

ANNUAL MEETING OF THE MEMBERS OF THE
LEAD INDUSTRIES ASSOCIATION

St. Louis, Mo.

April 24-25, 1956

The annual meeting of the members of the Lead Industries Association was held on Tuesday and Wednesday, April 24-25, 1956, at The Statler Hotel, St. Louis, Mo.

MEMBERS PRESENT

Representing

Harold Hertzog	Alpha Metals, Inc.
Harold Shonberg	do
William R. Black	The American Metal Co. Ltd.
Clarence K. Conard	do
Vincent E. Dorman	do
Robert Gremald	do
J. J. Lennon	do
Myron L. Trilsch	do
Jean Vuilleques	do
William B. Clancy	American Smelting and Refining Co.
Charles Earl, Jr.	do
Robert A. Koch	do
A. J. Phillips	do
Carl H. Cotterill	American Zinc, Lead & Smelting Co.
Howard L. Young	do
Richard A. Young	do
Frank P. Barton	G.A. Avril Co., Lead Products Division
Julian S. Bers	Bers & Co. Inc.
John D. Bradley	The Bunker Hill Co.
Harold E. Lee	do
Emmet A. Torney	do
Wallace G. Woolf	do
Ralph Cutler	The Broken Hill Associated Smelters Pty., Ltd.
Sidney E. Sweet	(C. Tennant, Sons & Co., Agents)
Ivor Thompson	do
J. W. Hanley	Cerro de Pasco Corp.
A. Russell Mers	do
R. C. Bell	Consolidated Mining and Smelting Co. of Canada Ltd.
A. D. Turnbull	do
O. C. Wilson	do
A. O. Wolff	do
Henry L. Day	Day Mines, Inc.
J. A. Stone	Division Lead Co.
C. E. Bassett	Dixie Lead Co.
Harold F. Jones	E. I. duPont de Nemours & Co.
W. S. Melvin	do
S. J. Stickley	do
W. D. Attberry	Eagle-Fischer Co.
Miles M. Zoller	do
Kenneth W. Green	Electric Storage Battery Co.
C. G. Grimes	do
E. R. Anderson	Ethyl Corp.
J. A. Costello	do

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MEMBERS PRESENT
Representing

M. Foodin
 Edgar L. Newhouse, III
 Frederick Walker
 Harvey Ferer
 R. A. Gardiner, Jr.
 Donald F. Goldsmith
 Herbert A. Sher
 Clarence Glass
 Frank A. Wardlaw, Jr.
 William P. Murdock
 E. R. Dondorf
 A. H. Drewes
 J. A. Martino
 D. A. Merson
 J. H. Reid
 Phil W. Ruppert
 W. J. Welch
 Albert Silver
 Roger H. Cutting
 Kenneth T. Gordon
 William A. Oakey
 J. J. Sharkey
 Jens Jensen
 C. M. Chapin, Jr.
 Andrew Fletcher
 C. R. Ince
 W. T. Isbell
 Carleton C. Long
 George F. Weston
 Victor Besso
 Y. H. Robert
 G. H. LeFevre
 Oscar A. Glaesser
 F. S. Mulock
 F. C. Snyers
 F. L. Warner
 Howard Novasol
 Reuben Viener
 Carl H. Shaffer
 Leo L. Bledsoe
 Robert N. Quenell

Federated Metals Division
 American Smelting and Refining Co.
 do
 Aaron Ferer & Sons Co.
 Gardiner Metal Co.
 Goldsmith Bros. Smelting and Refining Co.
 do
 International Smelting and Refining Co.
 (Anaconda Sales Co., Agents)
 Murdock Lead Products Co.
 National Lead Co.
 do
 do
 do
 do
 do
 do
 North Broken Hill, Ltd.
 Northwest Lead Co.
 Okonite Co.
 Olin Mathieson Chemical Corp.
 do
 Penn Oreille Mines & Metals Co.
 St. Joseph Lead Co.
 do
 do
 do
 do
 do
 Societe Miniere & Metallurgique de Penarroya
 (International Selling Corp., Agents)
 United States Smelting Refining and Mining Co.
 do
 do
 do
 do
 Victory White Metal Co.
 Hyman Viener & Sons
 Western Electric Co. Inc.
 Western Lead Products Co.
 do

REPRESENTED BY PROXY

Allied Smelting Corp.	John R. MacGregor Lead Co.
W. P. Fuller & Co.	Metro Smelting Co.
Glaser Lead Co., Inc.	Pennsylvania Smelting and Refining Co.
Hammond Lead Products, Inc.	Phelps Dodge Copper Products Corp.
Hecla Mining Co.	River Smelting and Refining Co.
Imperial Type Metal Co.	Rochester Lead Works, Inc.
Johnston Foil Manufacturing Co.	Standard Rolling Mills, Division Revere Copper and Brass Inc.
White Metal Rolling & Stamping Corp.	

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GUESTS

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Georges Andrew-Dumont
 Joseph Barbash
 Phillip R. Blanc
 John M. Campbell
 Donald A. Carroll
 Prof. H. H. Duncan
 J. O. Edwards
 E. L. Frank
 J. H. Godhaird
 William D. Hook
 Rutherford T. Johnstone, M.D.
 J. J. Kelleher
 Max J. Kennard
 Harold Lewald
 R. H. Loew
 Alfred S. Meyer
 R. E. Neelands
 Gordon L. Norem
 Raymond F. Orr
 K. A. Phillips
 G. W. Potter
 Miles P. Romney
 Prof. A. W. Schlechten
 B. B. Steiner

