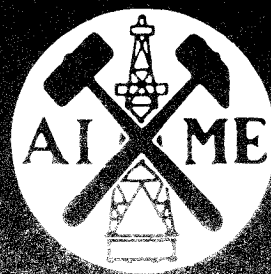


Annual Report '62

AIME

Society of Mining Engineers
The Metallurgical Society
Society of Petroleum Engineers



The President Speaks

AIME, the American Institute of Mining, Metallurgical, and Petroleum Engineers, is composed of three constituent societies —

Society of Mining Engineers
The Metallurgical Society
Society of Petroleum Engineers

Together, these societies serve more than 36,000 members in the United States and abroad.

Although the fields of interest of constituent societies vary, as implied by their names, each society has a common objective — to provide engineers and related technical personnel with the information and facilities needed by the growing, vital profession of minerals engineering.

The profession of minerals engineering, of course, is not new. Since man quarried his first rock, smelted his first ore, shaped the first nugget, dug the first coal, tapped the first oil or gas well, this profession has been a bellwether of human progress. It is still so today.

Despite long tradition, however, the profession is far from static. New techniques of production and refining are developed constantly. New materials are demanded daily by the industries of this nuclear-space age. New men introduce new ideas.

Engineers, key men in dealing with these new conditions, need a constant flow of information, a forum in which to exchange ideas, and a means of maintaining their ability to serve the mineral industry, as well as the nation and the world. To carry out its program, AIME maintains offices in New York, Dallas and Salt Lake City. Extensive programs of publications, meetings and coordination account for expenditures of a million and a quarter dollars per year, the services of a full time staff of 70 persons, as well as the volunteer efforts of thousands.

In these pages is a brief outline of some of the ways in which AIME and its constituent societies have filled the needs of the minerals engineer in the twelve months of 1962. This is the story of AIME in action.*

*In addition to this summary report, AIME prepares each year a more detailed report on annual operations. Committee chairmen or others with a need for this detailed information may obtain copies by writing to the Office of the General Secretary, AIME, 345 East 47th Street, New York 17, N. Y.



This statement, by AIME President Lloyd E. Elkins, summarizes highlights of 1962 AIME operations. Additional information on the specific activities of AIME constituent societies appears on following pages.

This year has been a pleasant and rewarding experience for me. AIME continues to respond to the challenges that confront us as engineers, both in our relationship with the mineral industries and in our role as part of the engineering profession.

It is worth noting, I believe, that AIME of all the Founder Engineering Societies is unique. The other four are composed of individuals who, by and large, specialized in similar engineering disciplines during their college days. Within AIME our common bond is not necessarily one of identical education, but, rather, of common service to the minerals industry. In addition to graduates who may have degrees in mining, metallurgical or petroleum engineering, many of our members are graduates of courses in civil, electrical, mechanical or chemical engineering. All, however, are concerned with the progress of the minerals industry in one or more of its branches.

MEMBERSHIP

AIME membership, as a whole, rose only slightly during the year, a fact which deserves comment. One of the paradoxes of our complicated age is the fact that while challenges to the minerals engineer are at an all time high, and the importance of his role climbs steadily, the absolute number of engineers in the minerals industry in the U. S. does not climb proportionately.

In part this is due, we think, to more efficient use of engineers in the mineral industry. This is caused both by availability of better trained engineers and better utilization of their efforts, through the aid of computers, for example.

There is and always will be unlimited opportunity in the mineral industry for the well trained graduate engineer. Such young men, adequately trained in a mineral engineering school, can have an inside track in the profession. This we must strive to get across both to our mineral engineering schools and to prospective engineering students.

STUDENTS

With a strong recommendation from our Council of Education, increasing effort has been directed to



Student Chapter activities. Staff personnel in Salt Lake City, Dallas, and New York have been given the clear responsibility to coordinate and follow up on Section and Student Chapter relations. Results beginning to show.

ECONOMICS

Our Council of Economics is doing an excellent job in bringing to you papers highlighting both domestic and world-wide minerals economics. In 1962, an economic newsletter, summarizing these presentations, was mailed to 4,000 members who indicated interest in the Council's work. If you are interested in receiving future issues, write to the General Secretary.

FINANCES

AIME's financial picture is good (see page 7). As is proper for a non-profit organization, income and expense were roughly balanced.

As may be seen in the financial summary, dues from members account for approximately half of AIME's income. Other major items are receipts from the sale of publications, and income from sale of advertising which help to offset the cost of producing the valuable periodicals in which the advertising appears.

The good judgement and dedicated work of the officers and staff members concerned with the welfare of AIME and its three Societies deserve much of the credit for a satisfactory fiscal situation.

OPERATIONS

Although no drastic changes were made in methods or procedures this year, decision was reached to use more sophisticated automatic data processing and addressing equipment in the future. Advantages include added flexibility and clearer imprints. This equipment, in the United Engineering Center in New York, will be used jointly by five engineering societies housed in the Center. This service may be extended to others in the future.

SPECIAL ATTENTION

As President of AIME, I find it difficult, naturally, to choose from the many activities of AIME and its constituents, those few activities to which space in these pages limits us. At the risk of omitting many, however, I have chosen a few which I believe to be worthy of mention and which embrace AIME as a whole.

Credit for these achievements belongs to the many members of the Society of Mining Engineers, The Metallurgical Society and the Society of Petroleum Engineers, who have volunteered their time to work with their colleagues for a better, constantly improving, profession.

Thesaurus

In cooperation with the 28 other societies who comprise Engineers Joint Council, we are assisting

in preparing an engineering thesaurus to facilitate information retrieval. This thesaurus, which will, among other things, permit standardization of terms used in our technology, will make it easier for our members, or any engineers, to locate readily technical information they may need.

Library

In the same field of technical literature, the outstanding service performed during 1962 by the Engineering Societies Library, which is supported in part by AIME funds, deserves our admiration and appreciation. Certainly the role of this fine library will grow in the future, as information retrieval becomes more complicated and important. (Services of the library, of course, are available to any AIME member by mail or by personal visit.)

Future Engineering Research

Another Engineers Joint Council effort, a survey of "The Nation's Engineering Research Needs, 1965 to 1985," received our support. Results of this look into the future should help to alert responsible people to some of the problems that will demand the work of engineers. Although AIME, of course, does not and can not advocate specific courses of Government action, this report will, we believe, be a valuable guide to leaders of Government as well as industry and education. A summary of the survey may be obtained by writing to: Engineers Joint Council, United Engineering Center, 345 East 47th Street, New York 17, N. Y.

Engineering Education

Through Engineers Council for Professional Development, which is composed of ten engineering societies, including AIME, we have demonstrated our concern with engineering education.

One step taken recently by ECPD was a request for another survey of engineering and technical education in graduate schools, undergraduate colleges, and technical institutes. Hopefully, this survey will be conducted by the American Society for Engineering Education under a grant from the National Science Foundation.

Stimulating and controversial discussion stemming from the planning of this survey is, even now, a valuable by-product of this effort.

Another ECPD project in which we share is preparation of a program to stimulate interest in engineering as a profession among high school students and their parents.

TODAY AND TOMORROW

While we are pleased with the achievements of 1962, it goes without saying that we can not afford to rest on our laurels. I am sure that the hundreds of members who, through their Societies, Councils, Boards, Committees, Sections, and Divisions, made possible the record of 1962, would join me in that sentiment. I hope that those who have not yet taken part in official organized work of their professional society will be both appreciative of and challenged by the example set for them by these hundreds.

Lloyd E. Elkins.

Society of Mining Engineers

By

WILLIAM B. STEPHENSON, *President*



For the Society of Mining Engineers of AIME, 1962 was a year of firsts. Among them were the First Fall Meeting of the Society, the first issues of the Transactions Quarterly, first year of operation of the SME Planning Committee and its "Working Parties". Some high spots of the year are outlined below.

The First Fall Meeting of the Society of Mining Engineers of AIME was held in Gatlinburg, Tennessee, September 9-12. The East Tennessee Section went "all-out" as host to the event. About 600 mining men from all parts of the country and their ladies registered. There were 45 papers scheduled in 14 sessions. There was a notable trend toward inter-divisional sessions, at this meeting, one that is continuing in 1963. This is a healthy indication of unity in the SME.

The first issue of the TRANSACTIONS OF THE SOCIETY OF MINING ENGINEERS was mailed to 1100 subscribers in March 1962. This quarterly periodical was instituted in response to a long-felt need for prompt publication of Transactions papers. Seventy two papers (446 pages) together with pertinent discussion, were published during the year as fast as the papers were accepted by the Review Committees. A bound indexed volume of these papers is also available.

At the 1962 AIME Annual Meeting, the SME Planning Committee held its initial meeting, at which a number of working parties were formed to investigate important topics and to make recommendations. Among them were: ways to increase revenues, review of the Society's structure, publication of important books by the Society, correlation and planning of meeting programs,

The Metallurgical Society

By

KARL L. FETTERS, *President*



Meetings and publications continue to be the principal media for service to members of The Metallurgical Society. At eleven major meetings, 725 technical papers were presented at some 140 technical sessions to a combined audience of over 7300. Pages published in periodicals and books numbered over 7,800.

The 91st Annual Meeting of AIME, held in New York, set a new record for attendance and volume of material presented. An audience of 1,700 gathered to hear 262 technical papers at 43 technical sessions. Books to be published from this meeting include *Superconductors, Recovery and Recrystallization of Metals, Electronic Structure and Alloy Chemistry of Transition Elements, Alumina, and Aluminum*. The Fall Meeting of The Metallurgical Society, held in New York, also set a record with 46 technical sessions where 263 papers were given.

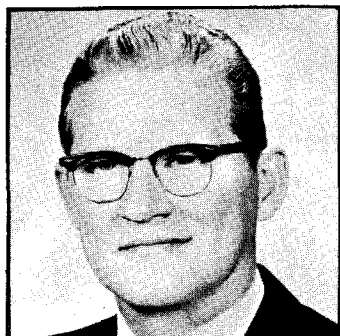
The Iron and Steel Division scheduled four major Conferences on the theory and practice of iron and steelmaking: *National Open Hearth Steel Conference; Blast Furnace, Coke Oven, and Raw Materials Conference; Electric Furnace Conference; and Mechanical Working Conference*.

Three other special technical conferences organized within the Institute of Metals Division worthy

Society of Petroleum Engineers

By

RICHARD A. MORSE, *President*



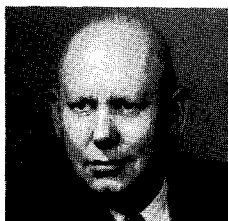
A healthy growth in the number of pages published, the formation of six new Sections and the holding of the greatest number of regional meetings in our history were outstanding accomplishments of the Society of Petroleum Engineers during 1962. Through these activities and functions, the Society continued to increase its service to members and enhance the value of SPE-AIME membership for all petroleum engineers.

The establishment of six new Sections made SPE-AIME membership of much greater value to engineers located in areas which these Sections will serve. We are pleased with the outlook for the new Sections in Bartlesville, Okla., in the Uintah Basin of Colorado and Nebraska, in the Big Horn Basin of Wyoming, in the Northern Plains area, in East Kentucky and in Ohio.

Six regional meetings held during the spring of 1962 attracted some 3,200 registrants who heard the presentation of more than 100 technical papers. These successful meetings were in

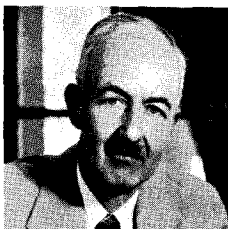
AIME AWARDS

During the year AIME presented twenty-four national awards, four national best student paper prizes, and seven scholarships. Twenty Members were elected to the Legion of Honor for having maintained their membership continuously for fifty years. The following major awards were presented at the AIME Annual Meeting held in New York City:



BENJAMIN F. FAIRLESS AWARD

HAROLD M. GRIFFITH. "A steelmaker, a metallurgist, an operating executive, an engineering leader in basic developments of blast furnace burdening and in open hearth refractory and oxygen practices."



HAL WILLIAMS HARDINGE AWARD

IAN CAMPBELL. "Eminent scientist, author, educator, and administrator; for his personal warmth, outstanding leadership, and devoted service to the profession."



CHARLES F. RAND MEMORIAL GOLD MEDAL

ROBERT P. KOENIG. "In recognition of his leadership in guiding the expansion of a famous Peruvian mine into an international industrial company with diversified raw materials interests."



ANTHONY F. LUCAS GOLD MEDAL

JOHN E. ELLIOTT. "For his contributions to increasing oil and gas recovery by pioneering the means of securing fundamental reservoir data through the design and use of formation core barrels, thereby furthering the technics of analysis and operation of petroleum reservoirs."



ROBERT H. RICHARDS AWARD

STANLEY D. MICHAELSON. "For achievements in advancing mine plant and metallurgical engineering practice through significant contributions to process development, plant construction, the technical literature, and to education; and for leadership in organization and management of mineral engineering."



WILLIAM LAWRENCE SAUNDERS GOLD MEDAL

JOSEPH HUGH REID. "For keen, analytical, and creative leadership in establishing large-scale, successful operations in industrial mineral deposits, particularly of ilmenite, barite and bentonite clays."

planning and format of future meetings and ways to attract young people to the profession.

MINING ENGINEERING also enjoyed a banner year, publishing more pages of articles than any comparable mining publication. There were 92 pages of articles on Underground Mining, 30 on Open Pit Mining, 94 on Minerals Beneficiation, 23 on Exploration and Geological subjects, 87 dealing with Economics, Management and Government, and 10 on other subjects.

The valuable work, *Froth Flotation -- 50th Anniversary Volume*, was mailed to 1359 purchasers all over the world in late November. This volume grew out of the meeting to celebrate the Fiftieth Anniversary of the introduction of Froth Flotation in the U.S.A. The meeting was sponsored by SME's Minerals Beneficiation Division and the Colorado Section, AIME.

The Society and its Divisions are looking into the need for, and economics of, several other volumes. Among these are a successor to Lindgren's volume on Ore Deposits, a volume on Coal Preparation and possibly a successor to Peele's Mining Engineers' Handbook.

The SME Preprint Program again supplied a need of the members. Requests for more than 40,630 copies of preprinted papers were filled during the year. There were 149 convention papers preprinted out of the 200 or more presented in 1962.

The 25th, and final, Joint Solid Fuels Conference was held in Pittsburgh, under auspices of the Coal Division of SME and the Fuels Division of ASME. Next year, as a one-year experiment, the work of the Solid Fuels Conference will be carried out at the National Power Conference. This move was prompted by a feeling that, in view of progress in past decades in electrical generation, a broader forum in which to discuss the use of coal as a major energy source might be desirable. The National Power Conference is one such possible forum.

of note were: *Refractory Metals*, *Fracture in Crystalline Solids*, and *Advanced Electronic Materials*. Under sponsorship of The Metallurgical Society, two additional conferences, *Management of Materials Research*, and the 16th New England Regional Conference were held.

Nine books were published through our cooperative agreement with Interscience Publishers, a Division of John Wiley & Sons, Inc., supplementing 15 volumes already published: *Management of Materials Research* (Vol. 14), *Metallurgy of Semiconductor Materials* (Vol. 15), *Flat Rolled Products III* (Vol. 16), *Agglomeration, Decomposition of Austenite by Diffusional Processes*, *Direct Observations of Imperfections in Crystals*, *Continuous Casting*, *Superconductors*, and *Electric Furnace Steelmaking -- Design, Operation, and Practice*.

Eleven books are presently in some stage of preparation at Interscience Publishers.

Proceedings volumes were published during the year by the Blast Furnace, Coke Oven, and Raw Materials Committee, and by the Electric Furnace Committee. An Eighth Volume on *Nuclear Metallurgy* was sponsored by the Institute of Metals Division.

JOURNAL OF METALS published 932 pages during the year. Special issues were devoted to metallurgical developments in Latin America (July), blast furnaces and open hearth steelmaking (April), oxygen practices in steelmaking (September), and electric furnaces (December). TRANSACTIONS OF THE METALLURGICAL SOCIETY OF AIME was increased to 1,300 pages. Expansion is limited only by acceptance of approved papers and by availability of financial resources.

Dallas, Texas, Beaumont, Texas, Wichita Falls, Texas, Hobbs, New Mexico, Tulsa, Oklahoma, and Billings, Montana. In addition, valuable papers were presented at the SPE Fall Meeting in Los Angeles and at the petroleum sessions of the AIME Annual Meeting.

From a monetary standpoint, 1962 was indeed a healthy year for the Society. Income from the sale of advertising space in JOURNAL OF PETROLEUM TECHNOLOGY increased appreciably, permitting us to finish the year in a strong financial position.

Another of our most noteworthy actions of 1962 will not begin to show results until 1963. In order to create better balance in programming and publications, as well as to strengthen areas of technology which have not received sufficient emphasis, 10 new technical committees were created late in the year. These committees will solicit papers and handle programming in the following fields: Drilling and Well Completion, Education and Professionalism, Economics and Evaluation, Formation Evaluation, Gas Technology, Geological Engineering and Ground Water Hydrology, Management and General Interest, Production Operations and Engineering, Reservoir Engineering, and Fluid Mechanics and Oil Recovery Processes. In addition to achieving a more desirable balance in our programs and publications, the establishing of these committees is expected to result in greater membership participation throughout the Society.

