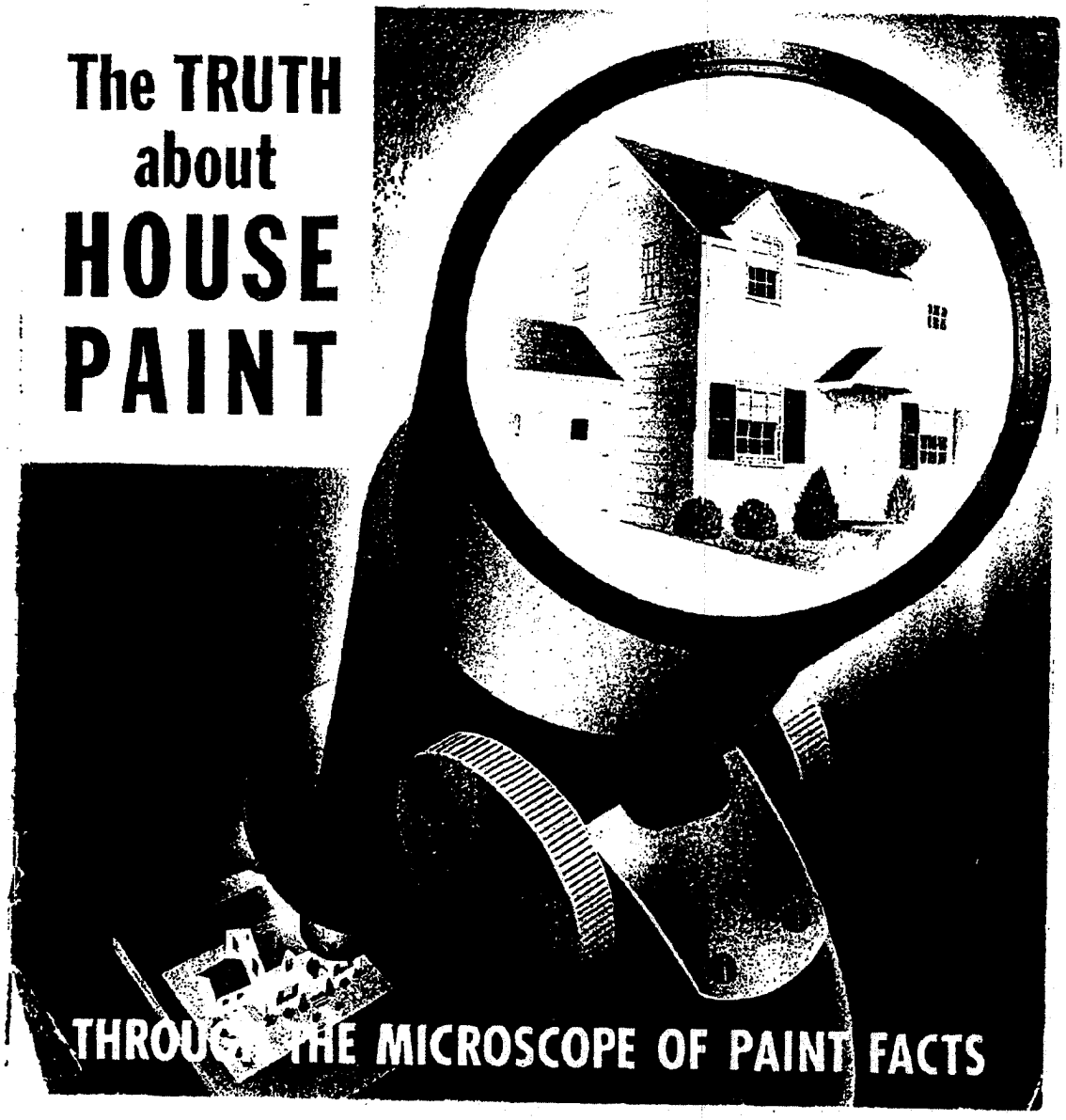
The TRUTH about HOUSE PAINT



0007-SWP-039345

BEFORE: 16 years without painting--required new siding patches, burn-off areas. Paint rough and cracking.

AFTER: One coat of SWP Undercoater No. 450 produced a uniform smooth foundation coat over this varigated surface and made a superior SWP paint job possible.

BEFORE: A nearby railroad deposits a dingy grime of soot which mars the appearance of this attractive home.

AFTER: Styling this home with SWP Modern Brown was entirely successful and now it will not show the effects of soil.

BEFORE: This shingle house was neglected for several years after painting with a hard-drying paint which cracked badly —making a difficult surface to paint properly.

AFTER: See what two coats of SWP accomplished over this weather-worn surface- a rejuvenated house at the cost of only a paint job!

WHAT IS A GOOD HOUSE PAINT?

HANDSOME IS–AS HANDSOME DOES!

But how can the home owner know what to look for in good paint? Of course good paint requires best quality ingredients–but what shall these ingredients be? Is there a difference in the wearing qualities of house paints made with different kinds of paint pigments? Are there differences in "pure linseed oil?"

For many years, the pigment in most common use for making house paint has been white lead–the liquid, raw linseed oil–making the familiar "lead-and-oil" paint. These two ingredients, properly mixed and applied by a skilled painter *can protect a house* very well.

But what does science have to say about newer ingredients developed in recent years?

As with all other modern finishes, we find that paint science has been able to improve house paint, too, so as to overcome the shortcomings of lead-and-oil paint, to retain its many good qualities and to add to it certain much desired improvements–such as a finish that retains its smoothness with weathering so that it is completely washable–is free from objectionable spotty chalking and which has the ability to resist atmospheric discoloration.

As you read further, you will learn how these improvements have been brought about–the part that each kind of pigment plays, etc.

Painting conditions are making greater demands upon house paint, today. There are more houses where painting has been neglected so that they now are difficult to paint properly. Ordinary paints cannot meet the problem–stronger hiding pigments are required, more power to seal and "uniform" these porous, weathered boards.

Painters are demanding, therefore, that good paint make it easier to give their customers good looking paint jobs over these weathered houses, as well as over normal re-paint surfaces and on new houses.

Good paint should come to the user as a finished product, ready to use. There was a time when your painter felt that he gave you the best house paint when he mixed it himself *from* the ingredients we have mentioned.

But, as new pigments were discovered and new methods for refining the oil, compounding these special ingredients became too complicated for hand mixing. Exact laboratory control is required. • Sherwin-Williams quality means that all principal ingredients are made in Sherwin-Williams plants or to their specification–exactly suited to be used in SWP House Paint.

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POOR PAINT IS AS DANGEROUS AS NO PAINT AT ALL!

