oil Scouts

Association. The overall title of the work is Volume 14, International Oil and Gas Development Covering 1959, with the individual volumes being entitled "Part 1--Exploration" and "Part 2--Production".

Part 1 contained 832 pages; Part 2 consisted of 964 pages. The quantity of pages contained in the two-part volume represents a 275 percent increase in the number of pages of statistics published by the Society in any previous year. Prior to 1960 SPE has published an annual volume entitled Statistics of Oil and Gas Development and Production.

The Society has sold approximately 1100 copies of the 1250 which it purchased from the International Oil Scouts. Income from these sales amounts to \$9,406, and expenses were \$16,163. Although the deficit experienced on Volume 14 is more than the deficit on Volume 13 (\$4,685), sale of the additional 150 volumes will reduce the loss by about \$1500. Some \$2,000 of the cost for this volume represents the non-recurring expense of changing forms in carrying out the merger with IOSA. The merger has resulted in the publication of more accurate and comprehensive statistical material with considerably less work by SPE members and great savings to the industry through elimination of overlapping work by scouts and engineers.

Publications: Society Membership Directory

In 1960 the SPE Membership Directory was issued in June and contained 134 pages. In recent years the Directory had been published in the June issue of Journal of Petroleum Technology, but the 1960 Directory was published as a separate booklet available free to members who ordered it. Some 2,000 copies were printed and distributed. The cost of publishing the 1960 Directory above advertising income was \$3,556; the cost of publishing the 1959 Directory above advertising income was \$4,955.

Publications: Special

Elements of Petroleum Reservoirs, a 244-page book written by AIME Member Norman J. Clark, was published by the Society through the sponsorship of the Henry L. Doherty Memorial Fund. The book is bound in AIME red and is written for non-reservoir engineers. It is the first book to be published in a Henry L. Doherty Series.

Meetings

The 35th Annual Fall Meeting of the Society was held in Denver, October 2-5, with a total attendance of 2736, including 900 ladies.

Regional meetings were held in Beaumont, Texas (attendance 286); Wichita Falls, Texas (attendance 848); Pasadena,

California (attendance 382); and Houston (attendance 900). In addition, joint student chapter meetings were conducted by Oklahoma State University and the University of Texas. Society members, along with members of the Petroleum and Natural Gas Division of CIM, participated in the sponsorship of the First Joint Technical Meeting in Calgary, Alberta. The Society also participated in the AIChE meeting in Tulsa, which featured a session of AIChE-SPE papers. The total attendance (men) at regional meetings was greater than attendance at the Fall Meeting in Denver.

Membership

While showing a slight decline in rate of increase, the Society achieved substantial growth again in 1960 with 1201 applications for new membership and reinstatement. The following table shows total new membership applications processed by the Dallas Society office for the past six years.

<u>Year</u>	<u>New Membership Applications</u>
1955	1227
1956	2159
1957	1457
1958	1298
1959	1312
1960	1201

These figures include reinstatements and new members but do not include change of status or Student Members. In addition to conducting an active membership program, the Society placed considerable stress on retaining members delinquent in dues. During the latter part of the year, approximately 23 percent of SPE members delinquent in 1960 dues (as of July 25) were returned to good standing by the end of the campaign.

Winning sections in the Society membership contest by group were as follows:

Group A -	Edmonton
Group B -	Appalachian Petroleum
Group C -	Wyoming Petroleum
Group D -	Delta

The 1960 Membership Committee continued to function under the regional organization structure first established in 1958. The importance of maintaining close liaison with the local section membership committees through regional vice-chairmen was more important than ever during 1960, and much of the continued growth of the Society can be directly attributed to the leadership of the membership vice-chairmen. This type of organization will be continued in 1961 with ten geographical regions.

Society membership on January 1, 1961 was as follows (including delinquents):

Members	7232
Associates	1661
Junior Mbrs.	5219
Students	694
TOTAL	14806

Local Section Development

Two new petroleum sections were added during 1960-- the Netherlands Section and the Coastal Bend Section. The Coastal Bend Section was organized as a subsection of the Gulf Coast Section early in the year and was admitted to full section status in October. Both sections have flourished, with the Netherlands Section adding 20 new members since it was established and Coastal Bend adding 27. In addition, the East Kentucky Subsection was established to operate under the Appalachian Petroleum Section.

The plan of regional organization developed by the SPE Board of Directors in 1959 was put into full operation during 1960 with excellent results. In order to provide continuity of regional representation on the SPE Board, a change in the SPE By-laws was approved by the membership to increase the number of directors from nine to twelve, with the two vice-presidents to be elected by the Board from among the twelve directors. Thus with only one addition to its membership, the Board will have a 3-year representative for each of the 11 Society regions, with one member serving as a director-at-large.