M. J. Sullivan
 Lyman M. Tondel, Jr.
 Robert Van deVenne
 Kurt Weinberg
 Curtis L. Wilson
 Charles H. Winship, Jr.

Indussa Corp.
 Debevoise, Plimpton & McLean
 Indussa Corp.
 General Motors Research Staff
 Donald Carroll Metals Inc.
 University of Melbourne
 Canadian Mines Branch
 Philipp Bros.
 Societe Generale des Minerais
 W. R. Grace & Co.
 Industrial Medical Consultant
 Hercules Powder Co.
 Combined Metals Reduction Co.
 Consultant
 American Cyanamid Co.
 Meyer Metallurgical Corp.
 Canadian Department of Mines
 British Metal Corp. (Canada) Ltd.
 Athletic Mining and Smelting Co.
 American Zinc Co. of Illinois
 Potter-Sims, Mines, Inc.
 Utah Mining Association
 Missouri School of Mines
 Cumberland Battery Mfg. Co.
 (Association of American Battery Mfrs. Inc.)
 International Minerals and Metals Corp.
 Cleary, Gottlieb, Friendly & Hamilton
 Societe Generale des Minerais
 International Minerals & Metals Corp.
 Missouri School of Mines
 Phelps Dodge Corp.

GOVERNMENT REPRESENTATIVES

Edmund E. Getsin
 W. W. Hopton

Heine Kemworthy
 A. J. Martin
 Burton M. Reynolds
 H. W. St. Clair
 Felix E. Wormser

U.S. Department of State
 Office of Minerals Mobilization,
 Department of Interior
 U.S. Bureau of Mines
 do
 do
 do
 U.S. Department of Interior

LEAD INDUSTRIES ASSOCIATION

Robert L. Ziegfeld, Secretary-Treasurer
 David M. Borcina

Homer S. Yetman

Manfred Bowditch
 Kempton H. Roll

Dr. L. L. Carrick, Consultant

The minutes of the previous meeting of April 27, 1955 were circulated to members after the meeting and no changes or corrections were received.

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NOMINATING COMMITTEE

Mr. D. A. Merson, Chairman of the Nominating Committee, reported for his Committee, composed in addition to himself of Mr. P. A. Wardlaw, Jr., and Mr. T. G. Stover (Mr. C. H. Shaffer, alternate). In making the report for the Nominating Committee, he stated that the Committee had given special consideration this year to the fact that the Association was moving into joint offices with the American Zinc Institute and would of necessity be working more closely with that organization in the future. The committee therefore felt that it would be wise to continue on the Board those who had been responsible for the decision to take this step so that they might guide the Association through at least the first year of the new arrangement.

The following slate was therefore placed in nomination by the Committee and there being no further nominations, the slate was unanimously elected:

BOARD OF DIRECTORSRepresenting

J. D. Bradley
K. C. Brownell
J. A. Costello
W. H. H. Cranmer
H. L. Day
S. A. Easton
Andrew Fletcher
Clarence Glass

K. W. Green
J. A. Martino
F. S. Mulock
J. P. Ruth
Jean Vuilleques
Frederick Walker

M. M. Zoller

The Bunker Hill Co.
American Smelting and Refining Co.
Ethyl Corp.
New Park Mining Co.
Day Mines, Inc.
The Bunker Hill Co.
St. Joseph Lead Co.
International Smelting and Refining Co.
(Anaconda Sales Co., Agents)
Electric Storage Battery Co.
National Lead Co.
United States Smelting Refining and Mining Co.
The Glidden Co. (Euston Lead Co.)
The American Metal Co. Ltd.
Federated Metals Division,
American Smelting and Refining Co.
Eagle-Picher Co.

REPORT OF SECRETARY-TREASURER

The secretary-treasurer informed the membership that his report had been circulated to members on April 13, 1956 (attached as Exhibit "A") and he therefore only briefly summarized it.

REPORTS OF DIVISIONS AND COMMITTEESMetallic Lead Products DivisionPigments and Chemicals Division

Reports of these divisions were presented at the divisional meetings and not at the general session, and are a part of the minutes of those divisions.

Technical Steering CommitteeIndustry Development CommitteeHygiene and Safety DivisionCable Sheathing Task GroupCeramic Committee

Reports for these Committees and Divisions were presented and are attached, as Exhibit "B."

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ADDRESSES AT MEETING

The following papers were also delivered at the annual meeting with copies made available to those members interested:

"World Lead and Zinc Supplies and Requirements"	Jean Vuilleques
"Zinc and Lead Mining in the United States"	M. P. Romney.
"Effects of Technical Developments in Creating New Markets for Lead and Zinc"	Dr. A. J. Phillips
"Some Washington Observations"	Hon. F. E. Wormser
"Facts and Fallacies of Plumbism and What to Do About Them"	R. T. Johnstone, M.D.
"Outlook for Lead in Storage Batteries"	B. B. Steiner
"The Construction Outlook"	T. S. Holden
"Lead in Ammunition"	F. S. Elfred
"Lead Radiation Shielding"	Harold Lewald
"Outlook for Use of Lead in the Automotive Industry"	J. M. Campbell

LEAD DEVELOPMENT ASSOCIATION

The following cablegram was received from Mr. A. C. Drummond, Lead Development Association, London, England:

"Best wishes to your President, Members and yourself on the occasion of your 22th annual meeting."


Secretary

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Exhibit "A"
April 24-25, 1956

ANNUAL REPORT
of the
Secretary - Treasurer
LEAD INDUSTRIES ASSOCIATION
FOR THE YEAR 1955

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Annual Report
for the Year 1955SUMMARY

The year 1955 was one of the most active and constructive in the Association's history. It marked a turn toward the attack of industry problems and market development on a broader front with means provided for greater flexibility of action to meet situations as they arise. Establishment of the Technical Steering Committee and Industry Development Fund contributed markedly to this desirable end and has already resulted in undertaking several new projects. The Technical Steering Committee provides a means of screening technical activities as they apply to the development of markets for lead. This Committee made several recommendations which have since been translated into action. The Industry Development Fund, first subscribed in 1955 by the sellers of pig lead, provides the means of financing these and other activities. Our major projects last year are listed here and those and others are described in detail in the body of this report.

