



Lumber-Dealer, Contractor, Development Uses White Lead

A NEW development of forty houses, all painted with white lead, has recently been completed for low-income families in West Allis, Wisconsin. This project is further proof that many such families are very anxious to own their own homes provided the cost is within reach and placed on a monthly basis. Financing has been so arranged that these families pay no more per month than they

paid previously for rent. These payments average \$30 and include interest and a fractional repayment on the original loan.

The houses are well built in all structural details, but some of the refinements and extras have been left for the owner to choose and install if he so desires. However, painting was considered to be too important to the life, value and beauty of the homes to be neglected. In order to provide maximum durability and trouble-free service, pure white lead and oil was used for all painting.

Although three coats for exterior painting is recommended and is the best practice, cost sometimes dictates two coats, as in this case. Nevertheless,

to maintain a low cost painting program which, at the same time, will give the greatest degree of beauty and long life, it is imperative to use a paint adaptable to two coat work without sacrificing any of its necessary and advantageous qualities.

White lead and oil is so versatile a covering that it meets this special requirement as easily as it meets a host of other problems in decoration both where low cost and great hiding power are paramount and where finished beauty of surface is most desired.

Since these homes are to be occupied by a low income group, maintenance costs on the house must be kept to a minimum. The gradual even wear of white lead by advantageous chalking always leaves a good repaint surface, making it ideal for these home owners. Costly surface preparation for repainting is avoided. The pliability of a white lead paint film and its close adherence to the wood surface, red cedar in these homes, insures against future unsightly and costly paint failures.

All these factors were taken into consideration before starting this interesting development. The foresight and wise judgment shown in the choice of materials make this program outstanding in low cost home building and a credit to the community. Brody & Sondel, Inc., of West Allis, were the contractors and cooperated in the financing and handling of this project with Hawley Wilbur, president of the Wilbur Lumber Company.



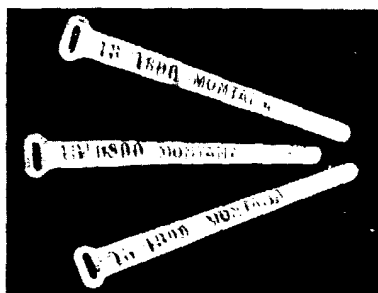
Views of homes in the Hawley Wilbur Development at West Allis, Wis.



Pure white lead protects all the homes in this low-cost project



Small Applications of Lead -- Lead Markers for Hides



Three small lead seals used to tag hides in Montana

AN interesting small application of lead is the use of lead tags for marking beef, veal or other livestock hides in the state of Montana. In accordance with the State laws each hide must be marked by an inspector by attaching a lead tag bearing the number of the county (the same as used by the Registrar of Motor Vehicles) and a serial number. These numbers, together with the name of the state, are stamped into a

thin lead tag, which is then attached to the left hind leg of each hide inspected. Unless hides are so tagged, it is unlawful to purchase, sell or ship hides in the state.

The use of lead makes tampering or altering the seals virtually impossible without being discovered. Once stamped or marked, the soft lead cannot be super-stamped or changed without the change being noticeable. The law is thus more easily enforced.

Lead Wool An Efficient Material for Calking Cast-Iron Pipe



Right, lead wool showing the hundreds of fine lead strands and, at left, calking lead wool. The joint is calked after each turn or two taken around the joint with the lead wool

PHOTOS BY
DAYTON SNYDER



When two lengths of lead wool are joined in a joint, the end of each rope is reduced to half its thickness and the ends overlapped and rolled together avoiding a bulge



Lead wool is composed of long fine strands of metallic lead wound into a loose rope. In this form when calked it forms a solid mass of lead. It may therefore be used for most purposes for which poured calking lead is used. It is especially useful in making joints in cast-iron pipe under water or bad moisture conditions. Since it does not have to be melted, it can be used where it is not advisable to use fire, for instance, where inflammable gases are present.

To make a joint with lead wool in cast-iron pipe, the joint is first yarned in the same way as for a poured joint. The rope of lead wool is then given one or two turns around the joint and calked firmly in place with a straight yarning tool. This operation is repeated until the joint is filled, calking not more than two turns at a time. If the rope of lead wool is not long enough to complete the joint in one piece, the ends of the lengths should not be lapped to form a high spot in the calked lead. Instead, the ends should be reduced by half and worked together to form a smooth surface after calking.

