

LEAD INDUSTRIES ASSOCIATION

292 MADISON AVENUE

NEW YORK 17, N. Y.

April 14, 1961

SUBJECT: REPORT OF THE
SECRETARY AND TREASURER

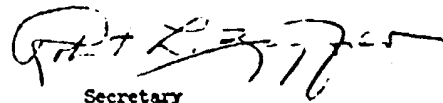
To Members of the Lead Industries Association:

Enclosed are:

1. Report of the Secretary for the year 1960.
2. Report of the Treasurer for the year 1960.
3. Current list of members.

The report of the Secretary-Treasurer will be presented at the annual meeting in Chicago.

Very truly yours,



Secretary

RLZ:JRH

Enc.

NOT AREA - 10000

ANNUAL REPORT OF THE
SECRETARY - TREASURER
FOR THE YEAR 1960

A copy of my annual report has been mailed to all members. It lists the details of publications of the Association produced in 1960, of our advertising and publicity programs, of the activities of our staff, and other projects in which the Association has been engaged. I hope all of you will find time to read it. Also, please take a few minutes to look over the displays in this room of our promotional materials and some of the new lead products that are coming along. I want to reiterate Dick Miller's invitation to any of you who are interested in shooting a little lead into the air within a few minutes of the hotel and to call your attention to the electric truck and automobile which are available for inspection and demonstration just outside. Inquire at the registration desk if you are interested in shooting or seeing the truck and car.

As a time saver I'm not going to read my detailed report here. Instead I want to discuss in a general way our approaches to the problem of increasing markets for lead. I say "approaches" in the plural because there are many. Generally speaking each different approach can be useful, but they must be coordinated and balanced, with each being fitted into its proper place. In my opinion, anyone who thinks that magazine advertising alone, or publicity alone, or exhibits alone, or direct mail alone, or technical service alone, or even research alone will do an adequate job of increasing lead markets to any major extent is deluded. Also, anyone who thinks that a major impression can be made without major expenditures is deluded.

At the core of the Association's program to develop lead markets is, of course, our personalized technical service. Our technically trained staff, enhanced this year by the addition of an architect, is well versed in the capabilities of lead in many fields. It attempts to make as many personal visits to potential important lead users as possible in the course of a year and to work with them in applying lead to their problems. It conducts a wide service by correspondence and telephone, and furnishes us with the technical information we need for our publications and advertising.

At best, however, each man can maintain relations with relatively few people in this way, say several hundred a year, and these contacts are necessarily limited to the number of men we can put in the field. This type of personal work is exceedingly effective, if you have the right men, as I believe we have, but it is also exceedingly costly. Somehow our message has to reach more people, and some means have to be used to create "hot" leads for these men.

A somewhat analogous approach permitting contacts with more people at less expense but not so selective nor under such favorable conditions is the trade show exhibit. These we use to a limited extent in certain industries. While we have found these shows useful, they must be carefully selected and exhibits carefully planned; and generally contacts thus made require further follow-up in one way or another. These exhibits are also valuable sources of names of people with some interest in lead for our mailing lists.

Next we come to the mass approaches which are dependent upon and complementary to the personal approach. Space advertising in selected fields offers an opportunity to get a brief message to a lot of people at low cost. In technical markets I do not believe that it often results in actual sales of a product, but it can be used to sell ideas, to create a favorable atmosphere for other means of contact, and to yield many valuable leads for follow-up. It can create an image for our products and let industry know that we are alive. It has the advantage of hitting selected groups repeatedly in a planned manner.

Direct mail advertising, which we also use, permits us to bring a more detailed and technical message to selected groups and is valuable by itself or as a complement to space advertising. Obtaining and maintaining good mailing lists is difficult and costly, and in this our other forms of promotion are helpful. The cost is entirely dependent on how many people we try to reach in this way and how detailed a message we wish to convey.

We also employ technical publicity as a market development tool. This method is low cost but cannot be planned as methodically as advertising and often cannot go into the detail of direct mail. It is, however, useful, and reprints are valuable aids in support of our other approaches.

This brings us to research, of which you will hear much more from the next speakers from our Expanded Research Program. There is no question of the need for extensive research in our complex and ever-changing economy, and our industry is to be complimented on its recognition of this fact. Now research is of two kinds, that done by our own industry with the laudably selfish purpose of finding new markets for our products and that done by other industries to solve their own problems or develop new products of their own.