1. A preliminary survey of the market for lead as a nuclear radiation shield material was completed and copies of the report supplied to members.

2. A Ceramic Technical Committee was organized and is in the process of preparing a complete manual on the use of lead in ceramics for wide distribution throughout the ceramic industries.

3. A Cable Sheathing Task Group of the Technical Steering Committee was appointed and is intensively studying ways to meet inroads on the lead cable sheath market, particularly continuous extrusion techniques.

4. An agreement has been made with the American Chemical Society and Reinhold Publishing Co., to edit an A.C.S. Monograph on Lead and the work is in progress, to be completed by January 1, 1958.

5. The Metallic Lead Products Division has continued its activities in the interest of lead in building and chemical construction and solder, including:

- a. Our field work among plumbers.
- b. Publication of "Plumbers' Forum" twice during the year.
- c. A new printing of the plumber's text book, "Lead Work for Modern Plumbing."
- d. Publication of Chemical Bulletins for members and Lead Chemical Construction Bulletins for outside circulation.
- e. Preparation of publicity articles for the trade press.
- f. Preparation of a Solder Handbook for publication by the American Welding Society.

6. The Pigments and Chemicals Division continued its work on the promotion of red lead paints through:

- a. Publication of Red Lead Technical Letters.
- b. Meetings of the Red Lead Technical Committee.

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- c. Preparation of articles for the trade press.
- d. Exposure tests on new red lead paint formulations.
7. The Health and Safety Division has been exceptionally active.
 - a. Work on upward revision of the maximum allowable limit for lead in working atmospheres has progressed favorably.
 - b. State legislation inimical to our industry has been prevented.
 - c. Efforts towards uniform labeling have been successful and will result in potentially substantial savings to many members.
 - d. Regulations concerning warning labels on paints that might be chewed by children have been rationalized, our support of work at the Children's Medical Center in Boston continued at greatly reduced cost to us, and the whole childhood lead poisoning problem has received time-consuming attention.
 - e. We have continued to watch closely developments in lead therapy.
 - f. Information was gathered to lay at rest claims of a lead hazard from automobile exhausts.
 - g. Unfounded statements inimical to lead were removed from a report on lead stabilizers in plastic pipes made at the University of Michigan.
8. Our magazine "Lead" which promotes lead products of all kinds was published twice last year, but is now a quarterly and the mailing list has been increased to over 50,000 names.
9. Monthly statistics on lead and lead products were published as in the past.
10. A successful annual meeting was conducted at Chicago. For the first time L.I.A. met jointly with the American Zinc Institute at considerable saving in time and money to many members of both groups.
11. A lease has been signed to occupy office quarters adjacent to the American Zinc Institute, with joint reception and conference rooms, starting July 1, 1956. It is felt that this arrangement will enable both organizations to offer better and more efficient service at a saving and with greater convenience to members.
12. Large amounts of association literature were ordered by members for their own use and distribution.
13. Information Bulletins reporting Association activities and recent literature and developments relating to lead were sent to members monthly.
14. A wide variety of technical and economic inquiries were handled regularly, review articles prepared for leading trade publications, and similar work of a general nature was performed.

TECHNICAL STEERING COMMITTEE

This Committee is composed of thirteen top level technical representatives of member companies, about equally divided between producers and consumers of lead. The Committee met formally for the first time in April, 1955, and turned its attention to four subjects:

1. American Chemical Society Monograph on Lead.
2. Radiation Shielding.
3. Ceramics.
4. Cable Sheathing.

Based on its recommendations, action has been taken in all four fields and those activities are reported separately in this report.

INDUSTRY DEVELOPMENT FUND

This Fund was established in 1955 by the sellers of pig lead to be used for market development at the discretion of a committee composed of representatives of each of the subscribing companies. So far it has allocated funds toward the major support of the Metallic Lead Products and Pigments and Chemicals Division, toward the new ceramic program, for a study of the market for lead as a nuclear radiation shield, and starting with 1956 to increase the frequency of publication of the magazine "Lead."

RADIATION SHIELDING

Walter Kidd Nuclear Laboratories was engaged to make a preliminary survey of the market for lead as a nuclear shielding material. The report of this survey was sent to members in January, 1956. Subsequently the Technical Steering Committee met to consider the report and has recommended that no further surveys be conducted as information already in hand indicates a market warranting positive action by the Association. The Industry Development Committee acted favorably on this recommendation and it has now been referred to the Board.

CERAMICS

A Ceramic Technical Committee, composed of representatives of members supplying lead products to the ceramic industries, was organized during the summer of 1955. This committee recommended that the Association engage a competent consultant in this field, prepare a manual containing all available information on the use of lead products in ceramics, circulate the manual widely in the ceramic industries, and follow it with loose-leaf supplements as additional information becomes available. This program was approved by the Industry Development and Executive Committees and an appropriation made to carry the work to the end of 1956. The text of the manual is nearing completion and it is hoped that the publication will be ready for circulation soon. Dr. John Koenig, director of the School of Ceramics, Rutgers University, has been retained as consultant and serves as chairman of the Ceramics Technical Committee.

CABLE SHEATHING

The Technical Steering Committee appointed a Cable Sheathing Task Group composed of representatives of two lead producers and four cable manufacturers. This group has met three times. It concluded that the market for lead would be aided greatly if the alloys commonly used for cable sheathing could be extruded in continuous instead of intermittent presses. The activities of the group are now directed toward solving this problem with the cooperation of the press manufacturers both here and abroad.