1962 CONDENSED FINANCIAL STATEMENT

INCOME	Mining	Metals	Petroleum	AIME Total
Membership Dues & Fees	229,888	\$165,947	\$250,597	\$ 646,432
Publications Sales	46,993	103,900	36,733	187,626
Advertising	149,466	79,995	176,979	406,440
Other	6,917	6,318	4,697	17,932
TOTAL	<u>\$433,264</u>	<u>\$356,160</u>	<u>\$469,006</u>	<u>\$1,258,430</u>
EXPENSE				
Sections & Student Chapters	\$ 16,236	\$ 12,001	\$ 23,182	\$ 51,419
Society Secretaries' Offices	46,312	44,079	79,629	170,020
Institute Activities	13,889	13,634	11,234	38,757
Publicity	4,962	3,571	4,843	13,376
Special Membership Activities	2,967	3,279	8,933	15,179
Library Support	4,701	3,412	5,319	13,432
Cost of Advertising Pages	86,254	39,655	86,008	211,917
Publications — Editorial and Production ..	162,977	174,814	157,866	495,657
General Secretary's Office	16,439	11,932	18,600	46,971
Business Office	35,653	28,270	33,225	97,148
Western Field Secretary's Office	13,943	2,874	1	16,818
Provision for Depreciation	4,095	3,021	3,757	10,873
Pensions and Related Expenses	14,816	10,835	13,711	39,362
ECPD and EJC Assessments	5,678	4,121	6,424	16,223
Miscellaneous Expenses	6,036	4,381	6,830	17,247
TOTAL	<u>\$434,958</u>	<u>\$359,879</u>	<u>\$459,562</u>	<u>\$1,254,399</u>
Net Income or (Expense)	(\$ 1,694)	(\$ 3,719)	\$ 9,444	\$ 4,031
Metals Research Publication Fund	—	\$ 3,319	—	\$ 3,319
Henry Krumb Endowment Fund	\$ 1,694	\$ 400	—	\$ 2,094
NET BALANCE	—	—	<u>\$ 9,444</u>	<u>\$ 9,444</u>

FUNDS AND MEMBERSHIP

In addition to operations income and expense detailed above, AIME benefited from contributions from various funds which were applied as follows:

Name of Fund	Applied To	Amount
Met. Soc. Conference	Reimburse for Services	\$13,758
Various Endowment & Custodian	Reimburse for Services	14,135
SPE Activities	Various Services	9,016
Daniel C. Jackling Building	Reduce space charge	8,547
Daniel C. Jackling Building	Reception Room furnishings	5,230
Various Award	Awards	7,878
Rocky Mountain Club	Salt Lake City office	6,000
James Douglas Library	Reduce Library Assessment	4,058
Charles Hayden Memorial	Student Services	1,824
Henry L. Doherty Memorial	SPE Lecture Tour	735
Karl Eilers Memorial	U. S. Comm., World Power Conf.	242
Karl Eilers Memorial	American Geological Inst.	100
Total From Funds		\$71,523

As in the past, certain meetings and publications received advances from conference and endowment funds. In practice, money advanced by these funds is usually returned to the fund by the proceeds of these self supporting activities. Availability of this capital, however, makes possible many worthwhile activities that could not otherwise be undertaken. Advances in 1962 amounted to approximately \$134,000.

MEMBERSHIP

As of January 1, 1963, corporate and student membership totals were:

Society of Mining Engineers	12,522
The Metallurgical Society	9,673
Society of Petroleum Engineers	14,099
AIME (Total)	36,294



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Metallurgical, and Petroleum Engineers
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**OFFICIAL AIME
ANNUAL REPORTS
FOR 1962**

**AMERICAN INSTITUTE OF
MINING, METALLURGICAL, & PETROLEUM ENGINEERS
345 EAST 47TH STREET
NEW YORK 17, N. Y.**

OFFICIAL AIME ANNUAL REPORTS COVERING THE YEAR 1962

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REPORT

of the

GENERAL SECRETARY OF AIME

This report covers different topics than in former years. Many new activities were considered during 1962 as is noted by the headings, particularly, the topic "Innovations in 1962". Changes in Business Office procedures and costs are reported. No attempt has been made, unlike in previous years, to summarize the Society and other reports which are also bound as part of this Annual Report.

Addressing and Data Processing

The Society of Petroleum Engineers presented a proposal to do its addressing and data processing by an all-IBM system through a service bureau in Dallas. The SPE proposal indicated additional services at less cost to SPE. However an analysis of Business Office functions showed that SME and Met. Soc. would pay considerably more for their current services and that SPE would not realize the savings anticipated. As an alternative, it was suggested that the Data Processing Center located in the United Engineering Center be considered. DPC currently serves the American Institute of Chemical Engineers, American Society of Heating, Refrigerating and Air-Conditioning Engineers, American Institute of Industrial Engineers and the Illuminating Engineering Society, which comprise in total approximately 60,000 members and subscribers. It has an all-IBM system using IBM 403 accounting machines as contrasted with the more sophisticated IBM 1401 tape machines used by service bureaus. DPC contracts to do work for 65 cents a name per year as compared to the Dallas Service Bureau offer of 96 cents and the current AIME cost of 56 cents. Some costs included in the 56 cents are not included in the 65 cents.

AIME shared a system with the American Institute of Electrical Engineers using a combination of IBM machines for data processing and billing and an electronic facsimile printer for addressing. This one-card system was fast and economical but did not produce an address imprint suitable for photo offsetting a directory. It did not provide for both a home mailing address and a company directory address. On the other hand, the IBM system requires tape or from two to five cards for each member depending on where a member receives his mail and the number of lines in his address. The Metallurgical Society objected to the use of the more expensive all-IBM system since it did not plan to use this system to issue a directory nor to perform the other additional services desired by SPE.

Consideration of the most suitable addressing and data processing system for AIME took a different slant when the 60,000 member AIEE voted to merge with the 100,000 member Institute of Radio Engineers to become the Institute of Electrical and Electronic Engineers effective January 1, 1963. The new organization decided to convert the AIEE system to the one used by IRE.

This meant that when conversion was completed, early in 1963, AIEE would no longer carry 60% of the cost of the equipment shared with AIME. AIME was therefore faced with making an immediate decision either to carry its own system or to find another organization with whom it could share a system. Sharing offered definite cost advantages. The American Society of Mechanical Engineers had just completed conversion to a combination Scriptomatic - IBM system. Exact costs of this system were not known. Until the "bugs" had been worked out, in a year or two, ASME would be reluctant to share. The ASME system has limitations similar to AIME's 1962 system.

AIME decided to contract with DPC to do its addressing and data processing. The addition of AIME's 45,000 members and subscribers will permit DPC to replace its 403 machines with a 1401 card computer as soon as delivery is possible. Temporarily three available 403 machines are to be used. The 1401 computer will permit further expansion to 200,000 names with corresponding reduction in cost. AIME hopes sufficiently more societies use the services of DPC, 200,000-400,000 names, to justify obtaining a disc or tape machine. The potential growth of DPC with parallel reductions in cost is one of the principle reasons for AIME's decision to use DPC. However the number of societies using DPC, each with its magazine and other deadlines, means that schedules will have to be followed. AIME's Societies, Divisions, Sections and Conference Committees will have to place their orders for address labels, etc., about six weeks in advance to get low-cost service. Faster service will be available at overtime rates.

As of January 1, 1963, all address labels known to be needed for the next two months were prepared and stored. The Master Deck used for addressing has been sent to a service bureau for conversion from the present one-card to the new multi-card system. Early in March, 1963, it is planned to send each Section a new set of cards. The usual set of cards sent to the Sections in January will not be prepared this year since the clearer imprint available later will be preferable. Some 200,000 cards cannot be prepared without errors. The help and understanding of the members is solicited in correcting any errors.

Directory addresses will be punched into cards after March 1, 1963, when most of the Dues Bills bearing this information will have been returned. Members should pay their 1963 dues promptly returning the Dues bill with the blanks properly filled in to insure proper listing in the 1963 Directories of those Societies publishing them.

All-Institute Expenses

The reduced rate of growth of the Institute, due to less favorable economic conditions particularly in the mining and petroleum industries, has caused each of the Institute and Society Boards to examine operations to keep costs at a minimum. This has been especially necessary as inflation and a need for more services

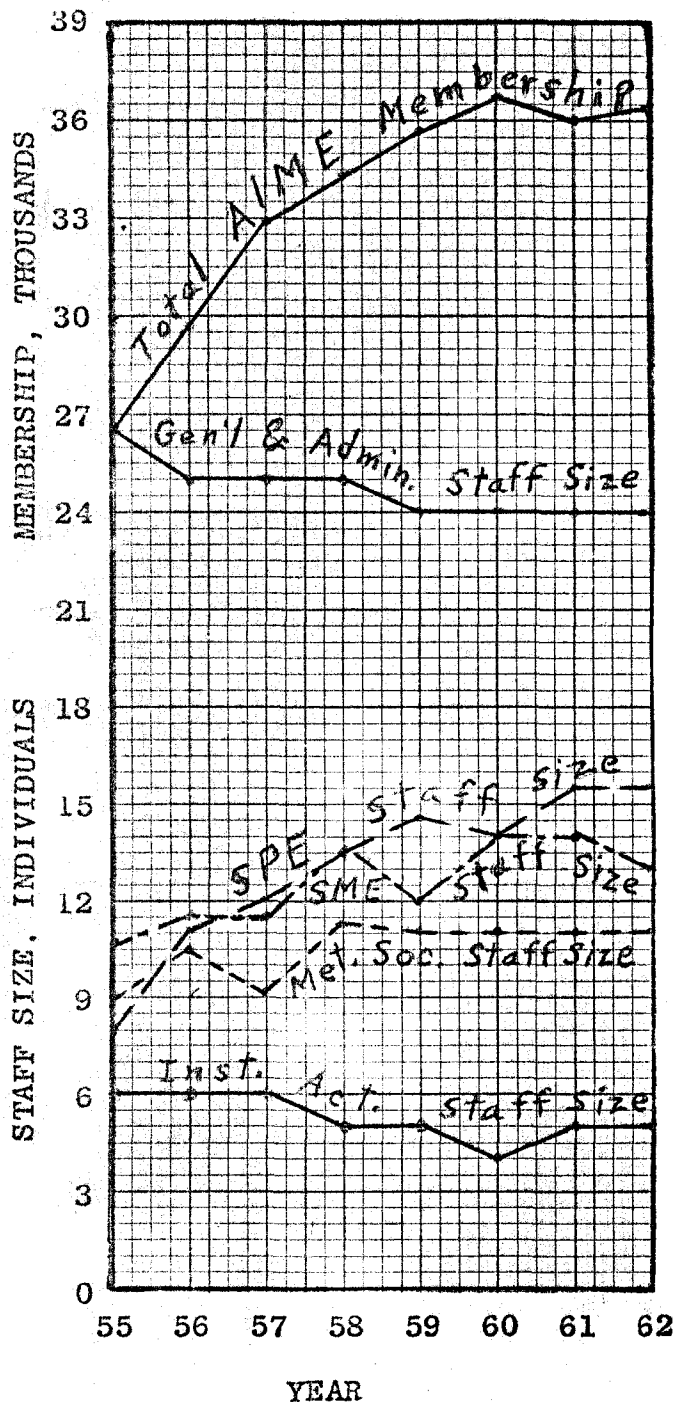
continue. AIME advertising income was not hit as hard, in recent years, as was that of many other society and trade journals. However, advertising income in 1962 did not exceed either 1960 or 1961 by ten per cent. Since Dues have not been raised, some of the increased cost of expanded services has been borne by higher meeting registration fees and by the issuance of additional publications for which the public is charged realistic rates and the members lower rates.

The fact that the All-Institute departments have been closely watching expenses, in recent years, to make as much money as possible available to the Societies for their expanding services to members is borne out by the two charts on Page 4. Changes in practice regarding charges make the comparisons inexact but the broad trends are dependable and definite.* It should be noted that increased Society activity in the way of meetings, publications, etc., has an effect on Business Office expenses. In spite of inflation and increased activities, reduction in per member costs of General and Administrative services were possible during most of the last seven years. However, a combination of increased costs and a reduction in membership growth has not permitted this in the last two years. Reduction in per member costs will be possible again with a return to an increased rate of membership growth.

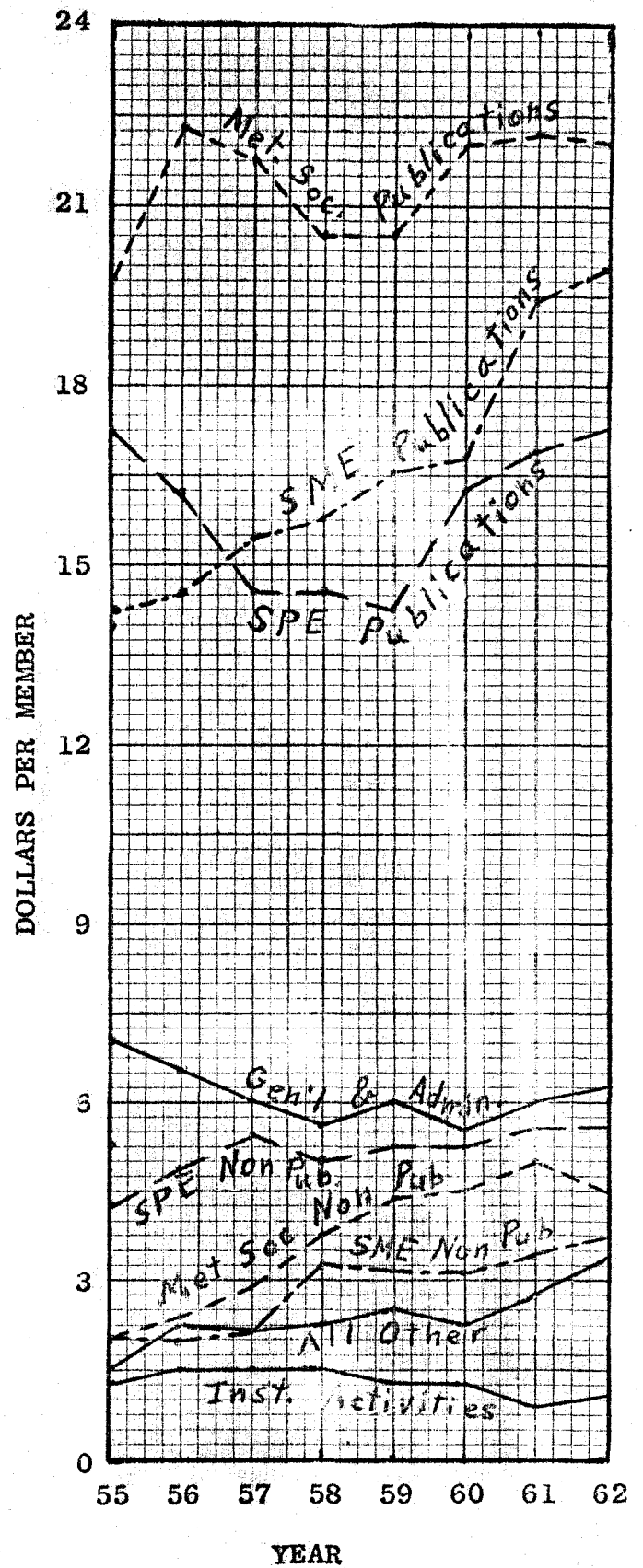
Accumulated income in certain AIME endowment funds became so depleted that starting in 1961 EJC expense and ECPD expense in 1962, previously paid by such funds, are now paid out of Dues Income. The other Founder Engineering Societies also pay such expenses out of Dues Income. To ease the impact of these added expenses occurring simultaneously with an increased space charge in the new building (about the same rate but for more space) a one-time grant of \$16,500 from the Henry Krumb Endowment Fund was obtained in 1962. That only \$2100 of this grant was used in 1962 is a tribute to each Society's careful management. However in order to meet the tight 1962 budgets it was necessary to curtail some planned services. The balance of the grant will be available to the Societies in 1963, or later, to permit desired services.

*This footnote applies to the graphs on the following page. The data is taken from Annual Reports except for the number of staff members obtained from the year-end payroll. Engineers Joint Council and Engineers' Council for Professional Development expense has been removed from General and Administrative in 1961 and 1962 since it was not included previously. "All Other" includes EJC, ECPD, Engineering Societies, Library, Sections, Student Chapters, Special Membership and, since 1961, Public Relations. The Institute Receptionist was transferred to Institute Activities late in 1961. Since 1961, members have been dropped for failure to pay Dues after one year whereas previously they were kept on the rolls for two years. Directory expense is an example of a variation in practice regarding charges. It was originally charged to General and Administrative but since 1960 has been charged to the Society publishing the Directory; furthermore, in some years no Directory was issued by the Institute or a Society.

TOTAL AIME MEMBERSHIP AND STAFF SIZE



PER MEMBER COSTS



In the new Building each organization was expected to provide itself with adequate room for growth to 1975. AIME has subleased its extra 6% of space to three small groups to keep expenses at a minimum.

In 1962 SPE discontinued its support of the Salt Lake City office. Since this put a heavier burden on SME, which now carries 84% of this cost, a grant of \$6,000 to partially support this office was obtained from the Rocky Mountain Club Fund for 1962. Many of the services performed by this "Rocky Mountain" office are not matched by similar services available from the New York or Dallas offices. Support from this particular Fund is therefore justified and has been requested again for 1963.

Financing United Engineering Center

Two years ago AIME members were advised that the old engineering building had been sold to the Develop Realty Corporation on September 30, 1960 for \$1,500,000. Last year members were advised that the purchaser was deemed to be in default after paying \$125,000 and the building was again put up for sale. The building was placed on the New York City real estate tax rolls since it was not being used for educational or scientific purposes. After unsuccessfully attempting to sell the building to other prospective buyers at a satisfactory price, United Engineering Trustees again contracted to sell the building to Develop Realty Corporation on January 24, 1963, for \$1,400,000. UET credited Develop Realty Corporation with its original payments and accepted an additional \$150,000 and a fifteen year 5½% mortgage for the balance.

Over 9,100 AIME members pledged over \$516,000 toward the cost of the new United Engineering Center. As of January 24, 1963, \$496,800 had been paid. Approximately 250 current and former AIME members who had made pledges have made no payments. Their names have been assigned to individuals in their areas to personally approach them to urge payment of their pledges. Of some 625 current and former AIME members for whom one or more installments are overdue, individually typed letters together with an invoice were mailed to 250. Of course all those who have not completed payments on their pledges receive invoices from United Engineering Trustees at least once a year.