Local Section Visitation

The following sections were visited during the year by the Society president and/or staff members:

Calgary CIM-AIME	Illinois Basin
Coastal Bend	Los Angeles Basin
Dallas	Mid-Continent
Delta	North Texas
Denver	Northern Oklahoma
East Texas	Panhandle
Edmonton CIM-AIME	San Joaquin Valley
Fort Worth	Southwest Texas
Gulf Coast	Spindletop
Hugoton	Williston Basin
Golden Gate Subsection	Wyoming Petroleum

Finance

Society income from membership dues and fees, publications sales, and miscellaneous in 1960 was \$448,314, compared

with \$419,576 in 1959.

Awards

Mr. Ralph Judson Schilthuis received the John Franklin Carll Award, and Mr. Charles B. Ammann was awarded the Cedric K. Ferguson Medal for his paper entitled "Case Histories of Analyses of Characteristics of Reservoir Rock from Drill-Stem Tests".

Messrs. Alfred H. Bell, Lawrence W. Chasteen, J. Terry Duce and Raymond M. Larsen were awarded the Society Certificate of Service in recognition of their contributions over a period of many years to the annual Statistics volume. Mr. Herbert F. Beardmore also received the Certificate of Service for his efforts in establishing the Dallas secretariat.

Special Activities

Aided by a grant of \$1500 from the Doherty Memorial Fund, the Society established a Distinguished Lecturer Program as a means of assisting local sections to obtain good meeting programs. The program was set up with an initial panel of three lecturers, and a schedule of section visits has been worked out for each lecturer, beginning in February 1961. Travel expenses of the lecturers will be borne partially by funds from the Doherty grant and partially by the local sections on a pro-rata basis according to section membership. Response to the program by the sections was even better than anticipated, and each lecturer received more invitations than he was able to accept.

A strong demand continued during 1960 for the Society's career booklet on petroleum engineering, and approximately 5,000 copies were distributed during the year in response to requests from individual students, schools, and various groups sponsoring Career Day activities.

Respectfully submitted,

JOE B. ALFORD

Executive Secretary

REPORT
of the
SOCIETY OF MINING ENGINEERS OF AIME SECRETARY

The Society of Mining Engineers of AIME enjoyed a good year in 1960 in all respects. We increased our membership. Financially, income and expense both increased - income more than expense. Publications policies and performance moved forward and we took a long step ahead in planning for the future of the Society within AIME.

Some of the details of these accomplishments are given in the following pages.

FINANCE

First, we are solvent. In fact, we had an excess of income over expense of about \$3,600.

Financially 1960 was a \$15,000 better year for SME than 1959. The Society's income in 1960 exceeded expense by \$4,400. In 1959 expense was \$10,300 greater than income.

Incidentally, our estimates of 1960 SME income and expense made a year ago were 1.01% and 0.50% low respectively.

At the June 1960 AIME Board meeting a new plan for allocation of All-Institute expenses was adopted. This plan results in more equitable distribution of Institute costs. The AIME Board also decreed that henceforth each Society is to be reimbursed from Registration Fees for all out-of-pocket expenses in connection with the Annual Meeting. Effect of these rulings will not be finally apparent until this time next year. However, it is safe to say they will vastly improve SME's financial position.

PUBLICATIONS

The October issue of MINING ENGINEERING was mailed during the last week of September. With some variations this schedule was maintained for the rest of the period covered by this report.

Starting with the July issue, Transactions papers, as such, were eliminated from MINING ENGINEERING. There was criticism of this policy from isolated sources. The membership in general has accepted the new policy. There have been some complaints about the thinness of some issues of the magazine. However, in 1960 we carried 816 pages of Editorial material compared with 850 pages in 1959.

In a year when our main competitors for advertising sales were down 67 and 73 pages respectively from 1959, our sales were 22 pages less than in 1959. A Pyrrhic victory perhaps, but indicative, we believe, of a trend in the direction of MINING ENGINEERING.

Transactions Volume 217 for 1960 has been mailed to all those who subscribed to it. This is at least four or five months earlier than ever before. It clears up the backlog of papers that existed at the beginning of 1960 and includes all papers passed by the committee through mid-year 1960. It contains more than 500 pages.

Next year we expect to do even better, and on February 10 had 36 pages of Transactions material edited and ready to go to the printer for Volume 220.

Off the press at the end of September, the SME Careers Booklet "Opportunities Unlimited - Careers in the Mineral Industry" has received almost universal approval. About 23,000 copies are now in circulation, and requests are received almost daily.

Of the 23,000 copies of the booklet now in circulation 20,000 were mailed along with NSTA (National Science Teachers Association) News Bulletin No.26, January 1961. The NSTA has this to say about our booklet:

"This very attractive booklet provides another well written source of information on careers in a usually little understood field - the mineral industry."

The SME Preprint Program continued successful at a net cost per member of 12.3 cents. There were more than 22,600 copies of preprints mailed to members in 1960. Many had to be re-run and some were reprinted several times.