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Annual Report
for the Year 1955A.C.S. MONOGRAPH ON LEAD

On recommendation of the Technical Steering Committee, the Association is editing a monograph on lead for the American Chemical Society to be published by Reinhold Publishing Co. Dr. Alex Stewart, research director of National Lead Co. was appointed editorial chairman. The only cost to the Association will be the time of its staff and the Association can receive royalties and purchase copies at greatly reduced cost. The purpose in undertaking this is to disseminate as widely as possible full information about lead and its products so that others will find uses for our metal. An outline has been prepared for a book of some 700 or 800 pages and approved by both A.C.S. and the publishers, and a number of the authors have already been secured. The contract calls for delivery of the completed manuscript by the Association by January 1, 1958.

METALLIC LEAD PRODUCTS DIVISION

The work of this Division is currently aimed in three directions - development of the market for lead in plumbing and other architectural applications, in chemical construction, and in solder.

ARCHITECTURAL APPLICATIONS - We have continued our work to increase the use of lead in plumbing with one man in the field contacting plumbers, city officials and others having an influence on the materials used. "Plumbers' Forum" was published twice during the year and was circulated to 21,000 plumbers, while each issue of "Lead" carried at least one lead plumbing story to thousands of architects and builders. We gave further encouragement to instruction in lead work for plumbers and ordered a new printing of 5,000 copies of our textbook "Lead Work for Modern Plumbing." Previously 6,000 copies of this book had been distributed, most of them sold at cost, so that when all 11,000 have been distributed, the net cost to us will be little or nothing.

We supplied lead materials for the plumbers' international apprentice contest at Purdue University again and a staff member served as judge of lead work, awarding defense bonds to the three best lead workers.

A series of pamphlets providing specifications for and helpful information about various applications of lead in plumbing and other parts of buildings have been prepared. These will soon be printed and distributed to over 15,000 architects. We are now seeking the right man to add to our field staff for the purpose of contacting architects and builders. A specification of lead for chemical laboratories has had surprisingly favorable acceptance.

Some idea of the importance and potential of this market may be gained from the fact that, depending upon local practice, from none to over 120 lb. of lead are used per bathroom and well over 1,000,000 housing units, many with several bathrooms, were constructed last year. That does not include buildings other than dwellings, and of course does not include roof flashings, shower pans or other applications of lead in building.

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CHEMICAL CONSTRUCTION - This work has consisted essentially of gathering factual information about existing installations in which lead is used for handling corrosive chemicals and disseminating that information to the chemical industries. Dissemination has generally been accomplished by preparation of articles for the leading trade papers in the field and obtaining reprints of the articles. These reprints are circulated as Lead Chemical Bulletins to interested members and as Lead Chemical Construction Bulletins to a list of about 800 people engaged in the chemical industries and to instructors and students of chemical engineering.

In addition, we are called upon to provide technical assistance with respect to the use of lead in contact with corrosive chemicals and in the design of equipment for this purpose. The engineering departments of such prominent chemical producers as the duPont Company are in regular and frequent touch with us. A staff member is extremely active in the National Association of Corrosion Engineers. Also for the fourth year he delivered the lecture on lead to graduate students at Newark College of Engineering.

SOLDER - Our solder committee, consisting of technical representatives of four member solder producers, under the chairmanship of a staff member, has virtually completed a draft of a Solder Handbook to be published by the American Welding Society. Eventual distribution of this book should be a valuable aid to users of solder and consequently assist in the development of solder markets.

PIGMENTS AND CHEMICALS DIVISION

This Division devoted its attention to red lead paints exclusively. Under the supervision of the Red Lead Technical Committee, a limited amount of exposure testing of paint formulations was conducted. Red Lead Technical Letter No. 10, based on an L.L.A. paint formulation that has been adopted as standard by one of the country's leading oil companies, was issued and circulated to about 14,000 potential users of red lead paint. Work on two additional technical letters was also started.

This Division's research program has resulted in the development of red lead formulations for galvanized surfaces that give every indication of opening an important new market for red lead paints. An article on the subject was prepared and published in "Paint and Varnish Production." Dr. L. L. Carrick of the University of Michigan continues to serve us as a consultant on this work.

We continued our support of the Steel Structures Painting Council in 1955 with Dr. Carrick representing us on that organization's technical committee. This is considered valuable because it presents an excellent opportunity to work with the steel industry on its painting problems.

HEALTH AND SAFETY DIVISION

The following is an outline of health and safety activities during 1955.

REVISION OF ATMOSPHERIC LEAD STANDARD - The work of the Subcommittee on Lead of which our Health and Safety Director is chairman, of the Committee on Toxic Dusts and Gases of the American Standards Association, has continued, and a draft revision of the present American Standard for the maximum acceptable concentration of lead and its compounds in the atmosphere of work places was prepared during 1955.

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It will be presented to the parent committee at its semi-annual meeting in May. The proposed revision contemplates raising the long-accepted standard of 1.5 mg. per 10 cubic meters to 5.0 mg. for lead sulfide and 2.0 mg. for metallic lead and other compounds, substantial increases which should be of material engineering aid to our industries. Pending the May meeting, no more can be said than that it is believed that these or comparable figures will be accepted by the committee.

As two members of our subcommittee are a member and chairman of the governmental committee which promulgates such standards, uniformity in the figures adopted by the two principal committees looked to for guidance in such matters is also to be anticipated.

STATE LEGISLATION - Proposed state legislation potentially inimical to the interests of our industries has again been watched. In New York State, a bill which would have prohibited the sale of children's furniture finished with paint "containing poisonous or other harmful and deleterious ingredients" was killed in committee (any paint ingredient may be in that category), as was another proposing a poison label on all paints containing lead. In New Jersey, a bill characterizing as a "disorderly person" anyone who makes or sells toys or juvenile furniture coated with a material containing lead was similarly disposed of. In Massachusetts, a bill extending the powers of the Labor Commissioner in the matter of labeling hazardous substances, though passed, has not been applied to lead or to lead compounds, and we have the assurance of that official that we will be apprised of any intent to so apply it.