● Many people are under the impression that one paint is about as good as another and that if they can pick up one at a cheaper price than another, they're money ahead. Of course this is not true, but here's what never occurs to folks—until it's too late:

The biggest cost in painting a house goes for labor—not paint. And it frequently costs more to apply cheap paint than good paint. It doesn't go as far—hence the painter has to brush on more gallons. It doesn't hide the old surface as well and the painter must use up more time attempting to make a presentable job. Nor is this all—many of these paints last little more than a year or two, developing into a scabby, cracked surface with no protective value.

Then your painter is compelled to tell you that there is no remedy but an expensive burn-off job to remove the faulty material. No paint can adhere to such a scaly surface. So, whenever you're tempted to experiment with a "low-price-per-gallon" paint, ask yourself these questions:

1. After all, how much actual money would I save on the whole job?
2. Is it worth the risk of paint cracking and spoiling the looks of the house?
3. Where would the saving be if I have to re-paint sooner, or if I have to go to the extra expense of taking the faulty paint off before I can apply new paint?

GOOD PAINT COSTS NOTHING...

an Old Proverb

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● For 60 years the history of SWP has been one of gradual, but steady improvement. But, in reality, SWP is not 60 years *old*—but rather 60 years *young* because of the way Sherwin-Williams keep it up-to-date with every improvement known to paint science to give it lasting beauty, greater endurance and ability to protect your house from weather.

We have said that there is a difference in the wearing qualities of paints made with different pigments. The reason is found in the chemical reactions which take place between these various pigments and linseed oil. And, we should say, too, that various ways for aging and refining the linseed oil now are known to have fully as great a bearing as the pigments upon the life of the house paint.

In making SWP we start with the white lead carbonate used in making lead-and-oil paint because it has many excellent qualities:

1. It protects the surface well
2. It has strong adhesion to the surface
3. It does not crack in weathering
4. Painters like its easy brushability

But for many years painters have sought for ways to overcome the objectionable spotty chalking of white lead paint and they have wanted to give it better resistance to the sulphur fumes in the air which cause white lead paints

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to turn gray and lose their attractive appearance long before the paint actually has worn out.

Zinc oxide was one of the first pigments added to white lead for this purpose. But while it did make a smoother, harder paint, with less chalking than lead-and-oil paint, there was the tendency towards brittleness that frequently resulted in the paint cracking.

How to overcome this? Sherwin-Williams has done it with a revolutionary pigment called "OZLO" lead-zinc, made from the original ores in Sherwin-Williams own smelters. In making OZLO, basic lead sulphate and zinc oxide are *fumed* together under terrific heat —not a mere mechanical mixture, but an intimate physical union of the two metallic pigments—impossible to achieve by any mechanical mixing or grinding operation – so that OZLO possesses the virtues of both white lead and zinc oxide.

This pigment serves to "alloy" white lead in much the same manner as alloying metals are added to steel to make it stainless or harder for special purposes.

OZLO lead-zinc pigment adds smoothness to white lead paint—also stronger hiding power, and resistance to atmospheric discoloration.

Then—we go a step further—titanium-magnesium is added. Titanium dioxide is the strongest hiding white pigment available to paint science and, combined with magnesium, it makes a more durable paint than when used alone. It adds greatly to the hiding power of SWP and, because it is not affected at all by discoloring fumes, it gives SWP still greater resistance to the fumes that turn *unfortified* white lead paints gray.

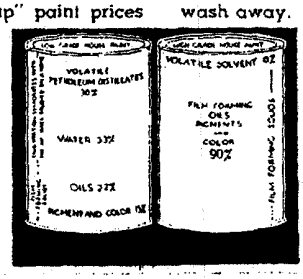
The pigments and the colors in paint are vitally important, but so is the vehicle. That is why Sherwin-Williams make their own linseed oil—select choice flaxseed, crush it in their own mills, age, refine and treat the oil so as to make it best suited for use in SWP.

WHAT MAKES CHEAP PAINT COSTLY?

● Do you know that the liquid or "vehicle" content of many cheap paints has been found to amount to as much as 33⅓% ordinary hydrant water, plus 30% of petroleum distillates (gasoline). Some cheap paints actually contain as little as 37% of film-forming pigments and oils.

Imagine paying even "cheap" paint prices ($1 to $2 per gallon) for two-thirds of a gallon of gasoline and water! What's cheap about that? Particularly in view of the fact that the small amount of film-forming materials contained in such paints is usually composed of cheap pigments.

Now compare what you get in these cheap, watered paints with what you get in a quality house paint like SWP. It is easy to understand, now, why cheap paint films soon break down—crack, peel, chip, chalk and wash away.



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These illustrations are reproduced exactly from a diagram issued by the Educational Bureau of the American Paint and Varnish Manufacturers Ass'n, Washington, D. C.

SWP RESISTS ATMOSPHERIC DISCOLORATION

● Haven't you often wondered why some freshly painted white houses turn gray in a very short time while others seem to keep their fresh appearance indefinitely? Possibly you just assumed that some neighborhoods must be dirtier than others and that the houses suffered accordingly.

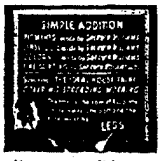
But, chances are in many cases, that dirt wasn't entirely to blame. Probably the trouble struck deeper and atmospheric discoloration was taking place.

Paints in which the white lead is not fortified are particularly sensitive to the sulphur fumes present in the air in practically every community and this causes them to turn gray --they cannot be washed clean again. By fortifying the white lead in SWP with OZLO lead-zinc and titanium-magnesium SWP is given great resistance to these fumes. This is doubly important because dirt washes easily from SWP so that, free from discoloration, the house looks almost as if newly painted.

There are some communities in various parts of the country —near oil fields and certain industrial plants—where these fume conditions are so excessive that they attack any paint containing white lead. Special SWP Fume Resisting White No. 436 has been provided for these localities.

SWP IS WASHABLE!

FACTS THAT ARE FACTORS IN *SWP* LEADERSHIP



EXPERIENCE

72 years making quality paints has built a fund of knowledge which is of great benefit to Sherwin-Williams customers. It provides safer-to-use paints to meet your climate conditions—wherever you live. It puts greatest serviceability into SWP for greatest value and satisfaction.

RESEARCH

Year in and year out S-W chemists must continue to test countless formula variations in the laboratory on test fences and under actual service conditions on homes. That is how the famous "balanced formula" of SWP was created years ago and that is how we continue to keep SWP up-to-date.

MANUFACTURING

The principal ingredients in SWP are finished products made in their own Sherwin-Williams factory under control of its own staff of chemists – men who make a life study of paint chemistry and take pride in the perfection of their product made especially for use in SWP House Paint.

