

LEAD INDUSTRIES ASSOCIATION

60 EAST 42ND STREET
NEW YORK 17, N. Y.

March 27, 1958

SUBJECT: REPORT OF THE SECRETARY
AND TREASURER

To Members of the Lead Industries Association:

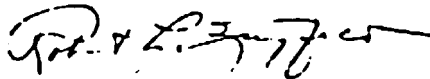
Enclosed please find:

1. Report of the Secretary for the year 1957.
2. Report of the Treasurer for the year 1957.
3. Current list of members.

Inasmuch as the secretary has made quarterly reports to the membership during 1957 the annual report is in condensed form.

Also, detailed reports of various activities will be presented at the annual meeting and circulated to members.

Respectfully submitted,



Secretary.



ANNUAL REPORT OF THE
SECRETARY-TREASURER
FOR THE YEAR 1957

In my report to the members a year ago I explained the change in the method of financing the industry development activities of the Association and the reasons therefor. The wisdom of the change has become evident during 1957. In that year the pig lead producers supported a substantially increased Industry Development Fund, which they have further increased for 1958. At the same time manufacturing members of the Association have given enthusiastic support through the contribution of time of expert personnel to the various committees which guide the actual operations of our several promotional and research programs.

Despite the fact that 1957 was somewhat disappointing market-wise to the lead industry and followed the general business trend, it is felt that a sound ground-work was laid which will eventually benefit the over-all position of the lead industries. In addition to the expansion of promotional activities, the industry in 1957 for the first time had an outside critical appraisal made of its research needs. While this is in no sense considered to be a complete answer to our research problems, it has both stimulated thinking along these lines and high-lighted the fact that we still have a lot to learn about our products as they relate to modern technology.

We are also expanding our activities in other areas. In 1957 for the first time in many years space advertising in trade papers in certain fields was employed. We are expanding our staff to provide better technical service to users and potential users of lead both to help keep them satisfied with present applications and to encourage experimentation with new uses. A new study of the use of lead in the construction industry by a leading architectural firm should help us plan a more effective program in this important field. A more comprehensive publicity program for lead and its products was initiated.

I can not help but feel that great progress was made last year toward a more effective approach to the problem of expanding the markets for lead. We can not expect that progress will be spectacular and we must be prepared to drive surely and patiently forward. Lead is an old metal. Industrial thinking must be molded to the concept that, old as lead is, it is highly adaptable to modern technology, that it has just as important a place in the missile age as in the middle ages, and that industry can benefit if it "looks ahead with lead."

My sincerest thanks are extended to the entire membership for its staunch support of the Association's activities. In particular I would like to express my appreciation to the many committee members, directors and officers who have assisted so much with valuable contributions of time, knowledge and judgment, and to our president, whose quick perception and sound decisions have never left me hanging. To the staff, also, goes my sincerest thanks for jobs loyally and capably performed.

A summary of the Association's major activities in 1957 follows. More detailed accounts of many of these activities are to be found in the Committee reports presented at the 1958 annual meeting.

GENERAL

1. Our magazine, "LEAD," published quarterly was mailed to a mailing list of approximately 50,000 users and potential users of lead.
2. The annual meeting was held in Chicago, with a one half-day session held jointly with the American Zinc Institute.
3. Annual review articles were prepared for "Engineering and Mining Journal," "Steel," "Industrial and Engineering Chemistry," and "Year Book" of the American Bureau of Metal Statistics.
4. The Association staff maintained liaison with many other organizations whose activities are related to lead in one way or another and was represented at annual meetings of AIME, American Society for Testing Materials, American Society for Metals, Association of American Battery Manufacturers, American Ceramic Society, Building Research Institute, American Mining Congress, National Association of Corrosion Engineers, and others.
5. The annual Battery Conference sponsored by the U. S. Army Signal Engineering Laboratories was attended. A list of papers presented was provided members and copies of the complete proceedings were obtained for interested members at reduced cost.
6. Several lectures were presented including one before the U. S. Naval Reserve Composite Company in New York and two before graduate students at the Newark College of Engineering.
7. Permission to reprint a paper on developments in storage batteries, delivered by a Ford Motor Co., representative before the Society of Automotive Engineers, was obtained and it was circulated to members.
8. Information Bulletins were circulated to members monthly.
9. The statistical services of the Association were continued without major change and many economic inquiries from members, banks, brokers and others were handled.
10. In addition to the more than quarter of a million pieces of literature on lead sent out in general mailings, a large number of inquiries are received for Association publications as a result of listings in trade papers and in "Lead." These average in the neighborhood of 300 per month.
11. The number of publicity releases issued by the Association was stepped up and resulted in a constant flow of material relating to lead or the Association's activities appearing in the trade press.
12. The Directors approved preliminary organizational steps toward a joint L.I.A.-A.Z.I. research set-up to be financed by lead and zinc producers on a world-wide basis and to provide for a greatly expanded research program. A committee of seven, composed of the presidents, secretaries, Technical Steering Committee chairman and one additional member of both associations, has been working out the organizational details and taking steps to find a suitable research director.