UNIFORM LABELING - A series of warning labels applicable to lead compounds has been submitted to all states known to require such labeling and acceptance secured from each, thus obviating the onerous necessity of differing labels in the various jurisdictions. A threat to such uniformity by the Federal Supply Service was finally overcome by their acceptance of the form of labeling referred to above.

NEW YORK CITY PAINT LABEL - The initial proposal of the New York City Health Department to require a poison label on all paints containing any lead whatsoever was ultimately modified through the establishment, at our instance, of a committee of the American Standards Association which evolved a standard permitting up to one per cent of lead in paints used on surfaces which "might be chewed by children," thus allowing the inclusion of lead driers in such paints. The "poison" wording was also modified.

AMERICAN STANDARD Z66.1-1955 - The Standard above referred to, promulgated by the A.S.A. in March, 1955, has attracted wide attention and bids fair to be accepted by the authorities of other municipalities, such as Chicago and Philadelphia, concerned with this type of regulation. It has also been brought to the attention of state and local health officers in Connecticut, Maryland, Massachusetts, Missouri, New Jersey, Ohio and other states.

CHILDHOOD LEAD POISONING - The difficult problem of childhood plumbism continues to be the source of too much adverse publicity in the daily press, and much of the legislative and regulatory activity already spoken of stems directly from it. In addition to the governmental agencies concerned, we have sought to cooperate with such groups as the American Academy of Pediatrics, the American Academy of General Practice, the American Medical Association, the National Paint, Varnish and Lacquer Association and its subsidiaries, the National Association of Furniture Manufacturers and the Toy Manufacturers of the U.S.A., as well as with many hospitals and individual physicians, toward better understanding, prevention, diagnosis and treatment, and feel that progress is being made.

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Partial support of the laboratory and field work at the Children's Medical Center, Boston, has continued, but under a new arrangement which involves greatly lessened cost to the Association.

INDUSTRIAL LEAD POISONING - Continued reports and requests for preventive and therapeutic advice from all parts of the country tend to bear out Dr. Kehoe's statement, at our annual meeting in 1953, that the total of industrial plumbism cases has not greatly lessened in recent years, although there has been a marked decrease in the severity of the individual case. Both engineering and medical control measures still leave much to be desired in many plants.

LEAD THERAPY - The so-called "CaEDTA" treatment for heavy metal poisoning, referred to annually since its development some five years ago, has continued to be followed closely. Hitherto considered of itself quite non-toxic, and undoubtedly the best therapy in lead intoxication, studies during 1955 have shown its use, if not carefully controlled, to be not without danger. These findings will shortly be available in reprint form and mailed to all members of the Association.

LEAD IN SMOG - Quite unfounded allegations that lead in the air of our city streets, emanating from the exhausts of motor vehicles burning the widely-used leaded gasolines, constitute a menace to the public health, have been the subject of exhaustive inquiry. Figures on lead in the street air of a number of cities have been secured, air pollution officials have been consulted, and it is believed that this ghost has been laid to rest.

PLASTIC PIPE REPORT - On learning that the report of a study of the use of plastic pipe for potable waters, recently completed at the School of Public Health, University of Michigan, would include statements adverse to our interests, arrangements were made to study the galley proof of the report. Through contacts with physicians and industrial hygienists of four of the leading plastic pipe manufacturers, these statements have been eliminated from the final report, scheduled to be available during the current month.

MEETINGS AND TRAVEL - Largely because of pressure of office work, travel has been substantially less than in earlier years. Meetings attended have included five of the American Standards Association, three of the American Medical Association, two of the American Industrial Hygiene Association, one each of that group and the Industrial Medical Association, the Industrial Hygiene Foundation, the National Safety Council, the Saranac Laboratory, the University of Cincinnati, the American Film Assembly, the American Mining Congress, the Greater New York Safety Council and the Metropolitan Life Insurance Company.

Visits in connection with out of town travel have been chiefly to governmental offices, such as the Massachusetts Health and Labor Departments, the Chicago and Cincinnati Boards of Health, and the Federal Supply Service, Department of Labor and Public Health Service.

MEDICAL EDUCATION - Numerous inquiries from physicians, often on quite rudimentary topics, to say nothing of instances of misdiagnosis, continue to stress the great need of finding a way to acquaint the general practitioner, who handles no small part of the case load, with the fundamental facts of the recognition and treatment of plumbism, a subject given little or no attention in the medical schools. The opinion that the most effective means to this end would be an instructional motion picture, distributed to medical schools and meetings by the American Medical Association, has the best of professional support.

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It is hoped that the fortunate circumstance of Mr. J.A. Martino's chairmanship of the Metals Division of the Committee of American Industry for the National Fund for Medical Education will bring a new awareness of the importance of this problem.

POST-GRADUATE COURSE ON PLUMBISM - The opening lecture on the use of lead in industry - at the post-graduate course on plumbism, given for physicians at the University of Cincinnati Medical School under Dr. Kehoe, was presented by the Secretary.

LEAD

Our magazine, LEAD, was published twice in 1955, but with additional funds provided by the Industry Development Committee it has been put on a quarterly basis in 1956. At the same time our mailing list has been expanded and improved and now contains over 50,000 names. This publication continues to be a valuable source of inquiries on all sorts of subjects pertaining to the use of lead and its products.

STATISTICS

No major changes in our statistical service to members were made during the past year.

ANNUAL MEETING

For the first time the annual meeting of L.I.A. was held jointly with the American Zinc Institute. It took place in Chicago in April and met with such general approval that joint meetings will be held annually in the future. The meeting consisted of one half-day joint session attended by both groups with a full day for each association to meet independently of the other. Such meetings offer considerable savings in time and money for many members and avoid repetition of subjects of interest to both groups.