United Engineering Trustees have just been advised that the Ford Foundation will make available up to \$300,000 toward the cost of the United Engineering Center. The conditions of the grant provide that one dollar will be given for every two dollars of new money raised between January 1, 1963, and December 31, 1964. Only \$900,000 is required to finish the final two unoccupied floors, to add a fifth elevator, and to pay off the balance of the bank loan with the exception of an amount to offset that of the mortgage on the old building. This will provide a complete and debt free 13.5 million dollar Engineering Center.

Student Chapter Activities

Three different Committee reports presented to the Directors recently indicated a need for more attention to engineering students in AIME's fields. The Directors emphasized this need to the Sections to service the schools in their areas since most of the work has to be done at the local level. One staff member in each of the three Institute offices was designated to coordinate these activities for the group of schools assigned to him. Several newsletters to provide an exchange of information of value to Student Chapters were issued during the year. Considerably more effort is needed in the future to adequately serve the students and thence the mineral engineering profession. Such effort will increase the number and quality of students entering the mineral engineering field and increase the student membership and subsequent full membership in AIME.

New Sections

The following six new Sections were established during 1962 and are composed of AIME members with a primary interest in Petroleum:

Bartlesville Section	Northern Plains Section
Big Horn Basin Section	Ohio Petroleum Section
East Kentucky Section	Uintah Basin Section

In addition, the following three Subsections were established in the Mining or Metallurgy fields:

Copper Group Subsection, New York Section
 Physical Metallurgy Subsection, New York Section
 Riverside-San Bernardino Subsection, So. California Section.

Inter-Engineering Society Cooperation

During the year AIME continued its policy of cooperating with other engineering societies. A few such activities are reviewed here.

AIME has been a member of the AMERICAN GEOLOGICAL INSTITUTE for many years. AGI is an organization of geological societies. It attempts to do the same for geological societies that Engineers Joint Council does for engineering societies. AGI recently completely revised its bylaws and AIME can no longer be a full member by making a token contribution of \$100. It was decided that AIME would continue its membership in AGI by taking advantage of the provision in the new bylaws of stipulating members. The Society of Mining Engineers will decide the AIME members to be stipulated. AGI dues will be an SME expense.

Some forty-four years ago the ENGINEERING SOCIETIES PERSONNEL SERVICE was established to make it possible for the Founder Societies to better serve its members regarding placement activities. Since that time tax laws have been revised to prevent the Founder Societies from using dues income to subsidize such efforts. Of more

significance is the changing practice of employing engineers. Companies now have extensive personnel departments and use management organizations to hire professional staff. Federal and state governments provide free placement service. The lower volume of placements handled by ESPS has reduced its income. However, ESPS closed its 1962 operations in the black as it did in 1961.

No attempt will be made to mention all of the important projects of the ENGINEERS JOINT COUNCIL. EJC publishes an Annual Report which is available upon request. In addition, EJC publishes a quarterly newspaper sent to members of all its constituent societies totaling in excess of 300,000 engineers. EJC's cost to AIME is 26 cents a member per year. Three activities will be mentioned:

1. The final EJC Nuclear Congress was held in June 1962. This Congress was started by AIChE, following the Korean War, to disseminate the considerable amount of new information available to engineers as a result of the declassification of some phases of nuclear energy and from the considerable amount of research and development work being done at that time. Since then, new nuclear organizations have been formed. Also, the amount of information being developed has decreased. The need for an EJC Nuclear Congress is therefore less.
2. One of EJC's projects resulted in the publication, "The National Engineering Research Needs 1965-1985." The committee that proposed this report, under the chairmanship of J. H. Hollomon, an AIME member and presently Assistant Secretary of Commerce, did a marvelous job of outlining future needs. Efforts will be made by EJC and other organizations to see that these needs are filled.
3. At the 1962 EJC Annual Meeting a symposium was held on information retrieval. This developed into a thesaurus project. A tremendous amount of effort is being made by both EJC staff and hundreds of volunteers in an attempt to develop an engineering thesaurus. In addition, editors of all engineering journals are encouraged to publish abstracts of all technical articles at the time of publication. It is recommended that key words be published in connection with each technical article to permit index services, as well as literature searchers, to find all the articles that have been published in the field they are working and exclude any articles which are not of interest to them. The value of this project, when completed, is obvious to anyone who has tried to keep up with the literature in his field.

The principal activity of ENGINEERS' COUNCIL FOR PROFESSIONAL DEVELOPMENT is the accreditation of engineering curricula, a most important assignment to keep the standards of the profession at a high level. It also does a tremendous job of distributing engineering guidance literature. It publishes an annual printed report which is available for one dollar. The 1962 report is particularly valuable to those interested in the scope and background of ECPD's activities.

In 1962 ECPD decided to incorporate and steps have been taken in this direction. The activities of ECPD cost AIME only 19 cents a member per year.

UNITED ENGINEERING TRUSTEES is a corporation which owns and operates the new United Engineering Center. It operates the ENGINEERING SOCIETIES LIBRARY as a department. The Library is one expense which was less for AIME in 1962, due to the fact that there are more engineering societies in the new Center contributing to its support. Thanks to the help of the modest AIME Douglas Library Endowment Fund the cost to AIME for the Library service is 37 cents a member per year. Another department of the United Engineering Trustees is the ENGINEERING FOUNDATION. This is an appreciable endowment fund, from which income is to be used to benefit the engineering profession, particularly in the research field. Funds from the Engineering Foundation published the before mentioned EJC "Engineering Research Needs" report. It also helps support the JUNIOR ENGINEERING TECHNICAL SOCIETIES (Jets), an organization of high school engineering clubs. During 1962 EF held a conference on "Engineering Properties and Structures of Composite Materials", under the chairmanship of W. J. Harris, Jr., an AIME Director-Elect. It also sponsored the "Research Symposium to Advance Management and Conservation of the Air Resource".

The NATIONAL COUNCIL OF STATE BOARDS OF ENGINEERING EXAMINERS is one of the groups that AIME has recently joined. Their 1962 Annual Meeting considered the possibility of national examinations for the licensing of engineers. National examinations would be of considerable benefit to AIME, since its members are a minority group requesting licensing in many states. As a result, many states cannot afford to give examinations in AIME fields and AIME members are required to take examinations in some of the larger engineering fields in order to register to practice in their own field. AIME has been active during the last two years, and will be active in 1963, in an effort to insure that the Model Law for the licensing of engineers, prepared by NCSBEE, be written so that engineers in AIME fields, particularly those employed by corporations, are not discriminated against. AIME surveyed its entire membership to determine the number of licensed engineers. It developed that 2,891 Petroleum members, 1,879 Mining members, but only 830 Metallurgical members are registered. This may be due to the appreciable proportion of scientists and production personnel belonging to The Metallurgical Society for whom there is no great incentive to be registered.

The NATIONAL SOCIETY OF PROFESSIONAL ENGINEERS has a different federal tax classification than AIME. It is, therefore, able to do some things for the engineering profession that AIME is not permitted to do. However many activities overlap and AIME cooperates with NSPE. In an effort to distinguish between engineering and science, NSPE has issued a brochure which AIME has endorsed and distributed widely among its Student Chapters. Because of the limited number of engineers and the desire to use engineers only in work for which they have been trained, NSPE has established an INSTITUTE FOR THE CERTIFICATION OF ENGINEERING TECHNICIANS. AIME has appointed representatives to this Institute's Advisory Board to make certain that the technicians supporting engineers in its fields are adequately qualified.

Innovations in 1962

As a token of appreciation to Presidents of AIME, who have provided a tremendous amount of personal and company time to serve their profession, AIME now gives each retiring President a sterling silver ash tray, bearing the President's name, his year of presidency and the gold and blue enamel AIME emblem.

The Institute Bylaws prepared in 1956 provided that each Society be responsible for living within its own income, and, further, that 25% of each Society's surplus at the end of the year would accrue to the Institute surplus leaving 75% for the Society. During the year this provision was eliminated from the Bylaws and Societies may retain their entire surplus at the end of the year.

Providing an appropriate method of honoring the twenty-five year members of the Institute has presented a problem. At the Annual Banquet fifty year members are recognized by the score each year. It would be difficult to recognize nationally 350 twenty-five year members attaining that status each year. During 1962 a twenty-five year certificate and a twenty-five year gold lapel pin or tie tack were established with the recommendation that these Awards be made at the Section level. Many Sections have adopted this worthwhile way of recognizing their twenty-five year members. Many other Sections would like to do so if they could finance the Awards for the accumulated backlog of twenty-five year members.

The Metallurgical Society was authorized to establish a one-day registration fee at the Annual Meeting. A \$10 fee for members and nonmembers will be tried for the first time in February 1963.

The Council of Economics is becoming more active and this year published and mailed a newsletter to its 4,000 members. A committee, appointed to study the various functions held in connection with the AIME Annual Meeting, made one recommendation in time to take effect in 1962. The President's State of the Institute Address was given at the Welcoming Luncheon of the Annual Meeting instead of at an All-Institute Session on Tuesday afternoon.

For the year 1962 it was decided to reduce the Reinstatement Fee from \$20 to \$10. The Society of Petroleum Engineers had 146 reinstatements, the Society of Mining Engineers had 67 reinstatements and The Metallurgical Society had 40 reinstatements for a total of 253 exclusive of those requesting special reinstatement within a year. This was only 10% more than the 226 such reinstatements for 1961. The Directors decided that adequate time had not been permitted to publicize the reduced Reinstatement Fee, and it was voted to continue the reduced Fee through the year 1963.

The Society of Petroleum Engineers established ten technical Committees. Unlike AIME's other two Societies, SPE had never had any Divisions nor Technical Committees. Growth both in membership and diversification of interests indicated this need. In the

future a survey will be made to determine the major and multiple interests of SPE members just as has been done periodically to determine the interests of AIME members in the other Society Divisions. The 1962 Dues Bill provided for a recent survey. It had been many years since the previous survey and the table on page 40 of this Report will show sharp changes in a few cases as compared to similar charts in recent years. A new table on page 37 shows the number of members affiliated with each of the Divisions based on this recent survey. A member is permitted only one major technical interest as shown on page 40 but he may belong to as many Divisions as he finds of interest to him. Table 11 indicates that the average Institute member belongs to 1.8 Divisions. Meeting programs and Division news usually appear in the appropriate monthly journals, however, mailings may be made occasionally to the complete Division membership. It will eventually be possible to make mailings to those interested in each of the SPE Technical Committees.

President Elkins appointed an ad hoc Image Committee at the beginning of the year. Reports of the Committee indicate a need to explain the various fields of AIME to the public and the high school student. It is particularly important to explain the continuing need for engineers in AIME's fields and the breadth of training received by such engineers to permit them to go into other engineering fields should this become desirable for an individual at some time in the future. Certain impressions which the public has of engineering need correction. Funds were not available in 1962 to initiate an effective public relations program in this area.

Plans are also in progress (1) to make changes in the Institute's Major Award rules, (2) to provide prizes for Sections to present at High School Science Fairs for outstanding exhibits in AIME fields, and (3) to increase the amount of the national awards for the Student Prize Paper Contest.

Meetings

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

MEETING	PLACE	DATE	ATTEND.
Minnesota Section Annual Mtg.	Duluth	Jan 15-17	960
ISD 4th Mechanical Working Conf.	Chicago	Jan 17	252
AIME Annual Meeting	New York City	Feb 18-22	4500
Symp. on Petr. Econ. & Valuation	Dallas	Mar 15-16	1200
2nd Bien. Drill & Prod. Prac. Conf.	Beaumont, Tex.	Apr 5-6	275
45th Natl. Open Hearth Steel Conf.	Detroit	Apr 9-11	1383
21st Blast Furn. C.O.&R.M. Conf.	Detroit	Apr 9-11	618
IMD Refractory Met. Symposium	Chicago	Apr 12-13	271
Production Research Symposium	Tulsa	Apr 12-13	400
Pacific S.W. Min. Ind. Conf.	San Francisco	Apr 12-14	389
Met. Soc. 16th New Eng. Reg. Conf.	Hartford, Conn.	Apr 26-27	140
Pacific N.W. Reg. Min. & Met. Conf.	Seattle	Apr 26-28	240

MEETING	PLACE	DATE	ATTEND.
5th Bien.Secondary Rec.Symp.	Wichita Falls, Tex.	May 7-8	602
7th Ann.Uranium Symposium	Moab, Utah	May 11-13	400
Production Automation Symposium	Hobbs, N.M.	May 17-18	280
8th Ann.Mtg. Rocky Mt.Pet.Sec.	Billings, Mont.	May 24-25	319
Met.Soc.Research Management Conf.	Harriman, N.Y.	May 27-29	61
Frac.in Cryst.Solids Conf.	Maple Valley, Wash.	Aug 21-24	260
IMD Adv.Electronic Mat.Conf.	Philadelphia	Aug 27-29	367
1st Ann.SME Fall Mtg.	Gatlinburg, Tenn.	Sept 9-12	600
7th Ann.Rocky Mt.Min.Conf.	Butte, Mont.	Sept 19-21	350
Jt.Solid Fuels Conf., AIME-ASME	Pittsburgh	Oct 4-5	213
37th Ann.SPE Fall Mtg.	Los Angeles	Oct 7-10	1836
Met.Soc. Fall Mtg.	New York City	Oct 28-Nov1	1186
Pittsburgh Off-the-Record Mtg.	Pittsburgh	Nov 2	820
Jt.Mtg.C.A.Sec. & W.Va.Coal M.I.	White S.Spgs.W.Va.	Nov 2-3	221
Arizona Section Annual Mtg.	Tucson	Dec 3	650
20th Electric Furnace Conf.	Cincinnati	Dec. 5-7	1020

Bound Volumes Published in 1962

AIME Transactions:

Society of Mining Engineers	- Vol. 220 - 1961
The Metallurgical Society	- Vol. 221 - 1961
Society of Petroleum Engineers	- Vol. 222 - 1961
Blast Furnace, Coke Oven & Raw Materials Proceedings	- Vol. 20 - 1961
Electric Furnace Proceedings	- Vol. 19 - 1961
*Management of Material Research	- Vol. 14
*Metallurgy of Semiconductors	- Vol. 15
*Flat Rolled Products III	- Vol. 16
*Decomposition of Austenite By Diffusional Process	
*Super Conductors	
*Continuous Casting	
*Electric Furnace Steelmaking	
Design, Operation and Practice	- Vol. I
*Direct Observation of Imperfections in Crystals	
*Agglomeration	
50th Anniversary of Froth Flotation	
International Oil & Gas Development	- Vol. 32 - 1961
Part I Exploration	
Part II Production	

*Interscience Publishers Series

Honors and Awards

The following Honors and Awards were presented at the 1962 Annual Meeting held in New York City:

The CHARLES F. RAND MEMORIAL GOLD MEDAL to Robert P. Koenig, "In recognition of his leadership in guiding the expansion of a famous Peruvian mine into an international industrial company with diversified raw materials interests."

The WILLIAM LAWRENCE SAUNDERS GOLD MEDAL to Joseph Hugh Reid, "For keen, analytical, and creative leadership in establishing large-scale, successful operations in industrial mineral deposits, particularly of ilmenite, barite and bentonite clays."

The ANTHONY F. LUCAS GOLD MEDAL to John E. Elliott, "For his contributions to increasing oil and gas recovery by pioneering the means of securing fundamental reservoir data through the design and use of formation core barrels, thereby furthering the technics of analysis and operation of petroleum reservoirs."

The ROBERT H. RICHARDS AWARD to Stanley D. Michaelson, "For achievements in advancing mine plant and metallurgical engineering practice through significant contributions to process development, plant construction, the technical literature, and to education; and for leadership in organization and management of mineral engineering."

The BENJAMIN F. FAIRLESS AWARD to Harold M. Griffith, "A steelmaker, a metallurgist, an operating executive, an engineering leader in basic developments of blast furnace burdening and in open hearth refractory and oxygen practices."

The HAL WILLIAMS HARDINGE AWARD to Ian Campbell, "Eminent scientist, author, educator, and administrator; for his personal warmth, outstanding leadership, and devoted service to the profession."

The MINERAL INDUSTRY EDUCATION AWARD to Edward Steidle, "For his outstanding career as an engineering teacher, a college administrator, a great public servant, and a brave soldier in World War I. In all of these endeavors, at home and abroad, he has been a courageous and inspiring leader."

The DANIEL C. JACKLING AWARD to Gloyd M. Wiles, "For his ability to organize mines, to inspire young men with the spirit of success and a firm belief in careful planning, imaginative research and competent engineering and for his Lecture, 'Mine Management!'"

The J. E. JOHNSON, JR. AWARD to Jagdish C. Agarwal, "For his valuable contribution of a new technique to analyze data obtained by use of blast furnace probes to understand better the complex reactions and conditions in a blast furnace, for his research in fluidized bed reactions and stove limitations, and for his contributions to the technical literature."

The ROSSITER W. RAYMOND MEMORIAL AWARD to Joseph A. Burkhardt for his paper, "Wellbore Pressure Surges Produced by Pipe Movement."

The EXTRACTIVE METALLURGY DIVISION AWARD to George H. Kesler, for his paper, "Factors Affecting the Rate of Deposition of Metals in Thermal Dissociation Processes."

The ROBERT W. HUNT SILVER MEDAL to William M. McKewan, for his paper, "Reduction Kinetics of Magnetite in $H_2 - H_2O - N_2$ Mixtures".

The MATHEWSON GOLD MEDAL to Robert E. Cech for his paper, "The Reduction of Nickel Oxide".