Those left over at the end of the year have been supplied to an International Cooperation Administration approved organization called People to People. They will be distributed to the Earth Science Departments of universities in Latin America and Southeast Asia.

MEMBERSHIP

Membershipwise 1960 was a good year for the Society of Mining Engineers. We enjoyed a net gain of 291 members compared to 81 for 1959. This was the result of 1152 new corporate members elected, compared to 1063 in 1959 and loss of corporate members for various reasons of 861 compared to 982 in 1959.

SME Headquarters actively pursued a direct mail campaign to get new members and to preserve those we already have. We received fullest cooperation of the Local Sections in following up

the mail contacts.

A number of new sections were established in 1960. Among these were: the Wisconsin, Carolina and East Tennessee Sections. The Maricopa Subsection of the Arizona Section was established. The Midwestern Coal Subsection of the St. Louis and Chicago Sections was organized and comes up for AIME Board approval early this year.

Our increase in membership was partially due to intensive dues. Our losses from this source were 403 compared to 565 last year. Other losses compared to 1959 were:

	<u>1960</u>	<u>1959</u>
Loss by death	132	172
Resignations	142	245
Failure to accept election	27	
Failure to accept change of status	157	

A series of posters, based on illustrations from De Re Metallica, were sent to all Mining Schools in the country. The object was to excite the interest of students in AIME.

These posters were chosen among thousands for a Certificate of Merit Award at the Employing Printers Association Exhibition in New York in January and were on display from 16th to 19th of January at the Hotel Commodore, New York City.

MEETINGS

SME Members and staff took part in and attended a number of meetings at the National, Regional and Local level during the year.

Among these were:

The 1960 Annual Meeting in New York
 Joint Meeting SME Coal Division and the St. Louis Section,
 St. Louis, Mo.
 CIM Meeting - Toronto, Canada
 Joint Solid Fuels Conference - Coal Division, SME of AIME and
 Fuels Division, ASME - Charleston, W.Va.
 Fifth Annual Uranium Conference - Moab, Utah
 Pacific Northwest Mineral Conference - Portland, Ore.
 Southwest Metals and Minerals Conference - Dallas, Texas
 Rocky Mountain Minerals Conference - Salt Lake City, Utah
 American Mining Congress Coal Convention - Pittsburgh, Pa.
 American Mining Congress Metals and Industrial Minerals
 Convention and Exposition - Las Vegas, Nev.
 SPE Annual Fall Meeting - Denver, Colo.
 Minnesota Section Annual Meeting - Duluth, Minn.

Arizona Section Annual Meeting - Tucson, Arizona
 Pittsburgh Section Off-the-Record Meeting, Pittsburgh, Pa.
 Symposium on Surface Mining Practices - Tucson, Arizona
 Drilling and Blasting Symposium - Golden, Colo.
 Washington, D.C. Section Meeting - Washington, D.C.
 Midwestern Coal Subsection Meeting - Johnson City, Ill.
 New York Section Meeting - New York, N.Y.
 Lehigh Valley Section Meetings - Reading and Allentown, Pa.
 Colorado Section Meeting - Denver, Colo.
 University of Arizona
 University of Minnesota
 University of Wisconsin
 Lehigh University
 Wisconsin Institute of Technology

FUTURE ACTIVITY

At the SME Board Meeting in Denver, October 4, 1960, the Board of Directors voted to bring AIME to members all over the country via an SME Fall Meeting.

A committee was appointed to implement this decision to hold an All-SME Meeting each year "in conjunction with and at the invitation of existing well established local or regional meetings." The meetings are to be held in late summer or early fall. First one is officially scheduled for the fall of 1963.

February 27, 1961

John Cameron Fox
 Secretary - SME

REPORT
of the
SECRETARY OF THE METALLURGICAL SOCIETY OF AIME

Summary

The year 1960 was marked by an increased number of technical conferences and an increase in the number of pages of published literature. Attendance at 13 major conferences totaled approximately 8,000, with some 680 technical papers presented. Pages published in all media totaled over 5,300 pages.

Membership has also continued to grow, with a net increase of 544 members in 1960, giving a total of 8,309 corporate members. In addition, student membership numbers 547.

Plans are underway to sponsor conferences on research management. Tentative plans have been made to hold the first Conference on "Management of Materials Research" in May, 1961.

Staff Changes

The position of Associate Editor of "Journal of Metals" has now been filled by Edward Fitzgerald.

Following the resignation of R. M. Schelkopf as News Editor of "Journal of Metals," William Leggitt has been appointed to this position.

