

AMERICAN BUILDER

SEPTEMBER 1948
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WORLD'S GREATEST
BUILDING PAPER



SEP 15 1948

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*Street of
Modern Homes*

See Pages 80 to 85, this issue

HOW TO MAKE QUICK PROFITS FROM OLD HOUSES



CHANGE THIS...



TO THIS...

WITH **CELOTEX** INSULATING SIDING

There's quick profit in promoting the modernization of drab old houses with colorful Celotex Insulating Siding.

Every old house in your community . . . that needs repairing or repainting . . . is a good prospect. Celotex Insulating Siding gives new life and sales value to an old house. It does *two* jobs at once — decorates and insulates. And it's the only siding with a Celotex cane fibre core.

Celotex Insulating Siding is now made in brick design under the trademark, "CELOBRIC", and in stone design under the trademark, "CELOSTONE".

For complete information — see your Celotex salesman . . . or write to

THE CELOTEX CORPORATION, CHICAGO 3, ILLINOIS

Another **CELOTEX** Product

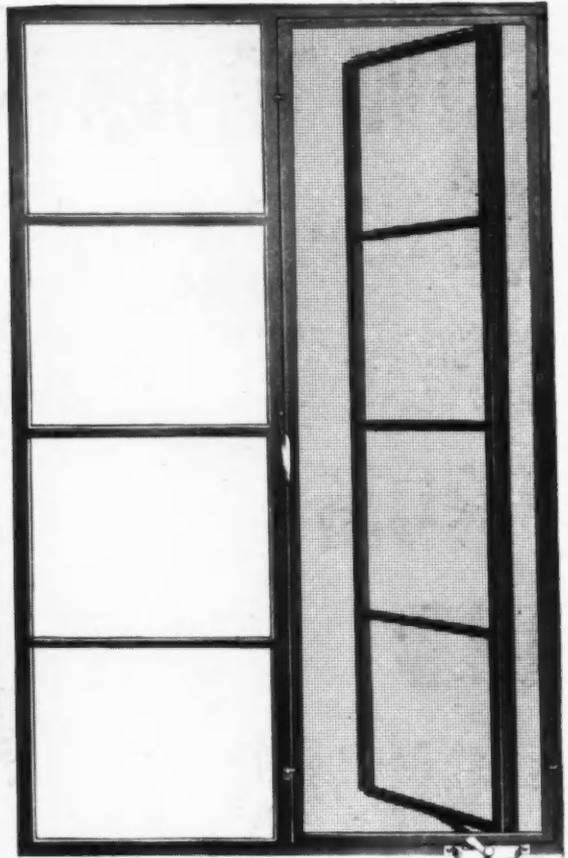
BUILDING BOARD . . . INSULATING SHEATHING AND LATH . . . CELO-ROK ANCHOR LATH AND PLASTER . . . CEMESTO
CELO-ROK WALLBOARD . . . INTERIOR FINISH PRODUCTS . . . FLEXCELL . . . ASPHALT ROOFING . . . CELO-SIDING

Published monthly by Simmons-Boardman Publishing Corporation, 105 W. Adams St., Chicago 3, Ill. Subscription price, United States, Possessions and Canada: 1 year, \$3.00; 3 years, \$8.00. Foreign countries: 1 year, \$10.00; 3 years, \$20.00. Single copies, 35 cents. Entered as second-class matter May 21, 1918, at the Post Office of Chicago, Illinois, under the act of March 3, 1879, with additional entry as second-class matter at Mount Morris, Illinois. Address communications to 105 W. Adams St., Chicago 3, Illinois.

FENESTRA CASEMENT 2414N

cuts costs in

3 important ways



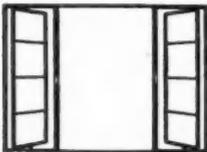
WHICH IS THE RIGHT WINDOW TO USE?

For maximum economy
—Type 2414N. Meets most residential window needs. Use this for all general locations. One swing leaf provides full 50% opening . . . deflects air into the room.



For maximum ventilation
—Type 2424. Provides 100% opening. Costs 70% more than Type 2414N because it has two ventilators with Roto-Adjusters.

Obviously, there are places where this extra ventilation makes the additional cost well worth while.



For maximum view—Type 4424. Picture window, plus ventilation . . . many other types and sizes of Fenestra Casements to provide a right window for every need.

First, it is a high-quality Residence Steel Casement specially designed to cost less. It has a single ventilator—yet 50% opening is more than you get with ordinary windows. Cost is reduced even further by manufacturing standardization.

Second, installation cost is less because the window is a complete, assembled unit. It's made for the widely-used 2'10" x 4'6" opening.

Third, maintenance cost for your customers is minimized by Fenestra's well-known high quality. Fenestra Casements are Bonderized and priming paint is baked on.

This economy window provides the many benefits that have made the whole family of Fenestra* Casements so appealing to home buyers—easy opening, safer cleaning and easier screening from inside the room . . . plus Fenestra's trim steel frame which allows 16 $\frac{2}{3}$ % more glass area than ordinary windows of the same size.

For full information and prices of all types of Residence Steel Casements, see your Fenestra dealer—or write to Detroit Steel Products Company, Dept. AB-9, 2260 East Grand Boulevard, Detroit 11, Michigan.

*®



Fenestra

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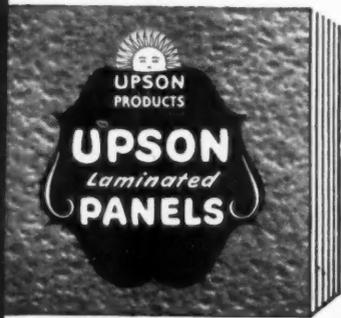
A 6 ply 8' x 18' Upson Strong-Bilt Panel goes through Mr. Blandings' door to make distinctive walls and ceilings of lasting beauty. Can be applied any month of the year.

Beautiful crackproof ceilings for Mr. Blandings. Upson Strong-Bilt Panels are used in thousands of homes all over the land—give added value to any house—stay free from continuing expense.

A front yard scene from the motion picture, "Mr. Blandings' Dream House" starring Cary Grant, Myrna Loy and Melvyn Douglas.

Dream House

Mr. BLANDINGS and UPSON Build a House



Another signal recognition for Upson Products!

Replicas of "Mr. Blandings' Dream House" as it appears in the motion picture have been built in 60 American cities. The Upson Company is the only manufacturer of interior wall and ceiling materials officially designated by RKO Radio Pictures, Inc. and the Selznick Releasing Organization, producers and distributors of the motion picture, to supply wall and ceiling panels for local Blandings houses. Above is a typical Blandings Dream House erected in Atlanta, Georgia with interior walls and ceilings of Upson Strong-Bilt Panels.

THE UPSON COMPANY 19 Upson Point, Lockport, New York

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AMERICAN BUILDER

Founded—1879

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The **SEVERN** Oil Boiler, with its trim lines and colorful jacket, blends perfectly with the decorations of this distinctive basement workshop. The Severn's tight construction keeps fuel odors from escaping into the room and adds to the shipshape cleanliness of the entire house. In the downstairs powder room are two popular American-Standard Plumbing Fixtures — the quiet **COMPACT** Water Closet and the shelf-back **COMRADE** Lavatory. These fixtures come in gleaming white and a choice of colors.

FIRST

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AMERICAN-STANDARD Products are big favorites with people who recommend, specify or buy heating equipment and plumbing fixtures.

Their smart styling pleases those who look at them from the point-of-view of design; their sound construction details meet the exacting requirements of engineers; and their flawless performance, operating economy and long life appeal to home-owners.

Yes, you're sure of public acceptance when you choose American-Standard... for more American homes have heating and plumbing by American-Standard than by any other single company. For details of the complete line, contact your Heating and Plumbing Contractor. **American Radiator & Standard Sanitary Corporation**, P. O. Box 1226, Pittsburgh 30, Pa.

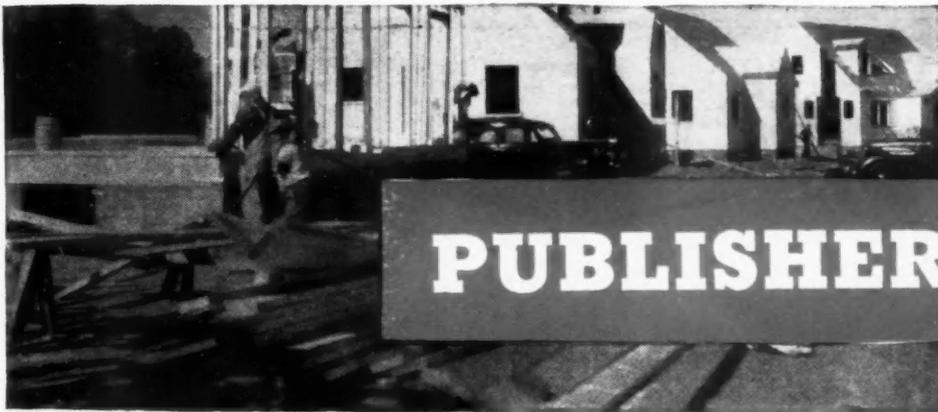


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PUBLISHER'S PAGE

The Real Issue in the Election

THE *real* issue in the political campaign this year is private enterprise versus socialism. The danger is that this *real* issue will not be frankly and adequately discussed. There are politicians in all parties who will try to dodge or straddle it. The advocates of private enterprise should prevent as much of this dodging and straddling as they can by attacking every socialistic policy now in effect or proposed and thereby putting on the spot every politician who favors any such policy.

Most of the politicians, like most of the people, profess to be unequivocally in favor of private enterprise. But almost every voter favors one or more socialistic policies that he believes now benefits or would benefit him. The politicians know this, and almost every politician, whatever his professed general principles, supports one or more socialistic policies that are favored by some of those whose votes he is seeking.

Even Sen. Taft became one of the authors of the socialistic T-E-W housing bill. Gov. Dewey has advocated the St. Lawrence "seaway" and a toll-free super-highway across New York State to provide more government-subsidized competition with the private enterprise railways. Members of Congress from the agricultural midwest, regardless of party, still support subsidies to maintain farm prices when they are now the highest in history while deploring "inflationary" prices fixed by industry to pay advancing wages.

Almost every socialistic policy includes a subsidy for somebody. Every subsidy is paid from taxes. High taxes have become the heaviest burden and the greatest danger to private enterprise. Most politicians, regardless of party, favor one or more socialistic policies because they have learned that they can get many votes by taking money from people in taxes and then returning *part* of it to the same people through socialistic policies of subsidization.

The recent shocking disclosures of infiltration of the federal government by Communists have been highly enlightening as regards some past developments. When years ago *American Builder*, among other commentators on public affairs, began charging that the New Deal clique were promoting destruction of private enterprise because so many of their

policies were socialistic, New Deal bureaucrats replied that they were merely trying to "help" private enterprise which they said had "broken down." Now some former members of that clique, such as Henry Wallace and "brain truster" Rexford Guy Tugwell, are disclosing what were their true principles and purposes all the time by leading the so-called Progressive party on an avowedly socialistic platform and with unanimous Communist support. Meantime, hearings by congressional committees have been disclosing that other members of the New Deal clique while employed by our government were acting concertedly as spies for the Russian government. Could any better evidence be needed that the reason why many New Deal policies *seemed* to be intended to destroy private enterprise was that this *was* their real purpose?

There is one sure evidence that any proposed or already adopted government policy will help to destroy private enterprise. This is, that it is favored by Socialists or Communists. They never favor a policy for any reason excepting that it is inimical to private enterprise. Hence Republicans and Democrats who, for whatever reasons, support policies favored by Socialists or "Commies" are simply playing the socialist game.

Samuel O. Dunn.

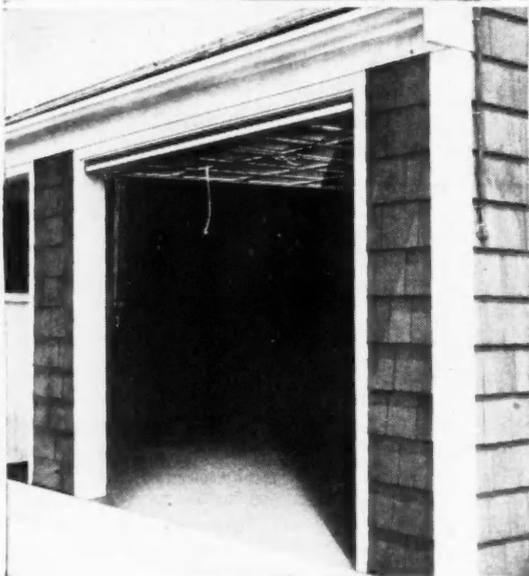
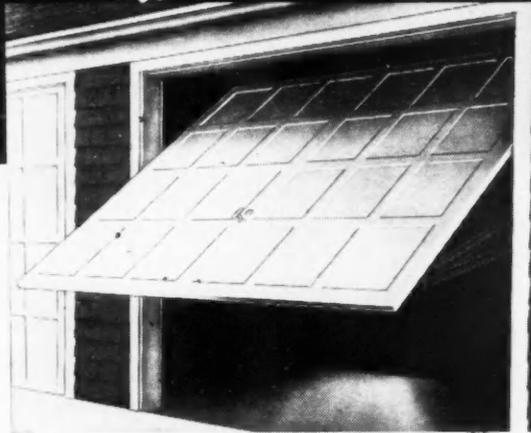
SAMUEL O. DUNN HONORED AT RAILROAD FAIR

Samuel O. Dunn, chairman of the board of Simmons-Boardman Publishing Corporation and publisher of *American Builder*, was signally honored at the Chicago Railroad Fair when Monday, August 16, was designated as "Sam Dunn Day." Mr. Dunn, who is recognized as one of the outstanding railroad economists of the world, has been editor of *Railway Age*, a Simmons-Boardman publication, for more than 40 years. In connection with the event a testimonial dinner was accorded to Mr. Dunn "in recognition of his lifetime of devotion and outstanding contributions to the welfare of railroads and the railway supply industry." The dinner was attended by several hundred executives of the railroads and railway supply firms.

Here it is:

**THE STANLEY DOOR
AND HARDWARE COMBINATION**

*you've been
waiting for!*



From your own letters, you have wanted this Stanley Door and Hardware set for a long time. Many of you have written asking that we furnish such a door. Now, here it is—the original Stanley Econ-O-Matic Hardware plus a door. Don't accept a substitute. Your nearest dealer either has it or can get it promptly.

DOOR: This is a beautiful, 24-panel door—all panels closed—designed for an 8' x 7' opening. Door is already pre-cut to 7' 11 $\frac{1}{4}$ " wide and 6' 11 $\frac{1}{2}$ " high. Stiles and rails are 1 $\frac{3}{8}$ " thick, all clear, kiln dried stock which has been treated with rot preventive solution. Panels are of 3/16" thick tempered masonite—very strong! Door is furnished in two sections with tongued and grooved meeting stiles to make a snug joint in the center. Each door comes wrapped in cardboard and has a protective board at either end.

HARDWARE: This is the No. 2731 $\frac{1}{2}$ x1001 set Econ-O-Matic Swing-Up Hardware, the famous set with automatic opening feature. Complete hardware packed in carton for easy handling.

With national advertising of Stanley FLOATING* Door Equipment to architects and home-owners helping, this combination set gives you a profitable opportunity for increased installation business. Write for details, including detailed specifications and installation information, now! The Stanley Works, Garage Door Dept., New Britain, Conn.

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HARDWARE · HAND TOOLS · ELECTRIC TOOLS

THE GREATEST NAME IN DOOR HARDWARE!

For Any Residential, Commercial or Industrial Door
That Lifts — Slides — Swings — Rolls — Or Folds.

THEY WANT IT

IT

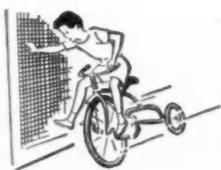


BECAUSE IT DOESN'T BREAK

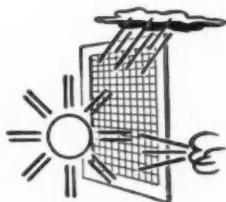
It's a combination you can't beat for bigger sales and bigger volume—Firestone *Velon* screening consumer advantages plus Firestone *Velon* national advertising and merchandising aids. Cash in on the newest thing in screening. Feature made-up screens of Firestone *Velon*—the screening that can't rust, rot or corrode, won't bleed down the housefront; the screening that's amazingly strong and resilient, takes rough handling without denting, bulging or breaking. From the handling standpoint, it pays you to frame *Velon*. It's lightweight, handles easily in storage and shipping, cuts with a scissors and leaves no sharp, dangerous ends.

Cash in on Firestone's national reputation.

Order early—order enough—for a big screen season next Spring! Ask your supplier for free merchandising aids: consumer folders, window streamers, counter cards, newspaper mats and *Velon* screening samples.



Won't Bulge



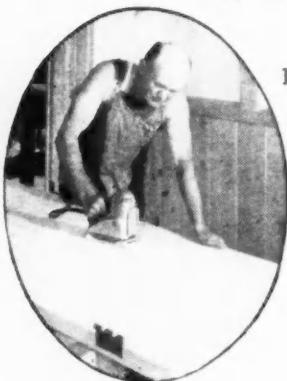
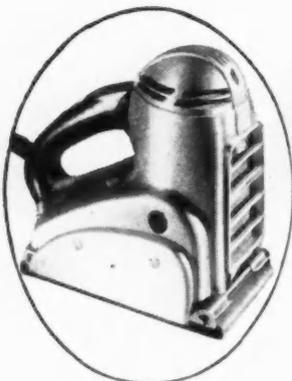
Can't Rot



Can't Stain

*TRADE MARK





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USE THE STERLING.

Fast, economical sanding—smooth, uniform surfaces—that's what you get with a Sterling Portable Electric Sander! Use it to sand doors, cabinets, frames, drawers, dry wall construction, sills, stair treads and to smooth plaster. Use it for either occasional or continuous heavy production, maintenance and repair work.

The Sterling is vibrationless, lightweight, easy to operate on flat or curved surfaces.

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STERLING TOOL PRODUCTS CO.
1334-A Milwaukee Avenue, Chicago 22, Illinois

STERLING 1000 SANDER
PORTABLE ELECTRIC

Hold Heat Where It Belongs with Flintkote Insulating Wool

*Inside in Winter
Outside in Summer*

Nobody has to "sell" the value of home insulation anymore. That's an accepted fact.

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And that's an excellent reason for your recommending Flintkote Insulating Wool, a Fiberglas* Product. It's just *naturally* better!

Naturally fireproof. Naturally light in weight. Naturally moisture- and corrosion-resistant. Naturally odorless, and won't harbor odors. Naturally vermin-, fungus-, and rot-proof. Naturally durable.

And Flintkote Insulating Wool is efficient. The ASHVE Guide establishes its thermal conductivity as "K" = .27 BTU.

So help your customers give their clients the great home comfort, fire protection, the easy installation, the economy and permanence that add up to greater satisfaction and more insulation per dollar with Flintkote Insulating Wool.

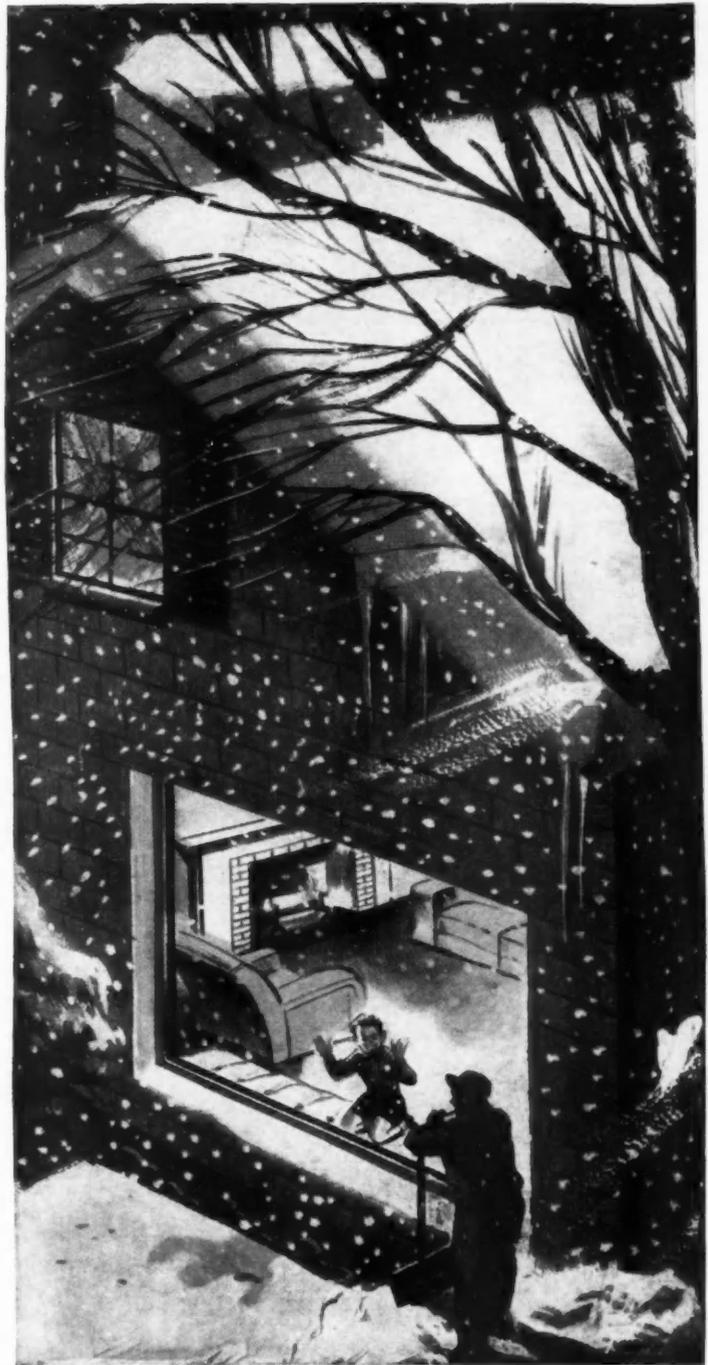
Sweet's has complete specifications and data. Or, write us, we'll rush you full details. THE FLINTKOTE COMPANY, Building Materials Division, 30 Rockefeller Plaza, New York 20, N. Y.

*TM Reg. U. S. Pat. Off.
Mfd. by Owens-Corning Fiberglas Corp.

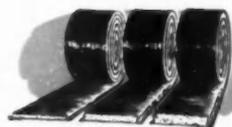
FLINTKOTE



the extra years of service cost no more!



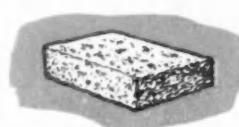
FOUR CONVENIENT FORMS FOR EVERY TYPE OF JOB



Roll Blankets—A low density insulation with a vapor barrier on one side and a vapor porous paper on the other. Has a nailing flange for easy application. Several widths and thicknesses.



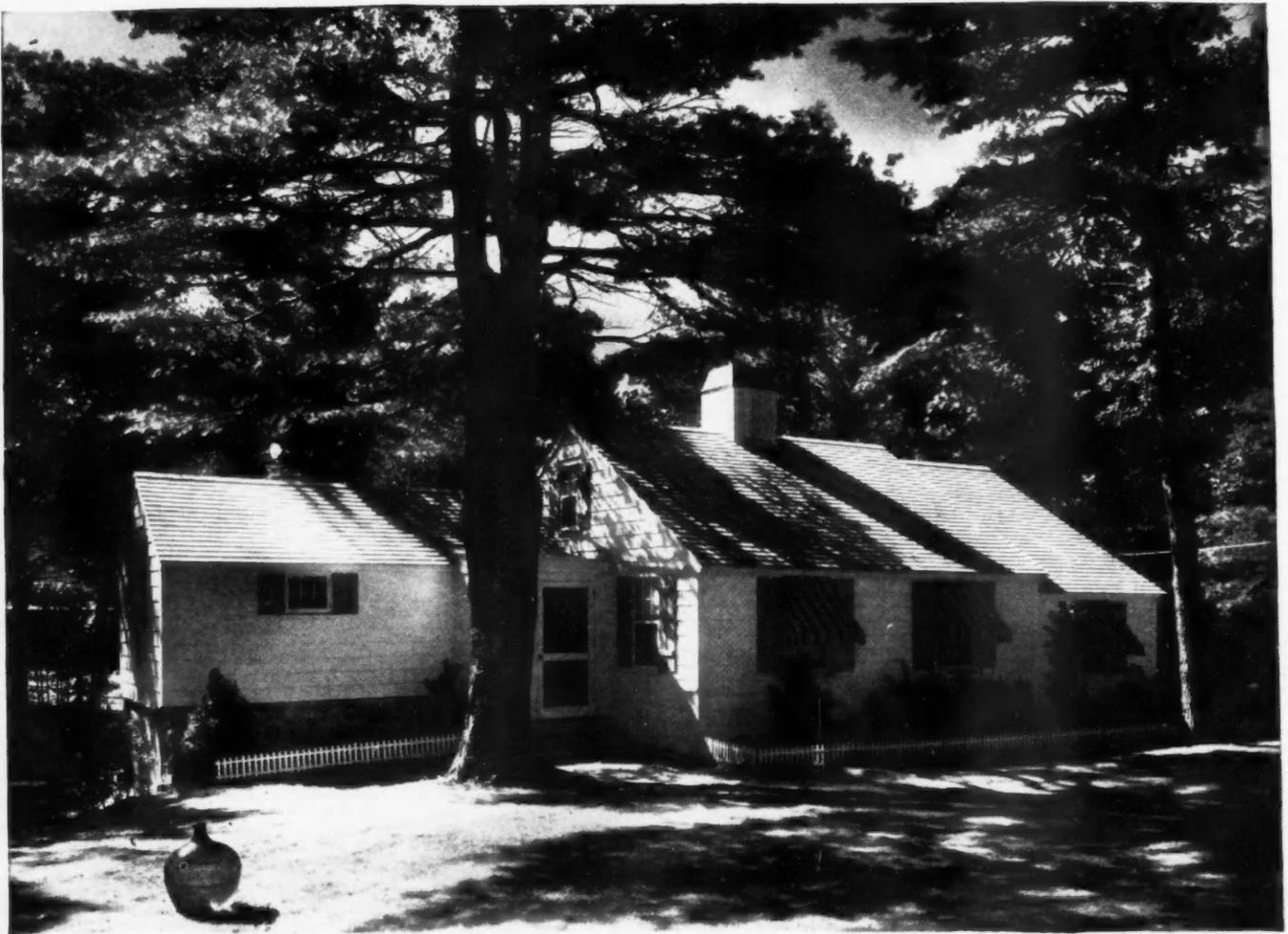
Batts Blankets—Same construction as Roll Blankets only in a smaller unit size, in 15" width only.



Bantam Batts—A handy size to snugly fit 16" studding where no vapor barrier is required. One size in 3" thickness.



Pouring Wool—A nodulated wool designed for hand pouring over a finished ceiling. Vapor barrier, if required, should be installed before wool is poured.



George R. Paul, Architect

TELEPHONE RACEWAYS MAKE A BIG DIFFERENCE—IN SMALL HOMES, TOO

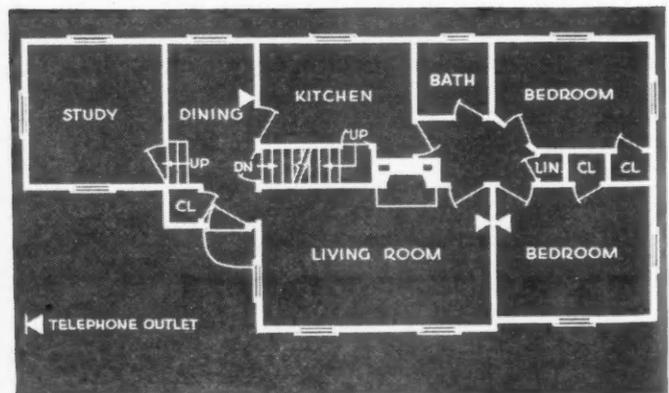
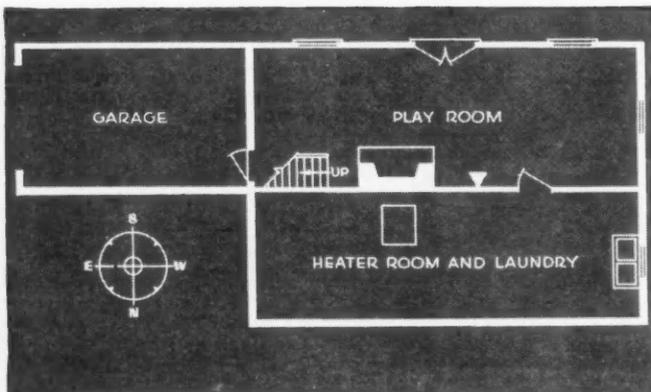
Up-to-the-minute small-home planning calls for telephone raceways. It's the sure way of avoiding exposed telephone wiring on walls and woodwork . . . and providing the owner with the utmost in telephone convenience.

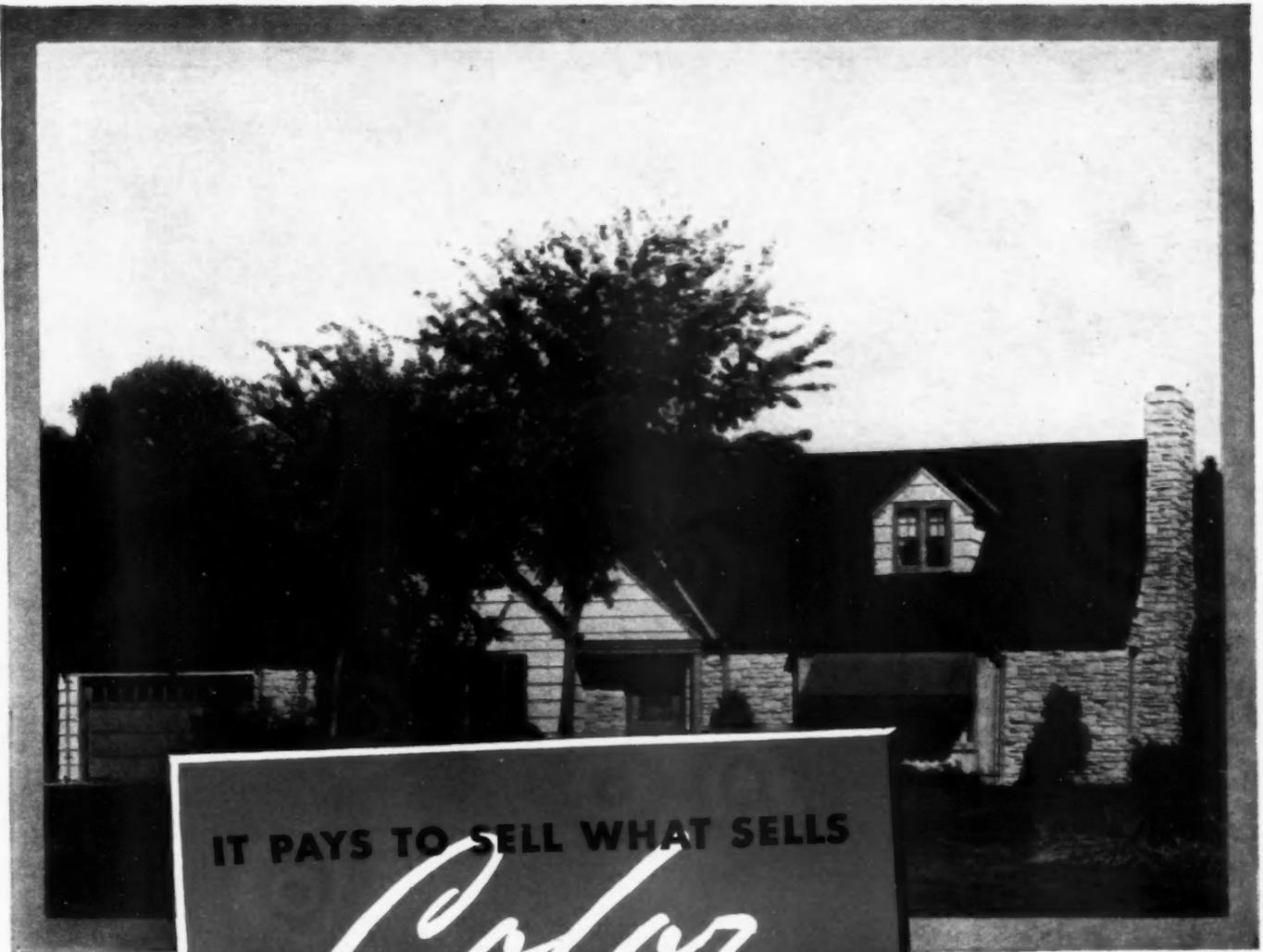
The added cost of telephone raceways is a minor item. A few pieces of pipe or electrical tubing installed inside the walls during con-

struction provide a clear path for telephone wires to outlet locations.

For small or large homes, your Bell Telephone Company will be glad to help you plan modern telephone arrangements. Just call your Telephone Business Office and ask for "Architects and Builders Service."

BELL TELEPHONE SYSTEM





IT PAYS TO SELL WHAT SELLS
Color

In roofing, Color Means Asphalt!

Your customer is thinking today in terms of color. He is thinking of color as a part of the design of his home. He has had a chance to see what color has done for other homes in making them bright and cheerful. He wants his house warm, friendly and inviting, too.

In the roof area where color styling starts, Asphalt means color . . . and color means Asphalt. Color in wide variety is one appealing feature that has helped push Asphalt Shingles to their present position of dominant leadership among roofing materials. It is estimated that 86% of all roofing purchased is some form of Asphalt.

The book below is a helpful guide to the effective use of color. Be sure to get a copy. In the meantime, sell what sells! Sell colorful, economical, fire-resistant Asphalt Shingles!



FREE! ... This booklet, "Choose Your Roof for rain... AND SHINE", will help you sell. 24 pages in full color. Filled with tips on choosing and combining colors for exterior styling. From members or direct.

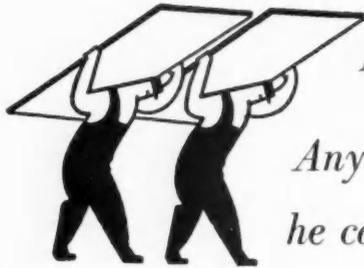
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 DOLLAR'S WORTH**

**ASPHALT
 SHINGLES**

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IS AS GOOD
AS ITS OWNER



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**51%...latest H & G survey
27%...latest figures of next magazine*



House & Garden

A Condé Nast Publication

DOUBLE DUTY INSULITE

(BILDRIE SHEATHING)

INSULATES

DESIGNED BY
L. MORGAN YOST, Architect
419 Richmond Road
Kenilworth, Ill.



Right at the beginning — in the blueprint stage — is the time to get special advantages for yourself and your customers by figuring on INSULITE (Bildrite) Sheathing. It cuts easily and goes up fast to save time and protect your profit margin. It builds a better home for your customers, and adds to your reputation as a good builder.

BUILDS

BUILDS AS IT...
INSULATES

double-duty
INSULITE

The GENUINE

INSULATES
AS IT BUILDS

"Insulite" is a registered trade mark, U.S. Pat. Off.

INSULITE DIVISION
PAPER
MINNEAPOLIS 7, MINNESOTA



MINNESOTA & ONTARIO
COMPANY

L. MORGAN YOST



A Wood-Faced Fire Door which offers these advantages

1. Increased Safety

The *only* wood-faced fire door which bears the Underwriters' label. All Weldwood Fire Doors are approved for class B openings.

2. Beauty

Because of their beautiful wood faces Weldwood Fire Doors harmonize perfectly with any decorative scheme.

3. Durability

The Underwriters' Laboratories tested a Weldwood Fire Door for durability by mechanically opening and closing it 200,000 times. At the end of the test, the door was unaffected and still opened and closed perfectly.

4. Dimensional Stability

Weldwood Fire Doors are so dimensionally stable that we guarantee them against sticking in summer or rattling in winter due to any dimensional changes in the door.

5. Light Weight

At last . . . a really fireproof door that is *not* heavy or unwieldy. A standard 3 x 7 door weighs approximately 80 lbs.

6. Vermin and Decay Proof

The mineral composition core used in Weldwood Fire Doors is permanently resistant to fungus, decay, and termites.

7. High Insulating Qualities

Another noteworthy characteristic of the core is its high insulating value over a wide range of temperatures. It is efficient against temperatures from freezing up to that of superheated steam.

8. Moderate Cost

Investigate these doors for use on your next job. You will be pleasantly surprised at the low initial cost, and the minimum of maintenance required.

Lasting Fire Protection Plus the Beauty of Real Wood with the New Weldwood Fire Door

Here's the newest Weldwood combination of *beauty* plus utility: a fire-safe door that carries the Underwriters' label . . . faced with fine cabinet hardwood for decorative beauty.

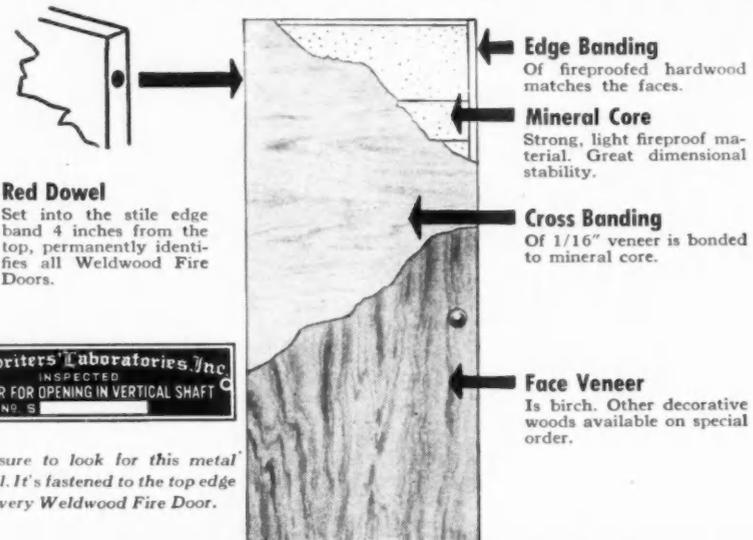
Now your *entire building* can be beautifully finished. It's no longer necessary to break up a decorative motif to gain fire-safe construction.

And we do mean *fire-safe!* In the regular one-hour fire test by the Underwriters' Laboratories,

the Weldwood Fire Door withstood an ultimate temperature of 1700°. *Yet the unexposed surface remained cool to the touch!*

Cost? So moderate it will surprise you. Maintenance expense? Negligible. Combine those two facts with the great dimensional stability that spells long service life, and you soon see what a *beautiful bargain* the Weldwood Fire Door really is.

Write for full particulars.



WELDWOOD COMPANION DOOR for matching installations

When absolute fire protection isn't a necessity . . . yet when you want a really first-class opening . . . choose the new Standard Weldwood Flush Door.

It is made with the same incombustible mineral core but without the fire-proofed edge banding and, therefore, does not carry the Underwriters' label. Otherwise it offers the same advantages

. . . *amazingly high dimensional stability, beauty, durability, lightweight, high insulating qualities . . . and it sells for less than the fire door.*

Weldwood Flush Doors can be matched perfectly with the Fire Doors, to carry the same decorative theme throughout the building.

Write for full information.

UNITED STATES PLYWOOD CORPORATION

55 West 44th Street, New York 18, N. Y.

Distributing units in Baltimore, Boston, Brooklyn, Chicago, Cincinnati, Cleveland, Detroit, Fresno, High Point, Los Angeles, Milwaukee, Newark, New York, Oakland, Philadelphia, Pittsburgh, Portland, Ore.; Rochester, San Francisco, Seattle. Also U. S.-Mengel Plywoods, Inc., distributing units in Atlanta, Dallas, Houston, Jacksonville, Louisville, New Orleans, St. Louis, Tampa. In Canada: United States Plywood of Canada, Limited, Toronto.

**Superior in detail,
low in price,
wide in range of
types and sizes...**

REYNOLDS ALUMINUM RESIDENTIAL CASEMENT, FIXED AND PICTURE WINDOWS

How to Write Air Infiltration Specification:

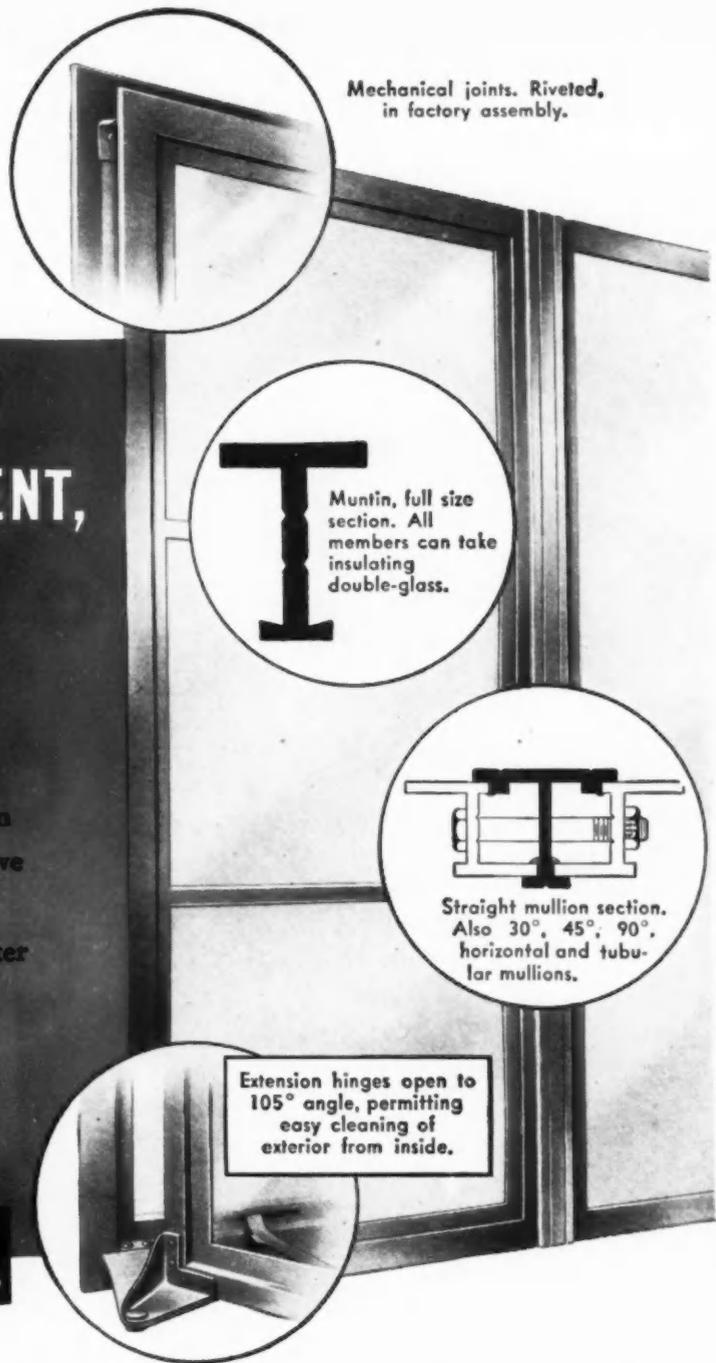
Windows of the type furnished shall have been tested by a recognized laboratory and shall have shown air infiltration not exceeding 1/2 cubic foot of air per minute per foot of vent perimeter when subjected to static pressure equivalent to a wind velocity of 25 mph.

**REYNOLDS ALUMINUM CASEMENT WINDOWS
MEET THIS SPECIFICATION.**

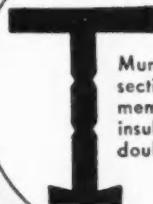
IF YOU SEE RUST
YOU KNOW IT'S NOT
ALUMINUM



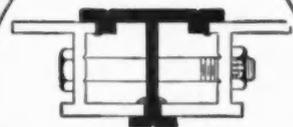
REYNOLDS
Lifetime ALUMINUM
BUILDING PRODUCTS



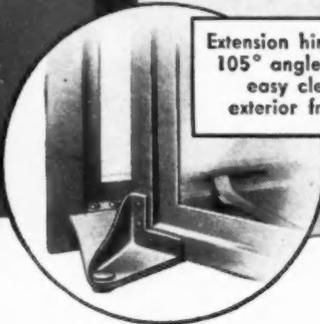
Mechanical joints. Riveted, in factory assembly.



Muntin, full size section. All members can take insulating double-glass.



Straight mullion section. Also 30°, 45°, 90°, horizontal and tubular mullions.



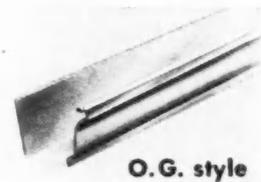
Extension hinges open to 105° angle, permitting easy cleaning of exterior from inside.



Half-round



Colonial box



O.G. style

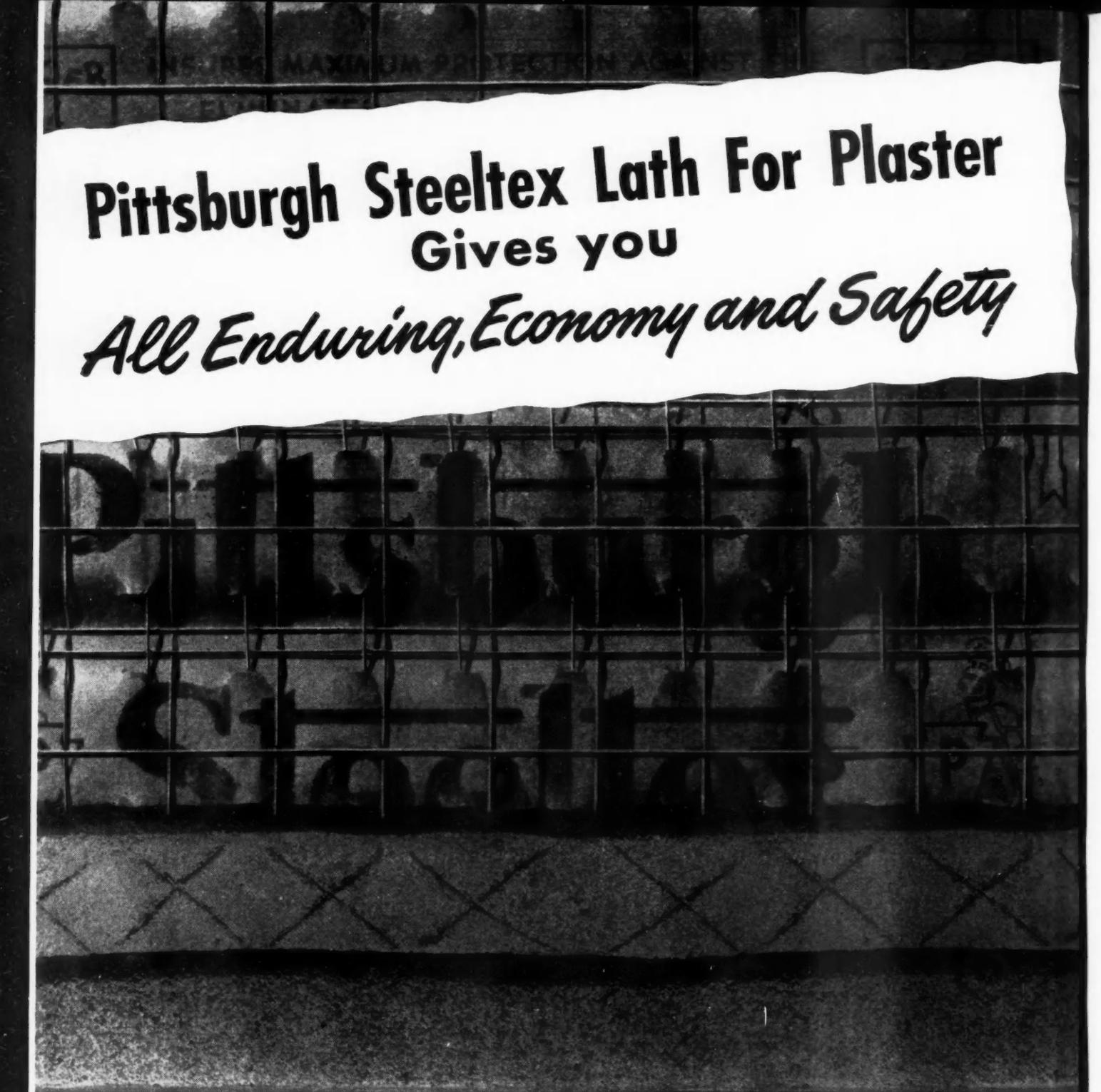
REYNOLDS *Lifetime* ALUMINUM Gutters and Downspouts

Rustproof permanence at about half the price of other rustproof materials. Three styles available in either plain or stippled-embossed aluminum,

**A.I.A. File Brochures on request from
REYNOLDS METALS COMPANY,
Building Products Division,
Louisville 1, Ky.**

WORLD'S LARGEST PRODUCER OF ALUMINUM BUILDING PRODUCTS:

Shingles, Clapboard Siding, Corrugated and 5-V Crimp, Snap-Seal and Standing Seam Roofing, Weatherboard Siding, Built-Up Roofing, Nails, Gutters, Wall Tile, Windows, Reflective Insulation, the "Alumi-Drome" (prefabricated utility building).



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Gives you

All Enduring, Economy and Safety

The economy and safety of your buildings is permanent when Pittsburgh Steeltex lath is used as a backing for interior finishes. Your homes sell easier. Your reputation as a designer and builder is enhanced because owners quickly sense the value of fire-resistant construction and freedom from plaster cracks and stud marks provided by Steeltex. Many architects specify Steeltex and experienced

builders prefer it because of its ease of installation and the savings in material. They both agree that Steeltex definitely makes possible the finest construction available in homes and other types of buildings.

It will pay you to write today for our illustrated technical booklet which shows how you can assure better construction at low cost with Pittsburgh Steeltex lath for plaster.

STEELTEX for Plaster, Floor Lath, Stucco, Masonry Veneer Available Now at your local dealer

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Subsidiary of Pittsburgh Steel Company

Grant Building · Pittsburgh 30, Pa.



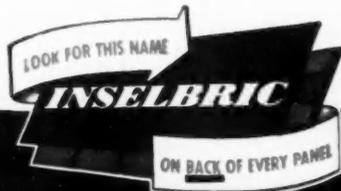
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Through the years INSELBRIC has become the standard of excellence for all insulating brick sidings. INSELBRIC looks like real brick, insulates better than real brick, and lasts a lifetime—makes old frame houses look like new brick homes. INSELBRIC, "the only insulating brick siding people ask for by name," leads in performance—leads in sales—makes more profits for dealers!

*Leads
in
Sales!*



*U.S. PAT. No. 2232432

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National Distributors of Inselbric and Inselstone
PITTSBURGH, PA.

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World's Largest Exclusive Producers of Insulating
Brick Siding. Makers of Inselbric and Inselstone.
SOUTH BEND, IND. • ELIZABETH, N. J.

Jones & Brown, Inc.
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AB

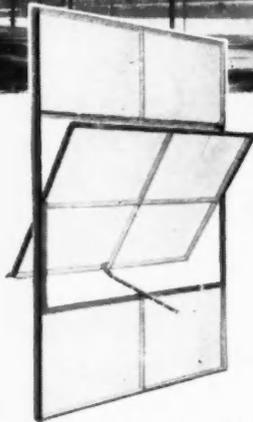
Yes, I want to know how I can build a permanent, profitable business of my own with INSELBRIC. Please send me the full INSELBRIC story at once!

Name

Street

City

TRUSCON PLANNING BOARD

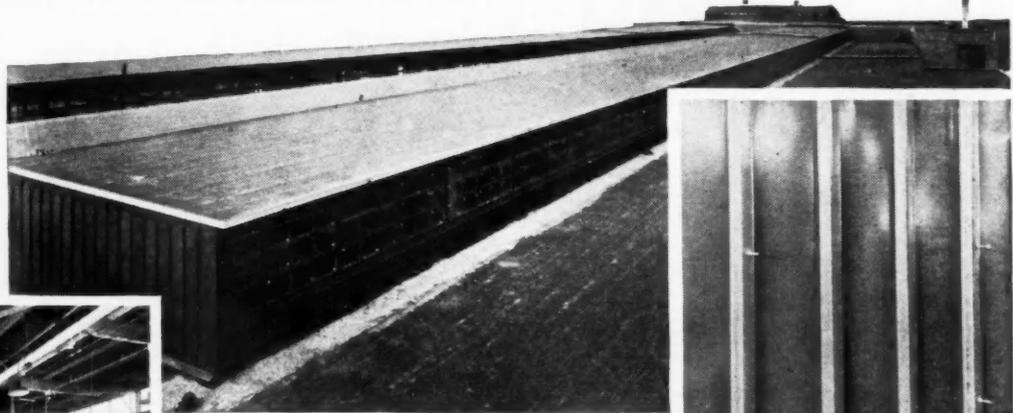


Permanence, Safety and Utility Assured throughout the Robert Gair Company by Truscon Steel Building Products

The new Cambridge, Mass. plant of Robert Gair Co., manufacturers of Folding Boxes, Display Containers, Corrugated and Fibre Shipping Containers, Displays and Boxboards,

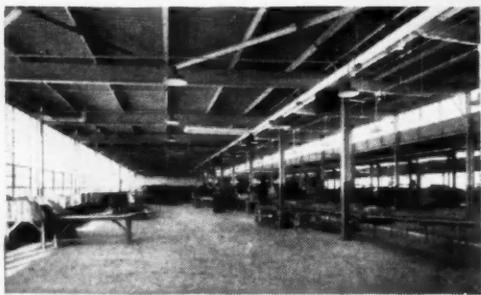
is an excellent example of architectural beauty attained with Truscon Steel Windows in a combination office and factory building. These windows help achieve long, sweeping lines.

Maximum light and ample ventilation in the new Gair building are provided by mechanically operated Truscon Pivoted Steel Windows. These windows are especially suited for industrial and commercial buildings such as factories, warehouses, garages and filling stations. Write for free catalog on complete Truscon Steel Window line.

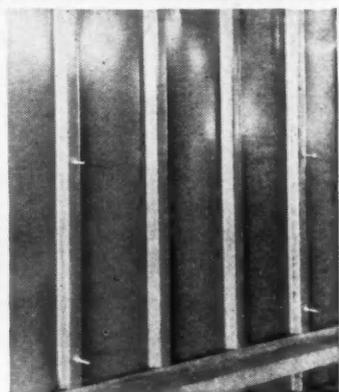


A view of the Truscon Ferrobord Steeldeck Roof, the permanent answer to roof problems. Ferrobord is formed of either 18 or 20 gauge copper bearing or electrogalvanized strip steel with interlocking members. Truscon Ferrobord Steeldeck Roof provides a smooth, quickly installed, fire-resistant surface over which any type of built-up roofing can be applied, with or without insulation.

Write for descriptive literature.



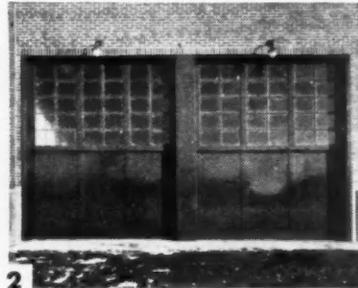
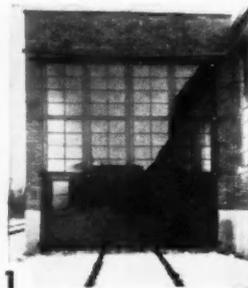
General interior view of the Gair structure showing the Ferrobord Steeldeck Roof, and the generous flooding of light transmitted by the Truscon Steel Windows.



Where metal sidewalls were required Truscon Ferroplate Siding was used throughout the building. Used alone or in conjunction with brick, Ferroplate offers the advantages of quick construction, fire resistance and economy. *Write for literature.*

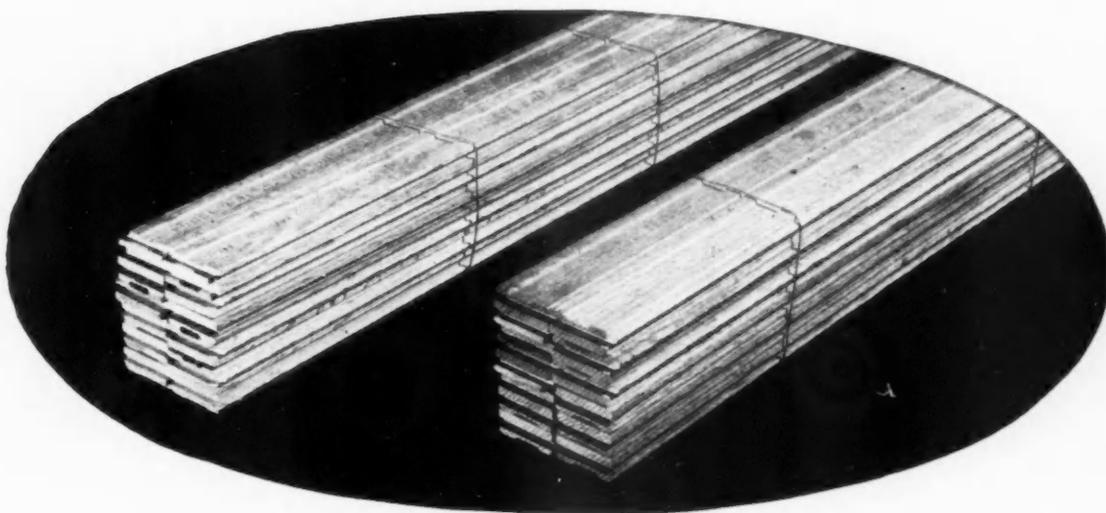
TRUSCON INDUSTRIAL DOORS

1. This Truscon Outswinging Accordion Door is used for railroad entrance. Write for free catalog on Truscon Industrial Doors.
2. Truscon Two-Section Vertical Lift Doors are used in the storage building. These doors are ideal for warehouses, freight terminals, piers, shipping rooms, etc.
3. A Truscon Two-Section Turnover Door is used next to the office building. This particular door is especially adapted to locations where the lack of headroom prohibits the use of more conventional types of vertical doors.