ALLOYING PIGMENTS

In stainless steel "alloying metal" protects regular steel from discoloring acids. OZLO lead-zinc and titanium-magnesium are the "alloying pigments" which protect the white lead in SWP from atmospheric discoloration. In OZLO, lead and zinc pigments are fumed into a pigment under high heat in Sherwin-Williams smelters.

COLORS

Most of the chemical colors reds, yellows, greens, blues used in SWP are made in Sherwin-Williams own color works. Natural earth colors are selected with greatest care and must meet rigid standards. That's why SWP colors are so soft and rich, so pleasing and enduring.

HIDING POWER

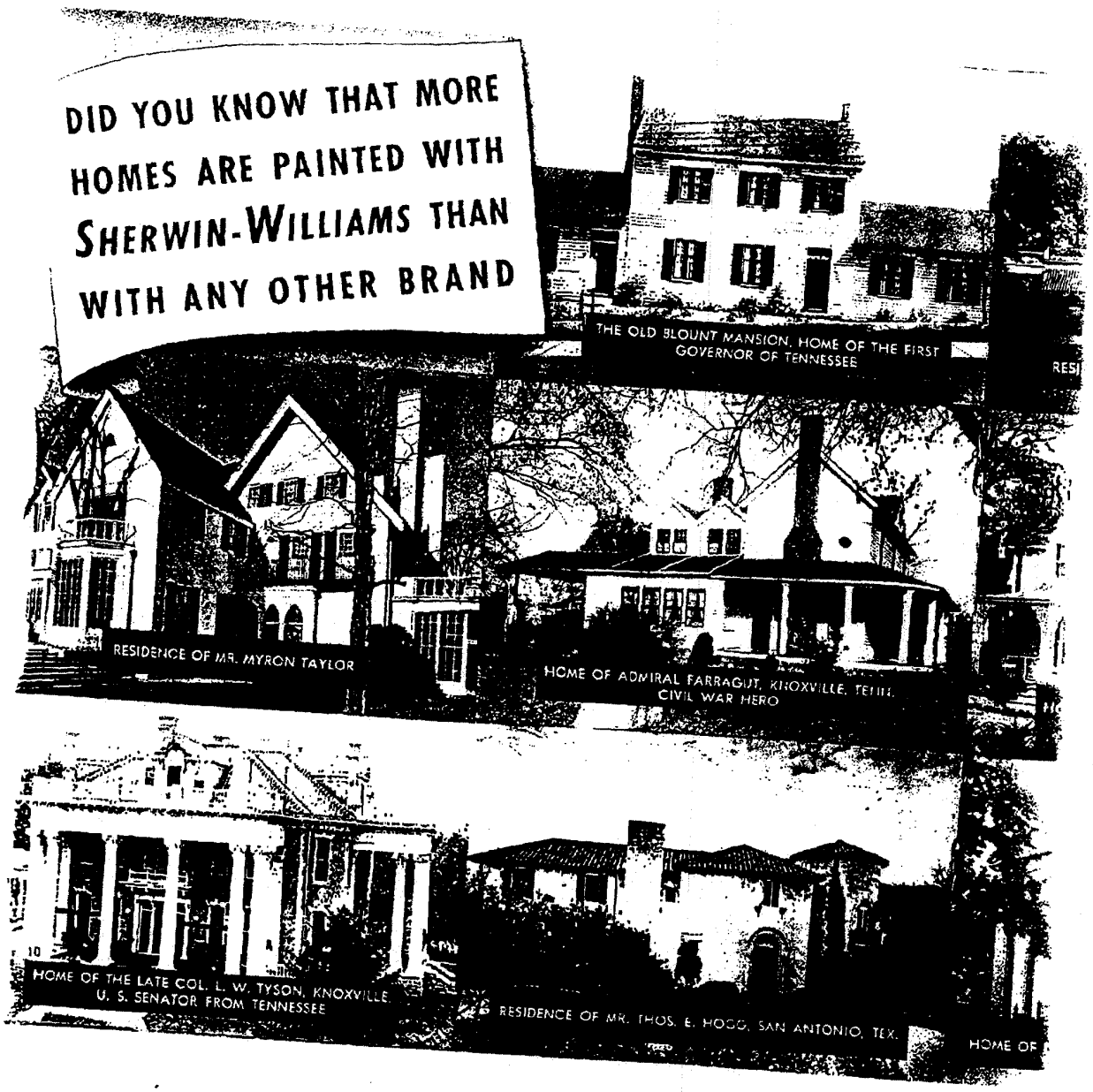
Dingy old surfaces are easier to hide with SWP tints because they are strengthened with OZLO and titanium-magnesium pigments. Weak-covering paints never look clean because they do not hide the old surface completely as SWP does. The strong hiding power of SWP also makes it go further.

WASHABILITY

Every pigment reacts differently with linseed oil and weathers in a different way. Excessive chalking, roughening and cracking are faults avoided in SWP by its 3-pigment blend. SWP does not roughen with weathering. Dirt cannot penetrate its smooth, tight surface.

ATMOSPHERIC DISCOLORATION

In most neighborhoods, the added protection afforded by OZLO and titanium-magnesium keeps SWP safe from the fumes that discolor so many other paints. In severe exposures near oil fields and certain industrial plants, SWP Fume Resisting White should be used for best results.