Budget

"Income over Expenses" for The Metallurgical Society stood at \$0.00 at the close of business on December 31, 1960. These points are noted:

1. To support the publication of "Transactions of The Metallurgical Society of AIME," \$1,994.92 was withdrawn from the Metals Research Publications Fund in 1960. This is substantially lower than the budgeted figure of \$20,500.00.
2. Payment of the cost of the bi-annual Directory published in July, 1959, was completed, the balance of \$3,072.93 of the total cost of \$6,573, having been deferred from 1959.
3. While a balanced budget was achieved in 1960, increased operating expenses are anticipated for 1961 and future years due to:

- (a) Increased share of Business Office and Institute Activities Office expenses on a "use basis."
- (b) Increased charges for rent in the new United Engineering Center, due to increased space.

The final income and expense statement for The Metallurgical Society in 1960 compared with 1959, and with comparable budgeted figures for 1961, are shown in Appendix A. Income and expenses for "Transactions of The Metallurgical Society of AIME" have been set apart from the overall Society budget.

Metals Research Publications Fund

The status of the Metals Research Publication Fund as of December 31, 1960, is shown in Appendix B. Income and withdrawals since inception of the Fund in 1954 are indicated. Balance in the Fund at the end of the year is \$85,749.05. Contributions in 1960 totaled \$37,325.00; withdrawals totaled \$1,994.92. (See Appendix B)

During 1960 considerable progress was made in replenishing the reservoir of funds, so important to assure continuity of publication of papers in metals research and engineering in "Transactions."

Transactions

The number of pages of technical papers and notes published in "Transactions" in 1960 was increased to 1131. A significant increase in material published by the Iron and Steel Division is noted in the following breakdown of papers published by the three divisions of The Metallurgical Society, comparing 1960 with 1959:

<u>Division</u>	<u>No. of Papers and Notes</u>		<u>Pages</u>	
	<u>1960</u>	<u>1959</u>	<u>1960</u>	<u>1959</u>
Extractive Metallurgy	16	20	82.25	89.00
Institute of Metals	184	186	881.75	873.00
Iron and Steel	28	14	167.00	102.00
	<u>228</u>	<u>220</u>	<u>1131.00</u>	<u>1064.00</u>

Following the practice established a year ago, the annual index has been included in the back of the December issue, giving an added service to readers.

With the October issue, preprints of their papers were made available to authors in advance of publication date of the issue. As this service entailed additional expense, it was necessary to end free distribution of preprints and to charge authors a nominal fee for preprints.

During 1960, Volume 215 (The Metallurgical Society) of AIME "Transactions" was published. Volume 218, containing 1960 papers, should be ready early in 1961.

The budget for 1961 is based on the printing of 1152 pages in six issues of 192 pages each. It is anticipated that the total pages published in 1961 will actually be somewhat greater. Funds have been made available through a grant from the National Science Foundation to reduce the backlog of accepted but unpublished papers. However, through our own efforts, the size of the backlog was substantially lowered in 1960.

Journal of Metals

Every effort has been made, within our financial resources, to make "Journal of Metals" a more readable and more valuable periodical for the metallurgical profession. In addition to covering metallurgical developments on a national basis, coverage has also been given to major developments throughout the world. Through the technique of "special issues," attention has been focused on new developments in oxygen steelmaking, non-ferrous extractive metallurgy, and electric furnace steelmaking. Within other issues, "Journal of Metals" has tried to emphasize such important topics as: explosive forming, ductile iron, beryllium, fused-salt electrolysis, direct reduction of iron ore, titanium vs. steel, aluminum production in Africa and Australia, undergraduate metallurgy curricula, German and British research institutes, and the Navy's metallurgical research program.

The second annual salary survey of the metallurgical profession was published. More comprehensive data were made available, resulting from the use of an improved questionnaire.

The "Journal of Metals" has commenced the publication of critical reviews of new books in metallurgy and related fields written by well-known authorities in their particular areas of metallurgy.

A new expanded index lists the contents of the 1960 issues of the "Journal of Metals". Appearing in the January, 1961, issue, it contains additional subject classifications, a separate listing of authors, and for the first time a listing of author's companies, a listing of Reporter items, and a listing of notices of new books and their authors. The 1960 index should be a great deal more useful than those of previous years.

During 1960, a total of 972 pages were published in "Journal of Metals," contrasting with 860 pages in 1959. The breakdown between editorial and advertising is given below:

Pages of editorial material:	1960 772	1959 671*
Pages of advertising:	236**	225**

*In addition, a Membership Directory of 90 pages was printed in the July, 1959, issue.

**Including three advertising covers each month.

Non-member subscriptions to the "Journal of Metals" increased from a total of 2,013 in December, 1959, to 2,203 in December, 1960. This is reflected in the ever-increasing number of copies of the "Journal of Metals" being printed. The current print order is 11,800 copies, as compared with 11,400 a year ago.