TRUSCON STEEL COMPANY YOUNGSTOWN 1, OHIO
Subsidiary of Republic Steel Corporation

You can't see the difference in these two bundles of flooring . . .



...BUT there will be a big difference in the floors they make

The flooring on the left has been carefully kiln dried, accurately machined, and properly graded. It will make a beautiful, long-lasting hardwood floor that will completely satisfy the home owner. The flooring on the right was poorly seasoned, indifferently graded, and has serious manufacturing defects. Difficulty and added expense will be experienced in laying this flooring, and there will undoubtedly be complaints on the completed floor.

Hardwood flooring has to be bought on confidence. There's no bigger gamble than the purchase of unbranded flooring through "fly-by-night" sources of supply!

■ Hardwood flooring, more than almost any other building material, must be purchased on the reputation of the manufacturer and the integrity of the dealer who sells it. Flooring is received in wire-bound bundles, making it impractical to examine individual pieces, as you can do when unloading lumber. Furthermore, even closest scrutiny of every strip will not disclose shortcomings in seasoning or certain de-

fects in manufacture. These will become apparent only as the flooring is being laid, or after the floor has been in use.

When you buy flooring through unknown sources, you have no recourse. You don't know what you're getting until it's too late! Protect the home buyer, and yourself, by purchasing accepted brands of flooring and buying through recognized, reliable dealers.



E. L. BRUCE CO., MEMPHIS, TENN.

\$2,000 DOOR PRIZE

Name the New **Roddiscraft Door**
1st Prize \$1,000 – 2nd and 3rd Prizes \$500 each



All you have to do is name the new Roddiscraft Door with the accordion type veneer core and follow the directions listed below.

About the Door Here are some facts about the door to guide you in selecting a winning name.

The new Roddiscraft door has a core made up of selected strips of veneer. These strips are spot-glued at intervals and stretched within the rails to form an accordion core design. This is a radical departure from the conventional core. The accordion core creates the strength and rigidity of a solid core with 50% less wood content.

Veneer strips are spaced 2" apart at points of greatest core-strip bending. This provides maximum support to the face panels and protects against puncture from abuse.

Face panels and rails are hardwood throughout. The whole assembly is pressure bonded with the finest glues obtainable and seasoned in specially constructed kilns for permanent straightness.

THERE YOU HAVE ALL THE FACTS YOU NEED TO THINK UP A PRIZE-WINNING NAME. PUT ON YOUR THINKING CAPS AND FOLLOW THESE SIMPLE DIRECTIONS:

1. Select the name you believe most appropriate and fitting. Then, in 25 additional words or less, complete the following statement: "I believe the new Roddiscraft Door with the accordion type veneer core is a superior door because" Each name submitted must be accompanied by a statement.
2. Send all entries to the Roddis Lumber and Veneer Company, Marshfield, Wisconsin. All entries must be mailed before midnight, November 20, 1948. Send as many entries as you please.
3. Entries will be judged on the basis of originality and aptness of thought by a panel of expert judges. All entries become the property of the Roddis Lumber and Veneer Company. The judges' decision will be final. In the event of a tie, duplicate prizes will be awarded.
4. The first prize winner will receive \$1000; the next two winners will receive \$500 each. All winners will be notified by registered mail.
5. This contest is open only to dealers and their employees and the employees of architectural firms, and millwork houses.

Roddiscraft

Roddis Lumber and Veneer Co.
MARSHFIELD, WISCONSIN

Take this low-cost

Portable Saw-Shop

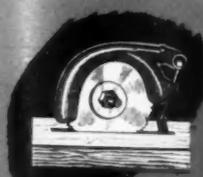
to your job!



It's a CUT-OFF saw!



It's a MITER saw!



It's a RIP saw!



It's a DADO machine!



It's a ROUTER!



It's a VARIETY saw!



It's a SHAPER!

This ever-popular, low-cost DeWalt is easy to carry from job to job. When you put it to work you actually have a "saw-shop" on the job, because every time you change the cutting tool, you have *another* machine!

To build more and better houses faster—builders use this portable, low-cost DeWalt. Because most of its working parts are now of light-weight, heat-treated aluminum, operators find it easier to handle—safer than ever before—and it does the fast, accurate work they want. It's a machine you can get quickly. Write for catalog. DeWalt, Inc., 19 Fountain Avenue, Lancaster, Penna.

ALL THESE AND MORE
IN ONE . . . and for
THE PRICE OF ONE!

DE WALT

THE SAW THAT'S FIRST WITH BUILDERS



KOHLER PLUMBING FIXTURES

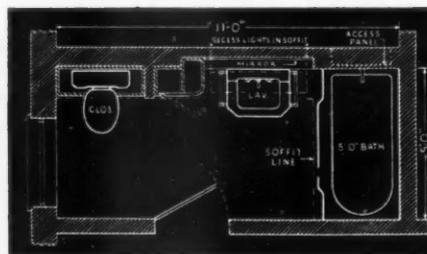
in bathrooms like this, create *lasting satisfaction*

WHEN home-owners see the name "Kohler" on plumbing fixtures, they know the answers to many important questions. The Kohler reputation for first quality assures them that besides the beauty and harmony they admire, there is the highest degree of *practicality, serviceability and durability.*

In the illustration Kohler fixtures are placed in relation to other facilities so that comfort and convenience combine with a well-balanced effect. The fixtures come in pure white or delicate pastel shades.

The Cosmopolitan Bench Bath has

a base of non-flexing iron, cast for rugged strength and permanent rigidity, and coated with lustrous, glass-hard, easy-to-clean Kohler enamel. The efficient Triton shower fitting is shown with the Niedecken Mixer. The Gramercy lavatory, with roomy shelf, is made of highest quality vitreous china. All the fittings are of chromium-plated brass, precision-made and convenient to use. Kohler quality is a 75-year-old tradition. Kohler Co., Dept. 4-C, Kohler, Wisconsin. Established 1873.



Convenience, practicality and economy are here planned in good measure. All outlets on the same wall simplify piping. Here there is easy access to all fixtures. Storage facilities are roomy and modern in design.

KOHLER OF KOHLER

PLUMBING FIXTURES • HEATING EQUIPMENT • ELECTRIC PLANTS

ONLY *Numetal* WEATHER STRIP *has all these* EXCLUSIVE FEATURES

For
DOORS
and
WINDOWS

No weatherstrip on the market offers as many exclusive features as NUMETAL. It's efficient . . . permanent . . . inexpensive. What's more, it is conveniently packaged in individual sets that make it a perfect over-the-counter sales item. Shipped prepaid on orders totalling two dozen sets or more.

Has a patented turned edge and embossed nailing zone that make a weather-tight "dead air" space between the strip and the frame. Dirt, soot and cold air cannot pass UNDER this strip.

The "tension" in NUMETAL is "built-in" and forces the free edge of strip to make a firm, positive contact with sash at two points.

Patented design gives NUMETAL greater longitudinal strength, prevents strip from buckling.

Hemmed edge makes NUMETAL practically humproof.

Easily installed without removing windows or doors.

Small hammer and household scissors only tools needed.

Complete
in a handy package
ready to hand
your customer

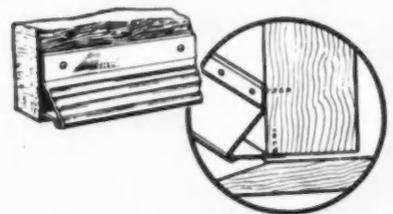
Window sets packaged for 28", 30", 32", or 36" size double hung windows. Door sets packaged for 32"x80" and 36"x84" sizes, or for any special size required. Each set complete with weatherstrip, accessories and instructions.

THESE PRODUCTS SOLD ONLY TO LEGITIMATE RETAIL HARDWARE, BUILDING MATERIAL AND LUMBER DEALERS

DRIP CAPS for doors and casement windows

At right, No. AFB, Brass. Furnished in any length. Holes punched, nails furnished. 20-gauge, 1 1/4" wide.

At right, No. DCB, Brass. A very effective rain drip. Very easy to install, no special rabbeting required. Furnished in any length.



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OKLAHOMA CITY 1, OKLAHOMA

Modern Methods of Home Heating

By **J. L. SHANK**
Consulting Engineer

INTRODUCTION BY
S. KONZO
Professor of Mechanical Engineering
at the University of Illinois



CONTENTS

Gravity Warm Air Heating

Methods for Figuring Size of Plant Required, Installation Procedure

Forced Warm Air Heating

An Answer to What Is "Air Conditioning"?

One Pipe Steam Heating

Latest Information on Modern Boilers, Radiators

One Pipe Hot Water Heating

"The Hot Water Heating System Has Had a Change of Face"

Radiant Heating with Hot Water Floor and Ceiling Panels

Description, Function, Installation Methods, Advantages

Heating Commercial Buildings

Good Information on Selection of Units

Heating with Floor Furnaces

Installation Advice, Comparison to Other Methods

Radiant Heating with Warm Air

Information About "The Most Discussed Subject" in Modern Heating

Radiant Floor Panel Heating with Hot Water

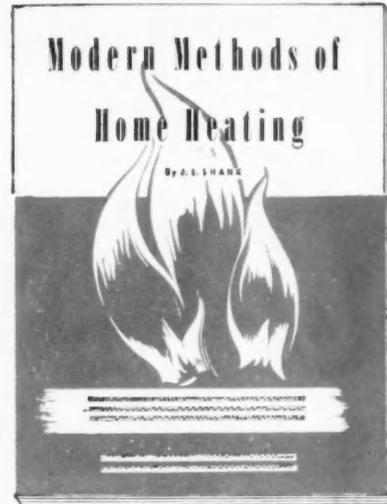
Basic Advice on Correct Installation and Operation Techniques

Radiant Baseboard Heating

How Uniform Temperature Is Achieved

Heating System Controls

Fourteen Different Types Discussed



The most comprehensive book on modern home heating published. It covers all the latest methods of heating homes and small commercial buildings, written in language the layman can understand.—

Included is the most discussed subject in the heating field today—Radiant Heating. Everyone interested in home building should have a copy of this book.

A builder will find this a valuable source of information. It will enable him to discuss authoritatively the advantages of the various types of home heating.

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Profusely illustrated with photographs, charts, tables and diagrams. Each article is a complete study of the heating requirements of an individual house.

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How long since you've had a

SKIL Saw

in your own hands?

Maybe you've been too busy lately to learn what's happened in portable electric handsaws since the war. But you can be sure that SKIL Saw (the *original* portable power saw) is still as far ahead of the field as ever. New model SKIL Saws are lighter and

easier-handling... more powerful and faster-cutting. They're first in design, in construction, in performance. Ask your SKIL Tool Distributor to prove it with a demonstration. It will pay you well in time *and* money!

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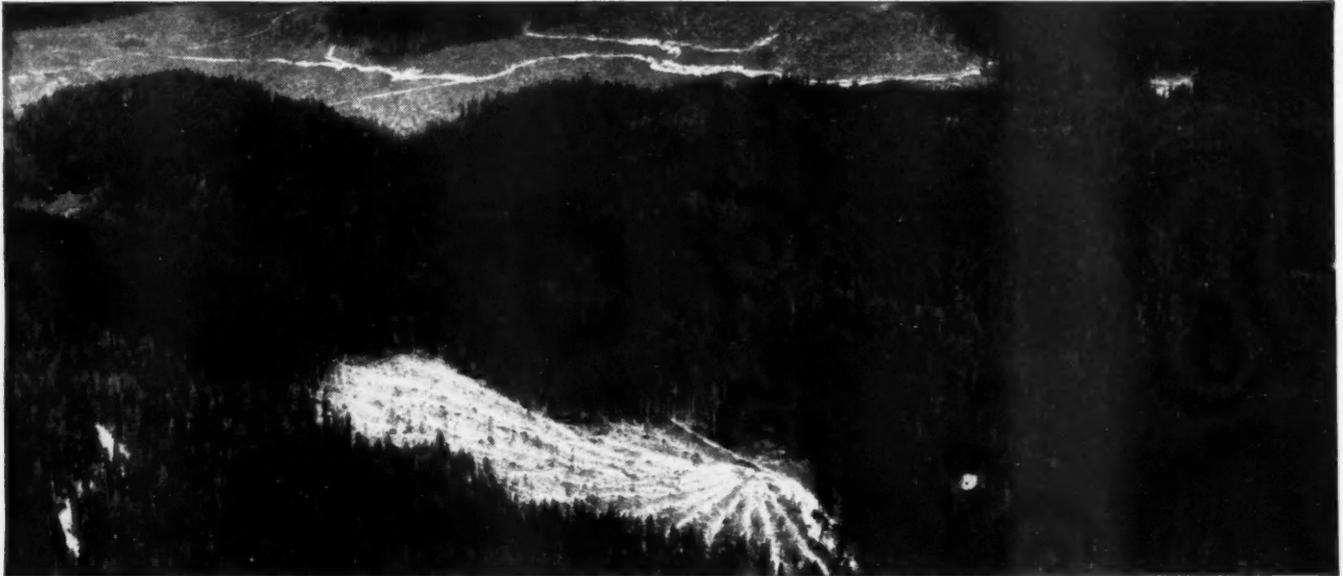
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SKIL ELECTRIC
Tools
TRADE-MARK

Trees for tomorrow...

THROUGH PROGRESSIVE FOREST OPERATIONS



A BOUNTIFUL CROP of trees for tomorrow is seen in this panoramic picture of a Weyerhaeuser forest in the Pacific Northwest. Notice how the loggers

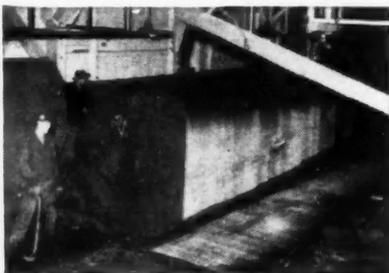
have worked only selected areas. As a part of prudent harvesting, generous seedblock areas will be left for later cutting.



PRELOGGING creates scenes like this . . . small trees removed to avoid damage before the larger ones are harvested.



MECHANIZED LOGGING, with swift, agile "cats", gets the logs out of the forest without damage to timber left standing.



SKILLED SAWYERS in Weyerhaeuser mills have the best mechanical equipment modern engineering can produce. This is a headrig . . . a 10-foot single cut band saw.



ACCURATE SIZES mean less waste in the final processing and use of precious lumber. Gang saws, using 23 to 39 blades, cut big cants with truly amazing precision.



SAVING THE CHIPS is a highly important job. Here, an ingenious special machine developed in a Weyerhaeuser mill handles "hogged" fuel for the mill's power plant.

Shelter for today!

GREATER VALUES WITH THE WEYERHAEUSER 4-SQUARE BUILDING SERVICES

ONE OF THE MOST important words in the lexicon of the lumber industry is *foresight*.

Why? There are three good reasons. First, the lumber dealer and the contractor must have a continuing supply of lumber . . . and trees grow slowly; so we must plan today for tomorrow's needs. Second, the continuing high demand for lumber requires foresighted planning to get the most good lumber from every log. Third, the wisest and most profitable kind of lumber retailing is *always* based on foresight.

As an owner and processor of timber, Weyerhaeuser believes that thinking ahead and planning ahead is simply good business. From decade to decade and from year to year, Weyerhaeuser mill and forest practices have been constantly changed, improved, modernized—always with the goal of increasing the long-time forest yield, getting more usable product out of every tree, and making the sale of lumber a "better deal" for all concerned.

Good forest management, as practiced by Weyerhaeuser, has three objectives: better growth, better protection, better harvesting. By the use of proper seedblocks, and modern tree farms, timber

re-growth has been increased substantially. In the field of protection, every practical method known to science is now used to fight fire, insects and disease. In harvesting and processing, enormous progress has been made in getting more and better lumber from every log.

In lumber retailing, Weyerhaeuser was among the first to see and meet the need for *foresighted*

selling. To this end, two outstanding plan-and-idea tools were developed—the Weyerhaeuser 4-Square Home Building Service and the Weyerhaeuser 4-Square Farm Building Service. Through these building Services, and the advertisements, folders, booklets and other materials which support them, the lumber dealer and the contractor can influence sales *in the planning stage*. And that kind of selling means more profit to the seller, more value and more



A GOLD MINE of ideas, plans, and sales . . . that's what lumber dealers and contractors call the Weyerhaeuser Building Services and the frequent, timely, practical promotional materials which go along with them.

complete satisfaction to the buyer.

By such looking ahead, and planning ahead, and working ahead, Weyerhaeuser is helping to build your present business and fortify your future business with the best in forest products and advanced building designs and construction practices.

**WEYERHAEUSER 4-SQUARE
LUMBER AND SERVICES**



Unique

SASH BALANCES

for all double hung windows

**The finest in Window Construction calls for
the first and finest Sash Balance!**

Abundant daylight, fresh air, and ventilation are important! So are **UNIQUE SASH BALANCES** for easy, satisfactory operation of all double hung windows. They offer permanent, easy operation and absolute satisfaction.



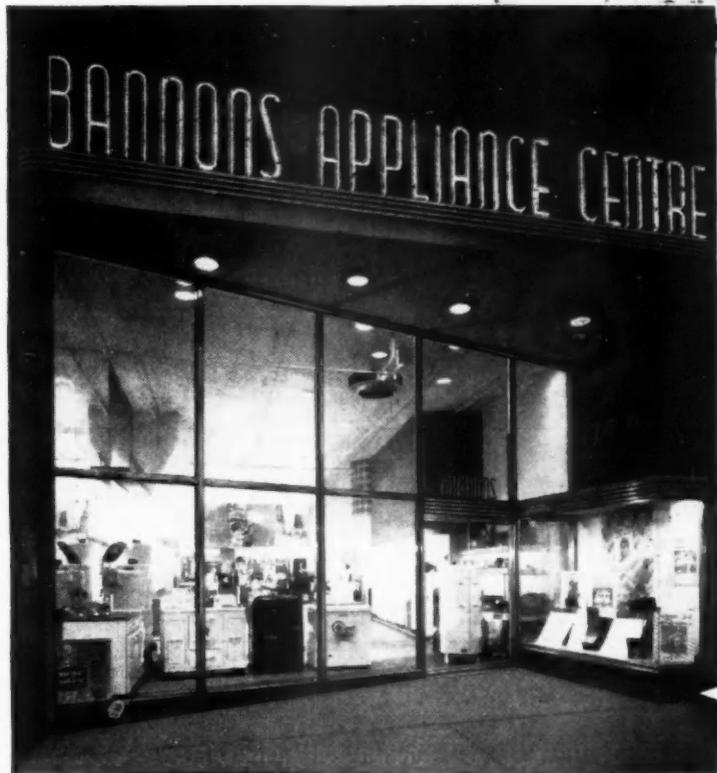
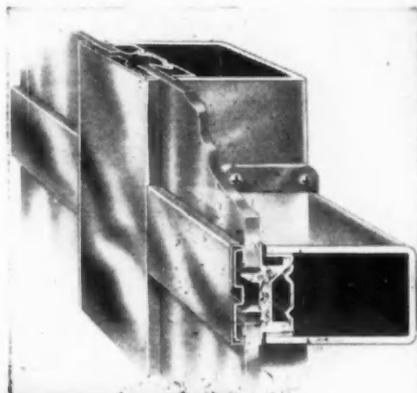
Unique Sash Balance plants are located in the United States, Canada, Australia, and in England to fill a worldwide demand.

Over 67,000,000 Unique Sash Balances have been installed to date.

For further information inquire of
UNIQUE BALANCE COMPANY, INC.
25 BRUCKNER BOULEVARD • NEW YORK, N. Y.

STOREFRONTS OF *Stainless Steel*

Every factor is in your favor when you specify Stainless Steel Storefronts. Attractive and inviting these new store fronts offer your client a durability that can only be expected of steel. And, because Stainless Steel will not corrode, warp, crack or discolour, there is practically no maintenance.



Photographs Courtesy of Brasco Mfg. Co.

Some of the nation's leading steel engineers and craftsmen designed these handsome fronts to conform with the trend of modern architecture. Available in a great variety of sizes and shapes, they are actually tailor-made to fit your blueprints.

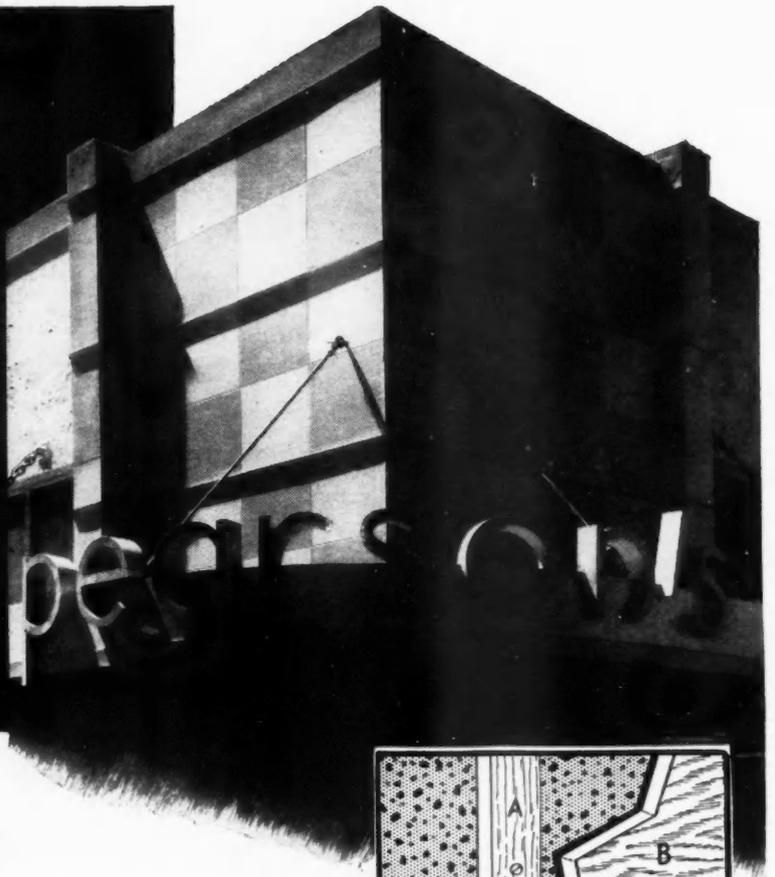
So, if you're looking for economical, durable beauty that is easily applied and will last a lifetime, specify Sharon Stainless Steel.

SHARON STEEL CORPORATION
Sharon, Pennsylvania

Eye APPEAL IS *Sales* APPEAL WITH **SHARONSTEEL**

Eleven Years of
Exterior Service in
a Seaport City!

"Plywood
stands
the Gaff"



—says

Aberdeen Builder, J. B. Lamb

ANOTHER outstanding example of the durability of Exterior-type Douglas fir plywood, this attractive streamlined store front has given eleven years of maintenance-free service. J. B. Lamb of the Lamb Construction Company, Aberdeen, Washington, says: "The facade of Pearson's Women's and Children's Apparel Store was modernized in 1937 with Exterior-type plywood. The material has given thoroughly satisfactory service in every respect, especially in view of the heavy rainfall and the salt air of this seaport city. For nearly 15 years, I have used Exterior fir plywood as a preferred siding material on commercial and industrial buildings. From my experience, it really stands the gaff."

Because of continuing high demand, all types and grades of Douglas fir plywood may not always be immediately available. For price and delivery information, contact your regular sources of supply. For use data, write the Douglas Fir Plywood Association, Tacoma 2, Wash.

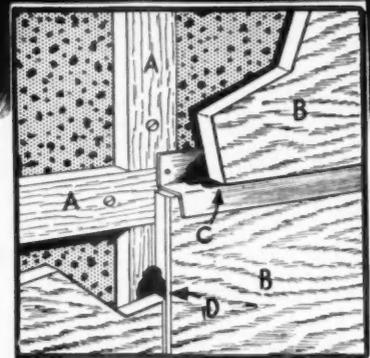
**Douglas Fir
PLYWOOD**



LARGE
LIGHT
STRONG

*Real
Wood* Panels

RIGHT: Details of a typical plywood modernization. Cutaway shows: (a) $\frac{1}{2}$ " furring strips, fastened to concrete wall, placed 24" o.c. horizontally and at panel ends vertically. (b) $\frac{1}{2}$ " Exterior-type Douglas fir plywood placed horizontally. (c) Horizontal joint treatment includes metal flashing and lead-and-oil bedding paste or caulking applied during installation. (d) Vertical V-joint with lead-and-oil bedding paste.



(Note: In building illustrated above, mitered plywood vertical joint was used at the corner, with bedding paste between panels and covered with metal strip.)

Subsequent to the exterior modernization, Pearson's Store has been completely renovated inside. R. E. Oestreich, manager, says: "Less durable materials than plywood were removed and replaced by the panels. Old counters and cases have been converted into modern, attractive units. The twelve-foot wide mezzanine storage and stock-room floor (above counter at right in photo below) was installed, using plywood entirely. I can say that Douglas fir plywood has added greatly to the appearance of the store—at a very nominal expense—and the serviceability of plywood has certainly kept maintenance at an absolute minimum."





**YOUR
BOOKKEEPER
WILL TELL YOU!**

THE *Inside* STORY OF Cotton Insulation

**SELL MORE
INSULATION JOBS
AT MORE PROFIT
PER JOB**

Turn prospects into strong booster-customers — sell rings around competition— learn "The *INSIDE* Story of Cotton Insulation." Pass it on to employees—use it for increasing your insulation sales and profits.

WRITE for
your copy now—
IT'S FREE!



Cotton Insulation jobs show up on the right side of the ledger! Savings in your costs of storing, handling, and installing this featherweight, flameproof insulation swell the total in your profit column.

Cotton Insulation may be compressed in storage to conserve space—it fluffs up again to original thickness when released. Featherweight Cotton Insulation is easy to handle. It comes in one long blanket to the roll. Installation is fast—simple as unrolling a rug.

Get the complete story of the many more *INSIDE* advantages Cotton Insulation offers you and your customers. Send now for your free copy of "The *INSIDE* Story of Cotton Insulation."

**NATIONAL COTTON COUNCIL OF AMERICA
COTTON INSULATION ASSOCIATION**

National Cotton Council, Dept. B
Box 18, Memphis 1, Tennessee

Please send "The *INSIDE* Story of Cotton Insulation."

Name

Address

CityState



JONES & BROWN, Inc.
Now Exclusive
NATIONAL DISTRIBUTORS

*Build yourself
 a YEAR 'ROUND
 Business!*

Every home a prospect!
 Satisfied customers furnish
 plenty of new leads . . .
 plenty of profit, too!



**THE
 Only
 INTERLOCKING
 PLASTIC
 TILE**

PITTSBURGH INTER-LOCK TILE may be installed over plaster, wood, stone, plywood, or any suitable non-porous surface. It's the most modern and practical of all wall coverings . . . with combined features not obtainable in other material.

Before you decide to sell any other wall covering, you owe it to yourself to learn about Pittsburgh Inter-Lock Tile. Mail the coupon below NOW!

- ★ Interlocking
- ★ Self-aligning
- ★ No grout-joints
- ★ No clean-up problem
- ★ 25% faster installation

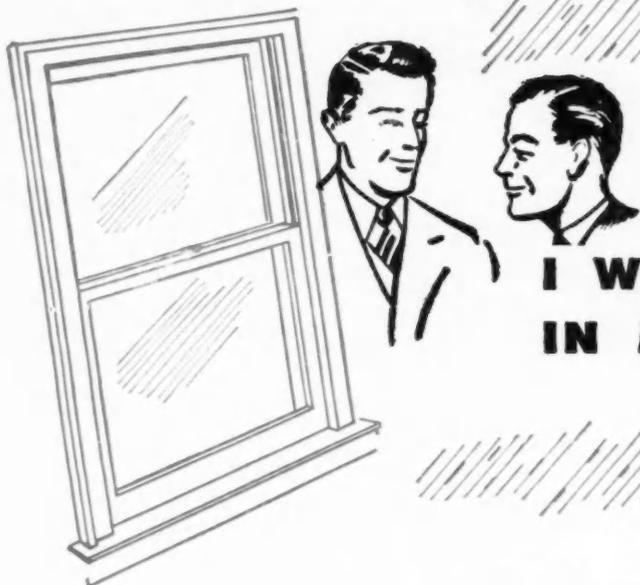
**DEALERS!
 JOBBERS!
 GET ALL
 THE FACTS**

Nationally Distributed by
JONES & BROWN, Inc.
 439 SIXTH AVENUE PITTSBURGH 19, PA.

Jones & Brown, Inc.,
 439 Sixth Avenue,
 Pittsburgh 19, Pa.

Yes! I want to make more satisfied customers with PITTSBURGH INTER-LOCK TILE. Please send me full details.

Name.....
 Address.....
 City.....State.....



**"MR. BUILDER,
I WANT A LIFETIME WINDOW
IN MY HOME."**

**SAVE ON FREIGHT COSTS,
ON THE
JOB
HANDLING**

HOME owners want permanent, trouble-free houses. So you, the builder, install copper plumbing, copper screens and windows that are draftless, that open and close freely and easily. Later you use these features to help sell your houses to prospective buyers. So give the buyer these extra features—especially if they save you money.

GIVE WINDOW ECONOMY

You can keep building costs down without sacrificing quality by installing pre-assembled window units. They save time. They save labor, because they come complete, ready to install. That's real economy. Windows equipped with Pullman Sash Balances effect an additional saving by eliminating the need for weight boxes . . . by making possible wider window areas . . . by allowing use of narrow, modern trim or no trim at all.

GIVE A BALANCED WINDOW

Housewives want windows that open freely, easily, noiselessly. They don't want to lift the weight of the window against friction. They want double hung windows that are perfectly balanced, that stay opened at any position. Pullman Balances are the answer. They not only fit inconspicuously into the window frame but also perfectly balance the weight of the window.

**WIDER
WINDOWS
IN SAME
SPACE**

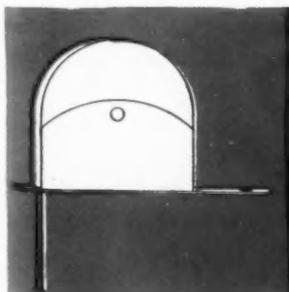
**NO WEIGHT
BOXES,
NO DRAFTS**

GIVE TROUBLE-FREE WINDOWS

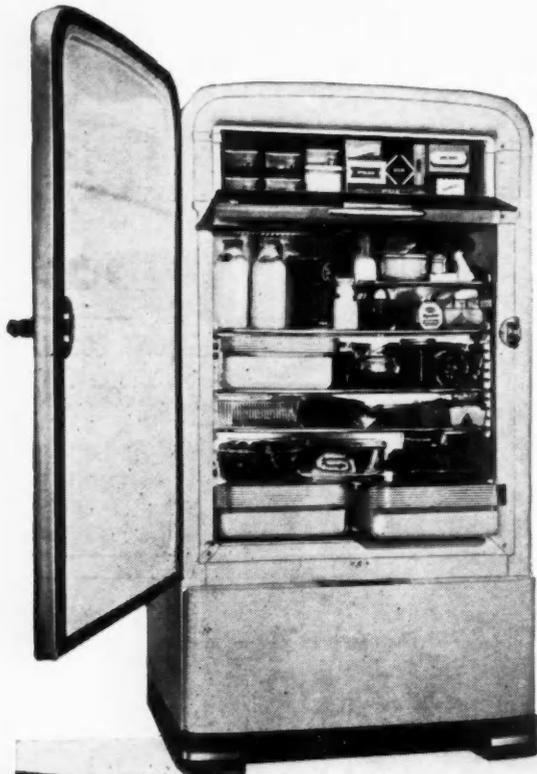
Pullman balanced windows are trouble-free. Pullman Balances are guaranteed for the life of the building. No cords to break. No weights to fall. Complete owner satisfaction. An exclusive sales advantage to builders. Ask your dealer for Pullman-balanced pre-assembled window units. Or for information write Pullman Manufacturing Corporation, 325 Hollenbeck Street, Rochester 5, N. Y.

**TRUE
COUNTER-
BALANCING,
EASY
OPERATING**

LIFE-TIME GUARANTEE



Specify Window Units with
PULLMAN *Sash Balance*



Year after year, apartment

stays



"BACK IN NOVEMBER,
1937

... we installed 45 Servel Gas Refrigerators ... and they are still giving many tenants noiseless, dependable service ... at continued low cost, too."

Merley Halvorsen

of Peterson-Halvorsen
Managers of 3521-29½ Broadway
Chicago, Illinois

Only the Servel Gas Refrigerator has no moving parts in its freezing system to wear

Twenty-one years ago, the first Gas Refrigerator came off the Servel assembly line. Ten years later, there were 1,000,000 Servels in operation. Today, the Servel families are well on their way to the 3,000,000 mark. The trend to Gas Refrigeration is gaining momentum by the year. Right now, more people than ever before prefer the noiseless, trouble-free service that *only* Servel can give.

Alert apartment owners are well aware of this trend. That's why more and more of them are "going gas" when ordering refrigerators for new

apartments ... or buying replacements for older buildings. They know that Servel's silence and year-after-year dependability pay off in tenant satisfaction.

Low Operating Cost ... Lowest Upkeep Expense

Apartment owners also know that Servel's famous "no noise, no wear" freezing system saves them money, too. There's no lost efficiency. Operating costs remain low ... even after years of service. And since Servel has no motor, pump or compressor, upkeep expenses are practically nil.

The Servel Gas Refrigerator is made in three sizes—the spacious 8- and 6-cubic-foot models for large apartments ... and the compact, but still roomy, 4-cubic-foot model for small apartments. For complete information, see your Sweet's Catalog ... or write to Servel, Inc., Evansville 20, Indiana.

owners choose the refrigerator that—

silent... lasts longer!

**"FOR OUR NEW 24-
APARTMENT BUILDING**

... we chose Servel. After observing refrigerator performance for the past ten years, we decided that trouble-free service was the feature we desired most."

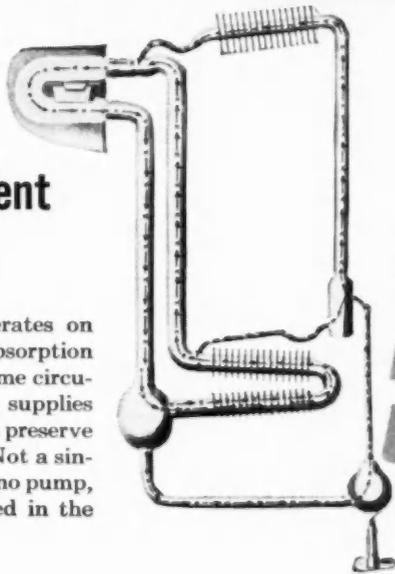
Horley Sam

of Larsen & Blix
Managers of 2626-32 West Gregory St.
Chicago, Illinois



**Here's why
Servel stays silent
... lasts longer**

The Gas Refrigerator operates on the simple, continuous absorption principle. The small gas flame circulates the refrigerant that supplies the constant cold needed to preserve food and make ice cubes. Not a single moving part (no motor, no pump, no compressor, etc.) is used in the entire freezing operation.



**STAYS SILENT...
LASTS LONGER**

Servel

**The GAS
Refrigerator**



When you're buying kitchens . . . National acceptance is important

OTHER YOUNGSTOWN **FEATURES**

- Easy installation
-
- Sold everywhere
-
- Easy handling
-
- Low cost
-
- Modern styling
-
- Wide selection
-
- Top quality

You can install a Youngstown Kitchen anywhere, and *always* count on public acceptance.

Because people *know* about Youngstown.

They know Youngstown Kitchens are striking in beauty, solidly built and designed to give ample storage space combined with dozens of convenience items. They've seen them in thousands of dealers' stores—and in new and old homes of friends.

What about your problems?

Whatever you're building—mansion, cottage or apartment—the nearly-endless selection of Youngstown Kitchen combinations simplifies your problems.

Factory-fabricated Youngstown units come completely assembled and ready for installation.

Every unit you pick is white-enameled, welded steel. Sink tops are acid-resisting porcelain enamel. Doors, drawers and tops are all sound-deadened.

Sixty Mullins field men and 7500 trained Youngstown Kitchen dealers throughout the country are ready to cooperate with you . . . give you the advantage of Youngstown's great experience and pioneering in the kitchen business. For name of nearest distributor or field man, please write.

MULLINS MANUFACTURING CORPORATION • WARREN, OHIO



Youngstown Kitchens

BY MULLINS

World's largest makers of Steel Kitchens

Use Both...

SISALATION and SISALKRAFT

for insulated DRY WALL construction at new low cost!



*This new insulated DRY WALL construction meets
FHA Vapor-Barrier Requirements (Class A, Federal Specifications UU-P-147)*

This new insulated DRY WALL construction (SISALATION plus SISALKRAFT) combines insulation and vapor-barrier advantages at very low cost . . . helps stop passage of harmful moisture into walls! SISALATION, bowed in between studs, provides TWO insulating air spaces, and its

reflective surface helps keep homes warmer in winter, cooler in summer. Heavily reinforced by cross-laid sisal fibres, tough and strong, SISALATION and SISALKRAFT remain in place, permanently and effectively, for the life of the building. Here is quality construction with true economy!



Modern
DRY WALL CONSTRUCTION

Write today for further information and samples of these two products.

The SISALKRAFT Co.
Chicago 6 • New York 17 • San Francisco 5

The SISALKRAFT Co., Dept. AB, 205 W. Wacker Drive, Chicago 6, Ill.
Please send more information, samples and where I can buy SISALATION and SISALKRAFT. I am an Architect Contractor

Other.....

Name.....

Address.....

City & Zone..... State.....



CECO added something NEW to Metal Windows...

How many times have you said to yourself, "Metal windows are all right in the summertime, but what about winter?" Ceco considered that question and got busy. What they did and what they learned became history when Ceco announced All-Aluminum Storm Windows that really allow you to use the controlled ventilation principle built into metal casements. Metal screens have always offered perfect ventilation, so summer presented no problem. Now the winter ventilation problem is solved with the first trouble-free storm window for steel casements.

WHY SPECIFY CECO STORM WINDOWS AND SCREENS?

- 1** Ceco's special-design storm panel covers the entire window opening—the condensation problem is solved, yet ventilation when needed is also provided.
- 2** Rubber weathering seal around the perimeter of the window sash provides the tightest possible seal.
- 3** Ceco storm windows are easy to put in and take out from the inside.
- 4** They are neat and trim—slender frames mean more light gets in.
- 5** Ceco storm windows fit perfectly—which means no on-the-job planing is necessary.
- 6** Maintenance cost is eliminated—no painting or re-painting required.
- 7** Ceco screens cost no more than ordinary screens—factory finish—no on-the-job trimming or fitting.
- 8** Standard screens for every purpose—will not warp, shrink, swell, twist or rot.

CECO STEEL PRODUCTS CORPORATION

GENERAL OFFICES: 5601 West 26th St., Chicago 50, Illinois

Offices, warehouses and fabricating plants in principal cities

Other Ceco products include: Aluminum-combination storm windows and screen units, metal windows and doors, and metal frame screens.

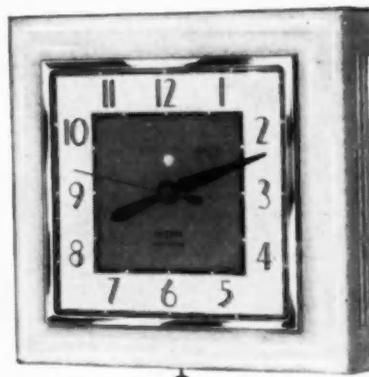
**CECO
STEEL**

In construction products **CECO ENGINEERING** *makes the big difference*



WALDORF K-39: Four Westminster notes for front door; two notes, rear. Rich mahogany-finish cover. Satin-brass tubes and decoration. Brass-alloy tone bars. Telechron electric motor. List, \$22.95.

DOOR CHIME & CLOCK K-38: Combination Door Chime and electric clock (Telechron movement). White enamel, nine inches square. Two notes front door; one note, rear. List, \$14.95.



NOTHING THAT COSTS SO LITTLE AS A NUTONE DOOR CHIME DOES SO MUCH TO HELP SELL YOUR NEW HOMES!

TODAY, MORE AND MORE builders are adding carefully chosen "extras"—those finishing touches that help sell new homes more quickly.

THOSE REFINEMENTS must, of course, justify their cost. For never before has there been greater need to guard building budgets.

THAT'S WHY NUTONE DOOR CHIMES fit in so perfectly. Nothing that costs so *little* does so *much* to help sell your new homes! Nothing gives the prospective buyer more comfort or more regard for your considerate planning.

SO GET ALL THE FACTS, figures, and wiring details on NUTONE Door Chimes. You'll find that it pays. Write or phone your nearest NUTONE office for full particulars.

Support the Adequate Wiring Program

NUTONE INCORPORATED
 NATIONAL SALES
 Merchandise Mart, Chicago 54
 EASTERN SALES
 200 Fifth Ave., New York 10
 DISTRICT OFFICE
 206 McKerchey Bldg., Detroit 1
 SOUTHWEST SALES
 1901 Griffin St., Dallas 2
 PACIFIC SALES
 919 East 31st St., Los Angeles 11
 Terminal Sales Bldg., Seattle 1

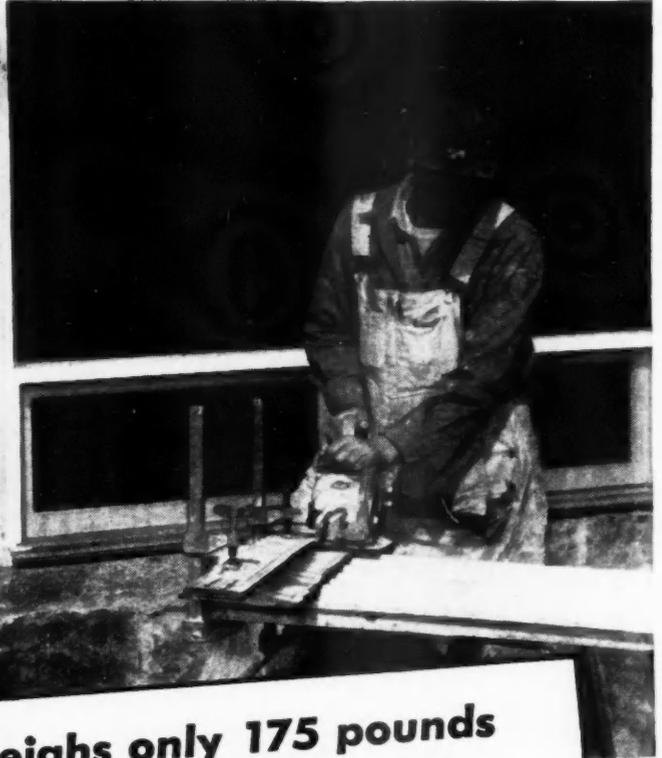


Special Offer!

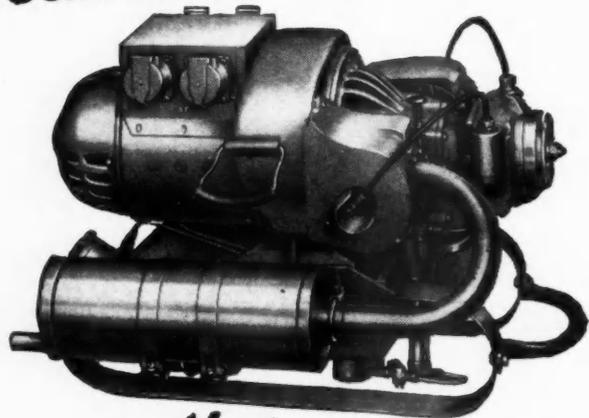
Check the July or August issue of American Builder for the NUTONE ads that offer you a choice of NUTONE Door Chimes . . . on consignment! It's an unusual offer.

**THIS OFFER EXPIRES
SEPTEMBER 30, 1948**

Carryable Power for Electric Tools



**Weighs only 175 pounds
Generates 5000 watts**



The New **HOMELITE**

Carryable **DUAL-PURPOSE GENERATOR**
(Gasoline - Engine - Driven)

For operating both high-cycle and standard universal 110 volt tools. Write for complete information.

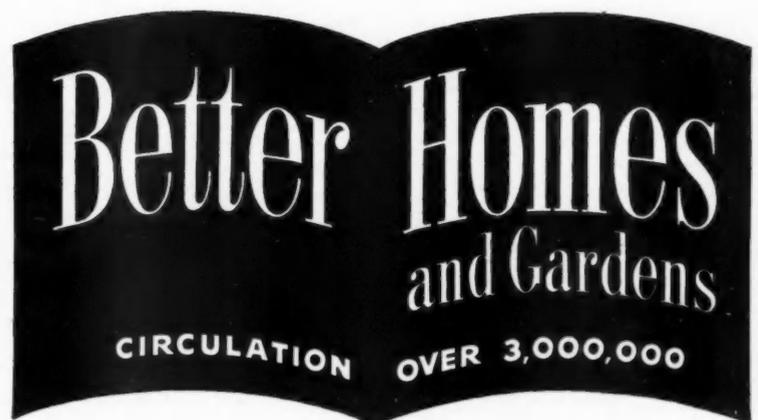
HOMELITE CORPORATION
509 RIVERDALE AVENUE, PORT CHESTER, NEW YORK

Manufacturers of Homelite Carryable Pumps
Generators • Blowers • Chain Saws

Better Homes & Gardens Quarterly Directory of Pre-sold Building Products

All the brands listed on the next two pages are being sold through Better Homes & Gardens during the current quarter, July, August and September

America's First Service Magazine



BUILDING PRODUCTS BEING SOLD THIS CURRENT QUARTER IN BETTER HOMES & GARDENS

AIR CONDITIONING & HEATING

Airtemp
Aldrich
American Radiator
Anchor Stoker
Bell & Gossett
Bryant
Burnham
Coleman
Crane
Dunham Baseboard
Iron Fireman
Ko-Z-Aire
Mueller Climatrol
National Radiator
Norge
Nu-Way
Oil-O-Matic
Petro
Stokol
Trane
Warm Morning
Waterbury

Aeropel Fans
Bennett-Ireland Fireplace Screens
Crane Controls
Dust-Stop Air Filters
Emerson Fans
Hancock Fireplace Forms
Heatilator Fireplace Forms
Majestic Fireplace Forms
Minneapolis-Honeywell Controls
Peerless Electric Blower
Price Fireplace Forms
Robertshaw-Fulton Controls
Stewart Exhaust Fan
Superior Fireplace Forms

CONSTRUCTION & EQUIPMENT

APPLIANCES

Air-Way Vacuum
Apex Ironer
Ben-Hur Home Freezer
Boss Range
C. P. Gas Ranges
Cadillac Vacuum
Caloric Range
Crosley Home Freezer
Deepfreeze Home Freezer
Dexter Washer
Easy Washer
Electromaster Range
Florence Gas Range
Frigidaire Appliances
General Electric Appliances
Gibson Appliances
Grand Range
Harderfreez Home Freezer

Hotpoint Appliances
In-Sink-Erator Disposal
Ironrite Ironer
Kalamazoo Appliances
Kelvinator Refrigerator
Majestic Home Incinerator
Maytag Appliances
Monarch Range
Philco Appliances
Roper Range
Schaefer Home Freezer
Serval Gas Refrigerator
Simplex Ironer
Speed Queen Appliances
Standard Gas Ranges
Universal Gas Range
Victor Quickfreeze Home Freezer
Voss Washer
Westinghouse Appliances

FLOOR COVERING, HARD

KenTile Tile
National Oak Floors
Pabco Linoleum
Sloane Linoleum
Tile-Text Flexachrome
Wright Rubber Tile

HARDWARE

American Device Mail Chutes
Anchor Fence
Autoyre Towel Bar
B & T Metal Trim
Casco Glue
Cyclone Fence
Dic-A-Doo Paint Brush Bath
Duco Glue
Easi-Bild Patterns
Edwards Door Chimes
Gerity Bathroom Fixtures
Handicalk Calking Gun
Invisible Sash Balance
Judd Drapery Fixtures
Keymesh Concrete Reinforcement
Knape & Vogt Closet K-Veniences
Lumite Screen
Macklanburg-Duncan Screen Door Grille
Master Metal Sash Balance
Nu-Tone Door Chimes
Page Fence
Plastic Wood
Pyrene Fire Extinguisher
Smooth-On Cement
Stanley Garage Door Hardware
Werner Chromtrim Metal Trim
West Dodd Lightning Rods
Yale Trim Hardware
Zephyr Awnings

INSULATION

Armstrong Temlok
Baldwin-Hill
Balsam-Wool

Carey
Celotex
Chamberlin
Eagle-Picher
Flintkote
Gold Bond
Homasote
Johns-Manville
Kimsul
Mortite Weather Stripping
Nu-Way Weather Stripping
Reynolds

MILLWORK & LUMBER

Arkansas Soft Pine
Crawford Garage Doors
Curtis Woodwork
Fenestra Steel Casements
National Oak Flooring
Ponderosa Pine
Red Cedar Shingles
Reynolds Metals
Weldwood Plywood
Western Pines
West Coast Woods
Weyerhaeuser

PAINTS & FINISHES

Albron Pigments
Armstrong's Monowall
Cabot
Cuprinol
Dow Pentachlorophenol
Dutch Boy
Eagle RTU White Lead
Flatlux
Glidden
Homasote
Imperial Wallpaper
Luminall
Marlite Plastic-Finished Wall Panels
Masonite
Medusa
Minwax
O'Brien
Pittsburgh
Reynolds Metals
Sanitas Fabric Wall Covering
Spred
Terminix
Texolite
Tile-Text Mura-Text
United Wallpaper
Wonsover

PLUMBING & KITCHENS

American Kitchens
American-Standard Fixtures
Briggs Fixtures
Bryant Water Heater
Crane Fixtures
Culligan Soft Water
Deming Water System

BETTER HOMES & GARDENS

Dow Magnesium Rod Tanks
 Eljer Fixtures
 Elkay Lustritone Sink Tops
 General Electric Water Heater
 Heatmaster Water Heater
 Hotpoint Water Heater
 Kitchen Maid Kitchens
 Kohler Fixtures
 Myers Water System
 Orangeburg Fibre Conduit
 Permutit Soft Water
 Rheem Water Heater
 St. Charles Kitchens
 Salter Fixtures
 Smithway Permaglas Water Heater
 Stokol Water Heater
 Toastmaster Water Heater
 Wesix Water Heater
 White Water Heater
 Youngstown Kitchens by Mullins

ROOFING & SIDING

Barrett
 Flintkote
 Red Cedar Shingles
 Reynolds Metals
 Ruberoid

WIRING & TELEPHONE

Bell System
 Burgess Batteries
 Cutler-Hammer Fuses
 Onan Power Plants
 Wittie Power Plants

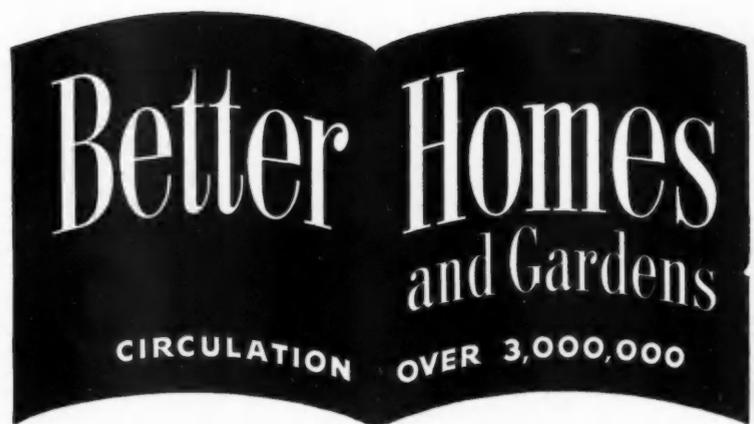
WINDOWS

Alcoa
 Andersen Windowwalls
 Chamberlin
 Curtis Silentite
 Eagle-Picher
 R. O. W. Windows
 Rusco
 Thermoseal

MISCELLANEOUS

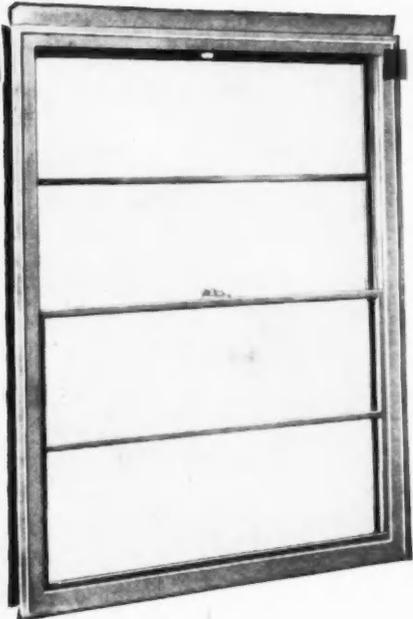
Alcoa Aluminum
 Anthracite Coal
 Artcraft Venetian Blinds
 Barre Guild Monuments
 Braun Cedar Cabins
 Columbia Venetian Blinds
 Consolidated Decorative Laminates
 LOF Glass
 Medusa Portland Cement
 Monmouth Humidifier
 National Prefabricated Houses
 Orlyt Greenhouse
 Pittsburgh Glass
 Portland Cement
 Reynolds Metals
 Thermo-Drip Humidifier
 U. S. Steel
 Van Packer Packaged Chimney
 Volker Sunchek Venetian Blinds

Better Homes & Gardens is 100% service — ads and all. Cover to cover, it is devoted entirely to better living in a better home. Naturally, it appeals first to husbands and wives whose big interest is home and family. And of course it appeals most to husbands and wives who have the money to carry out the good ideas it suggests. These people are your best customers. They live in better-than-average homes. They earn better-than-average incomes. That's why it will pay you to carry the brands they've been sold on in Better Homes & Gardens.



SERVES—so it SCREENS—so it SELLS

*A toast
to the best*



To a company that has now completed 71 years of service to the building industry.

Thorn Aluminum Double Hung Windows are offered to combat inflationary trends in home construction.

They are priced for the most modest—
Built for the most luxurious.

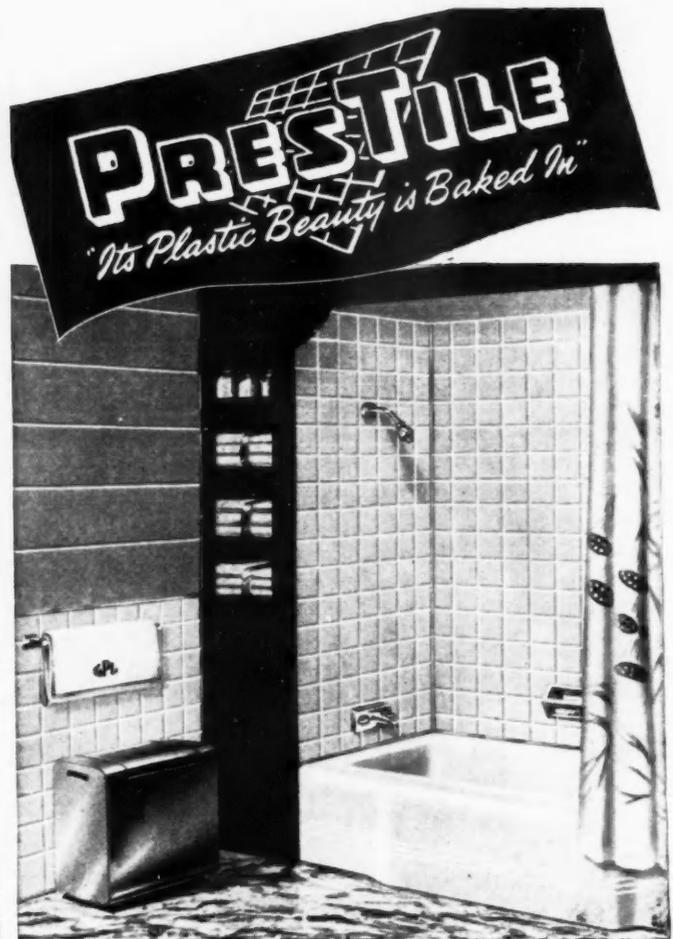
THORN ALUMINUM WINDOWS

Send for "Thorn
Products for the Home"



J. S. THORN CO.,

PHILA. 32, PENNA.

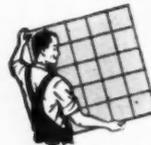


THE EASY-TO-SELL, QUALITY TILEBOARD!

Inexpensive! Beautiful! Enduring! Here's reason why Prestile is the popular tileboard for remodeling or new construction. It's *panel-size*—easy to install—easy to clean. Wide range of glistening pastel colors are *baked-in* by a special process for permanency—offers customers unlimited decorating effects! Write today for details and prices.