The diameter of the rope of lead wool used should be large enough so the joint is filled from wall to wall. If, when calking, it is found that yarning

has been done in a way to leave a low spot, the lead wool should be broken and lapped at the low point in order to bring it up level. This should be done before the last turn of lead wool around the joint, that is, when about midway through the joint.

When the joint has been filled with lead wool and calked with the straight calking iron, it should be finished like a poured joint by calking around the pipe wall and hub with inside and outside calking irons.

Lead wool is economical to use because no furnace, gasoline or ladle are necessary, no joint runner must be

**SEAL OF
LEAD INDUSTRIES' MATERIAL
APPROVAL**

put in place and no neck has to be cut off after pouring. Also, there can be no loss through dross.

Moreover, users of lead wool for cast-iron calked joints are assured of the same high quality as the regular calking lead they purchase, for the Lead Industries Association Seal of Approval is also used with lead wool. Manufacturer's whose wool meets the L. I. A. standard are licensed to stamp the Seal on the outside of each bag of lead wool.

Lead wool may be employed, too,

to repair small leaks on low pressure boilers, leaky pipe joints, and in masonry. It may also be used as an anchorage for all types of materials into masonry, such as hand rail standards and pipe hangers. It may also be made into grommets for use under bolt heads where leaks occur.

CORRECTION

CALKING LEAD ANALYSIS

In the article "Selecting Good Calking Lead," appearing in the September, 1940, issue of LEAD, page 3, the limit for bismuth content of calking lead meeting the Lead Industries Association standard was erroneously reported as 0.025 per cent maximum instead of 0.25 per cent.

The correct L.I.A. standard for calking lead is: Lead for calking purposes shall contain not less than 99.73 per cent pure lead. Impurities shall not exceed the following limits:

Arsenic, Antimony and	
Tin, together	0.015%
Copper	0.08
Zinc	0.002
Iron	0.002
Bismuth	0.25
Silver	0.02

able materials, such as, white lead, linseed oil, turpentine and drier, he can easily and quickly adjust his formulas to meet changing weather condition. This means that he can assure his client that the winter need

not prove deterrent to the painting program. With proper surface preparation, properly selected painting time, and suitable materials—in other words, white lead, linseed oil, turpentine and drier—the painter can meet

changing weather conditions during all seasons and any climates. The durable, trouble-free white lead job, with which all good painters are familiar, provides the answer to "winter painting".

Successful Poultry Farm Painting Based on Pure White Lead

TO the average observer there is a world of difference between selecting high quality paint and breeding prize-winning pedigreed poultry. However, the success of the Gasson Poultry Farm, Versailles, Ohio, in both fields demonstrates how closely allied is the theory behind both subjects.

In 1913 John P. Gasson, now one of the foremost poultrymen in this country, imported nineteen hens and two cockerels from England—the start of the famous Gasson Strain poultry. From this modest beginning in a home-made log house, the Gasson Farm has increased to 9,000 U.S.R.O.P. Pedigreed and Individually Wing Banded S.C. White Leghorns, 1,800 Officially Approved U.S.R.O.P. breeding hens, 21 individual breeding pens and, in all, 164 acres with 80 buildings, with an investment of more than \$200,000. Over 12,000 pedigreed wing-banded chicks are raised each year, and the average laying records of the Gasson hens are from 200 to 330 eggs per pullet year.

Such poultry-breeding success has not been the result of luck or haphazard selection of breeding strains. Each blood line was carefully chosen

and bred into the Gasson strain because experience had shown its merits and advantages. Moreover, continual care has been given to maintain unadulterated the pedigree and fine qualities of Gasson poultry. Blood testing, government inspection, careful culling and mating, all protect the farm's poultry investment.