Advertising, Journal of Metals

The solicitation and sale of advertising has been handled by our advertising representative, Persons Advertising, Inc. Advertising income gained in 1960 partly due to an increase in rates. Comparative results are indicated below for 1960 and 1959:

	1960	1959
Advertising Income	\$76,657	\$65,119
Advertising Expense	39,969	32,658
Net	\$36,688	\$32,461

Publications Through Interscience Publishers

Under terms of our agreement with Interscience Publishers, Inc., two additional volumes have been published in 1960 by Interscience Publishers and copyrighted by AIME:

Volume 5 - "Properties of Elemental and Compound Semiconductors" (Conference sponsored by Semiconductor Committee of the Institute of Metals Division, and the Boston Section, AIME; Boston, August 31-September 2, 1959) 352 pages.

Volume 6 - "Flat Rolled Products 2: Semi-Finished and Finished" (Conference sponsored by the Mechanical Working Committee of the Iron and Steel Division, and the Chicago Section, AIME; Chicago, January 20, 1960) 160 pages.

In addition the following volume was also published by Interscience in 1960:

"Extractive and Physical Metallurgy of Plutonium and Its Alloys" (Symposium sponsored by the Nuclear Metallurgy Committee of the Institute of Metals Division, and the Titanium, Uranium, and Uncommon Metals Committee of the

Extractive Metallurgy Division, and presented as part of the 1959 AIME Annual Meeting; San Francisco, February 16-17, 1959) 314 pages.

The following volumes are in preparation, and are expected to be published in 1961 by Interscience:

1. "Physical Chemistry of Process Metallurgy" (Conference sponsored by the Physical Chemistry of Steelmaking Committee of the Iron and Steel Division, the Physical Chemistry of Extractive Metallurgy Committee of the Extractive Metallurgy Division, and the Melting and Casting Committee of the Institute of Metals Division, and the Pittsburgh Section, AIME; Pittsburgh, April 27-30, 1959).
2. "Extractive Metallurgy of Copper, Nickel, and Cobalt" (International Symposium sponsored by the Extractive Metallurgy Division, and presented as part of the 1960 AIME Annual Meeting, New York, February 15-18, 1960).
3. "Refractory Metals" (Conference sponsored by the Refractory Metals Committee of the Institute of Metals Division, and the Detroit Section, AIME; Detroit, May 25-26, 1960).
4. "Metallurgy of Columbium" (Conference sponsored by The Metallurgical Society and the Hudson-Mohawk Section of AIME; Bolton Landing, N. Y., June 9-10, 1960).
5. "Powder Metallurgy" (International Conference sponsored jointly by the Metal Powder Industries Federation and the Powder Metallurgy Committee, Institute of Metals Division; New York, June 13-17, 1960).
6. "Response of Metals to High-Velocity Deformation" (Conference sponsored by the Physical Metallurgy Committee, Institute of Metals Division; Estes Park, Colorado, July 11-12, 1960).
7. "Metallurgy of Elemental and Compound Semiconductors" (Conference sponsored by the Semiconductors Committee of the Institute of Metals Division, and the Boston Section, AIME; Boston, August 29-31, 1960).
8. "Decomposition of Austenite by Diffusional Processes" (Symposium sponsored by the Ferrous Metallurgy Committee of the Institute of Metals Division, and presented as part of the 1960 Fall Meeting of The Metallurgical Society; Philadelphia, October 17-20, 1960).

In addition, six Technical Conferences or Symposia will be held in 1961 that will result in proceedings to be published by Interscience Publishers.

Other Publications (See Appendix C)

The Institute of Metals Division published Volume 7 of the series on "Nuclear Metallurgy." This volume comprised 12 papers presented at a symposium on "Metallic Moderators and Cladding Materials" during the Fall Meeting of The Metallurgical Society held in Philadelphia, October, 1960 (80) pages).

The National Open Hearth Steel Committee published Volume 42 of its Conference Proceedings (460 pages).

The Blast Furnace, Coke Oven, and Raw Materials Committee published Volume 18 (460 pages) and Volume 19 (788 pages) of its Conference Proceedings.

The Electric Furnace Committee published Volume 17 of its Conference Proceedings (576 pages).

The 16-page booklet, "Careers in Metallurgy and Metallurgical Engineering," was published in September. Printing of 50,000 copies of this booklet was made possible through a grant of \$7,500 from the National Science Foundation. Initial distribution of 25,000 copies was made through the packet service of the National Science Teachers Association. This has stimulated many requests for additional copies from guidance counselors and high school science teachers throughout the country.

Meetings

Technical Conferences of international significance were held during 1960 on these subjects:

1. Flat Rolled Products - Semi-Finished and Finished.
2. Refractory Metals.
3. Metallurgy of Columbium.
4. Powder Metallurgy.
5. Response of Metals to High-Velocity Deformation.
6. Metallurgy of Elemental and Compound Semiconductors.