The promotional approaches we are using tie in with both of these. In the first instance, nobody today beats a path to your door even if you do have the best mousetrap in the world. You have to tell the world, or at least industries that should be interested what you have that will help them. In the second instance, broad dissemination of technical knowledge about lead will encourage others to try it in their own efforts to solve their problems and tell them how to use it most effectively.

Now all of these methods have been used by LIA for many years in varying degrees. I think our industry is to be congratulated in that today we are making the broadest effort in our history. Our magazine "Lead" first saw the light of day in 1931, the same year in which we published the book "Useful Information about Lead," which was modernized and expanded in 1952 as "Lead in Modern Industry." A lot of other literature and

advertising has appeared in the intervening years. For example, our Red Lead Technical Committee was established in 1943, followed by its comprehensive test program on paint formulations and publication of Red Lead Technical Letters.

The need for carefully planned research was recognized in 1954 with authorization to form the Technical Steering Committee, which was done the following year. On the heels of this came the Cable Sheathing Task Group, also in 1955, which planned the research on continuous extrusion of lead cable sheathing and conducted negotiations for a joint project with the John Robertson Company for a program which culminated in an agreement with that company to build an experimental press. This was done in 1957, and actual testing, started in the spring of 1958, was successfully concluded soon thereafter.

There also followed in 1955 the formation of the Ceramics Technical Committee. This resulted in publication of "Lead in the Ceramic Industries" in 1956 and a program of graduate research fellowships in 1957. Also in 1957 Battelle Memorial Institute was engaged to make a systematic study of our industry's research needs and their report was received later in the same year. Likewise late in 1957 the architectural-engineering firm of Skidmore, Owings & Merrill was commissioned to study possible expansion of lead's construction applications. The report, made in 1958, came up with preliminary information on lead for noise control developed by Bolt Beranek and Newman and subsequently expanded to its present promising proportions.

In 1958 the Expanded Research Program was organized and research established on a much broader basis. You will hear more of that later. Concurrently the promotional efforts of the Association were also extended to a point where we now feel we have a rather nicely balanced, though still modest, promotional effort. Our industry deserves credit for its vision and strong support. Yet we still have a long way to go.

My remarks would not be complete without mentioning a problem our industry has that is not common to most other metal industries. It is the toxicity of lead. Just as important as any research and promotional effort is our knowledge of lead toxicity and our ability to tell people how to use lead safely. Adverse publicity and the fear of lead poisoning are obstacles we have to overcome just as much as any other lack of knowledge about our products. This has been an important activity of LIA for years and should continue to be, on an even larger scale.

I have presented these remarks in the hope of accomplishing several purposes. First, I think it should be on record that our industry has done and is doing a constructive job of trying to solve its own problems. There has been too much criticism and not enough recognition of progressive efforts. Second, I hope it will serve as a reminder that no market development tool can be neglected if we are to succeed in our avowed purpose to increase the use of lead, and care must always be exercised to see that all the parts fit into a balanced, smoothly running whole. Third, I feel that our greatest chance of success lies in providing technically competent people in many industries with all the knowledge we can develop

about our own materials and helping them to apply this knowledge to the development and use of their own products.

SUMMARY OF ASSOCIATION ACTIVITIES--1960

DIRECT MAIL ADVERTISING

1. "Lead." Again this magazine dealing with a variety of lead uses was circulated four times to a list of over 50,000 users and potential users of the metal, carrying a total of more than 1,200,000 individual messages about lead applications. It was "Lead's" thirtieth year of publication, and, for the start of its fourth decade of life, an entirely new and modernized cover has been designed better to reflect the modern image of lead and to conform with the magazine's modernized layout and coverage.

2. Industrial Truck Brochure. This 12-page booklet on the advantages of storage-battery-powered industrial trucks, which was prepared late in 1959, reached a total printing of nearly 100,000, including a German translation, at a cost to the Association of less than the cost of 5,000 copies. This was possible because battery companies, utilities and others purchased large quantities for their own distribution.

3. Terne Plate Roofing. A four-page flyer on the renaissance of terne plate (lead-alloy coated steel) roofing was prepared and circulated to about 16,000 architects and builders.

4. Sound Barriers. A technical report on the advantages of lead-containing sound barriers was prepared with the assistance of acoustical consultants Bolt Beranek and Newman and printed as a 12-page brochure. It was mailed to about 15,000 architects and engineers and a broad list of trade magazines. It also received a one-page review in "Progressive Architecture." As a result, more than 4,000 requests for copies and technical information have since been processed.

