



Lead Pipe in Up-To-Date Mt. Vernon Plumbing Code

IN Mt. Vernon, one of New York City's largest and most progressive suburbs, the Plumbing Inspector and Code Committee have shown admirable care and judgment in prescribing what plumbing materials to use and where and how to install them. Their motives were to give the public the best installation at minimum cost. The motto, "an ounce of prevention," applies nowhere more aptly than to plumbing. Prevention of unsanitary plumbing which is always a nuisance and may impair health and destroy property and which is always costly to maintain is the function of a plumbing code and of rigid inspection. It is therefore most essential that, as in Mt. Vernon, compiling of the plumbing code be given over to those most experienced in the requirements of good installations for waste disposal and for conveying water from the street mains to houses and fixtures.

The photograph illustrates an installation in one of the smallest types of homes on the outskirts of Mt. Vernon. It shows how well the compilers of the plumbing code have applied their knowledge. All waste pipe under the bathroom floor is lead. The roughing is almost ready for the water test with the exception of the bracing between the beams to support the lead waste. This is one section of the job where the plumber is satisfied there will not be the slightest sign of a leaky joint or a sand hole in the pipe line.

A lead bend, or from 9 to 12 in. of straight lead pipe, is almost invariably required by plumbing codes throughout the country for the connection between the cast iron stack and the earthenware bowl. All experienced plumbers favor this type of installation wherein lead waste pipe is used in concealed locations or for sink wastes where greasy water is discharged. In Mt. Vernon service pipes are also of lead and eliminate the danger of expensive repairs to pavements and lawns and the interruption of water service caused by early and frequent service pipe failures of less durable materials.

Lead pipe has the most favorable combination of

qualities for durable waste installations. The metal itself is durable enough to outlast any building, while its flexibility permits of easy bends and few joints and takes care of settlement without injury to the piping.

It is gratifying to note that George Grimm, who is pictured with the installation he made, is typical of the young mechanic found in this locality, capable of installing all materials as called for by the code and assuring the public that the work will be done by a plumber thoroughly capable of making the best

type of installation. He is the type of young plumber of whom an industry which takes its name from the Latin word for lead, *plumbum*, should be proud and who helps to preserve the reputation and to maintain good working conditions in this old skilled craft.

A. H. Karl was the plumbing contractor for the job illustrated.

Many home owners, plumbers and architects are of the opinion that lead waste installations, simply because they are

better and more durable, cost more than screw pipe installations. Actually there is a difference of only about \$1.50 for the average bathroom installation.



Lead wastes in a Mt. Vernon, N. Y., home. Screw pipe for the same installation would have required eighteen threaded connections as against six wiped joints in lead.

Lead Reduces Pipe Hanger Noises

ARCHITECTURAL FORUM for November, 1932, carried some data on "Controlling Hospital Noises," compiled from research information furnished by Charles F. Neergaard, hospital consultant. The article points out that plumbing may cause noise and that supply mains should be supported on insulated lead hangers to prevent pipe vibration and keep it away from structural members of walls and floors. A method of accomplishing this was described in LEAD, May, 1932, copy of which will be sent upon request.

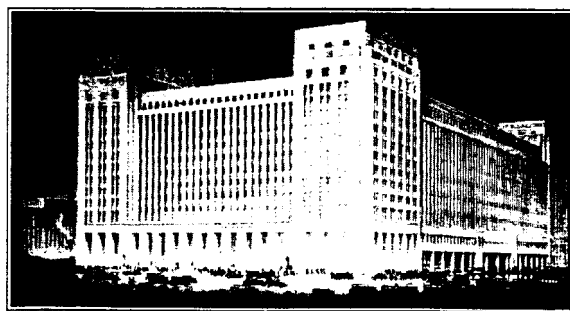
Lead Shower Pans for Largest Post Office

IN the largest post office building in the world now under construction in Chicago, 25 shower rooms containing 117 showers are being lined with lead pans as waterproofing. The total cost of the new building will be \$21,000,000, and it utilizes what would otherwise be waste ground space for building purposes by being erected directly over the railroad tracks leading into Chicago's Union Station. There are approximately 50 acres of floor space in the building, which measures 800 ft. by 350 ft. Provision has been made in the roof construction eventually to support a landing deck for small mail planes to connect with transcontinental air lines.

The Chicago Post Office Building contains, in addition to postal and other government department business facilities, a cafeteria, hospital for employees, assembly halls and recreation rooms. Showers are provided in connection with locker rooms so that employees may clean up before going home.