Data on these conferences and others, 13 in all, are given in Appendix D. During 1960, The Metallurgical Society and its technical committees presented a total of 687 papers at 129 technical sessions before an audience approximating 8,000. Not included in these statistics are the many technical meetings of local sections of AIME, local sections of the National Open Hearth Steel Committee, and these three major regional meetings:

1. AIME Southwest Metals and Minerals Conference, Ambassador Hotel, Los Angeles, April 21-22, 1960.

2. AIME Northwest Metals and Minerals Conference, Sheraton Hotel, Portland, Oregon, April 28-29, 1960.
3. AIME Rocky Mountain Minerals Conference, Newhouse Hotel, Salt Lake City, October 5-7, 1960.

The Metallurgical Society also participated in the annual Nuclear Congress, sponsored by Engineers Joint Council, and in the Annual Conference on Magnetism and Magnetic Materials, co-sponsored by several scientific societies.

The 1960 New England Regional Conference was directly associated with The Metallurgical Society for the first time.

Planning during 1960 for these national technical conferences and regional meetings to be held in 1961, in which The Metallurgical Society will be concerned:

1. January 9-12, Symposium on Thermoelectric Energy Conversion, Statler-Hilton Hotel, Dallas, Texas.
2. **January 20, Third Mechanical Working Conference on "Bar and Shaped Products," Penn-Sheraton Hotel, Pittsburgh.
3. February 26-March 2, AIME Annual Meeting, Ambassador and Chase-Park-Plaza Hotel, St. Louis.
4. *April 10-12, 44th National Open Hearth Steel Conference, Sheraton Hotel, Philadelphia.
5. *April 10-12, 20th Blast Furnace, Coke Oven, and Raw Materials Conference, Sheraton Hotel, Philadelphia.
6. **April 12-14, AIME International Symposium on Agglomeration, Sheraton Hotel, Philadelphia.
7. April 24-25, AIME Southwest Mineral Industry Conference, Stardust Hotel, Las Vegas, Nevada.
8. **April 26-27, "Conference on High-Temperature Materials," Carter Hotel, Cleveland, Ohio.
9. May 18-19, 15th New England Regional Conference, Hotel Van Curler, Schenectady, N. Y.
10. **August 30-September 1, Third Technical Conference on Semiconductors, Ambassador Hotel, Los Angeles.

*Proceedings to be published through AIME.

**Proceedings to be published through Interscience Publishers, Inc.

11. October 23-26, Fall Meeting of The Metallurgical Society of AIME, Pick-Fort Shelby Hotel, Detroit.
12. *December 6-8, 19th Electric Furnace Conference, Penn-Sheraton Hotel, Pittsburgh.

Planning is underway for the visits of The Iron and Steel Institute of London to the United States, October 17-November 7, resulting from invitations issued by The Metallurgical Society and the American Society for Metals.

Of major importance is the plan to have The Metallurgical Society sponsor a series of conferences on Research Management in order to provide an activity of growing importance to a significant part of the Society's membership. Tentative plans have been made to hold the first conference on "Management of Materials Research" at Arden House, Harriman, New York, on May 17-18, 1961.

Membership

Membership statistics for The Metallurgical Society in 1960 are given in the following tabulation:

	Gain	Loss	Net	Total Membership as of December 31	
				1960	1959
ISD	309	97	212	2,881	2,669
EMD	200	47	153	1,360	1,207
IMD	288	167	121	2,815	2,694
Council of Education	1	19	(18)	22	40
Council of Economics	-	19	(19)	47	66
Unclassified	218	123	95	1,184	1,089
Total	1,016	472	544	8,309	7,765
Student Members				547	612
Total Corporate and Student Members				8,856	8,377

The net gain in corporate members during 1960 compares favorably with that recorded during 1959 and represents a continued improvement over earlier years. A reduction in staff time available for membership promotion of activities was offset by an extremely low loss through delinquency and resignations to sustain a net gain approximately equal to last year's. Although the use of successful techniques for gaining new members has been continued, it has not been possible to make as many visits to Student Chapters and Local Sections as would be desirable. It is hoped that this deficiency can be remedied during 1961.

The low loss and continued high gain figures can also be considered as an indication that efforts to expand and improve Society services are resulting in the retention of present members as well as the attraction of new members.

Awards

A new award was established by the Acid Converter and Basic Oxygen Steel Committee for outstanding contributions to the processes of steelmaking within the scope of the committee. The first person to receive the award, presented during the 1960 Annual Meeting, was Herbert W. Graham, retired from Jones & Laughlin Steel Corporation.

A special citation was also presented during the 1960 Annual Meeting to Professor John Wulff of Massachusetts Institute of Technology for his outstanding contributions to metallurgy.

The Hardy Medal was presented to John Price Hirth of Carnegie Institute of Technology in January, 1960.

Awards within The Metallurgical Society that were made in 1960 (other than at the Annual Meeting) are:

1. Frank B. McKune Award (National Open Hearth Steel Committee) to W. P. Connor and D. J. Miller of Jones & Laughlin Steel Corporation for their paper, "Aluminum Capped Steel."
2. Conference Award (National Open Hearth Steel Committee) to R. A. Hinnebusch and J. A. McKinnon of United Engineering and Foundry Company for their paper, "A Practical Method for Statistical Evaluation of Open Hearth Problems."
3. "Journal of Metals" Award (Blast Furnace, Coke Oven, and Raw Materials Committee) to Y. C. Yang of United States Steel Corporation for his paper, "Optimum Operation in the Recovery of Light Oil."