STUDENT PRIZE-PAPER AWARDS in the Graduate Division to: Mihir Boran Roy, University of Oklahoma, for a paper entitled "Micro-Radioautography Technique as Applied to a Study of the Mechanism of Oil Recovery by Water Flooding", entered by the Oklahoma City Section.

Undergraduate Division to: James T. Voss, University of St. Louis, for a paper entitled "Diastrophism and the Localization of Ore-Bearing Solutions", entered by the St. Louis Section; Robert Haverstraw, Carnegie Institute of Technology, for a paper entitled "The Effect of Oxygen on the Evaporation Rate of Copper", entered by the Pittsburgh Section; Myron H. Bond, University of Oklahoma, for a paper entitled "An Analysis of Differential Pressure Sticking of Drill Collars", entered by the Oklahoma City Section.

HOWE MEMORIAL LECTURER - Morris Cohen

INSTITUTE OF METALS LECTURER - Georg V. Kurdjumov

EXTRACTIVE METALLURGY DIVISION LECTURER - Albert John Phillips

LEGION OF HONOR INSIGNIA were conferred upon the following twenty AIME Members: Enoch Albert Barnard, Roderic Crandall, Welton Joseph Crook, James Clifford Farrant, Claude Ferguson, Howells Frechette, Eugene Delos Gardner, George B. Holderer, Ira Beaman Joralemon, Sidney J. Kidder, Charles R. Kuzell, Sam Paul Lindau, Harry Webb Marsh, William John Millard, Percy Allen Seibert, Joseph Theophilus Singewald, Jr., Francis Lester Toy, Frank Carmany Wallower, Emory H. Westlake, and James Peter Williams, Jr.

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

ACID CONVERTER AND BASIC OXYGEN STEEL COMMITTEE AWARD to Robert Durrer.

JOSEPH BECKER AWARD to John D. Price. (First Time)

CHARLES H. HERTY, JR., AWARD to W. O. Philbrook for his 1961 paper, "Process Kinetics of Basic Oxygen Steelmaking". (First Time)

ROBERT LANSING HARDY GOLD MEDAL to George S. Ansell.

IRONMAKING CONFERENCE AWARD to K. R. Haley for his 1961 paper, "Operating Results Using Taconite Pellets on Armco's Middletown Blast Furnace". (First Time Under This Name)

ELECTRIC FURNACE CONFERENCE AWARD presented at the 1962 Conference to J. G. Henzel and J. Keverian for their paper "Ladle Temperature Loss" given at the 1961 Conference. (First Time)

F. B. MCKUNE MEMORIAL AWARD to J. Belkin and P. B. Hunter for their paper, "A Study of the Problem of the Accumulation of Solid Material in Open-Hearth Downtakes and Slag Pockets".

OPEN HEARTH CONFERENCE AWARD to J. P. Orton and T. W. Trumper for their paper, "Aspects of the Relationship Between Hot Top and Mould Design".

LEO F. REINARTZ AIME-NOHC SCHOLARSHIP to Gerald Philip Skalka.

COAL DIVISION AIME SCHOLARSHIPS were awarded to the following students: Donald F. Carlin, D. E. Johnson, William Korb, W. E. Lindquist, Stephen C. Rapchak, George W. Strong.

PERCY W. NICHOLLS AWARD (Joint Award of the Coal Division of the Society of Mining Engineers of AIME and Fuels Division of ASME) to Charles E. Lawall, Society of Mining Engineers, AIME.

JOHN FRANKLIN CARLL AWARD to C. E. Beecher, "In recognition of his pioneering research, which was one of the foundations of modern reservoir engineering, and of his continuing interest and leadership in improving all phases of petroleum production technology".

CEDRIC K. FERGUSON MEDAL to D. G. Russell, for his paper, "Performance of Layered Reservoirs with Crossflow -- Single - Compressible - Fluid Case".

Appreciation

We extend our thanks and appreciation to the thousands of individuals who contribute to the growth of their profession through participation in AIME activities. Membership in itself is of value in promoting the program. Authorship or work on Committees, and Boards is a distinct service. Leadership of Sections, certain Committees, Divisions, Councils, and the three Societies is essential and of major importance in the effectiveness of AIME as the professional engineering society serving the mineral industry.

The contributions of the President of AIME and his Company are tremendous. The special abilities of each President and the particular needs at the time of his Presidency make each man's contribution unique. The foregoing Report best indicates the leadership provided by Lloyd Elkins. That he was handicapped by a broken leg during the early part of his term did not reduce the effectiveness of his efforts. It temporarily reduced his traveling but he was able to visit over twenty Sections, attend several of an increasing number of national meetings and visit our sister society in Australia. He had a wealth of background in AIME, particularly in SPE, and a desire to solve the problem of each of the Societies without injury to another.

Respectfully submitted,

Ernest Kirkendall
General Secretary

AMERICAN INSTITUTE OF MINING, METALLURGICAL AND PETROLEUM

ENGINEERS, INC.

REPORT OF THE TREASURER

FOR

YEAR ENDED DECEMBER 31, 1962

February 13, 1963
New York, N. Y.

Respectfully Submitted

GEORGE I. BRIGDEN
TREASURER

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

BALANCE SHEET

DECEMBER 31, 1962 AND DECEMBER 31, 1961

ASSETS

WORKING FUND

	<u>DECEMBER 31, 1962</u>	<u>DECEMBER 31, 1961</u>
Cash Unappropriated.....	\$ 252,305	\$ 9,913
Cash Interest Bearing Savings A/C	158,582	327,962
Accounts Receivable.....	75,081	91,259
Loan Receivable - U.E.T.....	-	25,000

Inventories:

Publications on hand.....\$	25,301	\$ 22,637	
Postage, Stationery & Supplies	9,768	35,069	\$ 9,570
Equip. Furniture & Fixtures.....	113,703	117,474	32,207
Less: Reserve for Depreciation.	42,778	70,925	113,419
Prepaid Exp., Deferred Charges.	63,558	74,307	34,055
Annual Meeting Deficit.....	-	186	74,307
TOTAL WORKING FUND	\$ 655,520	\$ 594,889	

ENDOWMENT & CUSTODIAN FUNDS

Investments at cost.....\$	2,429,447	\$ 2,428,847	
Furn. & Equip.-D.C. Jackling....	-	44,804	
Cash in Savings Accounts.....	302,518	161,812	2,635,463

PROPERTY FUND

Founder's interest in Real Estate & Other Assets of U.E.T.	265,000	265,000
	<u>\$3,652,485</u>	<u>\$3,495,352</u>

LIABILITIES AND RESERVES

WORKING FUND

Accounts Payable - General.....	136,518	117,547
Nat'l. Science Foundation Grant	2,700	4,400
Life Membership Fund.....	24,060	25,620
Special Fund for Publications..	26,690	26,690
Annual Meeting Surplus Fund....	701	-

Deferred Income, Members Dues:

Received in Advance.....\$	292,305	\$ 311,634	
Other Deferred Credits.....	82,192	63,310	374,944
Surplus beginning of year.....	45,688	41,834	
Unexpended Income.....	9,444	9,423	
Fund Transfers.....	35,222	(5,569)	45,688
TOTAL WORKING FUND	\$ 655,520	\$ 594,889	

ENDOWMENT & CUSTODIAN FUNDS

Endowment Funds.....\$	2,408,168	\$ 2,379,365	
Custodian Funds.....	323,797	256,098	2,635,463

PROPERTY FUND

AIMM portion of contribution from A. Carnegie & Others	265,000	265,000
	<u>\$3,652,485</u>	<u>\$3,495,352</u>

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

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INCOME AND EXPENSE STATEMENT

TWELVE MONTHS ENDING DECEMBER 31, 1962

INCOME:

	<u>MINING</u>	<u>METALS</u>	<u>PETROLEUM</u>	<u>TOTAL</u>
Membership:				
Current dues	\$212,652	\$117,665	\$222,932	\$583,249
New Membership dues	7,688	8,041	11,672	27,401
Entrance Fees	9,548	10,241	15,993	35,782
TOTAL	<u>\$229,888</u>	<u>\$165,947</u>	<u>\$250,597</u>	<u>\$646,432</u>
Publications:				
Monthly Journal Adv.(net)	\$119,466	\$ 79,995	\$176,979	\$406,440
Monthly Journal Sales	10,056	22,170	6,559	38,785
Non-Monthly Journal Adv.	-	-	1,393	1,393
Non-Monthly Journal Sales	10,005	43,171	2,623	55,799
Statistics Volume Sales	-	-	1,077	1,077
Transactions Volume Sales	16,767	20,838	18,413	56,018
Reprint Sales	3,361	17,721	6,668	27,750
Mining Preprint Sales	6,804	-	-	6,804
TOTAL	<u>\$196,459</u>	<u>\$183,895</u>	<u>\$213,712</u>	<u>\$594,066</u>
Other Income:				
Interest & Dividends, Misc.	\$ 3,322	\$ 2,411	\$ 3,758	\$ 9,491
Annual Meeting	3,595	3,907	939	8,441
TOTAL	<u>\$ 6,917</u>	<u>\$ 6,318</u>	<u>\$ 4,697</u>	<u>\$ 17,932</u>
TOTAL INCOME	<u>\$433,264</u>	<u>\$356,160</u>	<u>\$469,006</u>	<u>\$1,258,430</u>

EXPENSES:

Membership and Sections:				
Local Section Student Chapter	\$ 16,236	\$ 12,001	\$ 23,182	\$ 51,419
Society Offices	46,312	44,079	79,629	170,020
Special Membership Activities	2,967	3,279	8,933	15,179
Institute Activities	13,889	13,634	11,234	38,757
Public Relations	4,962	3,571	4,843	13,376
Library Assessment	4,701	3,412	5,319	13,432
TOTAL	<u>\$ 89,067</u>	<u>\$ 79,976</u>	<u>\$133,140</u>	<u>\$302,183</u>
Publications:				
Journal Advertising Exp.	\$ 86,254	\$ 39,655	\$ 86,008	\$211,917
Monthly Jnl.-Prod. & Edit.	102,228	89,215	114,825	306,268
Non-Monthly Jnl.-Adv.	-	-	572	572
Non-Monthly Jnl.-Prod. & Edit.	18,999	63,058	9,540	91,597
Statistics Volume Expense	-	-	1,671	1,671
Transactions Volume Expense	19,129	9,115	19,033	47,277
Reprint Expenses	3,254	10,317	4,511	18,082
Mining Preprint Expenses	9,044	-	-	9,044
Directory	10,323	3,109	7,714	21,146
TOTAL	<u>\$249,231</u>	<u>\$214,469</u>	<u>\$243,874</u>	<u>\$707,574</u>
General and Administrative:				
Secretary's Office - N. Y.	\$ 16,439	\$ 11,932	\$ 18,600	\$ 46,971
Secretary's Office - S. L. C.	13,943	2,874	1	16,818
Business Office	35,653	28,270	33,225	97,148
Pensions & Related Exp.	14,816	10,835	13,711	39,362
EJC & ECPD Assessments	5,678	4,121	6,424	16,223
Provision for Depreciation	4,095	3,021	3,757	10,873
Miscellaneous Expense	6,036	4,381	6,830	17,247
TOTAL	<u>\$ 96,660</u>	<u>\$ 65,434</u>	<u>\$ 82,548</u>	<u>\$244,642</u>
TOTAL EXPENSES	<u>\$434,958</u>	<u>\$359,879</u>	<u>\$459,562</u>	<u>\$1,254,399</u>
Excess (deficiency) of above Income over expense for the year	\$ (1,694)	\$ (3,719)	\$ 9,444	\$ 4,031
Transfer: from H. Krumb Fund	1,694	400	-	2,094
from Metals Res. Pub.	-	3,319	-	3,319
To Society Surplus	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 9,444</u>	<u>\$ 9,444</u>

STATEMENT OF ENDOWMENT & CUSTODIAN FUND BALANCES
FOR THE YEAR ENDED DECEMBER 31, 1962

Balance - January 1, 1962

Endowment Funds

\$2,379,365

Custodian Funds

256,098

\$2,635,463

Receipts And Credits

Cash received from the estate of Walter H. Aldridge

\$ 1,186

Other Cash Contributions

15,418

Net Income from sales of Securities

28,713

Net Income from investments and interest on
savings accounts

114,764

Income from Oil Royalties

4,407

Sales of Books, volumes etc.

50,403

Income from conferences and meetings

85,423

Income from Royalties - Book Publishers

10,487

Mining Society Surplus to Activities Fund

3,292

Sundry Income and Receipts

6,300

320,393

\$2,955,856

Less: Disbursements, expenses etc.

Scholarship awards

\$ 3,025

Other awards, medals, plaques and related expenses

4,853

Publication of books, volumes etc.

32,792

Expenses of conferences and meetings

62,118

New building fund special furnishings for
reception room

5,230

Custodian Funds contributions to New Building Fund

1,833

Sundry expenses and payments

4,134

Transfers:

For business and other office services

11,096

Of Investment income to cover portion of Library
Assessment

4,058

Of Investment income to other income - Dividends
and Interest

1,824

Of Investment income to cover portion of rent
expense

8,547

For Metallurgical Society Services

13,758

To defray a portion of the cost of Salt Lake
City Office

6,000

To institute surplus from D. C. Jackling Building

44,804

Fund of cost of depreciable furniture and equipment

3,319

To cover a portion of 1962 Transactions Expenses

1,694

Excess of Expenses over income - Mining Society

400

Excess of Expenses over income - Metallurgical Society

To other deferred credit for the balance of

appropriation from the Henry Krumb Endowment Fund

14,406

223,891

Balance of fund accounts, December 31, 1962

per balance sheet:

Endowment Fund accounts

\$2,408,168

Custodian Fund accounts

323,797

\$2,731,965

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.

Interest Bearing Savings Account:

Surplus Institute cash invested in a special savings account.

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 1961.

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, and other items paid in 1962 properly chargeable 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. AIME portion of F.I.C.A. taxes payable. 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 for funds to be used to underwrite in part future symposiums.

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, and balance of appropriation from the Henry Krumb Endowment Fund.

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 1962 dues.

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

Entrance Fees - Receipts from men elected to membership in 1962 and partial payments of members elected in previous years.

Publications Sales:

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

Monthly and Non-Monthly Journal Sales - Proceeds from sales of subscriptions and individual sales of current and prior years 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.

OTHER INCOME:

Dividends, Interest and Miscellaneous - Interest of AIME surplus and cash invested. Interest on British Bond held by the Institute and transfer from Hayden Fund

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.

Annual Meeting - Reimbursement to Societies for out of pocket expenses incurred in connection with the Annual Meeting.

EXPENSES

Membership and Sections:

Local Sections Expense - Rebates to local sections and student chapters for members on record on 1/1/62: rebates of entrance fee to local sections during 1962.

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. Direct expenses in connection with the annual meeting have been reimbursed from registration fees.

Publicity - Expenses of AIME and Society publicity and public relations programs.

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

Publications Expenses:

Monthly and Non-Monthly 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.

Monthly and Non-Monthly Journals (Editorial) - Expenses for salaries, rent, travel, office expense, cost of paper and printing of editorial section of Journals.

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

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

Reprint Expenses - Cost of printing reprints (usually in bulk) of papers appearing in monthly Journals, plus applicable salaries.

Mining Preprint Expenses - Costs for printing and distributing SME preprints.

Directory - Cost of printing Society Directories and Directory supplement.

General and Administrative:

Secretary's Office, New York - Salaries, rent, travel and miscellaneous expenses of the Institute Secretary's office and duties delegated to others.

Secretary's Office, Salt Lake - Salaries, rent, travel and office expense of Western Field Secretary in Salt Lake City less \$6,000 appropriation from the Rocky Mountain Fund.

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.

Provision for Depreciation - Depreciation on furniture and fixtures over a ten year period and depreciation on the furnishings purchase in connection with the move into the new building over a fifteen year period.

EJC and ECPD Assessments - Costs of operating Engineers Joint Council and Engineers Council for Professional Development allocated to AIME.

Miscellaneous Expenses - Cost of professional services, exchange on checks, miscellaneous postage and supplies, furniture and fixtures maintenance, hauling mail, rent of space occupied by Boardroom, WA-AIME, Reception area and storage area and insurance such as Workman's Compensation, employee's bond, fire, safe and burglary, etc.