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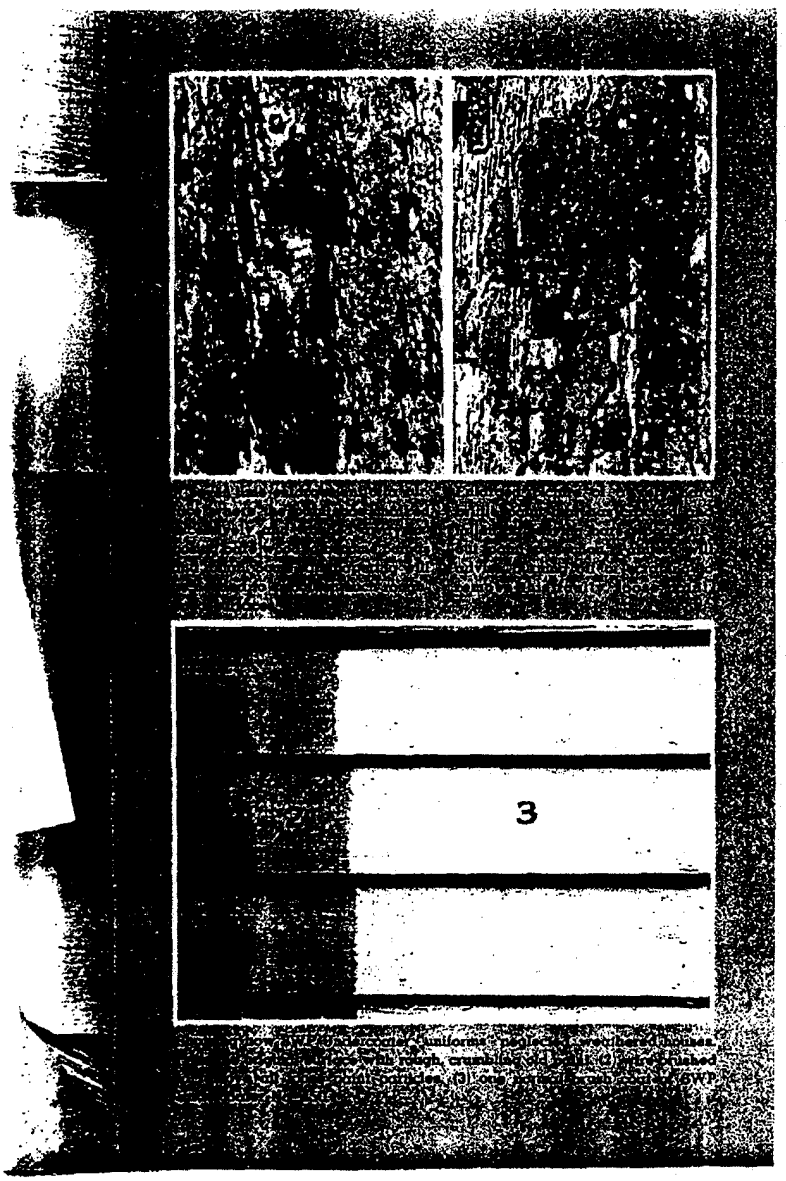
The TWO STEPS *to a* BEAUTIFUL HOUSE PAINT JOB

Follow these two steps when your house needs painting. They give the best-looking, longest-lasting house paint jobs—and lowest-cost paint protection.

1 Begin with a coat of SWP Undercoater No. 450. It smooths, seals and hides—"uniforms" the surface . . . forms a perfect foundation for the finish coat that follows.

2 SWP House Paint over SWP Undercoater No. 450 . . . it's a combination you can't beat for beauty, wearability and protection.



DO THIS FIRST • • •

● If it has been 5 years or more since your house last was painted, it is probable that there may be places where the paint will be breaking away from the wood. Your painter will recommend removing all loose, broken paint either by burning off or by scraping and wire-brushing carefully. He will advise against applying new paint over loose scaling paint. Some sandpapering to smoothen the roughest spots may be advisable.

Then apply a coat of SWP Undercoater over the entire surface. It will seal the porous surface and produce a smooth, firm foundation because of its priming-sealing oils and its concentration of strong-hiding pigments. It will dry with a uniform dull sheen which "takes" the finishing coat well so as to make it easier for the painter to give you a handsome, full finish.

If the finish coat is to be one of the colors of SWP, the Undercoater should be tinted to a suitable foundation color using either S-W First Quality Oil Colors or one of the shades of SWP suggested on the label.

DO THIS NEXT • • •

● SWP in White is at its very best over SWP Undercoater—pure white, lastingly attractive.

SWP in your favorite color, likewise is richer and most pleasing because of the ideal foundation given it by SWP Undercoater.

But whether it's white or a color, your painter finds it easier to produce the superior paint job you want—and it will give the utmost in service, too, because each paint is formulated to do its particular job superlatively well.

FOR THE HOUSE THAT IS BRICK OR STUCCO

● Stucco houses, and many types of brick homes need painting, too—their style and architecture call for painting. Their porous surfaces absorb moisture, hold the dirt and get very grimy and streaked.

Many times moisture finds its way through the walls, spoiling interior furnishings, rotting out wooden timbers.

Sherwin-Williams Stucco and Concrete Paint seals brick, stucco and concrete—keeps rain out and keeps the inside of the house drier and more healthful.

Like famous SWP, Stucco and Concrete paint is made of ingredients that endure and keep their fresh attractive appearance in spite of storms and summer sun.

It is just as important to paint stucco and brick houses correctly as it is wooden houses—don't be misled by the apparent savings of cheap water paints—they cost money to apply, have little ability to withstand rain and weather, do not afford protection against moisture and leave an unsightly surface condition that may cost considerable before it is possible to repaint with a water-resisting oil paint.

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Says the SWP Painter "These things get my attention First!"

● A good painter is distinguished by his attention to the details that the home owner often knows nothing about. Like a trained detective, he must know where to look for the trouble spots and how to correct them.

The purpose for painting is two-fold, of course. We paint for *both* Beauty and Protection. But we achieve beauty only by *protecting the building against the inroads of decay.* Every time a danger signal is ignored by neglecting to putty an open joint or repair a leaking gutter or flashing, we pay the penalty sooner or later with an unsightly paint failure that in no way is the fault of the paint or a warped, split siding that is no fault of the wood.

Water is the unrelenting destroyer of every building material used in homes. It finds the tiniest opening or break in the protective coating. Sun and rain play a destructive bit of teamwork: Rain penetrates and swells wood but sun draws it out. Slowly but surely small openings grow larger. More and more water gets in. More and more the sun causes the wood to warp, shrink and split. Nails rust away you see houses with loose clapboards that's how it happens!

So take a close look at your own home without further delay. The suggestions illustrated here will help.

Places where the rain doesn't drain

SASH

Unless painted, water seeps in, wood swells, windows stick, putty crumbles out, glass cracks and frames come apart. Always paint or oil bottoms of sash to prevent absorbing water from wet window sills.

WINDOW FRAMES

Water often lodges on window sills, seeps into open joints causing warping, followed by shrinking and peeling of the paint. After the house has been primed, your painter should putty all open cracks carefully they must be made actually water tight.

GUTTERS

Paint-neglected gutters and downspouts soon deteriorate and rust, costing money for repairs. Leaking gutters frequently are the cause of paint peeling and of damage inside the house where water gets in behind siding

SHUTTERS

Remove the shutters to a safe, dry place, where they can be cleaned and placed for easiest work. All edges, tops and bottoms should be painted so that water cannot get into the wood and cause the paint peeling seen on so many shutters. Use S-W Trim-Brite Colors.

FLASHINGS

Flashings require painting same as gutters—driving rains find smallest breaks in the metal when rust has opened the way. Keep water outside your house by painting these danger spots and you'll avoid much trouble, inconvenience and unnecessary repair bills.