5. Construction Bulletins. Two previously printed "Lead Construction Bulletins" were reprinted as the original supply was exhausted. They dealt with lead shower pans and waterproofing and with lead chemical laboratory drainage systems.

6. Sweet's Catalogs. Our two four-page catalogs in Sweet's Architectural File and Sweet's Light Construction File were continued for another year. In addition, a new 12-page catalog was prepared and included in the 1961 Sweet's Design Engineering File. To answer inquiries and use at exhibits 7,000 reprints were obtained.

7. Ceramic Supplements. A new six-page supplement to "Lead in the Ceramic Industries" on leaded porcelain enamels for aluminum was issued and circulated to the 6,500 ceramists who have copies of the book. A second four-page supplement on leaded low-temperature porcelain enamels for steel was prepared and similarly distributed.

PUBLICITY AND REPRINTS

8. Anodes. A paper on nonsacrificial lead-alloy anodes for protection of steel against corrosion was reprinted from "Corrosion" magazine and reprints used in answering inquiries, distribution at trade shows, and circulation to members.

9. Lead Dome. An article prepared by LIA with the cooperation of, and signed by, the chief maintenance supervisor of the New Jersey State Prison Farm, describing 25 years of trouble-free service of the lead dome on the state prison at Rahway, New Jersey, appeared in "Heating and Air Conditioning Contractor." It was reprinted and distributed to some 15,000 architects and sheet metal contractors. It is interesting that LIA originally prepared the specifications for this dome 25 years ago.

10. Niagara Power Project. As a result of cooperation between LIA and the editors of "Materials in Design Engineering," a one-page article on the use of lead lubricating seals in this project appeared in that magazine.

11. Cooling Tower Antivibration Pads. We were instrumental in the publication in "Air Conditioning, Heating and Ventilating" of an article on these pads under the cooling tower of the skyscraper at 575 Lexington Avenue, New York, signed by one of the partners in the firm of consulting engineers for the building. Reprints were obtained and distributed to 15,000 architects and engineers. Another article on the same subject appeared in "Plant and Power Services Engineer."

12. "The Challenge of New Battery Systems." This was the title of a paper by the late C. G. Grimes, vice president--research, Electric Storage Battery Company, delivered at the annual meeting of the Association of American Battery Manufacturers. LIA reproduced it and distributed it to members.

13. Lead Welding. The chapter on this subject in the "Welding Handbook" of the American Welding Society was revised for publication in a new edition.

14. Sound and Vibration Attenuation. As a result of LIA cooperation with editors of "Steel" and "Chemical Week," an excellent article appeared in each on this general subject. Reprints of both were obtained for distribution to members and others.

15. Technical Developments. A brief Review of recent technical developments in lead was prepared and published in "Steel" magazine.

16. Battery-Powered Delivery Trucks. An article on these trucks was prepared and published in "Food Processing" magazine with a 45,000 circulation. About 5,000 reprints were obtained for further distribution.

17. Lead Shielding for Portable Reactors. An article on this subject was prepared and printed in "Materials in Design Engineering." Reprints were sent to members and our list of nuclear engineers.

18. Bearings. Through cooperation with editors of "Materials in Design Engineering" and "Design News," two articles appeared on two new types of lead bearings. Reprints were circulated to members and others interested.

19. Chemical Construction. A broad article on the use of lead for chemical construction was prepared and published in "Chemical Engineering." Reprints were circulated as a Chemical Construction Bulletin to our own mailing list of chemical engineers and chemical engineering schools.

20. "Lead--Its Alloys and Compounds." The annual article on this subject was prepared and printed in "Industrial and Engineering Chemistry." Reprints were distributed to a selected list of 1,600 people.

21. Value of Publicity. The value of space obtained in trade magazines for publicity emanating from LIA and its agency in 1960, figured at advertising space rates for the editorial space occupied by the publicity, was approximately \$100,000. About two-thirds of this was attributable to feature articles covering a broad range of subjects which included, but were not confined to, nuclear shielding, roofing, storage batteries, sound and vibration control, stained glass, sheet lead, ceramics, plumbing and chemical construction.

TECHNICAL PAPERS AND LECTURES

22. Metal Dealers. A lecture on the uses of lead was delivered before the Detroit Metal Dealers Association.

23. Cable Sheathing. Technical reports of the research program on continuous extrusion of lead cable sheathing were rewritten and consolidated into a paper which was delivered by the Research Director before the fall meeting of the American Institute of Electrical Engineers. Copies were distributed to members and the power distribution industry.