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

1963 Preliminary Budget
AS SUBMITTED BY THREE SOCIETIES

<u>INCOME</u>	<u>MINING</u>	<u>METALS</u>	<u>PETROLEUM</u>	<u>TOTAL</u>
Membership:				
Current Dues	\$213,000	\$155,000	\$227,000	\$ 595,000
New Member dues	9,000	8,000	10,000	27,000
Entrance fees	9,000	9,000	15,000	33,000
TOTAL	<u>\$231,000</u>	<u>\$172,000</u>	<u>\$252,000</u>	<u>\$ 655,000</u>
Publications:				
Monthly Journal Adv. (net)	\$141,000	\$ 84,000	\$172,000	\$ 397,000
Directory Advertising	9,000		6,000	15,000
Monthly Journal Sales	11,500	22,000	7,500	41,000
Non-Monthly Journal Adv.			1,000	1,000
Non-Monthly Journal Sales	12,000	45,000	2,500	59,500
Transactions Volumes Sales	15,000	20,500	17,000	52,500
Reprint Sales	3,000	16,000	4,000	23,000
Mining Preprint Sales	6,000			6,000
TOTAL	<u>\$197,500</u>	<u>\$187,500</u>	<u>\$210,000</u>	<u>\$ 595,000</u>
Other Income:				
Interest and Dividends	\$ 4,500	\$ 3,050	\$ 4,000	\$ 11,550
Annual Meeting Credit	3,600		1,000	4,600
TOTAL	<u>\$ 8,100</u>	<u>\$ 3,050</u>	<u>\$ 5,000</u>	<u>\$ 16,150</u>
TOTAL INCOME	<u>\$436,600</u>	<u>\$362,550</u>	<u>\$467,000</u>	<u>\$1,266,150</u>
<u>EXPENSES</u>				
Membership and Sections:				
Local Section & Student Chapter	\$ 17,500	\$ 13,500	\$ 23,000	\$ 54,000
Society Secretary's Office	47,000	42,744	82,000	171,744
Special Membership Activity	4,000	3,000	9,000	16,000
Institute Activities (2)	12,700	13,000	9,000	34,700
Public Relations	5,000	3,500	5,000	13,500
Library Assessment	5,000	3,400	6,000	14,400
EJC and ECPD Expense (1)	6,000	4,200	6,600	16,800
TOTAL	<u>\$ 97,200</u>	<u>\$ 83,344</u>	<u>\$140,600</u>	<u>\$ 321,144</u>
Publications:				
Journal Advertising Exp.	\$ 89,000	\$ 42,500	\$ 87,000	\$ 218,500
Monthly Journal Prod. & Edit.	105,000	94,900	114,000	313,900
Directory	10,400	500	8,000	18,900
Non-Monthly Journal-Adv. & Exp.			500	500
Non-Monthly Journal-Prod. & Edit.	18,000	70,500	8,000	96,500
Transactions Volumes	10,000	10,500	16,000	36,500
Reprint Expenses	2,500	9,800	2,500	14,800
Mining Preprint Expenses	8,000			8,000
TOTAL	<u>\$242,900</u>	<u>\$228,700</u>	<u>\$236,000</u>	<u>\$ 707,600</u>
General Administrative:				
General Secretary's Office N.Y.(1)	\$ 17,500	\$ 12,800	\$ 20,950	\$ 51,250
Secretary's Office - Salt Lake (3)	13,448	2,449	1	15,898
Business Office (4)	36,600	28,400	34,000	99,000
Pensions & Related	13,500	10,090	12,600	36,190
Provision for Depreciation (1)	4,200	3,319	4,500	12,019
Miscellaneous Expenses (1)	6,000	3,500	6,349	15,849
TOTAL	<u>\$ 91,248</u>	<u>\$ 60,558</u>	<u>\$ 78,400</u>	<u>\$ 230,206</u>
TOTAL EXPENSES	<u>\$431,348</u>	<u>\$372,602</u>	<u>\$455,000</u>	<u>\$1,258,950</u>
From Activities Fund			\$ 3,000	\$ 3,000
From Research Publications Fund		11,000		11,000
INCOME OVER EXPENSES	<u>\$ 5,252</u>	<u>\$ 948</u>	<u>\$ 15,000</u>	<u>\$ 21,200</u>
Available from Krumb Fund	<u>\$ 4,080</u>	<u>\$ 3,791</u>	<u>\$ 6,534</u>	<u>\$ 14,405</u>

NOTES TO A. I. M. E. - 1963 BUDGET

- (1) These items are distributed on the membership rates Percentage existing at the time of billing for 1963 dues. These percentages for 1963 are:

Mining - 34.50% Metals - 26.13% Petroleum - 39.37%

- (2) Institute Activities Expenses are Net after certain items chargeable against Annual Meeting.
The use percentage for 1963 is:

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

- (3) Secretary's Office - Salt Lake City distributed as follows:

Mining - 84.2% Metals - 14.8% Petroleum - \$1.00

- (4) Business Office Expense - allocated 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-two was our first full year of operations in the United Engineering Center. Despite higher rent and other increasing expenses we are proud of our efforts at keeping our costs in line.

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

Membership

The Statistics of gains and losses included in this report detail the areas of increase and loss in all aspects of membership. Although the Corporate gain was healthy, the losses came close to completely wiping out these additions to our corporate strength. Strangely enough, this loss factor ran high in the face of Section attempts in 1962 to reduce the number of members in arrears. The figures are self-evident and need not be belabored. They do present a real challenge to all membership men. A net gain of 69 for 1962 deserves hard thinking on ways and means of combatting this static situation. It is extremely serious when one considers that our major source of revenue is members.

Corporate net gains or losses for the past five years were:

1958	- 1730
1959	- 1312
1960	- 1474
1961	- 484
1962	- 69

The Admissions Committee Report, also contained herein reflects the numbers approved in various grades for the past year.

Meetings continue to be the best source of applications in quantity at the least cost.

Meetings

As has been the case for the past several years, meetings have been self-supporting and in a number of instances have been rewarding to Divisions, Sections and Societies. New meetings coming up in future years are already being given time and attention.

Student Relations

At the instigation of the Board, a fresh approach in Student relationship has been inaugurated. By dividing the country into three areas, the Institute Activities Department has undertaken a program of contact with student members particularly those in the Eastern schools. Mr. Clifford Hicks has been delegated to act as liaison with the western chapters and Mr. Don Williams those in the predominantly petroleum category. Institution of a newsletter, issued every

other month was started in September. The objective is to create a flow of information to and from the Institute's Student Chapters.

Successful returns have occurred in the new field of joint Student Memberships with the ASM.

The Student Prize-Paper Contest was continued in 1962. New plans are afoot which could give a marked increase in interest in this competition.

Plans are also being formulated for aid to Sections sponsoring prizes at Science Fairs.

Council of Section Delegates

Of the six Regional meetings held in 1962, the Co-ordinating Secretary attended five. Each was a fruitful meeting and appears to be well received by the Sections.

Council of Education

The Council has continued its newsletter program and improved its membership interest to some 2400 members. These newsletters are processed through Institute Activities Department.

Council of Economics

In 1962, this Council embarked on a newsletter program which similar to the Council of Education has been processed through Institute Activities Department. Although relatively new, the Chairman has reported a much favored response.

The brevity of the reports above are not a measure of the time, effort and dollars which entailed the services of the five employees in the department.

Respectfully submitted

H. N. Appleton, Manager
Institute Activities Dept.

REPORT
of the
CHAIRMEN OF THE ADMISSIONS COMMITTEES

Applications for new memberships, reinstatements and changes of status, to the number of 3,210, came before the Committees during 1962.

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

The Chairmen gratefully acknowledge the painstaking work of the Committee.

J. S. Fuller Chairman, Adm. Comm. Soc. of Petr. Eng. AIME	J. W. Hanley Chairman, Adm. Comm. The Met. Society AIME	Sanford S. Cole Chairman, Adm. Comm. Soc. of Mining Eng. AIME
--	--	--

Classification of Applications Received and Elections Made by the Admissions Committees

	1961	1962	<u>Mining</u> 1962	<u>Metals</u> 1962	<u>Petr.</u> 1962
New Applications and Reins.:	1,279	1,111	339	333	439
Members	402	376	72	93	211
Associates	567	479	103	115	261
Junior Members	<u>2,248</u>	<u>1,966</u>	<u>514</u>	<u>541</u>	<u>911</u>
Applications for C/S					
Associate Member to Member	493	355	72	59	224
Junior Member to Member	103	43	28	3	12
Student Member to Member	--	--	--	--	--
Junior Member to Assoc. Mbr.	3	--	--	--	--
Student Mbr. to Assoc. Mbr.	1	--	--	--	--
Student Mbr. to Junior Mbr.	2	1	--	--	1
Associate Mbr. to Jr. Mbr.	--	1	--	1	--
Member to Student Member	--	2	1	1	--
Junior to Student Member	--	1	--	1	--
	<u>602</u>	<u>403</u>	<u>101</u>	<u>65</u>	<u>237</u>
Applications for Student Mbrs.	974	841	250	251	340
Grand Total	3,824	3,210	865	857	1,488

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.
345 EAST FORTY-SEVENTH STREET
NEW YORK 17, N. Y.

January 30, 1963

TO THE BOARD OF DIRECTORS OF AIME

The total membership of the Institute stood at 36,294 on January 1, 1963. This was an increase over January 1, 1962 of 293.

The accompanying tables show that there was a good influx of new members but losses practically offset the gains.

To secure any significant net increase in membership, it appears that major emphasis must be placed on reduction of losses through resignation and non-payment of dues. It is also self-evident that there should be no lessening of effort to maintain the same high rate of seeking out new members.

Respectfully submitted

M. D. LaGrange

M. D. LaGrange, Chairman
All-Institute Membership

MDLG:mc

Annual Report on Membership Results
for the Year of 1962

Table No. 1 shows an overall gain in AIME membership of 293. The gain in corporate members of 69 coupled with a Student Member gain of 244 has brought membership slightly above a static level. This is an improvement since a net loss of 744 was sustained at the end of 1961.

Whereas both SME and SPE sustained losses in Student Membership, The Metallurgical Society showed a gain which can be attributed to the new AIME-ASM Joint Membership plan.

Table No. 2 gives the comparison of corporate membership over the past three years.

Subsequent tables show a detailed analysis of various facets of membership.

Table No. 1
MEMBERSHIP GAINS AND LOSSES FOR YEAR 1962

<u>Corporate</u>	<u>Total</u>	<u>Mining</u>	<u>Metals</u>	<u>Petroleum</u>
On record 1/1/62	34,368	12,153	8,601	13,614
<u>Gains:</u>				
Elections & Reinstatements	2,406	637	686	1,083
Changes of Status - Student to Junior	1,203	352	483	369
Less Reversion to Student after Election to Corporate Grade	(451)	(130)	(246)	(75)
TOTAL GAINS	3,159	859	923	1,377
<u>Losses:</u>				
Deaths	278	161	62	55
Resignations	615	213	200	202
Non Payment	1,474	437	272	765
Failure to Accept Election	141	25	30	86
Failure to Accept Change of Status	582	178	155	249
TOTAL LOSSES	3,090	1,014	719	1,357
Net Gain (Loss)	69	(155)	204	20
 Total Corporate Members on Record 1/1/63	 34,437	 11,998	 8,805	 13,634
	<u>Total</u>	<u>Mining</u>	<u>Metals</u>	<u>Petroleum</u>
<u>Students</u>				
On record 1/1/63	1,633	541	567	525
Total Gains	1,300	321	625	354
Total Losses	1,076	338	324	414
Net Gain of (Loss)	224	(17)	301	(60)
 Total Students on Record 1/1/63	 1,857	 524	 868	 465
 Total Membership - 1/1/63	 36,294	 12,522	 9,673	 14,099

Table 2

Corporate Members, AIME

	1960	1961	1962
Total January 1.	33,378	34,852	34,368
Total Gains, 12 Months	4,248	3,524	3,159
Total Losses, 12 Months	2,774	4,008	3,090
Net Gains or Losses	1,474	-484	69
Total Jan. 1 of following year	34,852	34,368	34,437

Table 3

Student Membership, AIME

	1960	1961	1962
Total January 1	2,332	1,893	1,633
Total Gains, 12 Months	1,155	1,355	1,300
Total Losses, 12 Months	1,594	1,615	1,076
Net Gain or Loss, 12 Months	-439	-260	224
Total Jan. 1 of following year	1,893	1,633	1,857

Table 4

Total Corporate and Student Members, AIME

	1960	1961	1962
Total January 1	35,710	36,745	36,001
Total Gains, 12 Months	5,403	4,879	4,459
Total Losses, 12 Months	4,368	5,623	4,166
Net Gain or Loss, 12 Months	1,035	-744	293
Total Jan. 1, of following year	36,745	36,001	36,294

Table 5

Total AIME Membership 1960 through 1962

<u>Classification of Members</u>	<u>1960</u>	<u>1961</u>	<u>1962</u>
Honorary Members	19	19	15
Members	20,843	21,259	21,800
Associate Members	4,596	5,232	5,254
Junior Members	9,372	7,839	7,349
Rocky Mountain Members	22	19	19
Total Corporate Members	34,852	34,368	34,437
Student Members	1,893	1,633	1,857
Total All Members at Year End	36,745	36,001	36,294

Table 6

Summary of Council of Education Membership in
Each Society
From IBM Member Cards
December 31, 1962

<u>Council of Education of AIME</u>	
Society of Mining Engineers of AIME	81
The Metallurgical Society of AIME	24
Society of Petroleum Engineers of AIME	12
Total	117

Table 7

Summary of Council of Economics Membership in
Each Society
From IBM Member Cards
December 31, 1962

<u>Council of Economics of AIME</u>	
Society of Mining Engineers of AIME	206
The Metallurgical Society of AIME	56
Society of Petroleum Engineers of AIME	30
Total	292

Table 8

Summary of Society Membership in AIME
From IBM Member Cards
December 31, 1962

<u>Society of Mining Engineers of AIME</u>		
Mining & Exploration Division	6,546	
Minerals Beneficiation Division	2,136	
Coal Division	1,391	
Industrial Minerals Division	639	
Council of Education	81	
Council of Economics	206	
Unclassified	999	
Total Corporate Members	11,998	
Student Members	524	
Total Corporate & Student Members	12,522	(34.5%)
<u>The Metallurgical Society of AIME</u>		
Iron & Steel Division	3,073	
Extractive Metallurgy Division	1,346	
Institute of Metals Division	3,459	
Council of Education	24	
Council of Economics	56	
Unclassified	847	
Total Corporate Members	8,805	
Student Members	868	
Total Corporate & Student Members	9,673	(26.7%)
<u>Society of Petroleum Engineers of AIME</u>		
Petroleum	13,592	
Council of Education	12	
Council of Economics	30	
Total Corporate & Student Members	13,634	
Student Members	465	
Total Corporate & Student Members	14,099	(38.8%)
AIME Total Corporate Members	34,437	
AIME Total Student Members	1,857	
AIME Total Corporate & Student Members	36,294	

Table 9

Distribution of Members in Societies
During Last Decade as Approximate Percentage

Date	Mining Members %	Metallurgical Members %	Petroleum Members %
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
December 31, 1961	35.3	25.4	39.3
December 31, 1962	34.5	26.7	38.8

Table 10

Membership as of January 1, 1963

	<u>SME</u>	<u>TMS</u>	<u>SPE</u>	<u>TOTAL</u>
Honorary	5	6	4	15
Members	8,507	5,481	7,812	21,800
Associates	1,737	1,477	2,040	5,254
Juniors	1,730	1,841	3,778	7,349
Rocky Mtn.	19	-	-	19
TOTAL	11,998	8,805	13,634	34,437
Students	524	868	465	1,857
Grand Total	12,522	9,673	14,099	36,294

Table 11

ANALYSIS OF MEMBERSHIP BY DIVISIONAL INTERESTS

DECEMBER 31, 1962

On the 1962 dues statement every member was requested to re-state his one major technical interest as well as all of his desired Divisional affiliations.

Table No. 14 includes a breakdown of the entire membership according to each member's major technical interest.

The following table gives a breakdown of the membership according to their Divisional affiliations by Societies.

The average member belongs to 1.8 Divisions.

	<u>Mining</u>	<u>Metals</u>	<u>Petroleum</u>	<u>AIME Total</u>
A- Mining and Exploration	8,405	711	1,874	11,050
B- Minerals Beneficiation	4,817	1,146	130	6,093
C- Iron and Steel	1,347	4,762	249	6,358
D- Extractive Metallurgy	1,793	2,859	138	4,790
E- Institute of Metals	532	5,283	273	6,088
F- Coal	2,486	309	93	2,888
G- Petroleum	845	218	12,294	13,357
H- Industrial Minerals	4,038	514	388	4,940
J- Council of Education	928	759	739	2,426
K- Council of Economics	<u>2,074</u>	<u>702</u>	<u>635</u>	<u>3,411</u>
	27,265	17,323	16,813	61,401

Table 12
Membership Data

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

1871 to 1962					
<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
		1961	34,368	1,633	36,001
		1962	34,437	1,857	36,294

December 31, 1962

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Table 13

An analysis of the length of membership held by those who dropped owing 1962 dues is tabulated.