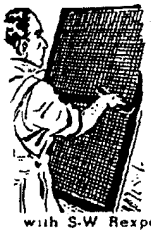
PORCHES

Porch floors get extremely hard service water drains slowly, sun bakes and warps the wood, gritty dirt grinds down paint. Use Porch & Deck Paint for a smooth finish easy to clean keeps dirt from tracking into the house—saves repair bills—tones up the appearance of the house.

DOORS

Edges, tops and bottom of doors must be kept water tight with paint to prevent swelling, sticking, shrinking and paint peeling. A well painted door is easier to keep clean of finger marks it adds distinction to the house.

SCREENS



Scrub both the wire and frames in Spring. When dry paint frames with SWP and wire with Screen Enamel. Copper or bronze screens should be protected with S-W Rexpar Varnish thinned slightly. This minimizes corroding and staining the side of the house.

STORM SASH

Along in August or September, take storm sash out of storage, wash and paint the frames with SWP using a S-W Sash Brush No. 403. This adds a fine, clean, trim color and protects the sash from swelling, sticking and coming apart at joints. Be sure to paint edges and replace all broken or crumbling putty. Do this painting early paint will dry harder and avoid sticking to window frames.

SHINGLES

Regular painting with S-W Preservative Shingle stain keeps wood shingles indefinitely. It prevents warping, splitting and a well painted shingle roof is more resistant to fire hazards. Does not contaminate rain water when used as directed economical to use.

BRICK

Brick and stucco houses are porous, absorb water and hold the dirt. Stucco and Concrete paint transforms dingy houses, brings out hidden attractiveness, keeps the surfaces dry and makes the interior more healthful by excluding dampness.

RAILINGS

SWP on porch railings and pillars makes them easy to wash--spruces up the porch and saves children's clothing. Work the paint into all cracks carefully and putty up tight. Look particularly to joints with posts and spindles—water enters here and causes paint peeling and wood decay.

away rapidly widow sills, porch steps, airing porches also get direct hot sun. Usually, cracks and open joints develop at these points. When water is able to penetrate, it loosens the paint so that it breaks away sometimes as a blister, full of water.

REMEDY: When dried out, scrape away loose paint and work some SWP Undercoater well into the opening and then fill it level with good putty and protect the repair with SWP or S-W Porch and Deck Paint.

Metal flashings around doors, windows and where dormers, chimneys, porch roofs and ells join the house serve the purpose of deflecting water and driving rains so that it stays outside and does not get in behind the siding. Along with leaking gutters and valleys, defective or broken flashings cause by far the largest part of the paint peeling, rotting of structural wood and ruin of interior decorating and furnishings of homes. Painting cannot correct faulty construction or flashing. Neither is it safe to re-paint such a house until a good builder has overcome these defects.

WHEN IN DOUBT, call in both a carpenter and a good painter for consultation. They can advise you how to do the work most effectively and economically.

There are many small paint touch-up jobs the home owner will want to do or supervise in between times of repainting the house: the porch steps, the open airing porch, the railings, the shutters or blinds, the outside doors, the storm sash and the screens. Fastidious owners do these little jobs once a season and get a big kick out of the spick and span appearance they give the home. Truly, a beautifully painted home is the one where nothing is permitted to go "paint hungry."

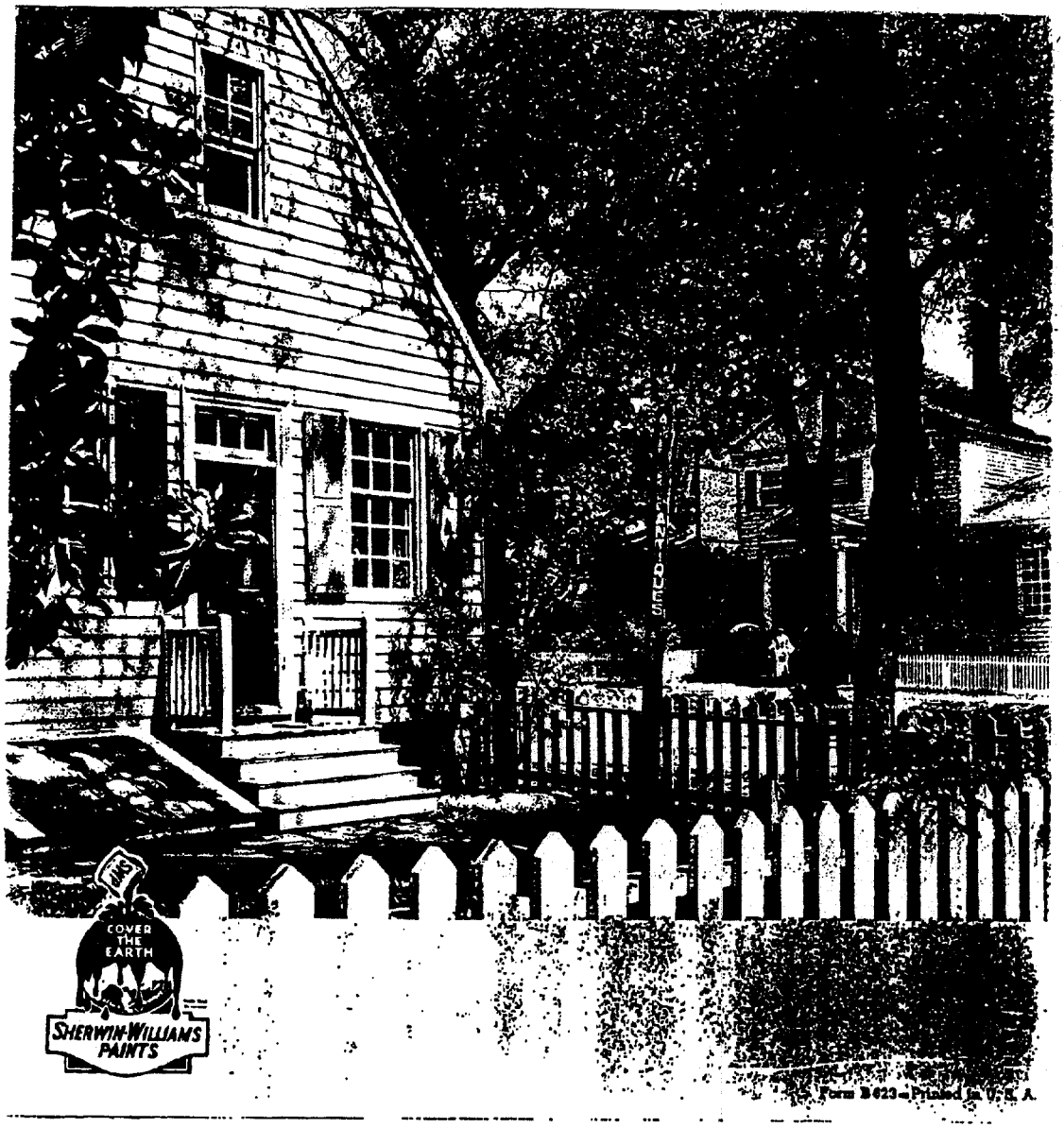
HOW YOU CAN *PAINT NOW-PAY MONTHLY*

● Time was, not so long ago, when painting the house was an item of expense that required planning ahead to have the necessary money on hand to cover the contract cost. Now, the Sherwin-Williams Budget Payment Plan overcomes this hardship, makes it easy to pay for necessary painting out of income. No need to delay, to take chances on costly repair bills—you can PAINT NOW and pay for it by the month in 12 or 18 easy payments. No down payment is required—you pay nothing until 30 days after the work has been completed to your satisfaction—not before.