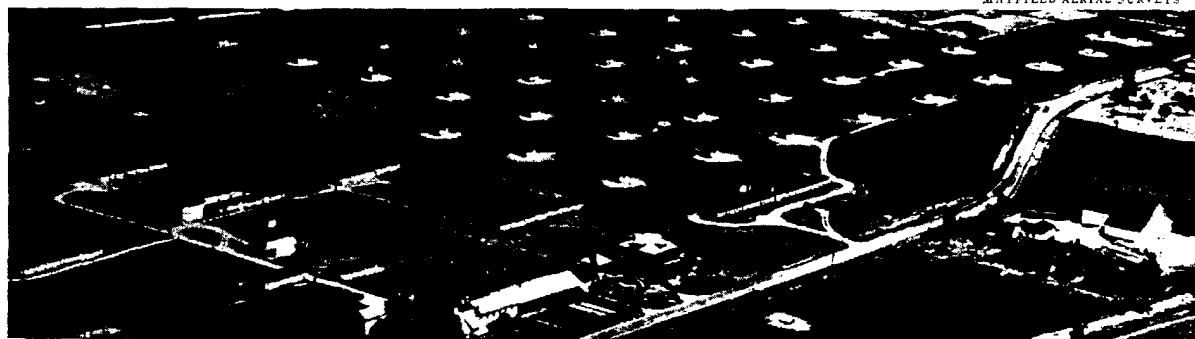
Neither has the success of the farm's painting been a matter of luck. From the first, each new structural investment has been protected by pure white lead and oil paint. In the same manner as breeders were selected to found the Gasson Strain, John P. Gasson carefully chose his paint by checking the records of experience. Only white lead possessed a pedigree of recognized superiority over long years. The success of the Gasson Strain poultry depended greatly on the choice of breeders, and the success of the farm's painting program depended on the choice of material.

A farm of such a size is like any other large industrial or business concern. The huge investment in pedigreed poultry must be constantly guarded by blood tests and inspections to insure continued purity of the

strain and freedom from disease, as any business must protect the quality and reputation of its products. Farmers realize, too, that the problem of building management and maintenance is just as important for them as for every industrial plant and business building. It is in this respect that white lead so thoroughly proves its superiority. Painting is a necessary investment paying good dividends when properly handled. The selection of poor quality paint, however, makes painting results mere guess work. Speculation has no part in good poultry breeding and should have none in good farm or other building-management plans. Experience has shown that white lead paint means freedom from costly maintenance. That is why men who judge paint, like poultry, on pedigree and performance rely on white lead alone.

This year is repainting and redecorating time for the Gasson Farm. From 12 to 15 painters have been at work, giving the buildings another protective coating of white lead to serve for many years. Over three tons of lead will have been used for the entire work when completed.

The air view of the Gasson Poultry Farm shows the great size of this establishment. Building maintenance and decoration is provided economically by a pure white lead painting program



MAYFIELD AERIAL SURVEYS

LIFE

House No. 1

Painted With White Lead in Oswego, Ore.

Life House No. 1, as built by Murphy & Dean Co., Oswego, Ore., and painted with pure white lead and oil



ALTHOUGH the second "Life House" program has been inaugurated only a few months, an important construction factor has been clarified. This is the relative degree of standardization of design and materials desirable in the modern home.

Designed by a group of leading architects, over 120 demonstration homes, based on the eight Life houses, have already been built throughout the country.

Each one of these eight designs is functional, representing a basic plan coordinated to the needs of the average purchaser. Nevertheless, the majority of the demonstration homes have been slightly changed in one way or another to suit the tastes of local interest. Such changes, however, have not detracted from the utility and livability of the homes. This is the essence of good architectural design for quantity production and standardized construc-

tion — fluidity to meet individual tastes and standardization to assure necessary living requisites.

The same factors hold true in the selection of materials. Fluidity is necessary to provide individuality for the homes and to increase their charm and livability. Some owners may prefer shingled exteriors, others clapboard or wide siding. Such matters of taste do not interfere with the living aspects of the home. Standardization is necessary in materials, however, to insure that the physical construction of the house remains functional. Modern homes must be built within certain financial limitations both as to initial cost and upkeep expense. Although a certain range in the selection of materials is desirable, those selected must protect the original investment. Paint is one of the most important of such materials. In itself paint performs a variety of functions; home styling is

made possible to an unlimited degree; such styling may be easily changed in the future; individuality is created as much by painting procedure as by design alteration. Withal, however, paint must always provide protection for the structural parts at low initial cost, and with minimum expense for maintenance and future re-styling and re-decoration.

Consequently, it is well to use a paint which is versatile enough to provide all the factors required for complete livability, but which also protects the original and future financial budgets. Since only one type of paint is best able to serve this dual purpose the selection of painting materials may be standardized by using a pure white lead and oil paint.

