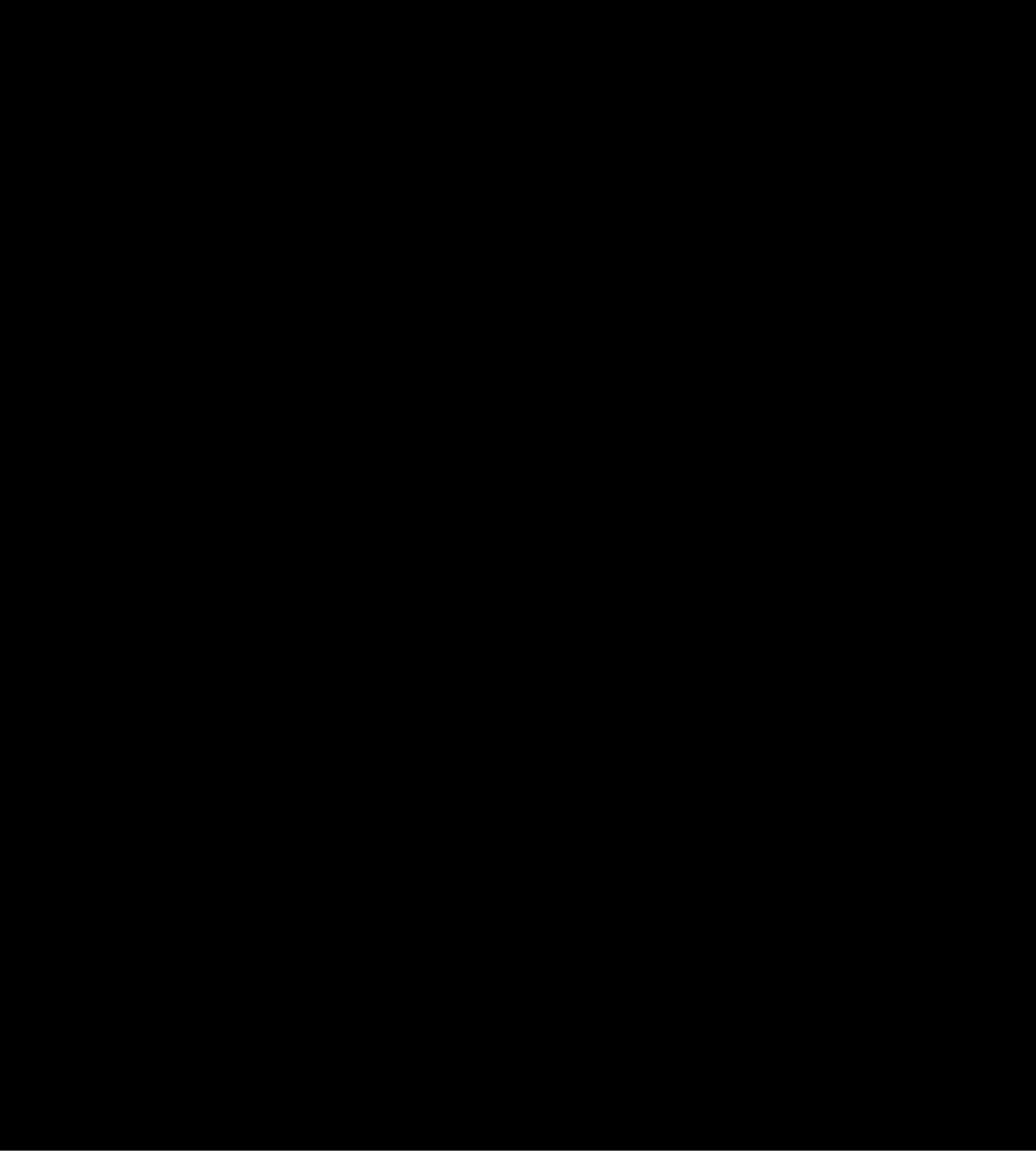
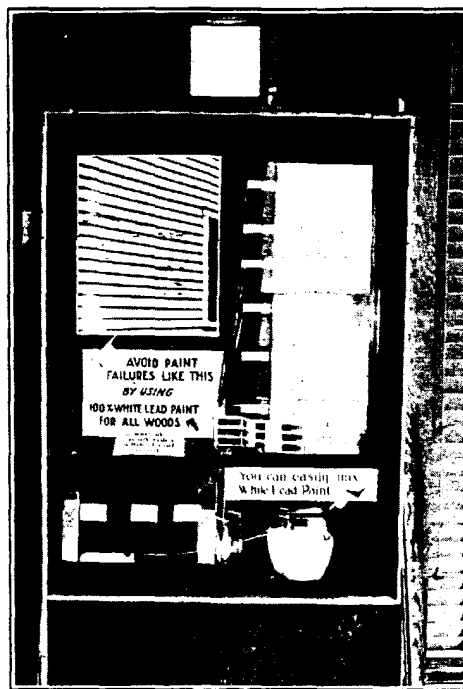