There's no fuss or red tape involved. All you have to do is to call or stop in at your Sherwin-Williams dealer's store. He'll help you with the simple routine arrangements and, if you wish, he'll suggest two or three reliable contractors to give you free painting estimates.

You'll be amazed at how easy and economical it is to get the finest paint job for your home with the help of your Sherwin-Williams dealer and the Sherwin-Williams Budget Payment Plan.

DON'T DELAY-PAINT TODAY-PAY LATER
USE THE *SWP HOUSE PAINT* BUDGET PAYMENT PLAN!



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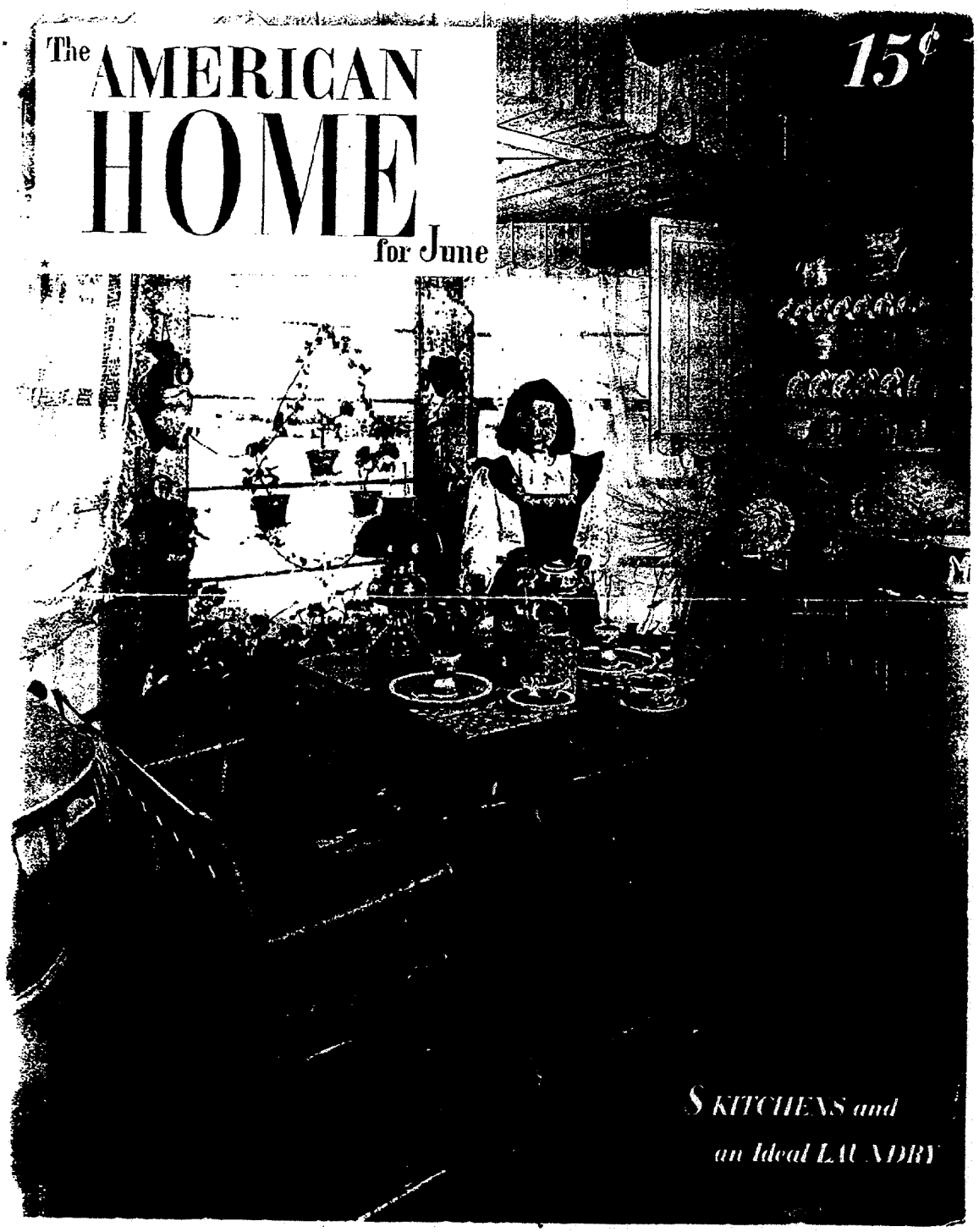


surface on which cheap paint had been applied after only 1½ years. In this case, the paint has cracked all the way down to the wood. Eventually, moisture will find its way behind the paint film, and the paint will begin to scale. The cause of this paint failure is a paint that is too brittle. Lack of elasticity in the paint film makes this fault inevitable, because the paint film should stretch and contract with the movement of the wood. Here a slight saving was effected by the use of cheap paint, but the owner will have to remove all the paint down to the bare wood and start all over again. Another failure that looks much the same as cracking is alligatoring. This fault is not so serious, however, because it affects only the first layer of paint. It sometimes happens when the coat beneath is softer than the succeeding coat, because the former has not had sufficient time to dry or because more oil was used in it than in the succeeding coat. It is not always necessary to remove paint when this fault occurs, but the surface should be sanded thoroughly or the pattern will be visible under the new coat.

The top photograph on page 67 shows a paint that has chalked excessively. All paint should chalk to some extent as time goes on, but it should not occur for at least a year after the paint has been applied, and then it should not be as excessive as it is in this case. Paint that chalks excessively was probably applied too thin or applied during damp weather.

Blistering shown in the bottom photograph on page 67, will occur when paint is applied to a surface that is wet. The presence of water prevents the paint from gripping the surface properly. The solution to this problem is, of course, to be certain that any surface you are painting is thoroughly dry before applying paint in any form.