9 Color Combinations

- WHITE with black or red score lines
- PEACH with white score lines
- BLUE with white score lines
- GREEN with white score lines
- IVORY with white or black score lines
- YELLOW with white or black score lines
- ORCHID with white score lines
- RED with white score lines
- BLACK with white score lines
- PLAIN—unscored in all colors.



QUICKLY INSTALLED
OVER NEW AND
OLD WALLS

5 Popular Patterns

- 4-inch square—Regular tileboard
- 8-inch square—Large tileboard
- 4-inch Streamline—parallel lines
- 8-inch Streamline—parallel lines
- Plain—unscored colored panels

Nationally advertised in
leading magazines!

PRESTILE MANUFACTURING COMPANY

2860 LINCOLN AVE., CHICAGO 13, ILL.



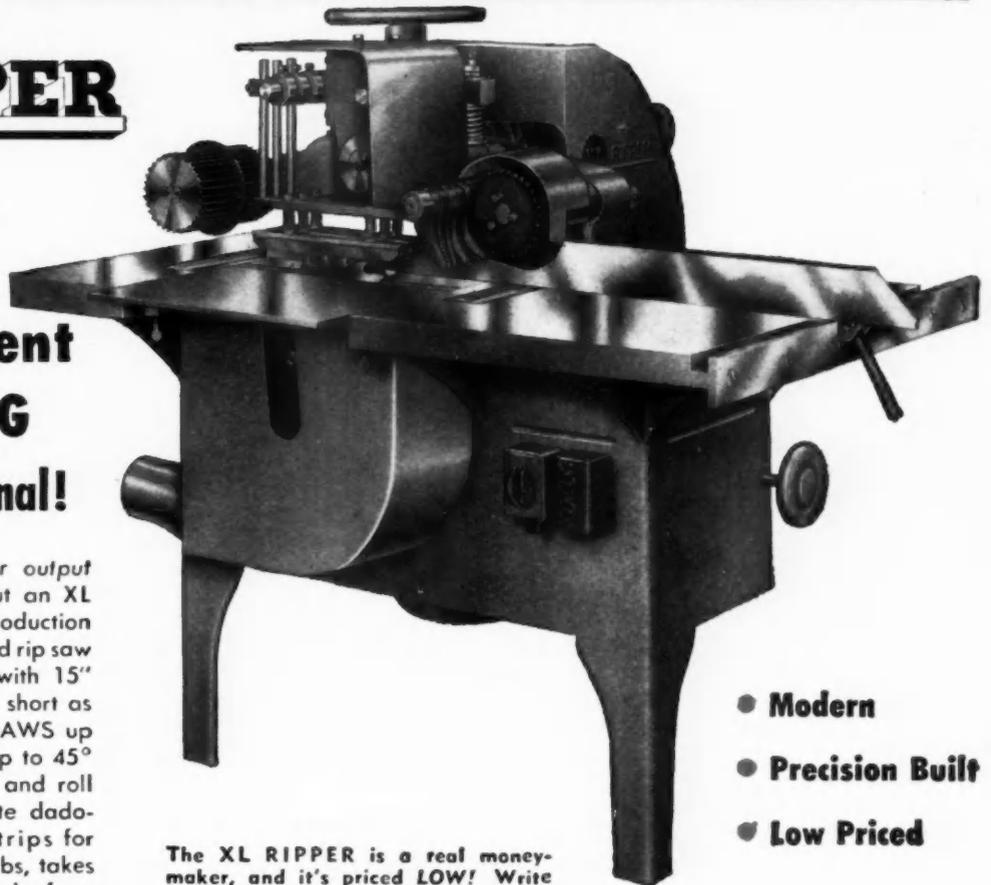
NEW SELF-FEED RIP SAW Does more jobs, costs less!

XL RIPPER

New improved model
now ready!

Roll Attachment for RESAWING straight or diagonal!

Here's the way to get bigger output with smaller investment! Put an XL RIPPER on the job and watch production go up! It's a high speed self-feed rip saw PLUS! Takes up to 4" stock, with 15" ripping capacity, saws stock as short as 4" on a production basis! RESAWS up to 4" stock, either straight or up to 45° diagonally, with special fence and roll attachment. Also does accurate dadoing and rabbeting, slices strips for blinds, bolts lath stock from slabs, takes up to 5 saws on lath. Four feeds, from 50 to 190 feet per minute.



The XL RIPPER is a real money-maker, and it's priced LOW! Write today for literature and name of nearest dealer!

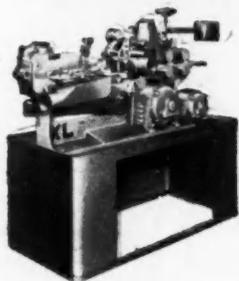
- Modern
- Precision Built
- Low Priced

SMITHWAY MACHINE COMPANY

Manufacturers of the XL Line of Woodworking Equipment

4617 Airport Way

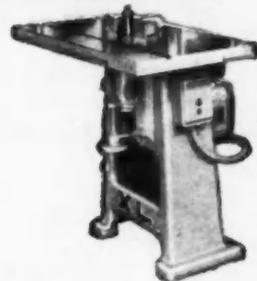
Seattle 8, Washington



New XL MOLDMATCHER



New XL LOK-SAFE
SHAPER COLLAR



New XL SPINDLE SHAPER

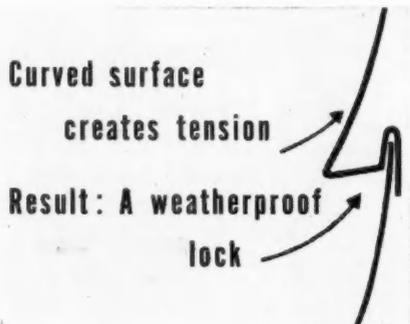
It's time to forget previous ideas about Aluminum siding!



Kaiser Aluminum Siding is a completely new kind of building material, made of highest grade aluminum, roll-hardened by precision machinery. It's a strong dent-resistant siding, with permanent beauty unmarred by knots, splits or sawing scars.



So—first of all—forget about waves or buckles with Kaiser Aluminum Siding! It has a pre-formed curved surface! As each piece is nailed down, the curve produces a rigid surface tension which eliminates distortion.



And this exclusive curved surface does even more. It is a deliberately engineered feature which makes this the strongest aluminum siding ever known. When lower edges are nailed down, the curve creates a tension which results in absolutely weathertight joints. And it creates beautiful clean lines.

Forget about high costs with Kaiser Aluminum Siding! It actually *saves* you money in many ways. Its light weight speeds construction, cuts labor costs—and its application requires no special tools. What's more, it takes fewer nails and its non-porous surface requires less paint. Paint goes on faster, too!

Your clients can forget about maintenance! Kaiser Aluminum Siding will never rot, rust, warp or crack in any climate! It's fire-resistant, can't be damaged by rats or termites. It comes from the mill with its surface especially prepared and prime coated to assure extra firm paint adherence and lasting finishes.

No other material can match the unique combination of advantages of Kaiser Aluminum Siding! Write now for free booklet packed with information, pictures and diagrams!

Kaiser Aluminum Siding specifications:	
Length . . .	10, 12, 14 and 16 ft. standard lengths
Width . . .	6 1/2" Thickness030"
Weight . . .	580 lbs. per 1146 base feet (1000 sq. ft.)
Shipped in cartons containing 200 base feet, weighing 106 lbs. overall.	

Kaiser Aluminum

SIDING

product of Permanente Metals Corp.

SOLD BY PERMANENTE PRODUCTS COMPANY, KAISER BUILDING, OAKLAND 12, CALIFORNIA . . . WITH OFFICES IN:
 Atlanta • Chicago • Cincinnati • Cleveland • Dallas • Detroit • Houston • Indianapolis • Kansas City • Los Angeles • Milwaukee
 Minneapolis • New York • Oakland • Philadelphia • Portland, Ore. • Salt Lake City • Seattle • Spokane • St. Louis • Wichita

LISTEN...

TO 30 YEARS' EXPERIENCE!

SUBJECT: TEXACO Solid Roofing Asphalt

EUGENE E. NEFF
PRESIDENT
JOHN B. NEFF
VICE-PRESIDENT

NEFF - BUCKNER - HOLT, INC.
BUILDERS SUPPLIES

HUGH A. BUCKNER
SECRETARY
EDWARD J. HOLT
TREASURER

FORMERLY
NEFF - STILES COMPANY

WHOLESALE
EL PASO, TEXAS

The Texas Company
P O Box 2332
Houston 1, Texas

June 9, 1948

TELEPHONE 3-1405
401 N. SANTA FE ST.

Gentlemen:

As you know, we have distributed Texaco Asphalt Roofing Products for well over 30 years and have handled large quantities of Texaco Solid Roofing Asphalt during this period.

Our dealer and built-up applicator customers are thoroughly "sold" on the uniform high quality of your products; also they find that the neat, attractive packages in which you market are a distinct aid to them in re-selling to the consumer.

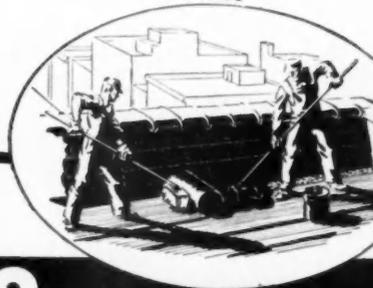
We consider the above to be our principal advantages in handling your products, plus of course the ready acceptance of the TEXACO Brand throughout this area where it is well and favorably known by everyone.

Very truly,

NEFF-BUCKNER-HOLT, Inc.
E. E. Neff
E. E. Neff
President

EEN/m

NOW AVAILABLE!



In 100-lb. Cartons and 100-lb. Paper Bags

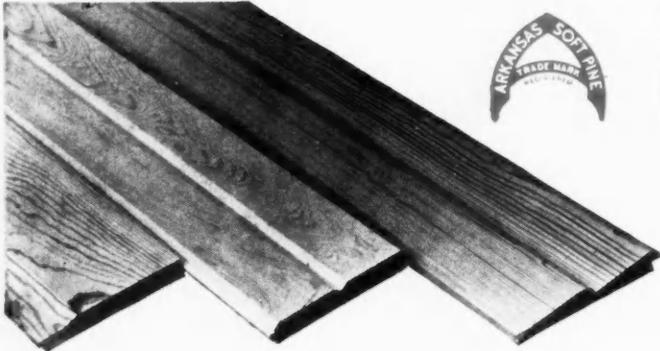


MEMBER OF THE ASPHALT ROOFING INDUSTRY BUREAU

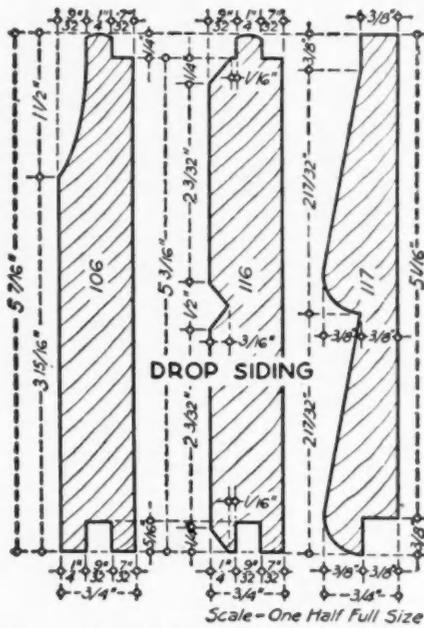
TEXACO SOLID ROOFING ASPHALT
Asphalt SHINGLES and ROOFING

Crossett Siding Holds Paint

That's because it's produced from soft textured Arkansas Soft Pine which is free from pitch, absorbs primer and finish coats uniformly and does not bleed through.



NO. 106 NO. 116 NO. 117

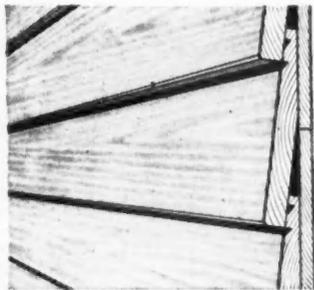


Scale - One Half Full Size

These are the most generally used patterns of drop siding. Other standard patterns are available.

CROSSETT COLONIAL SIDING

Note the pronounced shadow line due to lower groove below lap, which also expedites installation. Upper groove prevents creeping moisture. Sizes: 3/4" by 6", 8" and 10".



Crossett siding bears the Arkansas Soft Pine trade-mark by which you may identify it at your Lumber dealer's.

CROSSETT LUMBER COMPANY
CROSSETT, ARKANSAS

A SURE-FIRE OIL-SAVING KRESKY FLOOR FURNACE

Will Keep Your Customers Warm and Care-free This Winter



Listed by Underwriters' Laboratories, Inc.

A secret of KRESKY'S low-cost, trouble-free operation is the famous patented KRESKY Oil Burner, basic unit in all models. It inducts air into the oil flame in just-right amounts by an electric blower to give fast, high-low clean heat in all climates and altitudes, regardless of draft conditions. That's why a precision engineered KRESKY Floor Furnace provides your customers with abundant, clean healthy heat, evenly distributed along floors, into drafty corners, with less oil consumption. Your customers are freed from daily attention, and costly service calls.

You can allow more "living" space, too, when you put in a KRESKY floor furnace instead of an old-fashioned space heater — something your customer will certainly appreciate. No basement needed. KRESKY has dealers in all parts of the country. Write for name of dealer nearest your office.

KRESKY MFG. CO., INC.

601 2ND STREET

PETALUMA, CALIFORNIA

The Best Known Name in Oil Heating Since 1910

It's Here... New STRAND DOUBLE-GARAGE DOOR

For Opening 16'x7'



NOW STRAND ANNOUNCES a track-type door for 16' x 7' openings, with the same sturdy strength, ease of operation and other advantages of Strand all-steel single doors. The new Strand double-garage door saves you about 15% of the cost of two single doors, eliminates the cost of building a center post, and ensures an unobstructed opening 16' wide, with ample space for two of the new, wider cars.

INSTALLED QUICKER—Strand all-steel doors for double-garages are shipped in two 8' x 7' door leaf units, with splice channel and packaged hardware. Surprisingly quick and easy to install.

THE PROTECTION OF GALVANNEALING, added to the strength of steel, assures lifetime durability of

Strand Doors. They're hot galvanized for rust protection—and annealed, too—for a smooth, uniformly coated surface and a clinging base for paint without need for a special priming coat.

BUILT FOR STRENGTH—welded all-steel door leaf, and welded all-steel frame and braces, provide outstanding strength for a lifetime (steel will never sag, warp, shrink, swell or rot).

OPERATES EASILY—A child can open the Strand Door. Simple, efficient hardware is designed for trouble-free service.

Strand Doors are available without waiting and without limit. Mail the coupon now for more information.



Of course, Strand Doors are also available for single 8' x 7' openings. Two types—Receding (Track) and Canopy.



—Produced by Strand Building Products Co., a subsidiary of Detroit Steel Products Company.

ALL STEEL • GALVANNEALED • OVERHEAD

STRAND GARAGE DOORS

TWO TYPES . . . RECEDING (TRACK) AND CANOPY

STRAND BUILDING PRODUCTS COMPANY

Dept. AB9, 1710 Buhl Building, Detroit 26, Michigan

Please rush detailed description of Strand All-Steel Garage Doors, including the new door for double-garages.

I am a () Builder, () Dealer, () Prospective Owner,
() Other

Name _____

Address _____

City _____ State _____



Out of a dismal swamp

**CAME THIS NEW
SURENESS**

● Almost every conceivable test was used in establishing N. D. M. A. Standards for toxic preservative treatment of woodwork such as doors, screens, windows. For example, treated and untreated wood samples were tested in a Louisiana swamp... subjected to long exposure and fungus attacks.

Out of such research, N. D. M. A. has established minimum preservative standards which help make wood a better building material than ever. The N. D. M. A. seal means sureness of value to the owner—when you specify woodwork products.

Six Steps in the Public Interest

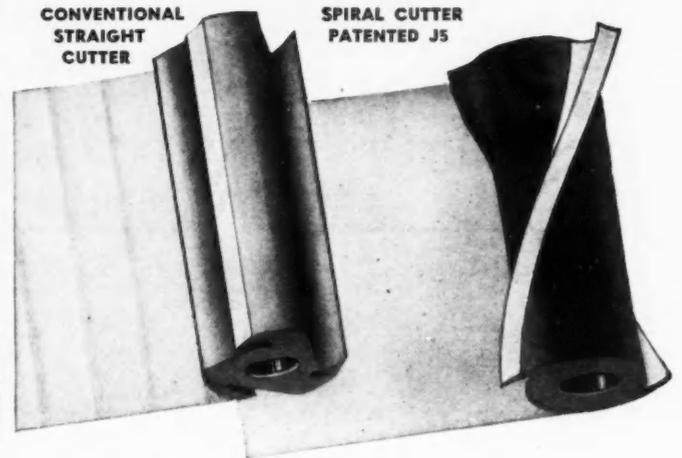
1. An efficient test for measuring effectiveness of toxic preservatives.
2. Minimum standards governing the toxic preservative treating of woodwork products.
3. A seal identifying products treated in conformity with N. D. M. A. Toxic Preservative Standards.
4. Mill inspection of treating equipment, practices.
5. Laboratory check tests of preservative solutions.
6. Educational effort in the public interest.



**NATIONAL DOOR
MANUFACTURERS ASSOCIATION**
McCORMICK BUILDING • CHICAGO, ILLINOIS



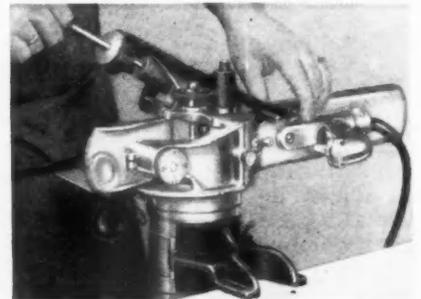
COMPARE THE FINISH



**The STANLEY-CARTER J-5
POWER PLANE**
cuts Smoother and Faster
with the Exclusive Spiral Cutter

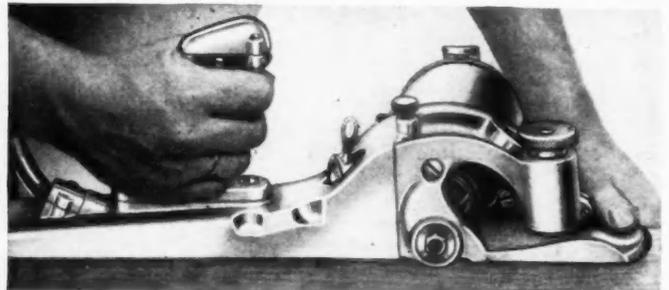
NO MATTER HOW FAST you "hog off" the wood with a Stanley-Carter J5 Power Plane, you leave a smooth surface that needs no sanding. The patented spiral cutter shears off the wood at 18,000 R.P.M. It has to be smooth.

With a J5, you can handle door, sash, screen and similar work 3 to 5 times faster. Develops a full 1 H.P.—weighs only 16 lbs.—planes surfaces up to 2½" wide, depth to 3/16"—takes straight or bevel cuts to 45°.



Write for Catalog, Stanley Electric Tools, Stanley-Carter Sales Dept., 534 Myrtle St., New Britain, Conn.

SHARPENS ITS OWN CUTTER—Just set it up in the Bench Bracket and use the simple Grinding Attachment.



Reg. U. S. Pat. Off.

HARDWARE · HAND TOOLS · ELECTRIC TOOLS

SLASHES Floor Sanding Time by 33 1/3%

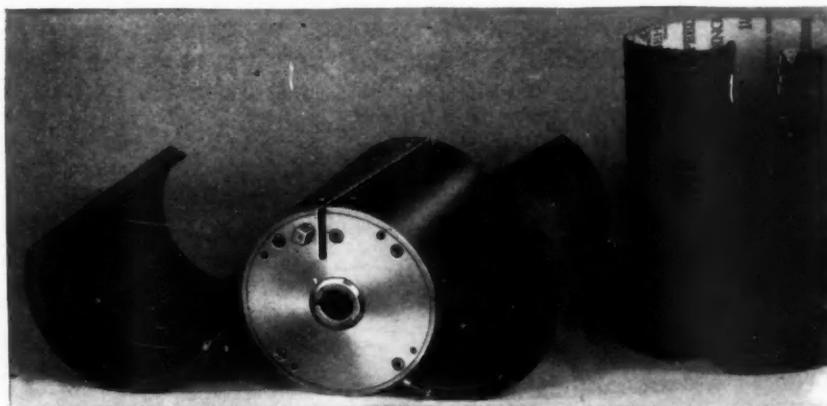
NEW Porter-Cable F-10 FLOOR SANDER

No other floor sander gives you the same rugged performance . . . the same quality work . . . or the same drastic savings in labor. Prove it to yourself—NOW! Check these revolutionary features of the New Porter-Cable F-10 Floor Sander!

1. **Floating Control**—Drum is raised or lowered by close-at-hand lever, fitted with two sensitive needle bearings. Easy to maintain consistent drum pressure on uneven floors—no gouging, no skipping. Five degrees of drum pressure through ratchet control of built-in coil spring. Gets 30% more work out of abrasive sheets.
2. **Covers more space**—The F-10 with its 10" drum cuts a swath 2" wider than ordinary 8" machines. Sands 25% more surface on every pass.
3. **Cuts as close as 1" from wall**—This leaves considerably less space for edger to trim.
4. **More easily maneuvered**—Swivels on its rear caster . . . revolves in a 3 ft. space. Easily moved with a turn of the wrist. Machine is unusually compact—only 14" wide, 35" long overall.
5. **Faster, quieter, cleaner**—The 10" wide drum has surface speed of 3100 sfpm. Has less vibration . . . purrs when other machines roar. Improved dust collector system is far superior to other machines.
6. **Powerful 2 H.P. motor**—Built for heavy duty. Boosts sanding speed.



REMOVABLE MOTOR!—To carry the F-10 from job to job simply remove motor from chassis. Weighs only 85 lbs. . . easily carried by 2 handles. Chassis weighs only 120 lbs.



HAS REMOVABLE DRUM COVER UNIT!

In case the rubber cushion is damaged by nails or is worn out . . . it can be removed from the drum and replaced with a spare rubber cover. This new feature eliminates your sanding drum back to factory . . . keeps the F-10 on the job with no time out.



Get the Jump on Competition
MAIL THIS COUPON TODAY!

Porter-Cable Machine Co., Inc,
1721-9 N. Salina St., Syracuse 8, N. Y.

Please send me further information about the NEW F-10 FLOOR SANDER—without charge or obligation.

Name.....

Company.....

Address.....

City.....Zone.....State.....

PORTER-CABLE MACHINE CO., INC.
1721-9 N. Salina St. Syracuse 8, N. Y.

Masons can feel the difference WITH ATLAS MORTAR CEMENT



MASONS like the rich, buttery plasticity of Atlas Mortar Cement. Trowels travel fast and *smooth*. Masons find that these qualities make it easier for them to produce workmanlike jobs.

And Atlas Mortar Cement is satisfactory in yield, too . . . represents profitable savings for contractors, especially on large jobs. Also, it is outstanding in water retention, color, strength and durability.

Backed by years of research, Atlas Mortar Cement complies with ASTM and Federal specifications for masonry cement.

For further information, write Universal Atlas Cement Company (United States Steel Corporation Subsidiary), Chrysler Building, New York 17, N. Y.

OFFICES: Albany • Birmingham • Boston • Chicago • Cleveland
Dayton • Des Moines • Duluth • Kansas City • Minneapolis
New York • Philadelphia • Pittsburgh • St. Louis • Waco.

AB-MC-19

SKILLED HANDS PREFER

ATLAS MORTAR CEMENT

THE SATIN OF MASONRY CEMENTS



"THE THEATRE GUILD ON THE AIR"—Sponsored by U. S. Steel Subsidiaries—Sunday Evenings—September to June—ABC Network

TRENDS

BUILDING MATERIAL — EQUIPMENT — APPLIANCES

Measuring Stick for Housing Progress

BUILDERS can view with pride their accomplishment in providing more than 2,000,000 new, permanent non-farm homes in the three years since V-J Day. Starts in the fourth quarter of 1945 averaged 25,000 units per month, in 1946 the average was 55,000 and in 1947 went up to 70,000. For the first 6 months of 1948 the average monthly rate was 75,000. It is believed that the present rate of residential construction exhausts the available supply of construction labor and many items of building material. June, of course, is normally one of the peak months of the year in starts. This June, 93,500 dwellings were started as compared with 77,200 last June, almost equal to the all-time record of 97,000 starts in May.

It is of the greatest significance that about 40 per cent of the 2,000,000 new dwellings started since V-J Day are being built in rural non-farm communities of less than 2,500 population. This reflects a movement of many industries to move parts or all of their operations to small towns where they are assured of a more continued and stable labor supply, as well as the desire on the part of many people for the advantages of small-town life.

Last month *American Builder* made a survey through northern Illinois and Iowa with the purpose of seeing the scope and type of building being done in smaller communities. As a yardstick to measure building activity, the 1940 non-farm population of the United States was considered as almost 100,000,000 with 850,000 new non-farm homes started in 1947, a rate of 8.5 new homes per thousand population. The ratio for each state was computed with the result that Illinois and Iowa built at the rate of 4.7 and 5.1 dwellings respectively per thousand non-farm population in 1947. Typical of areas where building activity has not increased dramatically, Chicago built 14,425 dwellings in 1947 in the metropolitan area for a population of about 5,000,000, a rate of about three per thousand

population. Only one of the eleven communities surveyed failed to equal Chicago's average. As a group the communities of 2,500 or less population, started 98 new homes in 1947. Their rate per thousand was 7.7, somewhat below the national average but better than the average for the states of Illinois and Iowa.

In all except one of the towns, it was found that all existing housing was occupied and that there is still considerable talk of a housing shortage. In some of the smaller towns, twenty or thirty new homes were built in the last two years where none at all had been built for twenty years.

Much is written about the current national boom in births, marriages and divorces. The marriage and divorce rates are of primary importance to builders. From the chart, it will be noted that, from 1890 to 1920, the number of marriages, except for 1918, increased steadily from 500,000 to 1,200,000 each year. It remained at that level except for the years 1931, 1932 and 1933. The number remained comparatively high with minor dips in 1938 and during the

war years. It reached an all-time peak of 2,300,000 in 1946 and declined to 2,000,000 in 1947. The year 1948 is expected to hold practically even with 1947, although it is more than possible that there will be a drop.

The number of divorces has risen steadily from 1890 with only a minor decline from 1930 to 1933. Divorces also reached a peak of 600,000 in 1946 and declined in 1947. Although a divorce frequently means the need for another dwelling unit to house those separated, most divorces probably result in a change of partners, and thus no new dwelling unit is required.

It can be expected that there will be a drastic drop in the number of marriages in the next few years possibly to under a million a year; the Bureau of the Census estimates that the 1950's will see the lowest increase in family formation in this century. The housing shortage will cease to be a problem. Builders will need to actively sell new homes against the competition of older ones and to push the modernization of old homes in order to maintain an adequate volume of business.



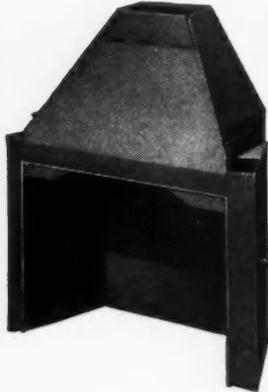
FIREPLACE UNITS FOR ALL YOUR CUSTOMERS

More sales—better profits for you—with the Bennett Line—Fireplace Units, Dampers (Steel and Cast-iron), Clean-outs, Ash Dumps, Lintel Bars, etc. . . . to fit every prospect's requirement. Only Bennett builds two types of Fireplace Units, to meet all building needs.



For Modern, Insulated Homes, with Central Heating

For Camps, Cottages, Southern Homes and Play Rooms



Fresh air, from outdoors, is heated and circulated thruout the room. No loss of expensive furnace heat up the chimney... no cold, unhealthy floor drafts—and no smoke!

The unit cannot interfere with the traditional beauty of the fireplace—it's hidden within the masonry. . . . Easier and quicker to build. Mantel may be designed with complete freedom.

Draws cool air from floor level, heats and recirculates it... throughout the whole room! Keeps air fresher. Furnishes a complete form for the mason—saves your customers' construction and operation costs. . . No smoke. Adaptable to any mantel design.

EVERY FIREPLACE OWNER WANTS...



Write us for FREE FIREPLACE CATALOG at 948 Market Street.

BENNETT - IRELAND INC.

Chartered in 1906
NORWICH, NEW YORK

GUARD AGAINST RUST INDOORS AND OUT



Keep metal surfaces covered with

S.R.P. "Sure Rust Prevention" and other Sonneborn Protective Coatings

This machinery is in an ice-making plant. The "weather" here is continually cold and damp. The piping, structural members and sheet metal surfaces are covered with Sonneborn's S.R.P.—for "Sure Rust Prevention".

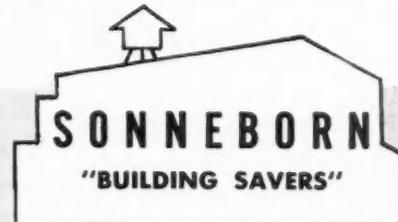
S.R.P. goes on like paint, forms an impenetrable, rust-inhibitive barrier against moisture, corrosive salts, acid fumes and vapors and weather exposure. Its protective film expands and contracts with the temperature to prevent cracks and peeling.

When applied on old metal, S.R.P. penetrates through the old rust to bond firmly with clean metal. Two types: S.R.P. 75-Primer; S.R.P. 87-Finish. For interior and exterior work—new or old.

TO COMPLETE THE PROTECTION

Other Sonneborn protective coatings used in this plant include SONOLASTIC Aluminum Paint, a bright, washable finish over S.R.P. 75 (Primer), and WONDERCOTE, a one-application semi-paste primer-sealer-finish for interior surfaces other than metal.

More facts in SWEET's—or send for free folder on "Sure Rust Prevention." Write Dept. B-9.



If It's Worth Building It's Worth Saving

- Floor Treatments • Waxes • Paints and Protective Coatings
- Concrete and Mortar Admixtures • Waterproofing and Dampproofing
- Caulking Compound • Roof Coatings

Building Products Division **L. SONNEBORN SONS, INC.** New York 16, N. Y.

In the Southwest: Sonneborn Bros., Dallas 1, Texas



FIRE-PROOF . . . that's what this Ohio outdoor theatre had to be, and Apac made it fire-proof. Attractive, too.

*4 different jobs
4 different reasons*

why the choice was
**K & M "Century" APAC
Asbestos-Cement Board**

A quick glance at the pictures will tell you why more and more builders are specifying "Century" Apac board . . . a 4' x 8' asbestos-cement sheet that has as many uses as a building has surfaces.

From the construction standpoint, Apac is a time and money saver. You can fasten it in place with nails or screws. No drilling necessary. To cut—just score it, then snap off. Supplied in thicknesses of 3/16", 1/4", 3/8", the big, tough sheets are easy to handle, and they cover fast. Result: A good job that's economical and profitable for you.

Ask your K&M dealer to give you further facts about versatile "Century" Apac . . . or write direct to us. We'll give your inquiry prompt attention.

Original manufacturers of asbestos-cement shingles in this country.



MOISTURE-RESISTANT . . . decades of weather and wet atmosphere will leave this Apac-dad bathhouse safe and sound.



VERSATILE . . . unlimited types of application, one of which is this Midwestern grain storage building.



RAT-AND-TERMITE-PROOF . . . which makes Apac board ideal for inside jobs such as attic and basement linings, partitions, bins, ceilings.

KEASBEY & MATTISON
COMPANY • AMBLER • PENNSYLVANIA



HEATING COSTS ~~Slashed~~ with multiple installations of OIL-FIRED BOILERS

Here's how a Multiple Installation of G-E Oil-fired Boilers slashes costs in fuel, supervisory expenses, cleaning bills.

FUEL BILLS REDUCED . . . G-E Oil-fired Boilers are connected in parallel, and one or more units cut out automatically when proper temperature is reached. Many users report substantial savings on fuel.

SUPERVISORY EXPENSES CUT. These units require no continuous supervision* because they're fully automatic. That means substantial savings. Shut down risks are minimized, too.

CLEANING BILLS SLASHED. These clean-operating boilers cut soot and grime to a minimum . . . reduce cleaning and redecorating bills.

Find out HOW and HOW MUCH a G-E Multiple Installation can save you. Your G-E Dealer will heat-survey your building without charge. *General Electric Company, Air Conditioning Department, Section H8159, Bloomfield, New Jersey.*

*Unless required by local or state law

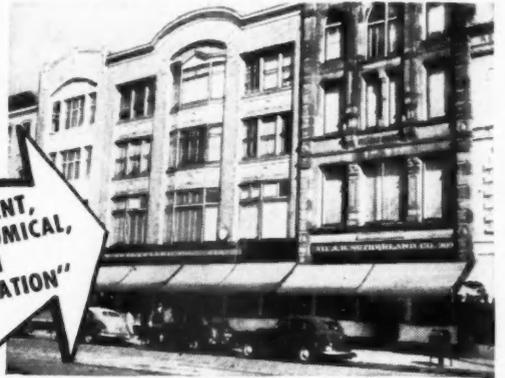


A typical multiple installation of General Electric Oil-fired Boilers



Practical Bible Training School, Bible School Park, N. Y.

"SAVED \$1200."



A. B. Sutherland Co., Lawrence, Mass.

"EFFICIENT, ECONOMICAL, CLEAN OPERATION"



Mr. Harold E. Coburn, Whitman, Mass.

"15 YEARS OF SATISFACTORY G-E SERVICE"



Trinity Lutheran Church, Stapleton, Staten Island

"ADEQUATE HEAT AND LOWER FUEL CONSUMPTION"

GENERAL ELECTRIC

Automatic Oil and Gas Heat

News, Views
and Comments

On and Off the Record

LOW-COST HOUSING—Last December Nathan Straus, advocate of public housing, stated in a magazine article that the post war house has a \$15,000 price tag on it. *American Builder* challenged Straus, offered to show him thousands of well-built houses in any part of the country with price tags of less than \$10,000. Of course, nothing ever was heard from Straus.

PUBLIC HOUSERS—Most of them want nothing to do with facts, and that might explain why Straus did not reply to the invitation. There are many more thousands of houses with price tags of less than \$10,000 now than there were then. There are so many of them in some parts of the country that if Straus would expose himself, he would find himself beset by salesmen.

AMERICAN BUILDER—The pages of this magazine have carried scores of plans, photographs and descriptions of low-cost houses ever since the close of the war. There are so many available that no magazine could present more than a very small fraction of the total.

HOME WEEK—*American Builder* editors were in more than 25 major cities in all parts of the nation during July and August. They saw thousands of new low-cost homes, and thousands more in various stages of completion.

THE PUBLIC—During National Home Week, several million Americans visited demonstration homes. No one will be able to tell them that the nation's home builders are not building at capacity, building quality homes, and building them inexpensively.

MR. KIRBY—He is a carpenter, who had saved his money for years, and finally built a house for himself in which to house his wife, son, and invalid mother-in-law. One morning, however, government crews appeared and started to wreck the new four-

room cottage. Mr. Kirby, spending his own money and using his own hands to build a house for himself had committed a crime. He had failed to get a government permit. That was in Easthampstead, England. All home building in England is controlled by government.

PETITION—All that stopped the demolition crews before they had razed the house completely was a petition got up by his neighbors, and presented to Prime Minister Attlee. If that had not worked, the neighbors were going to appeal to the King. The *New York Times* dug that story up and printed it on May 5.

T-E-W BILL—It is exactly that kind of thing that would happen in this country if the T-E-W bill had passed. Public housing has been proved in England to be a snare and a delusion, and about the worst thing that can happen to the poor who need housing in England or in any other country.

CONGRESSMAN GWINN—He said, "Government housing brings political party corruption by the exchange of tenants' votes for low rents. It leads in the nature of things to government bribery of investors and must lead, as the sad experience of a lost Europe now proves, to a firmly entrenched state socialism, totally contradictory to everything which we think of as American freedom and American self-government. We believe that if the American edifice of constitutional liberty is good at all, it must be good all the way through. It cannot stand part good and part bad as a source of housing."

HOW IT WORKS—Said the Congressman, "In my district in the city of Yonkers, N.Y., is Mulford Gardens, a 550-family unit government house. A family of four earning more than \$1,700 cannot qualify for an apartment. That is what the law says. But, 275 families, half of the 550 families, have incomes running above this legal minimum and up to \$8,000."

The
Ageless
Shackle!



The New SARGENT Cylinder Padlock with the stainless steel shackle . . .

Here's tops in a quality padlock—one shackle with the burglar resistance of steel, the weather resistance of brass.

This new Sargent Cylinder Padlock has a case of solid, one-piece extruded brass; a shackle of hard, stainless steel; an excellent five pin tumbler lock. It's built to endure—it has everything your customers need in a quality padlock. By stocking this one lock you should be able to cut your padlock inventory in half. Made in three popular sizes, with or without brass chain. See this new padlock and other new Sargent products at Booth No. 50-51, National Hardware Show Grand Central Palace, Oct. 12-16

SARGENT & COMPANY
New York New Haven, Conn. Chicago



zelenko

HOW *Copr-fibre* ONE-MAN INSTALLATION CUTS COSTS

- SINGLE, ENCLOSED
BLANKETS, 8 feet long
STANDARD 15" Widths
SEMI-THICK, FULL-THICK,
or EXTRA-THICK

Standard Vapor Barrier or
ALUMINUM FOIL Backing



Wide, double-weight flanges and full side-wall lengths make *Copr-fibre* Blanket installation a fast, efficient one-man job . . . saving valuable time and producing a tight, "tailor-made" job without joints or need for cutting.

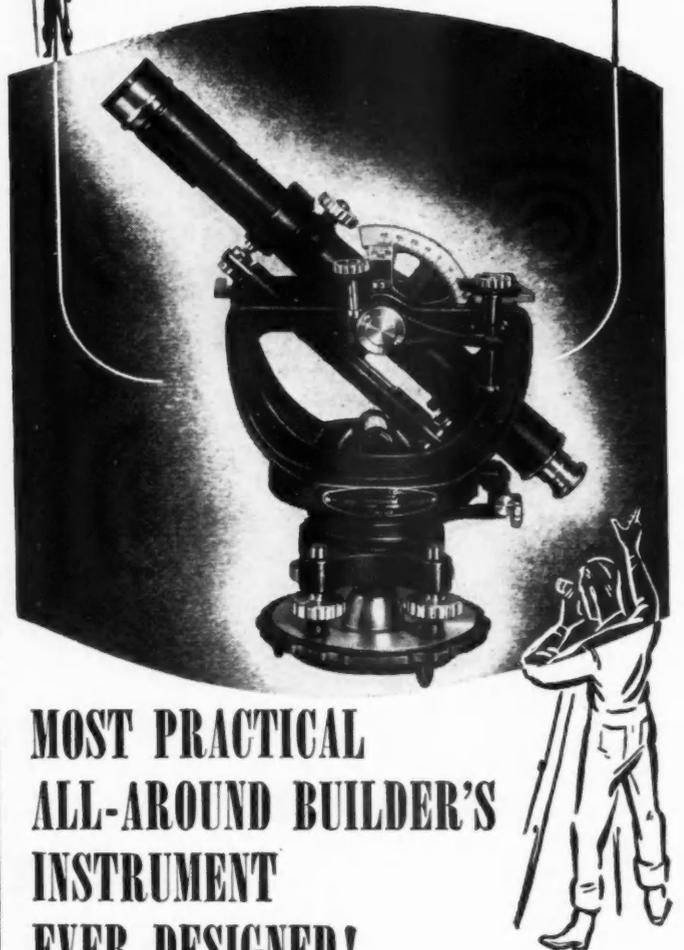
Along with the substantial savings in installation time, you get top quality *all-mineral* insulation. *Copr-fibre* is proof against fire, rot, water, vermin, termites and vibration—in addition to providing permanently low thermal conductivity for maximum insulating effect.

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Highly accurate, amazingly rugged, the Universal Level-Transit does all survey and check-up operations in building and road construction!

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Write today for full details and free booklet "How to lay out building lots."

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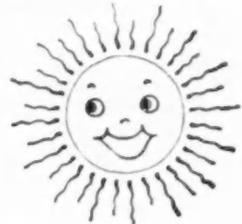
CERTAIN-TEED UNIVERSAL ASPHALT SHINGLES

Possessing outstanding usefulness for re-roofing, Certain-teed Universal Shingles "stay put" in any kind of weather.



Each Certain-teed Universal Shingle is securely locked to every shingle surrounding it by a special self-locking device. This additional anchorage gives extra resistance to the "loosening forces" of high winds and driving rains.

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HOME BUYERS DON'T LIKE TO GET "STUCK"!



HOME BUYERS like to feel that they're getting the most modern type of kitchen equipment. Today the trend is to Electric Ranges. Another million American families switched to Electric Cooking last year. Conservative estimates indicate that this year at least a million more Electric Ranges will be installed. This is a definite trend that cannot be ignored. Progressive builders recognize this trend. Electricity is a "must" in any house, and it's simple and economical to include wiring for an Electric Range leading to a range outlet in the kitchen at the time of construction. This is assurance that the houses you build are not only modern today, but will stay modern for years to come!



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the trend...*

wire YOUR HOUSES FOR ELECTRIC RANGES

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SYMBOL OF ADEQUATE WIRING



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EDITORS' ROUND TABLE

Vacations do not stop the regular monthly meetings of the editorial staff, and the round table was held as usual in August. It probably was natural that with the temperature and humidity both about 90, much of the discussion had to do with heat and condensation. Incidentally, for about four hours the discussion generated a lot of heat of its own. More about that later.

This Column is written as the staff meeting proceeds, so first things first. The first subject was introduced by the member who had spent two weeks in Minneapolis and Saint Paul.

A Builder with whom he had spent a lot of time told him that heat loss into the ground from panel or radiant heated concrete slabs in basementless houses was causing a lot of concern.

"The Usual Method," said the builder, "is to place a moisture barrier between the slab and the fill, that is, between the sand or cinders and the slab. When that is done, capillary action draws the moisture from the ground into the fill. Thus, the fill, also damp and cold, deflects the heat downward, causing heavy heat losses."

The Right Way, continued the builder, is to place a layer of aluminum foil or other vapor barrier directly on the ground, then lay a 6-inch bed of sand or cinder fill over the barrier, and pour the slab over the fill with no vapor barrier between. That, he said, reduces the moisture in the fill, and reduces the heat loss.

No One Argued the point. Maybe one or more readers will argue it. Emboldened, the Minnesota traveler went on to report that another builder had suggested he publish the truth about copper pipes in basements. The truth, according to the builder, is that copper pipe in basements should not be covered if the aim is to avoid radiation.

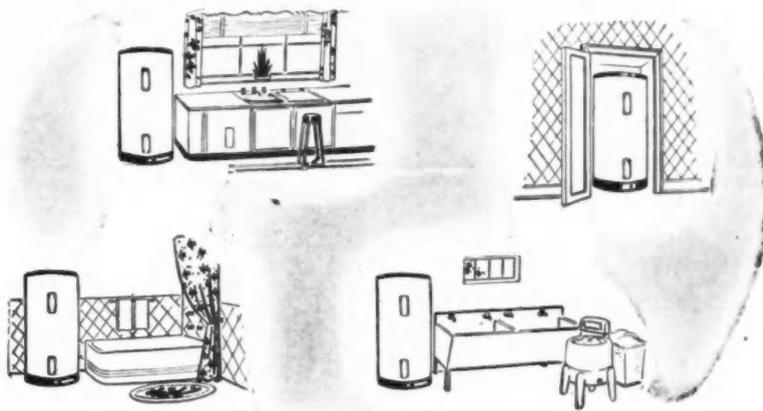
"Too Many Negatives," said the stickler for easy ways to say things. "Make a positive statement." The positive statement is that if copper pipe in basements is left entirely exposed, the heat stays in it. If it is covered, the covering provides a radiation medium, and dissipates the heat. In that respect copper pipe and iron pipe act differently.

In Minnesota, they do not cover
(Continued to page 64)

THEY'RE APT TO "needle" YOU!



Unless you give home buyers what they want, they're apt to "needle" you until they get it. One thing they prefer is automatic Electric Water Heaters. To have them completely satisfied with the homes you build—both now and in years to come—install the kind of water heating equipment your customers want.



How to reduce construction costs and add customer features

Construction costs can be reduced with Electric Water Heaters because there's no flue or vent, so installation can be made anywhere—in a closet, in the kitchen, in the bathroom, in the utility room. Hot water lines can be short, cutting piping cost.

Customers like Electric Water Heaters because they are: (1) **AUTOMATIC** (continuous hot water, no

attention); (2) **CLEAN** (smokeless, sootless); (3) **DEPENDABLE AND TROUBLE-FREE** (as electric light); (4) **ECONOMICAL** (fully insulated storage, short hot water lines); (5) **SAFE** (all-electric dependable temperature control); (6) **FLEXIBLE** (can be installed anywhere, even in living quarters; no flue or vent).

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IT'S EASY TO INSTALL an electric WATER HEATER

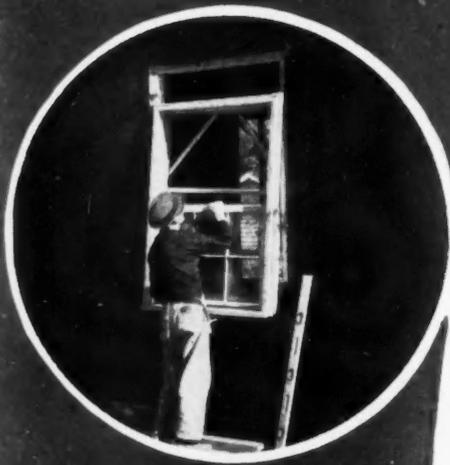
... in a house wired for an Electric Range!

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R·O·W Removable Wood Window Units are delivered to your construction job as pre-fit, weatherstripped units. This helps you keep costs of labor-on-the-job at a minimum . . . Your R·O·W Windows are made by a nearby manufacturer (there are 41 in the United States), assuring you of prompt and convenient deliveries with the least possible freight expense.



Quick, Simple Installation

Installation of an R·O·W Window is merely a matter of inserting the frame in the rough opening and securing it in place. No fussing with counterweights; R·O·W's patented "spring cushion" holds window securely in any position, permits easy opening and closing. Leading building material dealers everywhere sell R·O·W Removable Window Units. R·O·W Sales Company, Royal Oak, Michigan.

Removable
Opens easily
Weatherstripped



EDITORS'

ROUND TABLE

(Continued from page 63)

copper pipes unless they want to heat the basement. Stands to reason, concluded the Minnesota wayfarer. Copper pipe is buried in concrete floors, or walls or ceilings for radiant heat.

In July, reported the staff's champion of justice, we published a letter from L. L. Campbell, Asheville, N.C., in which Mr. Campbell said that an estimated 175 housing units that had cost 10 million dollars were being sold by TVA at ten cents on the dollar in the Town of Norris, Tenn. On July 20, Howard K. Menhinick, Coordinator, Village Disposal Program, TVA, wrote:

The Facts are as follows: The gross book cost of the town sales unit, which included 1,284 acres of lands 304 houses and 5 apartment buildings, warehouses, stores, sewage and water utilities and so on, was \$2,905,000. The net book cost (gross cost, less accumulated depreciation) was \$1,761,000. The minimum acceptable price . . . was \$1,849,750, which included \$32,000 worth of privately owned structures located on licensed lots in the town. These structures consisted of a religious fellowship building and several war surplus prefabricated dwellings that were acquired and erected by veterans. They were purchased from the owners by TVA and included in the unit sale without profit or loss to TVA, in order to simplify sale. The successful bid was \$2,107,500, or \$314,300 more than the net book cost, and \$257,750 more than TVA's advertised minimum acceptable price."

Norman J. Radder of the Plumbing and Heating Industries Bureau, read Frank Cortright's column in which it was suggested that builders should present owners of new homes with booklets offering advice on the care and maintenance of homes. Mr. Radder says the Cortright suggestion is an excellent one, and asked us if our readers are familiar with what the manufacturers of plumbing fixtures are doing. With vitreous china plumbing fixtures, the manufacturers send the owner a small booklet entitled, "Prize this Vitreous China Fixture." With enameled cast iron fixtures, they send a similar booklet entitled, "How to Take Care of This Fixture." Both tie in with the Cortright suggestion.

As Usual, the entire staff was in the field during July. Every month one of
(Continued to page 66)



YOU ARE CORDIALLY INVITED TO VISIT THE
Stainless Steel Exhibit
 SPONSORED BY THE
American Iron and Steel Institute
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ELECTRO METALLURGICAL COMPANY

Unit of Union Carbide and Carbon Corporation **UCC**
 30 East 42nd Street, New York 17, N. Y.

EDITORS' ROUND TABLE

(Continued from page 64)

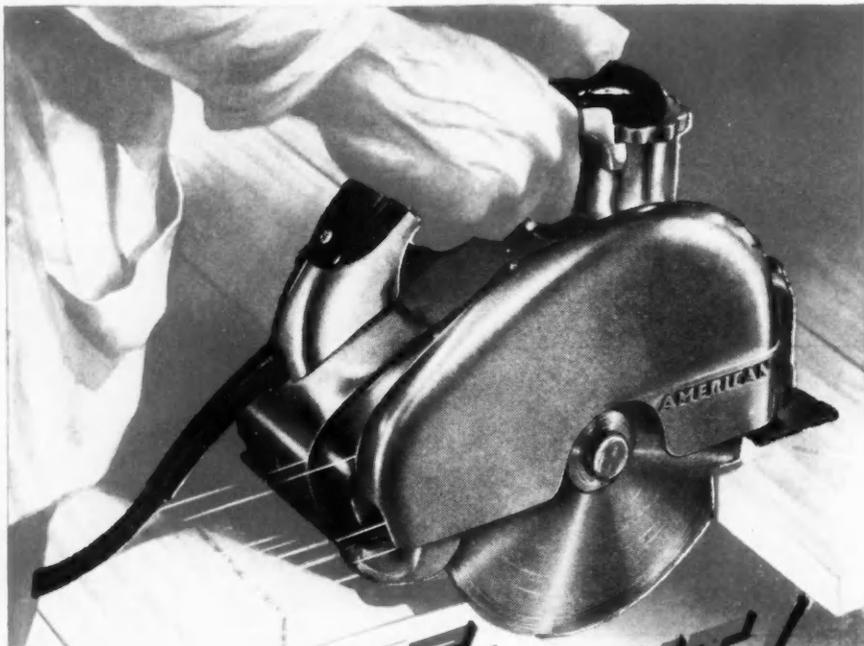
them concentrates on small towns and rural areas. In July the rural traveler spanned the corn belt. Crops, he reported, are amazing. In many areas, yield records will be broken.

Building in the small towns throughout the area follows the established pattern in most sections of the nation. Volume is tremendous, and new homes are being paid for in full with cash. The volume would be even greater if more skilled labor could be obtained. The volume is expected to continue indefinitely.

After That Report, he suddenly asked what is wrong with adapting the old-fashioned farm kitchen to new, modern houses. Asked to elaborate, he said that farmers and many small town folk still like to make the kitchen the center of activity, as well as the general family gathering place. His suggestion is that a large room separated from the kitchen by a counter or modern folding door, be provided; that the room have a fireplace, book cases, study tables, and small game facilities.

The Only Taker of the idea was a staff member whose wife is a prominent member of a woman's club, and whose children are getting some socialistic teaching in the local school. He said that if he could gather the entire family into a room like that just one night, he would read them the T-E-W bill, and expose all of its bogus promises regarding the magic of public housing. Then he would be sure that at least one woman and two children would not fall for the oratory of socialist teachers and speakers, of whom he says there are too many, mostly unopposed.

The Four Hours of heated discussion were about grammar. Over a rainy weekend the editor had combed the July issue of *American Builder* with a hyper-critical eye, and spent a whole day studying an English grammar. Then he combed the July issues of a lot of other magazines. He was really loaded for bear, but as things turned out there were a half dozen other grammar books in the office. They do not agree on all points, especially fine points. No use of going into all of the technicalities here, but it is safe to say that regardless of how peculiar any given grammatical construction might appear, if it is in *American Builder*, there is authority for it in at least one text book on English grammar.



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AMERICAN SAW

With an **AMERICAN SAW**

Speedy...


Easy Handling


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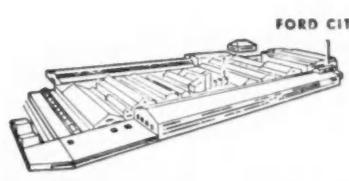
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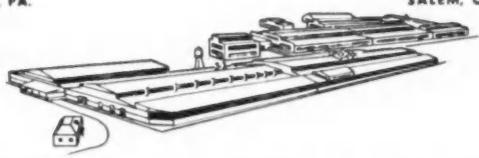
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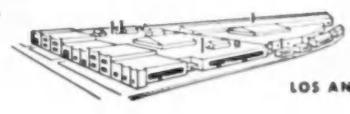
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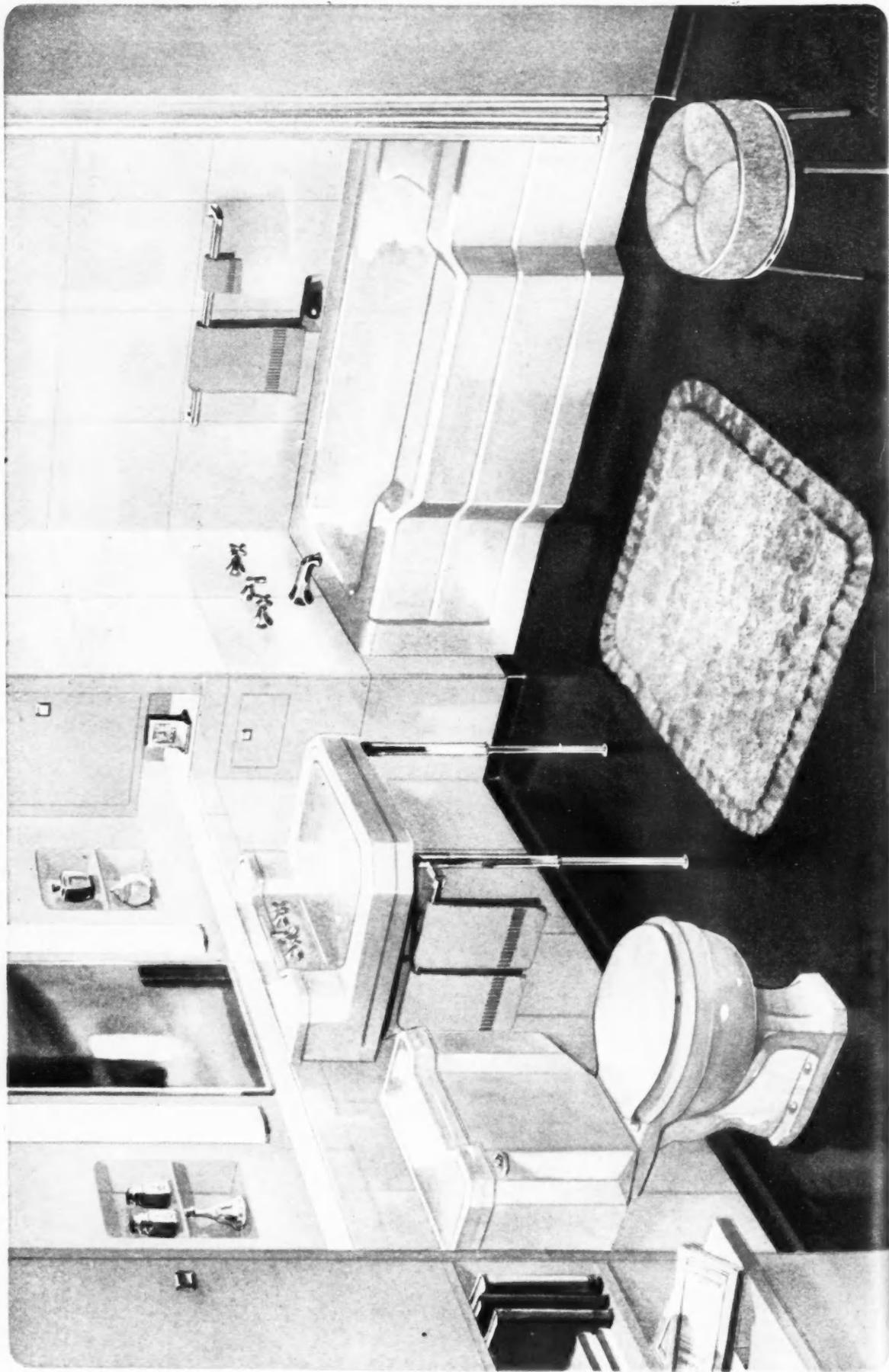
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IT PAYS YOU . . IT PAYS US . . BECAUSE WE SPECIALIZE IN PLUMBING FIXTURES EXCLUSIVELY

ELJER EQUIPPED HOMES DO SELL FASTER BECAUSE



ELJER BATHROOMS *Stylings that "Lives"*

ELJER BATHROOMS . . . Styling that "Lives"



Enjoy the convenience of a bathtub with an end-seat . . . comfortable for foot bathing or a sitting shower. Think of the advantages of a low, wide front rim-seat . . . easy to step in or out, and ideal for bathing the children. It's a bathroom that *lives*, by making life more enjoyable for the entire family.