Year of Election				
Prior to 1953				
1953	123	41	65	229
1954	28	11	32	71
1955	14	19	29	62
1956	32	17	39	88
1957	33	23	75	131
1958	36	20	80	136
1959	39	23	107	169
1960	45	45	107	197
1961	64	49	148	261
	23	24	83	130
	<u>437</u>	<u>272</u>	<u>765</u>	<u>1474</u>
SME				
Met. Soc.				
SPE				
Total				

Membership Contest - All AIME Sections
January 1 to December 31 Inclusive

Name of Section	Base	Jan-Dec.	Percent
<u>Group A-00-99</u>			
Alaska	42	2	.045
Arkansas	61	3	.049
Black Hills	74	3	.040
California Coastal	86	11	.128
Carlsbad Potash	61	6	.098
Coastal Bend	48	4	.083
East Venezuela	90	7	.078
Great Bend	73	15	.205
Lone Star Met.	41	5	.122
Netherlands	91	7	.077
Northern Oklahoma	98	7	.071
Philippine	73	13	.178
Richmond	70	6	.095
Roswell	73	3	.041
Saudi Arabia	75	14	.187
Snyder	54	2	.037
South Plains	84	5	.060
Southeastern Alaska	77	3	.039
Southeastern New Mexico	54	2	.037
Tri State	59	1	.077
Upper Mississippi	40	3	.075
Uranium	66	6	.091
Utah Coal	67	3	.045
Williston Basin	58	6	.103
TOTAL	1615	137	
<u>Group B-100-199</u>			
Adirondack	135	6	.044
Balcones	149	11	.074
Billings Petroleum	100	11	.110
Caracas	169	10	.059
Carolinas	110	13	.118
Colorado Plateau	186	6	.032
CIM-AIME Edmonton	132	11	.083
El Paso	180	8	.044
East Tennessee	160	14	.088
Four Corners	121	12	.099
Anadarko	117	11	.094
Kansas	186	16	.086
Hudson Mohawk	191	3	.016
Panhandle	193	19	.098
Texas Coast Min. & Met.	141	15	.106
Upper Peninsula	199	13	.065
West Central Texas	137	15	.109
West. Venezuela	191	9	.047
Wisconsin	155	15	.097
Oregon	159	10	.063
Wyoming Min. & Met.	103	12	.116
TOTAL	3214	240	

Following were approved as Sections after January 1 and are not eligible for contest.
 Utah Basin
 Big Horn
 Northern Plains
 Bartlesville

<u>Name Of Section</u>	<u>Base</u>	<u>Jan.-Dec.</u>	<u>Percent</u>
<u>Group C-200-299</u>			
Appalachian Petroleum	213	16	.075
CIM-AIME Calgary	272	8	.029
Central New Mexico	236	21	.093
Connecticut	275	26	.095
East Texas	213	16	.075
Florida	268	10	.037
Fort Worth	205	6	.029
Illinois Basin Petroleum	293	20	.068
Lou-Ark	230	6	.026
Montana	239	13	.054
Nevada	257	8	.031
Niagara Frontier	242	15	.062
Mississippi	204	21	.102
Hobbs	202	53	.262
North Texas	222	47	.212
North Pacific	286	11	.038
Penn-Anthracite	221	9	.041
Peru	253	19	.075
Spindletop	224	21	.094
Mexico	222	14	.063
Wyoming Petroleum	239	13	.054
San Joaquin	291	35	.120
TOTAL	5307	408	

Group D-300-599

Boston	397	23	.058
Central Appalachian	378	35	.093
Colorado	558	22	.039
Columbia	314	13	.041
Delta	582	53	.091
Denver Petroleum	389	20	.051
Detroit	447	49	.110
Evangeline	365	15	.041
Lehigh Valley	322	9	.028
Minnesota	520	22	.042
Ohio Valley	421	36	.086
Oklahoma	445	33	.074
Philadelphia	511	29	.057
New York Petroleum	341	26	.076
St. Louis	567	49	.086
Southeast	366	33	.090
Southwest Texas	460	64	.139
Washington, D.C.	521	23	.044
TOTAL	7904	554	

Group E-600-& over

Arizona	795	43	.054
Chicago	1133	72	.064
Cleveland	632	55	.087
Dallas	820	50	.061
Gulf Coast	1693	80	.047
Los Angeles Basin	619	56	.090
Mid Continent	805	55	.068
New York	1775	107	.060
Permian Basin	781	64	.081
Pittsburgh	1821	133	.073
Southern California	652	22	.034
San Francisco	1054	38	.036
Utah	654	20	.031
TOTAL	13234	795	
OUT OF SECTION	3094	243	

1962 AIME Student Chapter Contest

<u>University</u>	<u>Base</u>	<u>Jan.-Dec.</u>
<u>Group A-60 and above</u>		
Colorado School of Mines (Min. & Met.)	62	56
Missouri School of Mines	121	61
Montana School of Mines	126	44
<u>Group B-40-59</u>		
University of Arizona	40	41
Louisiana State Univeristy	43	18
Michigan College of Mines & Tech.	43	13
Penn. State University	51	35
University of Texas	45	29
<u>Group C-20-39</u>		
University of California	20	10
Colorado School of Mines (Petr.)	24	37
University of Houston	20	11
University of Illinois	25	20
Mass. Inst. of Tech.	31	39
University of Michigan	27	30
University of Nevada	21	6
New Mexico Inst. of M. & T.	24	30
Stanford University	30	16
South Dakota School of Mines	29	18
A & M College of Texas	28	1
Texas Western	19	9
University of Utah	28	9
University of Washington	12	3
University of Wisconsin	21	6
Carnegie Inst. of Tech.	31	11
University of Minnesota	31	13

Group D-10-19

University of Alabama	17	29
University of Alaska	10	9
Case Institute	13	23
Columbia University	14	11
Lafayette	11	34
Marietta College	16	6
New York University	13	20
Ohio State University	12	9
Oklahoma State	12	8
University of Oklahoma	28	22
University of Pittsburgh	12	1
Poly. Inst. of Brooklyn	17	22
University of Pittsburgh	12	1
Purdue University	12	35
University of Southern California	11	12
S. W. Louisiana Institute	10	10
A & M. College of Texas	34	1
Texas A & I	15	44
Texas Tech College	19	14
University of Tulsa	19	23
University of Washington	21	12
Washington University	12	3
West Virginia	16	5
Wisc. Inst. of Tech.	13	3
University of Wyoming	17	23

Group E-10 and under

City College of New York	9	15
Cornell University	8	13
University of Idaho	9	8
Illinois Institute of Tech.	5	18
University of Kansas	9	8
Lehigh University	4	6
Louisiana Poly. Tech.	9	6
N. Car. State College of A & E	1	1
Univ. of N. Dakota	4	--
University of Oregon	9	5
University of Pennsylvania	7	10
Va. Poly. Inst.	7	9
Syracuse University	5	10
Washington State College	4	13
Wayne	7	2
Yale University	5	3

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 . 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" - Great Bend	Charles H. Peterson
Group "B" - Carolinas	R. B. Laine
Group "C" - Hobbs	Andrew E. Snyder
Group "D" - Southwest Texas	Robert L. Johnson, Jr.
Group "E" - Los Angeles Basin	Herman E. Schaller

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

<u>Section</u>	<u>Membership Chairman</u>
Group "A" - Great Bend	Charles H. Peterson
Group "B" - Panhandle	Harold L. Binlawley
Group "C" - Hobbs	Andrew E. Snyder
Group "D" - Southwest Texas	Robert L. Johnson, Jr.
Group "E" - Pittsburgh	F. D. Delve

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

AIME Student Chapter Contest

The Chapter at Missouri School of Mines submitted 61 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 .

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

Montana School of Mines
University of Arizona
Texas College of A & I
Colorado School of Mines
Massachusetts Institute of Technology

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

REPORT

of the

WESTERN FIELD SECRETARY

To provide a geographically appropriate medium of communication, liaison and coordination for the widespread and growing Western Sections and Student Chapters, the AIME maintains a Western Field Office at 707 Newhouse Building, Salt Lake City, Utah. This office is staffed by the Western Field Secretary and a stenographer. It is the intent of the Secretary to offer the manifold services of AIME to members residing in the West with a maximum of personal contact and individual attention. So that the functions of the office could be carried out in that spirit during 1962, visits were made to 29 Sections, Subsections and Student Chapters and 14 major conferences plus AIME and Society Boards of Directors and meetings of Regional Councils of Section Delegates. Realizing the importance of a close relationship between an individual member and the officers who represent him, arrangements were made for the attendance of Institute and Society Officers at 29 meetings during the year.

Sections and Subsections Visited During 1962 by C. J. Hicks

1. Arizona Section
2. Arkansas Section
3. Black Hills Section
4. Carlsbad Potash Section
5. Central New Mexico Section
6. Colorado Plateau Section
7. Colorado Section (2)
8. Eastern Nevada Subsection
9. El Paso Section
10. Mexico Section
11. Minnesota Section
12. Montana Section (2)
13. Nevada Section
14. North Pacific Section
15. Oregon Section
16. San Francisco Section
17. Snake River Subsection (2)
18. Southern Nevada Subsection
19. Tri-State Section
20. Upper Mississippi Valley Section
21. Uranium Section
22. Utah Section (5)
23. Utah Coal Section (2)
24. Wyoming Mining and Metals Section

Conference Assistance

The Western Field Office directly assisted in the planning and execution of six major Western Mineral Conferences held during 1962 and acted in an advisory capacity for many others.

Meetings and Conferences Attended by C. J. Hicks in 1962

1. 23rd Annual Mining Symposium
University of Minnesota Extension Service, Duluth, Minn.
2. Annual Meeting, AIME, New York, New York
Including: Committee of Region Representatives
TMS Board of Directors
SME Board of Directors
AIME Board of Directors
Institute Annual Business Meeting
3. Mexican Society of Petroleum Geologists
Mexico, D. F.
4. Pacific Southwest Mineral Industry Conference
San Francisco, California
5. Northwest Region Council of Section Delegates
Seattle, Washington
6. Pacific Northwest Metals and Minerals Conference
Seattle, Washington
7. Seventh Annual Uranium Symposium
Moab, Utah
8. SME Coal Division Field Meeting
Price, Utah
9. June Board Meetings, New York, New York
Including: TMS Board of Directors
AIME Board of Directors
10. ASCE Chapter Meeting
Cedar City, Utah
11. International Conference on Fracture in Crystalline Solids
Maple Valley, Washington
12. Fall Meeting SME, Gatlinburg, Tennessee
Including: Southeast Region Council of Section Delegates
SME Board of Directors
AIME Board of Directors
13. Rocky Mountain Minerals Conference
Butte, Montana
14. New Mexico Mining Association
Grants, New Mexico

Monthly Report

A comprehensive monthly report of the activities and plans of the Western Field Office was submitted to the General Secretary with copies to the three Society Secretaries. Included in these reports were comments believed worthy of staff attention gained from correspondence and conversation. These reports will be continued during the coming year.

Student Members

Contact with Student Members awarded degrees from 22 Western Mineral Engineering Schools was maintained in 1962. Two hundred forty-seven cards requesting new mailing addresses and employers were mailed and 146 returned. Follow-up letters

informing each of these men of his appropriate Section and its officers were sent with copies to the involved Section Chairman and Secretary and the New York office. The purpose of this action is to smooth the critical transition between Student Membership and active participation in Section affairs.

A program designed to help students of mineral engineering obtain temporary summer employment was continued by this office. One hundred seventy-three corporations received employment questionnaires requesting information regarding their student employee requirements for the summer of 1962. One hundred ninety job openings were reported simultaneously to 22 Western Colleges of Mineral Engineering. Plans are to continue this service in 1963.

Student Chapters Visited During 1962 by C. J. Hicks

1. University of Arizona
Tucson, Arizona
2. Colorado School of Mines
Golden, Colorado
3. Montana School of Mines
Butte, Montana
4. South Dakota School of Mines & Technology
Rapid City, South Dakota
5. University of Utah
Salt Lake City, Utah

Membership

In addition to supplying routine aids to 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 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.

Newsletters

"The Western Miner and Metallurgist", a periodic newsletter emanating from the Western Field Office, was implemented during the year and distributed to all Western Sections, Subsections and Student Chapters whose interests are primarily mining and/or metallurgy. Various aids in programming, membership and attendance stimulation and other items and ideas of interest were published. A similar newsletter of specific interest to students of mining, metallurgical or geological engineering will be sent in 1963 to Student Members of the

Institute attending 21 Western Colleges.

Plans for 1963

Plans are to continue and expand all aforementioned services and functions.

Sincerest thanks are offered to the many Institute members whose helpful comments, willing cooperation and warm hospitality made 1962 a successful and rewarding year.

Respectfully submitted,

CLIFFORD J. HICKS

Western Field Secretary, AIME

REPORT

of the

SECRETARY OF THE SOCIETY OF PETROLEUM ENGINEERS OF AIME

Publications: Journal of Petroleum Technology

A total of 1358 editorial pages were published in the Society's journals during the year, with 956 of these appearing in Journal of Petroleum Technology. This was the largest in our history, comparing to 829 editorial pages in Journal of Petroleum Technology in 1961, 855 in 1960 and 820 in 1959.

Net income from advertising in the monthly magazine and in the 1962 Membership Directory was \$176,979, an increase of approximately 10 per cent over the 1961 total.

Publications: Society of Petroleum Engineers Journal

This new quarterly publication was started in 1961, and during that year 318 editorial pages were published. In 1962, 390 editorial pages were printed while interest in and circulation of the publication continued to grow. The total circulation for the December, 1962 issue was 2510.

The journal is sent free of charge to all SPE-AIME members who request it. Total production expense for the quarterly during 1961 was \$9,615. Income from sale of advertising and subscriptions amount to \$4,008.

Publications: Transactions

Transactions Volume 225, to be available on March 1, 1963, will contain 720 pages. This again is the largest volume ever issued by SPE, compared with 672 pages in Volume 222 and 448 in Volume 219. The continual increase in the number of pages has been brought about by the larger number of papers which now can be published through Society of Petroleum Engineers Journal.

Two new Transactions reprint booklets were published during 1962: No. 4--Field Case Histories, Oil Reservoirs and No. 5--Well Completions. Net income for the year from all Transactions reprint booklets was \$3,581. Net income to the Society Activities Fund during 1962 from sale of reprinted Petroleum Transactions volumes (1925-1953) was \$508.

Publications: Commercial

SPE continued to sell to members at reduced prices books printed by commercial publishers. The gross income from this activity was \$16,920. The net income to SPE was \$2,792.

Publications: Society Membership Directory

For the third year the SPE Membership Directory was issued in July as a separate publication, rather than being published as a part of Journal of Petroleum Technology. Twenty-five hundred copies of the 165-page directory were printed and distributed. Directory advertising income was \$6,059; production expenses were \$7,295, which included advertising sales expenses.

Publications: Special

Sales continued for SPE's two recently published books. Income from Antitrust Laws et al vs. Unit Operations of Oil or Gas Pools was \$391. Income from Elements of Petroleum Reservoirs amounted to \$1,254.

Meetings

The 37th Annual Fall Meeting of the Society was held in Los Angeles on October 7-10, with a total attendance of 1836 persons--1449 men and 387 ladies. Sixty-three technical papers were presented.

A new plan was inaugurated in 1962 of having the meeting conducted jointly by all sections in SPE Region I instead of one section serving as host for the meeting. This system worked well, with no major problems, and it is now planned to conduct future fall meetings on a similar regional basis, with the SPE regional director serving as general chairman for the meeting.

SPE regional meetings were held in the following cities, with attendance as indicated: Dallas - 1200, Beaumont - 275, Tulsa - 400, Wichita Falls - 602, Hobbs, New Mexico - 280, and Billings, Montana - 319. A total of 95 technical papers were presented at these meetings.

Membership

New membership applications received by the Society in 1962 numbered 950, as compared with 1121 last year. Although efforts to reclaim delinquent members showed good results, the Society still lost some 765 members through non-payment of dues, and 592 for other reasons, resulting in a net membership growth of 20. Society membership on January 1, 1963 was as follows:

Members	7,816
Associate Members	2,040
Junior Members	3,778
Student Members	465
TOTAL	14,099

The following sections were winners in the SPE membership contest:

	<u>Per cent Increase</u>
Group A: Coastal Bend Section	16.67
Group B: Edmonton CIM-AIME Section	14.05
Group C: North Texas Section	31.94
Group D: Southwest Texas	15.65
Group E: Bartlesville	5.77

Section Development

Six new sections predominantly petroleum in membership were established during 1962. Three of these--East Kentucky, Big Horn Basin, and Uintah Basin--had previously operated as subsections and achieved full section status during the year. The Bartlesville Section, Northern Plains Section, and Ohio Petroleum Section were formed as completely new organizations. The Sumatra Petroleum Section was dis-established by action of the AIME Board of Directors because the membership had dropped below the minimum of 25 required for a section. As of January 1, 1963 the Society had 50 sections and three subsections.

Section Visitation

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

Bartlesville	Fort Worth	Northern Plains
Big Horn Basin	Four Corners	Permian Basin
Billings	Great Bend	Pittsburgh Subsection
California Coastal	Gulf Coast	Southwest Texas
Caracas	Hobbs	Spindletop
Coastal Bend	Los Angeles Basin	Uintah Basin
Dallas	Lou-Ark	West Central Texas
Denver	Mid-Continent	Western Venezuela
East Texas	North Texas	Williston Basin
Eastern Venezuela	Northern Oklahoma	Wyoming

Finance

Society income from membership dues and fees, publication sales, and miscellaneous in 1962 was \$469,006, compared with \$454,511 in 1961.

Awards

The John Franklin Carll Award was presented to Mr. Charles Edward Beecher of Bartlesville, Oklahoma, and the Cedric K. Ferguson Medal was awarded to Mr. Donald G. Russell of Houston, with a certificate to Michael Prats. The Society Certificate of Service was presented to Mr. Ernest K. Parks and, posthumously, to Mr. James R. Welsh.

In addition to these major awards, the Society established two new awards in 1962--one to recognize those who have served as SPE Distinguished Lecturers and the other for those who have secured 50 or more new members for the Society. Recipients of the Distinguished Lecturer plaque in 1962 were Messrs. Jan J. Arps, J. E. Brantly, Edwin O. Bennett, John C. Calhoun, Jr., Donald L. Katz, Herbert C. Otis, Albert C. Rubel, Maurice P. Tixier, and M. R. J. Wyllie.

Members who earned the 50-Member award were Messrs. Pat J. Broussard, Phillip G. Cook, Ray M. Dost, E. H. Furrey, Jr., Wallace B. Johnson, Harry J. Krebs, Fred E. Merliss, Frank Perkins, Jr., Rex L. Radcliffe, E. J. Anderson, R. J. Bethancourt, R. D. Cocanower, G. P. Cokinos, H. Edison Ellis, Jr., M. Scott Kraemer, Robert Moscrip III, and Morris Seydell.

Special Activities

One of the most significant developments of 1962 was the establishment of ten new technical committees to solicit papers and handle programming in the following fields: Drilling and Well Completion, Education and Professionalism, Economics and Evaluation, Formation Evaluation, Gas Technology, Geological Engineering and Ground Water Hydrology, Management and General Interest, Production Operations and Engineering, Reservoir Engineering, and Fluid Mechanics and Oil Recovery Processes. Purpose of the new committee structure is to create better balance in programming and publications, as well as to strengthen areas of technology which have not received sufficient emphasis.

The Distinguished Lecturer program initiated in 1961 continued to be very popular with the sections, and arrangements are being made to continue the program for 1963-64. Lecturers serving from September, 1962 through May, 1963 are Messrs. Folkert Brons, James Terry Duce, Claude R. Hocott, Herman H. Kavalier, C. V. Millikan, Morris Muskat, and Fred Poettmann.

The Society of Petroleum Engineers enjoyed a most successful year in 1962 under the leadership of President Richard A. Morse, and on behalf of the membership and staff we express our formal thanks to him.