The shower pans are made of 6 lb. sheet lead. A smooth cement base was placed over the concrete floor and the lead coated on both sides with bituminous paint. This is to preclude any possibility of corrosion resulting from free lime in the unseasoned cement or mortar. Tile floors were set over the lead pans completing the installation.

Lead pans should always be installed in shower stalls, for



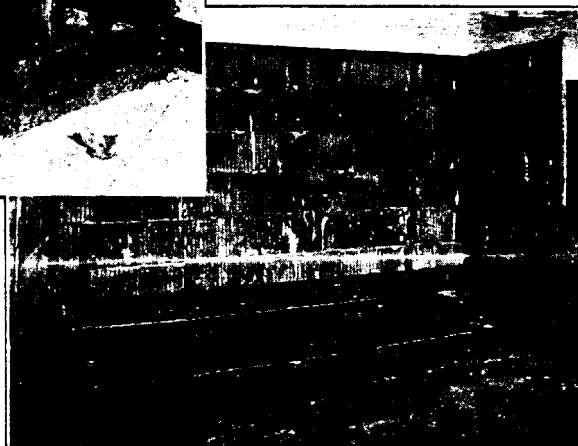
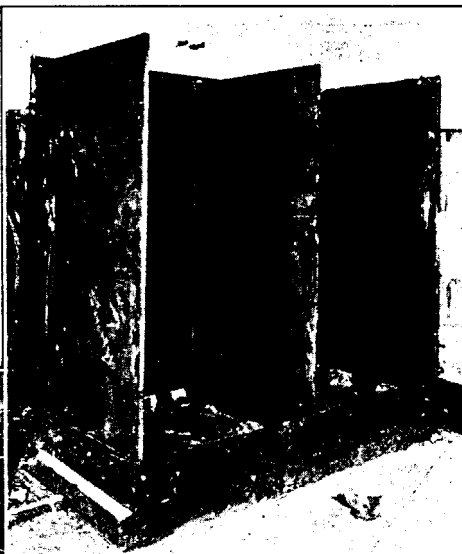
COURTESY ILLINOIS MASTER PLUMBERS ASS'N.

Huge new Post Office, Chicago.

settlement is almost sure to crack concrete or tile shower floors, permitting seepage of moisture, and it is practically impossible to make such floors waterproof without lead pans, even though cracking does not occur. Seepage must be avoided because it will not only ruin expensive walls and ceilings below and loosen plaster, but the moisture will reach steel or timber structural members, causing rust or decay. This dangerous condition is, of course, to be avoided. Even though common practice in any community is for plumbers to install lead shower pans, it is wise to include this requirement in the local plumbing code. By doing so, local plumbers are protected against outsiders who might underbid them by disregarding local practice and omitting lead shower pans.

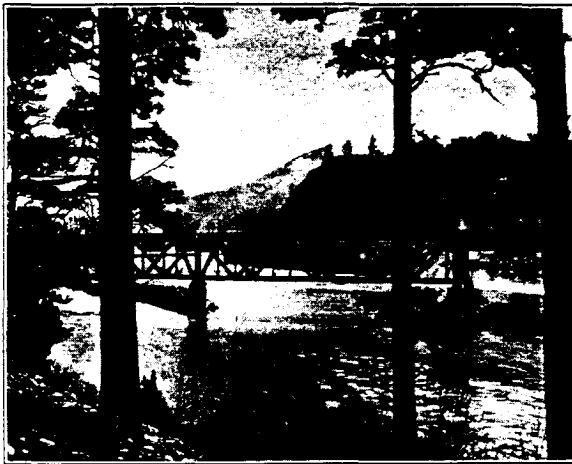
Tiled shower walls require the additional protection of lead waterproofing shields at the corners described in LEAD, January, 1932.

Graham, Anderson, Probst & White were the architects for the project, John Griffiths & Son Co., the general contractors, and M. J. Corboy Co., the plumbing contractors. All are of Chicago.



Lead shower pans installed in the new Chicago Post Office before receiving coats of asphaltum and shower floors.

Railroads Show Marked Preference for Red Lead Primers



COURTESY RAILWAY AGE

Red lead primers protect in the rigors of Montana winters.

THAT "red lead is the standard paint for priming structural steel," a fact strikingly demonstrated by a survey of painting practices of State Highway Departments, reported in LEAD, November, 1932, is again brought out by an analysis of painting practices of the Class I railroads.

All Class I railroads in the United States were asked by the Lead Industries Association to supply copies of their painting specifications, or a statement of their painting practices. Seventy-three roads gave definite information as to their methods of priming structural steel. The following table summarizes this information:

PRIMERS FOR STRUCTURAL STEEL

Class I Railroads

	Number	Per Cent
Pure Red Lead	42	57.5
Pure Red Lead or Red Lead base paint	7	9.6
Red Lead Paint (75 to 88% Red Lead)	8	11.0
		78.1



COURTESY RAILWAY AGE

Red lead primers are needed for the structural steel of modern terminals.