White Lead Exhibit in Lumber Industry Model House

SO important to the lumber industry is the correct painting of lumber that at the beautiful model house of American Forest Products Industries, Inc., at A Century of Progress Exposition in Chicago this year is an exhibit of pure white lead paint. The lumber industry realizes that consumers must be satisfied with lumber or they will not continue to use it, and it also knows that this satisfaction is materially dependent upon the quality of the paint that goes on lumber. Unsightly paint failures and high paint maintenance costs destroy the consumer's desire to build with lumber.

As a result the lumber industry asked the manufacturers of white lead to exhibit in their lumber industry house at the Exposition. The reasons for selecting white lead are several. White lead can be purchased with the greatest uniformity all over the United States. In actual use, white lead has proven itself to be the most durable and satisfactory paint on all kinds of wood under all sorts of climatic conditions. There is no chance for the purchaser of pure white lead paint to be fooled, because it contains nothing except pure white lead, linseed oil, turpentine and drier. There are no extenders with high sounding



White lead exhibit in lumber industry house at A Century of Progress, demonstrating easy mixing, easy coloring and insurance against paint failures resulting from use of pure white lead paint.

names in it to mislead the uninformed purchaser.

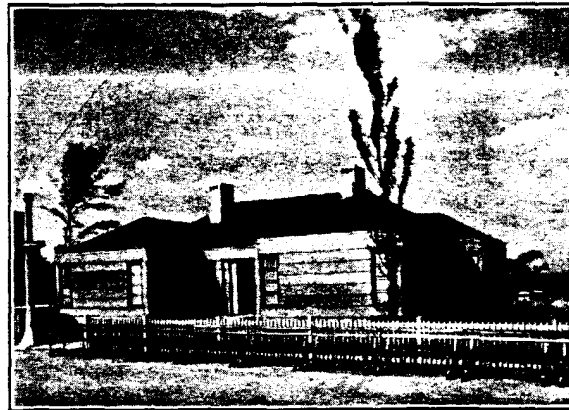
Another great advantage of white lead paint is that, after lasting longer than other paints, it has a perfect surface for repainting. Pure white lead paint does not crack and peel, and, therefore, does not have to be burned or scraped off before repainting. This saves expensive surface preparation and makes a new priming coat unnecessary. By the use of long-lived white lead paint with its excellent surface for repainting, paint maintenance costs are minimized.

By thus helping to educate the public to use pure white lead paint, the lumber industry is protecting its own markets. It is assuring consumer satisfaction with lumber products. Since most outside paint is applied to lumber, this is just as important to the painting contractor, for if home owners build with materials that do not require paint, the painter's market is destroyed as well as the lumberman's.

It should be the common objective of both lumberman and painting contractor to see that the public uses only the best paint. The white lead exhibit in the lumber industry house at the Chicago Exposition is an admirable effort in this direction for thousands of home owners will see it.

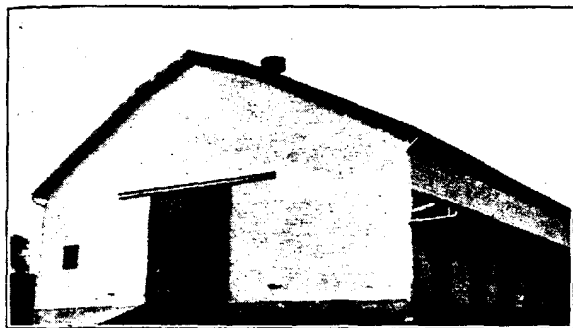


An average of 12,000 adults a day is viewing the white lead exhibit at A Century of Progress.



Model wood-built house containing white lead display, exhibited by the lumber industry at A Century of Progress.

Prominent Lumberman Advocates White Lead Paint



Barn on the L. P. Lewin farm near Cincinnati, painted seven years ago with two coats of pure white lead.