Respectfully submitted,

JOE B. ALFORD

Executive Secretary, SPE

REPORT

of the

Secretary, Society of Mining Engineers

This report covers the period from February, 1962 through February, 1963. This was a year of several "firsts" and one "last". Among the "firsts" were: first issue of Transactions of Society of Mining Engineers of AIME, a quarterly publication; first of a series of Annual SME Fall Meetings; first year of operation of the SME Planning Committee. The lone "last" was the 25th Anniversary Meeting of the Joint Solid Fuels Conference - of all of these more later.

PUBLICATIONS

Transactions of SME of AIME

As mentioned above, 1962 saw the beginning of a new SME periodical - The Transactions of the Society of Mining Engineers of AIME, known as the Transactions Quarterly, for short. From its very first issue in March this magazine filled a long felt need to distribute the information contained in accepted Transactions papers as soon as possible after Committee approval. In its four issues were published 72 approved Transactions quality papers - a total of 446 pages. The quarterly has a subscription list of about 1100. We believe it will continue to grow. What is also encouraging is that not many subscriptions to the quarterly have resulted in cancellations of standing orders for the bound volume.

AIME Transactions Volume - Mining

All the papers published in the quarterly, plus pertinent discussion and an index, have been bound together in Volume 223 which will be distributed shortly. Volume 220 was mailed shortly after the 1962 Annual Meeting. Volume 223 has now been mailed to most of those who ordered it.

MINING ENGINEERING

The Society's monthly magazine had a good year. Budgetary requirements forced a cut back in editorial pages. In spite of this MINING ENGINEERING carried more pages of up-to-date feature articles than even the biggest of the magazines in the mining field. Although almost all other magazines in the field lost ground again in the sale of advertising pages, MINING ENGINEERING carried more display advertising in 1962 than in 1961. A special issue on Africa, December 1962, was timely, authoritative and occasioned a great deal of favorable comment among the members and others.

Froth Flotation - 50th Anniversary Volume

This valuable reference book - growing out of the 50th Anniversary Celebration of the Introduction of Froth Flotation in the U.S.A. was mailed to subscribers in late November. The meeting was sponsored by SME's Minerals Beneficiation Division. The Colorado Section, AIME, was host to the occasion in Denver. Chairman of the Editorial Committee was Dr. D. W. Fuerstenau. He, his Committee, the SME Publications Staff and the authors deserve the hearty thanks of every SME member. The Rocky Mountain Club Fund, which underwrote the expense of producing this book, also should be thanked. Without the vote of confidence of the Committee, headed by Mr. Philip Kraft, it would have been impossible even to start on the venture.

SME Preprint Program

This venture continues to flourish. In 1962, 149 papers were preprinted, compared to 106 in 1961. More than 40,634 copies of these papers were distributed during the year and hundreds of requests for papers could not be honored because supplies of some of the papers were exhausted. Where unusual interest in any paper is evident, every effort is made to fit it into the publication schedule of MINING ENGINEERING magazine as soon as possible.

Editorial Director, John V. Beall; Managing Editor, Paul C. Merrit and Production Manager, Marianne Snedeker and their staffs are to be congratulated on the way they are handling a difficult job. They are getting the most out at the lowest cost consistent with quality.

FINANCIAL

In 1962 the Society of Mining Engineers operated on a planned deficit budget. It ended the year with a deficit, met by a grant from the Henry Krumb Fund, of \$1,694. Total income for 1962 was \$433,382 as compared to \$421,579 in 1961. Total expenses were \$434,958 as compared to \$420,544 in 1961.

Publications use about 56% of each dollar of Income but the table below shows that each year since 1961 fewer dues dollars are going into support of the Publications Department.

Publications	<u>1961</u>	<u>1962</u>	<u>1963*</u>
Income	\$179,243	\$196,577	\$197,500
Expense	<u>246,349</u>	<u>249,231</u>	<u>242,900</u>
Net Cost	\$ 67,106	\$ 52,654	\$ 45,400
Per Member	\$5.30	\$4.15	\$3.62
Members(rounded Off)	12,700	12,500	12,500
* Estimated			

Cut back in the amount of dues support of publications has been forced by the gradual rise in other items such as support of EJC and ECPD; operation of Salt Lake City office; Council of Section Delegates; Public Relations efforts; Business Office activities, etc.

MEMBERSHIP

Superficially 1962 was a disappointing year for SME in this area. Officially we suffered a 155 man net loss of members. This figure does not truly reflect the 1026 applications for membership acted upon by the Admissions Committee nor the 859 members who accepted election before the end of the year. It doesn't show that 222 Student Members accepted Junior Member status nor that there were 205 new mining student members who joined AIME for the first time in 1962.

These figures all attest to the efforts made by Staff, the Society Officers, the Division membership committees, and the AIME Section membership people and Student Chapter sponsors.

Our loss of 1014 members can be tabulated thus:

Resigned in Good Standing	213
Dropped for non-payment of dues	437
Failure to accept Change of Status	178
Failure to accept election	25
Deaths	161

With death we cannot argue. The SME membership is older than that of TMS or SPE. They, incidentally, lost 62 and 55 members respectively through deaths.

Those who resigned in good standing did so for good and sufficient reasons. Every effort was made to get these members to stay in with some success. Chief reason here seems to be retirement with reduced income, plus loss of interest in the industry.

Failure to accept change of status is the next largest cause of loss. Much of this is due to the fact that we cannot discover a good address for the Students who graduate and leave no forwarding address.

Biggest loss, of course, comes from the members who are dropped for nonpayment of dues. Each one of these has been subjected to at least ten attempts to get him to pay. A recent survey by the Business Office disclosed that of the 437 dropped for nonpayment of dues, 5% were members of 2 years standing; 15% had been members for 3 years; 10% for 4 years; 9% for 5 years; 33% for 6-10 years and 28% for more than ten years. Here again it seems to me that it is the older group where most of our losses

occur. It has been my experience that many of the older members believe all they need do to resign is to stop paying dues. It does get them off the roster but doesn't give us a true picture of why they didn't pay their dues nor an opportunity to try another approach.

Some other interesting facts about AIME grew out of the survey run as part of the 1962 dues bill. The Business Office prepared an Analysis of Membership by Divisional Interests. On December 1, 1962 this showed that Members of SME and the other Societies were interested in SME Divisions as shown below:

DIVISION	SME	TMS	SPE	TOTAL
M & E	8405	771	1874	11,050
MBD	4817	1146	130	6,093
Coal	2486	309	93	2,888
IndMD	4038	514	388	4,940

SME Members also indicated interest in other Society activities as follows:

	<u>Met Soc.</u>
Iron and Steel	1347
EMD	1793
Inst. of Metals	532

Petroleum

845

In short, the average SME Member is interested in two or more divisions regardless of Society. Also, 2740 members of Met. Soc. and 2485 members of SPE wish to be affiliated with Divisions of SME.

MEETINGS

Principal point of interest in this area in 1962 was the SME Fall Meeting at Gatlinburg, Tennessee. Host to the meeting that attracted 600 mining men and their ladies from all over the country was the East Tennessee Section. Chairman of the Section, Deane F. Kent and General Chairman of the meeting, Joe Miller, were indefatigable in their own efforts to make the meeting a success. So, too, was every man on every committee. The result was an extremely successful meeting from every standpoint.

In the introduction to this report the 25th Joint Solid Fuels Conference was referred to as a "last." It was a successful meeting from every standpoint in attendance of 213, quality of papers presented and spirit of those who came. Honorary Chairman of the meeting was Mr. J. B. Morrow who was Chairman of the first Joint Solid Fuels Conference. Mr. Earl Shoub was actual Chairman of the meeting. The Pittsburgh Section, ASME and Pittsburgh Section, AIME were hosts.

This year (1963) there will be no Joint Solid Fuels Conference, as such. Instead, as a one year experiment, the work of the Joint Solid Fuels Conference will be carried on at the National Power Conference. It is felt that this meeting, or a similar one, will better provide a forum in which to air the mutual problems of the producers and users of coal.

SME members and staff participated in ten major Society and AIME meetings during 1962. In addition, staff members traveled as far as Africa in one direction and to California in the other. They visited 24 AIME Sections and Student Chapters. Our Editorial Director visited many of the major mines in Africa. Our Managing Editor visited uranium mines and mills in Utah, Colorado and New Mexico; asbestos properties in California and zinc mines in Tennessee. All to gather news and stories for MINING ENGINEERING magazine.

AWARDS

At the 1962 Annual Meeting and during the year the SME members received the awards listed below:

Agarwal, J.C.	J. E. Johnson, Jr. Award
Campbell, I.	H. W. Hardinge Award
Koenig, R.P.	C. F. Rand Gold Medal
Lawall, C.E.	Percy Nicholls Award
Michaelson, S.D.	Robert H. Richards Award
Steidle, E.	Mineral Industry Education Award
Reid, J.H.	Saunders Medal
Voss, J.T.	Student Prize Paper Award
Wiles, G.M.	Daniel Cowan Jackling Award

Sixteen of the twenty Legion of Honor insignia went to the following SME members:

Bernard, E. A.	Kuzell, C. R.
Farrant, J. C.	Lindau, S. P.
Ferguson, C.	Marsh, H. W.
Frechette, H.	Seibert, P. A.
Gardner, E. D.	Singewald, J.T., Jr.
Holderer, G. B.	Wallower, F. C.
Joralemon, I. B.	Westlake, E. H.
Kidder, S. J.	Williams, J.P., Jr.

ORGANIZATION

During 1962 each of the Divisions worked on bringing its own Bylaws up to date and an SME Committee examined the Society's Bylaws with the same idea in mind.

A Manual of Duties and-Responsibilities of the Officers Directors and Standing Committees was drawn up. This is expected to serve as a guide for incoming Officers and Committeemen. It is subject to constant modification to meet changing conditions.

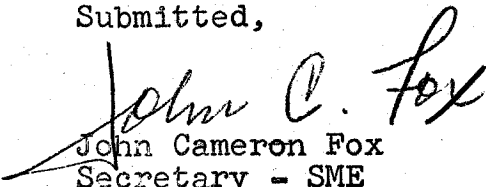
There were several staff changes during the year. Mrs. Faith Gallo, Associate Editor, who did yeoman duty on Transactions Quarterly and the Flotation Volume, left our employ in September. Miss Diane Gerlough joined the staff in January 1962 as Assistant Editor MINING ENGINEERING. She also performs other editorial duties in connection with Transactions, etc.

Mr. Richard W. Hoppe has just (Feb. 5) joined the staff of MINING ENGINEERING as Advertising salesman. He replaces Mr. J. J. O'Brien who leaves February 15.

Miss Ruth Cruz joined the Secretary's staff as Junior Secretary in March 1962.

In behalf of the SME Staff I wish to take this opportunity to thank the Officers, Directors, committeemen and members for their cooperation, patience and understanding. I also wish to express my own thanks to every member of a loyal staff, who helped make 1962 a memorable year for the Society of Mining Engineers of AIME.

Submitted,


John Cameron Fox
Secretary - SME

REPORT
of the
SECRETARY OF THE METALLURGICAL SOCIETY OF AIME

Summary

The lifeblood of the Society is its program of meetings and publication. Major conferences in 1962 numbered 11, with 725 technical papers presented at over 140 technical sessions to a combined audience of over 7,300. Papers published in periodicals and books numbered over 7,800.

Membership growth continued, with the new high: 9,673 members and student members.

The year 1962 marked the first full year in the new United Engineering Center with its enlarged and more efficient quarters.

New Assistant Secretary

The position of Assistant Secretary has been filled by Donald A. Parks, a petroleum geologist formerly with Pure Oil Company in Libya. He succeeded Douglas C. Johnston.

Finances

At the close of business on December 31, 1962, "Income Over Expenses" stood at \$0.00. Operating expenses were substantially higher in 1962, as it was the first full year of operations in the new United Engineering Center with increased space allotted to The Metallurgical Society.

While The Metallurgical Society received income from dues in proportion to its proportion of total membership (25.4 per cent), it has been required to pay for its share of certain Institute departments at a higher rate: Business Office (29.1 per cent) and Institute Activities (37.0 per cent).

To meet increased expenses, the following sources of funds are noted:

1. A successful 1962 AIME Annual Meeting returned \$3,907.
2. The three Iron and Steel Division Conference Committees increased their payments for staff office services by \$3,650, to \$10,358 in 1962 from \$6,708 in 1961.
3. An appropriation to The Metallurgical Society

was made from the Krumb Fund of \$400.00.

The final income and expense statement for The Metallurgical Society in 1962 compared with 1961 is shown in Appendix A. This statement records the income and expenses for TRANSACTIONS separately.

Metals Research Publications Fund

The status of the Metals Research Publications Fund as of December 31, 1962, is shown as Appendix B. Balance in the Fund at the end of the year totalled \$123,966.06.

The majority of contributors were from the steel industry. Regular contributors from past years were thanked and advised that further solicitation for funds would not be made again in the near future as interest from the Fund plus royalty payments from books would be adequate to meet deficits from publishing Transactions.

"Transactions"

Published pages of technical papers and notes increased to 1,294 with six additional pages of masthead, a total of 1,300 pages. A comparison with 1961 is given below by divisions:

<u>Division</u>	<u>No. of Papers and Notes</u>		<u>Pages</u>	
	<u>1962</u>	<u>1961</u>	<u>1962</u>	<u>1961</u>
Extractive Metallurgy	25	31	147.50	152.25
Institute of Metals	182	197	978.00	950.25
Iron and Steel	<u>27</u>	<u>31</u>	<u>168.50</u>	<u>171.50</u>
	234	259	1,294.00	1,274.00

In addition to the above figures the annual index has again been included with the December issue as a service to subscribers.

"Journal of Metals"

During 1962 the "Journal of Metals" published 932 pages, which was substantially the same as the previous year. Throughout the year, approximately 13,000 copies of each issue were published, and for the first time more than 13,000 copies were published of some issues. Non-member subscriptions continued to show a slight increase: 2,343 in 1962 compared with 2,289 for the previous year. Of these, 1,528 were foreign

subscriptions as compared with 1,416 for 1961. These figures show a continuation of the slow but steady growth pattern which has continued for several years.

During the year 1962 "Journal of Metals" published four special issues: January was devoted to Latin-American metallurgical industries; April to the Blast Furnace and Open Hearth Conferences; July to basic oxygen steelmaking; and December to the Electric Furnace Conference. And, parenthetically, these last three were the best advertising months. Other issues were more varied in their contents, although February emphasized the aluminum symposium; May covered materials science; June, tungsten; August, beryllium; October, blast furnace practices.

During 1962 further modernization and streamlining of the front section took place. In May, the Contents page was completely reorganized by changing to a two-page system with a summary for each of the feature articles, technical and non-technical. Technical articles were segregated on the Contents pages from monthly features and professional news. "Coming Events" was brought to the second contents page. These changes were made in order to make it easier for readers to locate items of specific interest.

"Reporter" was expanded from two to three pages, and in September a more flexible layout was adopted in order to permit inclusion of small advertisements on the Reporter pages or the threading of Reporter among one-page advertisements. Reporter is now divided into sections devoted to iron and steel, nonferrous metals, materials, laboratory equipment, and inspection and control.

Abstracts are now published at the beginning of each technical article, while non-technical articles, such as meeting reports, carry a descriptive summary. These abstracts are the first step toward cooperation in the Information Retrieval program of Engineers Joint Council.

Advertising, "Journal of Metals"

Advertising rates were increased during 1962. The increase of revenue is thus greater in proportion than the increase in pages. Comparisons are indicated below for 1962 and 1961:

	<u>1962</u>	<u>1961</u>
Number of Pages of Advertising	226.5	207.0
Advertising Income	\$79,995	\$71,817
Advertising Expense	39,665	35,185
Net Income	<u>\$40,340</u>	<u>\$36,632</u>

Dolan-Kent Company, Inc. was formed as a subsidiary of Persons Advertising, Inc. Solicitation and sale of advertising for "Journal of Metals" was handled by this firm of advertising representatives.

Publications Through Interscience Publishers

During 1962, eight books were published under our cooperative agreement with Interscience Publishers, a Division of John Wiley & Sons, Inc., as Proceedings of Conferences (or Symposiums) sponsored by The Metallurgical Society, and copyrighted by AIME:

Volume 14 - Management of Materials Research (The First Conference on the subject sponsored by The Metallurgical Society; Arden House, Harriman, New York, May 17-19, 1961) 182 pages.

Volume 15 - Metallurgy of Semiconductor Materials (Third Technical Conference sponsored by the Semiconductors Committee of the Institute of Metals Division, and the Southern California Section, AIME, Los Angeles, August 30-September 1, 1961) 424 pages.

Volume 16 - Flat Rolled Products III (Fourth Technical Conference sponsored by the Mechanical Working Committee of the Iron and Steel Division and the Chicago Section, AIME; Chicago, January 17, 1962) 172 pages.

Agglomeration (International Symposium sponsored by The Metallurgical Society, Society of Mining Engineers, and Society of Petroleum Engineers, Philadelphia, April 12-14, 1961) 1,126 pages.

Decomposition of Austenite by Diffusional Processes. (Symposium sponsored by the Ferrous Metallurgy Committee of the Institute

of Metals Committee, Philadelphia, October 19, 1960) 634 pages.

Direct Observations of Imperfections in Crystals. (Technical Conference sponsored by the Physical Chemistry of Steelmaking Committee of the Iron and Steel Division, Detroit, October 24, 1961) 264 pages.

Continuous Casting. (Technical Sessions sponsored by the Mechanical Working Committee and the Physical Chemistry of Steelmaking Committee of the Iron and Steel Division, Detroit, October 24, 1961) 264 pages.

Superconductors. (Technical Sessions sponsored by the Electronic Materials Committee of the Institute of Metals Division, New York, February 18, 1962) 162 pages.