Lead Chromate Base Paint.....	2	2.7
Products of approved manufacturers (May include pure red lead or red lead base paints)	14	19.2
Railroads	73	100.0

More than three out of every four of the leading railroads of the country use either pure red lead or paints containing high percentages of red lead for priming their structural steel work. Few products of any kind receive such universal acceptance.



COURTESY RAILWAY AGE

The humid, sub-tropical climate of Florida requires protective red lead primers.

Extensive usage has given red lead a chance to demonstrate its qualities under the widely varying climatic and operating conditions found in the United States, a cruel proving ground. Results in service confirm such tests as the now famous Havre de Grace Bridge test conducted by the American Society for Testing Materials some years ago. Almost all impartial, scientifically conducted competitive tests of paints for metal have placed red lead in a class by itself at the head of the list. Its performance in actual service has done the same.



COURTESY RAILWAY AGE

The protective qualities of red lead are necessary in the salt air of the sea coast and where smoke and fumes are a problem.

The following formula is recommended for priming coats on structural steel:

PRIMER FOR STRUCTURAL STEEL

Paste red lead	100 lb.
Pure linseed oil*	2½ gal.
Pure turpentine	1 pt.
Pure drier	1 pt.
Gallons of paint	4¾ gal.
Coverage (800 sq. ft. per gal.)	3,900 sq. ft.

* If genuine boiled linseed oil is available, we advise the use of one-third boiled oil to two-thirds raw oil. In this case, omit the drier.



COURTESY RAILWAY AGE

Red lead also protects in the hot sun of the Arizona desert.

White Lead Interiors Keep Singer Building Paint Costs Low

WHITE lead paint is used exclusively for painting office walls in the famous Singer Building, New York. Part of this building is 35 years old and the balance 25, but white lead has aided in maintaining the enviable high standard and popularity of the building and in keeping operating costs among the lowest in New York despite the fact that the building is older than many of its neighbors.

White lead paint makes the finest paint job from the standpoint of appearance, thus preserving the standards and rentability of a building, but in addition it helps to keep operating costs down. In the first place because it spreads easier and farther per gallon than cheap paints, it costs no more applied on the wall than the average paint costing less per gallon. It is the only paint which can be washed satisfactorily. Cheap paints not only streak and do not become clean when washed, but actually rub off. White lead makes frequent repainting unnecessary as it can be restored to new paint appearance by washing. Major A. J. Bleecker, Manager of the Singer Building, tells of one office in his building which the tenant thought had been repainted one day when he was away, as he had requested, but it had only been washed preparatory to repainting. The tenant withdrew his request for repainting. The white lead paint on the walls of that office had been put on 10 years before and not repainted.

Tenants do not like repainting in their offices because of the mess, confusion and interruptions it causes them. They much prefer washing, if washing gives satisfactory results, for all they are interested in is the maintenance of their offices' appearance. By using white lead tenants can be kept better satisfied at much

lower cost than by using cheap paint. Moreover, white lead provides a bond with the wall that will never be broken no matter how many coats are put on over it in succeeding years. Cheap paints, frequently repainted, build up to thick, heavy paint films that often eventually pull away from the plaster in large pieces and make repainting an exceedingly expensive procedure. White lead always provides a good surface for repainting.

The record of the Singer Building demonstrates better than any amount of words the economy and quality of painting interiors with white lead. Comparative costs mean nothing unless all conditions are identical, but when a comparatively old building ranks among the élite in reputation and appearance, and maintains the ranking at a lower cost than inferior buildings, its methods must be economically sound.

The following formulae are recommended for painting interior plaster:

Priming Coat

Soft paste white lead	100 lb.
Pure boiled linseed oil	3 gal.
Floor varnish	2 gal.
Pure turpentine	1½ gal.
Gallons of paint	9½ gal.
Coverage (600 sq. ft. per gal.)	5,700 sq. ft.

Second Coat

Soft paste white lead	100 lb.
Pure turpentine	1½ gal.
Floor varnish	¾ gal.
Pure drier	½ pt.
Gallons of paint	5¼ gal.
Coverage (700 sq. ft. per gal.)	3,675 sq. ft.

Third Coat—Flat Finish

Soft paste white lead	100 lb.
Pure turpentine	1½ gal.
Floor varnish	1 pt.
Pure drier	½ pt.
Gallons of paint	5 gal.
Coverage (800 sq. ft. per gal.)	4,000 sq. ft.