HEALTH AND SAFETY

1. Gratifying evidence of the value of the "American Standard Specification to Minimize Hazards to Children from Residual Surface Coating Materials," developed at our instance, was shown by its use by the Health Commissioner of Baltimore in opposing a Maryland bill which would have been materially damaging to our interests.
2. Several conferences were held with representatives of the plastics industry in planning for a study of the use of lead stabilizers in plastic pipe.
3. In the interest of promoting the use of lead in ceramics, speakers on medical and engineering health control were secured for the annual meeting of the American Ceramic Society. For the same purpose the chapter on safe handling of lead from "Lead in the Ceramic Industries" was reprinted and several thousand copies distributed through frit manufacturers.
4. Four Health and Safety Bulletins were distributed to members.
5. The demand has continued for reprints of Dr. Johnstone's "Facts and Fallacies About Plumbism," delivered at our 1956 annual meeting. It has been used for instruction in three medical schools.
6. With the publication of three reports, the study of childhood plumbism financed by L.I.A. at Johns Hopkins Hospital came to a close. Many requests were received for reprints of the reports. The work at the Children's Medical Center in Boston continues.
7. The American Academy of Pediatrics suggested that we arrange for delivery of one or more papers on plumbism at one of its meetings. There are now more than 100 "Poison Control Centers" throughout the country, sponsored by the Academy, which offer prompt and correct diagnosis, a major factor in the childhood lead problem.
8. The American Conference of Governmental Hygienists, in publishing its "Threshold Limit Values for 1957," increased the allowable limit for lead in the atmosphere of working places from 0.15 to 0.20 milligrams per cubic meter. This 33-1/3 per cent increase followed recommendations of an American Standards Association subcommittee of which our Health and Safety Director is chairman.
9. In 1949 the Army questioned the safety of using red lead paints for interiors of potable water tanks, based on an opinion of an official of the U.S. Public Health Service. Field tests sponsored by us caused the Army to remove its objection. Recently the controversy was reactivated by a manufacturer of a competitive paint and has lead the American Water Works Association to consider revision of its specification which calls for red lead. Fortunately our field testing was continued through the intervening years and is proving helpful in refuting the adverse propaganda. However, the matter is undecided and we are continuing to work closely with A.W.W.A., U.S.P.H.S., and others to prove the safety of red lead for this application.
10. So far our efforts, in close cooperation with the Manufacturing Chemists' Association, have been successful towards obtaining uniform regulations for warning labels throughout the states, but it is an endless task as more and more states turn to labeling legislation.

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Annual Report for
the Year 1957

11. Measurements of lead in street air obtained from a half-dozen cities are proving invaluable in refuting repeated statements that lead in automobile exhaust fumes is a public health hazard.
12. Allegations that lead-painted toys constituted a hazard to children, brought about by imports from Japan, were effectively put at rest by statements of the Surgeon General of the U. S. Public Health Service and the American Academy of Pediatrics.
13. Our Health and Safety Director is active in many industrial health organizations and serves on a number of important committees of those groups. Cordial relations are maintained with them, as with public health officials throughout the country.