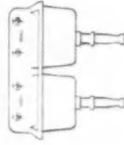
For almost half a century Eljer has been making quality fixtures . . . the best that *can* be made . . . in a wide variety of related styles and colors that match harmoniously to create a beautiful bathroom ensemble.

Our bathtubs are made of *ragged, rigid cast iron* . . .

coated with a heavy enamel finish. Lavatories and closets are *real* vitreous china. *Every* Eljer fixture resists scratching, stains and the effects of all ordinary acids. That is why the glass-like finish is so easy to keep spotlessly clean and new looking.

Ask your plumbing or building contractor about Eljer products, or write for Eljer's booklet "Fixtures of Beauty and Distinction"; Eljer Co., General Offices, Ford City, Pa.

Eljer's complete line of plumbing fixtures includes units for kitchen, laundry and bathrooms . . . in a variety of styles to satisfy every purse and purpose. Modernly-styled sinks, acid-resistant enamel fused on cast iron, especially designed to be used alone or in counter and built-in cabinet arrangements.



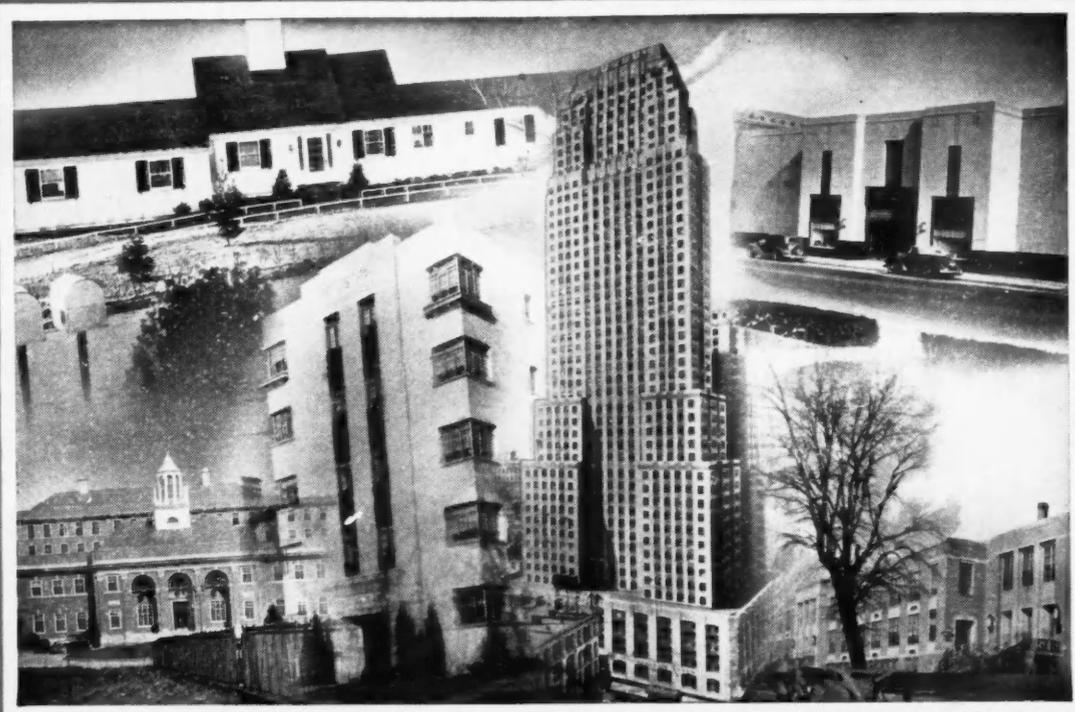
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Factories at Ford City, Pa., Salem, Ohio and Los Angeles
There are over Ten Million Eljer Fixtures in Use

more and more people are asking for the *Extra Features* available

Only in Eljer's Fine Line of Plumbing Fixtures and Brass Trim



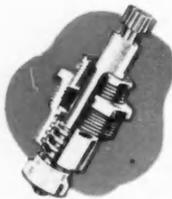
TO THOSE WHO HELP *build* AMERICA

America is growing. The pioneer spirit is as bright today as it was when covered wagons moved along the Oregon trail. Today, the nation is growing vertically more than horizontally; the builder of big buildings is the pioneer of today.

Eljer has been active in the American construction scene since 1904. More and more Eljer

plumbing fixtures are being installed in new buildings of every kind . . . and there is an Eljer fixture for every need.

Eljer's line covers the complete range of vitreous china and enameled cast-iron fixtures as well as brass trim. To learn more about it, see your nearest Eljer distributor or write to Eljer Co., Box 192, Ford City, Pa.



Eljer Renewable Brass Fittings

Eljer fixtures are available with quality *renewable brass fittings* . . . featuring the *exclusive Eljer Swivel-Disc* that virtually eliminates dripping and corrosion. Faucets operate smoothly at the touch of a finger and wear on moving parts is reduced to a minimum.

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SINCE 1904 MAKERS OF FINE PLUMBING FIXTURES

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MONTHLY REVIEW

NEWS OF THE NATIONAL ASSOCIATION OF HOME BUILDERS AND AFFILIATED ASSOCIATIONS

NAHB Chapters Step Up Activities And Plans for National Home Week



IN CINCINNATI, a proclamation by Mayor Albert D. Cash was the opening gun in the publicity program preceding National Home Week. Above, Mayor Cash signs the proclamation with the members of the Greater Cincinnati Home Builders Association committee standing around him. Left to right, Jerome Meyers, Cliff Springmeier, chairman; Richard M. Sandberg, executive vice president; Joseph Robers; Matthew Schrand, vice chairman of National Home Week Committee

Variations of the phrase "Homes on Parade" began appearing in newspapers and were heard over radio stations in cities all over the country last month as the publicity program of NAHB chapters for National Home Week swung into high gear. Many chapters worked feverishly in August to round out plans which were late in getting under way, and those who started planning early were just as busy carrying out details.

It is apparent that many chapters laid careful plans to avoid some of the pitfalls that are to be expected in the first National Home Week venture. This was evident in Chicago, where safeguards were set up to prevent exhibit homes from becoming mere furniture salesrooms. The display homes in the metropolitan area of Chicago are being shown later than the official date for National Home Week because it is being combined with a previously planned home furnishings festival. Many department stores and furniture dealers are cooperating by furnishing homes put up by members of the Chicago association.

A committee of experienced interior decorators will pass on the furnishings planned for each house so that no home will be "over-furnished". The cost of

furniture shown in any home will be commensurate with the selling price of that home. The Chicago show has the powerful Chicago Tribune behind it and is expected to bring tangible benefits to the builders and the public.

Mayoral proclamations have been issued in many cities where public officials are cooperating with home builders. Chambers of Commerce and building material dealers have been helping stimulate interest and promote advertising. Most participating chapters of NAHB have provided substantial funds for their share in the advertising effort.

A few chapters are relying principally on one model home as the central feature of their programs. St. Petersburg, Fla., is building such a home with the American Legion helping to publicize it. In Portland, Ore., the association is sponsoring a home show that will coincide with National Home Week.

Most chapters, however, planned to show a number of homes. The Long Island Home Builders Institute expected around 100 houses to be exhibited, some furnished, some unfurnished and some incomplete. Milwaukee built an entire small subdivision. In Washington, D.C., several economy-priced projects are being shown as well as a number of expen-

sive homes in the higher cost brackets.

Rochester, N.Y., is showing houses in at least three developments in the economy house brackets and many others in the middle and upper range. Indianapolis lists a large number of exhibiting builders. Jacksonville, Fla., is covering both lower and medium price ranges. Cleveland, Cincinnati and Columbus are having substantial parades of homes.

Activity is just as high in Oklahoma, Texas and California. Posters indicating membership in California associations and standing for quality construction are being displayed in the San Francisco Bay area, in Los Angeles, and other parts of the state.

Many other chapters besides those specifically named are participating, and publicity efforts by the National Association of Home Builders is also being heard on radio programs and read in the daily press. Executive Vice President Frank Cortright states that early reports on National Home Week activity indicate that the economy house will be highlighted, a feature greatly desired by the association and calculated to educate the public to the fact that housing is being built in the moderate price bracket.

St. Louis Chapter and Labor Negotiate Progressive Contract

The Home Builders Association of Greater St. Louis and the Carpenters District Council recently agreed on a wage contract including a clause for an "improvement program" for union members not possessing the full qualifications of a journeyman. The improvement program has full endorsement of both the union and the association.

After the war, most real journeymen in the services returned, and there has been a boom in apprentice training programs. But men not really qualified as journeymen and who were admitted to union membership during the war by necessity were still on membership rolls and receiving pay equal to those who were highly skilled and really qualified. The improvement program clause eliminates this inequity.

Foremen for the employers who are party to the wage agreement are listing their carpenters who should be in the improvement program. This list is forwarded to the Carpenters District Council where an examining board interviews each man, classifies him on the basis of skill and ability, and informs him what pay rate he is entitled to receive. The employer is notified, and he is to give the worker opportunity to receive supervision and experience in the branches of the trade in which he is not proficient.



Cortright's Column

By Frank W. Cortright

Executive Vice President, National Association of Home Builders of the United States

The finest sales argument the established home builder has to offer is his own *reputation*.

Home builders who lead the industry in design, building methods and planning must drive the quality and integrity story home to the public.

The greatest service and the greatest sales endeavor that reputable home builders can make today is to point out forcefully to the buying public the value and need of discrimination in every phase of home purchasing. Urge buyers to be exacting in their demands. Convince them they should know their builder, their lending institution, the quality of materials which are used! This is public service selling and it pays rich dividends to builders who employ it.

It stands to reason that the home builders who know that they are doing a good job will be rewarded by making the public "integrity-conscious." Members of NAHB have pledged themselves to build quality homes regardless of the price range. They operate under an ethical code of conduct, and the public should be told how it benefits from this code.

The average man will inspect an automobile from bumper to bumper with earnest concentration. He'll give it a road test, consider the record of the manufacturer and go to fantastic lengths to make certain he is getting a substantial product for his money. The American woman is equally discriminating in the selection of furniture or her clothes. Yet Mr. and Mrs. America will invest many times more money in a new home—the largest investment they ever make—with what amounts to a casual inventory of the really important factors.

We in the industry know the importance of the man behind the home. Let's tell the public about it. Let's give the purchase of a home the stature it deserves in the consumer's mind. When the public learns to look for the name and reputation of the builder before buying, the industry will have moved ahead to a new plane. The wide-awake, progressive home builder will assume a strong position in a permanent, stable market, and the gyp builder will disappear from our system.

This is the time to publicize the three important "knows" in home buying. *Know* your builder. *Know* the house you are buying. *Know* your financing. In other words, *know* what you are doing.

Never before has the home builder been in such a fine position to give quality and service to his prospective buyer. Intelligent planning and the elimination of on-site waste in manpower and materials has progressed to the point where the home buyer can expect a better product for his money than ever before. As further advances are made in pre-site assembly of materials, the home builder will constantly incorporate greater economies into construction.

The men who have made this progress possible are the established home builders who constantly strive for the high degree of efficiency which spells better building and satisfied home owners.

Not only have these builders sought new and improved methods, they have enlarged the scope of their service to the challenging field of community planning. Now every phase of residential construction from the original conception of a neighborhood to the occupancy of the last unit comes within the province of the home builders' plans.

Let's tell Mr. and Mrs. America how they profit by dealing with reputable home builders before building or buying a home. Let's show them why it's important to do business with a builder whose integrity has been established through years of proved service. Let's sell quality builders and building along with quality homes!

Brock Speaks Against T-E-W Bill Over Town Meeting of the Air

President Milton J. Brock of NAHB, teamed up with Hal Collings of the City Building Administrators, did a nice job of upholding the negative side of a debate, "Should Congress Pass the T-E-W Bill Now?" over the American Broadcasting Co.'s Town Meeting of the Air program August 3. They were pitted against Langdon Post, former chairman of the New York City Housing Authority, and C. J. Haggerty, representing the A.F. of L.

While no one can prove who won the debate, there may be significance in the fact that the re-called Congress a few



MILTON J. BROCK

days later passed a housing bill which did not include the slum clearance and federal housing aspects of the T-E-W bill which formed the basis for Brock's and Collings' objections. Brock declared that the T-E-W bill would provide houses—but not more than would be built by private industry which has been using labor and materials to the full extent available.

Al Keffer Is Executive For St. Paul Home Builders

Al Keffer recently took over the job as executive secretary for the St. Paul Home Builders Association. Keffer has a background in public relation and in-



AL KEFFER

dustrial sales. Formerly he was in public relations work in Rockford, Ill., and has done both public relations and sales work in the Minneapolis-St. Paul area.

NAHB Committee Gives Suggestions For New Abridged Building Code



THE joint meeting of the Architecture and Building Code Committee of NAHB and the Building Officials Conference of America Code Committee, held in Rochester, N.Y. In shirtsleeves, they discussed revisions of a draft for a standard building code, more simplified than the BOAC basic building code

A joint meeting of the NAHB Architecture and Building Code Committee and the Building Officials Conference of America Code Committee was held recently in Rochester, N.Y., to discuss provisions of a proposed "Small Municipality Code", more simplified than BOAC's basic code.

The group revised a draft of the code, suggesting that it be called "Abridged Building Code" instead of the title given above, and the suggested revisions are being submitted to a BOAC review committee before the new code is presented at the BOAC annual meeting in New York in September.

The proposed code will embrace dwelling structures, rental housing, minor commercial and industrial construction. Each member of the NAHB committee contributed from his individual experience in construction methods and customs so that when the code is released, it should be sufficiently flexible to fit almost any locality with little need for revision.

NAHB representatives attending the conference included Luther J. Boggs of Atlanta, committee chairman; Hugh Selby of Cleveland, John Weinhart of Detroit, Frank Collins of Philadelphia, and Carl Lans, director of NAHB's Technical Service Department.

BOAC members attending included Walker S. Lee, chairman, Abridged Code Committee; Albert Baum, chairman, Basic Code Committee; George E. Strehan, consultant and author of the code; Douglas M. Halstead, building inspector of Garden City, N.Y.; Thomas J. Moran, building commissioner of Brookline, Mass., and Jesse L. Stettler, building inspection superintendent of Ardmore, Pa. The membership of BOAC consists of building officials only, but there is an affiliated organization known as the Building Officials Foundation which includes in its membership manufacturers, dealers, builders and others connected with the building industry. The foundation cooperates with BOAC and gives financial aid in carrying out its programs.

Chicago Reports Trend to Dry Wall Construction

In one of its recent weekly bulletins, the Chicago Metropolitan Home Builders Association reports that leading builders in its membership have turned to dry wall construction more and more in the last few years because plastering has become one of the major bottlenecks in home construction in that area. While the Chicago code does not permit dry wall construction, it is allowed in the suburbs, and this fact is credited with inducing more and more building outside the city limits.

The association stated that actual time consumed in applying and waiting for drying of wet plaster has held jobs in suspension for as long as 30 days. Some of the delay was occasioned also by the shortage of glaziers, since in the fall, wet plaster could not be applied until the windows were closed in. These shortages were the most critical in the Chicago area.

As a way out of the difficulty, the better builders began to turn to dry-wall construction, and now many will not go back to wet plaster where codes permit dry wall.

The bulletin states that lathers and plasterers are bitterly opposing this trend which saves a month's time in construction of every home and could save \$250,000,000 yearly in cost of building if universally applied. It suggests that the workers affected would be better advised to perfect themselves in methods of applying drywall finishes instead of bucking a trend that never will be reversed.

Minneapolis Chapter Considering Changing Association Name

The Minneapolis Contractors and Builders Association, Minneapolis affiliate of NAHB, is considering changing its name. A committee has been sifting down suggested new designations to replace the old one which is considered misleading and too much of a mouthful over the telephone. So far, leading suggestions are "Minneapolis Home Builders Association" or "Home Builders Association of Minneapolis". Members are voting on which it shall be.

Baltimore Plan Interests Civic Groups



BOB BREADY, center, president of the Maryland Home Builders Association, introduces Mayor D'Alesandro of Baltimore, left, to Eddie Carr, NAHB past president. The occasion was at a meeting of over 300 who viewed NAHB's slide film, "Slum Rehabilitation—the Baltimore Story." Organizations represented included the League of Women Voters, the Citizens Housing and Planning Association, the Maryland League for Representative Government, members of the Baltimore City Council, Real Estate Board, Mortgage Bankers Association, Junior Chamber of Commerce, and building and loan group representatives



Tucson Builders Forming New Chapter of NAHB

Leading builders of Tucson, Ariz., met recently and appointed an organization committee to lay the ground work for forming the first NAHB affiliate in their state. Regional Vice President Charles

MORE THAN 20 representatives of various segments of the home building industry in Tucson, Ariz., as they met to form a new NAHB chapter, the Tucson Home Builders Association. In left foreground is Charles R. Malowney, NAHB regional vice president, one of the speakers, and right foreground is Normine Watkins, of NAHB, in charge of membership and chapter relations, who also addressed group

NAHB Gets In Early Licks On Presidential Aspirant Dewey

Because Dewey is the Republican presidential candidate and exerts present influence as head of the party, the National Association of Home Builders is interested in seeing that he knows where the industry stands on socialized housing. To make it perfectly clear, Executive Vice President Frank Cortright sent the following telegram to Dewey just before the 80th Congress, during its special session, took up the housing bill:

"Noting that labor leaders and others are urging you to ask the Republican leadership to support the T-E-W Bill, I, as executive vice president of the National Association of Home Builders, feel it proper to advise you that the

nation's builders will break all existing residential construction records this year and will utilize the full supply of labor and building materials without additional legislation by the 80th Congress.

"We respectfully submit that the T-E-W Bill, S. 866, would institute a controlled economy in housing and that its public housing and slum clearance titles would initiate a subsidized housing movement which could not be controlled or stopped short of the eventual socialization of housing in this country. Our President, Milton J. Brock of Los Angeles, and I, representing more than 13,000 members who construct an estimated 80 per cent of the new housing in urban areas, would greatly appreciate an opportunity of discussing with you our industry's problems and future needs."



JIM BONNELL
Tucson's Executive Secretary

R. Malowney was instrumental in getting the builders interested in forming the new chapter.

The committee includes Malowney, Jim Bonnell, Albert Oshrin, Miss A. U. Jackson, Glenn Poole, Jess Stewart, Robert Heyer and George Dalton who is chairman. Bonnell, formerly eastern editor of *American Builder* and assistant secretary of the Long Island Home Builders Institute, was named executive secretary of the new Tucson association.

Malowney and Normine Watkins, NAHB director of membership promotion and chapter relations, were given an opportunity to discuss private enterprise housing with News Editor Frank Howard over radio station KTCU in Tucson.

Jacksonville to Play Host To Florida Home Builders

The Jacksonville Home Builders Association will be host to the Florida Home Builders Association at the fall meeting September 17-18. The meeting is to be held at the Ponta Vedra Hotel, Ponta Vedra Beach, just outside of Jacksonville.

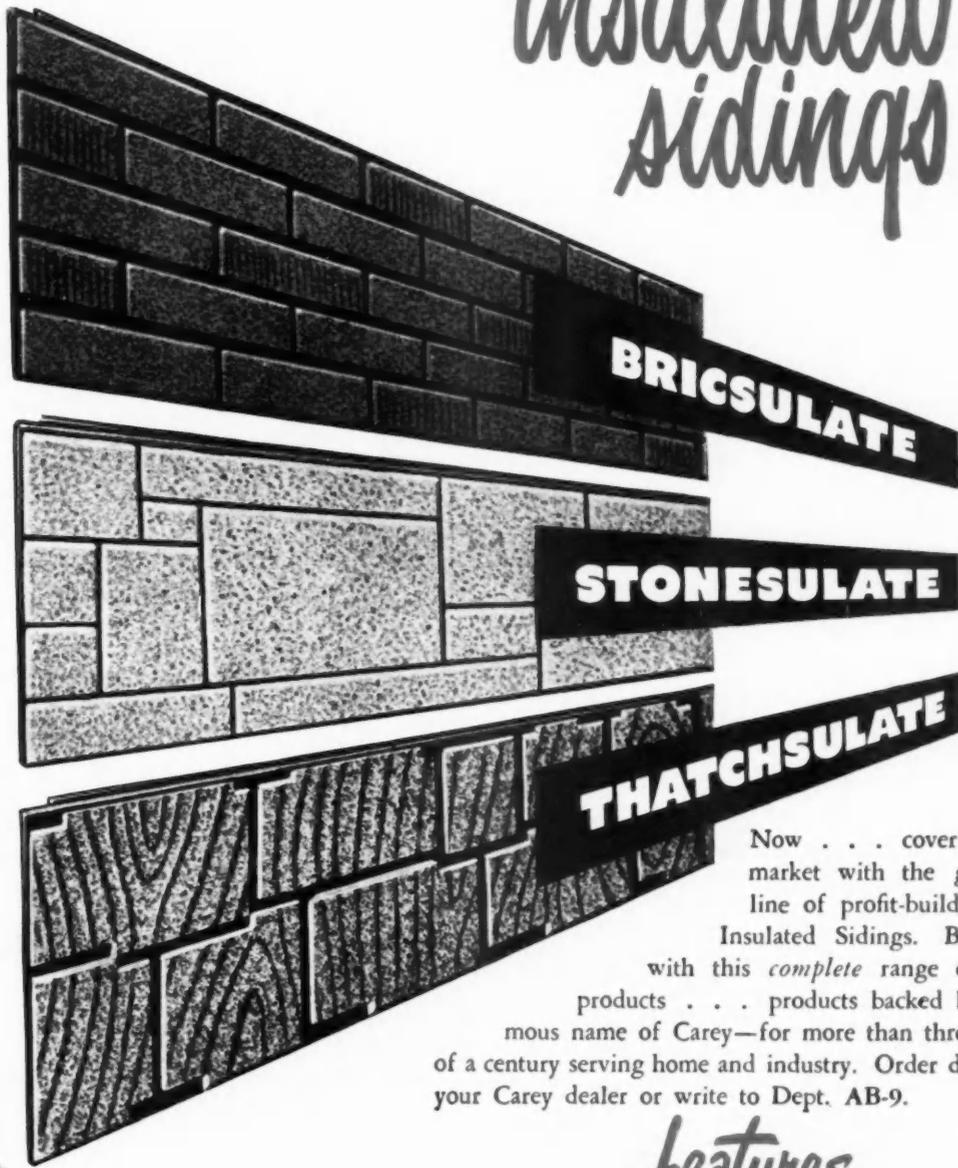
Working on NAHB's Neighborhood Contest



GOING OVER plans for the NAHB 1948 neighborhood contest are, left to right, Seward Mott, executive director of the Urban Land Institute, William P. (Bill) Atkinson, chairman of the NAHB Land Planning Committee; Normine Watkins, director of membership and chapter relations and Herbert Carlton, NAHB counsel, standing around Frank Cortright, NAHB executive vice president, who is seated

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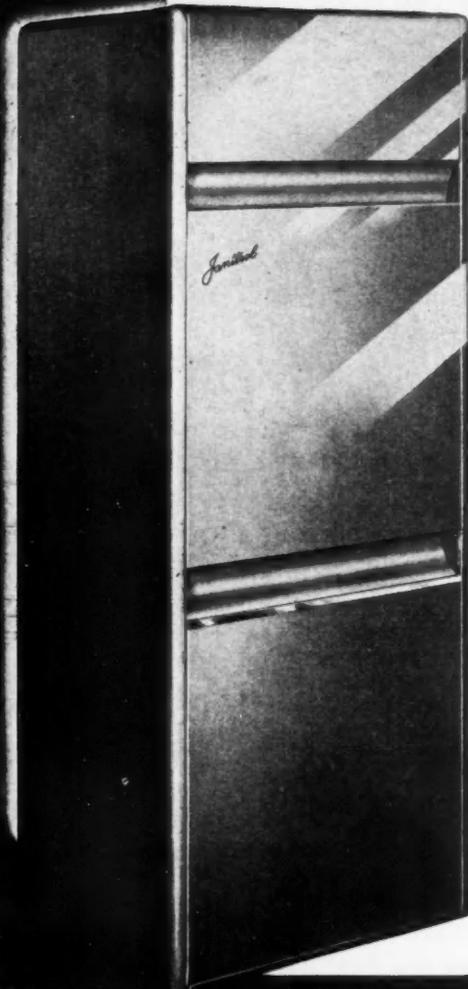
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This functional design assures a positive directional flow of air to keep the controls cool regardless of the compactness of the installation.

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1 New Improved, Long-Life, Cast-Iron Heat Exchanger • Design improved to provide easier removal of both the top plate flue gas collector and the new type, interior suspended alloy steel turbulators.

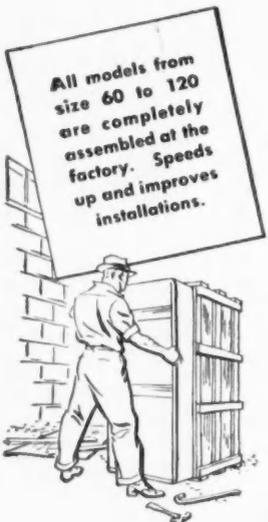
2 Twin Air-Flow Ventilating Louvres • Admit a direct flow of ventilating air to assure the cool operation of all controls, regardless of the compactness of the installation.

3 New Type Ribbon Burners • New design, features a quickly removable, steel burner chassis. The individual runner ribbons and the burner ribbons are nested in an open top holder which may be quickly and easily removed as a complete unit. Each burner has its own non-linting primary air shutter adjustment.

4 New, Plug-in, Self-Positioning Electrically Operated Pilot • Complete pilot assembly can be quickly removed or replaced in a matter of seconds. Plugs into regular type electrical outlet. New actuating lever and switch design assure long-life positive operation.

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All models from size 60 to 120 are completely assembled at the factory. Speeds up and improves installations.

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WINTER AIR CONDITIONER...first again to meet the changing requirements of today's and tomorrow's modern ideas of housing and improved comfort.

The new Janitrol FEC is *clean* to look at... *clean* to work with...there's no extension of controls outside the casing, no extraneous housing for filters or other component parts. Everything is enclosed in the smart, gleaming, streamlined, grey baked enamel cabinet.

With Janitrol... the home owner has gained great improvements in gas-heating comfort and automatic operating economy.

With Janitrol... the architect and builder have been able to offer more saleable homes because of more compact, completely automatic modern heating.

"C.A.C" Now, Janitrol dealers can offer even greater indoor winter comfort with Janitrol FEC Conditioners factory adjusted for C-A-C operation. (Continuous Air Circulation)

Continuous Air Circulation with its floor-to-ceiling warmth is fast finding favor... it's a feature that's easily understood and appreciated by the average home-owner.

Janitrol's unique design combination of a Ribbon-Type burner located directly at the base of each cast-iron Heat-Exchanger tube, is ideally suited for C-A-C operation.

This exclusive Janitrol design provides one of the most practical means of utilizing C-A-C to its best advantage.

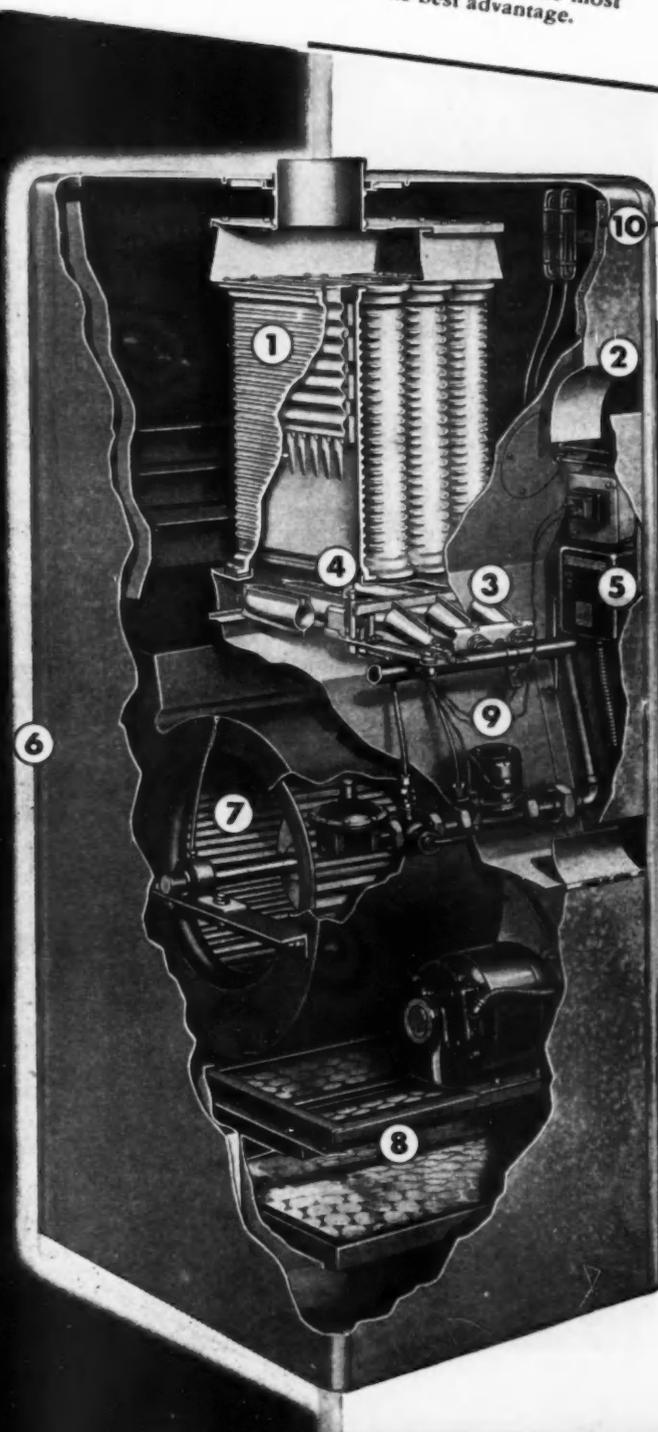
FOR EASIER SERVICING...

7 Large Capacity Blowers • Rubber cushioned blower chassis support cradles the blower, absorbs all vibration, results in quiet operation. Blower can be factory adjusted for C-A-C operation.

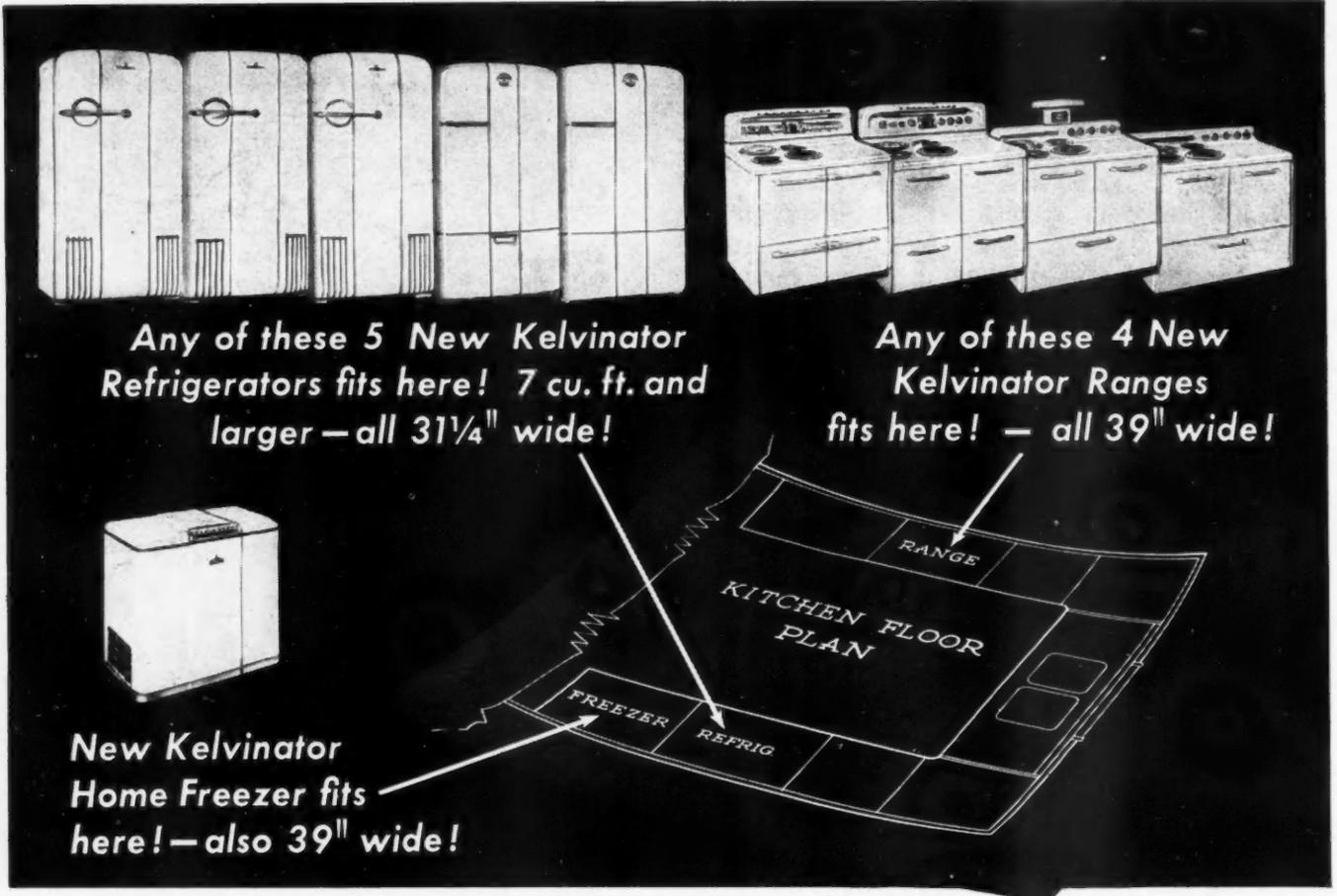
8 Over-size Filters • Double filter suspension provides more than adequate filter area to assure clean circulated air at standard or lower air volume.

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"Space-Saver" Package Gives Small Kitchens Big-Kitchen Advantages!

"Space-Saver" Refrigerator, 24" wide, capacity full 6 cu. ft.—holds 50% more food than the prewar model of identical outside dimensions. Companion range is only 21" wide—new design permits installation flush against wall. Stars a full-size, double-unit oven . . . three new type tilt-up surface units—one 8", two 6". Kelvinator quality throughout.

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L D I T O R I A L

Public Housing an Issue in 1949

THE FACT that the special session of Congress passed a housing bill without provisions for public housing and slum clearance should not be viewed as a victory for free private enterprise. Nor should it be accepted as final disposition of the issues of government subsidized housing and government control of the home building industry.

Federal public housing, federally subsidized slum clearance, and control of home building by a government bureau were not dropped from the housing bill because Congressional advocates of such socialistic measures have come to view them as false doctrines. Actually, they were not dropped at all; they were merely shelved. They were shelved for the announced reason that they involve government spending considered to be inflationary at this time. After the bill was sent to the White House, Senator Taft is said to have stated that he still believes in a program of limited low-cost public housing, and that he favors legislation for such a program at a later date.

There is a vast difference between deciding against a measure because it is considered to be fundamentally unsound, and deciding against it because the time is not right for passing it. Thus, if the Senator has been quoted correctly, there can be no doubt that a battle has been postponed, rather than a victory won. The fact that the Senator also is said to have stated that the differences between the President and the 80th Congress represent the differences between two basic concepts of government, with Congress clinging to traditional free enterprise Constitutional government, and the President seeking socialistic departures, should mislead no one. Mr. Taft always has, and still does make an exception of public housing in his otherwise unqualified opposition to socialistic measures. Why Mr. Taft makes an exception of public housing has never been explained, and is beside the question. The only pertinent fact is that he does make the exception. The only important results of the fact are that public housing and federal aid for slum clearance again will be live issues in the 81st Congress.

How far public housing will get in the next session of Congress depends principally on how much public support it gets. In the contests of the past two years, public housing has had well organized, aggressive minority support from leftist elements. Resistance has come wholly from several segments of an industry trying to save itself as well as a form of government, and it will not be enough to win at the finish.

Two things will be needed in 1949. The first is a united industry switch from a defensive position to an offensive. No fight ever has been won with defensive tactics. The second is an informed public to supply the needed power for that switch. The public cannot be expected to inform itself. That is the job of the home building industry. There are about six months in which to do it. How well the industry does the job will be the final determining factor in resolving the issue of public housing.

Street of Modern



JOHN C. GROSS

SPLendid example of a modern ranch house. Simple roof line and planting box are effective

A builder of high class homes in St. Louis suburb introduces new methods in arranging group layouts

THE "Street of Modern Homes" is part of the \$5,000,000 Clayton Gardens subdivision, now being built in Clayton, Mo., a St. Louis suburb. The John C. Gross Construction Co., developers and builders of this project, have completed 35 houses with 20 more in process of construction. Prices of the houses are in two groups. One group ranges from \$18,500 to \$25,000, and the other from \$25,000 to \$40,000, depending upon location and size.

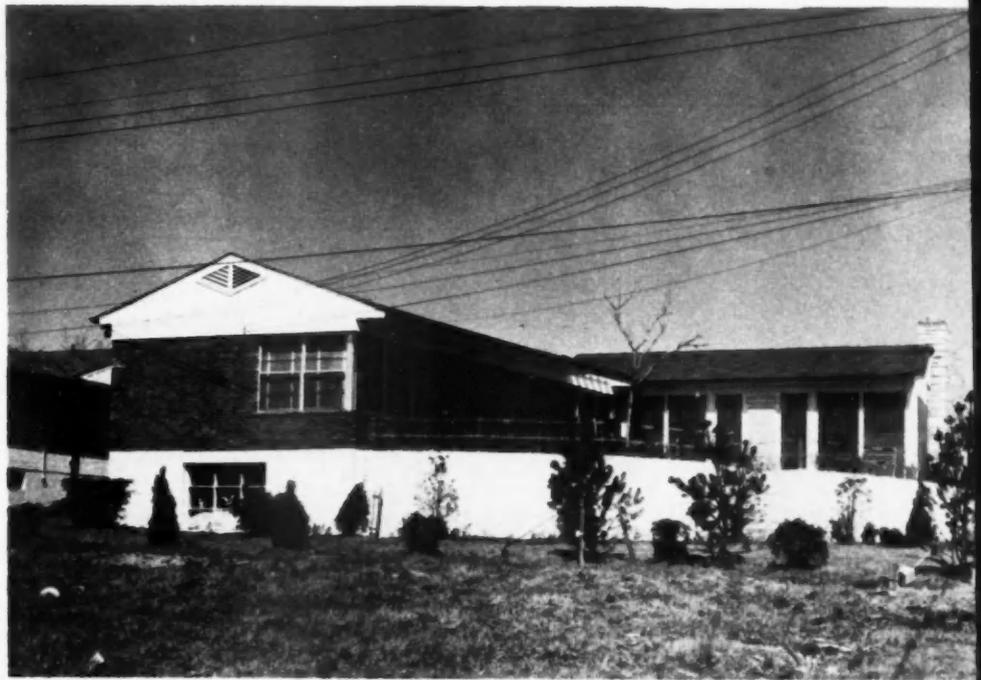
The houses in the upper bracket represent some of the best of the current work of Bernard McMahon, well known Clayton, Mo., architect. Each house is a refreshing departure in exterior treatment from the prevailing characteristics of the usual ranch and two-story houses that are built today. The adherent to the traditional can find nothing offensive in these designs, nor can the modernists reject them, as they include many favored modern features. A detail, that is being used effectively by McMahon in many of his recent home designs, is the use of extended wing walls which receive the wide overhang of roof. This feature is employed on both one- and two-story houses with equal success.

Rolling terrain and the fact that Clayton Gardens was plotted without alleys have caused the architect to



SIDE view of house above. Drop in grade provides height for garage in basement

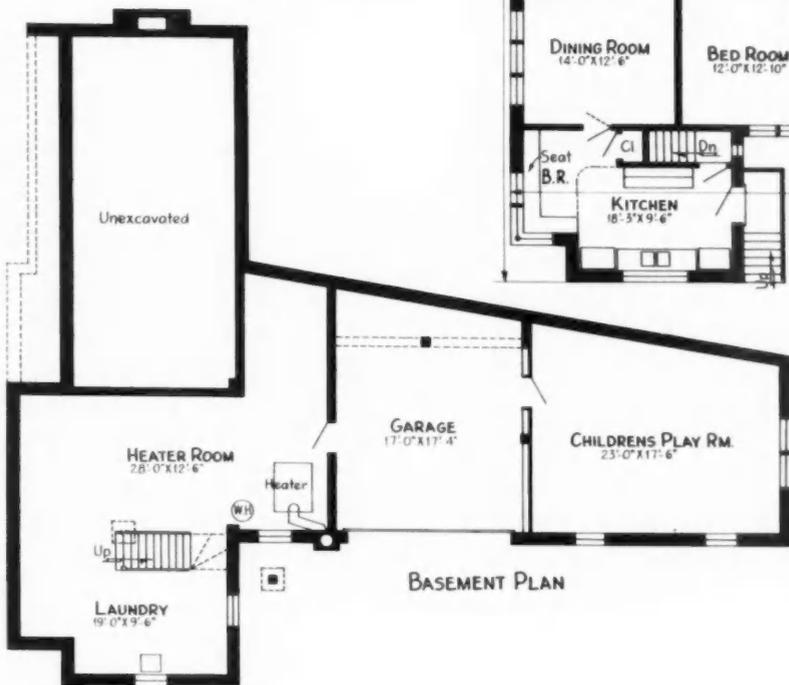
Homes



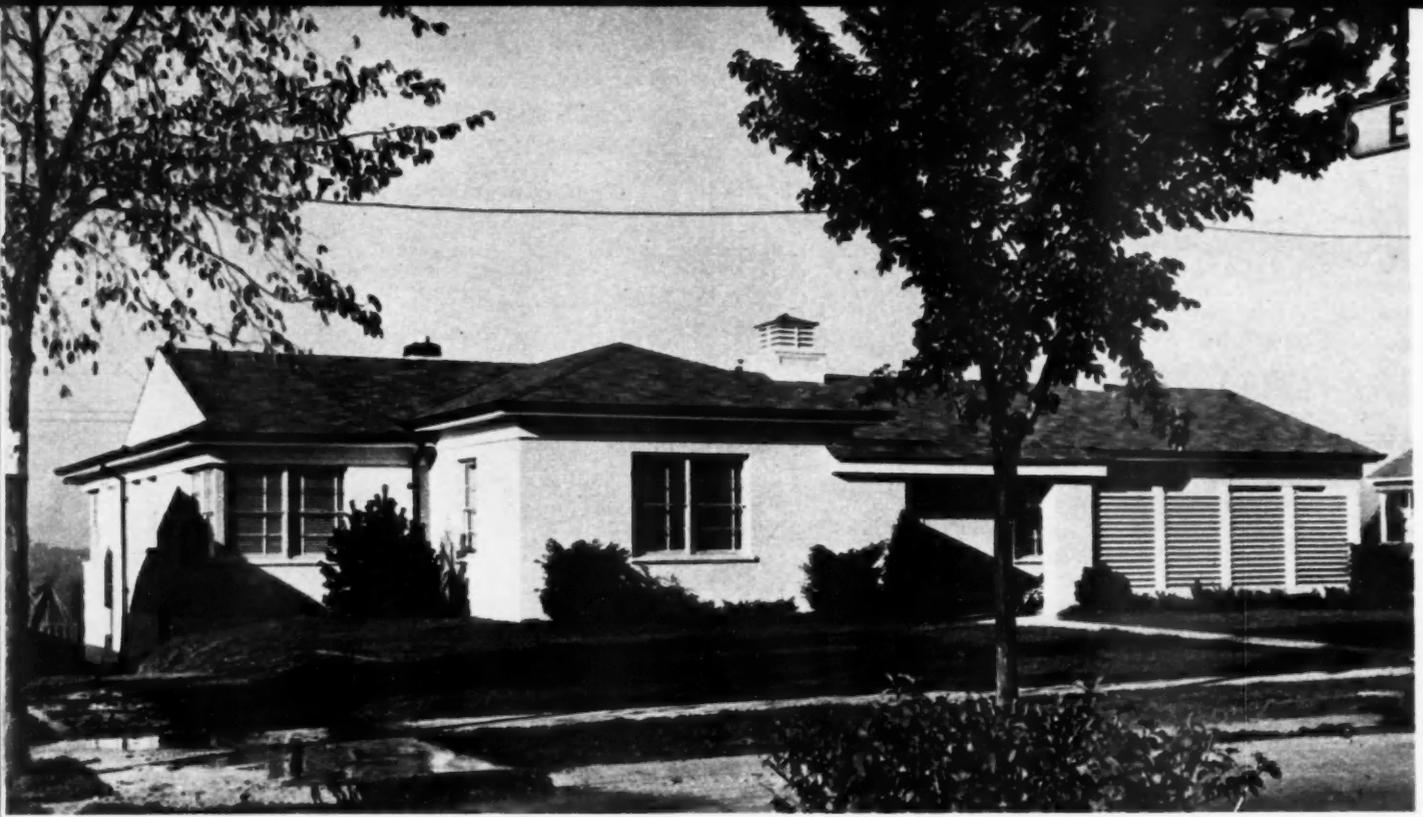
REAR and side view of house shown at left. Open terrace and lawn adjoins porch

move the service units toward the front of the houses in some cases. This fact permitted the designer to provide a service yard in front, with a fence that complements and becomes an integral part of the house design.

Rooms throughout the houses are large and spacious. Cross ventilation is provided in all bedrooms. A number of the houses have inside floor plant-



THIS house was planned to conform to building site. Situated on the highest elevation in the area, it commands an interesting view towards the town's community center. All rooms, except kitchen, have a view in that direction, either through windows, or in the case of the two bedrooms, through large sliding door openings. The large gallery, which is a continuation of the reception hall, is a feature of the house. The outside is brought indoors through a floor planting box. Large porch and adjoining terrace is conveniently located for easy access from major rooms. Children's playroom is an innovation greatly appreciated



OPEN patio is provided in front of house by enclosing area with high louvred wall. Exterior walls are common brick, painted



THE plan of the house above provides for complete segregation of all living units. The large, combination living and dining room dominates the entire plan. A feature of the plan is the enclosed patio that is placed at the front of the property. Louvred wall screens the occupants from the public. Bedroom wing is entirely separated from the living quarters. Below is the street as it was originally laid out and studied with the aid of 1/4-inch scale models. This method is used by the Gross organization in development of their high-priced home areas



ing boxes introduced in strategic areas. Porches, a necessary adjunct for the St. Louis climate, are provided in all the homes.

Solid exterior masonry walls, 12 inches thick, placed on concrete foundations, are used for both one- and two-story units. Floor and roof construction are wood. Asphalt shingles are used for all roofs.

Contrary to expectations, Gross has not used any stock plans in the building of homes in Clayton Gardens. The plans of each house or group of houses are prepared to meet a particular site or requirement. The builder recently added to his organization a young man who prepares a 1/4-inch scale model of all the houses before they are built. This method has been found to be of great value in planning the individual house, as well as determining the proper relationship of one house to the other in the block development. In this manner guesswork with regard to masses, setbacks, and walks is entirely eliminated.

If the complete story on the operations of the John C. Gross Construction Co. were to be told, it would, of necessity, include the many types of buildings this company has erected. They range from the minimum low cost dwelling, up through the medium- and high-priced homes, as well as apartments and all types of commercial structures.

In the past two years, this company has erected 28 four- and six-family apartment buildings, and completed

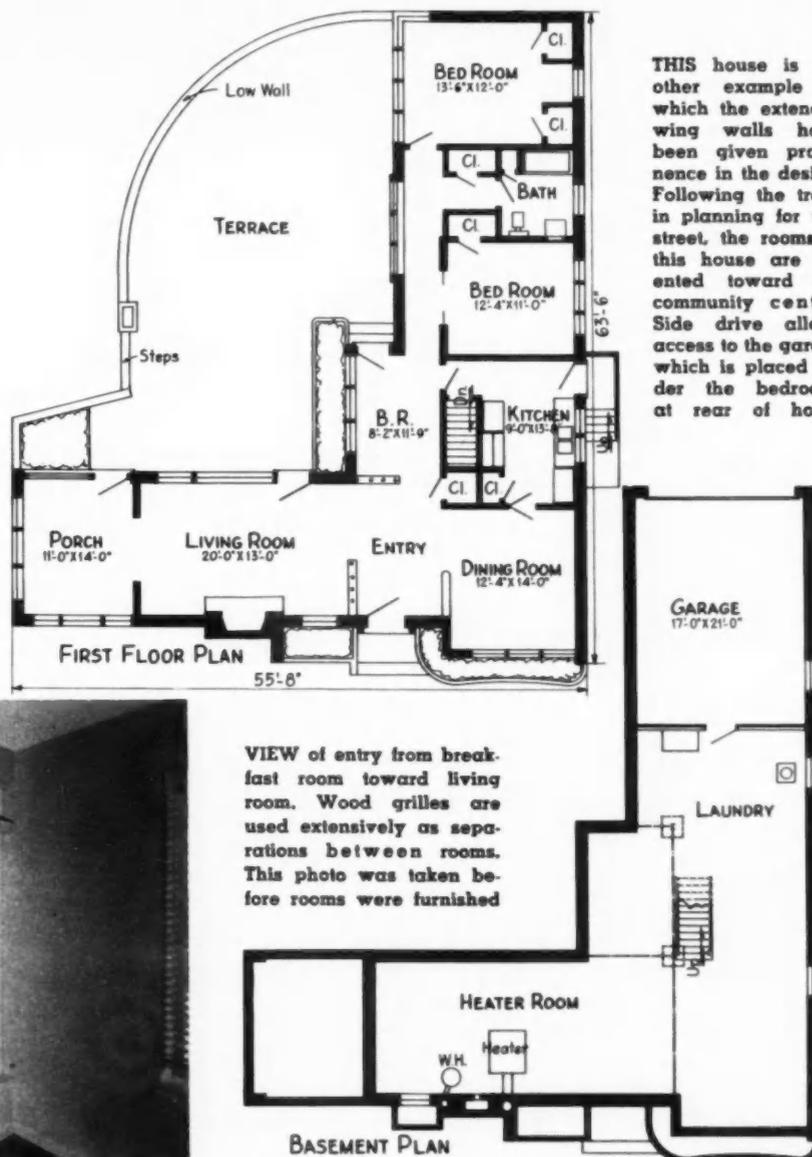


commercial structures worth an estimated \$250,000. In addition to Clayton Gardens, another subdivision known as Hillvale Park is well under way.

The field where this company excels, and the one in which it has specialized and done the greatest amount of building, has been in the construction and merchandising of medium and high-priced homes. The organization is geared to maximum production in the building as well as the selling of houses.

In the production of houses, this builder has placed the emphasis upon all types of power equipment, both on the site and at the source of supplies.

All work except plumbing, heating and bricklaying is handled by Gross. Lumber is unloaded from cars at the company's warehouse yard, where it



THIS house is another example in which the extended wing walls have been given prominence in the design. Following the trend in planning for this street, the rooms of this house are oriented toward the community center. Side drive allows access to the garage which is placed under the bedrooms at rear of house



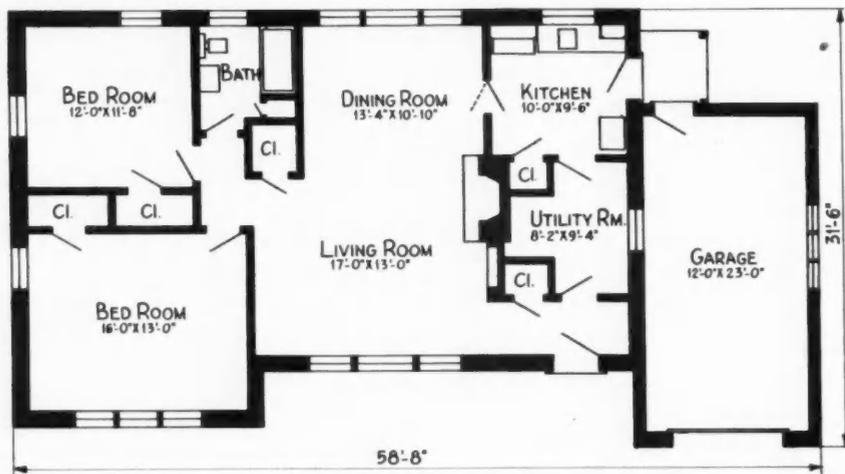


HOUSE, shown in the detailed and complete view at left and below, is in Clayton Gardens, but is not located on same street as other houses. Architecturally speaking, house has been handled so well that it was decided to include it as part of the group. Relation of the solid area to windows is especially good

is graded, segregated and shipped to the various jobs by a fleet of the company's trucks. Steel reinforcing is handled in the same manner. Aluminum windows, Sheetrock, plywood, plumbing fixtures, kitchen cabinets, refrigerators, stoves, mechanical washers, carpets, and pads are always kept on hand in the warehouse, so that all unnecessary delays caused by short supplies may be eliminated. All items are checked at the warehouse, and then are allocated to the respective jobs. The material is then delivered to the building site by trucks when the job is ready.

Excavating and the hauling of dirt is handled by Insley back hoe diggers and bulldozers. Sewer work is also done with a back hoe shovel. Two Insley motor cranes are employed for hoisting concrete and for steel erection. A Clark bulldozer and tandem roller are used for installing driveways. Most drives are finished with hot mix black top. To further facilitate the speed of operations, concrete mixing trucks were recently purchased to handle premix concrete.

Carpenters are provided with all types of power equipment, including, saws, planers, drills, hinge mortises and sanders. Where it is expedient, site fabrication is employed. The living room of a house then becomes a virtual planing mill. Fireplace mantels and special woodwork are made di-

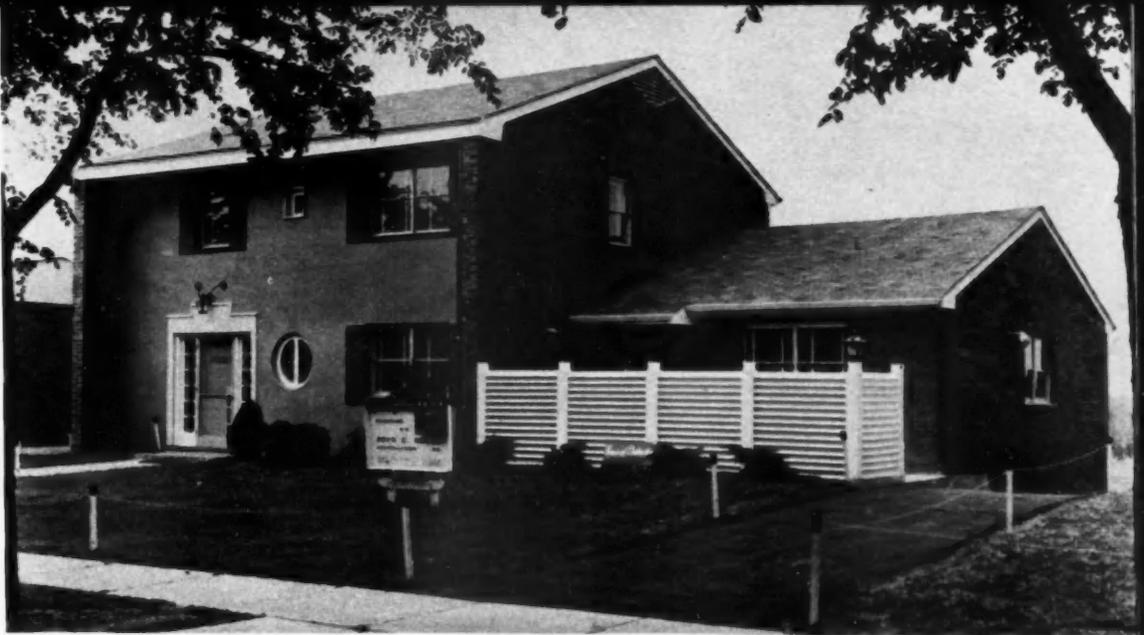


FIRST FLOOR PLAN

THIS plan is well suited to meet needs of average family. The three areas of the house, such as living, service and sleeping, are completely separated from each other, yet entirely integrated to form compact unit



TWO-story houses, as the one at right, have been used to produce proper balance and scale in the block arrangement. Extended wing walls on front of house have again been used with marked success. Interesting features are use of colored cement stucco on front wall and louvered fence enclosing service yard. Plans below provide for service units toward street, and living and sleeping areas toward rear to capture view



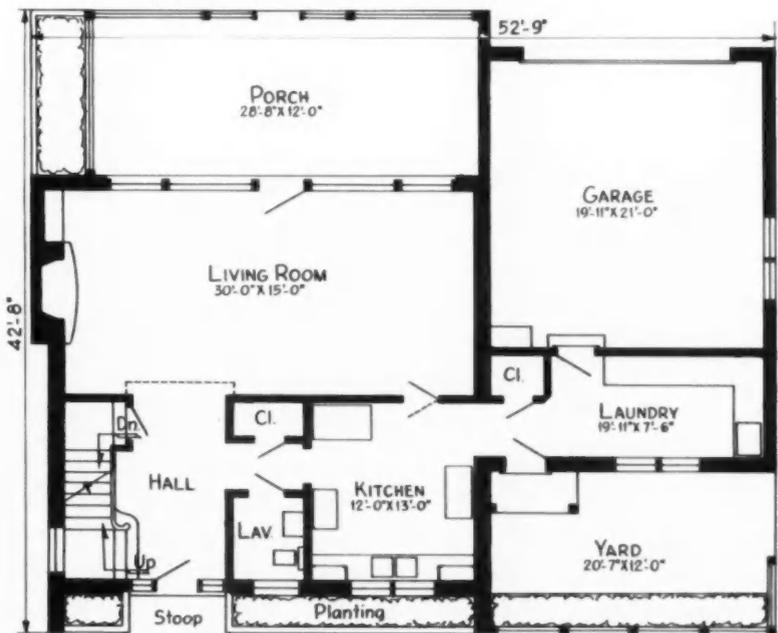
rectly on the job. On jobs where power has not yet been made available, Gross provides his own portable electric power plant.