Tackiness and slow drying may occur when paint has been used with a low-quality vehicle, or with insufficient driers. Good paints always will dry eventually, but inferior paints may never dry, in which case all the paint will have to be removed before any repainting is done.

If paint wrinkles, it probably has been applied too thick. The remedy is to use thinner paint and brush it out well. In extreme cases, paint that has wrinkled may have to be removed. Usually, though, a thorough sanding of the surface will suffice.

TOOLS AND EQUIPMENT

When you have bought your paint, consider the brushes you will need. If you are going to work alone, one good 4" brush and one sash tool to cut around glass and other areas of that kind, will be sufficient. You will also need some other equipment, such as an extension ladder, which often may be rented, a stepladder, mixing buckets, stirring paddles and hooks. The latter may be made by bending a stiff piece of wire into an "S" shape; they will come in handy because you can hang one loop of the "S" over the rung of the ladder and use the other to hold the bail of the bucket.

PREPARING THE SURFACE

To prepare the surface, you will need a putty knife, a scraping knife, a dusting brush, putty, sandpaper and, possibly, a blowtorch or paint remover. Sometimes it may be found that some surfaces are in good condition and others show paint failures. Chemical paint removers may be used to take off the paint in the bad spots. Apply the liquid with an old brush. This will cause the film to bubble up and lose adhesion, so that it may be scraped off with a scraping knife.

When you have taken off all paint that has failed, go over the entire house with No. 1½ or 2 sandpaper to remove rough spots and dirt. As you go along, dust the surface with your dust brush and putty all holes or cracks with a good grade of white lead putty. This preparation means a lot of work, but you will be rewarded when the paint finally is applied. In areas where paint has been removed to the bare wood, a prime coat will be necessary. This coat will be of a different formula than the final coat or coats. Your paint store will be able to supply you with a primer, if you are using ready-mixed paint.

APPLYING THE PAINT

The rest of the job is fairly simple; it is just a matter of applying the paint. Many amateurs have a way of dipping the brush into the paint so that the metal binding at the top of the brush, and half or all the handle, is covered with paint. It is better to cover about half of the bristles with paint, apply it on a handy-sized area and then, without using further paint, brush it out. This will spread the paint evenly over the surface. After brushing out the paint, go over it still another time to remove brush marks. Start at one side and keep the brush moving in one direction until you have reached the end of the freshly painted area. In the center of a large surface, brush from the freshly painted area toward that already finished, gradually lifting the brush from the surface. This will cause the paint to flow together, and overlaps will not be noticeable. Pay particular attention to places where there are joints, such as around sash or where clapboards meet, and work in plenty of paint with your brush so that all surfaces involved are covered. However, do not forget to brush paint out here as elsewhere, or the paint may flow out of the cracks and unsightly runs will appear. Paint in cracks will be good insurance against the entry of any water behind the paint film.

It is easier to use good paint and easier to apply it on a smooth, clean surface, so don't be lured by a low price when buying your paint. And don't paint your house the "easy" way—over dirt and rough spots. If you do, paint failures almost surely will follow, and this means more expense and more work for you.

What Chemical Society Discusses Affects Every Home

An Editorial

BY WILLIAM S. LAWSON, Executive Vice President Harshaw Chemical Co.

"We must regard life," says Dr. Gilkey, "not as a problem to be solved, but as a succession of concrete problems to be met."

No more historically notable scientific and industrial development has been seen than during the years since the World War began in Europe.

It is not [illegible] to say that what the chemical industry of the United States discovered how far in arrears we were as compared with certain foreign nations, particularly Germany, and when with acute realization setting in, the industry met every issue and every requirement; so that in these United States of America we became chemically self-contained to an extent [illegible] by the 1925 [illegible] Said if 1926 is any [illegible] cannot [illegible] statement.

It is not [illegible] to say that what [illegible] chemical industry [illegible] be taken as a type and prophecy of what other industries [illegible] and perhaps [illegible] to [illegible] not [illegible] to any [illegible] governments should not be alarmed even now by an alliance with the physicists and practicians of the chemical industry as during the war [illegible] were in partnership.

As W. H. Nichols, president of the American Chemical Society, said recently, "When the chemical industry was called upon to send our guns, to strengthen the arms of our forces and to provide better medical supplies, the government came to a full realization of the importance of the industry." The government should not forget! The industry should not forget. It can ask for what it wants as well as take what it gets.

So often our grievance against life or our distrust in our own ability is unjustified. The trouble is that we are still victims of that bad childhood habit of depending on other people's compliments; that we review and respect old decisions, expect results too soon and fret away our time with pure hope. The habit of mind of the scientist is the reverse of that. Let the rest of mankind take a leaf out of his book. Our existence is a "succession of concrete situations to be met," and solved.

In Cleveland and northern Ohio in these immediately past depression years, we have had more than our share, seemingly, of these "concrete situations to be met." Great has been the earnest thought, the sincere endeavor by our industrialists, scientists, professional men—both organized and unorganized—inspired by pride in our community, in our history, yes even in our prospects. There is still much to be done, disjointed efforts to be co-ordinated, sincere purposes to be reconciled. One has only to read newspapers to get the feel of this deep movement and to know that the ogre of despondency is about defeated.

Leaders in Chemistry

C. L. PARSONS — CHARLES L. REESE — HARRISON E. HOWE

Charles L. Reese, president of the American Chemical Society, until recently was with the du Pont Co. C. L. Parsons is executive-manager of the society, and Harrison E. Howe is editor of the society's official publication.

The original drawing of the new famous Cover-to-Earth trade-mark, made by George W. Peed, in 1906.

CITY'S PLACE IN CHEMISTRY HIGH

Has Chemical Tradition, Is Shown in Review of Enterprises.

If locating national conventions hinges upon climate, then Cleveland is more entitled to the annual meeting here today of the American Chemical Society than almost any other city of comparable size.

The following digest of an article in Industrial and Engineering Chemistry, titled "Chemistry in Cleveland," is warrant for the above assertion.

Cleveland has a chemical tradition, he says, evident when one remembers:

That Morley, whose research on the determination of the combining proportions of oxygen and hydrogen became world famous (Morley was professor of chemistry at Western Reserve University).

That Herman Frasch, who left a research fund of $300,000 to the American Chemical Society, and to whom the world owes the successful operation of sulphur wells in Texas and Louisiana, was once a citizen of Cleveland and here did some of his work on removal of sulphur compounds from Lima oil.

That Charles M. Hall, to whom we owe the present process of making aluminum, was at the time of his discovery a student in Oberlin College and a resident of Oberlin.

That Dow, the founder and builder of the Dow Chemical Co. at Midland, Mich., started his chemical career in Cleveland and there obtained financial support for his company.