Acknowledgement

The contributions of the many members who served as officers of the Society or its Divisions and as committee members is gratefully acknowledged. Without their support, activities within The Metallurgical Society would not exist.

Thanks are due the many organizations who have encouraged their employees to take the time to participate in Society activities. Special thanks are due the industrial organizations that have continued their financial support to the Metals Research Publications Fund, thereby making possible the continued publication of all acceptable papers in metals research and engineering.

Recognition and thanks should be accorded the staff of The Metallurgical Society for their effective work in carrying through to completion the many projects of the Society.

Respectfully submitted,

A handwritten signature in dark ink, appearing to read "R. W. Shearman", written in a cursive style.

R. W. Shearman, Secretary
The Metallurgical Society of AIME

RWS:ISC

The Metallurgical Society of AIME
Budget and Income and Expense Statement

<u>Metallurgical Society Income</u>	<u>1961 Budget</u>	<u>1960 Actual</u>	<u>1959 Actual</u>
Members dues and fees received:			
Current	\$141,000	\$132,520	\$123,753
Arrears	500	457	799
New	8,300	8,735	7,702
Entrance Fee	9,000	9,866	10,116
Total	<u>\$158,800</u>	<u>\$151,578</u>	<u>\$142,370</u>
Publication Sales:			
Journal of Metals - Advertising	\$ 75,000	\$ 76,657	\$ 65,119
Journal of Metals - Sales	18,500	18,912	9,717
Reprint Sales	3,500	4,022	3,461
Total	<u>\$ 97,000</u>	<u>\$ 99,591</u>	<u>\$ 78,297</u>
Other Income:			
From ISD Conf. Funds	\$ 6,708	\$ 6,708	\$ 6,708
From ISD Fund	4,000	2,000	2,000
From Met. Soc. Projects Fund	-	-	1,500
Dividends and Interest	1,722	1,852	483
Annual Meeting Credit	5,000	-	66*
Total	<u>\$ 17,430</u>	<u>\$ 10,560</u>	<u>\$ 10,757</u>
Total Income	<u><u>\$273,230</u></u>	<u><u>\$261,729</u></u>	<u><u>\$231,424</u></u>
<u>Metallurgical Society Expenses</u>			
Membership and Sections:			
Local Sect., Stud. Chap., Travel	\$ 12,500	\$ 9,995	\$ 12,036
Society Offices	55,508	46,426	43,085
Special Membership Activity	2,900	1,871	2,668
Institute Activities	12,987	12,083	12,579
Public Relations	2,576	-	-
Library Assessment	4,428	4,149	3,679
Total	<u>\$ 90,899</u>	<u>\$ 74,524</u>	<u>\$ 74,047</u>
Publications Expenses:			
Journal of Metals - Advertising	\$ 39,000	\$ 39,969	\$ 32,658
Journal of Metals - Regular	82,400	80,787	75,412
Reprint Expenses	2,000	2,334	2,604
Directory	2,200	3,278	3,500
Total	<u>\$125,600</u>	<u>\$126,368</u>	<u>\$114,174</u>
General and Administrative:			
Secretary's Office, New York	\$ 12,300	\$ 10,193	\$ 10,959
Secretary's Office, Salt Lake City	1,800	2,141	-
Business Office	27,081	21,154	21,227
Pensions and Related Expense	7,872	7,566	6,854
Insurance	369	276	255
Provisions for Depreciation	1,968	1,975	1,855
Miscellaneous Expense	4,428	5,433	2,008
Total	<u>\$ 55,818</u>	<u>\$ 48,738</u>	<u>\$ 43,158</u>
Total Expenses	<u><u>\$272,317</u></u>	<u><u>\$249,630</u></u>	<u><u>\$231,379</u></u>
Income Over Expenses	<u>\$ 913</u>	<u>\$ 12,099</u>	<u>\$ 45</u>
Transactions Deficit	\$ -	\$ 12,099	\$ -
Net Income Over Expenses	<u><u>\$ 913</u></u>	<u><u>\$ -</u></u>	<u><u>\$ 45</u></u>

*Miscellaneous Income

APPENDIX A (CONT'D)