24. Ceramic Research Paper. A paper based on research supported by LIA's Expanded Research Program at Pennsylvania State University appeared in the "Journal of the American Ceramic Society." It was reprinted for distribution to members and others.

25. Naval Reserve Lecture. A one-hour lecture with particular reference to new lead uses in national defense was delivered before a large group of Naval Reserve Officers in New York.

26. Lead Shower Pans. A paper on lead shower and safe pans was delivered before the annual meeting of the American Society of Sanitary Engineering.

27. Annual Review. The annual review of the lead industry was prepared and appeared in "Engineering and Mining Journal."

EXHIBITS AND MEETINGS

28. Annual Meeting. A successful annual meeting of LIA, with one session held jointly with the American Zinc Institute, was conducted in St. Louis.

29. Trade Show Exhibits. LIA had promotional exhibits at the following important trade shows:

National Home Builders Show
Design Engineering Show
National Association of Plumbing Contractors Show
Industrial Building Exposition

30. Meetings Attended. In order to maintain close contact with the varied groups in industry that may affect the use of lead, and to keep a finger on the pulse of associated industries generally, many meetings of industry groups were attended. A partial list follows:

Signal Corps Battery Conference
Association of American Battery Manufacturers
Sea Horse Institute (corrosion)
American Ceramic Society
American Mining Congress
Porcelain Enamel Institute
American Institute of Mining, Metallurgical and Petroleum Engineers
American Society for Testing Materials
National Association of Corrosion Engineers
National Association of Plumbing Contractors
National Association of Home Builders
American Institute of Electrical Engineers
American Chemical Society

31. Plumbers Apprenticeship Contest. At this week-long contest held at Purdue University, LIA provided a judge for the lead work, prizes for the three best lead workers, and lead materials to be used by the contestants. Also it supplied an instructor for the refresher course for plumbing instructors teaching lead work.

SPACE ADVERTISING

32. Advertising Schedule, 1960. Following is the advertising schedule run by LIA last year:

Publication	Pages	Circulation	Subject
Materials in Design Engineering	6	31,000	Properties and uses
Product Engineering	6	42,000	" "
Engineering News-Record	9	81,000	Metallic lead for construction
"	4	81,000	Metal protective paints
Marine Engineering/Log	4	16,000	" "
"	2	16,000	Lead anodes
Bulletin of American Ceramic Soc.	12	8,000	Lead in ceramics
Ceramic Industry	4	6,000	" " "
Ceramic Age	6	8,000	" " "
Brick and Clay Record	4	5,000	Lead glazes for clay products
Metal Product Manufacturing	4	15,000	Leaded porcelain enamels
"	2	15,000	Lead pearlescent pigments

Total circulation was over 200,000, with individual sales messages totaling nearly 2,000,000.

HEALTH AND SAFETY

33. Alleged Lead Poisoning from Drinking Water. A lawsuit against an apartment building owner in Milwaukee making this allegation was entered more than a year ago. Because of the harmful effect a decision in favor of the plaintiff would have, we have very actively aided in preparation of the defense, since the facts indicate the complaint to be without foundation. The trial has been postponed several times since last fall, and it now appears that the plaintiff is not anxious to have the case come to trial because of the strength of the defense.

34. Toxicity Research. A meeting of members and interested industrial medical men and toxicologists was held under LIA auspices to consider the need for research on lead toxicology and a proposal for such work from Harvard, as well as other possible approaches. The need for such research was generally agreed upon but it was recommended that details of approach be undertaken by a smaller group of experts.

35. Childhood Lead Poisoning. A grant of \$2,000 was made to Dr. H. D. Smith of the Cincinnati Children's Hospital Research Foundation to determine lead's actual share of responsibility for mental retardation which lead poisoning in children is alleged to cause.

36. Health and Safety Bulletins. Three of these Bulletins were circulated to members during the year.

37. Air Pollution Regulations. The trend toward state and federal regulation of the general atmosphere in communities, much as factory atmospheres have been regulated in the past, has required close watch of developments in this area.

38. Lead Poisoning from Pottery. Two cases of lead poisoning from improperly fired pottery, fortunately not serious and accompanied by full recovery, led to a vast amount of unfavorable publicity and started agitation for control of the use of lead in glazes. To forestall governmental controls and avoid recurrence of such incidents, we initiated a jointly financed study of solubility tests and lead tolerances with the U. S. Potters Association under Dr. Robert A. Kehoe of the Kettering Laboratories at the University of Cincinnati Medical School.