METALLIC LEAD PRODUCTS

1. Lead products were exhibited at the Home Builders Show in Chicago in connection with the annual meeting of the National Association of Home Builders, at the Show held in conjunction with the annual meeting of the National Association of Plumbing Contractors in Dallas, and at the National Chemical Exposition in New York.
2. A 4-page leaflet on lead roofing and flashing for small homes was prepared and distributed at the Home Builders Show.
3. Two 4-page insertions, one on plumbing and one on roofing and flashing, were prepared for the 1958 issue of Sweet's Catalogs for architects and for light construction builders. Preprints were obtained. The Catalogs will have 46,000 circulation.
4. Over 1,000 copies of our text book for plumbers' apprentices were sold in 1957 for a total of about 10,000 copies. It has been made the official text on lead work in the training program sponsored by the International Plumbers' Union. Practically all of our original cost of this book has now been recovered and a new printing will probably be needed by next year.
5. L.I.A. awarded prizes to the three best lead workers in the International Plumbers' Apprenticeship Contest held at Purdue and a staff member served as judge of this work.
6. We provided a man to teach instructors how to teach lead work at a one-week course conducted during the foregoing Contest.
7. Our Solder Committee continued its work on the Soldering Handbook to be published by the American Welding Society and at the year end all but one chapter had been completed.
8. Installation of more than 3,000 sq. ft. of 3-lb. hard lead gutter linings was completed on a new building at Duke University on plans and specifications prepared by L.I.A.
9. The third of our Lead Building Construction Bulletins, this one dealing with lead chemical laboratory installations, was completed and distributed to over 20,000 architects and others.

10. An article on the use of lead to handle corrosive chemicals in the petroleum refining industry was prepared and accepted for publication in "Petroleum Refiner."
11. A Chemical Bulletin on the performance of lead in the production of bead catalysts was prepared and circulated to members.
12. The chapter on lead which appeared in the original American Chemical Society Monograph on Corrosion of Metals was rewritten for a new edition and is close to its final form.
13. A contract was signed with the internationally known firm of architects and engineers, Skidmore, Owings and Merrill, to make a study of means to further develop the market for lead and lead products in building construction. The study got under way in January, 1958.
14. Our field work consisting of personal contacts with plumbers, architects, builders and government officials was continued throughout the year.

CERAMICS

1. The technical data book "Lead in the Ceramic Industries" was distributed to more than 5,000 people in the ceramic industries. Incidentally it won a special merit award in the annual competition of the New York Employing Printers Association.
2. The first supplement to the aforementioned book, dealing with lead-bearing glass colors, was prepared, printed and mailed to those who had received the book and others requesting it.
3. An advertising schedule of monthly full-page ads in "Ceramic Industry" and the "Bulletin" of the American Ceramic Society was started in March and maintained throughout the year.
4. Three graduate research fellowships were established during the year. They are at Rutgers, Illinois and Ohio State and deal with lead in ceramic bodies, in low-firing porcelain enamels and in glazes, respectively.
5. See Item 3, under "Health and Safety."
6. A design was developed, approved, and construction started on 20 permanent educational exhibits on lead in ceramics to be placed in all universities having accredited courses in ceramics. They are expected to be ready for distribution in March, 1958.
7. The annual and fall meetings of the American Ceramic Society were attended by the chairman and several members of the Ceramics Technical Committee and a member of the staff. The Committee also met several times during the year to supervise the program's activities and plan future work.
8. A number of papers on lead in ceramics were presented at technical meetings during the year, some as a result of work sponsored by L.I.A.