"WHITE lead and oil is the only paint to use to be sure of a durable paint job," says Mr. L. P. Lewin, treasurer of the National Retail Lumber Dealers Association and head of A. M. Lewin Lumber Co., large lumber dealers. In proof of his statement, he uses pure white lead paint himself and offers the large dairy barn on his farm near Cincinnati as an example.

This barn was painted seven years ago with two coats of pure white lead and oil paint. The photographs show that even after seven years of exposure to the elements, much longer than most other paints last, the barn is still well protected and is in perfect condition to be repainted. The paint has not cracked or scaled at all, so that none of the old paint will have to be removed by burning before repainting. The excellent surface for repainting offers a double economy by eliminating the expensive operation of burning off old paint and by making unnecessary a new priming coat at repaint time.

White lead paint has been thoroughly tested by

actual use under all conditions for centuries. Its durability is well known. There is no mystery about the ingredients of white lead paint. The purchaser knows exactly what is in it and that it does not contain any inferior pigments which will impair its quality and which are put in many paints to cheapen them.

Mr. Lewin is a strong advocate of white lead paint because he is a lumberman who recognizes the importance to the lumber industry of having wood properly painted in order to maintain consumer satisfaction. Painters should have the same viewpoint as the lumberman. If home owners suffer through unsightly paint or excessive paint maintenance costs, they naturally turn to the use of materials which require no painting. Both the painter and the lumberman lose out.



Detail of white lead paint on siding after seven years' exposure. Wood still well protected and surface perfect for repainting.

Lead Fireplace Hood Makes an Attractive Detail

AN architectural detail that can be given a different and attractive treatment by the use of lead is the fireplace hood. Pictured on the cover is one hand wrought from sheet lead by Mr. Fred C. Irwin of Rockville Center, N. Y., for the Walter F. Flynn residence at East Rockaway, Long Island. The design is simple and effective.

For exterior architectural features lead has been extensively used for centuries. Its application in interior decoration offers just as many opportunities. Soft and pleasing in color, lead will harmonize with any decorative treatment that may be used in

a room. It glows softly in artificial light or fire light and is entirely free from the objectionable brightness and harshness generally associated with metal.

Since lead is easily fabricated and worked, it lends itself readily to original designs. The rough texture, grapevine and rope designs used in this fireplace hood are particularly effective reproduced in lead. Family crests or other appropriate designs may be worked into the hood with equally pleasing results. A metal hood of this type has the advantage over masonry of being easily dusted and cleaned.

N. A. M. P. Favorable to More Lead in Plumbing

THE Annual Convention of the National Association of Master Plumbers concurred unanimously in the sentiment of two almost identical resolutions presented by the New Jersey State Association of Master Plumbers and the Queensboro Association of Master Plumbers of New York City, without formally adopting them, urging the members to work toward a greater use of lead pipe in plumbing installations. This was in accordance with action already taken by seven State Associations of Master Plumbers in adopting similar resolutions at their state conventions, Pennsylvania, Michigan and Indiana having been added to the list of states taking such action since the last issue of LEAD. (LEAD, July, 1933, March, 1934, May, 1934.)

Reasons for this movement toward more lead work in plumbing are that the use of short lived materials with less satisfactory types of joints than wiped joints have caused the property owner much trouble and expense, and at the same time have lowered the standards of craftsmanship in the plumbing trade and introduced much undesirable competition with handymen and other people unqualified to make durable, sanitary plumbing installations. The latter is due to simplification, which in itself is desirable if it does not impair the quality of plumbing, but which, unfortunately, has been of necessity linked with the use of less desirable materials than lead. Since lead work can only be installed by a skilled plumber it assures a high level of craftsmanship in the industry and protects the qualified plumber against competition with less skilled workers.

This movement to require greater use of lead pipe



At the Michigan Convention: F. G. Sturmer, vice-president; Frank B. Lent, president; Howard Reed, secretary-treasurer; John L. Peterson, director; E. B. Kleine, national director; W. A. Decker, state executive, national sub-committee on N.I.R.A.; C. Rolfe, director.