Third Coat—Eggshell Finish

Soft paste white lead	100 lb.
Pure turpentine	¾ gal.
Floor varnish	1½ gal.
Pure drier	½ pt.
Gallons of paint	5¼ gal.
Coverage (700 sq. ft. per gal.)	3,675 sq. ft.



WURTS BROS.

Though 25 years old, the Singer Building tower is still a dominating feature of New York's skyline.

Lead Statuary by an American Sculptress

IN Europe for many centuries sculptors have turned to lead as a medium of expression both for garden figures and for portrait and other statuary, especially where the portrait statue is to be used in a garden or architecturally. But in America, until recently, virtually the only lead figures have been those brought over from England.

Mrs. Ruth Yates of New York, who studied at the Julien Academie, Paris, and is a member of the National Association of Women Painters and Sculptors, is an American sculptress who has found in lead an ideal medium of expression for her work. As she points out, lead is most suited to work composed of bold and simple lines and that is the manner in which she models. Either a material must be chosen that will be appropriate to the work of the artist, or the artist's work must be adapted to the material selected.

The "Goose Girl" figure appearing on the cover and on this page was modeled about five years ago by Mrs. Yates and is now in the garden of Mr. Reginald Eagles at Hastings-on-Hudson, N. Y. It is a little larger than life size. The fountain figure of a child pouring water from a vase was exhibited at the Architectural League Show in 1932.



"Faun" WURTS BROS.

It is 34 in. high and is piped to emit a small trickle of water from the mouth of the vase. The "Faun" appeared at the 1931 Winter Exhibition of the National Academy of Design.

They were first modeled from life in clay and plaster figures made. Mrs. Yates then carefully worked on the plaster figures to eliminate any defects. From the plaster figures the lead castings were made by Henry Hope & Sons of New York.

Lead is the most appropriate medium for garden and fountain figures. It weathers to a delightful natural patina that improves with time, and the color blends beautifully with garden surroundings without being obtrusive, while it contrasts pleasantly with brilliant flowers. For a sculptor who has the characteristics of the finished metal in mind as he works, as has Mrs. Yates, wonderful opportunities lie in the use of lead, whose possibilities are as yet practically

untouched in America.

Inspiration may be derived from the wealth of lead figures in Europe. English gardens, large and small, abound in them, while many figures and groups of lead are found in such famed Continental gardens as Versailles.



Fountain figure.

WURTS BROS.

President Roosevelt, by Mrs. Yates. Small head cast in quantities in a lead alloy.



WURTS BROS.

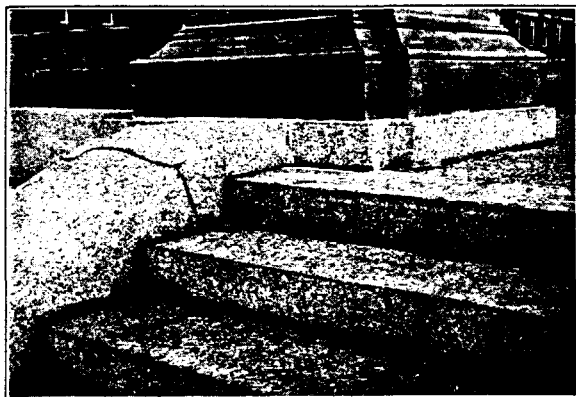


"Goose Girl"

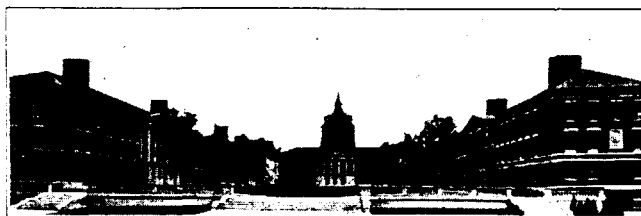
WURTS BROS.

Lead Wool Prevents Spalling of Joints in Stone

LEAD wool has found a new application in the magnificent buildings recently constructed at the University of Rochester, Rochester, N. Y. It is used for filling the joints in all exterior stone steps and balustrades. Instead of bringing the mortar joints up flush with the stone surface, the mortar stops



Detail of granite stairs with lead wool calked joints. Note unsightly spalling where lead wool was not used at base of column.



Upper campus, University of Rochester.

about $\frac{1}{4}$ in. back from the surface. The remaining space is filled with lead wool, calked securely in place.