And that Mabery did his exhaustive research on petroleum at Case School of Applied Science.

"Yet many people realize that in Cleveland there are more than 20 companies manufacturing chemical products or at least closely identified with chemistry," the article says. "Almost daily a dozen more."

"The Grasselli Chemical Co., founded by Eugene Grasselli, was a pioneer in the field of manufacturing sulphuric acid for the petroleum industry. Even now heavy chemicals are featured by Grasselli, although the company has expanded into the field of dyes and other products. A few years ago the Final completed the Grasselli Co. but allowed the old organization to retain its identity.

"The National Carbon Co., although removing some of its departments to other cities, still maintains a huge dry cell plant in Cleveland and a research laboratory from which have come special carbon rods, carbon brushes, Outcoat paint, carbon pots for corrosive liquids, electrodes and many other important carbon products.

"That this city is a paint and varnish metropolis is due to the early genius of Sherwin-Williams Co. and to the enterprise of the Glidden Co., the Varnish Products Co., the Cleveland Varnish Co. and others.

"The Linde Chemical Co. serves hospitals, industry and research laboratories with its symbols of compressed mineral acids, ethylene, carbon dioxide, oxygen, argon, phosgene, acetylene and 25 other gases

also that the Ohio Chemical Co. The Lake Erie Chemical Co. supplies and banks with tear gas and [illegible] bombs. The Liquid Carbonic Corp., the Linde Air Products Co.

(Continued on Page 9, Column 3)

Welcome, American Chemical Society!

Cleveland is proud to welcome you—proud that you have chosen this city for your great 88th annual convention which opens today with a registration of 3,000.

Cleveland is proud to welcome you—proud that you have chosen that city, for your great 28th annual convention which opens today with a registration of 3,000.

It is significant that your meeting is being held in the city that pioneered quality prepared paints; the city that had the men with courage to fight their way against luring claims for inferior paints, to win their way to world supremacy and leadership by manufacturing and marketing only the highest quality products, on which they were proud to place their names.

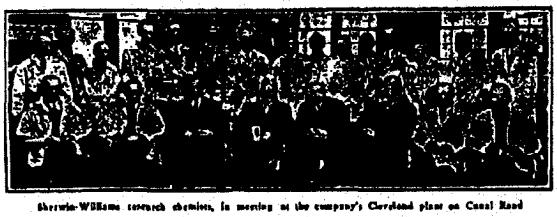
Cleveland not only pioneered in prepared paints; but for many years it has enjoyed the reputation of being "Paint Headquarters"—meaning that in Cleveland is produced more paint per capita than in any other city in the world.

We are proud to be IN Cleveland, OF Cleveland, and to welcome your Society which has always stood for the highest ideals and for the advancement in science and chemistry to which the paint, varnish and lacquer industry owes so much of its progress in the attainment and successful development of such a wide range of finishing materials for all surfaces and purposes.

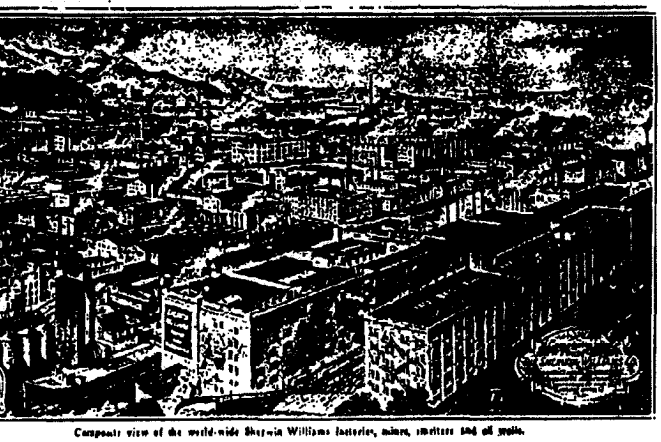
THE SHERWIN-WILLIAMS CO.

Largest Paint and Varnish Makers in the World.

Chief Chemist of The ... Co., and prominent ... American Chemical ...



Sherwin-Williams research chemists, in meeting at the company's Cleveland plant on Canal Road



Composite view of the world-wide Sherwin-Williams factories, mines, steamers and oil wells.

"The Dale Chemical Co. serves hospitals, industry and research laboratories with its synthesis of compressed nitrous oxide, ethylene, carbon dioxide, oxygen, argon, phosgene, propylene and 30 other gases.

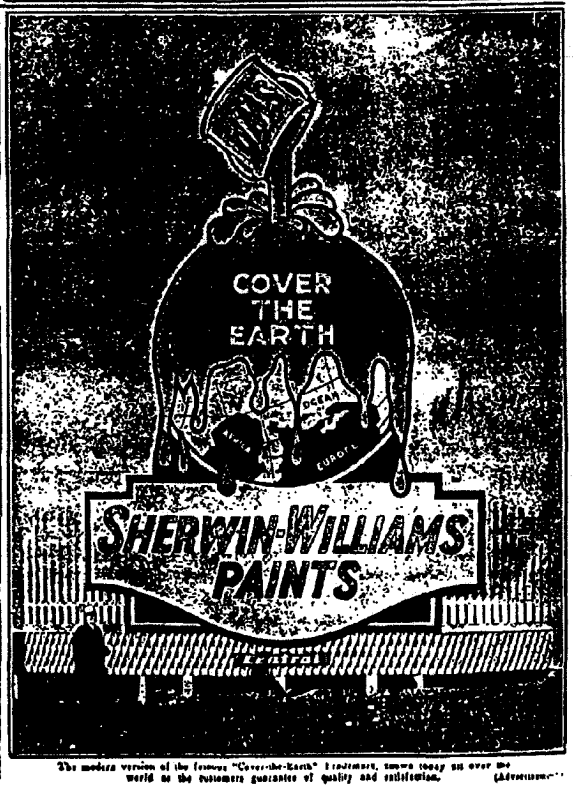
Aluminum's Birthplace.

"At Willoughby, O., in the J. M. R. Products Co. manufacturing factory peroxide, a porous and anhydrite barium monoxide used as a guarantee for removing non-metallic inclusions from metals and alloys; a hydride and the sulphate.

"The Aluminum Co. of America has a large plant in Cleveland. This is appropriate since the whole industry was based upon the discovery in 1886, at Oberlin College, of the Hall process of making aluminum. Recently the parent company entered the magnesium field and in Cleveland is manufacturing magnesium castings for motor parts.

"The Union Salt Co. has wells within the city limits.

"Gases are made by other compa-



The modern version of the famous "Cover-the-Earth" trademark, known today as over the world as the customers guarantee of quality and satisfaction. (Advertisement)