To carry on building in the winter, a rather unique method is used to assure comfort to the workman where the house is under construction. Stewart-Warner gasoline heaters that produce 100,000 B.T.U.'s per hour are placed outside the houses, and the heat blown into the rooms through a flexible duct secured to a window.

Sale of houses in Clayton Gardens is carried on primarily through the company's own organization. Edward Gross, father of the builder, is in charge of all sales. Gross insists that the houses are to be completely finished, which includes decorating and landscaping, before they are offered to the public.



SECOND FLOOR PLAN



FIRST FLOOR PLAN



Variety

Thirteen different designs are used in 30-house project. Contemporary types are successfully combined with traditional units



AERIAL VIEW showing irregular shape of two city blocks comprising Penn Village
Photo courtesy of Minneapolis Tribune

IN A NEW section of Minneapolis, there is a recently completed, two-block development which is known as Penn Model Village. Its 30 houses show how extra value can be added to small homes by intelligent use of community planning and close collaboration between architect and builder.

Penn Model Village is easily distinguished from the surrounding neighborhood. Larger lots were used. These were arranged in an irregular pattern by curving the central street through the two blocks and eliminating alleys. Work on this project was started in 1945 by the Farmers and Mechanics Savings Bank of Minneapolis, the sponsoring organization. Original plans for Penn Village called for building 30 houses for veterans under the \$10,000 ceiling program. McEnary and Krafft, architects of Minneapolis, were commissioned as project architects and prepared five of the thirteen basic plans. Other plans were selected from the Architects Home Plan Institute, a cooperative organization of Minneapolis architects. The James Leck Co., though

primarily an industrial builder, became the general contractor.

In March, 1946, the bank publicized its effort, and work began to proceed in earnest. Then began a period of worry and soul searching. Houses by the hundreds were standing partially completed for lack of vital building materials. Costs were soaring. The architects rejected plan after plan to keep costs from exceeding the GI priority limit of \$10,000. Many of the dream gadgets and wrinkles that had been considered were completely forgotten. The story of the building operation was a tale of rising prices and shortages. These difficulties called for extra efforts from both architect and builder. It was nearly a year from ground breaking to final completion. Sales were completed in the fall of 1947, and the last house occupied in December, 1947.

At this time the promotional picture was as bright as the building picture had been dismal. More than 30,000 people came to look at the houses. Toward the end of the public exhibition, the visitors to the Vil-

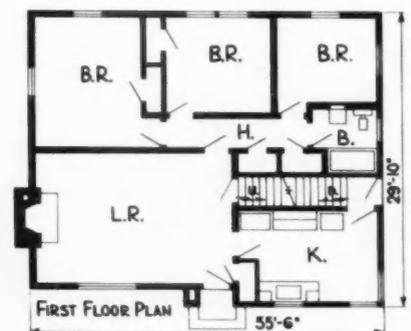
lage were asked to express their opinions on the architectural features. In most cases, they voted for the more traditional features. They showed a marked preference for hipped roofs as against flat roofs. They voted for horizontal siding over shakes, shingles, vertical boards, or battens. They preferred drab to bright colors. They insisted on attached garages, on fireplaces, on dining rooms or dining alcoves. Large picture windows and plenty of glass area received unanimous approval.

There was another group that rendered a somewhat different verdict. These were the actual purchasers. The more advanced design features, not too popular in the mass survey of opinion, proved no barrier to sales. This indicated that a demand does exist for reasonable and intelligent departures from the normal in small house design.

Most of the original owners of Penn Model Village homes are hard at work furnishing and landscaping their properties. In a few cases, homes have been resold. The prices, at which these recent sales have been



PROJECT during construction. Site fabrication methods and power tools widely used



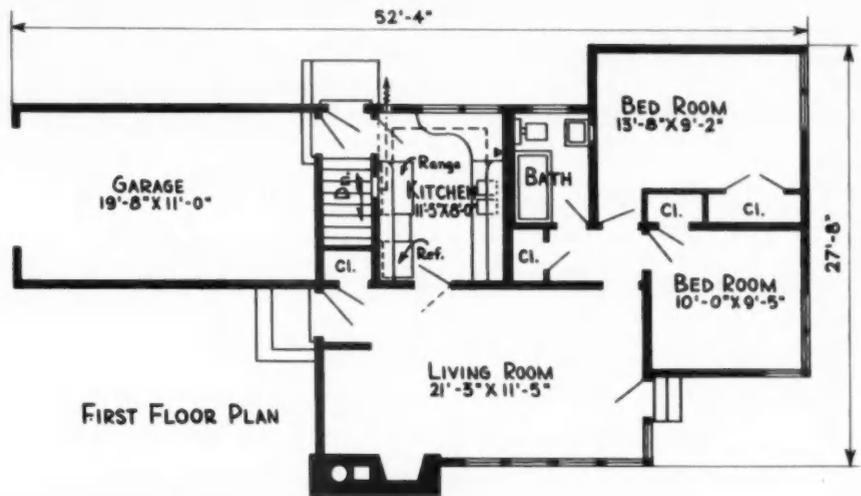
THIS plan includes three bedrooms across rear, full basement and attic

Adds Value to Penn Model Village



THIS modern design by McEnary & Kraft, project architects, offers a compact two-bedroom arrangement with attached garage. Exposed rafters on overhang adds a note of interest to shed roof. Plan of first floor at the right

made, are substantially above the ceiling prices at which they were originally sold. It strongly indicates that the "extras" that went into the planning of the Village created more than compensating "extra" values. It may well be that such extra values will make a lot of business for the house builder when the era of tough competitive building arrives again.



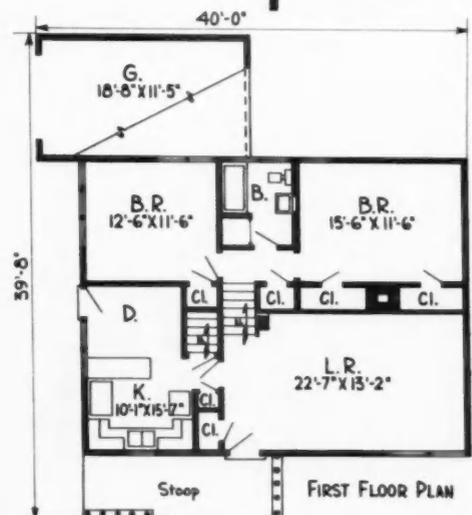
THE traditional house, at left, with its modern fenestration, is taken from a design by the Architects Home Plan Institute. Ample space for additional bedrooms is provided in unfinished second floor area



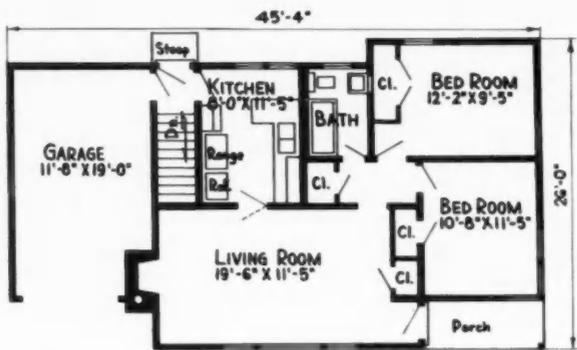
THE flat roof, split-level house of contemporary design provoked most of the comment from the visitors to Penn Village. The two bedrooms shown in plan at right are raised a half story above the living room level. With this type of arrangement an abundance of light is obtained for all rooms, including the basement. View below shows the story-and-a-half living room. This design was prepared by project architects



BASEMENT PLAN

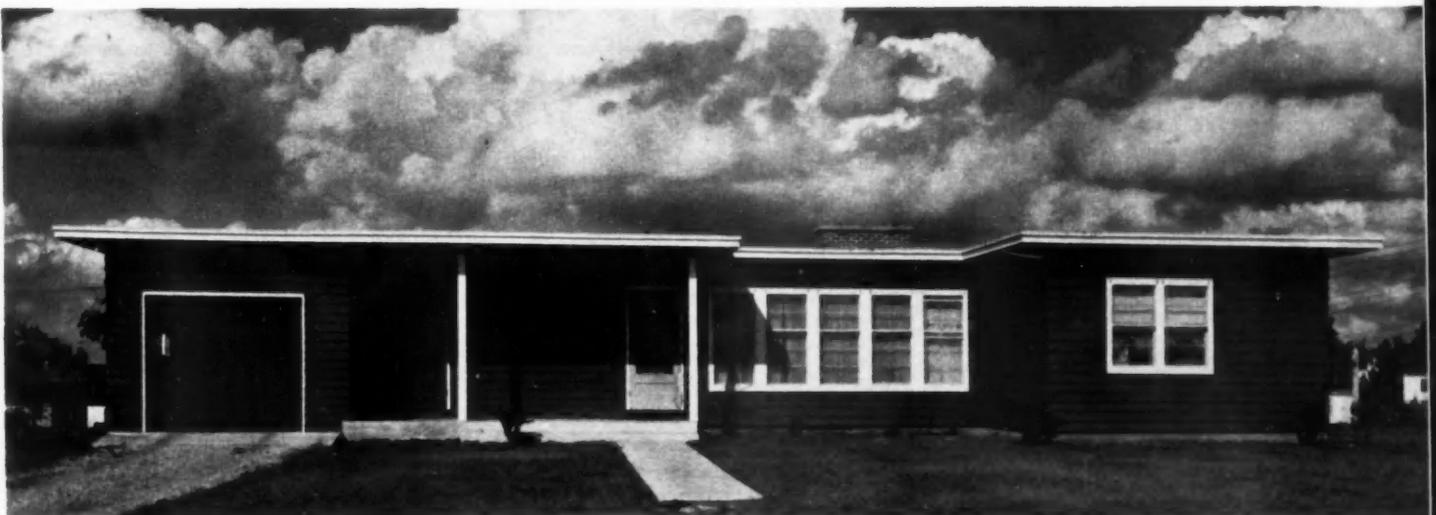
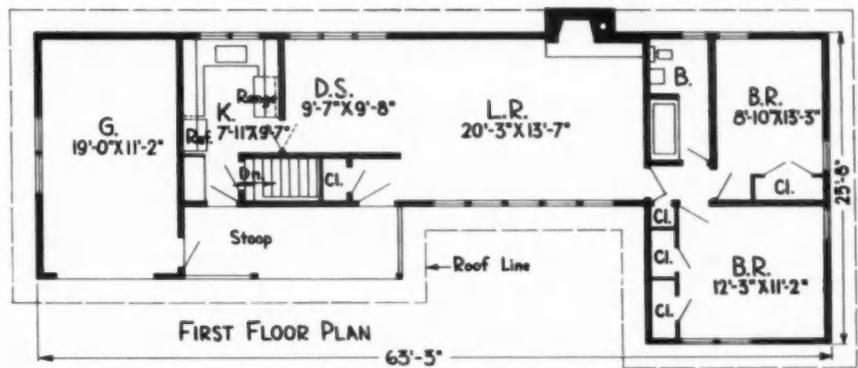


FIRST FLOOR PLAN



ONE of the smaller houses, also designed by McEnery & Kraft, project architects, contains 1,020 square feet exclusive of garage. An interesting effect is obtained on the exterior by the overhanging roof and the assimilated effect of hand-split shakes on sidewalls. A compact arrangement of rooms is achieved in plan shown at left. Basement is provided under the entire area

MODERN flat-roof example shown below provoked considerable comment from visitors. The plan at right shows two-bedroom layout with a combination living room and dining space that is 28 feet long. This house is suitable for either a narrow or a wide, shallow lot. Designed by McEnery & Kraft, project architects





A Neighborhood



Careful planning plus conscientious attention to quality of materials and workmanship result in a group of 200 houses in the \$12,000 to \$13,000 price range that have a great deal of individuality and character. The small "extras" this firm gives in houses are popular with buyers

A GOOD neighborhood does not 'just grow.' It must be planned." This is the attitude of Reid-Paterson, Inc., developers and builders of Meadowood of Birmingham, a suburb of Detroit, Mich. The good planning going into Meadowood, however, is amply supplemented by careful buying of all materials plus meticulous supervision of their application. As part of the policy of "planning from the ground up," this firm replatted the subdivision which was originally made up of 40-foot lots. The lots now average 46 feet in width and 130 feet in depth, providing 18 to 20 feet between houses.

Giving a little "extra" in design and quality has paid well in this development. Sales expenses are held to a minimum and home purchasers are enthusiastic about the homes they own and the future of their neighborhood. The houses are not ordinary—inside or out. Special care in design gives individuality to each house in the low-cost project. Care in selection of materials and workmanship assures stability and permanence in

each house. Where 2x8 joists would ordinarily be satisfactory and pass all inspections, Reid-Paterson are using 2x10's. All rafters are 2x6's. Three $\frac{3}{8}$ -inch reinforcing rods are placed about the fifth course up on all the cinder block foundations to virtually insure against cracking from lateral pressure. Each foundation is water-proofed below grade, inside and out, with IPC compound. For the inside coat this material is mixed with white cement and water and results in an enamel-like, white finish impervious to water.

Although the exterior of each house is individually designed, five basic floor plans are used, although even these are varied in each job. Two houses with similar plans are never placed side by side. When the project is completed there will be about 200 houses in Meadowood. Beneicke, Pajot & Lorenz, architects, do the designing for Reid-Paterson. Veterans are being given preference in all purchases and with few exceptions all houses finished have been delivered to veterans.

Price range on the houses is between \$12,000 and \$13,000. This includes a ribbon side drive to the garage site and sod on the lawn back to the rear line of the house. Variation in appearance of the homes is not only achieved in the designs themselves, but location of chimneys is varied, brick colors and wood trim are changed, walks are curved differently and house setbacks are varied to further add to the individuality of each.

In addition to the kitchen door which opens to the rear or to the side of the house, a French door is always installed to open to the rear yard. Sometimes this is from the dining room, living room or even from a bedroom. This is done to make it easy for the owner to add a screened porch, terrace or sun parlor at a later date. Basement windows are arranged so they will not interfere with any sizable addition to the rear.

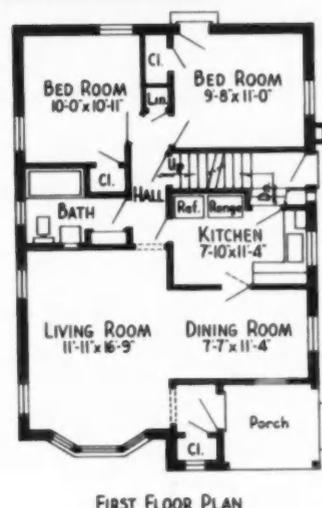
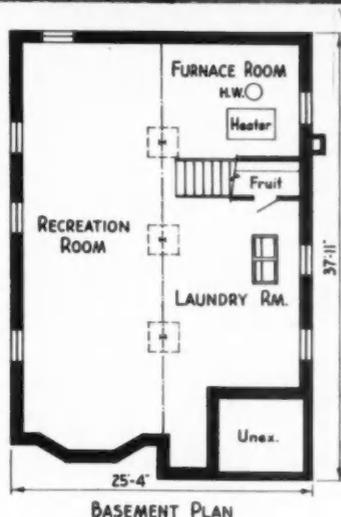
The houses are brick veneer over frame with insulating board sheathing. Hardwood floors are sanded and finished on the job. Interior walls

Planned from the Ground Up



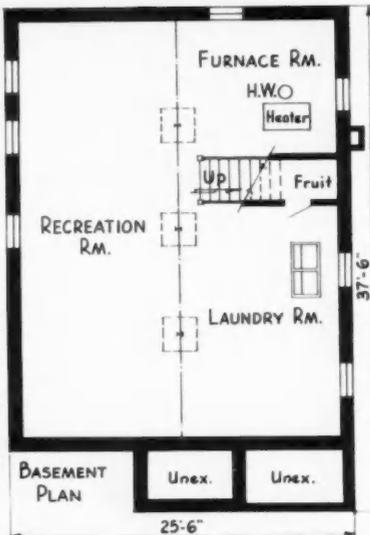
are plastered with a special mixture of vermiculite for aggregate. This adds some insulating effect, although the houses are insulated with cotton batts. The living rooms and dining rooms are plastered with a drop cove, another small "extra" this firm gives. Many bedrooms also have coved ceilings. Curtis windows are used throughout and are varied in sizes and arrangements to achieve many pleasing combinations. Kitchens are equipped with wood cabinets, made individually, on the site, for each job. Counter tops and splash backs are linoleum. A six-inch cove base of linoleum makes the kitchen linoleum floor attractive and easy to clean. No house is built without a vestibule closet. A package receiver for each

ABOVE is a typical street view in Meadowood of Birmingham. Exteriors of the houses are individually designed over five basic floor plans, with no two similar houses placed adjacent to each other. Individuality is further attained by variations in colors of brick, exterior trim and location of the chimneys





THE house at left is priced at \$12,450. This includes a concrete ribbon drive to the garage site and the lawn sodded back to the rear line of the house

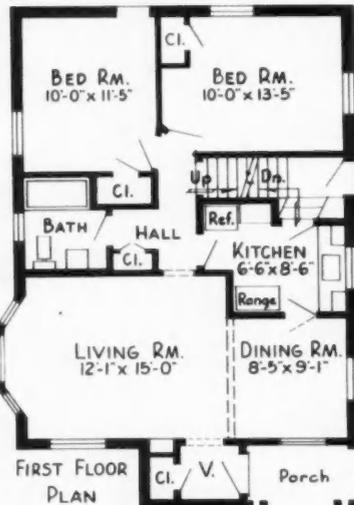


kitchen is standard, and a completed small storage room with shelves for fruit jars and miscellaneous items is included in each basement. The furnace, water heater and laundry facilities in the basements are arranged so they occupy one side or one end only, thus providing ample, clear room for recreational or hobby purposes.

Each bathroom includes a shower, with walls and floors covered with ceramic tile. Plenty of well-placed closet and storage space is planned in each house, including attractive built-in bookshelves in each living room.

Unfinished attics are all planned so that living quarters can be built there at minimum expense. A built-in stairway to each second floor is always provided. It is also standard practice to place two windows in each end of the attic and where this is not done there is usually a dormer to give the equivalent amount of ventilation and light. Heat ducts and wiring are stubbed to the attic floor level. Heat is supplied by oil-fired, forced warm air Armstrong furnaces.

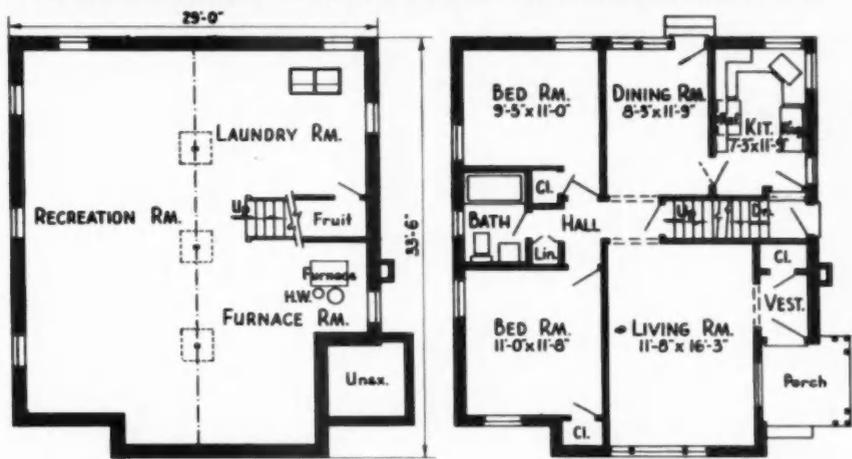
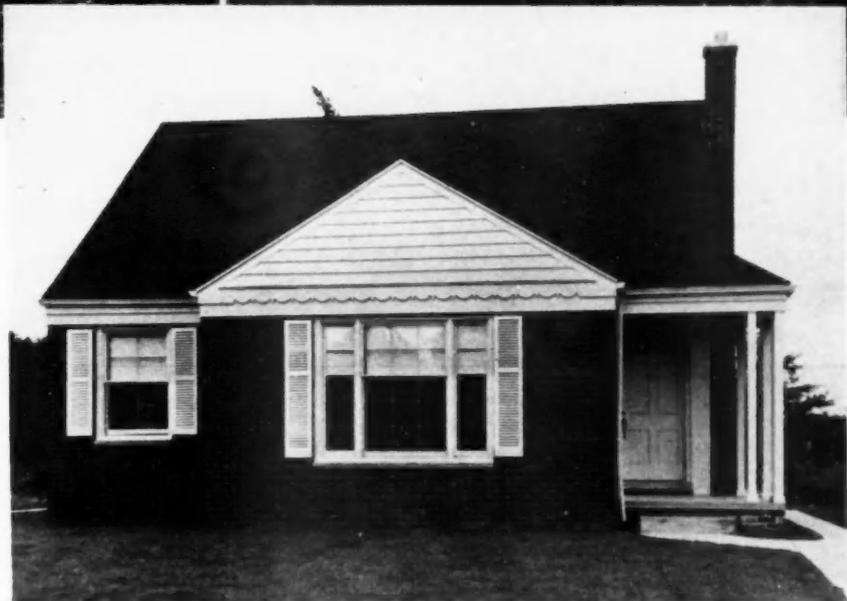
Wallace E. Reid is president, Hamilton H. Paterson is vice president and treasurer, and Miss E. M. Cool-



THIS is the plan for the house above. Vestibule closet, coved ceilings in living and dining room, package receiver in kitchen are the "extras" included



EACH house is given some type of detail treatment to make it different from any other house in the project. Two examples of what is being done can be seen above. Although there are other houses in the project built over the same basic floor plan, exterior appearance is so varied that each house has its own individuality



BASEMENT PLAN

FIRST FLOOR PLAN

IN ADDITION to the kitchen door which opens to the rear or to the side of the house, all houses in this development have a French door opening to the rear yard from the dining room, living room or a bedroom. This is done to make it easy for the owner to add a screen porch, terrace or sun parlor at a later date without excessive cost. Basement windows are also arranged so they will not interfere with plans if such an addition is made

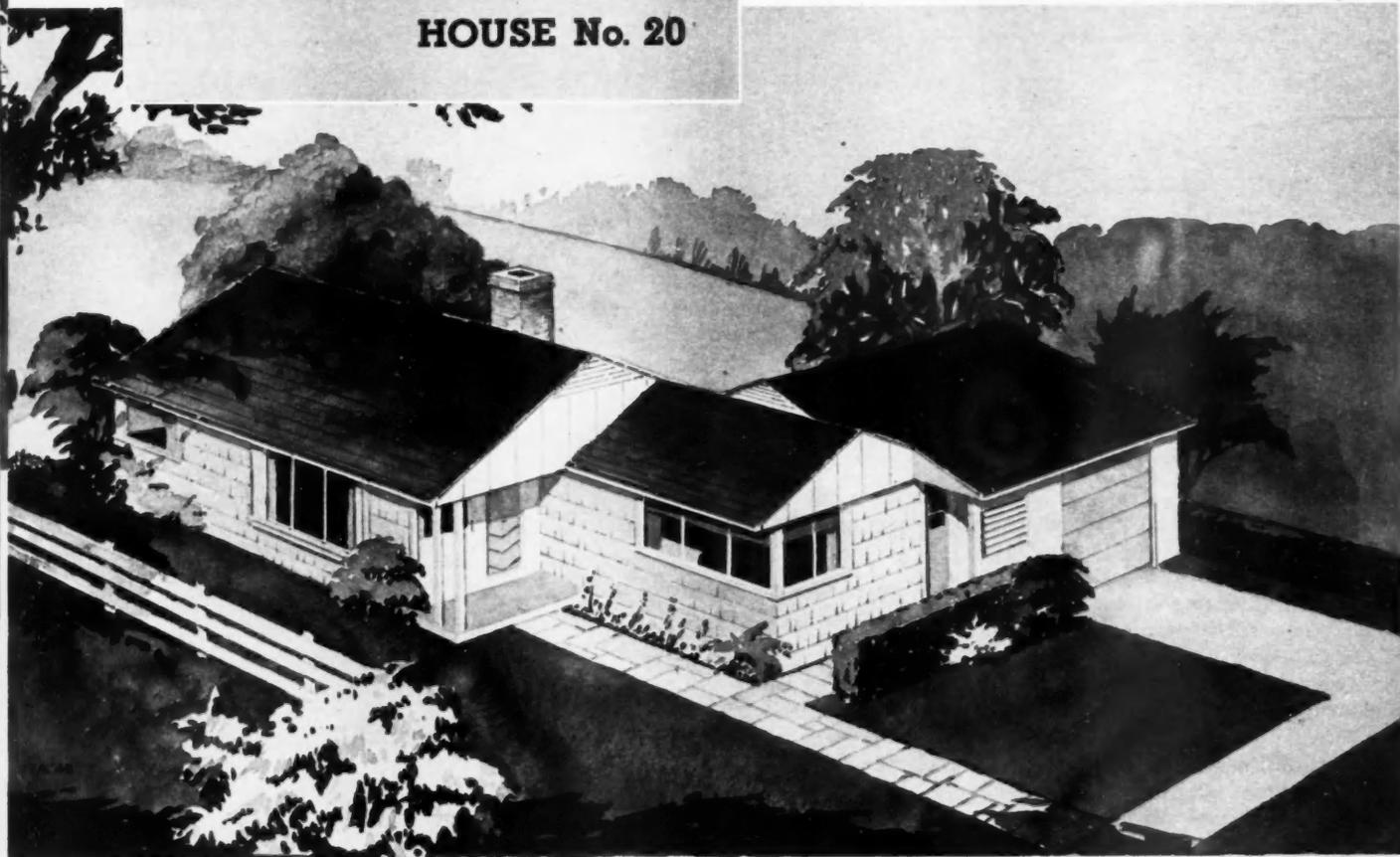
sen is secretary of Reid-Paterson, Inc. Both Reid and Paterson spend much of their time on the construction jobs supervising and checking to assure quality workmanship, and maximum output by labor. This gives the workmen closer contact with the "office" and avoid delays and misunderstandings that often add so many extra dollars to construction costs. Many employees have been with Reid-Paterson for at least 10 years and the majority of the men follow the lead of their employers in taking pride in their work and the quality of it. Power tools are used extensively on the job, where the various men are trained and have become specialists in doing the different operations according to the standards established by Reid-Paterson.

In conformity with the firm's policy of avoiding delays and dissatisfaction on the part of home purchasers, no house is sold until it is completed and the final price established. This also permits tenants to move in without disturbance from workmen entering the house to complete small jobs here and there which disrupt normal living for the family occupying the new house. Considerable attention is given to selecting families which will tend to have common interests, in addition to being in about the same age and economic group. The project is located within a few minutes' drive from the principal shopping district of Birmingham, and good transportation is available to Detroit where many of the owners are employed.

Anicka

Blueprint

HOUSE No. 20



THIS house is adapted for use on a narrow city lot. Its effectiveness lies in the simplicity of plan and elevation

Economy House for a Narrow Lot

FROM the office of Walter T. Anicka, architect, Ann Arbor, Mich., comes the blueprint house for this month. It is designed primarily for a lot not more than fifty feet wide. By removing the garage from the house and placing it at the rear of the property with a driveway from the front, it would be possible to reduce this width to forty feet.

A total of 870 square feet, exclusive of the garage, comprises the area of this house. Five rooms, including two bedrooms, bath and ample closets are included in the overall floor plan. This type of house makes a direct appeal to the veteran, as well as the large scale operator who builds for the mass market, because of the possibilities of economy.

For purposes of economy, the architect has avoided all unnecessary breaks in the exterior wall surfaces. He has attempted to hold to a basic rectangular shape, insofar as it was consistent with good planning. The simple yet effective lines of the roof reflect the restraint exercised in the contour of the exterior walls.

Consistent with Anicka's planning, the service units have again been placed toward the front of the property. To the left, adjoining the kitchen, is the entrance porch leading directly to the living room. The position of entrance and service doors permit economy in the use of walks and driveways. Access to the rear of the property is obtained through the door from the dining room. The

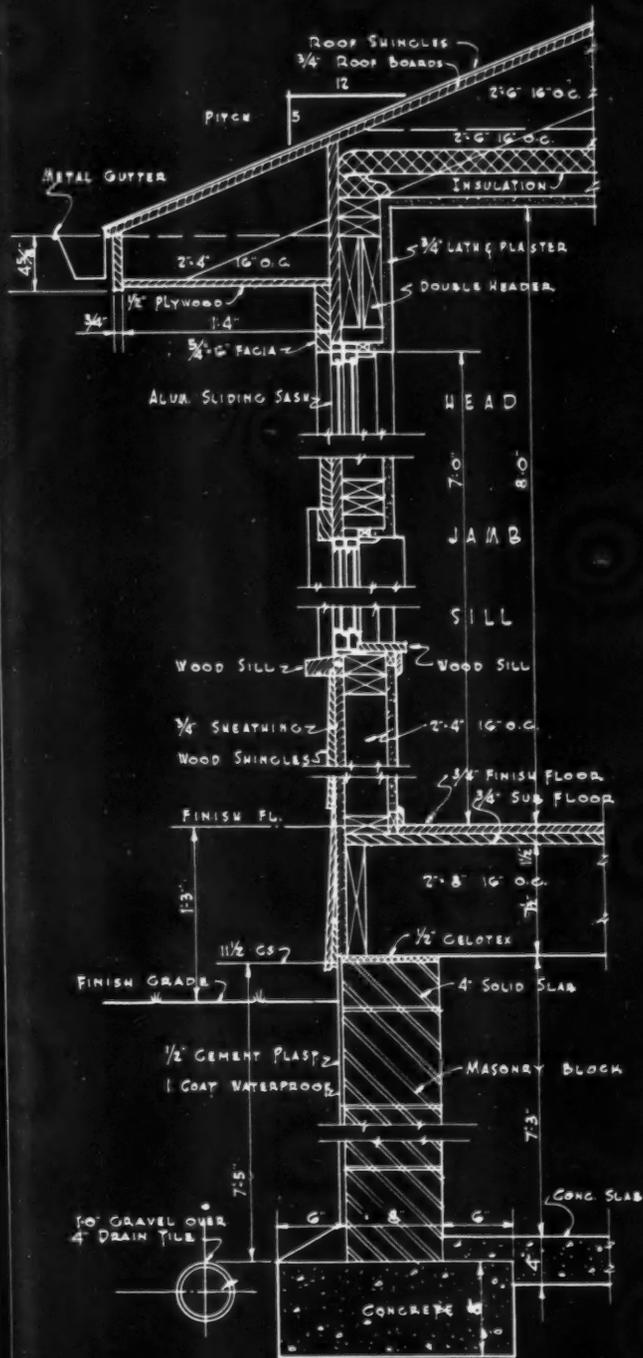
basement which is partially excavated contains a laundry and recreation room.

Exterior walls are faced with double-coursed wood shingles spaced 12 inches apart. Shingles on the roof are of wood with every fifth course doubled. Windows throughout are of aluminum with sliding sash.

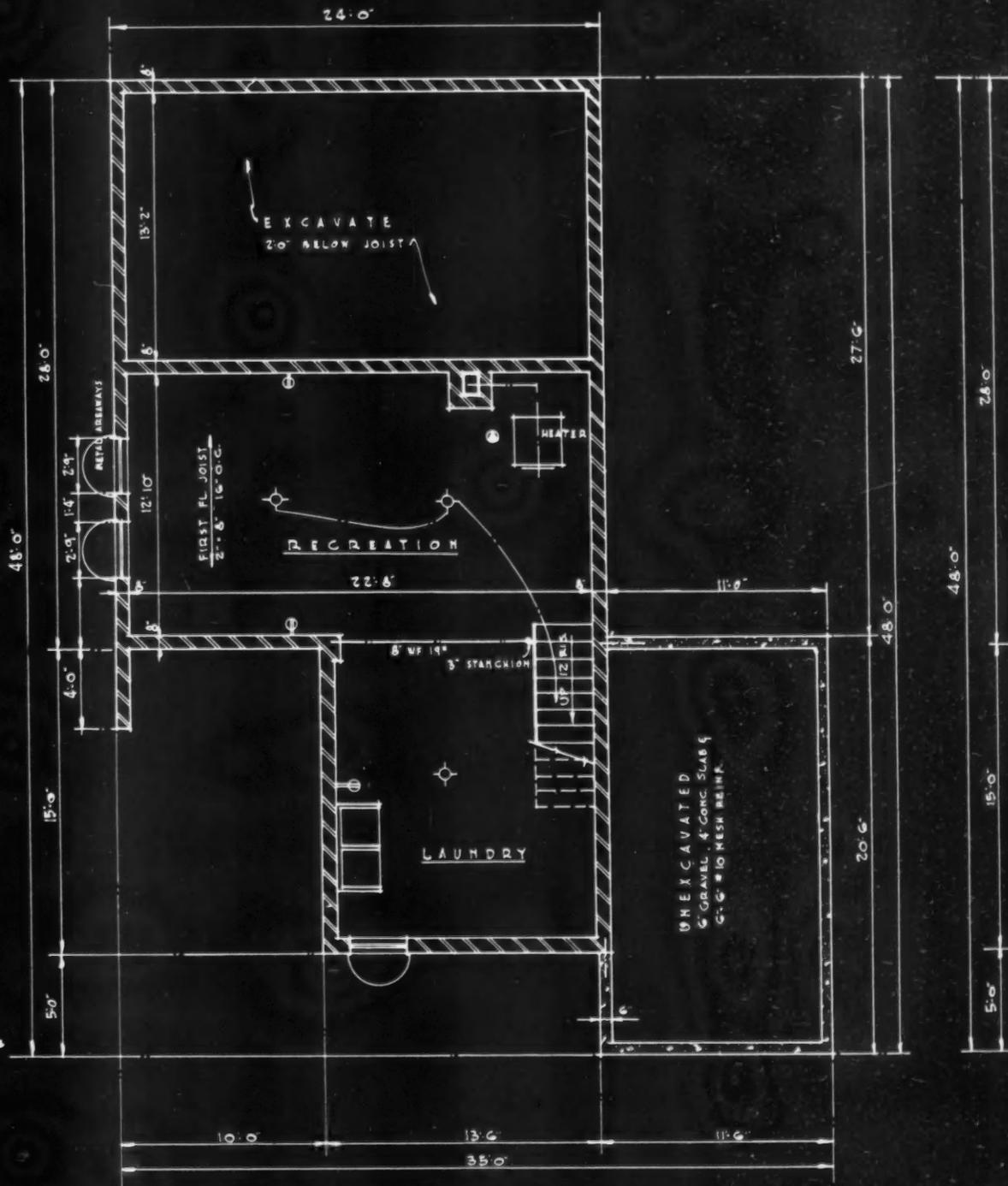
Because of a typographical error the Anicka blueprint house published in the August issue was given the number 17. It was number 19.

To avoid confusion when ordering plans, please be sure to mention the month and year of the issue in addition to the house number.

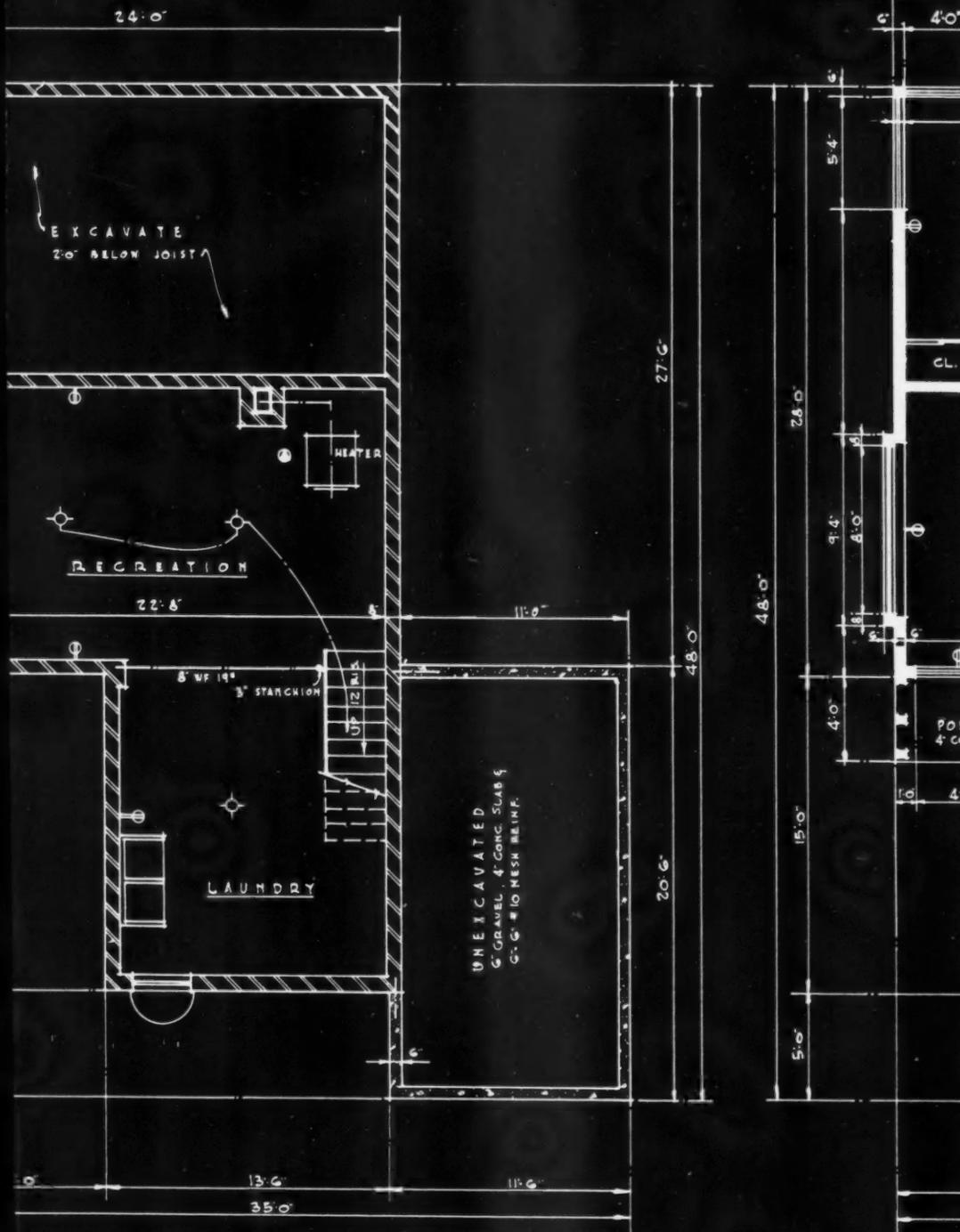




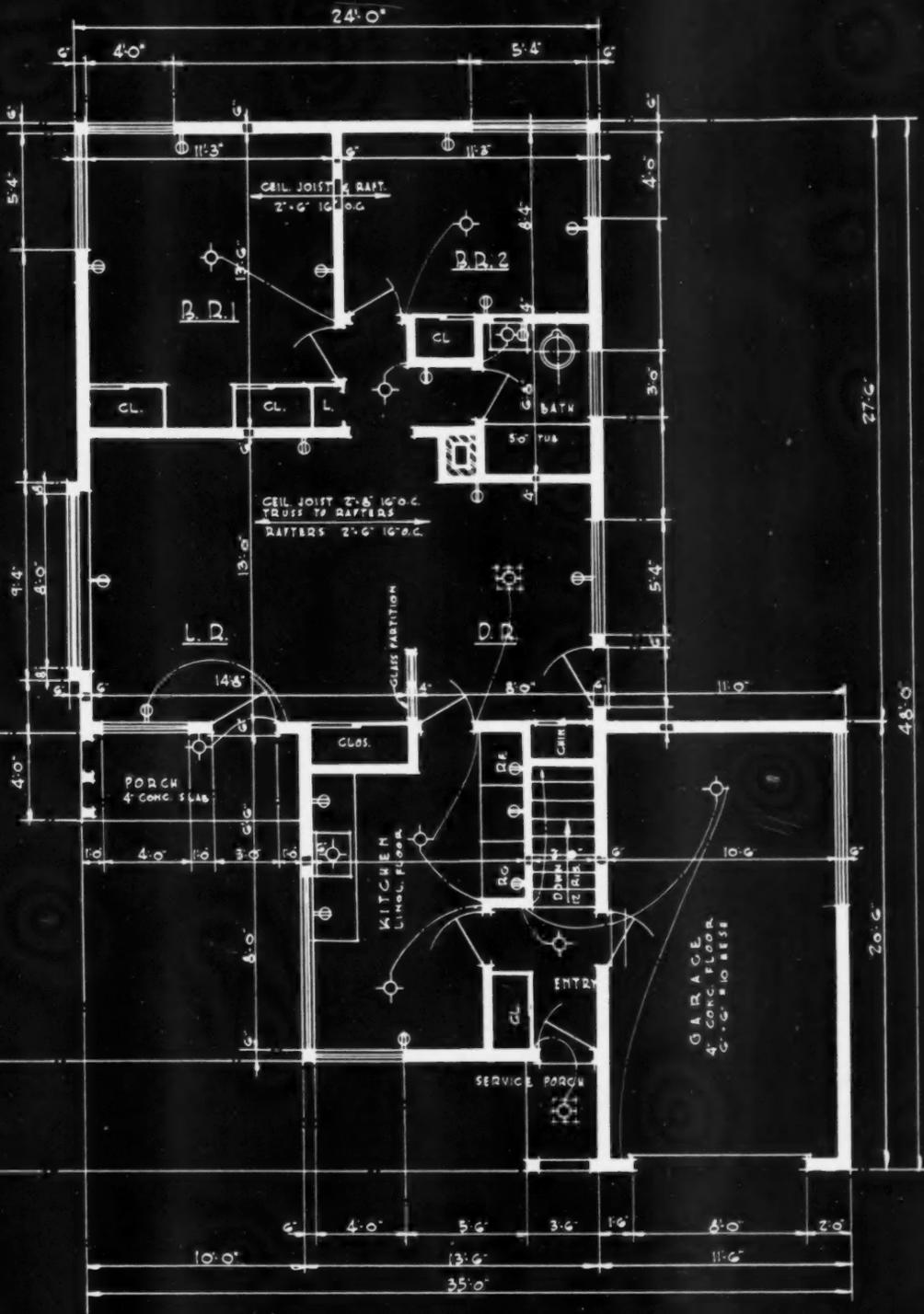
TYPICAL WALL SECT.
SCALE 3/4" = 1'-0"



BASEMENT PLAN.
SCALE 1/8" = 1'-0"

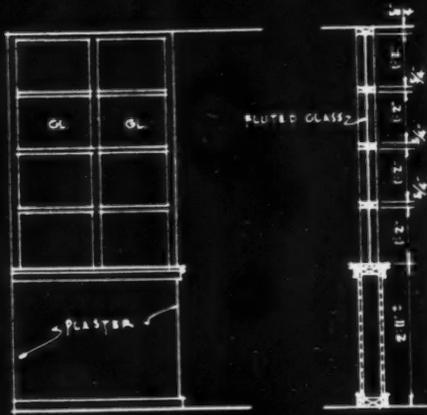


· BASEMENT PLAN ·
SCALE 1/8" = 1'-0"



• FIRST FLOOR PLAN •
SCALE 1/8" = 1'-0"

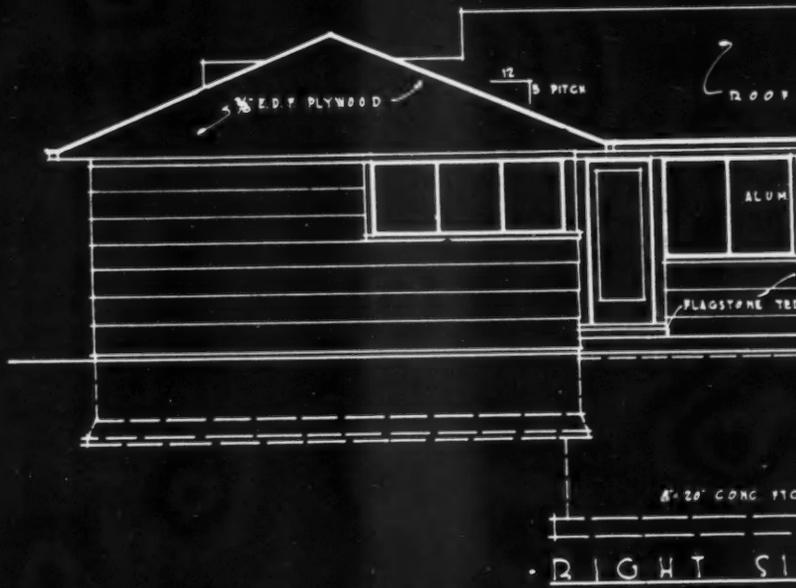
DESIGN No. AB 133
 AMERICAN BUILDER BLUE PRINT SERIES
 Designed By
 WALTER T. ANICKA. ARCHITECT.
 Ann Arbor, Michigan.
 Simmons Boardman Pub. Corp. 105 W. Adams St. Chicago Ill.



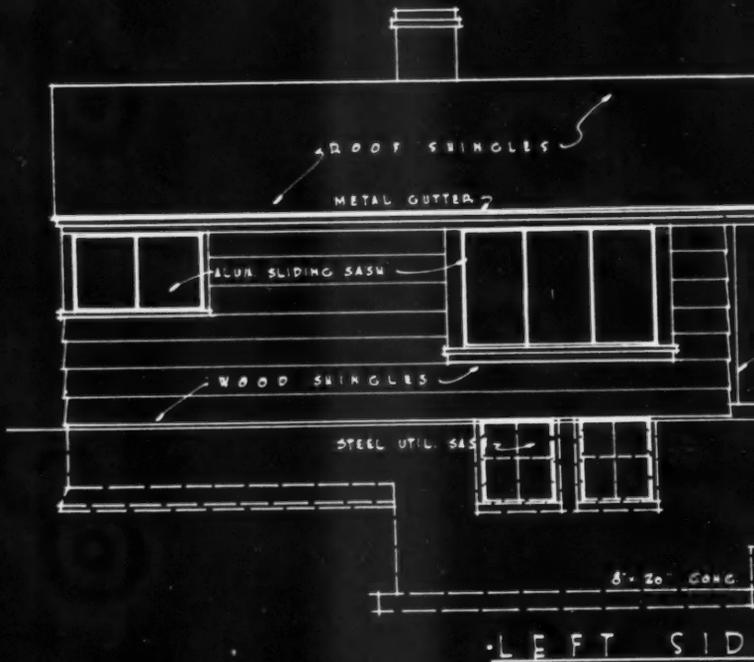
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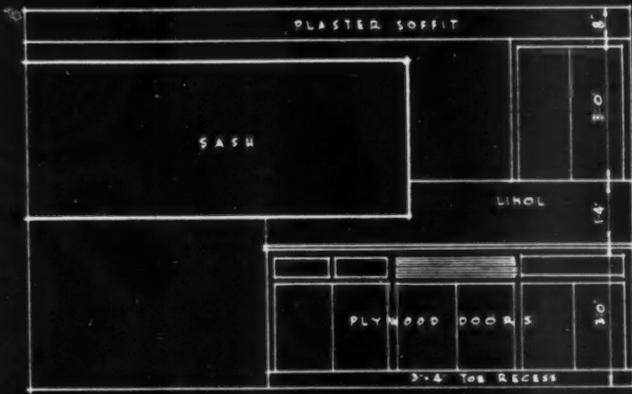
GLASS PARTITION
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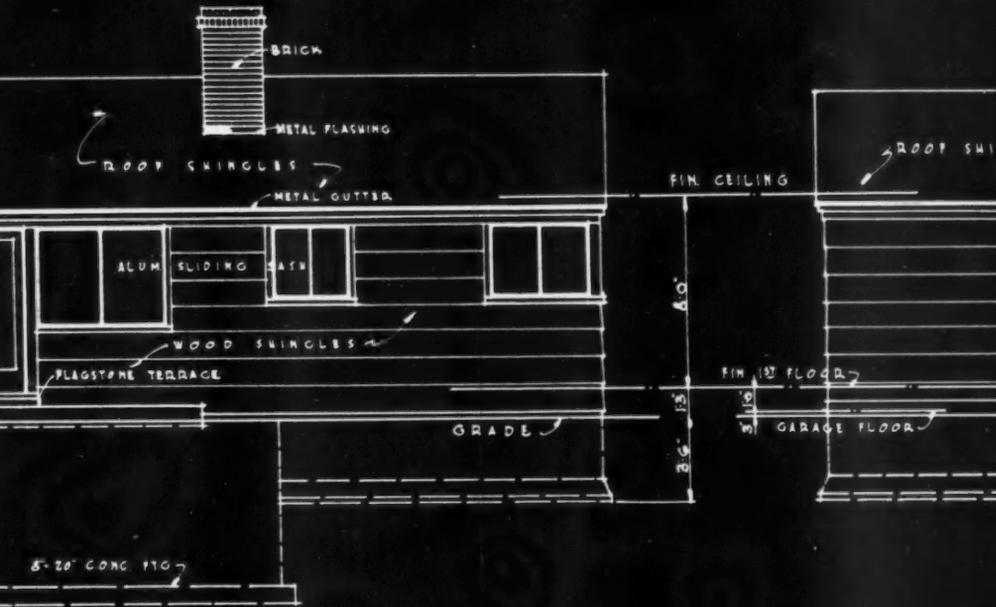
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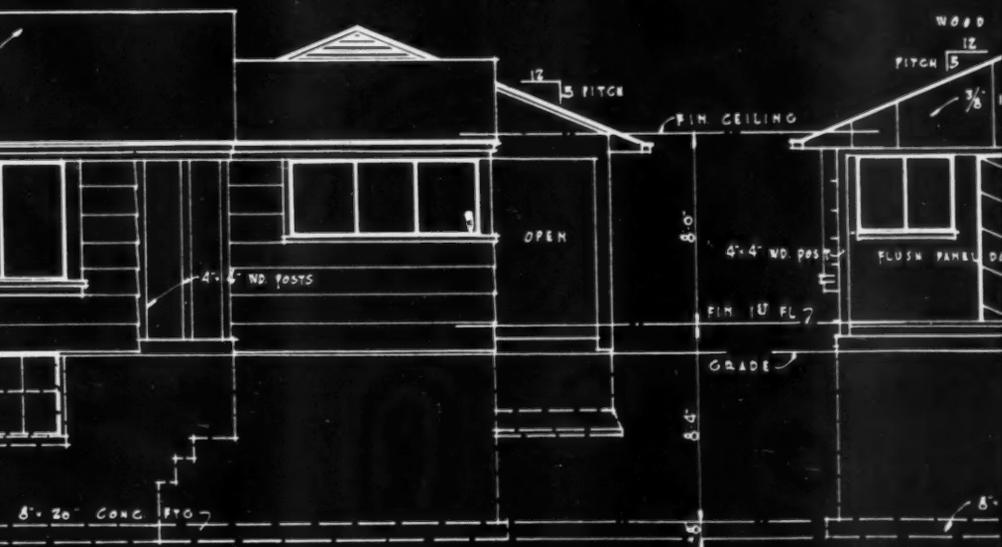
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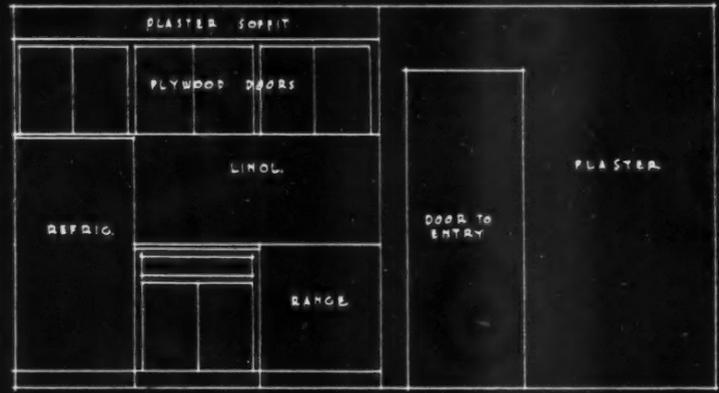
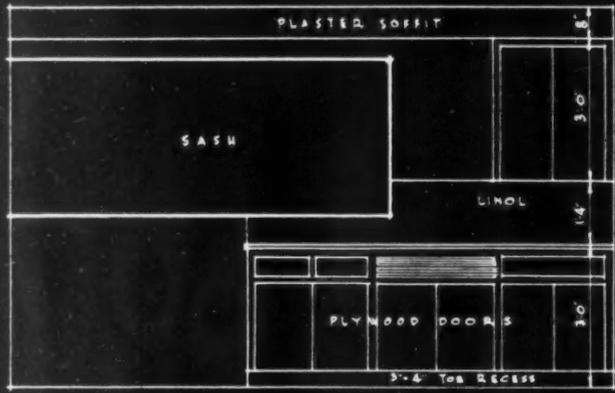


RIGHT SIDE

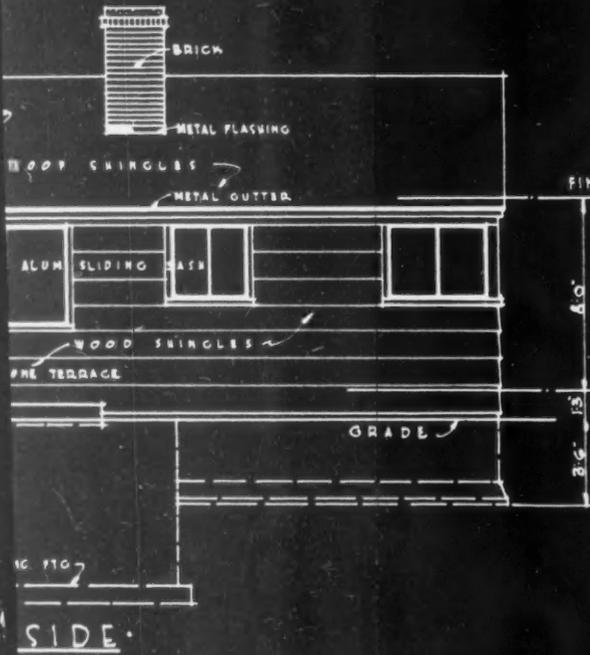


FRONT SIDE

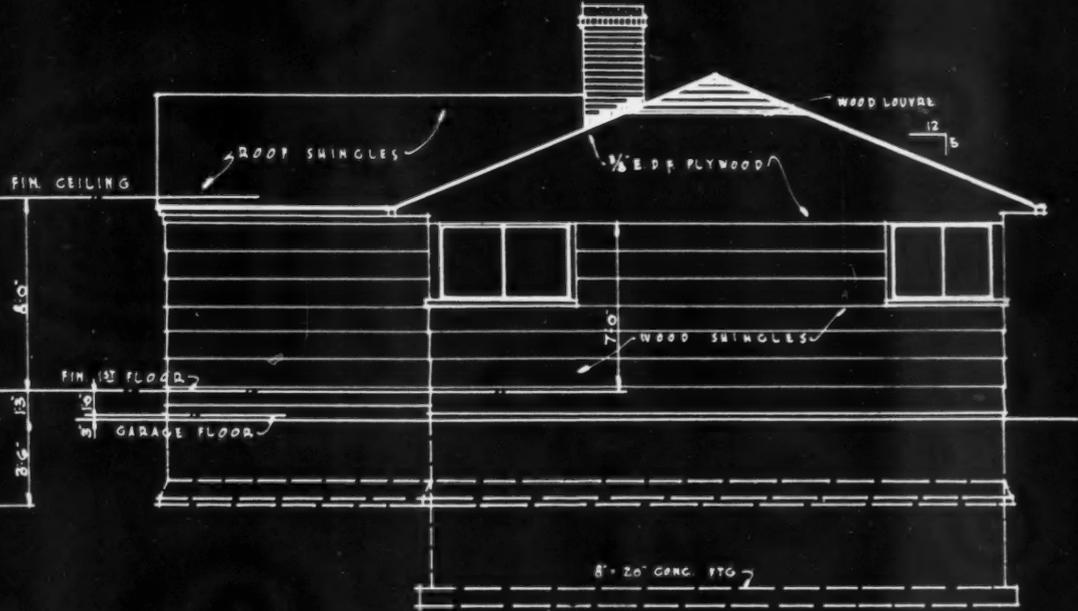
ELEVATIONS
SCALE 1/8" = 1.0'



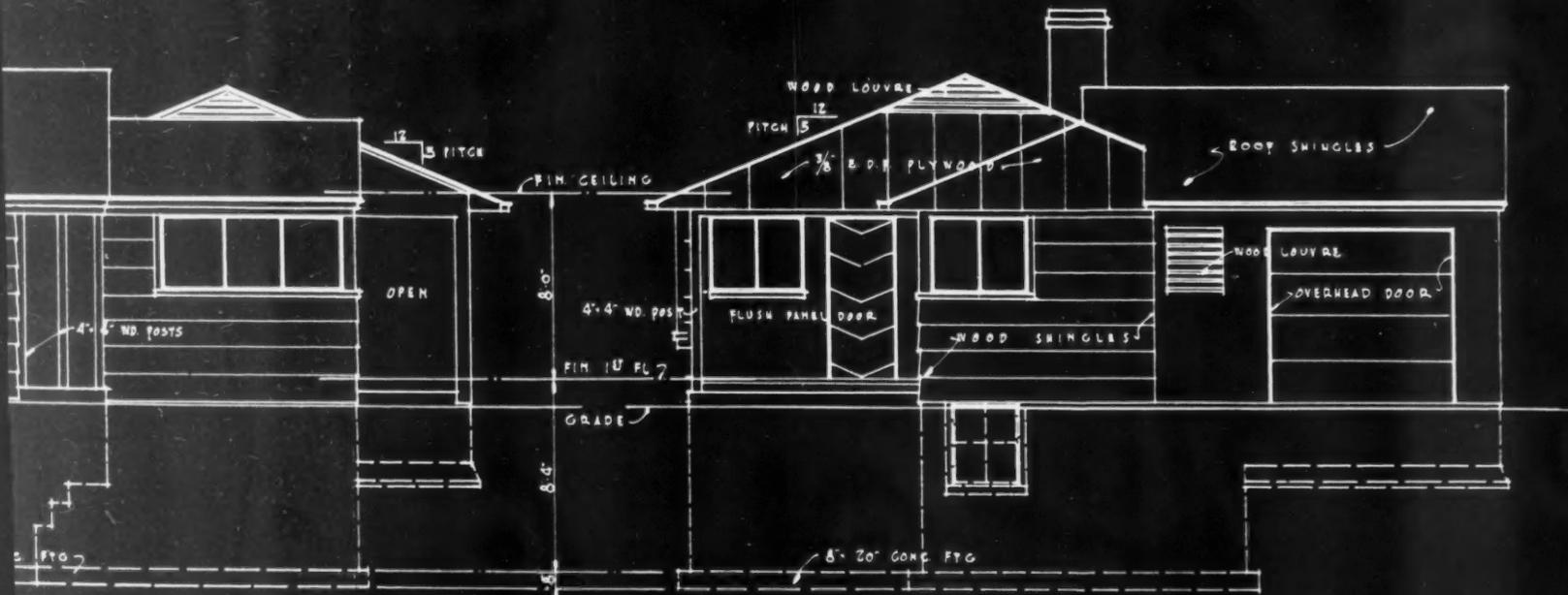
• KITCHEN DETAILS •
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• SIDE •



• REAR •



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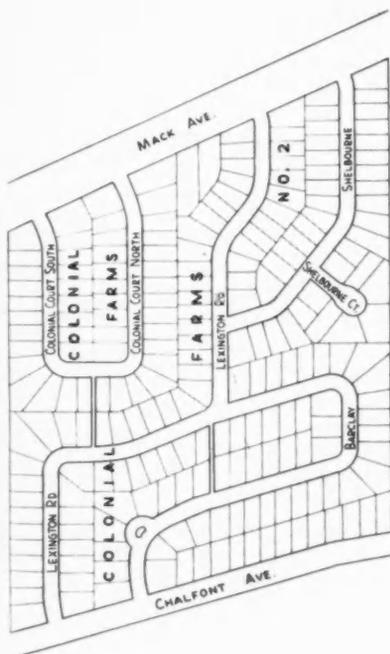


Controlled Development Assures Value

THE one-story, story-and-a-half and two-story houses in Colonial Farms range in price from \$18,000 to \$25,000. Curvilinear streets, quality materials and workmanship plus rigid long-term restrictions pre-empt permanent high standards in the neighborhood



This 200-house development brings high-quality construction in traditional architectural style to home buyers in the nation's motor city



THIS plot plan shows layout of streets and lots in this subdivision. The lots vary in frontage from 50 feet to 100 feet. All streets are paved and curbed

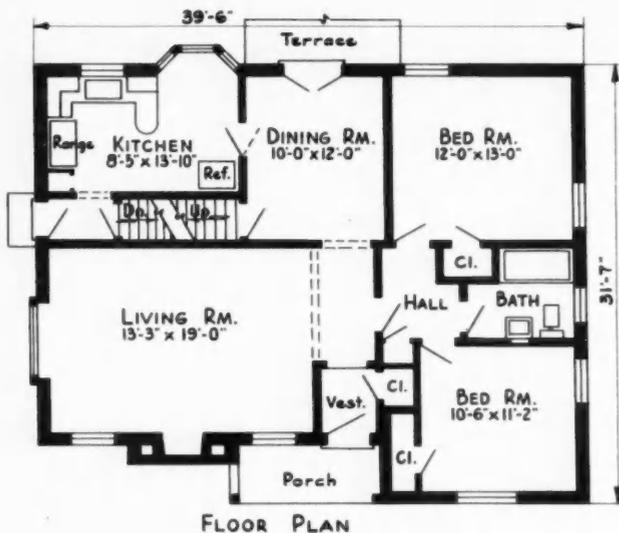
IN A BEAUTIFUL wooded subdivision of 45 acres, Cox & Baker of Detroit, are creating the restful charm of early American architecture in the nation's automobile center. Colonial Farms is a planned community of 200 homes, most of them in the moderate-price bracket. With an eye to maintenance of future values, the plot was carefully planned with curving streets and wide lots. In addition a rigid set of restrictions assures the character of the neighborhood will remain high. The location is in Grosse Pointe Farms, east of Mack Avenue and north of the Seven Mile Road, adjacent to good transportation, shopping and educational facilities.