RED LEAD

1. A new advertising schedule on red lead paints, aimed primarily at the highway construction market but embracing general construction as well, was started in April and ran for six consecutive months with full-page ads in "Engineering News Record."
2. Red Lead Technical Letter No. 12 on red lead paints for highway structures was prepared, printed and mailed to a list of about 11,000 names.
3. The Red Lead Technical Committee met several times during the year, one of these meetings being to inspect test panels on exposure. Also considerable Committee time was devoted to the attempt to upset the American Water Works Association specification for red lead paints for potable water tank interiors. See Item 9 under "Health and Safety."
4. A new series of exposure tests to evaluate new lead pigments like calcium plumbate was initiated.
5. L.I.A. continued its support of the Steel Structures Painting Council and to have representatives on its Technical Committee.
6. All files and reports of the 25 research projects conducted by the Red Lead Technical Committee over the past 15 years were reviewed, condensed and brought up to date.
7. Two Navy destroyers whose hulls were painted three years ago with a Navy paint and a red lead paint developed by the Red Lead Technical Committee were dry-docked and inspected. Both paints performed about equally, but the L.I.A. paint, being considerably less expensive, appears to offer excellent future possibilities.
8. D. B. Steirman, one of the country's leading bridge engineers and designer of the Mackinac Bridge, ordered 1,000 reprints of the article in "Lead" describing the painting of this Bridge with red lead. Although he offered to pay for them, they were supplied gratis because of the invaluable publicity to be gained from distribution by such an authority.

RADIATION SHIELDING

1. A staff member obtained secret "Q" clearance permitting his access to classified information, and admission to secret atomic installations.
2. Visits were made to a number of installations involving lead shielding, including Oak Ridge, industrial laboratories and educational institutions.
3. Attendance at meetings dealing with the atomic industry was included, among them the Nuclear Congress.
4. The L.I.A. exhibit at the National Chemical Exposition included a display of lead shielding materials because of the ever expanding employment of radio-isotopes in the chemical processing industries.
5. L.I.A. cooperated with the American Society for Testing Materials in formation of a Task Group to explore possible specifications for sheet lead for nuclear shielding and are represented on the committee which met for the first time in December.

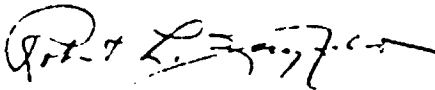
TECHNICAL STEERING COMMITTEE

1. The Cable Sheathing Task Group of this Committee arranged with a leading manufacturer of extrusion presses to construct a press for experimental continuous extrusion of lead alloys. The press is expected to be ready about April 1, 1958. The experimental program will be conducted cooperatively by our Task Group and the press manufacturer.
2. After entertaining three proposals, the T.S.C. awarded a contract to Battelle Memorial Institute for an "Evaluation of Research Needs and Formulation of a Research Program" for the lead industry. After several meetings of the Committee with Battelle personnel, the study was completed and a report filed in December. In early 1958 the T.S.C. evaluated the report and made specific research budget recommendations to the Industry Development Committee.
3. This Committee reviewed and approved research recommendations of the Ceramics Technical Committee for 1958.

INDUSTRY DEVELOPMENT COMMITTEE

1. This Committee has the responsibility of passing on all budget recommendations, whether they come from the Secretary, the Technical Steering Committee, or other committees or sources, before they go to the Board of Directors. In that capacity it approved the Battelle Research study, the survey of building construction by Skidmore, Owings and Merrill, and all other 1958 activities. As a result the budget for research, advertising, promotion and technical service was upped about 60 per cent for 1958 over 1957, with certain additional recommendations still under consideration.

Respectfully submitted,



Secretary.

LIA22229

Annual Report
for the year 1957

The Treasurer respectfully submits the report of the audit of the accounts of the Association as of December 31, 1957, by HASKINS & SELLIS, as follows:

HASKINS & SELLIS

Certified Public Accountants

67 Broad Street
New York 4

March 20, 1958

ACCOUNTANTS' CERTIFICATE

Lead Industries Association:

We have examined the balance sheet of Lead Industries Association as of December 31, 1957 and the related statement of income, expenses, and reserves for the year then ended. Our examination was made in accordance with generally accepted auditing standards, and accordingly, included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

In our opinion, the accompanying balance sheet and statement of income, expenses, and reserves present fairly the financial position of the Association at December 31, 1957 and the results of its operations for the year then ended, in conformity with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

(Signed) Haskins & Sellis

LEAD INDUSTRIES ASSOCIATION

BALANCE SHEET, DECEMBER 31, 1957

ASSETS

CASH:		
Pension Fund savings bank deposits	\$ 95,193.06	
Other (including savings bank deposit, \$30,104.50)	1,914.57	\$207,337.03
ACCOUNTS RECEIVABLE		1,346.00
ADVANCES FOR TRAVEL EXPENSES		1,675.00
AIR TRAVEL DEPOSIT		825.00
TOTAL		<u>\$210,787.03</u>