Pennsylvania, Michigan and Indiana Masters Urge More Lead-work in Plumbing Installations

with wiped joints in plumbing has elicited much favorable comment from plumbers and health authorities all over the country. Typical of the discussion heard on the subject are the following remarks of Mr. John M. Hepler of the Michigan State Department of Health, made at the recent convention of the Michigan Master Plumbers in Grand Rapids, "Pressure is being brought from so many sources throughout the State to use more lead in plumbing, that I would like to see this convention decide whether the Michigan Master Plumbers are going to continue in business as plumbers or as pipe fitters. I think we should distinguish between the two. I understand that the plumber got his name from the Latin word, plumbum, meaning lead. As lead work is the art of the plumbing business and is, therefore, the part of that business which makes the distinction between plumbers and fitters, I would like to see you make a decision at this convention as to which you intend to be."

Since lead, properly used, makes the highest quality plumbing installations and since it can only be installed or repaired by thoroughly skilled craftsmen, its greater use is a protection to property owner and legitimate plumber alike.



John J. Calnan of Chicago, new president of the National Association of Master Plumbers.

New Bridgeton, N. J., Plumbing Code Requires More Lead

A NEW plumbing code, compiled largely by a committee of the Master Plumbers Association of Bridgeton, N. J., has been adopted by that city and became effective in May of this year. This code has been designed to improve the quality of plumbing in Bridgeton and to eliminate work done by incompetent or irresponsible parties which results in unsanitary and ultimately expensive plumbing so far as the public is concerned. The code should do

away with this undesirable type of work to the benefit of both the public and plumbing industry of Bridgeton.

In addition to providing for strict licensing and examination of both master and journeyman plumbers to assure that all those engaged in the plumbing business are competent and responsible persons, the Bridgeton code takes full advantage of the natural protection lead work offers to public and plumber alike. All soil and waste lines are required to be lead with wiped joints or cast iron calked with lead. No threaded or terra cotta pipe is permitted. Lead bends are required. Lead pans must be installed under all shower stall floors. It is obvious that these

provisions promote a more durable and satisfactory installation from the stand-point of the property owner since lead is the most durable common metal and since wiped joints make the most positive connection and are least apt to offer obstructions to flow.

It is equally true that this kind of installation can neither be made nor repaired by a handyman plumber. Only the skilled craftsman can work with lead. Thus the members of the legitimate plumbing industry of Bridgeton receive a natural protection from the extensive requirement of lead by their new code. The plumbers and plumbing inspector of Bridgeton have performed a service both to their community and to their industry.

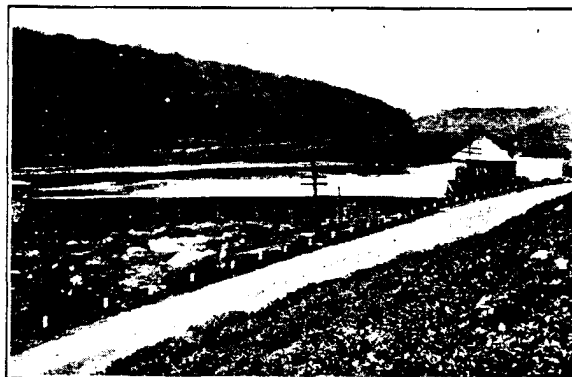
Lead Water Services and Calking Lead in Newark, N. J.

LEAD pipe is used for all small size water services in Newark, N. J., which, with a population of approximately a half million, is one of the great industrial and residential centers of the country. Water services in Newark are installed by the water department from the main to the curb, and by licensed plumbers from the curb to the house. A number of plumbers are employed by the water department at all times to make service pipe installations.

In any city or town it is important that service pipes under pavements be as durable and trouble-free as possible to avoid the expense of tearing up pavements for repairs and replacements. That is why the Newark Water Department installs only lead pipe for small services. Inherently durable, and with thick walls as an added protection, lead pipe can be counted on to render the longest possible service.

Even where electrolysis, which attacks all metals, exists, lead will last longer for several reasons. (LEAD, September, 1933). It requires a larger electric current to deposit a certain amount of lead, the greater wall thickness of lead requires a longer time to be penetrated by electrolysis, and, being a poor conductor of electricity, there is less likelihood of lead picking up stray currents in the ground. Since the wide use of electricity in modern life, which will doubtless continue to increase, makes it practically impossible to avoid conditions leading to electrolysis, it is essential to select the service pipe material which will offer the greatest resistance to electrolytic action.

Where serious electrolysis is known to exist it is well worthwhile to take special precautions. Lead



Dam and gate house, Macopin Intake of the Newark, N. J., Water Department.

services should be used and they should be laid in a V-shaped board trough filled with pitch, so that the pipe is completely surrounded by the pitch.