Lots vary in shape and size. Minimum frontage is 50 feet and the maximum, 100 feet. Terrain, trees and orientation of the houses in relation to sunlight and prevailing winds

were carefully considered in laying out the lots. Streets are paved and curbed with full-width sidewalks in front of all building sites.

John W. Baker, in charge of construction and sales for the firm, carefully supervises all phases of the operation. He also oversees all details of planning for the houses. The firm operates its own architectural service for houses built for speculation as well as those which are custom built. All houses are individually designed on the exterior, but the firm uses several basic floor plans. These are often varied in some degree so that there are very few homes in the entire subdivision which will have identical layouts. Houses with similar floor plans are never built side by side.

To implement the promise that a home buyer in Colonial Farms will "realize the vision of modern living



THE two-bedroom brick veneer house shown above is priced at \$18,500. The sales price on these houses always includes a garage and about half of them are completed with double garages. House interiors are completely decorated with firm's own crews

with quality construction in traditional style," Cox & Baker provide more than the minimum in equipment generally accepted as constituting a completed house. Each kitchen is equipped with an F. E. Smith ventilating fan, a NuTone combination chime and clock, and a Hotpoint food waste disposal unit. Youngstown kitchen cabinets are also standard in Colonial Farms. Kitchens usually include a small dining area in addition to a dining room. Work counter tops are linoleum in combination with porcelain enamel sink tops.

Built-in niches and bookshelves are also common in these houses. Frequently a complete cabinet with glass sliding doors is built in the dining rooms. Glass block panels are used judiciously to not only admit light but to add to the decorative effect of both interiors and exteriors. Where large plate glass windows are used, they are either Thermopane or Twindow.

The firm operates its own masonry, carpenter and decorating crews. Plumbing, wiring and heating work is sublet. Work is scheduled so that the masonry crews are kept

THE view below shows several of the two-story houses partially completed. They are at the end of an oval-shaped block. Only a few two-story houses are included in the development. Cox & Baker report their home prospects prefer one-story houses



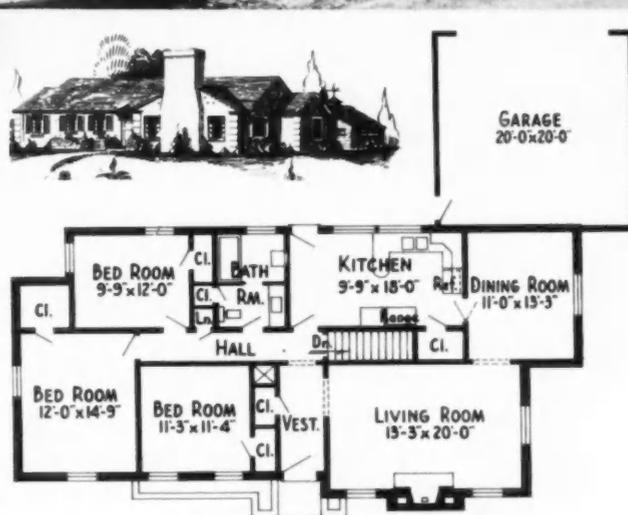
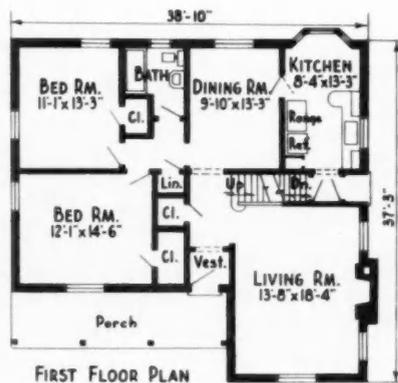


busy all the time. Most of the houses are brick or stone veneer, and many of them have fireplaces. Foundations are concrete blocks. Interior walls are plastered over gypsum lath. All ceilings are insulated with cotton insulation, and in some houses, the sidewalls are also insulated with the same material. Heat is supplied by Lennox oil-fired forced warm air furnaces.

The bathrooms in these houses receive the same careful attention in planning and equipment as the balance of the house. Walls and floors are covered with ceramic tile, and fixtures are of top quality, although shortages have forced the firm to vary in its selection of brands.

Where the layout of a house does not make it feasible to complete the attic for additional living quarters, a Precision Parts Corp. folding stairway is installed. In other houses where second floor bedrooms and other facilities can be completed later, a built-in stairway is included. Floors are Bruce prefinished hardwood, except in the kitchen and bathrooms. Kitchen floors are finished with linoleum.

THIS is another of the houses which are proving popular with buyers in Colonial Farms. The price, including the 55-foot lot and garage, is \$18,500



THE rendering and floor plan above is an example of the latest type of designing for this project. These are placed on the largest lots and are priced at about \$25,000. Several items of extra equipment, including food waste disposal units, are included in all houses in development



Engineered



This first article on plumbing in the *American Builder Engineered House Construction* series, deals with supply piping. Others, on fixtures and drainage, will follow. These articles, prepared by recognized engineering authorities, give readers the latest valuable information

IN PLUMBING as in heating, the system must be adequate. It must be adequate to meet the codes, the specifications, and to meet the immediate and future needs of the occupants of the house. What is an adequate plumbing system, and from whose point of view is it adequate? Is it a system that will barely squeak by? Or is it a system with a plus margin of safety, utility and quality? Will it take care of the user's immediate needs? Have the needs of the future—the needs of a growing family been anticipated?

Right at the outset let it be made clear that few inflexible rules can be set down. In judging the adequacy of any plumbing system there are many factors that must be considered. One factor is building codes. According to the codes of one city, a plumbing system might come through without a demerit against it and yet the same system may fail miserably when measured in terms of the codes of another city.

A recent nationwide survey discloses that the building industry is over blessed with building codes. It is estimated there are between 1,500 and 1,800. Of course, builders are

directly affected by only one, or at most—several, depending upon the extent of operations. But whether affected by many or few, the fact remains builders are affected by them. In one way or another, all municipal building codes have something to say about plumbing—what is permissible, what is passable, and what is not. So for enlightened self-interest every builder should be intimately acquainted with the plumbing codes in the area or areas in which he operates.

Some of the provisions of the codes may not make sense. But someone had a reason for writing those provisions into the codes. If the reasons are good, if they serve the best interests of the community, no one has just cause for complaint.

On the other hand, they may have been conceived in the best of faith, but by persons afflicted with mental astigmatism. It is not inconceivable that some of the stipulations were based on wrong or even ill-intentioned premises designed to make it necessary to use additional materials and labor which add nothing measurable to the quality or dependability of the plumbing system. For the sake

of emphasis then, let it be repeated: builders should be as well acquainted with the codes as they can. If in inspecting the plumbing work in a building something is discovered which goes beyond the code and which does not deliver a tangible compensating value either to the builder or to the buyer, the builder is probably within his right to do something about it provided, however, that the superfluous work was not actually written in the specifications.

One more thought on codes. If a builder has the conviction that his local building codes are not everything they should be, and he is certain that his conclusions are based on the doctrine that what is good for most of the people is also good for him, he will be doing himself and the building industry a service by taking steps, through his association, to have the impracticalities eliminated. Any code provisions which tend only to add to the cost of a structure without contributing anything of tangible value to the structure will only react against the building industry and not against those responsible for the stipulations.

House Construction

PART III—PLUMBING

Location of the building is another factor that bears upon the plumbing system. Because some sections of the country enjoy summer weather the year round, less of the building budget need be spent on the shell of the structure, and more can be allotted to interior accoutrements. The reverse is true, in varying degree, where the weather ranges from cool to frigid several months of the year. Thus a home built in Key West, Miami or San Diego may sport a bath and a half or even two baths, a spacious kitchen and a well appointed laundry; while a home built in Chicago, Detroit or Medicine Bow, and costing an identical sum, might have but one bath, a not so spacious or well appointed kitchen. The laundry might consist of a nothing more than a common laundry tub. Besides, this house will need a heating system.

The cultural development of the community is an important factor. If the local gentfolk have been educated to expect the best in plumbing fixtures, and if they are likely to be somewhat brand conscious, they will expect brands with which they are familiar—brands which they associate with quality. That also means matched bathroom sets should be installed.

Perhaps one of the best and quickest ways of raising the esteem of the industry in the public eye is to resolve to always give a dollar's worth of building value for a dollar. Members of the industry must not forget that they are judged by the company they keep. What does all this have to do with an adequate plumbing system? Just this. If a contractor or plumber skimps on a job by allowing 1/2-inch pipe to be installed where 3/4-inch or 1-inch pipe is required, or if he skimps on any of the parts of the plumbing system, whether they are hidden or visible, eventually the secret will come out of hiding. From a long pull point of view, it is wise to forfeit a few extra dollars for the sake of delivering a better house and thereby enhance a reputation among customers and prospective customers. These remarks refer to skimping on a job for the sake of extra profit. Obviously, there are practical considerations which must be reckoned with. The first of these is the construction budget. This must

be kept in balance if a reasonable profit is to be made on operations. No one advocates allotting \$1,500 for a plumbing system if the budget will allow only \$1,000. Therefore, the second consideration is the planning of a practical yet economical plumbing system that will include fixtures for the bathroom, kitchen and laundry of a style and quality in consonance with the budget along with an adequate hot and cold water supply and drainage system. This is practicality plus economy. For greatest economy, it is practical in one-story houses to install the bathroom and kitchen back to back in adjoining rooms but with enough space between to enable economical servicing of the piping should the need arise. The buyer of any house will eventually appreciate that bit of foresight.

In multi-story houses, it is desirable to install the plumbing fixtures and piping in a single vertical plane. This will concentrate the fixtures and piping and permit a single vent stack as in the house under con-

the builder to profit without subtracting one iota from the quality of the system.

"Let the buyer beware" is a good caution to keep in mind when examining the bids of sub-contractors. That does not imply that these men are unprincipled. However, they know that it is the lowest bid that generally gets the contract. They know, too, there is more than one way to cut their costs. Often a sub-contractor will deliberately submit a low bid and then proceed to cut standards and quality by making short cuts and substitutions that only the most careful supervision and inspection will detect.

Before accepting a bid from any plumbing contractor, a builder should examine it carefully to see what he is to get and for how much. The bid should be compared with the specification to make certain it is actually based upon the specification. In particular, the bid should spell out a complete and accurate description of the fixtures and other materials to



HERE planned piping permits the convenience of an extra toilet and lavatory in what was a clothes closet

sideration here. This is mentioned merely to emphasize that it is practically possible to give the buyer extra values in the plumbing system—values that will give him extra utility, comfort, convenience and dependability that he will brag about, while at the same time practicing installation economies that will allow

be supplied. Manufacturers' catalog descriptions are excellent guides to use in checking plumbing fixture bids and specifications. A mere glance at the fixture specification will reveal the wisdom of a full and complete fixture description for it shows exactly what the contractor intends to supply and at what price. This also enables

the builder to make an intelligent comparison with competitive bids thus revealing inequalities in design, material, trim and price. The bid should also be checked to make certain it complies with the local codes and that no extras are being included which neither the codes nor the specifications require. In other words, acceptance of the lowest bid is not always the best practice.

In every trade there are good, better and best craftsmen. There may also be some that are not even good. In this latter bracket there are contractors whose credit is not good and who have to pay cash for every item they purchase. If credit involvement is only temporary due to unusual circumstances, that is one thing. But if slow pay and defaulting of obligations is chronic, beware. A bad reputation is almost never unearned. Inability to meet financial obligations may also be an indication of slipshod business methods plus inability or unwillingness to do good work. It may cost a little more to deal with reliable contractors but it is cheaper in the long run—cheaper in time, effort and energy—cheaper in the sense that the job can be completed sooner and more than likely will be done better.

To many it is probably no news that there are but three parts to a plumbing system; (1.) The supply piping (2.) The fixtures (3.) The drainage system. Each is a subject in itself. Therefore, each will be treated separately for the sake of clarity and convenience.

The initial connection is from the water main to the Buffalo box, often referred to as the curb box. It is provided to permit shutting off the water supply from the main to the house should this become necessary for one reason or another. In some instances the city insists upon bringing the water to the Buffalo box. In other instances, it is the responsibility of the plumbing contractor. This point is covered in local regulations. But regardless of who does the work, it involves tapping the water main and installing a corporation cock. Special tools permit this to be done while the main is under pressure without danger to the workers and without loss of either pressure or water. The connection from main to Buffalo box is flexible to allow for shifting and settling of the earth and to guard against breakage due to earth vibration. The material which can be used for this connection is specified in local codes. It may be lead, copper or brass. If the city makes the connection, the builder need not be concerned. If it is made by a plumbing

contractor the builder must assure himself that code regulations are followed.

From Buffalo box to house—Here again the code has its say. There may be a choice of material anywhere from lead, to cast iron, and from copper to brass to wrought steel and wrought iron pipe and approved fittings. When selecting the material for the water supply piping, it will be well to consider the characteristics of the water supply. If it contains corrosive elements and incrustation is a possible factor, it is wise to consider lead, brass or copper pipe even if the code permits use of ferrous pipe and fittings. If the building is on contract there is little doubt that the client will be more than glad to pay a little extra for the added protection and service non-corrosive piping will give. With the pipe supply as critical as it is, the temptation to use second hand pipe may rear its ugly head. Of course the code may prohibit the use of used materials. But if not, the urge should be throttled because it is pound foolishness that will only lead to trouble, complaints and possibly expense and law suits.

It goes without argument that all supply piping should be of adequate size, and durable; that all joints should be tight and that the piping be pitched so it can be drained if the house is closed during freezing weather. Adequate water service is impossible unless the pipe is of correct size. While it may be true that few people ever turn on several faucets at the same time while they are inspecting a house, the story is different once they move into it. Then if the flow of water is inadequate when someone is drawing water for a bath, another is flushing a toilet and a third wants water for the laundry, washing dishes, or watering the garden, there is disappointment and much complaining. It is

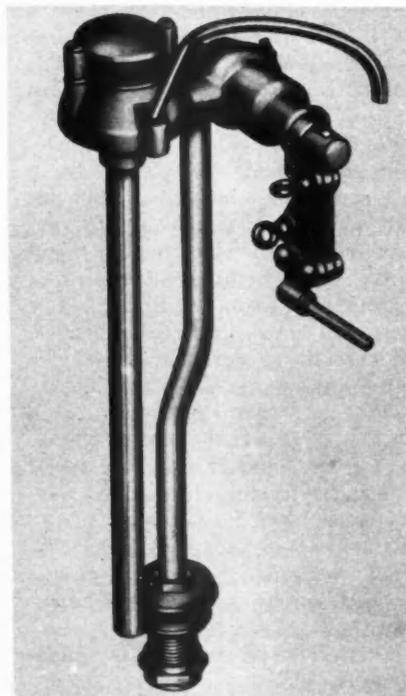


USE of union fittings facilitates disassembly of pipe line—reduces the number of fittings required

then that the capabilities of the builder and his integrity will be seriously questioned. He suffers in proportion to the depth of the griev-

ance and to the extent that the grievance is advertised by the buyer.

What is adequate flow? Obviously, adequate flow is a general term. Lewis H. Kessler, Professor of Sanitary Engineering of Northwestern University, put it this way: "All plumbing codes I have seen insist on adequate or ample water supply to fixtures. These are unfortunately general terms. The modern water system has to meet the demands of convenience in keeping with a rising standard of living as well as of health. If the consumer need not wait to the point of impatience for a fixture to fill, the rate of supply is adequate. Total daily consumption has nothing to do with the problem."



TOILET flush valve equipped with integral vacuum breaker

Whether the flow of water to fixtures is adequate depends largely upon the size of the service pipe—that is, the pipe from the Buffalo box to the water meter or to branch lines in the house. While some plumbing codes may actually specify the minimum size of this pipe, plumbing contractors are pretty well agreed that the service pipe should not be smaller than one-inch. This means new pipe, of course. However, this makes no allowance for possible deposits of rust, corrosion, lime, or magnesium. It is easy to see then that as water consuming accessories, such as dishwashers, food waste disposers, lawn sprinklers, and garage faucets are added and as the inside diameter of the piping decreases, the flow of water may become inadequate if several fixtures are used at the same time.

Take the Anicka House which is the subject of this series of articles. The plans call for the following fixtures: 3 lavatories, 3 toilets, 1 5-foot bath, 1 double-basin kitchen sink, 1 laundry tub, 1 garage faucet (presumably), 2 sill cocks (presumably). Now if all of these fixtures were used at the same time—a remote possibility—a flow of about 80 gallons per minute would be needed.

Reference to the table, below, will disclose that a 1-inch service pipe has a capacity of 85 gallons per minute, and should give adequate flow after allowances have been made for future possible increased water needs, friction loss, tuberculation, scale, and lime deposits.

Pipe Size:	3/4"	1/2"	3/8"	1"	1 1/4"	1 1/2"	2"	2 1/2"
*Flow G.P.M.:	18	20	55	85	150	200	300	450

*Approximate based on 50 p.s.i. city main pressure
—no allowance made for friction loss in fittings and valves.

The table also discloses that a 3/4-inch service pipe would "get by." But the normal price differential between 3/4-inch and 1-inch pipe is so slight as to be almost negligible. Besides 1-inch service pipe assures that the buyer of the house will have adequate flow to satisfy any peak load he may call for—now or later.

This is the piping which branches off from the service piping, to the fixtures and other outlets. Generally, galvanized steel pipe is used for these branch lines. If the budget permits, galvanized wrought iron or copper, or brass pipe have definite advantages to offer. But there is something besides price to consider. Selection of piping, whether service or branch, should be determined by the water and soil characteristics. Corrosive water and soil will dictate the selec-



CONVENTIONAL Buffalo (Service) Box. Wing shaped yoke at bottom straddles shut off which can be reached by key wrench after cap is removed

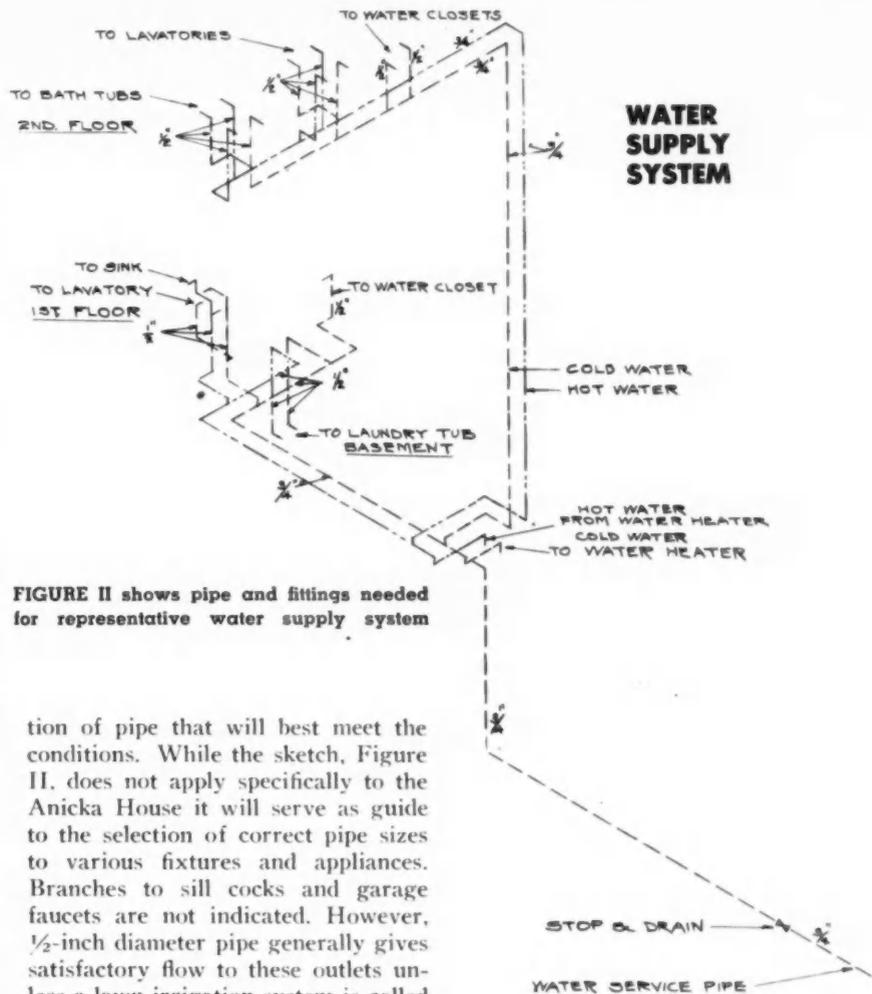


FIGURE II shows pipe and fittings needed for representative water supply system

tion of pipe that will best meet the conditions. While the sketch, Figure II, does not apply specifically to the Anicka House it will serve as guide to the selection of correct pipe sizes to various fixtures and appliances. Branches to sill cocks and garage faucets are not indicated. However, 1/2-inch diameter pipe generally gives satisfactory flow to these outlets unless a lawn irrigation system is called for, in which case 3/4-inch pipe should be considered. 1/4-inch or 3/8-inch diameter extensions should be shunned except perhaps in circulating domestic hot water lines and short extensions to the closet tank. Smaller pipe sizes than those shown should never be used. If experience shows there is a tendency toward quick reduction in pipe diameter because of rust, scale or liming, pipe one size larger in diameter should be considered.

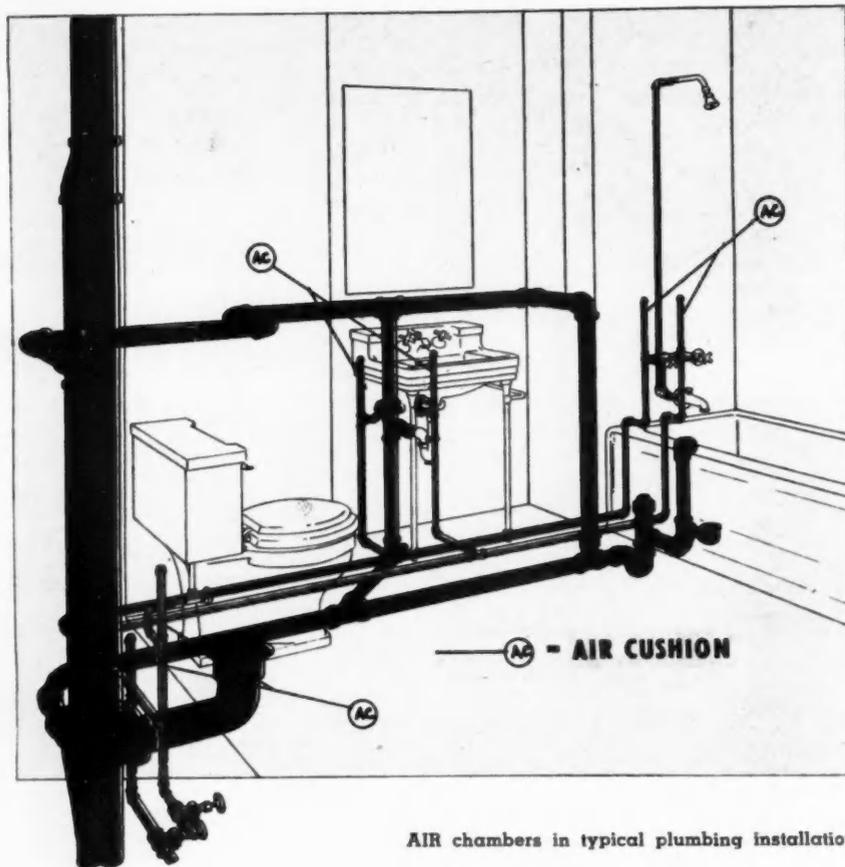
To guard against water hammer in branch lines, each fixture should be equipped with air chambers as shown in the sketch. Nothing less than 1/2-inch pipe should be employed for such air chambers. Each fixture should be equipped with these protectives on both hot and cold water lines.

It is wise economy to insist upon the use of the best pipe fittings available—fittings made by a manufacturer of established reputation. Good fittings will more than justify their slightly higher cost—may even save money—because they will be accurately threaded, accurately machined, thread lengths will seldom, if ever, vary and, therefore, there should be no culls due to imperfections. They can be assembled in less

time. Besides, accurate, straight cut threads result in straight pipe lines—give assurance that each pipe line will go exactly where it was aimed—no detours, no dog legs.

Every fitting in a pipe line tends to interfere with free flow. Technically this is known as friction loss. Often the use of union ells and union tees will reduce the number of fittings and, therefore, reduce friction loss proportionately. In addition, the use of union fittings makes repair of pipe lines simpler because lines so equipped are easily disconnected without breaking fittings or cutting lines. Conversely, they are as easily reconnected.

In the rush and bustle of construction, it is easy to overlook essential parts—valves for example. If they are included in the plumbing specification, naturally, they should be in the house. Careful builders insist upon the installation of shut-offs for each fixture, especially at the closets, lavatories, and kitchen sink. The buyers of buildings will appreciate such thoughtful consideration. It is well to include valves in the principal pipe lines in the basement and to tag each one so the lady of the house (or the "master") will know which one to



AIR chambers in typical plumbing installation

turn to shut off the water supply to any part of the house in case pipes rupture or other trouble is encountered. If the budget permits, use gate instead of globe valves for they offer less resistance to the free flow of water. Gate valves are especially important where frequent opening and closing may be necessary—at the water meter, for example. Here the valve should be installed in the house service line ahead of the meter. A stop and drain valve is called for in the line or lines to the sill cocks. The drain feature of the valve permits draining the pipe to prevent freezing and rupturing of sill cocks during the winter. Also convenient, time and money saving (to the home owner) are valves, on the hot and cold water supplies to the water heater. These permit the easy removal of the heater for repairs or replacement and without the need for shutting off the water supply to any other part of the house.

While inspecting supply piping, the builder should be sure all piping that will be hidden behind walls or under floors is braced and otherwise supported. Simple, inexpensive sheet metal clamps will do the job. They will keep the piping tightly in place, guard against sagging and possible breakage, and prevent mysterious rattles which are difficult to locate and more difficult to remedy once the house is finished. This applies to

drainage piping as well as to supply piping.

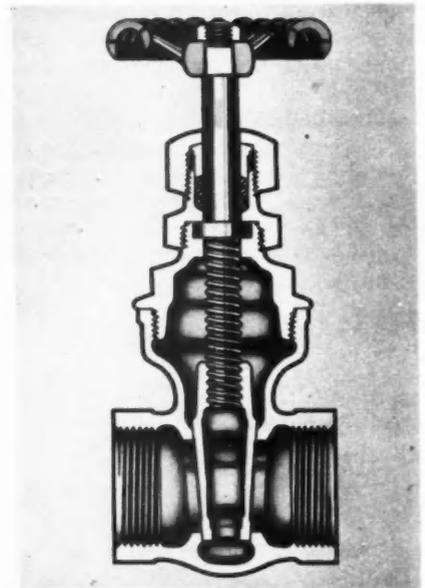
Often piping on outside walls is unavoidable. It is axiomatic that heavy insulation is the best, most effective safeguard against freezing. It is also self evident that if this added protection is to be provided it should be written into the specifications.

Much has been written and much more will be written about the health hazards of back siphonage. It can spring from two sources; (1) the inaptitude of the installer; (2) under-size piping. Number one can be avoided by letting plumbing contracts to licensed master plumbers. Their knowledge and experience have taught them how to avoid the cross connections in piping which permit the entry of polluted water into the fresh water lines. Hazard two can be avoided by insisting upon adequate pipe sizes. Where pipe sizes are inadequate a drop in water pressure can be expected when, for example, the lawn is being sprinkled, water drawn at the sink or bath downstairs and faucets are open upstairs. The pressure drop may be so great that only a trickle will flow from the upper outlets. Couple this with other conditions and a condition is created which can cause a backflow of waste into the potable water supply. Many plumbing codes demand the installa-

tion of approved siphon breakers which will prevent such backflow. Closet tank flush valves are now available which have built in vacuum breakers of approved design. Also available are similar devices for direct flush valves. Modern bath and lavatory faucets are made and installed to provide a sufficient gap between the spout and the spill rim of the fixtures.

Where the water supply is "hard," it is almost certain that sooner or later some owners of houses will want to install water softeners. Builders in such areas who really want to please home purchasers will draw up piping plans so softened hot and cold water can be delivered to the sink, laundry, tub, bath, showers and lavatories while only hard water will be piped to water closets, sill cocks, garage faucets and other similar outlets. Any licensed plumbing contractor can demonstrate how simply and inexpensively it can be done.

Providing supply and waste piping for the bath or powder room which may be installed later, as the needs of a growing family demand it, is another thoughtful consideration that customers appreciate. Of course it



CROSS section of gate valve showing unrestricted flow channel

can not be done for the wishing. But certainly it can be done at a minimum of extra cost at the time the house is being constructed—a cost which can be passed along to the buyer painlessly. This foresight on the part of a builder can be turned to good account as a strong, effective selling feature.

The next installment in this series will deal with the selection and specification of the plumbing fixtures.

New Idea for Auto Service Station



MODERN techniques of installing plate glass were used to full advantage in this unusual automobile service station

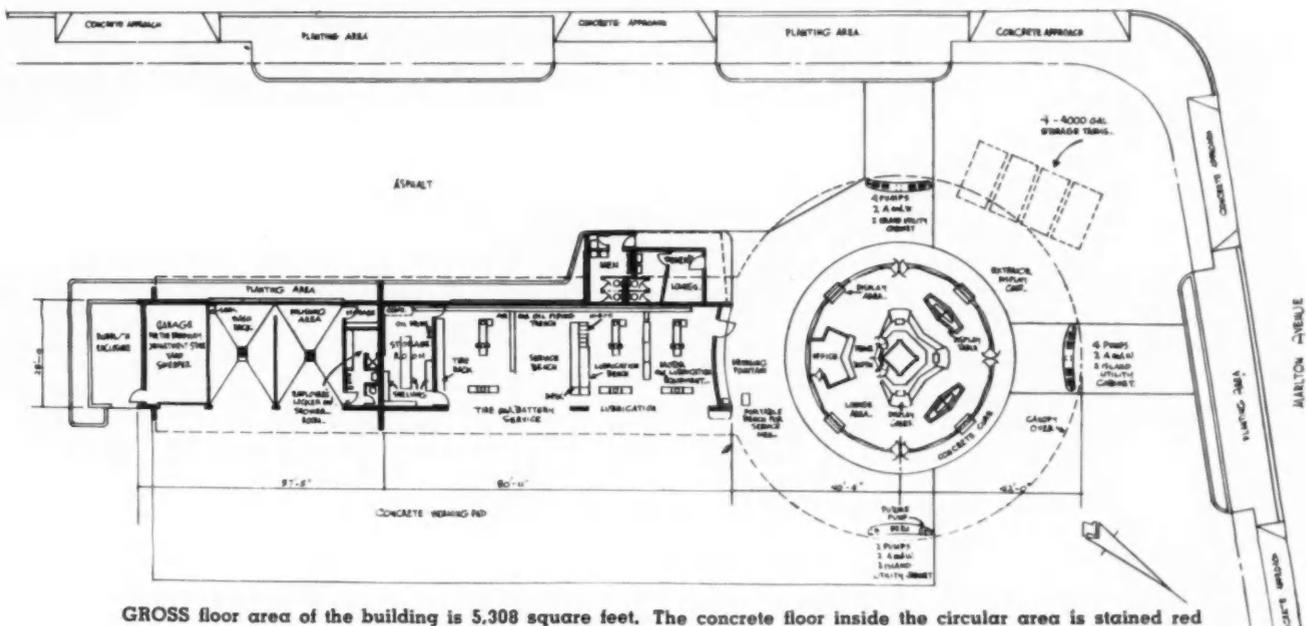


FREE bus service from this station to stores in nearby shopping center is one of the accommodations offered to patrons

AN INNOVATION in modern automobile service station design has been achieved in the new Mobilgas establishment located in the Crenshaw shopping area of southwestern Los Angeles. It is located on a plot with room to park 250 cars. This places the station about one-fourth mile from the main shopping center, but patrons of the station and parking lot may use the free bus service which transports them to entrances to the various stores.

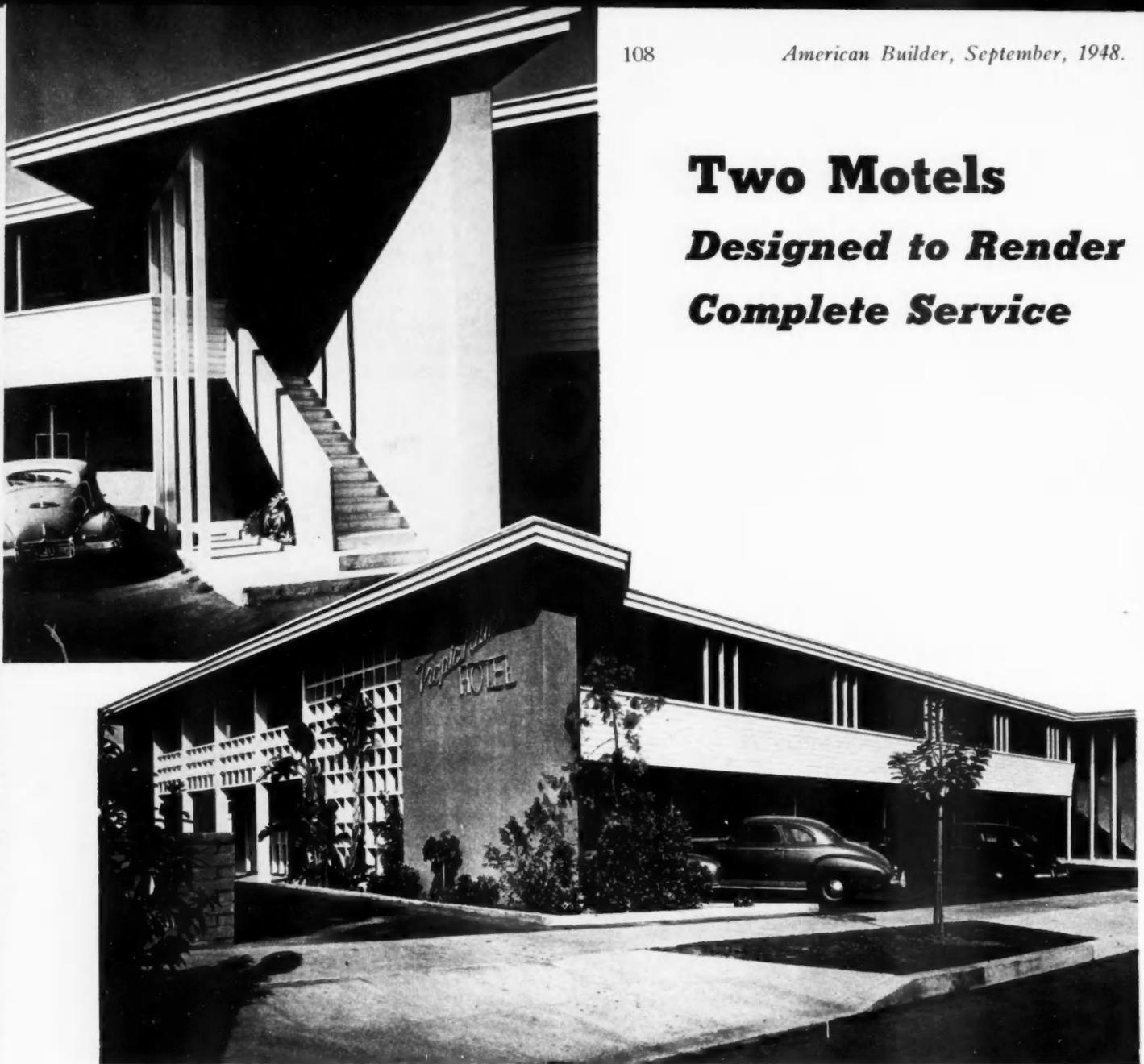
The tower is 75 feet high, constructed of steel covered with red and white baked enamel finish. Plate glass windows around the

circular office, display and lounge area are 20 feet high and 8 feet wide. The large canopy has eight rings of neon tubing on the underside as special lighting. Because prevailing winds blow from the south, doors to the lubritorium, washing and polishing bays open to the north, even though this is the side opposite the street. The southern, or street side, of the station is practically one solid wall of glass. The building was designed by Albert B. Gardner, architect, and built by Edward R. Siple Co., contractors. The building covers 10,500 square feet and has 5,308 square feet of gross floor space.

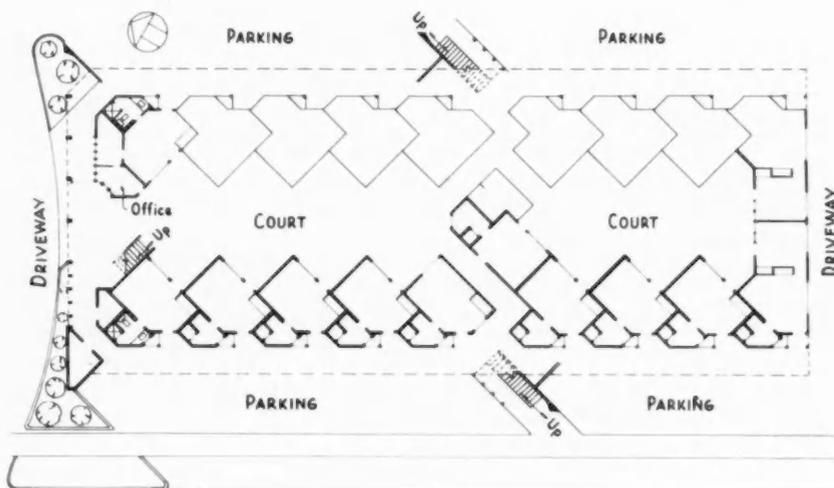


GROSS floor area of the building is 5,308 square feet. The concrete floor inside the circular area is stained red

Two Motels Designed to Render Complete Service



EVEN though the small lot set definite limitations on what could be planned as a motel, clever angling of individual quarters provides adequate privacy and also gives each unit a private balcony. Principal sacrifice in angling the units was a narrowing of the interior court. Individual parking areas for units are along both sides of the building

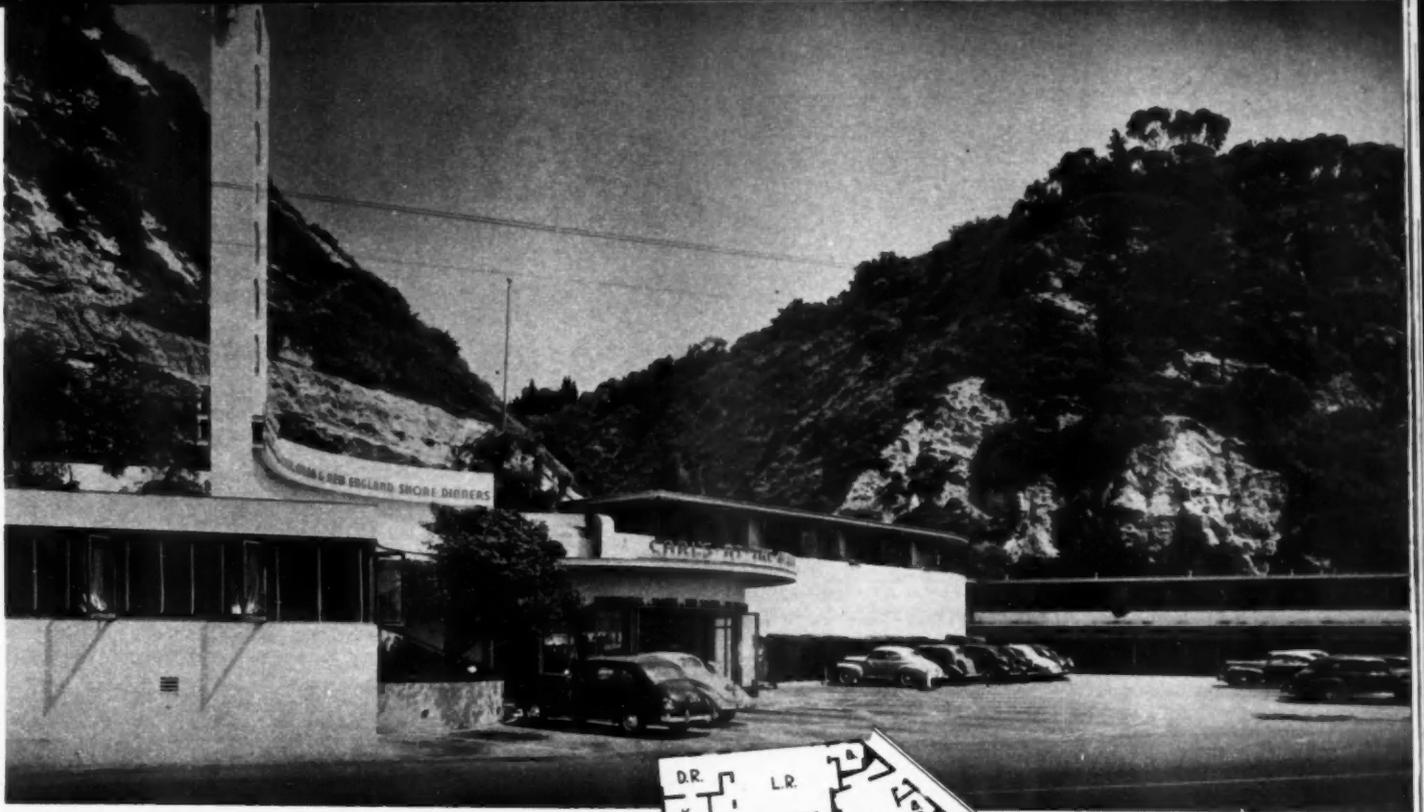


BECAUSE of space limitations, it was not possible for Architect Burton A. Schutt to design a conventional motel on the site chosen for this structure. With the lot only 100x200 feet, it was necessary to incorporate motel-type units in a hotel design. Intended to provide middle-class accommodations for motorists traveling Wilshire Boulevard in Los Angeles, the pleasing combination achieved here has permitted the motel to enjoy the income of a luxury hotel.

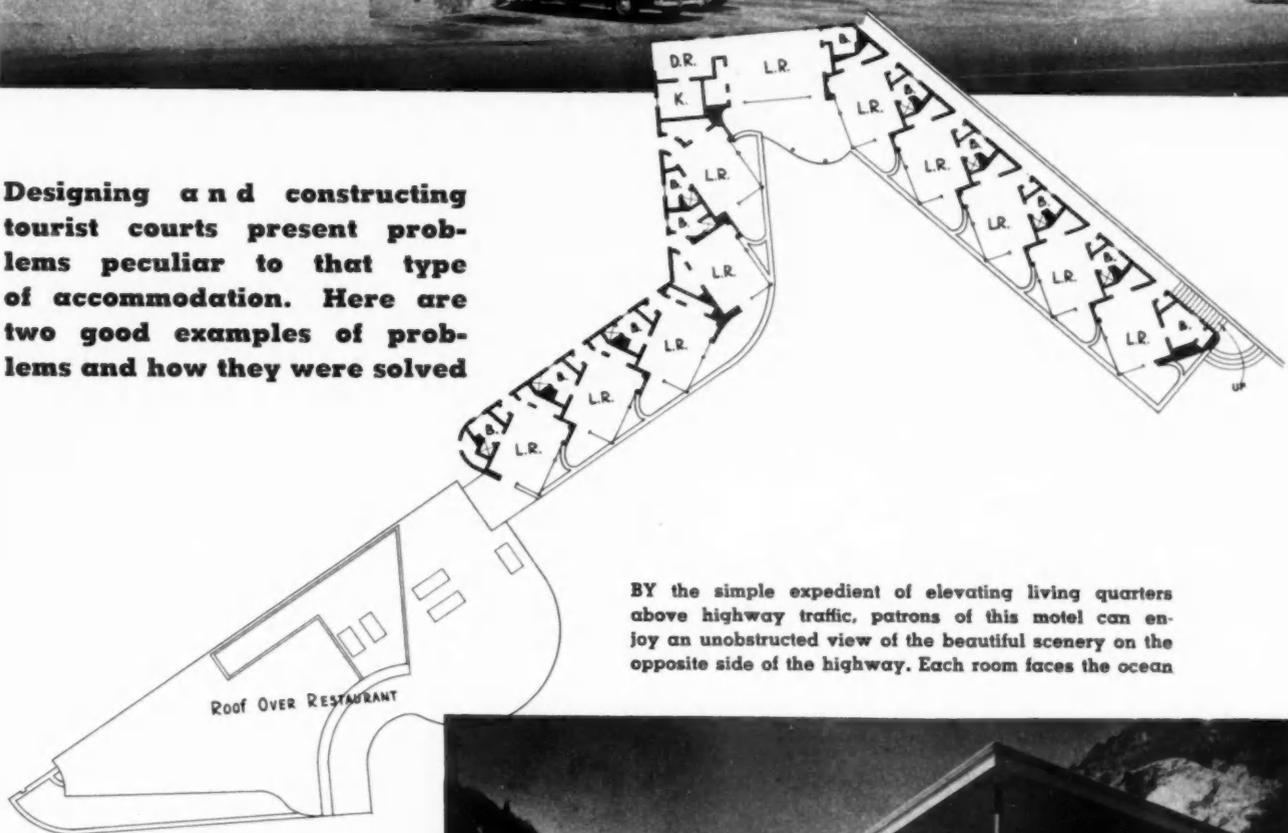
The pleasant arrangement of rooms at a 45-degree angle not only brings light and privacy but also maximum ventilation. The outside entrances to balconies further implement the plan to offer maximum privacy. Parking areas on two sides of the building, along with the outside entrances from parking spaces to quarters, preserve the informality of motel living.

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Designing and constructing tourist courts present problems peculiar to that type of accommodation. Here are two good examples of problems and how they were solved

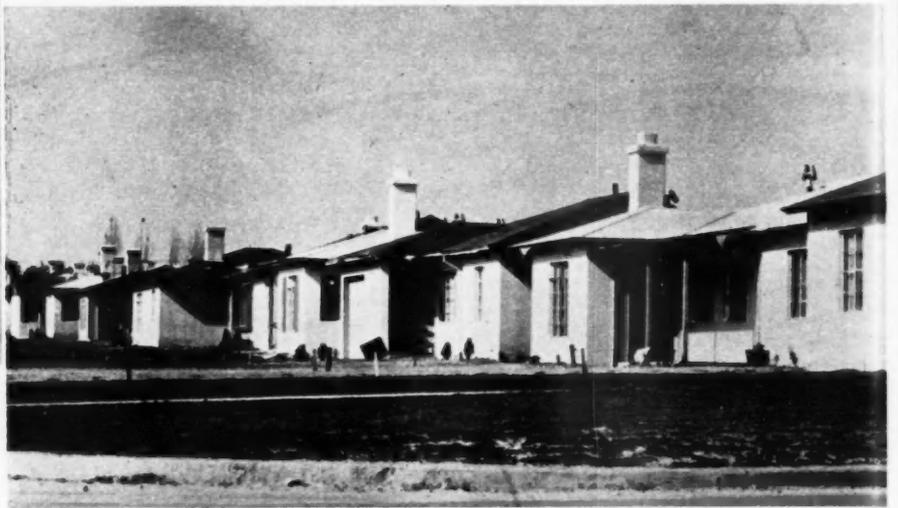


BY the simple expedient of elevating living quarters above highway traffic, patrons of this motel can enjoy an unobstructed view of the beautiful scenery on the opposite side of the highway. Each room faces the ocean

THE SITE for this motel was across the highway from the beach and presented some particularly unusual problems to Architect Burton A. Schutt. He was not only asked to plan conventional accommodations for tourists, but also to plan for auto service, food service to cars, table service in a dining room, and a cocktail bar. By angling rooms above the garage area, every unit not only fronts toward the sea, but is provided with a private, recessed balcony. Ground level public areas are close to the road.



Examples of Low-Cost Housing



THE Ketell Construction Company is pouring about three of these monolithic,

POURED CONCRETE Solves This

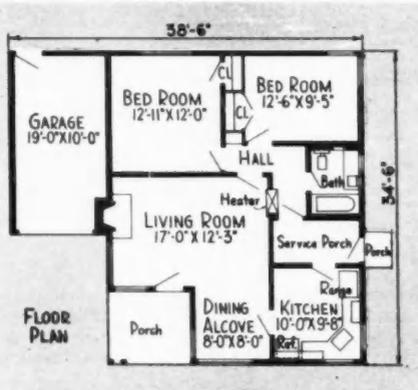
By using a light-weight aggregate and mechanizing the operation, this firm has been able to erect two and three-bedroom monolithic houses with one and two-car garages to sell between \$7,990 and \$9,550

A TECHNIQUE for constructing poured concrete houses with light aggregate has enabled the Ketell Construction Co. to erect about 300 two and three-bedroom houses complete with one and two-car garages in a price range of \$7,990 to \$9,550. Some variation in price is the result of different values on the lots. The projects are located in Chino and Pomona, Calif. The houses are known as "Pumacrete Homes".

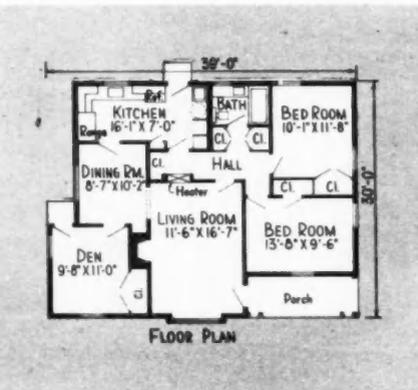
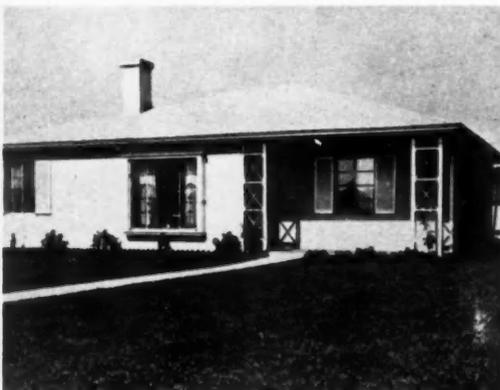
The firm has three sets of forms for each model house. One set is used for houses being poured; one set is employed on houses to be poured the next day and a third is held in reserve against contingencies. About three houses a day are poured. Forms are oiled and cleaned after each use and are expected to last indefinitely for this type of work. About 100 houses are required to amortize the original cost of the forms. From 40 to 50 forms are required for each house. The large ones which run from three to 16 feet wide are set in place by a crane. All corner forms are set by hand.

Houses of the type built by this firm have been up for more than a year, and no trouble from contraction or expansion has been reported, although it is a solid monolithic house. No expansion joints are used because the company has found that the light-weight concrete does not expand and contract to the same extent as standard concrete.