This practice gives the stone work a most attractive appearance, the dark lines of the lead joints harmonizing well with the granite steps and balustrades. But from the practical standpoint the procedure also has much merit. Mortar joints are apt to crack and chip in time, and require pointing up to avoid seriously impairing the appearance of the stone work. Lead will last as long as the buildings and requires no attention, as well as preserving the mortar underneath. There will be no discoloration of the stone by the lead and the protected mortar will not cause white stains on the stone as is so often true, at least while buildings are new. In this particular example, after four years the leaded joints are untouched and in their original condition.

Gordon & Kaelber of Rochester were architects for the new University buildings.



Attractive lead collapsible tube which helps to merchandise Carbona Shoe Polish.

Lead Tubes a Help in Selling Shoe Polish

THE introduction of a new product — Carbona Shoe Polish — has been aided by packaging it in lead collapsible tubes. Although Carbona Cleaning Fluid was already well known in households throughout the country, it was felt that

the new polish must be able to stand squarely on its own merits and thus satisfy certain definite requirements. One of these requirements was that the product must be presented in attractive and practical form.

To this end it was made as a cream, rather than as a solid cake which would dry out and have to be moistened, or as a liquid which would splash and

spot. The cream was put up in attractively lithographed lead collapsible tubes. This makes a package neat persons will not object to use regularly around the home, for it can be applied like cold cream, shaving cream or tooth paste.

Lead tubes are particularly suitable for this type of product. Lithographing inks adhere firmly and make a colorful and attractive package. The metal is soft and pliable so that the contents are easily squeezed out and the tube does not crack. Lead is unaffected by most of the products that can be put up in tubes, and collapsible tubes of lead keep the contents clean.



Even a child can use handy collapsible tubes without making a mess.

fresh and usable at all times. Moreover, collapsible tubes are immune from breakage. They are also easy for manufacturers to fill with their products and close. Sizes vary widely and range from 2 to

10 in. or more in length and $\frac{3}{8}$ to 2 in. in diameter.

Often established materials may find new outlets by being marketed in paste form in tubes along with the old solid or liquid form.

White Lead Paint Sells Itself to a Community

AT Huntington Beach, Long Island, N. Y., the use of white lead paint has spread like wild-fire, selling itself on its own merits as the result of painting one house with white lead. Huntington Beach is a summer colony, with a few year-round houses, on the north shore of the Island. Most of the houses are of the small bungalow type, moder-



The bungalow that started the white lead snowball rolling at Huntington Beach, N. Y.

ate in cost. Climatic conditions are comparatively exacting on paints because of the salt air and wide temperature variations.

The bungalow pictured here had been painted with a paint that was no longer satisfactory after only one year. The owner decided to take no more chances with cheap paint and had his house repainted with pure white lead and linseed oil, even though the cost of paint was a little more. He rightly decided that repainting every year with cheap paint would be much more expensive than painting every four or five years with good paint.

After this house had been painted with white lead the neighbors began to admire it, and wishing to have their houses look as well as this one, three additional houses were repainted with pure white lead. Others have expressed the determination to repaint with white lead as soon as their houses need it, so that Huntington Beach bids fair to be a 100 per cent white lead community before long. Likewise visitors from New York City admired these

paint jobs and, as a result, two more houses in New York were repainted with pure white lead.

There is a lesson in this for painters. If a painter lands one job and does it well, both as regards material and workmanship, other jobs follow. On the contrary, if he does a poor job, others in the neighborhood are not attracted to repaint at all, or if they are, they search out another painter. Some painters may figure that by using paint less durable than white lead they will be able to do more frequent repainting, but the chances are that they will do no repainting at all, for the home owner will go to a painter who will give him a lasting job.

THE FOLLOWING COMPANIES ARE REPRESENTED IN THE LEAD INDUSTRIES ASSOCIATION:

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 THE ANDREWS LEAD Co., INC., Long Island City, N. Y.
 BOND MANUFACTURING CORP., Wilmington, Del.
 BUNKER HILL AND SULLIVAN MINING AND CONCENTRATING Co., Kellogg, Idaho.
 CERRO DE PASCO COPPER Co., New York, N. Y.
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 FEDERAL MINING & SMELTING Co., New York, N. Y.
 FEDERATED METALS CORP., New York, N. Y.
 W. P. FULLER & Co., San Francisco, Cal.
 GENERAL LEAD MANUFACTURING Co., Denver, Colo.
 GLOBE METAL Co., Chicago, Ill.
 HECLA MINING COMPANY, Wallace, Idaho.
 HUDSON SMELTING & REFINING Co., Newark, N. J.
 INTERNATIONAL SMELTING Co., United Metals Selling Co., Agents, New York, N. Y.
 THE LEWIN METALS CORP., East St. Louis, Ill.
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 NATIONAL LEAD Co., New York, N. Y.
 NORTHWEST LEAD Co., Seattle, Wash.
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