In Newark lead pipe has been found to give highly satisfactory service as a water pipe material. The Water Department has often come across lead services which have been in use for forty, fifty and sixty years.

Lead is also used to joint all cast iron mains in Newark, providing the necessary durability and flexibility. Cast iron mains are expected to last a century or more in service. Lead is the only material that has been used for making joints in cast iron pipe for that length of time. It is therefore the only jointing material known to last throughout the life of the main. Water service and water main installations in Newark are under the direction of Mr. W. G. Banks, Division Engineer, Newark Water Department.

Lead-Headed Nails Best for Fastening Galvanized Sheet

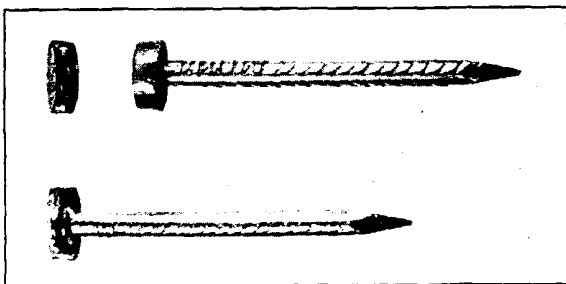
LEAD-HEADED nails provide the best means of securing galvanized sheet metal. It is just as true for galvanized sheets as for any other material that they must be properly installed to give their best service. By using lead-headed nails, the life of galvanized sheets may be greatly extended and leakage at the nail holes prevented.

Lead-headed nails are not really lead-headed but rather the nail heads are entirely covered with lead. When the nails are driven home, the soft lead covering seals the hole completely preventing any leakage at this point. When any nail is driven through galvanized metal, the galvanizing is broken at the nail hole. If moisture is allowed to reach this point, rusting will naturally begin and the life of the sheet will be greatly reduced. However, the soft lead head absolutely prevents any moisture from reaching the vulnerable point where the galvanizing is broken and thus prevents rusting. Therefore if lead-headed nails are not used even the finest galvanized metal will soon rust. Because the cost of nails is such a small percentage of the total cost of a galvanized sheet job, it is foolish to economize in the kind of nails used and endanger the life of the galvanized sheets.

Lead-headed nails may be driven through lapped corrugated sheets without any prior punching, as may be done with any other nail.

A survey made a few years ago by the Sheet Metal Trade Extension Committee disclosed the fact that less than 5 per cent of the galvanized sheet steel roofing in the United States was properly laid.

The American Zinc Institute is conducting an extensive campaign for proper coatings on galvanized sheets and proper laying in order that this material will give the best service and protect its good name. The Institute recommends the use of lead-headed nails.



Dickson lead-headed nail. Half the lead head covering is cut away on the lower nail to show complete coverage.

North Dakota Warns Citizens Against Cheap Paint

THE office of the Food Commissioner and Chemist, North Dakota Regulatory Department, recently issued a circular warning to the citizens of that State urging them to buy good paint and avoid cheap bargain paints which are more expensive in the long run. The circular reads in part as follows:

"BUY GOOD PAINT, DON'T BUY CHEAP BARGAIN PAINTS. 'FIRST QUALITY' PAINT IS CHEAPEST IN THE 'LONG RUN.'"

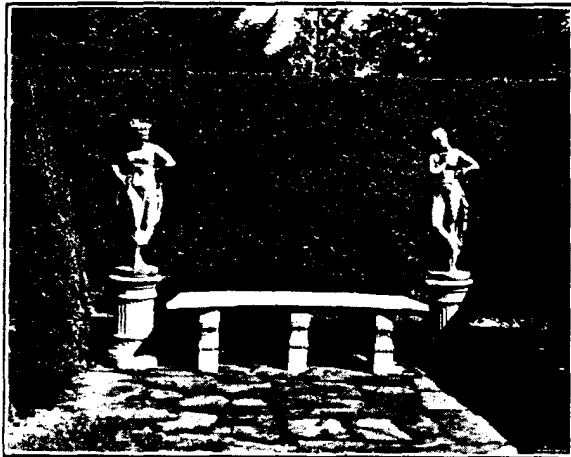
"Paint time is here and a warning is in order against the purchase of cheap bargain-priced paints which will prove to be the most expensive. due to improper drying, early failure, washing off, cracking, scaling or peeling of the paint, leaving a surface unfit for repainting unless the expensive method of scraping or burning off the cheap paint is resorted to.