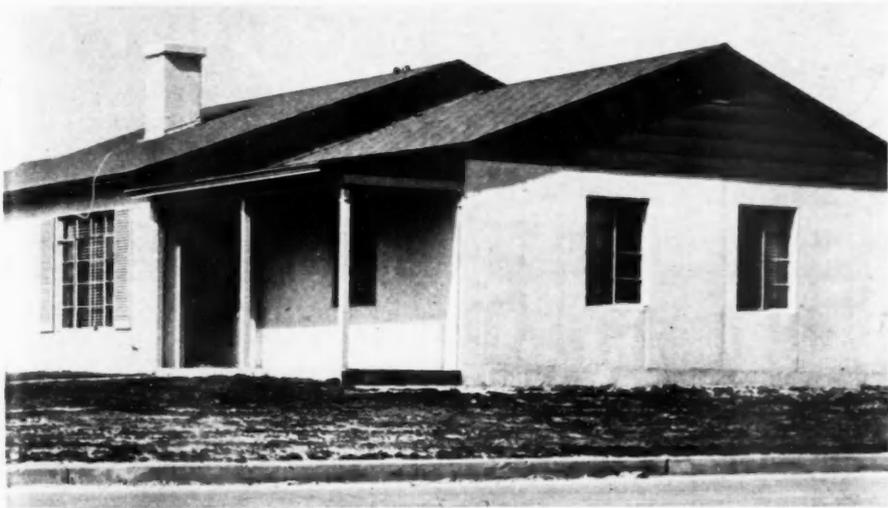
After sites are graded, houses are staked out and a trencher excavates for exterior footings. Footing forms are in long lengths for easy handling and are placed in the trenches, set to a line, leveled and reinforcing steel



FOOTINGS, garage floor and porch slab are all poured as an integral unit. Color is added to concrete porch floors where desired. Houses are known as "Pumacrete Homes"



INTERIOR walls are also poured concrete. Floors are covered with either oak parquet or asphalt tile. Roofs are of conventional wood framing, covered with either cedar or asphalt shingles. Steel windows are inserted in concrete forms and made part of walls



light-concrete houses every day in projects at Chino and Pomona, Calif.

Builder's Problem

placed. All porch slabs and attached garage slabs are poured at the same time as the footings, to integrate the units. Where it is desirable, color is added to porch floors. All foundation walls are brought up level with the finished floor. After the foundation is complete, interior curbs are stripped, the subgrade is leveled and prepared for installation of rough plumbing, water and gas lines. A two-inch concrete slab is then poured and covered with two coats of water-proof emulsion. The finish slab, which is three inches thick, is poured over this and leveled with top of foundation, in which steel dowels previously were inserted.

Nailing blocks, the length of the thickness of interior walls, are secured to the slab in positions which accurately define the room layout. These act as spreaders for the partition forms. Prior to erecting the wall forms, reinforcing steel is erected, rough plumbing, wiring and other components to be inside walls are put in place. Interior door bucks, access doors to plumbing installations and furnace opening are all set in place before forms are set. With forms made to actual room sizes, except for 2x2 corner panels, the actual erection is made easy with the use of the crane. All panels are lettered as to exact positions they occupy in the various model houses. The panels are locked together with a special patented clamping method. Tops of the walls are brought to line by tacking a continuous 2x4 plate from wall to wall, with a spreader being used for alignment. Plumbing is made easy because of the nailing blocks previously secured to the foundation.

Exterior wall forms are erected in about the same manner. Window bucks of special design permit insertion of steel sash which are hung to holes provided in the forms. Jambes of the bucks are flared to permit easy stripping. After the forms for the inside of the exterior walls are set, reinforcing steel is placed and the job is ready for erection of the forms for the exterior wall.

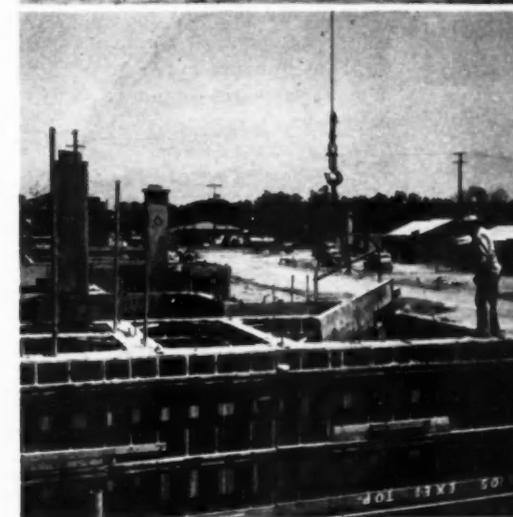
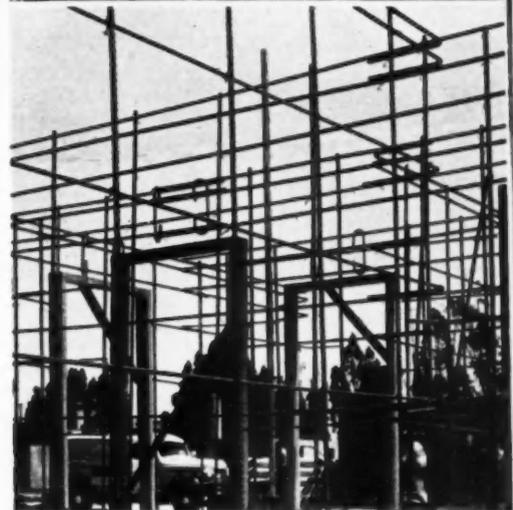
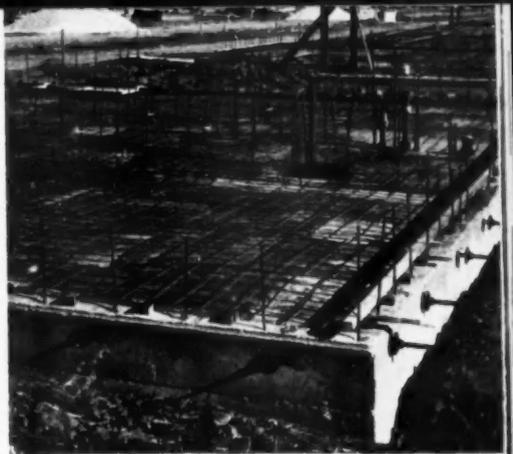
These forms, in large sections, with whalers attached, are set easily and quickly with the crane. Care is taken to project whalers on corners so vertical kickers can be applied to all exterior corners.

Fire place forms are constructed so they collapse. This is also true of the flue alignment cores. The punice-concrete is conveyed to the top of the wall for pouring in two ways. In some instances a conveyor belt is used, and in others a hoist and bucket does the job.

After the forms are stripped from each house, sacking and necessary wall conditioning are done immediately, while the walls are still green.

Roofs on the houses are of conventional frame construction, covered with either wood or asphalt shingles. Interior ceilings are stucco and interior walls are finished in light stipple. Floors are either oak parquet or asphalt tile. Bathrooms are all of the pullman-type with tub showers enclosed in tile.

THE four pictures at right illustrate various stages of erection method. Forms are made in large sections to facilitate handling and are fastened in place with a patented clamping device. A large crane is used to place and remove forms

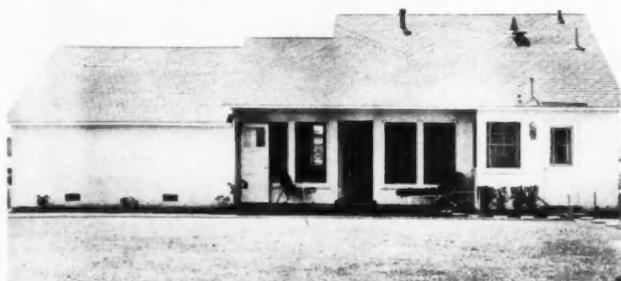
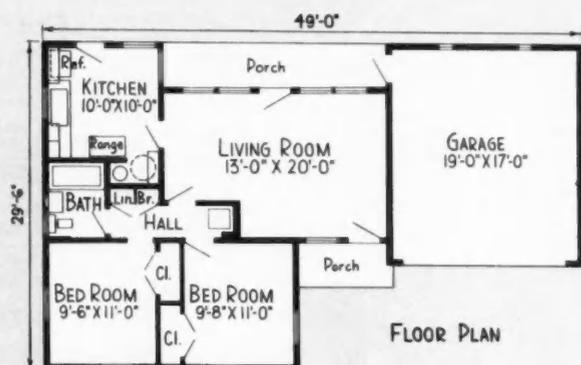


PRECUTTING

Helps Hold Costs

Down on 151-House

Development



THIS is a typical house in Rancho Camino Real. There will be 151 houses in project built from four basic floor plans and 16 elevations, including conventional and modern designs

FFIFTY-FOUR houses were sold in the first five days, with 80 per cent of all purchasers making down payments of more than \$1,200. Twenty-six houses were reserved by deposits of smaller sums. This is the sales record of Thomas Companies, Inc., on Rancho Camino Real subdivision between Arcadia and Monrovia, Calif. The deals were completed before any foundations were in except on one model home which was completed. On a similar tract of 257 houses on Oxnard, Calif., the firm sold 74 houses before the model was completed.

The reasons these houses sold so readily are, first, that they are good small houses, and, second, because they are priced below \$10,000 in an area where the need is for that type of housing.

The Rancho Camino Real tract will comprise 151 homes. About 106 will be two-bedroom to sell for \$8,100 to \$8,250. The remainder will be three-bedroom houses priced at \$9,150 to \$9,250. All have two-car garages. Lots are 60 or more feet wide by 115 to 180 feet deep. All improvements are in and paid for.

There are four basic floor plans and 16 elevations from which prospective buyers may make selections. Leroy Carver, sales manager, set up headquarters in the garage

of the model home. The garage is lined with wallboard, and, on one wall, he tacked the floor plans and 16 elevations, all executed in fine colors. On another wall is a large plot plan with each lot numbered in two ways—one number indicates the particular floor plan and elevation designated for that lot; the other number indicates the sequence in which houses will be started. When a prospect becomes interested, he can, with the help of a salesman, select the floor plan and elevation he desires, and then proceed to the plot plan and choose the lot on which that particular house will be built. This gives the buyer a wide choice of houses, frontages and completion dates. Houses are being completed in about 90 days.

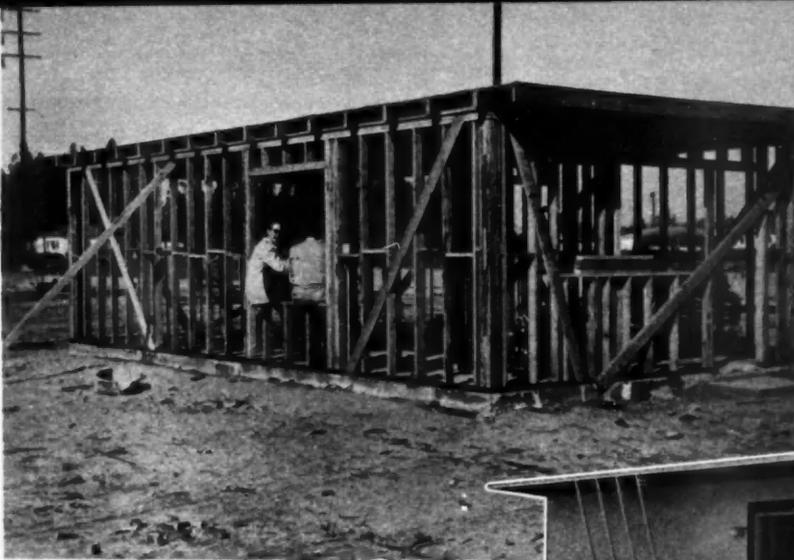
The houses are constructed conventionally from precut framing. Siding, shingles or stucco are used as exterior finishes, with plastered walls inside and asphalt shingles on the roofs.

Herbert T. Lundahl, vice president and general manager, who is in charge of construction, reports that the firm has spent much time studying methods and operations to cut down working time and to raise efficiency. The work is divided into crew operations, with each crew specializing in one type of work. The firm operates its own mill in which window and door frames, shutters, trim, and fascia boards are fabricated. Doors, windows and cabinets are purchased from manufacturers. Rough plumbing is fabricated in a shop on the site.

The system of handling and cutting lumber on this job has been one of the biggest factors in reducing construction costs. The lumber dealer who fills requirements is given a framing lumber list for each separate house. This lumber is piled in the sequence in which it will be used—mudsills on top and roof sheathing on the bottom. A wire strap is wrapped around the pile, and it is dumped in front of the house for which it is to be used.

One man with a 2½ horsepower portable saw goes from house to house on the site and cuts the lumber in these piles into the exact sizes which are needed for the house to be built on each lot. This man, like the lumber dealer, is given a detailed cutting list for each house, with nothing left to guess or to memory. As the lumber is cut, as much as possible is used immediately to eliminate extra handling. The balance is placed near the spot where it is to be used. The layout man moves in with a special plan which shows where every stud goes. In addition to the large portable saw which does most of the cutting, men are equipped with portable power hand saws for final cuts on some pieces.

In addition to building the houses already mentioned in the two projects above, this firm is building 19 houses in San Marino to sell for \$23,000 to \$30,000 and a large 608 rental project.



These conventionally-built small houses can be purchased for \$295 down and \$37.50 per month. They are built to conform to the Uniform Building Code



FOR those who prefer to rent, these houses will be leased for \$37.50 a month on a three-year basis, with the privilege of buying at the end of the period with full credit for the rent payments on the purchase price

Private Builder Delivers House for \$3,795



ABOUT 500 of these homes are to be built by this firm in their market area

SIXTY miles from Los Angeles, in Colton, Calif., Evald C. Moller and John H. Mutchler are completing 56 small, conventionally-built houses to sell for \$3,795, including land. The down payment is only \$295. The houses are necessarily small but are not substandard. Interior floor area is 486 square feet, divided into an all-purpose room 17x23, a kitchen and a bath. A Bendix washer is included in the kitchen equipment as part of

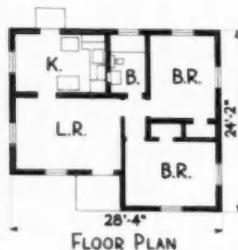
the sales price. The all-metal cabinet sink in the kitchen has a linoleum top. Baked-enamel tile board is applied on the wall for two feet above the bath tub.

The houses are built on concrete slabs, which are painted with a rubber-base paint as the interior floor finish. Interiors are dry wall or plastered. The fenestration, sanitary facilities, electric wiring and general layout are all planned so that the addition of one or two rooms can be accomplished with minimum expense. Lots are 45x140 feet. The streets are paved or oiled with rolled curbing. Variety in appearance is achieved by turning the houses in different ways, changing setbacks and varying the sizes and location of windows and doors.



Experimental House of Texcrete

THE HOUSE below is built of Texcrete, a building material recently introduced to the Southwest. The material is used as an aggregate to manufacture light-weight masonry blocks



TWO youthful Fort Worth, Texas, builders, Oscar A. Seward, III, and W. F. Shurtleff, Jr., have completed two "guinea-pig" houses of Texcrete. They are built on a concrete foundation with the light-weight masonry blocks used for walls and partitions. They will sell for \$4,700, exclusive of lot. The houses each consist of two bedrooms, living room, kitchen, bath and hall. Overall, each is 721 square feet. Included in the price of each home is an automatic water heater, and a gas-fired space heater of 30,000 B.T.U. capacity. Seward and Shurtleff already have launched a project of 29 houses to be built in Fort Worth and have plans for a project of 400 to be started with the 29 are completed. The exterior of the house is finished with three coats of stucco. Interior walls are plastered.

Precutting and Yard Assembly Keep Costs Down



ALLIED Building Supply Co. yard, showing jig table and stock of completed wall panels

Low-cost houses for low-income families also sold as rental properties, mountain cabins, beach and guest houses and motels

ONE-BEDROOM houses completely erected and finished on level lots are being offered by the Allied Building Supply Co., Alhambra, Calif., for \$4,310. The same house, 625 square feet in area, can be supplied as a two-bedroom house with a smaller living room for \$4,500. The prices include all equipment except heating. A wall heater is available for an additional \$92.

H. Gordon Hammerson, president of the company, attributes the low prices to the fact that one company does all the work of fabrication, erection and selling. There is only one basic house, and all structural sections are pre-cut and assembled in jigs at a central yard. Completion of a house is guaranteed in 30 days, and in good weather, requires only three weeks.

Studs are 2x4 on 16-inch centers, and rafters are 4x4 on 24-inch centers. Interior walls are painted Sheetrock. Roofs are built on 4x4 beams.

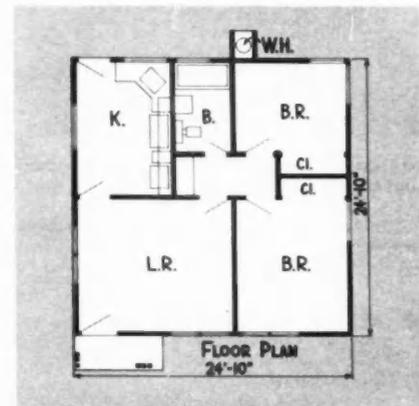
Over them is a layer of Sheetrock, a layer of Reynolds Foil insulation, then furring strips with wood sheathing above. The final surface of the low-pitch, almost flat roofs, is two coats of 15-pound felt individually mopped, and topped with 90-pound granitized asphalt roll roofing.

Exteriors are redwood or stucco. Redwood walls are given two coats of paint, or one of oil and one of varnish. Arthur DiLaura, plumbing contractor, assembles the rough plumbing at the Allied yard, and installs the vents in the partition panels. Houses are built on concrete slabs.

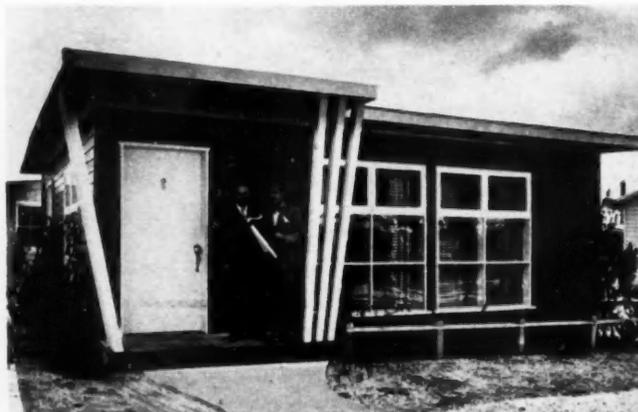
The mortgage company takes a first trust deed of \$2,850 on the houses, plus a reasonable loan on the lots. If the owner is short a few hundred dollars, Allied takes a second trust deed to cover. Aluminum screens, tub and shower, and chrome fixtures are supplied. Plumbing outlets are extended one foot outside the houses.



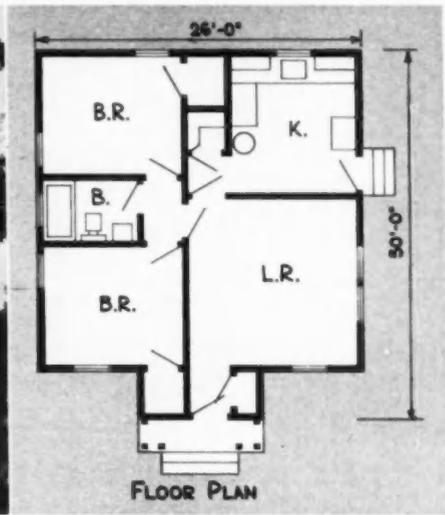
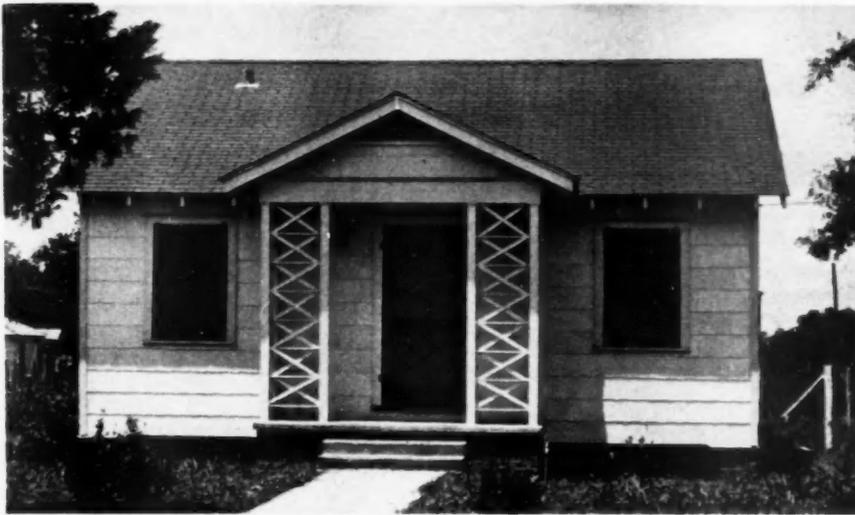
ONE-BEDROOM house sells for \$4,310



TWO-BEDROOM house sells for \$4,500



UPPER SASH of windows are casements. Note tilted 4x4 posts for porch canopy. At right, living room seen from front door



PLAN and photograph of 680-square foot house built and sold on contract in 1948 for \$5,350, including garage

Lumber Dealer Delivers Economy Houses

THE FIRST eleven houses in a development at the edge of Port Allen, La., across the river from Baton Rouge, averaged 780 square feet each, and sold for an average of \$6,080. The price of each house included its share of a \$20,000 investment by the builder in sewage, water and sidewalks. The price range was from \$5,350 to \$7,900. The builder is Leo Murtagh, owner of the Port Allen Lumber & Supply Co.

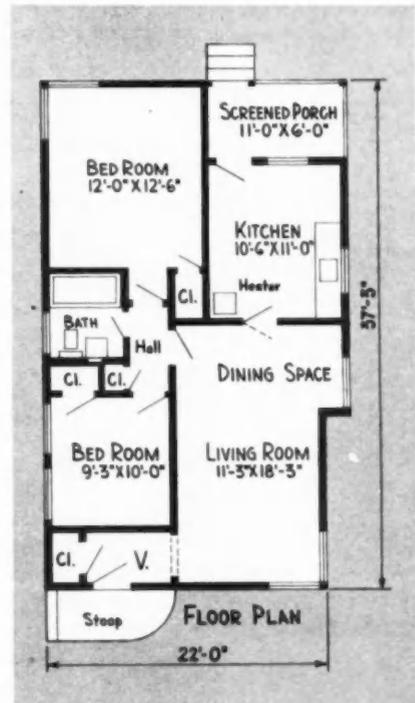
Footings of all the houses are 8-inch concrete, and piers are 8-inch by 20-inch brick. Sills are 6x6, and floor joists, 2x10 on 16-inch centers. Rafters are 2x6. Sheathing and sub flooring are laid diagonally, and roofs are solidly boarded. Aluminum louvers, Andersen windows and doors, and Coleman floor furnaces are standard in all the houses. Walls are Sheetrock, finished with Textone. Kitchen and bathroom floors are asphalt tile, and roofs are asphalt shingle. Copper screens for windows or doors are included. American kitchen units are used throughout.

The 680-square foot house, shown at the top of this page, was built and sold on contract for \$5,350, including a detached garage. The 890 square foot house at the bottom of the page was sold for \$7,200. The price included a garage with work room, L&H electric range, L&H 30-gallon electric hot water heater, 30,000 B.T.U. Coleman floor furnace, Holcomb & Hoke 36-inch attic fan fitted in an airtight fan well with a plywood chute, and a Savage washing machine. The American kitchen unit consisted of a 54-inch sink cabinet, two 24-inch base cabinets and two 18-inch wall cabinets.

Sound construction, attractive designs and economies of operation feature low-cost housing development of Louisiana builder

All of the houses reflect sound construction and expert craftsmanship, and prices are so attractive that buyers outnumber Murtagh's ability to produce. He personally supervises the entire construction of every house. Each house contains at least \$1,000 worth of equipment.

"The most important factors in keeping our prices down," said Murtagh, "are the use of modular dimensions, careful scheduling of material deliveries so that there is no waiting at the job sites, and the manner in which we cut lumber. The superintendent makes a template for each lumber cut, and the carpenter never has to use a ruler. He simply uses the template."



FULLY equipped two-bedroom house with screened porch and garage sold for \$7,200



Designed for Comfortable Living

Exhibited as "A Home for a Hoosier Family" at the 23rd Annual Indianapolis Home Show, this house is suitable to any community of quality



ABOVE: Transparent glass panels flank front door, offset its solid mass. **Right:** street side of house built at the Show

DESCRIBED as an adaptation of an early American cottage by the designer, Edward D. James, architect, this spacious dwelling was the larger of two model homes featured at the 1948 Indianapolis Home Show. In reality, the house is an effective adaptation of modern architecture to the needs of a specific mid-western family. It was selected for exhibition by Home Show officials because of the many practical features incorporated into its design that make for comfortable living.

Using his family as a model, Architect James, a member of the Indianapolis firm of Burns and James, de-

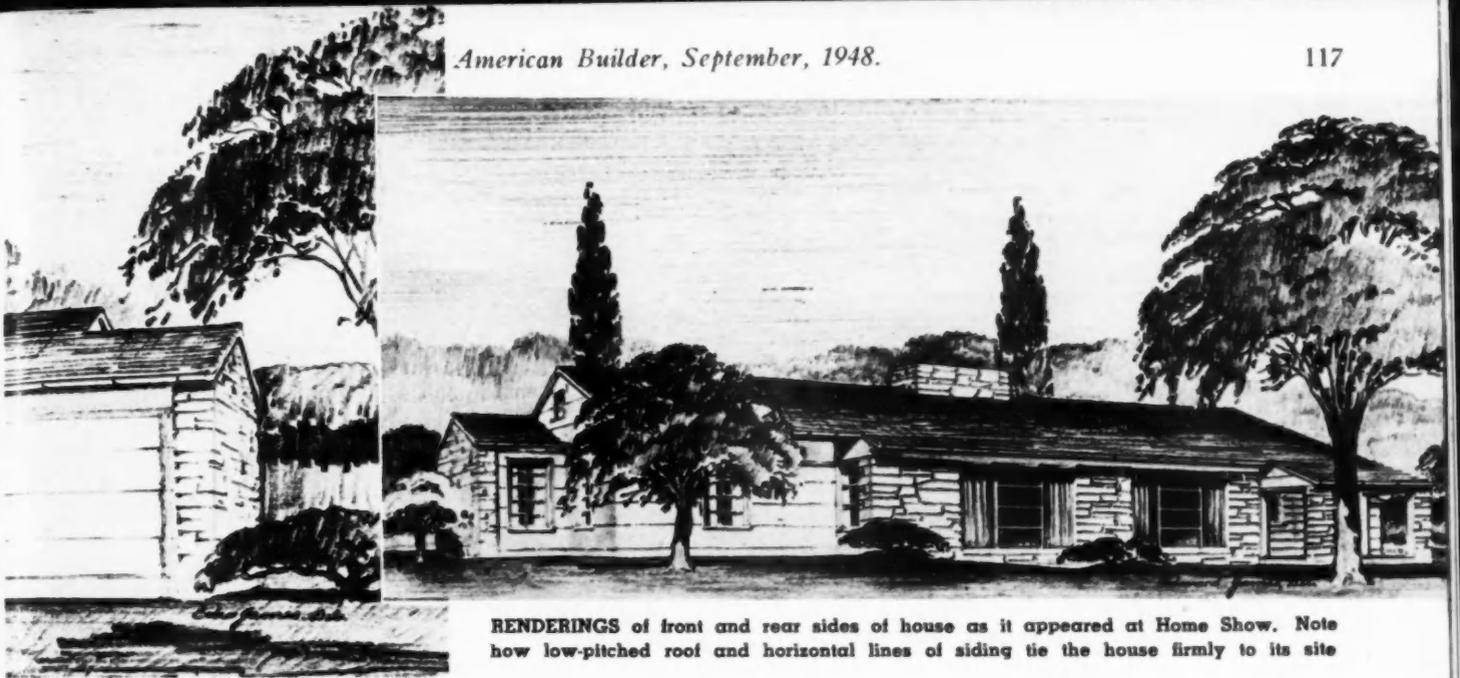
signed the house to meet his family's particular requirements and tastes. Hence the plan provides privacy of bedroom areas, openness of living areas, and space-saving and step-saving food preparation areas. A basementless home, the laundry and utilities are combined in an area adjacent to the kitchen and garage, and accessible from the living quarters.

For purposes of the Home Show, the house was constructed of materials that were available in lieu of trying to use the unusual. For the exterior, beveled siding was combined with sienna Indiana sandstone, topped with a roof of asbestos shingles.



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RENDERINGS of front and rear sides of house as it appeared at Home Show. Note how low-pitched roof and horizontal lines of siding tie the house firmly to its site

Dry wall construction was specified for the interior by J. F. Cantwell, managing director of the Show. In the living quarters, laminated fiber panels were used on all walls and ceilings. Attached to the studding and joists from the rear by patented floating fasteners, the walls were unmarred by nail-holes or other marks. Washable wallpaper in both plain and patterned design was applied to these panels adding color and warmth to the rooms. In the library, walnut panels comprised the background for the sienna sandstone fireplace, creating an interesting contrast to the colorful paper of the adjacent walls. In the laundry and garage, plywood was applied to the walls and ceilings. As-

phalt tile, brick, concrete, and linoleum made up the floor materials.

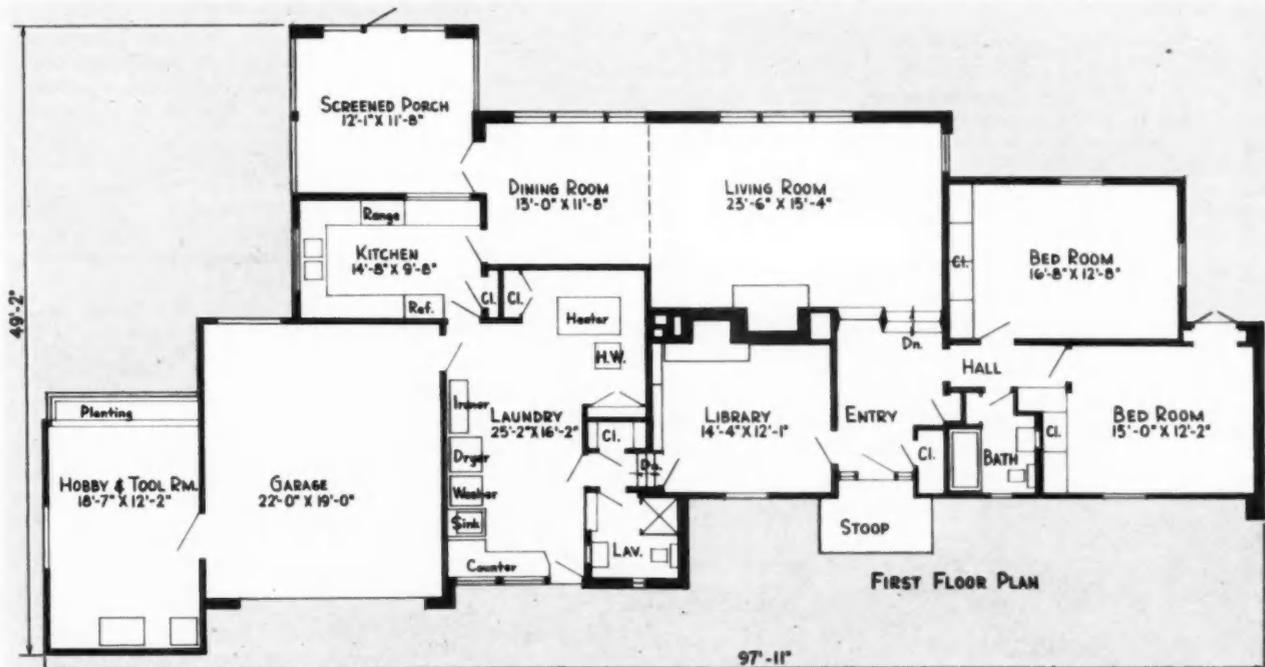
The low-pitched roof and horizontal lines of the dwelling are designed to blend the house into the landscape as an integral part of its setting. Huge glass windows on the garden side of the house merge the indoors and outdoors.

The house turns its back to the street to capture the vista of the garden, and provide privacy for outdoor living. The living-dining room, which looks out upon the garden, and the work areas are sunken the depth of two steps from the remainder of the house. An enclosed porch adjacent to the kitchen, and entered from the dining area, can be converted into a sum-

mer living-dining room. For convenience in serving, a window to the porch is provided above a small breakfast bar in the kitchen.

The U-shaped kitchen looks out over the yard on the side of the house. The combination utility and laundry room, easily accessible from the kitchen, faces the street and has an outside entrance. This room provides space for storage besides housing a complete line of laundry equipment.

An inter-communicating unit in the kitchen drew the approval of visiting housewives. With this device the housewife can talk to the front door caller without stepping outside her kitchen, saving her many footsteps per day.



FLOOR PLAN of house as it will actually be built in exclusive residential district of Indianapolis. Note hobby room

of Insulation

Importance of proper housing conditions for herds is vividly shown in recent comparative study of two dairy barns

WINDOWS and doors provided only source of ventilation in barn



HUMIDITIES in barn ranged from 82 per cent to 91 per cent during tests. In insulated, ventilated barn, variation was 72 to 84 per cent—proper herd conditions

RECENT tests prove that properly insulated and ventilated dairy barns make healthier, better milk-producing herds.

W. C. Krueger, extension agricultural engineer, Rutgers University, concluded a 60-day comparative study of two New Jersey dairy barns—one insulated with mechanically controlled ventilating system; the other, uninsulated and unventilated. In the properly insulated and ventilated barn, there was no sickness among the 26-cow herd—milk production brought a total income of \$3,359.77. In the uninsulated, unventilated barn, several cows in the herd were ill; the total income was \$2,225.53.

The one-story, insulated and mechanically ventilated barn is 34 feet wide, 80 feet long, and has an 8-foot ceiling. Sidewalls and ceiling are completely insulated with fire-proof mineral wool insulation. Positive ventilation is provided by two electrically-operated exhaust fans controlled by thermostats. The barn was designed for stabling 40 milking cows by the Extension Service and dairy department personnel of the New Jersey College of Agriculture. At the time of testing, the total animal population consisted of 35 cows.

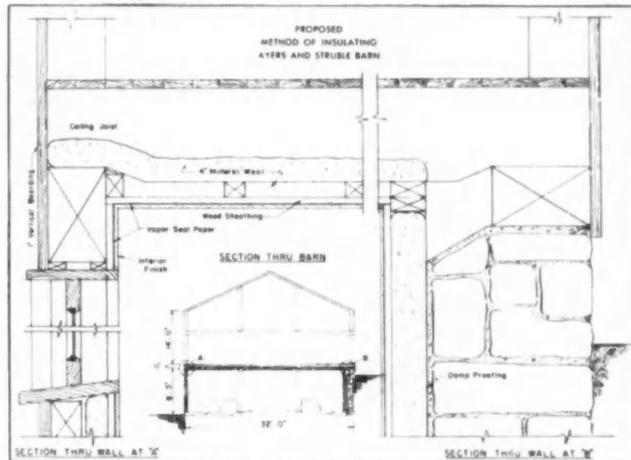
The uninsulated barn, on the Ayers-Struble farm, Sussex County, N.J., was considered to be representative of a better-than-average dairy operation. It is typical of thousands of barns found in principal milk producing areas of the country. A two-story barn with gable roof, it is constructed with the north wall of the first story built into the side of a hill so that loads of hay can be driven into the mow. The barn is 32-feet wide, 96 feet long, and has an 8-foot, 3-inch ceiling height.

No attempt was made to insulate this barn, and there is no definite ventilating system. Exchange of air is provided by opening windows and doors.

It was freezing or below on both farms 55 out of the 60 days. Inside the insulated barn, temperatures remained fairly uniform and changed slowly, never going below 43 degrees. In the uninsulated barn, fluctuations were rapid. In one instance, the temperature varied between 38 and 58 degrees in a 24-hour period.

Had the herd in the insulated barn maintained a level of production for the 60 days equal to the first 15-day period, a total gain of \$9.19, or 4/10 of 1 per cent would have been realized over actual total receipts. In the other barn, there was a loss of more than 9 per cent, or \$313.14.

About \$455 was invested in facilities to control temperature and humidity in the ventilated, insulated barn. This investment returned about 42 per cent during the 60-day test period.



PLAN of insulating uninsulated barn uses 4,300 square feet of mineral wool; 43 squares vaporseal paper

Showroom



RUSSELL R. KILBURN, center, New York architect, who designed offices for Thomas, left, and Craig Ruffin, right, heads of the dealer-millwork firm

Building material dealer erects new showroom and offices which demonstrate application and uses for a broad line of equipment and supplies

WHEN a building material dealer revamps office and showroom so the new arrangement gives both builders and their clients a liberal education in new construction techniques and the use of new materials, he does more than a modernization job. That is the kind of job done by Ruffin & Payne in a recently completed new business home in Richmond, Va.

Proof of the educational possibilities is the fact that at the "open house" last spring—which was attended by hundreds of friends of the firm—an instructor in the vocational school at Richmond brought an entire class of young architectural students to "see what can be done with new interior finish materials". At Ruffin & Payne, he said, the students could learn things that are not yet printed in any textbook.

The new showroom is at the service of any of Ruffin & Payne's builder customers. They may come for ideas themselves, or to show their customers novel effects achieved with new plywood and plastic finishes. They see new arrangements and types of kitchen cabinets, breakfast nooks and built-in furniture and closets.

Opening of the new offices and showroom marks the 56th year of the firm's operation. Originally it started

as a fuel and feed business with a small line of lumber. But today it not only carries a broad line of building material—it conducts a mill operation, the output of which accounts for half of the sales volume. Millwork products are shipped throughout the South and as far north as New York. The

professional builder, in addition to getting his lumber and other building material, can contract here for custom-built millwork in large or small volume.

The new offices are just as much a part of the showroom as the large public display area, planned especially



AERIAL view of new offices and showroom, with large mill in the rear. In the foreground is a corner of the lumber yard, which covers nearly an entire block



Serves As Building Education Center



UNUSUAL checkerboard display window in the new Ruffin & Payne showroom shows some exterior materials the firm sells

to show modern uses of plywood and the manner in which it can be combined with other materials, both conventional and modern. They were designed by Russell R. Kilburn, New York City architect, specifically for that purpose. They serve as educational and selling tools.

Take, for example, the office of Thomas L. Ruffin, president and treasurer of the firm. Prospects are welcome to go in and see the effect obtained by use of sliced walnut $\frac{1}{4}$ -inch plywood and select white maple, combined with solid walnut window and door jambs and stools.

A builder, asking how it was installed, would learn that the panels were nailed and glued, using V-joints on three walls. The V-joint is made by sanding the edge of the panel at a 45 degree angle—just going through the face veneer. To go deeper would expose some of the plywood core which would not take stain evenly and would make finishing difficult.

How was that fine walnut finish produced? First it was filled—with ordinary paperhanger's paste, sandpapered when dry. Then it received two coats of lacquer (the customer can find out what kind, for Ruffin & Payne stocks it). The first coat was steel-wooled when dry, at least five hours being allowed before the opera-



INTERIOR of checkerboard show-window shows samples of roofing panels above and wooden plywood panels below, finished with paint and varnishes sold by the firm



THIS office is done in natural finish panels of walnut plywood, made with V-joints

tion. The last coat was allowed to dry overnight and then was rubbed with steel wool. Two coats of paste wax, rubbed down, completed the finish.

A visiting builder, in the same office, can see how sliding closet doors are made from plywood without hardware being necessary. He will see a double glazed, insulating glass picture window, a ceiling of acoustical plaster. He can note how plywood is used flush, without face trim. Any detail of installation or finish is available to him.

The same type of information can be obtained in, or about, any of the other offices or the showroom. In the office of Craig Ruffin, vice president in charge of purchases and overall operations, comb grain oak plywood



OVER 1,000 persons visited Ruffin & Payne's "open house". This group, coming on special invitation in evening, is largely Richmond builders and their families



THOMAS L. RUFFIN, president and treasurer of Ruffin & Payne



CRAIGE RUFFIN, vice president, purchases and operations

**MATERIALS USED IN
RUFFIN & PAYNE SHOWROOMS**

U. S. Plywood Weldwood and
Weldtex Mengel flush doors
Schlage and Yale & Towne
hardware
Johns-Manville Fibraoustic
acoustical units
U. S. Gypsum Co. Acoustone
plaster
Marlite hardboard and metal
mouldings
Breinig Bros. stains, varnishes and
plywood finishes
Johns-Manville asphalt floor tiles



THE kitchen display shows variety of materials. Cabinets are wood, built in the company mill. The counter top is Micarta. Note unusual effect of the egg-crate ceiling and vertical rounds which suggest a novel breakfast room scheme

and solid oak are used. In the office of the secretary, S. P. Collier, knotty white pine paneling, shiplapped with a V-joint, demonstrates a different treatment and finish.

Rotary cut, unselected birch plywood in 24-inch wide panels, nailed and glued over furring strips, form three walls of the office of W. A. Williams, Jr., vice president in charge of mill operations. The other wall is finished with Weldtex instead of plywood, showing how the two materials can be combined.

Sales Manager Ralph M. Wilkin-son, in his office, can show two types

of ordinary fir plywood combined in a simple design with a special finish. In the salesman's office, an entirely different material, insulating board wall plank, is used for the walls and the ceiling is of acoustical tile. One wall is finished with natural birch plywood to show how it can be combined with the other material.

Even the billing offices, the corridors, wash rooms and rest rooms play their part in demonstrating.

In one corner of the large showroom, three different types of kitchen cabinets, custom built in the Ruffin & Payne mill, are installed. An egg-

crate ceiling in this sample kitchen contrasts with vertical rounds for a pleasing breakfast room decoration. Breakfast room furniture in solid natural birch, the table topped with linoleum, completes the effect. Some of the cabinet doors are sliding and require no hardware. Others are the conventional type with painted finishes, demonstrating the paint line handled by the company.

Ruffin & Payne, with foresight and thoughtful planning, has been able to give better service to its builders and the public, with resulting benefit to the company.



OFFICE of W. A. Williams, Jr., vice president



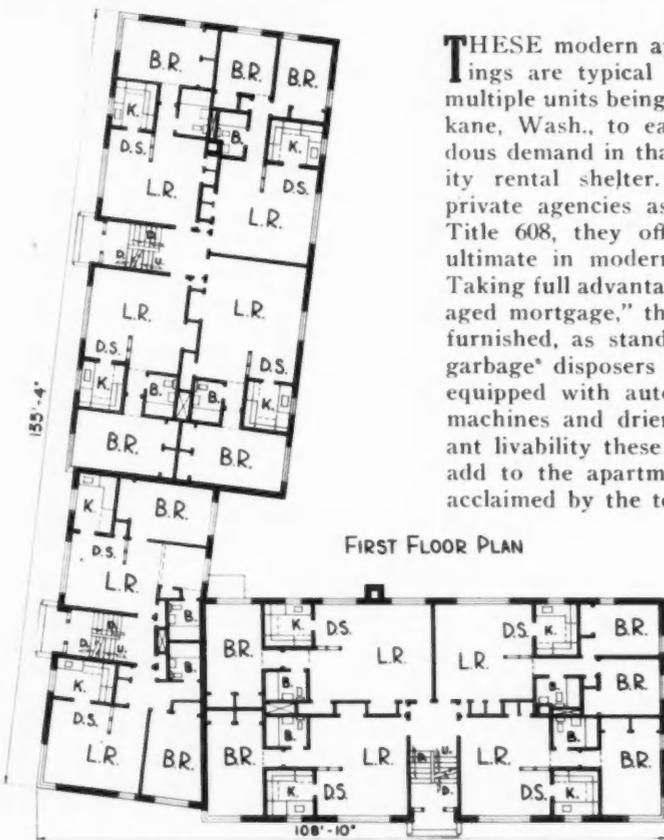
HALLWAY leading to executive offices shows pleasing use of several plywoods

EXTERIOR is in two tones of brick: A cream color and a red-rug face brick. Fenestration is generous and reveals careful planning. Steel sash are used throughout. Modern motif of building is accentuated in front entrances. The Elizabethan, right



Big Demand for Modern Small Apartments

Popularity of multiple-family buildings in Spokane, Wash., emphasizes the need for similar structures throughout the country

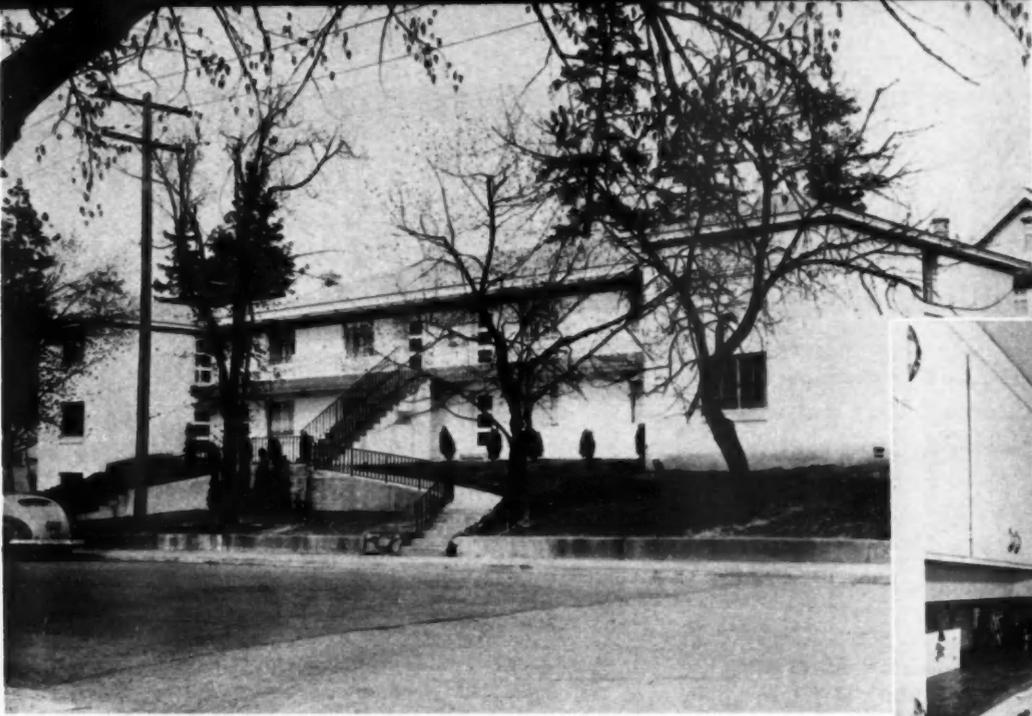


THESE modern apartment buildings are typical of the kind of multiple units being erected in Spokane, Wash., to ease the tremendous demand in that city for quality rental shelter. Financed by private agencies as well as FHA Title 608, they offer tenants the ultimate in modern conveniences. Taking full advantage of the "packaged mortgage," the builders have furnished, as standard equipment, garbage* disposers and laundries, equipped with automatic washing machines and driers. The resultant livability these "plus" features add to the apartments is heartily acclaimed by the tenants.

The Elizabethan, shown above, was the first 608 to be erected in Spokane. The building is straightforward in appearance and practical in plan. It is an L-shaped structure fronting on two streets, and contains 27 apartments. Six of these apartments have two bedrooms, while the remaining 21 are one-bedroom units.

The building has three floors. The ground floor is 28 inches below grade level and contains the laundry, a large locker room, the heating plant, and eight apartments. Three main front entrances open into corridors which extend to rear entryways. This latter feature is an added convenience for tenant car owners, since a car port for 15 cars is located in the rear. A connecting corridor between front and rear entrances on the ground floor permits tenants to circulate to any part of the building without going outside.

Each apartment has a large living room and dining area. Floors are oak throughout except in the bathrooms and kitchens where linoleum is used. Each kitchen is



equipped with a GE electric sink and garbage disposal unit. Ample storage is provided in large bedroom wardrobe closets. Stair halls are carpeted and receive adequate daylight through large panels of glass block.

THE Exeter features the exterior staircase and connecting balcony to second floor apartments. Balcony is of cantilever construction. Supporting steel members are welded to floor joists of main wall. Kitchen layout reflects careful planning. Electric ranges and Frigidaires are standard equipment

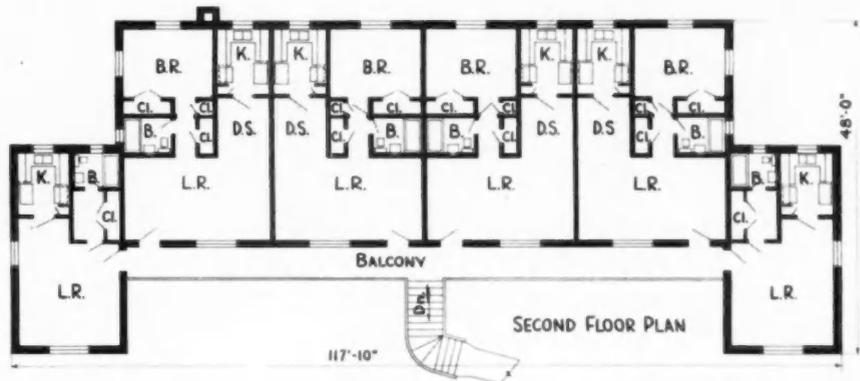
The building was designed by Victor L. Wulff and Ralph J. Bishop, architects. It was erected by Hazen and Clark, contractors, and is owned by M. T. Donato. The construction cost including architects' fees, landscaping, appliances, carpeting, blinds and land was \$228,000.

The Exeter, designed and built by Walter Bailey of Spokane, was privately financed. Later, Bailey erected a twin structure across the street, named the Tyanwanda, which is a 608 project.

The Exeter is unique in that it features an exterior stairway to the second floor apartments. By so locating the stairs, the designer eliminated the need for connecting corridors within the building. Entry to each apartment is direct from the outside, adding a degree of privacy seldom achieved in multiple-family dwellings.

A two-story structure, The Exeter contains eight one-bedroom apartments and four bachelor units. Rental includes heat, hot water, electric ranges and refrigeration. The one-bedroom apartment rents for \$90 a month and the bachelor units, for \$70. A laundry with metered Bendix washing machines and driers, and lockers for the tenants are in the half-basement.

EACH apartment has a large, well-proportioned living room and dining area



Behind the Scenes

In an Asphalt Tile Factory

Highly mechanized equipment makes manufacture of this popular floor covering one of most rapid and efficient operations known

OF all fabricated building materials, manufacture of asphalt tile is among the most rapid and efficient operations known. Within 30 minutes after the raw materials go into the mixers, the tile is packaged and ready for shipment.

This is because modern asphalt tile plants are highly mechanized and simplified practices in producing quality. Sizes and colors have been adopted by the Asphalt Tile Institute in conjunction with the U.S. Bureau of Standards.

Manufacture of this flooring material consists of mixing asbestos, mineral coloring pigments and asphaltic or resinous binders under heat into a thermoplastic mass and then rolling and cutting it into standard sizes and thicknesses.

After thorough mixing, the mass is formed into a sheet which moves by belt conveyor to finishing calenders. This sheet, passing through the calenders, is compressed into one of the two standard thicknesses of 1/8 or 3/16-inch. At the same time it is given its smooth surface.

After leaving the calender machine, the sheet moves to a punch press where it is generally die-cut into one of these usual sizes:

Squares 9x9 and 12x12 inches; rectangles 6x12 and border tile 18x24 inches from which the required width is cut on the job; half-tile cut diagonally from 9x9 and 12x12-inch squares for diagonal installations; feature strip in widths of 1, 1½, 2½ and 3 inches.

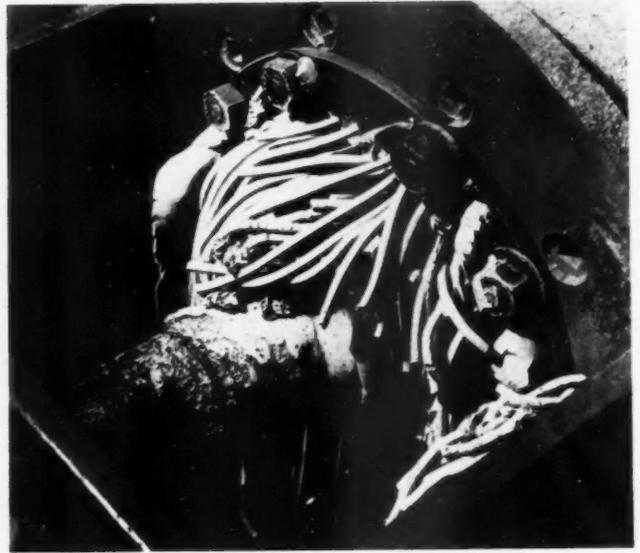
Since material is produced in both plain and marbled colors, floor design is unlimited.

Plain colors include black, dark red, dark green, light green, light gray, light red, medium red, tan, buff, cream, white and blue. These colors are used to mottle tiles for marbled effects, which are obtained by using one color as background and one or more of the other colors for veining.

Also available are tiles bearing lettering, pictorial representations or other devices to provide individualized decorative effects in a floor.

Because it is a thermoplastic material and will follow the contour of the sub-floor, asphalt tile should be laid only on sound, smooth, surfaces. New concrete should be troweled to a smooth surface and be free of grooves and depressions. Expansion joints must be filled on both new and old concrete and the surface cleaned of paint and foreign matter. Asphalt tile manufacturers provide underlayment compounds to simplify the preparation of sub-floor surfaces.

Wooden sub-floors should be of double thickness, of seasoned tongue and groove boards no wider than three inches, non-springy and sanded smooth. Underlayment compounds also are available for wood floors. Asphalt tile should not be installed on wood on or below grade where the wood is most likely to rot.



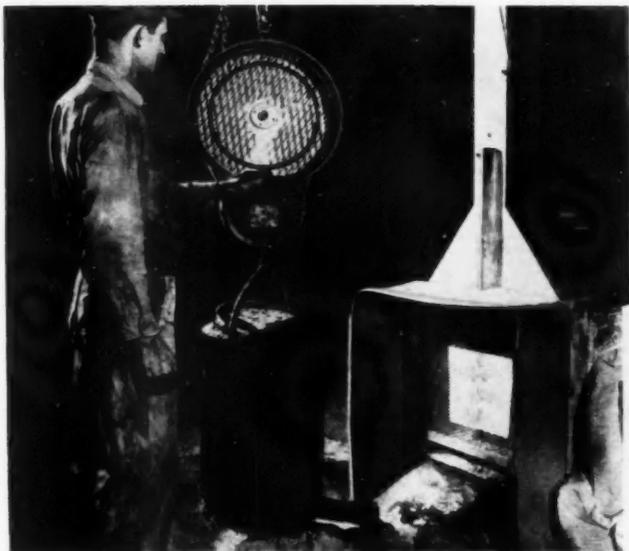
1. MOTTLÉ colors are forced through these small openings and then added to the background colors



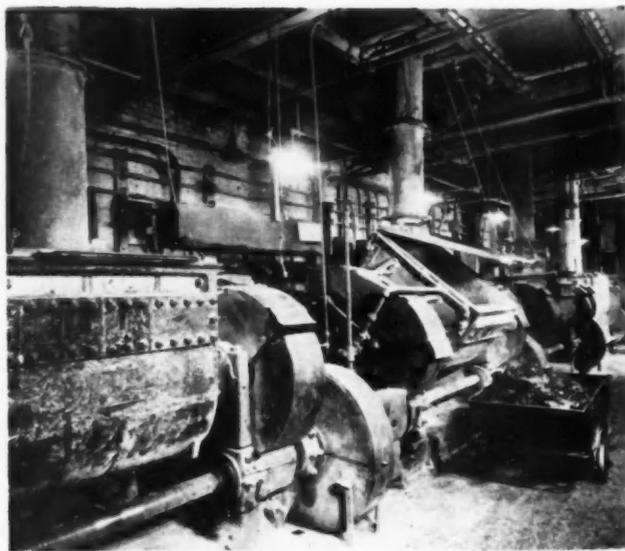
4. MOTTLÉ colors for marbleizing are added to the mix a short time before the mixing cycle is completed



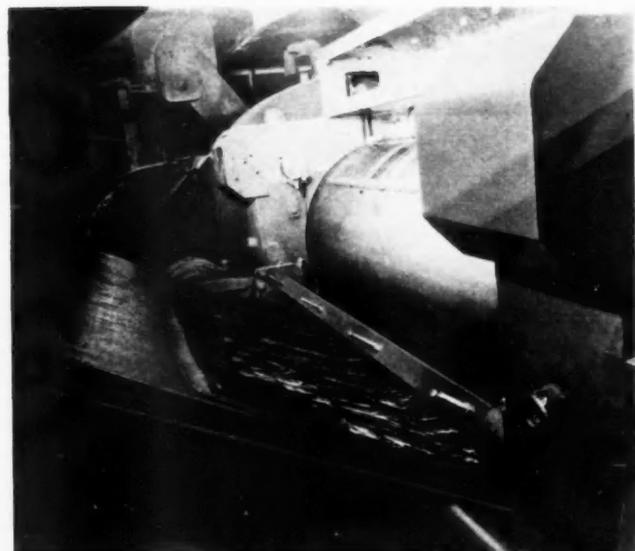
7. HERE the material is carefully fed into a punch press where it is die-cut into tile with square edges



2. BACKGROUND colors are prepared on the floor above mixing machines and poured through hopper openings



3. THESE machines mix raw materials. Large pipes at top of each machine connect with hoppers on floor above



5. THE hot mix here has been formed into a blanket and is shown being stripped from the face of the roll



6. READY for the first of the finishing calenders, the still hot, rough blanket is folded over and turned



8. INDUSTRIAL tile is hand set, block by block in fast-setting cement. Floors are ready for immediate use



9. TESTING an asphalt tile floor for conductive resistance. Asphalt tile far exceeds the safety margins

Many Men, Many

By R. E. Saberson

Everyone in the United States is entitled to his own opinion on the housing problem but it should be based on facts and knowledge of the real problems involved



IT TAKES a national "problem" to bring out the fact that there are many men of many minds when it comes to working out solutions.