39. Lead Poisoning in Cattle. Assistance was rendered the Southern Pacific Railroad in preparing defense of a suit for the poisoning of cattle resulting from sandblasting a lead-painted bridge.

40. ASA Committee. We have continued to serve on the American Standards Association committee dealing with hazards to children from lead-containing paints. It met several times during the year.

41. Moonshine Whiskey. LIA lodged a strong protest with the Internal Revenue Service over scare publicity issued by that organization involving the danger of lead poisoning from drinking illegal liquor. In this, at our request, we were joined by the U. S. Department of the Interior. However, publicity had already issued by the time the protests were made and received wide attention in the papers.

42. Alleged Lead Poisoning from Lead Paint. Considerable assistance has been given the Delaware River Port Authority in preparation of its defense of a suit brought by several painters who allege that they contracted lead poisoning from spray painting the Delaware River Bridge at Philadelphia with red lead paint.

43. Meetings. Among meetings attended in the interest of our health and safety work were those of the Air Pollution Control Association, Industrial Health Conference, and Industrial Hygiene Foundation. Our health and safety director was a speaker at the Industrial Health Conference, which was sponsored by five major organizations in that field.

44. Health and Safety Director. The Association suffered a great loss in the untimely and sudden death of Manfred Bowditch, health and safety director for over 12 years, at mid-year. The Board has authorized his replacement, but a suitable man has not yet been located. Meanwhile the health and safety work has been carried on by the Secretary, as best he could, with the help of Mr. Bowditch's many friends in the industrial hygiene field.

MISCELLANEOUS

45. Information Bulletins. Nine of these bulletins were circulated to members during the year.

46. New Headquarters. The Secretary is proud that he was instrumental in the location of and negotiations for the new headquarters of LIA, American Zinc Institute and the Expanded Research Program of AII-LIA. The enlarged and improved quarters bring all three groups conveniently together on an entire air-conditioned floor laid out completely to our specifications and at a cost considerably lower (nearly \$10,000 a year) than the amount previously authorized by the Board. The move was made on May 2.

47. Statistics. The Annual Statistical Review was prepared and circulated to members. Also the introduction to the lead section of the "Year Book" of the American Bureau of Metal Statistics was prepared. There has been no change in regular statistical services, although efforts were made from time to time to eliminate discrepancies in statistics emanating from various sources and to speed up statistical services.

48. Meetings. Among meetings of association members during the year, aside from the Annual Meeting and those called by ERP, were: Board of Directors (2), Industry Development Committee (2), Pigments Technical Committee (2), Ceramics Technical Committee (2), Metallic Lead Products Advisory Committee (1).

TECHNICAL SERVICE

It is impossible in a summary report of this nature to give an adequate idea of the technical services rendered by members of the staff from day to day by telephone, mail and personal visits. The following contacts are cited only to give a general idea of these activities which probably occupy more staff time than any other.

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Annual Report for 1960

49. Soundproofing. IBM (business machines), U. S. Plywood Corp. (wall panels), New Castle Products (folding doors), Marley Co. (cooling towers), Pertacel-Le Page, Inc. (adhesives), Mare Island Naval Shipyard (hull damping compounds), Dave Chapman, Inc. (movable partitions), Minnesota Mining and Manufacturing Co. (adhesives), Buffalo Forge Co. (blowers), Chemical Coatings and Engineering Corp. (leadex epoxies).

50. Metal Products. Ohio State Highway Dept. (bearing plates), U. S. Army Corps of Engineers (ICBM launching bases), Phoenix Building Products (waterproofing), New York Park Department (roofing), James W. Ruderman, consulting engineer (Pan Am Building), and many architects.

51. Paints. Pennsylvania and Michigan State Highway Departments (traffic marking paints), Crystal Essence Co. and Mearl Corp. (pearl pigments).

52. Nonsacrificial Anodes. Electro Rustproofing Co.

53. Ceramics. Barrows Porcelain Co. and Monarch Aluminum Co. (porcelain enamels), O. Hornel Co. (frits), A. O. Smith Co. (glass coatings), Minnesota Mining and Manufacturing Co. (glass beads), Eranson Ultrasonics and Clevis Corp. (piezoelectrics), E. I. du Pont de Nemours & Co. (porcelain enamels), Pemco Inc. (frits).