"North Dakota has a paint law, but the protection which the North Dakota Paint Law gives to the user of paint is through the information it requires to be on the label of all paints. The law does not prohibit the sale of cheap 'gyp' paints but does require that, if you buy paint in the state, the formula or composition of the paint be on the label of that paint. Read the label and find out what you are buying. If paint terms are unfamiliar to you, ask a qualified person or a painter to tell you what they mean and what a good paint should contain, or send for Bulletin 29 or 38 published for your information by this department."

North Dakota has long been a pioneer in paint legislation and testing in order to protect its citizens against the heavy expense of cheap paints. The State has conducted paint research for over a quarter of a century making very extensive exposure tests and analyses of all kinds of paint. Consistently the results of the North Dakota tests have shown that paint durability, so far as the pigment is concerned, depends upon the percentage of white lead in the pigment. In a test of 120 paints exposed over a period of five years, no paint containing less than 80 per cent of white lead in the pigment rated "good" at the end of the period and no 100 per cent white lead paint rated either "poor" or "bad."

Lead Figures Lend Distinction to a Garden

PICTURED here are a few of the beautiful lead garden ornaments in the lovely gardens of "The Crossways", the W. R. Grace residence at Old Westbury, Long Island, N. Y.



Lead garden figures.



Two lead figures of Bacchus.

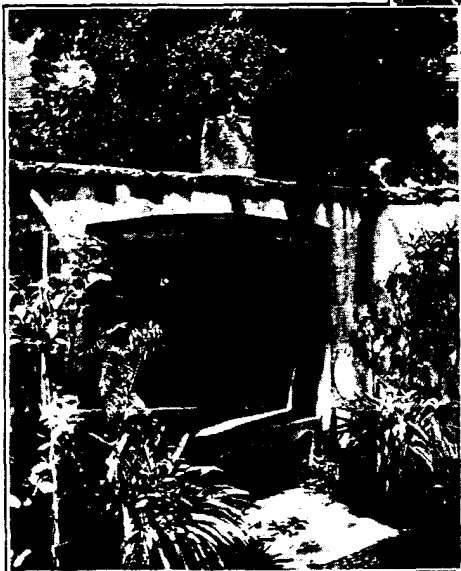
The decorative possibilities of lead have been recognized for centuries. In a garden its soft gray color contrasts delightfully with the gay colors



Ornamental lead flower pot.

of flowers and foliage. Architecturally the color harmonizes with any other materials that may be used. Moreover, lead does not stain adjacent materials.

Diana, the huntress.



Girl with butterfly.

PHOTOS BY
WURTS BROS.



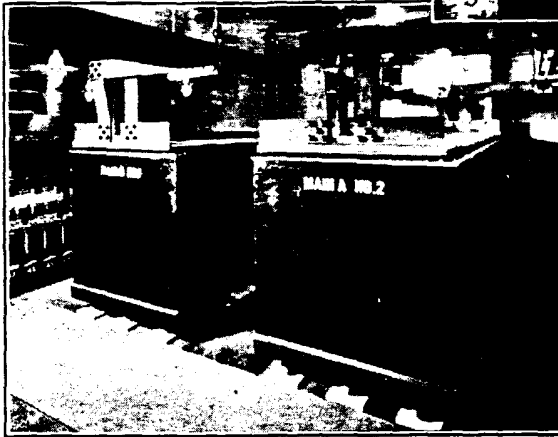
Large Lead-Acid Batteries in Broadcasting System

LARGE lead-acid storage batteries serve the dual purpose of providing reserve power and acting as an element in a filter to supply pure direct current for broadcasting apparatus at the new National Broadcasting Company's headquarters in the R.C.A. Building, Rockefeller Center, New York. Two sets of high voltage and two sets of low voltage batteries are employed in addition to a smaller service battery for energizing laboratory equipment and similar purposes.

The two sets of large, low voltage batteries are contained in lead-



Some of the high and low voltage lead-acid storage batteries at the National Broadcasting Company's studios.



PHOTOS BY WURTS BROS.

lined wooden tanks. They are 14 v. batteries with a capacity of 1000 amp. per hr. for a period of 8 hr. The high voltage batteries, in sealed glass containers, are 400 v. batteries, rated at 15 amp. per hr. for 8 hr.