HEADQUARTERS

Starting July 1, 1956, arrangements have been made for this Association and the American Zinc Institute to occupy adjoining headquarters with a joint reception room and joint conference room. It is felt that this will result in greater convenience to the members and better office facilities, with probable savings in the long run. The new offices will be located on the 20th floor of the Lincoln Building, 60 East 42 Street, New York 17, N. Y.

MISCELLANEOUS

To keep members informed of Association activities and other developments and literature pertaining to lead, a monthly Information Bulletin is circulated to all members. In addition to trade paper articles on specific subjects prepared as a part of the Association's promotional activities, annual reviews are prepared for such publications as "Engineering & Mining Journal," "Iron Age," and the "Yearbook of the American Bureau of Metal Statistics." Many requests for economic assistance are received from members, bankers, government agencies and publications. Technical assistance is rendered users and potential users of lead products of all kinds. Close liaison is maintained with technical societies like American Institute of Mining, Metallurgical and Petroleum Engineers, American Society for Testing Materials, American Society for Metals, American Society of Sanitary Engineering, and many others. Close relations are also maintained with the Lead Development Association in England.

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Annual Report
for the Year 1955METAL POWDER ASSOCIATION

L.I.A. again handled the administrative affairs of the Metal Powder Association in 1955 for a flat fee which was increased from \$13,000 to \$16,000 at the beginning of the year. While the arrangement has been considered generally advantageous to both parties, M.P.A. now is discussing the possibility of establishing its own organization and a decision should be reached shortly.

STAFF

No changes on the staff were made during the year, although in March, 1956, a junior member of the staff resigned and has not been replaced pending a final decision on the future handling of M.P.A. affairs. The loyalty and quality of our staff is at a high level with experienced personnel in practically all positions. Mrs. A. M. Mayor, who handles payroll, tax and other matters as well as serving as secretary to the Secretary-Treasurer completed 25 years with the Association in 1955.

MEMBERSHIP

Several new members were added to the Association roster in 1955 and early 1956. These were: American Zinc, Lead and Smelting Co., Aaron Ferer and Sons Co., Pend Oreille Mines and Metals Co., and Societe Miniere et Metallurgique de Penarroya. The Secretary wishes to thank all members for their helpfulness and cooperation and the officers and directors for the time and vision they have contributed to Association management.

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Annual Report
for the Year 1955

The Treasurer respectfully submits the report of the audit of the accounts of the Association as of December 31, 1955, by Maskins & Sells, as follows:

MASKINS & SELLS
Certified Public Accountants

67 Broad Street
New York 4

ACCOUNTANTS' CERTIFICATE

Lead Industries Association:

We have examined the balance sheet of Lead Industries Association as of December 31, 1955 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, 1955 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) MASKINS & SELLS

MARCH 26, 1956

LEAD INDUSTRIES ASSOCIATION
BALANCE SHEET, DECEMBER 31, 1955

ASSETS

CASH (including savings bank deposits, \$91,948.35).....	\$295,105.61
ACCOUNTS RECEIVABLE.....	343.33
ADVANCES FOR TRAVEL EXPENSES.....	2,125.43
AIR TRAVEL DEPOSIT.....	825.00
TOTAL.....	\$298,017.97

LIABILITIES AND RESERVES

ACCOUNTS PAYABLE:		
Pigments and Chemicals Division Fund.....	\$ 304.00	
Safety and Hygiene Fund.....	900.00	\$ 1,204.00
DEFERRED INCOME - 1956 membership dues collected in advance - Industry Development Fund.....		221.00
RESERVES:		
Ordinary Fund.....	\$51,213.62	
Safety and Hygiene Fund.....	27,364.56	
Metallic Lead Products Division Fund.....	25,428.82	
Pigments and Chemicals Division Fund (including appropriation for research, \$1,750.00).....	9,485.05	
Industry Development Fund.....	10,532.00	
Ceramic Fund.....	1,806.38	
Radiation Shielding Fund.....	2,500.00	
Employees Retirement and Pension Plan Fund.....	78,941.90	207,990.99
TOTAL.....		\$298,017.97

NOTES:

- (1) The cost of furniture, fixtures, automobiles, 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 past service costs as of January 1, 1955, the effective date of the plan, and current costs for the year 1955.

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LEAD INDUSTRIES ASSOCIATION
STATEMENT OF INCOME, EXPENSES, AND RESERVES
FOR THE YEAR ENDED DECEMBER 31, 1955