THE METALLURGICAL SOCIETY OF AIME
INCOME AND EXPENSES FOR TRANSACTIONS

	<u>1961</u> <u>Budget</u>	<u>1960</u> <u>Actual</u>	<u>1959</u> <u>Actual</u>
<u>TRANSACTIONS INCOME:</u>			
Bi-Monthly Transactions	\$29,000	\$27,669	\$24,710
Transactions Volumes	17,000	17,146	16,303
Transactions Reprints	10,000	11,339	10,488
Advertising	1,000	-	-
From Metals Res. Pub. Fund	20,000	1,995	11,445
Total Income	<u>\$77,000</u>	<u>\$58,149</u>	<u>\$62,946</u>
<u>TRANSACTIONS EXPENSES:</u>			
Bi-monthly Transactions	\$60,000	\$54,389	\$52,676
Transactions Volumes	8,500	7,251	8,886
Transactions Reprints	8,000	8,608	1,384
Advertising	500	-	-
Total Expenses	<u>\$77,000</u>	<u>\$70,248</u>	<u>\$62,946</u>
Expenses over Income	<u>\$ -</u>	<u>\$12,099</u>	<u>\$ -</u>

APPENDIX BMetals Research Publications FundStatus as of December 31, 1960Income:

Contributions Received (84 Organizations):

During 1954	\$42,225.00
During 1955	17,500.00
During 1956	51,600.00
During 1957	33,350.00
During 1958	16,200.00
During 1959	11,850.00
During 1960	<u>37,325.00</u>

Total Contributions

\$210,050.00

Transferred from Metallurgical Society
Operating Fund (1957 and 1958)

1,806.36

Gain on Sale of Securities to 12/31/59
Loss on Sale of Securities to 12/31/60

132.56
(564.93)

(432.37)

Interest to 12/31/59
Interest to 12/31/60
Total Interest

7,618.44
2,100.65

9,719.09
\$221,143.08

Expenses:

1954- 140 pages (2 Supplements)	\$ 7,149.98
1955- 512 pages (5 Supplements)	23,184.00
1956- 656 pages (4 Supplements)	39,786.98
1957- 576 pages (4 Supplements)	36,576.00
1958- 896 pages (6 issues)	15,000.00
1959-1064 pages (6 issues)	11,445.48
1960-1152 pages (6 issues)	<u>1,994.92</u>

Total Expenses

\$135,137.36

Balance 12/31/60

\$ 86,005.72

APPENDIX CSummary of Publications of The Metallurgical SocietyComparison of Pages Published, 1960 and 1959

	<u>Pages, 1960</u>	<u>Pages, 1959</u>
A. <u>Periodicals:</u>		
JOURNAL OF METALS	972	860
TRANSACTIONS OF THE METALLURGICAL SOCIETY OF AIME	<u>1148</u>	<u>1064</u>
Total:	2120	1924
B. <u>ISD Proceedings</u>		
Open Hearth	460	608
Blast Furnace	1248	448
Electric Furnace	576	484
Electric Furnace Index	-	124
Total:	<u>2284</u>	<u>1664</u>
C. <u>IMD Special Report Series</u>		
Nuclear Metallurgy, Vol. 7	80	-
Nuclear Metallurgy, Vol. 6	<u>-</u>	<u>104</u>
Total:	80	104
D. <u>Interscience Books</u>		
Plutonium	314	-
Properties of Elemental and Compound Semiconductors	352	-
Flat Rolled Products	160	148
Reactive Metals	-	624
Quality Requirements of Super Duty Steels	-	320
Stress Corrosion Fracture	-	408
Total:	<u>826</u>	<u>1500</u>
E. <u>Other</u>		
Careers in Metallurgy and Metallurgical Engineering	16	-
High-Temperature Materials (John Wiley)	<u>-</u>	<u>560</u>
Total:	16	560
Total Pages Published During Year:	5326	5752

APPENDIX DTechnical Conferences and National Meetings ofThe Metallurgical Society, 1960

	<u>Date & Place</u>	<u>Conference</u>	<u>Attendance</u>	<u>Number Technical Sessions</u>	<u>Number Papers Presented</u>
1.	January 20, Chicago	Mechanical Working	276	2	7
2.	February 15-18, New York	AIME Annual Meeting (Met Soc)	1076	36	189
3.	April 6-8, Chicago	43rd National Open Hearth Steel Conference	1322	7	24
4.	April 6-8, Chicago	19th Blast Furnace Conference	707	9	36
5.	April 20-22, Los Angeles	Acid Converter and Basic Oxygen Steel	41	3	5
6.	May 25-26, Detroit	Refractory Materials and Alloys	400	4	17
7.	May 26-27, Boston	New England Regional Conference	200	3	12
8.	June 9-10, Bolton Landing	Metallurgy of Columbium	187	4	31
9.	June 13-15, New York	Powder Metallurgy	750	6	40
10.	July 11-12, Estes Park	Response of Metals to High- Velocity Deformation	176	4	15
11.	August 29-31, Boston	Metallurgy of Elemental and Compound Semiconductors	540	5	33
12.	October 17-20 Philadelphia	Fall Meeting of The Metallurgical Society	1277	37	231
13.	November 30- December 2, Chicago	18th Electric Furnace Conference	1094	9	47
Total:			8046	129	687