In their role as a source of emergency power these batteries could keep the Broadcasting Company on the air for 20 hr. at the present load if all other power failed, and for a much longer time if broadcasting operations were reduced. Since Radio City is the nerve center of the National Broadcasting Co. for the entire country and most programs originate there, this fact is particularly important. Without the reserve power of the batteries interruption to regular power would throw all the Company's broadcasting activities off. Like-

wise, in case of a major calamity such as flood or earthquake, the dependable lead-acid batteries would carry the load for a protracted time.

Regularly current is supplied to the broadcasting apparatus through motor-generator sets. As most ordinary direct current is subject to slight fluctuations perceptible in broadcasting, the storage batteries are floated across the line, removing the variations.

The Following Companies are Represented in the Lead Industries Association:

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| Alpha Metal & Rolling Mills, Inc., Brooklyn, N. Y. | Imperial Type Metal Co., Philadelphia, Pa. |
| American Metal Co., Ltd., New York, N. Y. | International Smelting Co., United Metals Selling Co., Agents, New York, N. Y. |
| American Smelting & Refining Co., New York, N. Y. | Johnston Tin Foil & Metal Co., St. Louis, Mo. |
| Anaconda Lead Products Co., East Chicago, Indiana. | Kahn Bros. Smelting & Refining Works, Brooklyn, N. Y. |
| Andrews Lead Co., Long Island City, N. Y. | Lewin Metals Corp., East St. Louis, Illinois. |
| Balbach Smelting & Refining Co., New York, N. Y. | Marks Lissberger & Son, Inc., Long Island City, N. Y. |
| Bunker Hill & Sullivan Mining & Concentrating Co., Kellogg, Idaho. | Metals Refining Co., Hammond, Indiana. |
| Cambridge Smelting Co., Cambridge, Mass. | Nassau Smelting & Refining Co., New York, N. Y. |
| Cerro de Pasco Copper Corp., New York, N. Y. | National Bearing Metals Corp., St. Louis, Missouri |
| Chief Consolidated Mining Co., Eureka, Utah. | National Lead Co., New York, N. Y. |
| Columbia Smelting & Refining Co., Brooklyn, N. Y. | North-Western Metal Mfg. Co., Minneapolis, Minn. |
| Crown Metal Co., Milwaukee, Wisc. | Northwest Lead Company, Seattle, Washington. |
| Dickson Weatherproof Nail Co., Evanston, Ill. | Park Utah Consolidated Mines Co., Salt Lake City, Utah. |
| Eagle-Picher Lead Co., Cincinnati, Ohio. | Republic Metals Corp., Brooklyn, N. Y. |
| Euston Lead Co., Scranton, Pa. | Reynolds Metals Co., New York, N. Y. |
| Evans Lead Co., Charleston, W. Va. | Rochester Lead Works, Rochester, N. Y. |
| Federal Mining & Smelting Co., New York, N. Y. | St. Joseph Lead Co., New York, N. Y. |
| Federated Metals Corp., New York, N. Y. | Sherwin-Williams Co., Cleveland, Ohio. |
| Flemm Lead Co., Inc., Long Island City, N. Y. | Silver King Coalition Mines Co., Salt Lake City, Utah. |
| W. P. Fuller & Co., San Francisco, Calif. | Silverstein & Pinsof, Inc., Chicago, Illinois. |
| Gardiner Metal Co., Chicago, Illinois. | Standard Rolling Mills, Inc., Brooklyn, N. Y. |
| Girard Smelting & Refining Co., Tacony, Philadelphia, Pa. | Sunshine Mining Co., Yakima, Washington. |
| Globe Metal Co., Chicago, Illinois. | Tintic Standard Mining Co., Salt Lake City, Utah. |
| Goldsmith Bros. Smelting & Refining Co., Chicago, Ill. | United American Metals Corp., Brooklyn, N. Y. |
| Hammond Lead Products Inc., Hammond, Indiana. | U. S. Smelting Refining & Mining Co., Inc., N. Y., N. Y. |
| Hecla Mining Co., Wallace, Idaho. | USL Battery Corp., Niagara Falls, N. Y. |
| Hercules Mining Co., Wallace, Idaho. | White Metal Rolling & Stamping Corp., Brooklyn, N. Y. |
| Hudson Smelting & Refining Co., Newark, N. J. | Winchester Repeating Arms Co., New Haven, Conn. |