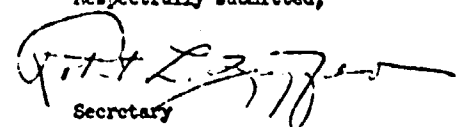
STAFF

The entire staff is to be commended for the high degree of initiative, energy, intelligence and loyalty with which it has conducted its work during the past year. The sudden loss of our health and safety director in June was, of course, gravely felt, but we have managed to meet all urgent health problems in the interim although some of the more routine, yet important, work has undoubtedly suffered. New dictaphone equipment has enabled the clerical staff to handle an increased volume of work without increasing personnel.

At the year end certain staff changes were approved in the interest of efficiency. It was decided to replace one metallurgical engineer by an architect to provide better technical service to the construction industry. It was also decided to add one more man to work on technical publicity and general technical service work, and to discontinue advertising agency handling of publicity. Both of these changes have been made since the first of the year, but the position of health and safety director still remains open.

We feel that at the moment we have a highly efficient and capable staff.

Respectfully submitted,


Secretary

RLZ:JRM

Annual Report
for the Year 1960The Treasurer respectfully submits the report of the audit of the accounts of the Association
as of December 31, 1960 by Maskins & Sells, as follows:MASKINS & SELLS
Certified Public Accountants2 Broadway
New York 6

March 30, 1961

ACCOUNTANTS' OPINION

Lead Industries Association:

We have examined the balance sheet of Lead Industries Association as of December 31, 1960 and the related statement of income, expenses, and reserves and supplemental schedules 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 and supplemental schedules present fairly the financial position of the Association at December 31, 1960 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

LEAD INDUSTRIES ASSOCIATIONBALANCE SHEET, DECEMBER 31, 1960

<u>A S S E T S</u>		
<u>CASH:</u>		
Operating funds (including savings bank deposits, \$115,859.36).....	\$362,311.40	
Employees Pension Plan Fund (savings bank deposits).....	137,935.27	
Total cash.....		\$520,246.67
ACCOUNTS RECEIVABLE.....		200.50
ADVANCES FOR TRAVEL EXPENSES.....		1,875.00
AIR TRAVEL DEPOSIT.....		425.00
TOTAL.....		<u>\$522,747.17</u>
<u>LIABILITIES AND RESERVES</u>		
ACCOUNTS PAYABLE.....		\$ 11,805.81
<u>RESERVES:</u>		
Ordinary Fund.....	\$ 56,078.98	
Health and Safety Fund.....	25,819.50	
Industry Development Fund.....	72,409.58	
Expanded Research Program.....	218,622.07	
Employees Pension Plan Fund.....	137,935.27	
Total reserves.....		<u>510,941.36</u>
TOTAL.....		<u>\$522,747.17</u>

NOTES:

- (1) Expenditures for furniture, fixtures and equipment are not capitalized, but are charged to expense at the time of purchase.
- (2) The amount of the employees pension plan fund reserve is based on an actuarial computation and covers both past service and current service costs.