	TOTAL	ORDINARY FUND	SAFETY AND HYGIENE FUND	METALLIC LEAD PRODUCTS DIVISION FUND	PIGMENTS AND CHEMICALS DIVISION FUND	INDUSTRY DEVELOPMENT FUND	CERAMIC FUND	RADIATION SHIELDING FUND	EMPLOYEES RETIRE- MENT AND PENSION PLAN FUND
INCOME:									
Membership assessments.....	\$168,850.00	\$ 95,524.00		\$10,806.00	\$ 5,688.00	\$51,832.00			
Transfers between funds.....		(102,961.90)	\$28,000.00	26,500.00	9,500.00	(41,500.00)	\$3,000.00	\$2,500.00	\$78,961.90
Interest on savings bank deposits.....	2,481.10	2,481.10							
Sales of publications.....	1,218.87	190.93		1,055.54					
Total income.....	\$165,569.57	\$ 95,762.97	\$28,000.00	\$38,361.54	\$15,188.00	\$10,332.00	\$3,000.00	\$2,500.00	\$78,961.90
EXPENSES:									
Salaries.....	\$ 86,506.73	\$ 52,819.00	\$16,381.73	\$10,875.00	\$ 6,431.00				
Social security taxes.....	1,558.55	1,005.68	235.10	166.53	151.26				
Rent and light.....	8,924.40	8,924.40							
Office supplies.....	1,834.64	1,336.18	102.25	109.80	286.43				
Travel.....	15,472.10	6,153.31	1,581.51	7,141.38	502.09		\$ 95.81		
Association dues.....	733.40	344.90	206.50	182.00					
Entertainment and luncheons.....	2,003.05	903.78	810.91	686.36					
Meetings (net of fees \$2,010.00).....	2,190.01	1,453.02	17.00	626.99	61.00				
Telephone and telegraph.....	1,770.64	1,408.48	205.52	140.29	16.35				
Books and subscriptions.....	1,144.09	373.17	611.55	113.72	45.65				
Printing - net.....	1,864.86	753.86	77.10	99.93	933.97				
Mailing.....	2,558.64	965.83	163.81	285.22	1,125.78				
Cost of publications:									
"Lead".....	4,927.50	4,427.65					499.85		
"Plumbers Lead Forum".....	3,232.88			3,232.88					
"Lead work for modern plumbing".....	3,912.16			3,912.16					
Furniture and fixtures.....	717.18	717.18							
Illustrations.....	529.95	171.12	201.87	101.72	115.26				
Research and research materials.....	1,563.99		453.90		1,110.09				
Consultation fees.....	940.00				390.00		600.00		
Apprenticeship contest.....	500.52			600.62					
Miscellaneous.....	2,652.70	1,835.93	457.12	175.20	184.46				
Metal powder Association - for rent, services, etc.....	(16,000.00)	(15,000.00)							
Expenses - net.....	\$129,705.03	\$ 57,651.49	\$21,105.87	\$28,451.72	\$11,301.29		\$1,193.48		
EXCESS OF INCOME (EXPENSES) FOR THE YEAR.....	\$ 35,864.54	\$ (78,816.36)	\$ 2,894.13	\$ 9,909.82	\$ 3,886.71	\$10,332.00	\$1,866.52	\$2,500.00	\$78,961.90
RESERVES, JANUARY 1, 1955.....	172,386.43	126,029.66	24,470.43	16,189.00	5,597.14				
PRIOR YEAR'S MEMBERSHIP DUES CANCELED.....	(1,170.00)	(800.00)		(770.00)					
RESERVES, DECEMBER 31, 1955.....	\$207,000.99	\$ 151,212.52	\$27,764.56	\$25,428.82	\$ 9,483.85	\$10,332.00	\$1,806.34	\$2,500.00	\$78,961.90

() Denotes red figure.

LEAD INDUSTRIES ASSOCIATION

480 LEXINGTON AVENUE

NEW YORK 17, N. Y.

April, 1956

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.
The American Metal Co., Ltd.	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 G. A. Avril Co., Lead Products Division	Langdon Farm Rd. and Seymour Ave.	Cincinnati 12, Ohio
Bers & Co., Inc.	Ashland & Lewis Sts.	Philadelphia 24, Pa.
*Broken Hill Associated Smelters Proprietary Ltd.	Collins House	Melbourne 61, Australia
*Broken Hill South, Ltd.	Box 194-C, G.P.O.	Melbourne, Australia
Bunker Hill & Sullivan Mining and Concentrating Co.	Box 29	Kellogg, Idaho
Cambridge Smelting Co.	100 Pacific St.	Cambridge, Mass.
*Cerro de Pasco Corp.	300 Park Ave.	New York 22, N.Y.
*The Consolidated Mining and Smelting Co. of Canada Limited	Place d'Armes	Montreal 1, Canada
Day Mines, Inc.		Wallace, Idaho
Dickson Weatherproof Nail Co.	Box 590	Evanston 4, Ill.
Division Lead Co.	7742 W. 61 Place	Summit, Ill.
Dixie Lead Co.	P.O. Box 8625	Dallas, Tex.
E. I. duPont de Nemours & Co. Inc.	American Bldg.	Wilmington 98, Del.
The Eagle-Picher Co.	Box 8109	Cincinnati 1, Ohio
The Electric Storage Battery Co.	100 Park Ave.	Philadelphia 1, Pa.
Ethyl Corp.	500 Penn Ave.	New York 17, N.Y.
Euston Lead Co. (The Glidden Co.)		Scranton 3, Pa.
Evans Lead Division (National Lead Co.)	Box 1467	Charleston 25, W.Va.
Federated Metals Division of American Smelt. & Ref. Co.	120 Broadway	New York 5, N.Y.
Aaron Ferer and Sons Co.	101-19 S. 8 St.	Omaha 8, Neb.
*The Firestone Tire & Rubber Co.	Box F, Firestone Park	Akron 17, Ohio
The Fluem Lead Co., Inc.	52-01 - 31 Place	Long Island City 1, N.Y.
W. P. Fuller & Co.	301 Mission St.	San Francisco 19, Cal.
Gardiner Metal Co.	4820 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.		Wallace, Idaho
Hudson Smelting & Refining Co.	85-95 Hyatt Ave.	Newark 5, N.J.
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.
The Johnston Foil Manufacturing Co.	6016-6120 S. Broadway	St. Louis 11, Mo.