In addition, Volume I of a definitive book on Electric Furnace Steelmaking "Design, Operation, and Practice" has been published by Interscience Publishers through the cooperation of the Physical Chemistry of Steelmaking Committee. (420 pages.)

The following volumes are in preparation, and are expected to be published in 1963 by Interscience:

1. Volume II of Electric Furnace Steelmaking -- Theory and Fundamentals.
2. High Temperature Materials. (Conference sponsored by High Temperature Materials Committee, the Institute of Metals Division, and the Cleveland Section; Cleveland, April 26-27, 1961).
3. High Purity Iron and Its Dilute Solid Solutions. (Symposium sponsored by the Ferrous Metallurgy Committee, Institute of Metals Division, and presented as part of the 1961 Fall Meeting of The Metallurgical Society; Detroit, October 22-26, 1961).
4. Alumina and Aluminum. (International Symposium sponsored by the Extractive Metallurgy Division, and presented as part of the 1962 AIME Annual Meeting, New York, February 18-22, 1962).

5. Recovery and Recrystallization of Metals. (Symposium sponsored by the Physical Metallurgy Committee of the Institute of Metals Division, and presented as part of the 1962 AIME Annual Meeting, New York, February 18-22, 1962.)
6. Electronic Structure and Alloy Chemistry of Transition Elements. (Symposium sponsored by the Alloy Phases Division of the Institute of Metals Division, and presented as part of the 1962 AIME Annual Meeting, New York, February 18-22, 1962).
7. Blast Furnace Conference Proceedings. (Annual Conference sponsored by the Blast Furnace, Coke Oven, and Raw Materials Committee of the Iron and Steel Division, Detroit, April 9-11, 1962).
8. Refractory Metals. (Technical Conference sponsored by the Refractory Metals Committee of the Institute of Metals Division, Chicago, April 12-13, 1962).
9. Fracture in Crystalline Solids. (Technical Conference sponsored by the Institute of Metals Division, Lake Wilderness, Seattle, August, 1962).
10. Advanced Electronic Materials. (Technical Conference sponsored by the Electronic Materials Division, Philadelphia, August 27-29, 1962).

Other Publications (See Appendix C)

The Electric Furnace Committee published Volume 19 (632 pages) of its Proceedings.

The Blast Furnace, Coke Oven, and Raw Materials Committee published Volume 20 (708 pages) of its Proceedings.

Nuclear Metallurgy, Vol. 8 (208 pages) was published as Number 11 of the IMD Special Report Series.

Meetings

Data on 11 major conferences held in 1962 and

sponsored by The Metallurgical Society and its units are listed in Appendix D. At these 11 meetings, a total of 701 papers were presented at 133 technical sessions before an audience of 7,314. Nine local sections of the National Open Hearth Steel Committee conducted a comprehensive series of technical meetings.

The Secretary accepted an invitation from the Iron and Steel Institute (of London) to attend their Annual General Meeting in London, May 1-3, followed by visits to steel mills in the Sheffield and Glasgow areas. The Secretary also attended the Annual Meeting of Jernkontoret in Stockholm, Sweden, on May 25, 1962.

Planning proceeded during 1962 for these national technical conferences and regional meetings to be held in 1963, in which The Metallurgical Society will be concerned:

1. January 15-16, Fifth Mechanical Working Conference, Hilton Hotel, Pittsburgh.
2. February 24-28, 92nd AIME Annual Meeting, Statler Hilton, Baker, Adolphus, and Sheraton Hotels, Dallas.
3. March 21-22, Conference on Deformation Twinning, University of Florida, Gainesville, Florida.
4. April 1-3, 46th National Open Hearth and Basic Oxygen Steel Conference, Statler Hilton Hotel, Buffalo.
5. April 1-3, 22nd Ironmaking Conference, Statler Hilton Hotel, Buffalo.
6. May 16-17, 17th New England Regional Conference, Somerset Hotel, Boston.
7. May 26-29, 3rd Conference on Management of Materials Research, Arden House, Harriman, New York.
8. June 18-20, Symposium on Blast Furnaces -- Theory and Practice, Carnegie Institute of Technology, Pittsburgh.
9. August 26-28, Conference on Electronic Materials, Somerset Hotel, Boston.
10. October 21-25, Fall Meeting of The Metallurgical Society of AIME, Statler Hilton Hotel, Cleveland.
11. December 4-6, 21st Electric Furnace Conference, Drake Hotel, Chicago.

12. December 9-10, Refractory Metals Conference,
Ambassador Hotel, Los Angeles.

Membership

Membership statistics for The Metallurgical Society in 1962 are shown in the following tabulation:

	<u>Totals as of December 31</u>	
	<u>1962</u>	<u>1961</u>
ISD	3,073	2,914
EMD	1,346	1,230
IMD	3,459	2,931
Council of Education	24	19
Council of Economics	56	48
Unclassified and Non-Society	847	1,459
Total		
Corporate	8,805	8,601
Student Members	868	567
Grand Total	9,673	9,168

The substantial gain in Student Members is due to the program instituted in the Fall of 1962 to permit joint membership in The Metallurgical Society and the American Institute for Metals for a fee of \$5.00.

Growth of The Metallurgical Society continued at a steady rate.

Awards

The first Joseph Becker Award, established by the Blast Furnace, Coke Oven, and Raw Materials Committee, was presented to John D. Price of Colorado Fuel and Iron Corporation, at the Annual Conference in April, 1962.

The first Charles H. Herty, Jr., Award, established by the National Open Hearth Steel Committee, was presented to William O. Philbrook of Carnegie Institute of Technology for his paper, "Process Kinetics of Basic Oxygen Steelmaking."

The first Electric Furnace Conference Award established by the Electric Furnace Committee, was presented to J. G. Henzel and J. Keverian for their paper, "Ladle Temperature Loss."

A complete listing of awards will be found on pages 11 to 14 in the Report of the General Secretary.

Changes in Committees

In the Iron and Steel Division, the following changes, recognizing changes in technology, were approved:

1. The National Open Hearth Steel Committee and the Acid Converter and Basic Oxygen Steel Committee were merged to become the "National Open Hearth and Basic Oxygen Steel Committee."
2. The Blast Furnace, Coke Oven, and Raw Materials Committee, has become the "Ironmaking Committee."
3. The Mechanical Working Committee has become the "Mechanical Working and Steel Processing Committee."

The Institute of Metals Division has authorized a change in name of the Melting and Castings Committee to the "Melting and Solidification Committee."

These changes are indicated in the organization chart included as Appendix E.

Acknowledgements

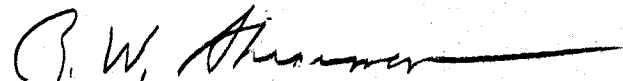
The time and efforts of officers, directors, and members of committees is gratefully acknowledged, for they have given the leadership that has made possible the forward growth of The Metallurgical Society.

The financial support of the National Science Foundation to conferences and symposiums is greatly appreciated. This support has brought foreign speakers to the United States.

Contributions of industrial organizations to the Metals Research Publications Fund is acknowledged with special thanks.

To the staff of The Metallurgical Society goes appreciation for loyal support and effective completion of assignments.

Respectfully submitted,



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

RWS/JAD

The Metallurgical Society of AIME
Income and Expense Statement

<u>Metallurgical Society Income</u>	<u>1962</u>	<u>1961</u>
Members dues and fees received:		
Current	\$147,665	\$142,350
Arrears	-	872
New	8,041	6,725
Entrance Fee	10,241	9,093
Total	<u>\$165,947</u>	<u>\$159,040</u>
Publication Sales:		
Journal of Metals - Advertising	\$ 79,995	\$ 71,817
Journal of Metals - Sales	22,170	22,513
Reprint Sales	5,613	2,753
Total	<u>\$107,778</u>	<u>\$ 97,083</u>
Other Income:		
From ISD Conf. Funds	\$ 10,358	\$ 6,708
From IMD Fund	4,000	4,000
From Met. Soc. Projects Fund	-	970
Dividends and Interest	2,411	3,904
Annual Meeting Credit	3,907	2,698
Total	<u>\$ 20,676</u>	<u>\$ 18,280</u>
Total Income	<u>\$294,401</u>	<u>\$274,403</u>
<u>Metallurgical Society Expenses</u>		
Membership and Sections:		
Local Sect., Stud. Chap., Travel	\$ 12,001	\$ 10,936
Society Offices	56,336	55,549
Special Membership Activity	3,279	2,050
Institute Activities	13,634	10,997
Public Relations	3,571	2,930
Library Assessment	3,412	4,096
Total	<u>\$ 92,233</u>	<u>\$ 86,558</u>
<u>Publications Expenses:</u>		
Journal of Metals - Advertising	\$ 39,655	\$ 35,185
Journal of Metals - Regular	90,715	89,952
Reprint Expenses	3,055	1,727
Directory	3,109	3,166
Total	<u>\$136,534</u>	<u>\$130,030</u>
General and Administrative:		
Secretary's Office, New York	\$ 11,932	\$ 11,597
Secretary's Office, Salt Lake City	2,874	2,366
Business Office	28,870	27,365
Pensions and Related Expense	10,835	9,231
EJC and ECPD Assessments	4,121	2,359
Provisions for Depreciation	3,021	2,145
Miscellaneous Expense	4,381	3,469
Total	<u>\$ 66,034</u>	<u>\$ 58,532</u>
Total Expenses	<u>\$294,801</u>	<u>\$275,120</u>
Transfer from Krumb Fund	\$ 400	\$ -
Transactions Income	-	717
Net Income Over Expenses	<u>\$ -</u>	<u>\$ -</u>

APPENDIX A (CON'T)

THE METALLURGICAL SOCIETY OF AIME
INCOME AND EXPENSES FOR TRANSACTIONS

	<u>1962</u>	<u>1961</u>
<u>TRANSACTIONS INCOME:</u>		
Bi-Monthly Transactions	\$43,171	\$37,845
Transactions Volumes	20,838	23,084
Transactions Reprints	12,108	14,881
Advertising	-	340
From National Science Foundation	-	5,919
From Metals Res. Pub. Fund	3,319	-
Total	<u>\$79,436</u>	<u>\$82,069</u>
<u>TRANSACTIONS EXPENSES</u>		
Bi-Monthly Transactions	\$63,058	\$62,273
Transactions Volumes	9,116	10,071
Transactions Reprints	7,262	8,923
Advertising	-	85
Total Expenses	<u>\$79,436</u>	<u>\$81,352</u>
Income over Expenses	<u>\$ -</u>	<u>\$ 717</u>

Metals Research Publications FundStatus as of December 31, 1962Income:

Contributions Received:

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	37,325.00
During 1961	8,150.00
During 1962	13,650.00

Total Contributions

\$231,850.00

Transferred from Metallurgical Society
Operating Fund (1957 and 1958)

1,806.36

Gain on Sale of Securities to 12/31/61
Gain on Sale of Securities to 12/31/62

\$ 1,424.93
404.12

1,829.05

Interest to 12/31/61
Interest to 12/31/62

\$12,826.93
4,150.69

16,977.62

Royalties to 12/31/62:

John Wiley & Sons (1961)
Interscience Publishers (1961)
Payment for Expenses on Semiconductor Proceedings
John Wiley & Sons (1962)

\$ 370.67
5,092.46
(26.03)
9,959.36

15,396.46

Total Income

\$267,859.49Expenses:

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)	1,994.92
1961-1274 pages (6 issues)	0.00
1962-1300 pages (6 issues)	3,318.97
Total Charges	<u>\$138,456.33</u>

Transferred to Metallurgical Society Projects
Fund (per item 3, Met. Soc. Board
Minutes, 2/21/62):

\$ 5,437.10

Total Expenses

\$143,893.43

Balance 12/31/62

\$123,966.06

Summary of Publications of The Metallurgical SocietyComparison of Pages Published, 1962 and 1961

A. <u>Periodicals:</u>	<u>Pages, 1962</u>	<u>Pages 1961</u>
JOURNAL OF METALS	932	936
TRANSACTIONS OF THE METALLURGICAL SOCIETY OF AIME	<u>1,300</u>	<u>1,274</u>
Total:	<u>2,232</u>	<u>2,210</u>
B. <u>ISD Proceedings:</u>		
Open Hearth	---	1,100
Blast Furnace	708	---
Electric Furnace	<u>632</u>	<u>632</u>
Total:	<u>1,440</u>	<u>1,732</u>
C. <u>IMD Special Report Series:</u>		
Nuclear Metallurgy Vol. 8	<u>208</u>	<u>---</u>
	208	---
D. <u>Interscience Books</u>		
Agglomeration	1,126	
Direct Observations of Imperfections In Crystals	630	---
Decomposition of Austenite by Diffusional Processes	634	---
Superconductors	162	---
Continuous Casting	264	---
Electric Furnace Steelmaking (Vol 1)	420	---
Flat Rolled Products III (Vol. 16)	172	---
Metallurgy of Semiconductor Materials (Vol. 15)	424	---
Management of Materials Research (Vol. 14)	182	---
Copper, Nickel, and Cobalt Bar and Allied Products (Vol. 13)	---	662
Elemental and Compound Semiconductors (Vol. 12)	---	146
Refractory Metals and Alloys (Vol. 11)	---	506
Columbium Metallurgy (Vol. 10)	---	636
High Velocity Deformation (Vol. 9)	---	762
Physical Chemistry of Process Metallurgy (Vols. 7 & 8)	---	504
Total:	<u>4,014</u>	<u>1,402</u>
		<u>4,618</u>
E. <u>Other</u>		
History of Iron and Steelmaking in the United States	---	112
Total	---	112
Total Pages Published During Year	<u>7,894</u>	<u>8,672</u>

APPENDIX DTechnical Conferences and National Meetings ofThe Metallurgical Society, 1962

			<u>Attendance</u>	<u>Number Technical Sessions</u>	<u>Number Papers Presented</u>
1.	January 17 Chicago	4th Mechanical Working Conference	252	2	9
2.	February 18-22 New York	91st AIME Annual Meeting (Met Soc)	1,756	43	262
3.	April 9-11 Detroit	45th National Open Hearth Steel Conference.	1,383	10	40
4.	April 9-11 Detroit	21st Blast Furnace Conference	618	7	20
5.	April 12-13 Chicago	Refractory Metals Symposium	271	4	13
6.	April 26-27 Hartford	16th New England Regional Conference	140	3	9
7.	May 27-29	Management of Materials Research	61	3	16
8.	August Lake Wilderness	Fracture in Crystalline Solids	260	8	24
9.	August 27-29 Philadelphia	Technical Conf. on Ad- vanced Electronic Materials	367	5	24
10.	October 22-26 Detroit	Fall Meeting of The Metallurgical Society	1,186	46	263
11.	December 5-7 Cincinnati	20th Electric Furnace Conference	1,020	10	45
		Total:	<u>7,314</u>	<u>141</u>	<u>725</u>

THE METALLURGICAL SOCIETY OF AIME

OFFICERS AND BOARD OF DIRECTORS

APPENDIX E

SECRETARY AND STAFF

STANDING COMMITTEES

ADMISSION
EDUCATION
ENGINEERING MANAGEMENT
FINANCE
R.L.HARDY GOLD MEDAL
MEMBERSHIP
METALLURGICAL PROFESSION
NOMINATING
PROGRAMS
PUBLICATIONS

INSTITUTE OF METALS DIVISION

OFFICERS AND EXECUTIVE COMMITTEE

STANDING COMMITTEES

BUDGET
COUNCIL OF TECH.COMM.
LECTURE
MATHEWSON GOLD MEDAL
MEMBERSHIP
NOMINATING
PROGRAMS
PUBLICATIONS
SCOPE OF TECH.COMM.

TECHNICAL COMMITTEES

ALLOY PHASES
CORROSION RESISTANT METALS
CHEMISTRY AND PHYSICS OF METALS
ELECTRICAL AND MAGNETIC METALS
ELECTRONIC MATERIALS
FERROUS METALLURGY
HEAT TREATING
HIGH TEMPERATURE ALLOYS
JOINING
MELTING AND SOLIDIFICATION
NON-FERROUS METALLURGY
NUCLEAR METALLURGY
PHYSICAL METALLURGY

IRON AND STEEL DIVISION

OFFICERS AND EXECUTIVE COMMITTEE

STANDING COMMITTEES

HOWE MEMORIAL LECTURE
R.W.HUNT MEDAL
J.E. JOHNSON, JR. AWARD
MEMBERSHIP
NOMINATING
PROGRAMS
PUBLICATIONS
SCOPE OF TECH.COMM.

TECHNICAL COMMITTEES

ELECTRIC FURNACE
IRONMAKING
MECHANICAL WORKING AND STEEL PROCESSING
NATIONAL OPEN HEARTH AND BASIC OXYGEN STEEL
PHYSICAL CHEMISTRY OF STEELMAKING

POWDER METALLURGY
REFRACTORY METALS
SHAPING AND FORMING
STRUCTURAL MATERIALS
SURFACE TREATMENT
TITANIUM

EXTRACTIVE METALLURGY DIVISION

OFFICERS AND EXECUTIVE COMMITTEE

STANDING COMMITTEES

EXTRACTIVE METALLURGY AWARD
LECTURE
LONG RANGE PLANNING
MEMBERSHIP
NOMINATING
PAPERS AND PROGRAMS
PUBLICATIONS

TECHNICAL COMMITTEES

COPPER, NICKEL, AND PRECIOUS METALS
ELECTROLYTIC PROCESSES
HIGH TEMPERATURE METALS
HYDROMETALLURGY
LEAD, ZINC, AND TIN
LIGHT METALS
NUCLEAR FUEL PROCESSING
PHYSICAL CHEMISTRY OF EXTRACTIVE METALLURGY
PYROMETALLURGY
REFRACTORIES
URANIUM, RARE EARTHS, AND MINOR METALS