LEAD INDUSTRIES ASSOCIATION
STATEMENT OF INCOME, EXPENSES, AND RESERVES
FOR THE YEAR ENDED DECEMBER 31, 1960

	TOTAL	ORDINARY FUND	HEALTH AND SAFETY FUND	INDUSTRY DEVELOPMENT FUND	EXPANDED RESEARCH PROGRAM	EMPLOYEES PENSION PLAN FUND
INCOME:						
Membership assessments.....	\$737,001.00	\$103,959.00		\$268,004.00	\$45,038.00	
Transfers between funds.....		(25,750.00)	\$25,750.00			
Interest on savings bank deposits.....	9,010.25	933.49	619.18	709.17	1,772.94	\$ 4,975.87
Miscellaneous (including sales of publications).....	1,555.83	447.36	164.00	944.47		
Total income.....	747,567.08	79,589.85	26,533.18	269,657.64	346,810.94	4,975.87
EXPENSES:						
Salaries and payroll taxes.....	157,600.70	28,350.73	10,754.27	83,498.49	34,997.16	
Rent and light.....	17,955.28	10,029.60		5,000.00	2,935.64	
Office supplies and services.....	6,349.53	2,222.83	248.54		3,678.11	
Travel.....	30,771.49	5,221.58	1,173.39	13,331.51	11,025.21	
Association dues.....	961.13	52.07	203.50		557.56	
Entertainment and luncheons.....	3,646.10	1,405.07	130.59	2,130.44		
Meetings (net of fees, \$1,970.00).....	3,507.46	1,940.19	187.71	876.42	100.16	
Telephone and telegraph.....	4,966.69	2,373.86	244.72	670.51	1,674.60	
Socks and subscriptions.....	1,273.38	243.90	433.76	353.52	242.17	
Group life insurance.....	1,131.65	1,056.60			75.25	
Printing.....	409.47	409.47				
Mailing.....	4,080.15	1,529.75	133.92	1,604.66	833.83	
Test Program.....	1,073.00			1,006.00		
Legal, accounting, and consultation fees.....	5,760.27		761.00	2,223.00	2,774.27	
Pension plan costs.....	1,075.00	10,154.71			1,075.00	(10,154.71)
Conventions and exhibits.....	20,669.11			20,669.11		
Furniture and fixtures.....	4,433.13	2,628.04			1,805.09	
Moving and new space expenses.....	4,867.47	4,071.62			815.65	
Miscellaneous.....	8,420.97	3,197.36	3,222.99	1,471.72	526.90	
Cost of publications, net (see Schedule A).....	54,101.75			54,101.75		
Advertising and publicity (see Schedule 3).....	53,108.63			53,108.63		
Research projects (see Schedule C).....	178,171.28				178,171.28	
Expenses - net.....	441,467.07	74,657.61	17,348.92	240,597.76	241,077.49	(10,154.71)
EXCESS OF INCOME OVER EXPENSES FOR THE YEAR....	183,700.01	4,732.24	9,044.26	29,059.88	125,733.45	15,130.18
RESERVES, JANUARY 1, 1960.....	327,241.35	51,342.70	16,775.24	83,429.70	92,949.42	122,875.09
RESERVES, DECEMBER 31, 1960.....	\$510,941.36	\$ 56,074.94	\$25,819.50	\$ 72,489.58	\$218,622.07	\$137,935.27

() Denotes red figure.

NOTE: Administrative expenses in the Expanded Research Program are paid, for the most part, to American Zinc Institute, which handles the accounting for the program.

LEAD INDUSTRIES ASSOCIATION

SUPPLEMENTAL SCHEDULES FOR THE YEAR ENDED DECEMBER 31, 1960

SCHEDULE A

COST OF PUBLICATIONS, NET

"Lead".....	\$ 20,611.77
Architectural Flyers and Construction Bulletins.....	2,435.92
Reprints.....	1,970.63
Ceramic supplements.....	4,000.00
Pigment Technical Letters.....	3,000.00
Sweet's Catalogs.....	6,924.65
Sweet's Design Catalog.....	5,655.39
Battery Brochure.....	134.41
Shelving Flyers.....	585.39
"Lead work for Modern Plumbing".....	4,351.36
"Sound Attenuating Characteristics of Lead".....	6,632.23
TOTAL.....	\$ 54,101.75

SCHEDULE B

ADVERTISING AND PUBLICITY

Advertising space:	
Product design.....	\$ 9,540.06
Construction.....	7,745.00
Pigments.....	7,440.62
Ceramics.....	9,017.44
Anodes.....	2,940.18
Total.....	36,683.20
Advertising production.....	7,794.87
Publicity.....	8,087.79
Apprentice contest.....	618.77
TOTAL.....	\$ 53,184.43

SCHEDULE C

RESEARCH PROJECTS

Powder metallurgy - Rensselaer.....	\$ 13,527.92
Lead coated steel - National Research.....	2,300.00
Reinforced lead - Armour.....	14,441.81
Vibration attenuation - Lessells & Associates.....	26,353.77
Sound attenuation - Goodfriend, etc.....	2,401.13
Lead alloys - Armour.....	30,769.21
Lead chemicals - A. D. Little.....	30,276.30
Heat emissivity - New York University.....	4,000.00
Ceramics.....	20,240.00
Lead organic compounds - Organisch.....	5,813.77
Pigments for water soluble vehicles - Eagle-Picher.....	15,629.19
Surface characteristics of lead - University of Melbourne.....	4,000.00
Miscellaneous research.....	634.18
TOTAL.....	\$178,171.28