* Associate Member



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April, 1956

MEMBERS OF THE LEAD INDUSTRIES ASSOCIATION
(Continued)

Knapp Mills, Inc.	23-15 Borden Ave.	Long Island City 1, N.Y.
Lead Products Co. Inc.	P.O.Box 1341	Houston 1, Tex.
John R. MacGregor Lead Co.	4520 W. 15 St.	Chicago 23, Ill.
Metro Smelting Co.	Ontario & Bath Sts.	Philadelphia 34, Pa.
Mike Horse Mining & Milling Co.	620 Power Bldg.	Helena, Mont.
The Murdock Lead Products Co.	P.O.Box 5298	Dallas 2, Tex.
National Lead Co.	111 Broadway	New York 6, N.Y.
New Park Mining Co.		Keetley, Utah
* North Broken Hill, Ltd.	Box 1903-R, G.P.O.	Melbourne, Australia
Northwest Lead Co.	2700 - 16 Ave.S.W.	Seattle 4, Wash.
The Okonite Co.		Passaic, N.J.
Olin Mathieson Chemical Corp.		East Alton, Ill.
Pend Oreille Miner & Metals Co.	Old National 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.
River Smelting & Refining Co.	4195 Bradley Road	Cleveland 1, Ohio
Rochester Lead Works, Inc.	380 Exchange St.	Rochester 8, N.Y.
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.	1708-1720 Elston Ave.	Chicago 22, Ill.
* Societe Miniere et Metallurgique de Penarroya	12 Place Vendôme	Paris 1, France
Standard Rolling Mills, Division of Revere Copper & Brass Inc.	196 Diamond St.	Brooklyn 22, N.Y.
Sunshine Mining Co.	115 N. Second St.	Yakima, Wash.
United American Metals Corp.	193 Diamond St.	Brooklyn 22, N.Y.
United Park City Mines Co.	Continental Bank Bldg.	Salt Lake City 1, Utah
United States Smelting Refining and Mining Co. Inc.	57 William St.	New York 5, N.Y.
The Victory White Metal Co.	6100 Roland Ave.	Cleveland 27, Ohio
Hyman 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 & Stamp. Corp.	80 Moultrie St.	Brooklyn 22, N.Y.
* The Zinc Corp. Ltd.	Box 384-D, G.P.O.	Melbourne, Australia

* Associate Member

Annual Meeting Minutes

Exhibit "B"
April 24-25, 1956REPORT OF THE TECHNICAL STEERING COMMITTEE*

Albert J. Phillips

Vice President and Director of Research
American Smelting and Refining Company
Chairman, L.I.A. Technical Steering Committee

The Technical Steering Committee of the Lead Industries Association had one meeting at the time of the Annual Meeting on April 24, 1955 and at this meeting the general type of organization for the Steering Committee was considered. It was agreed that the Steering Committee would merely be advisory in capacity and that where work was called for a Task Force would be appointed to handle the matter, with the help of the Secretary and approval of the Board of Directors of the Association.

It was decided to create a Task Force to consider the development of new lead alloys for cable sheathing. A report has been received on the activities of this Task Force for the year.

After considering the field of lead for nuclear shielding, the Committee recommended the retaining of a consultant to prepare a report on this subject. This was done and a report received and distributed to all members.

In the case of lead in ceramics, the Committee, likewise, recommended the retaining of a qualified consultant. This was done and a report from the consultant received and presented at the Annual Meeting.

It was the unqualified opinion of the Steering Committee that the Association should undertake to prepare the ACS Monograph on Lead and that it should be done by means of an Editing Committee, who would select authors and review manuscripts prior to submission to the publisher. The Association is fortunate in that Dr. Alex Stewart agreed to serve as Chairman of the Editing Committee. His Committee has already selected most of the authors for the Monograph.

In February, 1956 a meeting of the Technical Steering Committee was held in order to review the report on nuclear shielding and at that time it was decided that further work by the consultant was not needed and that the Lead Industries Association should have on its staff someone qualified to gather the pertinent information on the use of lead in radiation shielding and disseminate it throughout the atomic and x-ray industries. Action along this line has not as yet been completed but plans are being made.

*Presented at the 28th Annual Meeting,
Lead Industries Association, April 24-25,
1956, St. Louis, Mo.

REPORT OF INDUSTRY DEVELOPMENT COMMITTEE

C. R. Ince
Vice President, St. Joseph Lead Co.

Toward the latter part of 1954 a group of the lead producers of the Lead Industries Association decided that a more intensive market development program should be undertaken by the industry to retain and, if possible, enlarge existing markets, and also investigate and promote potential outlets for lead. With this objective in mind they agreed to subscribe to a new fund to be known as the Industry Development Fund, each contributing an equal amount of money per ton of lead sold in the United States. This money was to be spent as recommended by a committee composed of all companies subscribing to the fund, with approval of the Board of Directors of the L.I.A. Thus, for the first time the Association had available for market development a fund which could be used wherever the occasion seemed to warrant.

First appropriations from the Fund were made to take over the major burden of supporting the Metallic Lead Products Division and Pigments and Chemicals Division. The former division is devoted to the promotion of lead in the fields of building and chemical construction and the latter devoted primarily to red lead paints. Both of these divisions are holding meetings during these sessions and their activities will be reported on. All members are welcome to attend these division meetings.

The Committee also considers recommendations which are made by the Technical Steering Committee. An appropriation was approved to make a survey of the market for lead in radiation shielding. This survey has been completed and copies circulated to the members and the Technical Steering Committee. The latter feel that a substantial market is, or will be, available to us in this field and we have approved a recommendation of that committee that the Association staff have a man "Q" cleared to gather all available information about the use of lead as a shielding material and disseminate it through a series of technical bulletins to the atomic industry. Retaining a recognized consultant to guide the staff was also recommended. This recommendation is now before the Board of Directors.

In connection with the use of lead in cable sheathing, a Task Group has been set up and has held its third meeting in an attempt to solve the problem of continuous extrusion of lead alloys as a means of improving the cable sheath market for lead. This work is progressing but so far has not required any appropriation from the Industry Development Fund.

In the field of lead in ceramics, a technical committee made up from members who supply products to the ceramic industries was organized and funds appropriated for a program to develop the market for lead in ceramics, about which you will hear tomorrow.

The Industry Development Committee has also provided funds to increase the frequency of publication of the Association's magazine "Lead" from two to four times a year starting with the beginning of 1956. The circulation of this publication has been expanded to over 50,000 names by including additional architects, ceramists and other groups with potential interest in lead products.

* Presented at the 28th Annual Meeting,
Lead Industries Association,
April 24-25, 1956, St. Louis, Mo.