This was the selection of Murphy & Dean Co., builders of Life House No. 1 in Oswego, Oregon. This home, designed by Cameron Clark, well-known architect of New York City, is the smallest of the new Life Houses and is designed for construction in groups. As built in Oswego, the exterior is resin-bonded plywood, cut in 2-ft. strips and laid up like clapboards. An attractive flat wide siding effect, decorated with three coats of pure white lead and oil, is thereby obtained.

Over 100,000 lbs. of Type Metal
Publishers Printing Co. report
that over 100,000 lbs. of type
metal were used in printing the
record registration of 3,391,000
voters in New York City.

Lead Pipe Helps to Simplify Plumbing Remodeling

THE installation or alteration of plumbing in remodeling work often presents unnecessary problems for architects and builders that can be easily avoided by using lead.

In remodeling work it is not always

possible to make a plumbing installation in the precise manner as on new construction. Structural conditions frequently interfere. Nevertheless, it is always possible to make a sanitary durable job, and just because it is re-

modeling is no reason to compromise with health.

The accompanying photograph is a good example of how remodeling can be done despite restrictions imposed by the existing building. It is rough-

ing-in for a dental cuspidor and lavatory in a dentist's office in the City Bank Building, Shreveport, La. The lavatory is on a partition erected between the windows. [The window is below the lavatory rim and a door was cut in front of where the men are standing.] It was thus impossible to install the usual and correct venting at a height of not less than 3 ft. To provide adequate venting, however, the vents from both fixtures are carried up to the 3-ft. height and then down to a horizontal vent pipe. Although a long horizontal vent is not recommended practice, in this case it is the only way of affording adequate venting. Since a long horizontal vent may retain condensation a drip connection is provided. All piping was concealed in the walls when finished.

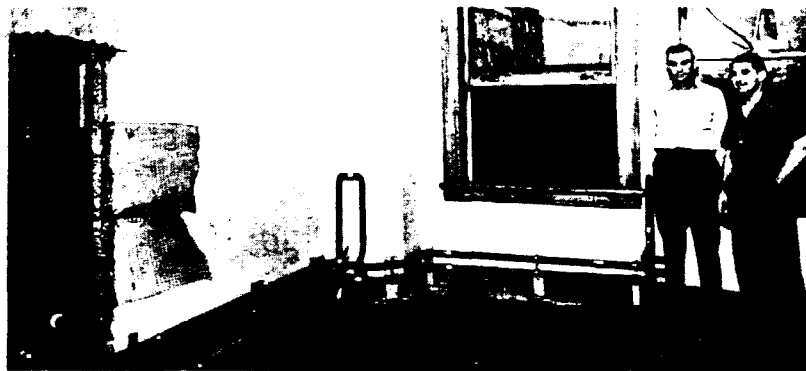
It is particularly important in a case like this with long horizontal

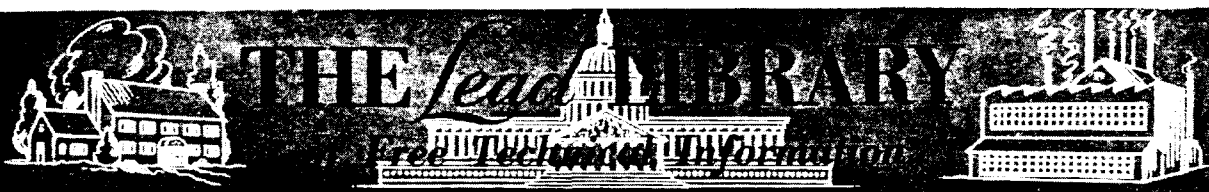
waste and vent to use lead for both the waste and vent, since lead is not subject to internal cloggings and corrosion. Furthermore, with all the changes in direction involved in an installation like this, lead has the advantage of eliminating the large num-

ber of bulky fittings that would otherwise be required and that would retard flow of water and air and be potential sources of clogging.

The remodeling job for the City Bank Building was done by the Richardson Plumbing Company.

*Remodeled plumbing roughing-in in the City Bank Building, Shreveport, La.
Note how an unusually difficult venting problem is solved with lead pipe*





THE *Lead* LIBRARY

Free Technical Information

The following articles and reprints contain information, drawings and specifications on the use of lead products helpful to architects, engineers and others in the construction industry. They are available, free of charge, upon request to the Lead Industries Association, 420 Lexington Avenue, New York City.