LIABILITIES AND RESERVES

ACCOUNTS PAYABLE		\$ 2,922.75
RESERVES:		
Employees Retirement and Pension Plan Fund	\$ 95,193.06	
Ordinary Fund	50,104.50	
Safety and Hygiene Fund	25,572.39	
Metallic Lead Products Division Fund	12,874.15	
Pigments and Chemicals Division Fund	4,324.72	
Industry Development Fund	17,580.00	
Ceramic Fund	(1,179.61)	
Radiation Shielding Fund	921.28	27,474.28
TOTAL		<u>\$210,787.03</u>

() Denotes red figure

NOTES:

- (1) The cost of furniture, fixtures, and equipment has been written off to expense.
- (2) The employees retirement and pension plan fund reserve is based on an actuarial report and covers both past service and current costs.

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LEAD INDUSTRIES ASSOCIATION
STATEMENT OF INCOME, EXPENSES, AND RESERVES
FOR THE YEAR ENDED DECEMBER 31, 1957

	TOTAL	ORDINARY FUND	SAFETY AND HYGIENE FUND	METALLIC LEAD PRODUCTS DIVISION FUND	PIONENTS AND CHEMICALS DIVISION FUND	INDUSTRY DEVELOPMENT FUND	CERAMIC FUND	RADIATION SHIELDING FUND	EMPLOYE RETIREMENT AND PENSION PLAN FUND
INCOME:									
Membership assessments.....	\$218,677.00	\$101,915.00		\$ 35,000.00	\$20,500.00	\$116,762.00	\$30,000.00	\$5,000.00	\$ 3,917.00
Transfers between funds.....	3,741.13	(19,417.56)	\$20,000.00			(95,000.00)			3,000.00
Interest on savings bank deposits.....	1,191.34	446.33	313.30						
Sales of publications.....	1,191.34	117.00		1,072.34					
Total income.....	\$223,639.39	\$ 82,552.77	\$20,313.30	\$ 36,072.34	\$20,500.00	\$ 21,762.00	\$30,000.00	\$5,000.00	\$ 6,917.00
EXPENSES:									
Salaries.....	\$ 81,362.17	\$ 42,153.02	\$16,054.15	\$ 11,675.00	\$ 4,000.00		\$ 4,000.00	\$3,500.00	
Social security taxes.....	1,421.03	564.12	231.87	252.70	122.00		122.00	106.76	
Rent and light.....	11,750.30	11,750.30							
Office supplies.....	2,441.81	2,074.39	196.12	64.27	49.64		38.15		
Travel.....	17,776.04	4,748.20	2,404.34	7,330.02	1,051.32		1,140.70	235.48	
Association dues.....	632.04	192.11	136.50	230.88			30.00	12.30	
Entertainment and luncheons.....	1,954.01	435.70	573.76	717.35	7.60		143.30	55.00	
Meetings (net of fees \$2,340.00).....	2,126.30	1,141.69	12.30	541.93	252.64		125.78	31.74	
Telephone and telegraph.....	2,482.03	1,712.75	302.44	305.26	77.31		77.42	6.87	
Books and subscriptions.....	1,039.22	367.33	464.34	116.81	74.76		25.18	13.32	
Printing - net.....	1,649.79	940.13	81.17	467.14	46.81		111.00	21.02	
Mailing.....	2,235.41	1,479.46	195.92	230.47	211.94		107.01	30.57	
Cost of publications:									
"Lead".....	10,667.90	12,767.90		2,500.00	2,400.00		1,000.00		
"Lead in the Ceramic Industries".....	1,614.71						1,614.71		
"Lead in the Ceramic Industries" - Supplement.....	1,002.31						1,002.31		
Building construction bulletin.....	2,364.34			2,364.34					
and lead technical letters.....	1,941.11				1,941.11				
Society's Catalog.....	4,046.09			4,046.09					
Advertising space.....	9,835.92				4,874.54		\$ 6,011.38		
Advertising production.....	2,772.04				679.32		2,092.72		
Publicity.....	3,024.54			865.04	1,294.22	\$ 20,000.00	841.30		
Battle research survey.....	20,000.00								
Research fellowships.....	7,500.00						7,500.00		
Conventions and exhibits.....	15,070.53			12,070.53			3,000.00		
Furniture and fixtures.....	17.46	17.46							
Illustrations.....	1,036.69	50.34	230.42	394.41	39.52				
Research and research materials.....	1,462.14		227.70		1,234.44				
Consultation fees.....	5,505.00			100.00	3,005.00		2,400.00		
Apprenticeship contest.....	511.55			511.55					
Miscellaneous.....	2,445.11	2,104.62	816.34	164.20	211.74		71.95		
Expenses - net.....	\$223,793.39	\$ 87,568.63	\$21,955.21	\$ 47,375.01	\$22,413.45	\$ 20,000.00	\$3,541.03	\$3,993.24	
EXCESS OF INCOME (EXPENSES) FOR THE YEAR.....	\$ (5,154.00)	\$ 696.14	\$ (1,641.92)	\$ (11,302.67)	\$ (1,913.45)	\$ 1,762.00	\$ (541.83)	\$1,006.76	\$ 6,919.00
RESERVES, JANUARY 1, 1957.....	233,035.18	80,628.36	27,191.72	21,851.70	6,231.17	15,762.00	(478.78)	(45.00)	91,274.00
RESERVES, DECEMBER 31, 1957.....	\$277,879.28	\$ 80,124.50	\$25,552.32	\$ 17,548.15	\$ 4,324.72	\$ 17,504.00	\$ (1,020.61)	\$ 921.74	\$ 98,193.00