April 1961

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.	1270 Ave. of the Americas	New York 20, 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 Asarco Co.	25 Broadway	New York 4, N.Y.
The G. A. Avril Co., Lead Products Div.	Langdon Farm Rd. & Seymour Ave.	Cincinnati 12, Ohio
Barr & Co., Inc.	Ashland & Lewis Sts.	Philadelphia 24, Pa.
*Broken Hill Associated Smelters Proprietary Ltd.	Collins House, Box 1291 K	Melbourne 01, Aust.
*Broken Hill South, Ltd.	Box 194 C, GPO	Melbourne, Australia
The Bunker Hill Co.	660 Market St.	San Francisco 4, Cal
Cambridge Smelting Co.	100 Pacific St.	Cambridge, Mass.
Cerro Sales Corp.	300 Park Ave.	New York 22, N.Y.
Circle Wire & Cable Co.	5500 Maspeth Ave.	Maspeth, L.I., N.Y.
*The Consolidated Mining and Smelting Co. of Canada, Ltd.	Box 1030	Montreal 1, Canada
Consolidated Smelting Corp.	Place d'Armes	Detroit 34, Mich.
	4700 E. Nevada	
Day Mines, Inc.		Wallace, Idaho
Delco-Berry Div., General Motors Corp.	2401 Columbus Ave.	Anderson, Ind.
Dickson Weatherproof Seal Co.	Box 590	Evanston 4, Ill.
Dixie Lead Co.	Box 6625	Dallas, Texas
The Eagle-Picher Co.	American Bldg.	Cincinnati 1, Ohio
The Electric Storage Battery Co.	Box 8109	Philadelphia 1, Pa.
Ethyl Corp.	100 Park Ave.	New York 17, N.Y.
Evans Lead Div., National Lead Co.	Box 1467	Charleston 25, W.Va.
Federated Metals Div., 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
Gardiner Metal Co.	4820 S. Campbell Ave.	Chicago 32, Ill.
Goldsmith Bros. Div. of National Lead Co.	111 N. Wabash Ave.	Chicago 2, Ill.
Hammond Lead Products, Inc.	5231 Holman Ave.	Hammond, Ind.
Hecla Mining Co.		Wallace, Idaho
Imperial Type Metal Co.	3400 Aramingo Ave.	Philadelphia 34, Pa.
International Smelting & Refining Co. (Asarco Sales Co., Agents)	25 Broadway	New York 4, N.Y.
Knapp Mills, Inc.	23-15 Borden Ave.	Long Is. City 1, N.Y.

*Associate Member

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Lead Products Co. Inc. Lucky Friday Silver-Lead Mines Co.	Box 1341	Houston 1, Texas Wallace, Idaho
John R. MacGregor Lead Co. Metalead Products Corp. Murdock Lead Co.	4520 W. 15 St. 2901 Park Blvd. Box 5298	Chicago 23, Ill. Palo Alto, Cal. Dallas 2, Texas
National Lead Co. New Park Mining Co. Newmont Mining Corp. *North Broken Hill, Ltd.	111 Broadway 300 Park Ave. Box 1903R, GPO	New York 6, N.Y. Keetley, Utah New York 22, N.Y. Melbourne, Australia
Olin Mathieson Chemical Corp.		East Alton, Ill.
Pend Oreille Mines & Metals Co. Phelps Dodge Copper Products Corp. Price Battery Corp.	Old Natl. Bk. Bldg. 300 Park Ave.	Spokane 8, Wash. New York 22, N.Y. Hamburg, Pa.
Revere Copper & Brass Inc., Foil Div. River Smelting & Refining Co. Rochester Lead Works, Inc.	196 Diamond St. Box 5755 380 Exchange St.	Brooklyn 22, N.Y. Cleveland 1, Ohio Rochester 8, N.Y.
St. Joseph Lead Co. Shattuck Denn Mining Corp. *Societe Miniere et Metallurgique de Penarroya Sunshine Mining Co.	250 Park Ave. 120 Broadway 12 Place Vendome West 300 Mission Ave.	New York 17, N.Y. New York 5, N. Y. Paris 1, France Spokane 1, Wash.
United States Smelting Refining and Mining Co.	62 William St.	New York 5, N. Y.
The Victory White Metal Co. Hyman Viener & Sons Vulcan Lead Products Co.	6100 Roland Ave. 5300 Hatcher St. 1545 W. Pierce St.	Cleveland 27, Ohio Richmond 5, Va. Milwaukee 4, Wis.
Western Lead Products Co.	P.O. Box 2291	City of Industry, Cal.
*The Zinc Corp. Ltd.	Box 384 D, GPO	Melbourne, Australia

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