WHAT TO EXPECT FROM WHITE LEAD PAINT

An attractive 28-page booklet with charts, formulas, and mixing instructions covering some of the problems of painting and how white lead meets these problems.

PAINTING YOUR HOME by Dr. F. L. Browne, Senior Chemist, Forests Products Laboratory, Madison, Wisc.

A discussion of house painting reprinted from American Forests, May, 1939.

SOME PAINTING PROBLEMS AND THE ANSWERS

By Dr. F. L. Browne, Senior Chemist, Forests Products Laboratory, Madison, Wisc.

Reprinted from the National Real Estate Journal, Sept., 1939.

STAMFORD'S DOUBLE LIFETIME HOME

A complete analysis of hard lead flashing, white lead paint, lead plumbing, plywood and red cedar Certigrade shingle details and installation methods. Reprinted from the American Builder, July, 1939.

SHEET LEAD INSTALLATION DETAILS

A detailed analysis of the principles and application of lead flashing and sheet lead work for small homes. Reprinted from Sheet Metal Worker, June, 1939.

SHEET LEAD SHIELDING X-RAY ROOMS

A discussion of X-ray protection and installation methods reprinted from Sheet Metal Worker.

UPON REQUEST, THE LEAD INDUSTRIES ASSOCIATION WILL BE GLAD TO MAIL "LEAD" REGULARLY, FREE OF CHARGE, TO THOSE INTERESTED, AND WILL COOPERATE, WITHOUT OBLIGATION, IN THE SOLUTION OF YOUR LEAD PROBLEMS

PLUMBING CODES—AN ANALYSIS AND SURVEY

By Bob Dick

*PLUMBING CODES—AN ANALYSIS AND SURVEY— Part II by Bob Dick

These two papers, the first delivered at the annual meeting of the American Society of Sanitary Engineering in St. Louis, Mo., in August, 1939, and the second at the annual meeting of the same Society in Wilmington, Del., in August, 1940, constitute the most complete and up to date study of plumbing codes available. Everyone interested in plumbing codes should have these papers.

LASTING LEADWORK IN MODERN PLUMBING

By T. N. Thompson, Technical Editor, Plumbing and Heating Journal.

Reprinted from Plumbing and Heating Journal, Feb., 1939.

LEAD PUT IN AT SCREW PIPE COST ON COMMODORE PERRY PROJECT

Reprinted from Plumbing and Heating Business, Jan., 1940.

HOW LUMBER AND PAINT KEEP YOUR HOME ALWAYS IN STYLE

A brief digest of the advantages of painted lumber homes with color-styling suggestions and other interesting information.

LEAD CHIMNEY CAPS

Notes on the installation and advantages of lead chimney-cap protection, reprinted from American Artisan, May, 1940.

* Not previously listed.

CHARM — 140 YEARS OLD!
This lovely old South Carolina home built in 1800 retains the beauty of its gracious architecture under the protection of durable white lead paint.



Howard R. Jacobs

DO YOU KNOW WHAT 7 OUT OF 10 ARCHITECTS HAVE LEARNED ABOUT PAINT?

WHEN 7 out of 10 architects say they prefer one particular kind of paint, you can be sure *that* paint has some pretty important advantages.

That's what happened in a recent survey of representative architects—68% said they specified pure white lead paint! Practically all others specified paints with a high white lead content.

The reason is, they've learned from experience that for enduring beauty and protection there's nothing like white lead in paint.

For white lead, you know, is made from the metal lead. It gives paint greater durability—makes it more resistant to time and weather—keeps it free from cracking and scaling.

• • •

HOW MANY COLORS CAN YOU GET WITH WHITE LEAD? The answer to this and many other important paint questions will be found in the booklet "WHAT TO EXPECT FROM WHITE LEAD PAINT." Send for your free copy today.



This tough enduring film protects the surface beneath from damp and deterioration—preserves your work down through the years.

So it's a good idea when specifying paint to know how much white lead it contains. And it is a pretty safe rule to say: *the higher the lead content*, the better the paint. You can't, for example, get a more durable paint than one containing 100% white lead. This is the kind good painters mix from lead-in-oil. In many localities it is also sold ready for use.

LEAD INDUSTRIES ASSOCIATION
420 Lexington Avenue, New York, N. Y.