() denotes red figure.

LIA22231

April, 1958

MEMBERS OF THE LEAD INDUSTRIES ASSOCIATION

Allied Smelting Corp.	5116 W. Lincoln Ave.	Milwaukee 14, Wis.
Alpha Metals, Inc.	Box 34, Bergen Station	Jersey City 4, N. J.
American Metal Climax, Inc.	61 Broadway	New York 6, N.Y.
American Smelting & Refining Co.	120 Broadway	New York 5, N.Y.
American Zinc, Lead & Smelting Co.	Paul Brown Bldg.	St. Louis 1, Mo.
The Anaconda Co.	25 Broadway	New York 4, N.Y.
The C. A. Avril Co., Lead Products Div.	Langdon Farm Rd. & Seymour Ave.	Cincinnati 12, Ohio
Born & Co., Inc.	Ashland & Lewis Sts.	Philadelphia 24, Pa.
*Broken Hill Associated Smelters Proprietary Ltd.	Collins House	Melbourne 61, Aust.
*Broken Hill South, Ltd.	Box 194C, GPO	Melbourne, Australia
The Bunker Hill Co.	660 Market St.	San Francisco 4, Cal
Cambridge Smelting Co.	100 Pacific St.	Cambridge, Mass.
Cerro de Pasco Sales Corp.	300 Park Ave.	New York 22, N.Y.
Circle Wire & Cable Co.	5500 Maupeth Ave.	Maupeth, L.I., N.Y.
*The Consolidated Mining and Smelting Co. of Canada, Ltd.	P.O.Box 1030	Montreal 1, Canada
Consolidated Smelting Corp.	Place D'Armes	Detroit 34, Mich.
Day Mines, Inc.	4700 E. Nevada	Wallace, Idaho
Dickson Weatherproof Nail Co.	Box 590	Evanston 4, Ill.
E. I. duPont de Nemours & Co. Inc.		Wilmington 98, Del.
The Eagle-Picher Co.	American Bldg.	Cincinnati 1, Ohio
The Edlow Lead Co.	POBox 1936	Columbus 16, Ohio
The Electric Storage Battery Co.	Box 8109	Philadelphia 1, Pa.
Ethyl Corp.	100 Park Ave.	New York 17, N.Y.
Euston Lead Co. (The Glidden Co.)	500 Penn Ave.	Scranton 3, Pa.
Evans Lead Division (National Lead Co.)	Box 1467	Charleston 25, W.Va.
Federated Metals Division of American Smelting & Refining Co.	120 Broadway	New York 5, N.Y.
Aaron Ferer and Sons Co.	101-19 S. 8th St.	Omaha 8, Neb.
*The Firestone Tire & Rubber Co.	Box F, Firestone Pk.	Akron 17, Ohio
The Flemm Lead Co. Inc.	52-01 - 31st Pl.	Long Island City 1, N.Y.
Gardiner Metal Co.	4020 S. Campbell Ave.	Chicago 32, Ill.
Glaser Lead Co., Inc.	31 Wyckoff Ave.	Brooklyn 27, N.Y.
Goldsmith Bros. Smelting & Refining Co.	111 N. Wabash Ave.	Chicago 2, Ill.
Hammond Lead Products, Inc.	5231 Hohman Ave.	Hammond, Ind.
Hecla Mining Co.	85-95 Hyatt Ave.	Wallace, Idaho
Hudson Smelting & Refining Co.		Newark 5, N. J.

* Associate Member

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April, 1958

Imperial Type Metal Co.	3400 Aramingo Ave.	Philadelphia 34, Pa.
International Smelting & Refining Co. (Anaconda Sales Co., Agents)	25 Broadway	New York 4, N.Y.
Knapp Mills, Inc.	23-15 Borden Ave.	Long Island City 1, N.Y.
Lead Products Co. Inc.	POBox 1341	Houston 1, Tex.
John R. MacGregor Lead Co.	4520 W. 15 St.	Chicago 23, Ill.
Mike Horse Mining & Milling Co.	620 Power Bldg.	Helena, Mont.
The Murdock Lead Products Co.	POBox 5298	Dallas 2, Tex.
National Lead Co.	111 Broadway	New York 6, N.Y.
New Park Mining Co.	Box 1903R, GPO	Keetley, Utah
*North Broken Hill, Ltd.		Melbourne, Australia
The Okonite Co.		Passaic, N. J.
Glin Mathieson Chemical Corp.		East Alton, Ill.
Pend Oreille Mines & Metals Co.	Old Natl. Bk. Bldg.	Spokane 8, Wash.
Pennsylvania Smelting & Refining Co.	3100 E. Ontario St.	Philadelphia 34, Pa.
Phelps Dodge Copper Products Corp.	300 Park Ave.	New York 22, N.Y.
Revere Copper & Brass Inc., Foil Div.	196 Diamond St.	Brooklyn 22, N.Y.
River Smelting & Refining Co.	4195 Bradley Rd.	Cleveland 1, Ohio
Rochester Lead Works, Inc.	380 Exchange St.	Rochester 8, N.Y.
John A. Roebeling's Sons Corp.	640 S. Broad St.	Trenton 2, N.J.
St. Joseph Lead Co.	250 Park Ave.	New York 17, N.Y.
Shattuck Denn Mining Corp.	120 Broadway	New York 5, N.Y.
Sipi Metals Corp.	1708-20 Elston Ave.	Chicago 22, Ill.
*Societe Miniere et Metallurgique de Penarroya	12 Place Vendome	Paris 1, France
Sunshine Mining Co.	115 N. Second St.	Yakima, Wash.
United Park City Mines Co.	Continental Bk. Bldg.	Salt Lake City 1, Utah
United States Smelting Refining and Mining Co.	62 William St.	New York 5, N.Y.
The Victory White Metal Co.	6100 Roland Ave.	Cleveland 27, Ohio
Wyman Viener & Sons	5300 Hatcher St.	Richmond 5, Va.
Vulcan Lead Products Co.	1545 W. Pierce St.	Milwaukee 4, Wis.
Western Electric Co. Inc.	195 Broadway	New York 7, N.Y.
Western Lead Products Co.	4530 E. Pacific Way	Los Angeles 22, Cal.
White Metal Rolling & Stamping Corp.	80 Moultrie St.	Brooklyn 22, N.Y.
*The Zinc Corp. Ltd.	Box 384D, GPO	Melbourne, Australia

* Associate Member