Now, in any country on the face of the globe, everyone has a right to his own opinion, albeit in most places it is necessary to think twice before expressing them publicly, if at all. Not so in this fair land of ours. Here it is still permissible to give vent to one's ideas on almost any subject that comes to mind and do so with such vim and vigor as one may possess and through any instrumentality of his choosing.

All of which usually complicates the situation since the authority of the spokesman too often is unknown to the listeners and his statements may be taken more seriously than the background of information warrants. Chaos is the inevitable result of too many men of too many minds.

Housing is a typical example.

However, before delving into the subject, there is another aspect of the situation which pertains to any so-called problem regardless of whether it applies to houses, automobiles, washing machines or anything else.

It Is Easy To Criticize

We refer, of course, to the nation-wide tendency to criticize somebody, either for actually creating the emergency or at least for not doing anything constructive to bring about a satisfactory solution.

Once again this is particularly true of housing.

Here is a typical example of what we are driving at. We came across the following paragraph in the declarations approved unanimously at the annual gathering of one of our greatest churches. After touching on several other subjects, this is what was said about housing:

"We believe that the tardiness, obstructive tactics and inertia exhibited in meeting the housing shortage represent the most harmful violation of common decency and the most flagrant dereliction from our social duty to veterans in the postwar record of the American Congress. We have repudiated our pledges to those who fought for our homes by denying them

Minds

houses. We recommend that this assembly telegraph this section of this report to the appropriate committees of Congress."

There you have the reason for the housing shortage! It is interesting to observe that apparently it is *not* the same reason for the post-war shortages of automobiles, clothing, meat, radios, electric washing machines or anything else.

According to our interpretation of this particular paragraph, the housing shortage is due to the *tardiness, obstructive tactics and inertia* of the American Congress . . . a most *harmful violation of common decency* . . . the most *flagrant dereliction from our social duty to veterans* . . . We have *repudiated our pledges* to those who fought for our homes by *denying* them houses.

The italics are ours. They emphasize some mighty harsh words. It would appear that the writers of the declaration earnestly believe that the housing shortage can be solved by an Act of Congress and that the lack of a solution is a deliberate determination on the part of the nation's statesmen to prevent veterans from finding a place to live by tactics that are described as "tardy and obstructive." Furthermore, that these actions on the part of our lawmakers amount to the repudiation of a promise.

When we came across the statement it made us pause for serious thought because it seemed to us that it represents the type of thinking which spells the destruction of competitive free enterprise in America. It apparently subscribes wholeheartedly to the idea that socialized housing is the answer to a temporary lack of homes. It ignores completely the fact that the shortage actually is being taken care of by private industry at a rate which measures up closely to the largest home building year in American history. It fails to take into consideration the fact that this miraculous achievement has been carried on despite handicaps which probably have never been equalled since the first human habitation was constructed. Nevertheless, homes have been built during the past two years at a prodigious rate and already the housing shortage has been

solved in many a community. That is something usually overlooked.

There Is a Shortage

We are not foolish enough to make the unqualified statement that America has no housing problem, especially in the large cities, but we do claim that the final answer to the problem will best be found in the efficient operation of competitive free enterprise rather than through the bungling of bureaucratic endeavor, hampered by countless miles of red tape—complicated by the impractical ideas of theorists and the wasteful efforts of constructionists who have no need to conserve money, time or materials, since the overburdened taxpayer must foot the bill.

The dismay which occupied our thoughts when we read the housing declaration was the direct result of three things: (1) the apparent lack of knowledge on the part of the church people that the first post-war chance at a solution of the housing problem was under bureaucratic supervision which permitted the selection of a housing expeditor who failed miserably to expedite, (2) the fact that they were not aware that private competitive enterprise is building individual homes at a rate which is rapidly solving the housing shortage in many, many areas and that the extension of its activities into the rental field has been largely prevented by the government edict, (3) the fact that church men should subscribe so wholeheartedly to the trend toward the socialization of houses which is the moot question involved in the proposed "relief" legislation. If such a step were taken in one of our great industries, one does not need to be a seer to imagine what would soon take place in other industries. It raises the grave question as to what would also happen eventually to our churches if such a program should be carried out.

We have no brief with the church for calling attention to the urgent need for a solution of the housing problem . . . or any other problem, for that matter. Our concern is based primarily upon the fact that instead of pointing to the highly commendable records that have been made since the great building industry shook itself loose from government controls, the declaration refers to these achievements in such terms as "tardy," "obstructive," "harmful violation of common decency," "the most flagrant dereliction," "repudiation of pledges,"

"denial to veterans," and so forth.

The hard-working home builders of America who have covered the landscape with acres of houses in practically every section of the United States (more than 800,000 a year for two years) will wonder at the harsh terms used in the declaration . . . especially when they are coupled with a plea to the American Congress for more of the same measures which so greatly hampered the beginning of the nationwide surge of home building now under way.

Volume Breaks Record

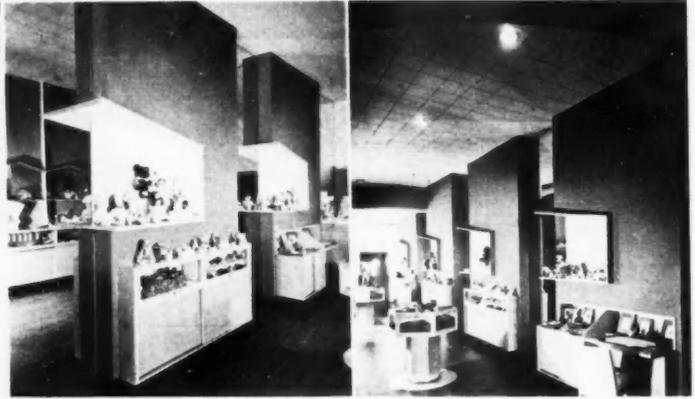
A more constructive attitude, it appears to us, would have been to call attention to the need for more homes without suggesting socialization as an answer. Opposition to the measures under consideration stem from those groups which have given the subject much thought and attention, and have had far more practical experience than those who promote them. They have observed the delays, red tape and high cost which accompany bureaucratic journeys into the field of private enterprise. They believe honestly and sincerely they can do it better, quicker and far more economically than it can be done by the government AND THE EVIDENCE IS ALL ON THEIR SIDE.

Once again let us reiterate that the church is well within its rights to resolve concerning the need for an early end to the housing shortage. On the other hand, there is as grave a doubt in our mind concerning the wisdom of suggesting *methods* that should be employed to bring it about. Freedom of thought, speech and action would entitle the home building industry to point out that less than half of America's families attend church or have church affiliations. Yet it is doubtful that anyone in the industry would suggest decrying that fact in resolutions or propose ways and means for correcting such a distressing situation.

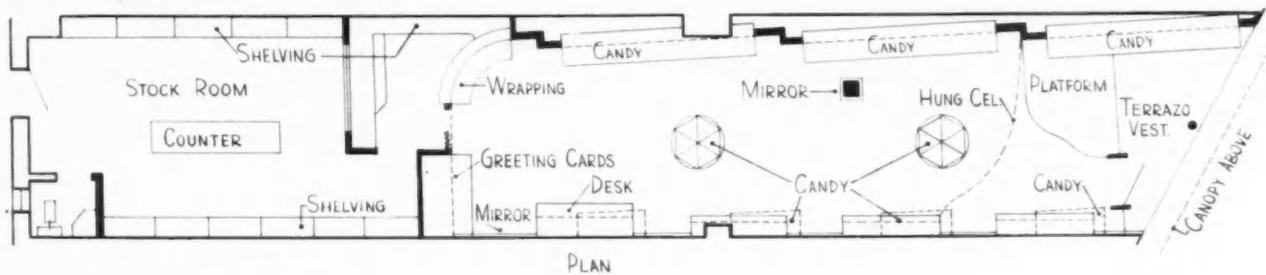
It all adds up, as we said earlier, to the fact that there are many men of many minds when it comes to working out the solution of any problem. Perhaps it is well that this is the case, for here in America we have been able to come up with some pretty fair answers in the past. And we shall continue to find satisfactory answers as long as the solution is written by those who best know the subject and as long as competition keeps them up on their respective toes.

Styling Stores For Today's Trade

A small candy store, which could have been dwarfed by larger neighbors, is saved by smart architectural treatment



CLEVER use of glass mirrors and modern wood finishes, enable designers to give illusion of spaciousness to small store



ODD shapes and zig-zags heighten effect

THERE can be no argument against the fact that this attractive candy store stands out as exceptional only because of the clever design and wise selection of materials used for structure and decoration. The front was small, and the store is in a block with three other large units, yet it commands the attention necessary to attract customers through the unusual flush door treatment.

The entrance is interesting in that it sets in at an angle, with the entire front of plate glass surrounding the door and jamb with no visible structural members. Even the lally post in front harmonizes with the vertical diameter wood posts inside.

The Bit o' Sweets candy shop is located in Hempstead, Long Island. Herman H. Siegal, architect, and Ernest D. Rapp, designer, divided one wall into a series of three bays, as seen in the picture above at the right. Each bay contains a mirrored panel from floor to ceiling, separated by piers into which are set odd-shaped

showcases, open at one end and flush with the edge of the pier. The center photo shows how this gives the effect of a double case and makes the entire store seem wider.

The piers adjacent to the mirrors are finished in chocolate brown. The ceiling is light cocoa. Woodwork is a pickled oak finish. The soffit, which extends out over the vestibule, at the front of the store, is painted vermilion. Lemon yellow is used for accent.

The lighting is a combination of incandescent and fluorescent. In the ceiling are recessed incandescent high-hats with birds' eye lamps. Fluorescent tubes are used in the display cases.

The ceiling is of Celotex acoustical squares. Armstrong linoleum, in a jaspe pattern, is used for the floor covering, contrasting accent circles surrounding the small hexagonal display cases in the center of the store. The whole effect is of a store much larger than actually is the case.



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KEYMESH REINFORCEMENT applied on five-room house ready for first coat of stucco



PLASTERER applying scratch coat

Stucco Properly Applied Finds Ready Acceptance

BUILDERS and plastering contractors in Green Bay, Wis., estimate that 150 to 250 of the city's 500 new houses this year will be finished with stucco. Two decades ago there were only two or three stucco houses a year in the city. The reasons advanced by builders for the popularity of stucco are costs of application and maintenance and techniques developed by local plastering contractors to make the material practically impervious to weather changes.

Winter temperatures in Green Bay hover near the zero mark, and frequently dip well below. Summer days usually are hot, and the nights cool. A drop of 40 degrees between mid-day summer heat and midnight is not uncommon. An exterior building material, therefore, has to resist wide ranges of temperature and quick changes. To meet these conditions, plastering contractors have developed a method of applying stucco that results actually in a steel reinforced siding one inch thick.

The method used consists of nailing waterproof building paper over

the sheathing. Next, 1½-inch, 17-gauge Keymesh, a galvanized wire fabric in rolls three feet wide, is applied with furring nails spaced eight inches on center. The furring nails hold the mesh firmly ⅜ inch from the backing. Thus, the ⅜-inch scratch coat completely embeds the steel. A ⅜-inch brown coat is applied after the scratch coat has cured. Finally, a ¼-inch finish coat is applied. The resulting thickness is one inch, and the mesh is steel reinforcement.

Two methods of applying color are used. One calls for mixing the pigment in the finish coat. The other calls for use of a Venetian cement paint. In either case a finish is obtained that will require very little maintenance expense. Two to three weeks are allowed for each coat of stucco to cure, as a precaution against shrinkage cracks.

Stucco costs in Green Bay range from \$2.50 to \$3.00 a square yard. Lloyd Meacham of the real estate and building firm of Meacham & Son, stated that Green Bay home owners ask for stucco, and that as a



BROWN COAT on duplex house being built by general contractor Martin Nooyen

result, the 15 homes being built by his firm this year all will be stucco, or stucco trimmed with stone. The company offers a four-room house complete with bath, basement, hardwood floors and warm air heating for \$8,500. Ralph P. Belanger, a plastering contractor who operates three crews, plastered 74 houses in the first six months of 1948. Of these, 54 had stucco exteriors.

Finishes used in Green Bay vary from smooth to rough and patterned. One plastering contractor has developed a method of applying the finish coat that gives the appearance of wood siding. Prior to the war, there was a slow, steady increase in the use of stucco. The great increase, however, has come since V-J Day. It is freely estimated that there is two-thirds more stucco used now in Green Bay than before the war.



LEFT TO RIGHT: Joe Coppersmith, general contractor; R. P. Belanger, plastering contractor; Martin Nooyen, general contractor. All advocate stucco in Green Bay

VARIETY in stucco finishes, color combinations feature houses by Meacham & Son

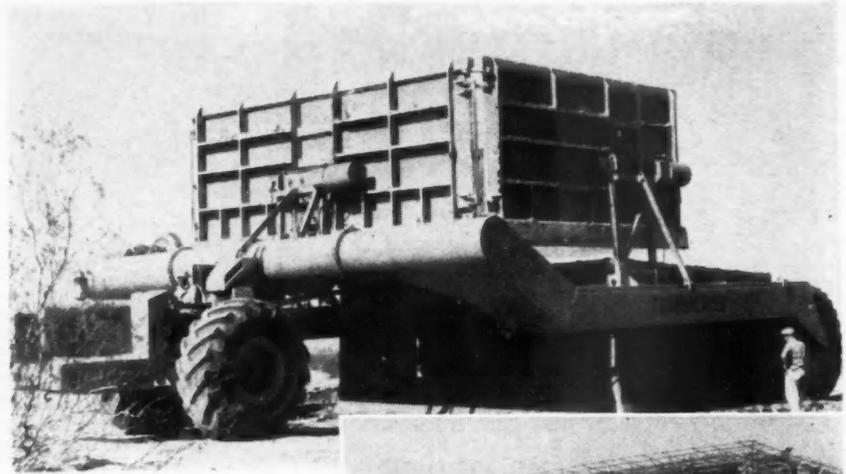
Monolithic Houses Produced At Low Cost

TOURNALAYER machines, manufactured by G. R. LeTourneau, Inc., are being used to erect 100 two-family dwellings at Muroc Air Force Base, Lake Muroc, Calif. The houses are to be occupied by air force base personnel. The initial contract for the 100 houses totaled \$750,000.

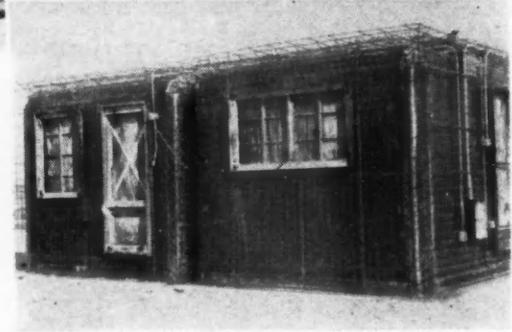
The Tournalayer method of home building is not new. Home builders were introduced to the huge machine more than a year ago. Houses had already been built by the equipment in Mississippi, Texas, Arizona, Brazil and Argentina when the William Radkovich Co., of Los Angeles obtained Tournalayer equipment to answer government bids advertised by the Los Angeles office of the Corps of Engineers.

The bid submitted by Radkovich for family quarters to be erected at the base specified a monolithically poured, reinforced, insulating pumice concrete home, single story, cast by the LeTourneau method. The units were to have a floor area of 1,347 square feet and feature, besides a flat concrete roof with overhanging eaves of three and one-half feet, complete air conditioning. By using LeTourneau's gigantic equipment, the contractor was able to offer 400 square feet above requirements, and still hold to his low bid figure.

Major equipment used on the Muroc project consists of a Tournalayer,



THE Tournalayer, with outer form raised in air, pulls away after positioning a monolithic unit on building site. Door and window frames, electrical conduit, fuse boxes, and room outlet boxes are set in place against the inner forms. Reinforcing steel is mounted to complete the preparation for placement of the outer forms



layer, four sets of house forms, two LeTourneau Tournamixers and a LeTourneau Tournacrane. All houses are poured and formed at a central operating point and require only 16 hours before being placed on sites. Uniformity in design is eliminated by employing separate patterns in rigging forms, varying facing, and multi-color combinations in painting.

Two sizes of house forms are employed to shape each of the double-unit dwellings. One form will monolithically cast a basic unit of a house 32 feet, 8 inches by 24 feet with a longitudinal center partition, while a smaller size casts, in one piece, a structure measuring 18 feet, 8 inches by 24 feet. Each of these units is picked up and carried bodily to the housing area by the Tournalayer machine, and there the units are set seven feet apart on previously prepared footings. They are then joined together with a conventionally constructed corridor, 7 feet long and 16

feet wide. This portion is further tied by pneumatically-applied mortar or gunite. This leaves little to be done other than normal finishing work in completing the structure.

Each living unit has two bedrooms, a large living room, kitchen, dining room, bathroom and service porch. Work crews, kept at a minimum on this machine-method project, are completing pours on large units in an hour and a half, and on the smaller ones, in as little as 45 minutes. Pouring continues until the flat roof on each unit is completed.

Most of the finishing work has been subcontracted. Electricians, plumbers, millwrights, metal and cabinet workers complete their various jobs as specified. Floors are poured, troweled and given a one-inch finish coat of concrete. Because of the monolithic, poured roofs on the structures, no caulking is necessary. They are treated with a water-proofing compound.



AT LEFT is one type of Tournalayer-built home. The flat-roofed duplex at right is the type being erected at Muroc Air Base



AFTER basic course of classroom training, men are assigned to jobs for experience

Manufacturer Trains Franchise Holders

A SYSTEMATIC course of training and assistance in obtaining equipment is an integral part of the service rendered to new franchise holders by the FormStone Co., Baltimore, Md. The FormStone patented process is a method of applying exterior or interior wall finishes on new or existing buildings. In addition to obtaining the exclusive rights in any given territory, the franchise holder and several of his mechanics receive com-

plete training in the craftsmanship of applying the product. This course also includes training for executives in selling, designing, and estimating.

The product can be applied over any surface with sound backing—shingles, siding, brick, stucco, cinder block or concrete block. A typical operation in an area where volume is possible consists of four crews of five men each, grossing about \$150,000 with a gross profit of 39 per cent.



EVERY step in the application process is included in the training course. Here men are learning how to prepare surfaces, what tools to use, how to use them and how to apply the mortars. At right, a student develops patterns in Form Stone

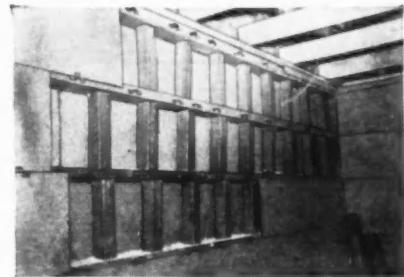


AFTER the student has created a stone-like pattern, he is taught to blend it with natural stone granules of various colors, using a special blowing device. The margin of each stone block is then tooled to create the true mortar joint

New Wall Concrete Construction

A NEW type of concrete wall construction, introduced by the Modern-Wall Co., Osborn, Ohio, provides a means of pouring, at the building site, a wall skeleton of interlocking, cement-filled metal forms. The forms are anchored between panels of standard insulating board or plywood, and two types of lightweight (26 or 28 gauge) interlocking metal members are used.

The process, Modern-Wall Co. claims, enables unskilled workers to erect walls of the steel-encased con-



SECTION of wall with insulation board removed; how assembly process is repeated



LIGHTWEIGHT interlocking metal members, with clips, holds side board panels

crete framework in accordance with any architectural plan without the use of machinery.

Metal members, forming the basic elements of this new concrete construction, consist of a preformed angle, bent double to form a 14-inch square tube that becomes the vertical member; an 8-foot horizontal channel, and small metal clips with which the panel boards are secured to the channel.

The horizontal channels have squares punched out at 18-inch intervals, into which the tube-like vertical forms are inserted. Both the vertical and horizontal members may be cut to meet any dimensional requirements, or to permit installation of windows, doors, or in-the-wall plumbing or heating fixtures.

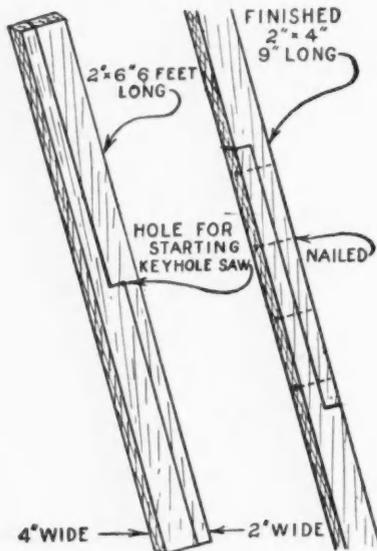
Modern-Wall Co. recommends this construction method for most types of residential and light commercial or industrial structures.



How-To-Do-It Pointers

How to Make a 2x4 Out of a 2x6

IN offering this idea, HERBERT E. FEY, New Braunfels, Texas, says: "to increase the length of a 2x4, I

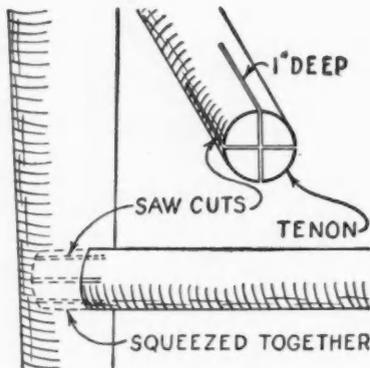


mark off the 2x6 as shown in the sketch and then rip along the mark from both sides. Where these slits meet at the exact center, I drill a hole for starting the keyhole saw. I then cut away the remaining two inches of the mark. The final step is to spike the two pieces together with long nails. A 2x6 four feet long will make a 2x4 six feet long; a six-foot piece will make a nine foot 2x4; a ten foot piece will make a 2x4 fifteen feet long, and so forth.

How to Mortise Railings The Easy Way

TIME and labor can be saved when making numerous small mortises for vertical strips used in railings, cribs, and play-pens if a continuous groove is made in both rail pieces. Filler strips are to be forced into the groove between uprights. Mark off the mortise positions on both rails and insert the vertical members. Care must be exercised to cut the filler strips to the right length in order to

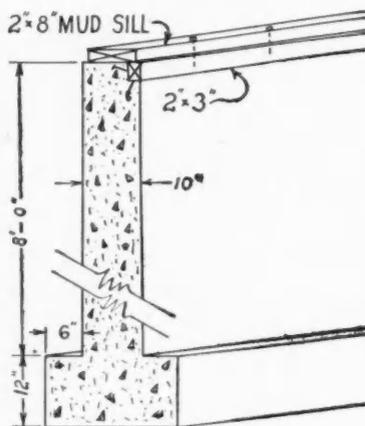
obtain a tight fit. Force small gluedipped wedges beside those tenons that do not fit properly and plane off all filler strips so that they are flush with the rail. HERBERT E. FEY, New Braunfels, Texas, suggested this short cut.



How to Set Mud Sill in A Concrete Wall

THE sketch below shows a 2x3-inch member placed on top of a basement wall and secured to concrete wall by means of 16d nails imbedded into the concrete. This has proved to be a fast and efficient way of setting the grade of the concrete wall, screeding the concrete smooth and fastening the mud sill.

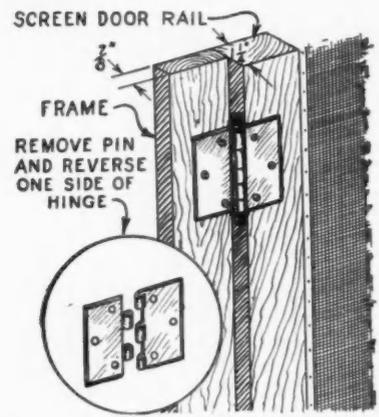
Since the 2x3-inch member is on the grade, grouting or shingling of the mud sill is not necessary, nor is it



necessary to bore holes for bolts. Just spike the mud sill to the 2x3. Submitted by J. JEROLD NORMAN, Oswego, Ore.

How to Hang a Thick Door on a Thin Frame

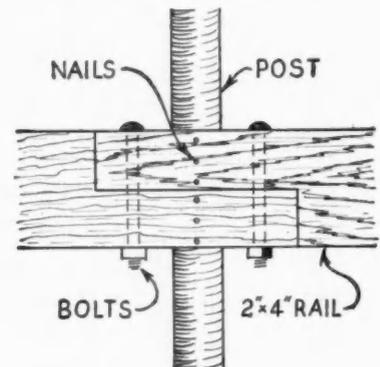
THE need for blocking out hinges when hanging a thick screen or other house door on a thin frame is unnecessary if the hinges are reversed as shown in the sketch. Take out the pin and turn one half of the hinge over. Then replace the hinge. It has been found that this will offset the butt sufficiently to make the



use of blocks unnecessary. HERBERT E. FEY, New Braunfels, Texas.

How to Strengthen a Platform Railing

STRONGER joints will result when nailing horizontal members of a platform railing to the upright members if the ends are notched or halved as shown in the drawing. The ends are lapped and held together by means of two bolts. The strength of such a joint is evident because nails can be driven not only through the center,



but from the top and bottom as well HERBERT E. FEY, New Braunfels, Texas.

How to Slot a Tenon For a Tight Fit

IN submitting this suggestion, HERBERT E. FEY, New Braunfels, Texas, states: "I have found that instead of trimming tenons in order to get a tight fit in holes, it is best to form the tenon to the approximate size, and then cross slot it with a fine saw. This permits the end of the tenon to be squeezed and driven into the hole to make a perfect fit. A coat of glue or cement applied to such ends will make a better job.

American Builder will pay \$5 for your favorite short cut or job pointer. Send rough draft to Architectural Editor, American Builder, 105 W. Adams St., Chicago 3, Ill.

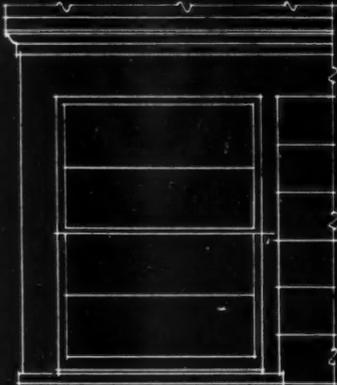
AMERICAN BUILDER'S BETTER DETAIL PLATE

American Builder, September, 1948.

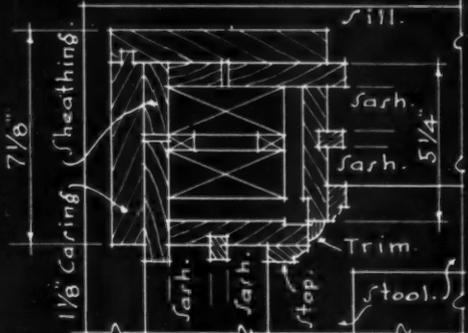
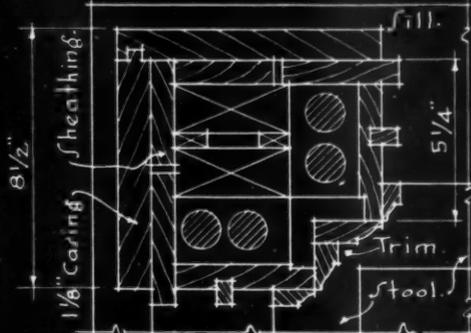
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NO D-47. CONSTRUCTION DETAILS CORNER WINDOWS.

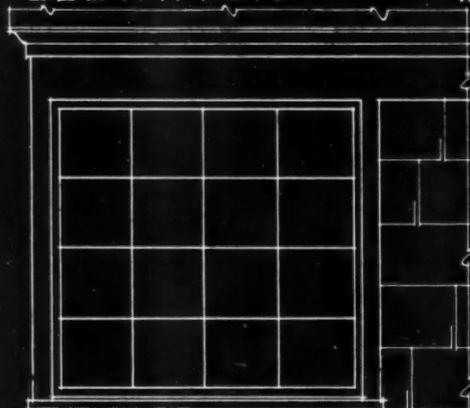
R. J. A. 1948



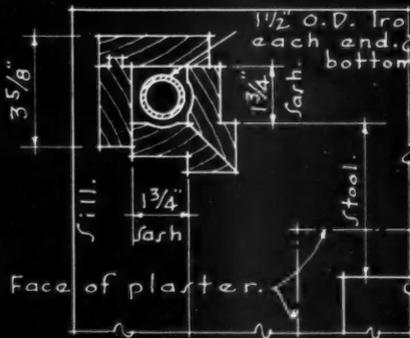
ELEVATION.



HORIZONTAL SECTIONS AT CORNERS. WEIGHTS AND CORDS. SPRING BALANCERS.



ELEVATION.



SECTION.

1 1/2" O.D. Iron pipe, threaded flange at each end, securely screwed to top and bottom window headers.

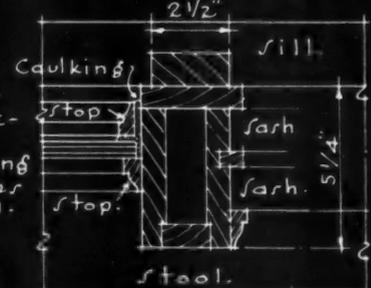
Details above are for double hung wood windows, used with weights and cords or spring balancers.

Detail at left shows stationary sash picture window. Use of iron pipe makes possible a narrow corner post or casing, especially desirable in today's design trends.



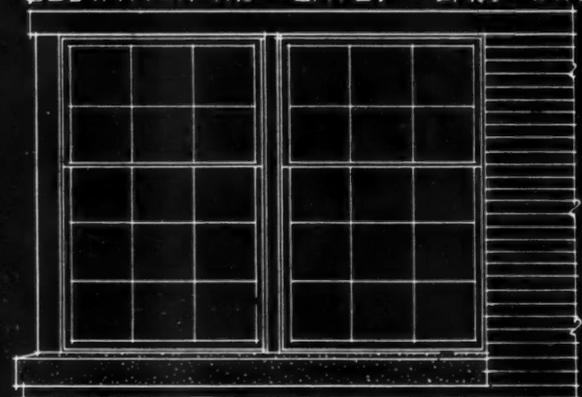
ELEVATION. INSULATED GLASS WINDOW.

Details of thermal insulated glass picture window with double-hung windows at sides for ventilation.

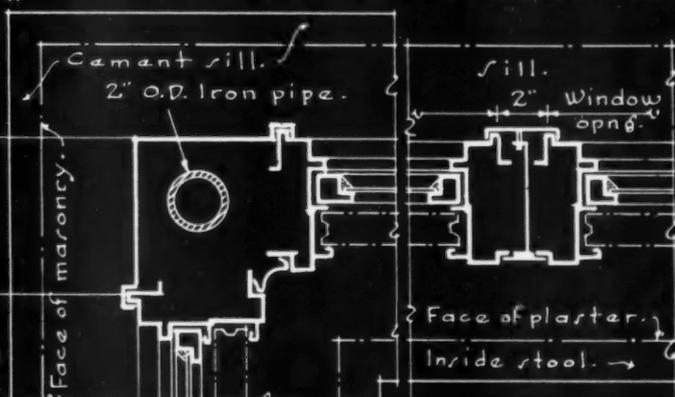


MULLION DETAIL. A

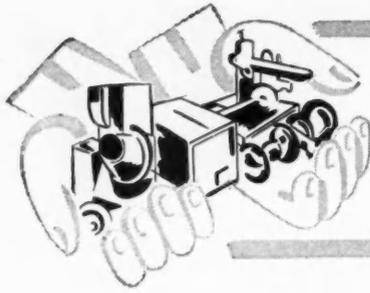
Note: Corner sections same as details above for weights and cords or spring balancers. See plate D-45 for installation details of insulated glass windows and metal trim.



ELEVATION. STEEL D.H. WINDOW.



CORNER SECTION. MULL. SECT.

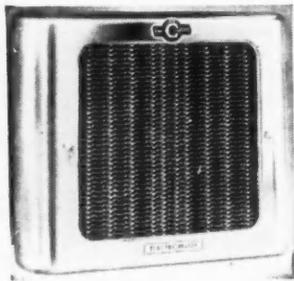


NEW PRODUCTS

Offered by Manufacturers

SMALL ROOM HEATER AB9829

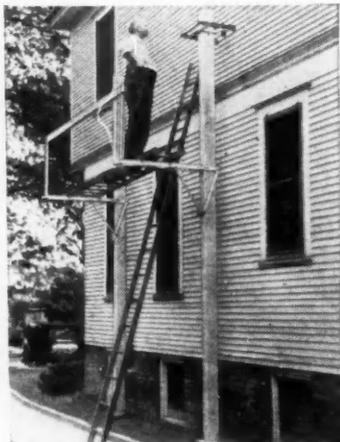
A new chrome model, fan-circulating electric heater, specially designed for heating bathrooms and other small rooms, is now being manufactured by



Electromode Corp., Rochester, N.Y. Known as the Bilt-in-Wall Small-Room Heater, it is easily installed in practically any type of wall construction. The heater connects to the regular 110-volt A.C. house circuit. It is rated as 1,320 watts. A quiet built-in fan distributes 80 cubic feet of heated air per minute. Heat is generated by a patented cast aluminum heating element which has no exposed wires or coils. The heater is equipped with a thermal safety switch that prevents overheating.

SCAFFOLD SUPPORT AB9828

A one-man scaffolding system, invented by G. W. Wetzel, 409 W. Murray St., Macomb, Ill., requires no nailing, bracing, or cumbersome tim-

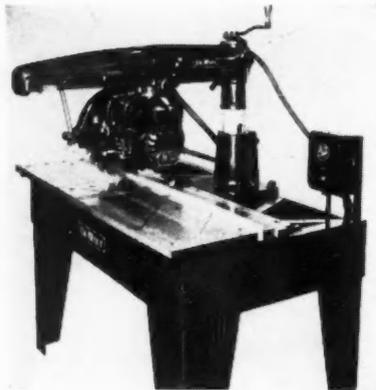


bering. The scaffold may be adjusted to any working height without loss of excess time. Since only 1/2-inch lag screws are needed to hold the scaffold

support in place, surface of the construction being worked on will not be marred. The Wetzel Scaffold is especially suited to remodeling work, or for scaffolding in halls, auditoriums, and gymnasiums.

ALL-PURPOSE SAW AB9819

DeWalt, Inc., 101 Martha Ave., Lancaster, Pa., have added an all-purpose machine, Model GR, to its line of woodworking machinery. Especially designed for precision production work, this new model features a 3 H.P. motor driving a 14-inch diameter saw with a 4 1/8-inch depth cut.



Model GR is actually a complete saw shop in one machine, according to its manufacturers. It is a cut-off saw, a miter saw, a rip saw, a tilting arbor saw, a double miter saw, and a variety saw. Using the proper cutting tool, it's a dado machine, a gaining machine, a grooving machine, a rabbeting machine, and a shaper. The machine is adapted to these various operations by simply changing the cutting tool.

SHOWER DOOR FRAMES AB9823

Kits of completely fabricated frames for glass shower doors and tub enclosures are now being offered to dealers by the Eugene Extruded Metal Corp., Division of the Southern California Glass Co., 2445 S. Santa Fe Ave., Los Angeles, Calif. The dealer supplies his own glass. Eugene Corp. offers advertising support to the dealers. A series of newspaper ad mats illustrating and describing Eugene shower doors and enclosures, three-color consumer folders, and window streamers are sup-

plied. The frames are heavy aluminum with patented concealed hinges, adjustable jamb section, and rubber set construction that makes the glass panel shock resistant and waterproof.

INSULATING SIDING CUTTER AB9832



A new Grip Cutter, now offered by La Belle Industries, Inc., Oconomowoc, Wis., is adjustable to handle all types of insulating siding up to one inch thick.

One man may operate the cutter. It is self-feeding, and cuts quickly and accurately any length and angle. Weighing 37 pounds, the portable Grip Cutter is easy to handle. Protected steel blade makes clean straight edges.

MASONRY WATERPROOFING AB9827

A new, transparent, waterproofing liquid, named "Crystal" and made by Wurdack Chemical Co., 4956 Fyler Ave., St. Louis, Mo., may be applied

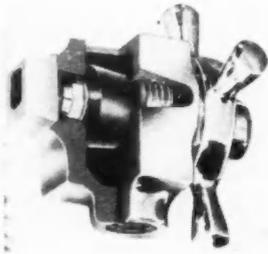


by brush or spray. It waterproofs by penetrating. It becomes invisible after application, and does not affect color or texture of the surface to which it is applied. The surface may be painted afterwards. Crystal is derived from Silicone, the chemical discovered and developed by Dow-Corning and made commercially available after World War II. Wurdack Co. modified it as a waterproofing for bricks, concrete, stucco, and other masonry. Masonry

is made water repellent by positive action of one coat of Crystal to the exterior. Capillary attraction which causes water to soak through a wall is stopped, but Crystal does not clog or seal the pores. Natural moisture within the wall may evaporate, since it is not permanently trapped.

COMMERCIAL AND HOME FAUCET AB9835

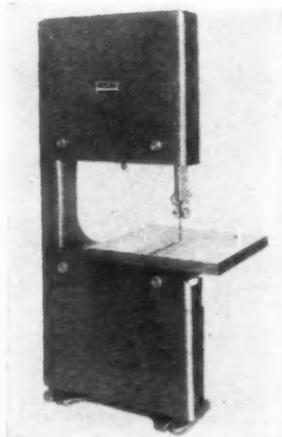
A long-lasting faucet that requires no washers is now being produced by the



Western Faucet Co., Inc., 1500 S. E. Gideon, Portland, Ore. The faucet, invented by W. G. Smith, president of the company, will not leak. No friction is involved in shutting it off. As soon as the handle is released into neutral position, pressure of the water against a heat-resisting synthetic rubber diaphragm closes the faucet automatically. The faucet, the "Drip-Lok," may be used commercially or in the home.

BAND SAW AB9820

An all-purpose 14-inch Band Saw that handles wood, metal, and plastics, not only for production



jobs but for home work shop users is on the market. All castings are heat treated before machining to relieve stress and distortion. The heavily-ribbed, 14 inch by 14 inch, table surface is ground smooth and tilts a full 45 degrees right and 15 degrees left angle. The wheels have Neo-prene tires for oil resistance and wearing features. Each wheel is balanced for smooth and quiet operation. This band saw is the newest addition to the line of wood-

working power tools offered by the Foster Manufacturing Co., One Kinsey Ave., Buffalo 17, N.Y. The unit weighs 140 pounds.

STUCCO REINFORCEMENT AB9838

A new type of wire mesh for stucco reinforcement is now being produced by Keystone Steel & Wire Co., Peoria, Ill. The new product is applied in 3-foot wide strips over waterproof building paper. A special nail driven over the wire, clipping it between the top of a 1/4-inch or 3/8-inch thick disc and the bottom of the nail head, results in a 1/4-inch or 3/8-inch space between the backing and the reinforcement. This permits complete embedment of the mesh in the stucco. The product, "Keymesh," is a fabric packaged in rolls 150 feet long by 3 feet wide. It is corrosion resistant, has openings of sufficient size to permit easy embedment of the fabric in the stucco coat, and is amply strong to support and rein-



force stucco. It is available in two weights, woven of 17-gauge galvanized wire into a 1 1/2-inch hexagonal mesh, and 18-gauge galvanized wire in 1-inch mesh.

NEW PLASTIC FLOOR TILE AB9817

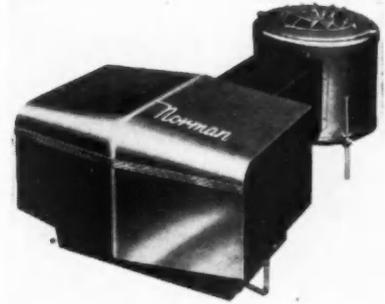
A new type of plastic floor tile, unaffected by grease and oil, alkali and mild acid solutions, is being introduced by Johns-Manville Corp. under the name of Permalite. It is extremely flexible and can be laid over any type base since it conforms to any unevenness of floor surfaces. Resist-



ant to fire and cigarette burns, it exceeds government and industrial specifications for abrasion. It is resilient under foot. Colors are clear and bright. The tile comes in solid colors or marbelized effect.

GAS-OIL CONVERSION BURNER AB9830

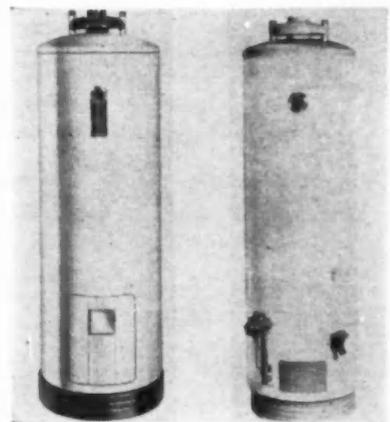
A new combination gas-oil conversion burner now on the market can be installed to convert any standard furnace or boiler. The burner operates by a sealed, outside thermostat that,



because it is set at a temperature above the gas company's peak load, will automatically switch from gas to oil as the temperature drops below this predetermined and locked setting. The burner, "TWINfuel," switches back to gas when the cold snap is over. The burner is marketed by Norman Products Co., Columbus, Ohio.

"NEW LOOK" WATER HEATERS AB9818

A new series of water heaters for all fuels, designed for good appearance so they may be used in the kitchen and laundry alongside other attractive home appliances, is being introduced by Rheem Manufacturing Co., 570 Lexington Ave., New York, N.Y.

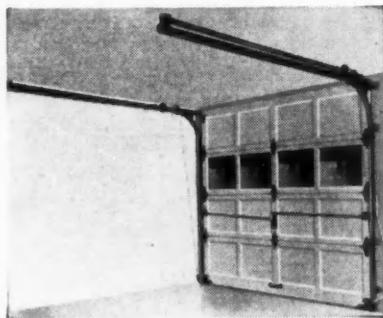


The new Deluxe and Royal Deluxe models are made for use with gas, electricity or oil. The gas models are equipped with a dual control to insure safe operation at all times. All models have tanks with bottoms welded after galvanizing. Insulation is Fiberglas. The heaters are surrounded by an exterior jacket or white enamel finish, attractively trimmed.

NEW GARAGE DOOR AB9831

An upward-acting garage door now on the market may be installed in a space of 2 1/2 inches between the ceiling and the top of the header. The

new door, the "Ro-Way," made by Rowe Manufacturing Co., Galesburg, Ill., is especially adaptable to buildings with low headroom. It is four



sections high, four panels wide, with 1 3/8-inch thick stiles and rails; blind mortise and tenon joints; made from Douglas Fir or Sitka Spruce. Sizes are 8x6 feet, 6 inches high, or 8x7 feet high.

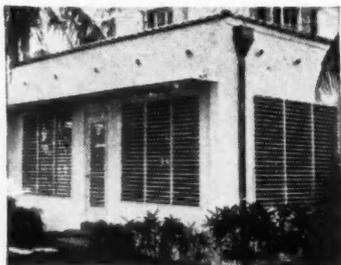
The Ro-Way door may be closed and locked with the top section tilted inward as far as 8 inches to provide garage ventilation. This is done by a patented Two-Way switch, located on the horizontal section of the track. When door is closed in normal manner, the top section is firmly sealed against the header.

IMPROVED SASH BALANCE AB9837

Milwaukee Strip Service Inc., manufacturers of Milwaukee Combination Sash Balance and Weatherstrip, have announced that their product is now available with bronze spring covers. The covers completely hide the steel sash balance springs, giving a neater, more finished appearance to the window when installed. Basic design remains unchanged, and the product is sold either with or without the spring covers according to the customer's preference.

PLEXIGLAS JALOUSIES AB9816

Jalousies—outside window blinds controlled from within—are being manufactured of Plexiglas by the Tropical Awning Shutter Co. of Miami, Fla. The firm custom-builds the jalousies in a wide range of colors. This is a



new use for the Plexiglas material. The shutters of the jalousies will not crack, warp or check, even after prolonged exposure to sun and weather, because of the durability of the ma-

terial from which they are made. They are extremely light in weight. Colors can be selected for any decorative scheme, or translucent white can be used where privacy is desired. The jalousies serve as awnings or storm shutters.

EDGING MACHINE AB9833

A new 7-inch edging machine for contractors and builders has been introduced by Clarke Sanding Machine Co., Muskegon, Mich., builders of floor sanding and maintenance equipment. The machine, called the "V-7 Edger," is powered by a 1 1/2-horsepower, continuous heavy duty, Universal motor which assures rated disc and vacuum fan speeds on all types



of jobs. It will not stall under any service requirements. It operates on 115 volts, 25 to 60 cycles, A.C. or D.C. The disc is precision balanced, 7 inches in diameter, with a reinforced pad, fabricated from heat and oil-resistant rubber, bonded to it. Sandpaper is attached by a positive nut clamp. Speed of the disc is 3,000 r.p.m.

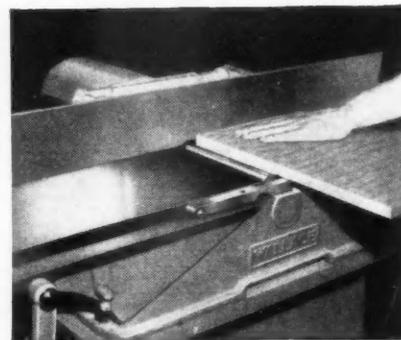
BASEBOARD HEATING UNIT AB9821

A new baseboard heating unit with a heating capacity of 600 B.T.U. per hour per lineal foot and with 170-degree forced water is announced by

The Rittling Corp., 1292 Niagara St., Buffalo, N.Y. The heating core of the unit is continuous copper tubing with aluminum fins secured by a special Rittling process. The entire unit is covered by a decorative, heavy-gauge sheet-steel, grilled, warm air outlet and deflector. The cover is readily removed for cleaning. For installing, no recessing is required, and the unit can be installed either before or after floors are laid by means of wall brackets and fittings. It can be connected to any steam or hot water boiler.

JOINTER ATTACHMENT AB9811

A new attachment to fit its 8-inch jointers, increasing the width of material than can be planed on these machines from 8 inches to 16 inches, has been introduced by J. D. Wallace & Co., 136 S. California Ave., Chicago, Ill. The attachment, called an "equalizer," consists of a heavy steel bar bolted in the rabbet ledge. The bar is fitted with an adjusting screw so that the end adjacent to the cutter-



head can be adjusted tangent with the cutting circle on the knives. When not in use, the equalizer bar can be hinged back in the rabbet ledge, slightly below the surface of the rear table. To plane wide stock, the bar is folded back out of the way and the
(Continued to page 166)

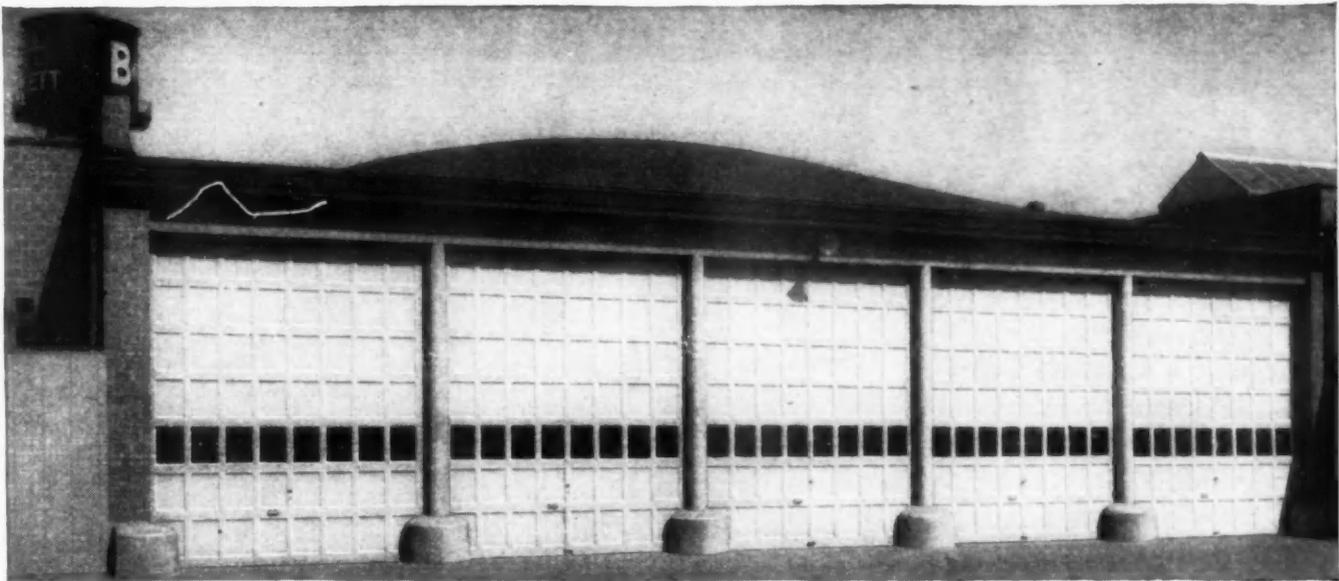
CHECK NUMBERS AND MAIL COUPON FOR INFORMATION

American Builder, 105 West Adams Street, Chicago 3, Illinois

NAME.....ADDRESS.....
CITY.....STATE.....

- | | | | | |
|--------|--------|--------|--------|--------|
| AB9801 | AB9809 | AB9817 | AB9825 | AB9833 |
| AB9802 | AB9810 | AB9818 | AB9826 | AB9834 |
| AB9803 | AB9811 | AB9819 | AB9827 | AB9835 |
| AB9804 | AB9812 | AB9820 | AB9828 | AB9836 |
| AB9805 | AB9813 | AB9821 | AB9829 | AB9837 |
| AB9806 | AB9814 | AB9822 | AB9830 | AB9838 |
| AB9807 | AB9815 | AB9823 | AB9831 | |
| AB9808 | AB9816 | AB9824 | AB9832 | |

When you address inquiries direct to manufacturers concerning a new product described here, please mention that you saw it described in American Builder.



You save 3 ways with Ro-Way Overhead Type Garage Doors

IN SPACE—The installation of a Ro-Way Door makes use of overhead space that would otherwise be unused. No side wall space or valuable floor space is taken up by its installation or operation. No other type of door gives such maximum clearance at all four sides of the door opening.

IN TIME—Ro-Way Doors with their individually Power-metered Springs, "double-thick-tread" ball bearing track rollers and Rowe-made friction-reducing tracks provide extra fast, smooth,

easy operation. They are truly time-savers.

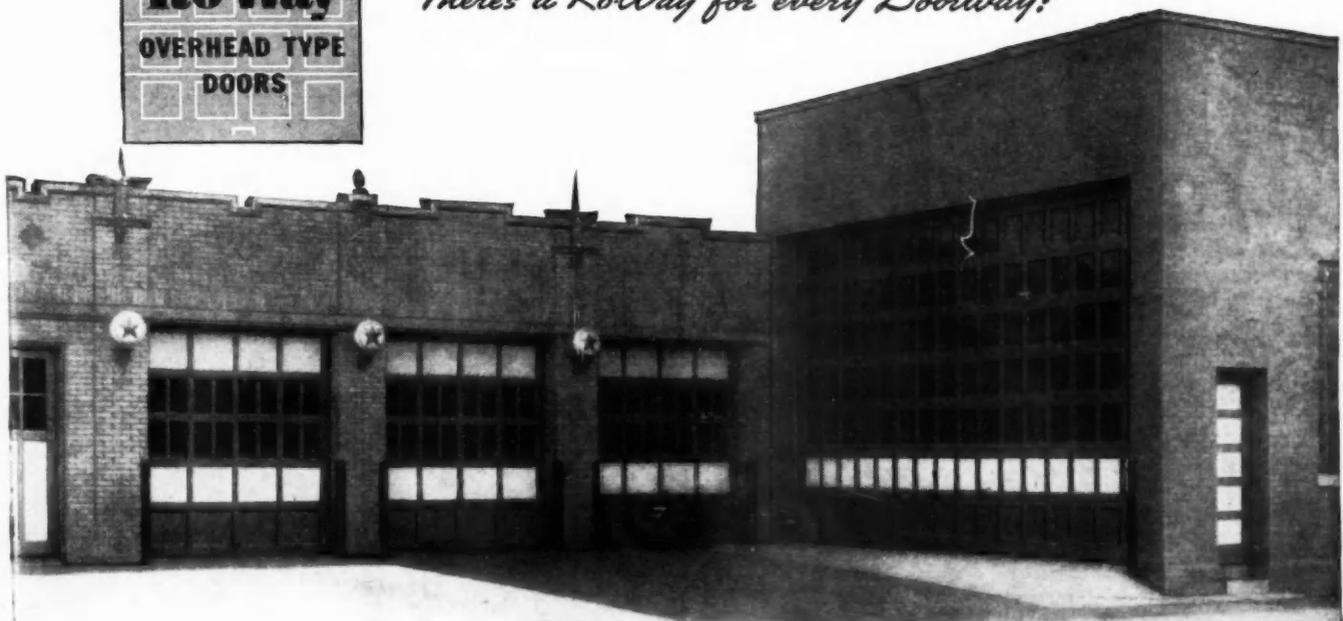
IN MAINTENANCE—A nationwide network of selected distributors take pride in the careful installation and prompt servicing of Ro-Way Overhead Type Doors! Their principal business is to see that the right type and size of Ro-Way Door is properly installed. Should service be needed no time is wasted—no unnecessary charges are made.

ROWE MANUFACTURING COMPANY
740 Holton Street • Galesburg, Illinois, U. S. A.

Ro-Way Doors are made for Industrial, Commercial and Residential Service. Each door is built completely in Ro-Way's own plant. Consult your classified Telephone Directory or write for Distributor's name. See our catalog in Sweet's.



There's a RoWay for every Doorway!



DEALER REVIEW



NEWS OF NRLDA AND STATE AND REGIONAL ASSOCIATIONS

Dealers Form Organization to Finance Research to Lower Building Costs

INSPIRED by the accomplishments of several research projects to reduce home building costs, and particularly by the University of Illinois, several midwestern dealers have successfully organized a group to sponsor continuous research on costs and methods of building. The organization is known as "The Committee of 100."

Ray Schaub of the Northern Indiana Lumber & Coal Co., Whiting, and Clarence Thompson of the Thompson Lumber Co., Champaign, Ill., originally conceived the idea and were successful in enlisting the aid of J. D. McCarthy, secretary of the Illinois Lumber & Material Dealers Association. The plan, now endorsed by the National Retail Lumber Dealers Association, has assumed nationwide proportions. Up to August 1, 61 dealers in 19 different states had subscribed to the plan, financially as well

as morally. Norman Mason, president of NRLDA, has accepted the post of depository for funds.

Schaub, Thompson, Mason and others in the organizing group, have set a goal of at least 100 subscriptions to form the organization. Mass dealer solicitations are being made through state and regional dealer associations. The amount a dealer subscribes is entirely voluntary, but the group has set about 25 per cent of each company's annual insurance expense as an equitable amount. Schaub has agreed to serve as temporary chairman of "The Committee of 100".

It is planned that all dealers in the United States will be given an opportunity to participate in the plan to further sponsor home building cost research, with no individual or group having any voice in control of the research funds except lumber deal-

(Continued to page 144)

NRLDA Annual Meeting November 8-11



THIS is an aerial view of the central portion of Miami Beach, Fla., where the 1948 National Retail Lumber Dealers Association annual meeting will be conducted. The large hotel at left in the picture is the Roney Plaza, which will be convention headquarters.

Sessions will open Monday, November 8, with closed meetings of the executive committee, the secretaries of federated associations, the labor relations committee and the industry engineered homes committee. Tuesday, Wednesday and Thursday morn-

ings, starting at 9:30 and concluding at 1:30, regular business sessions of the board of directors and interested dealers will be conducted. All dealers who can attend these meetings are invited to do so. Here they will become informed first hand on industry problems and the association program to be undertaken next year.

Tuesday, Wednesday and Thursday afternoons and evenings will be open for recreational purposes. All reservations are being handled by Executive Vice President H. R. "Cotton" Northup in the Washington office.

The President's Column

By N. P. MASON,
President NRLDA



School Days Are Here Again.

Vacations are over. Building will be starting its Fall upswing this coming month—a presidential campaign with its charges and counter-charges is in full swing—and we in the Housing Industry are very much in the public eye. What an opportunity we have to tell the home folk of our communities how we are breaking house building records and licking the housing shortage; how we are sending young men to educational courses we ourselves have arranged in the nation's famous educational institutions; how we are carrying on research looking for ways to build for less money.

National New Homes Week

is with us and I extend my congratulations to those wideawake members of the construction industry, dealers, builders, bankers, real estate men, who have been cooperating to *SHOW* the home folk of their communities what the building industry is doing. Just a word to those of you who for one reason or another did not take part in National Homes Week. It is always time, and especially right now, to start a drive in your area to tell your homefolk the story of your industry. You can serve your industry and win national recognition too. *Your National Association* and its federated regional associations with the active support of *American Builder* and other trade journals are making awards for outstanding public relations campaigns carried on by dealers. Read the details in the *American Builder*, and make up your mind that you will be one of the dealers who receive this recognition

(Continued to page 142)

ARCHITECTS-DEALERS *In brief* BUILDERS Your Best Date In '48



Beauty and utility at **LOW COST** are the outstanding features you can offer your customers if they specify **HASTINGS ALUMITILE**, the distinctive ultra-modern aluminum wall and ceiling tile.

Miss (Hastings) Alumitile Invites You To Date Her for a Profitable 1948-'49

For residences you can offer bathrooms, kitchens, snack bars, recreation rooms, etc., of unusual durability, beauty and distinction, and for restaurants, service stations, medical and dental laboratories, offices, hospitals, etc. Alumitile is the ideal commercial installation because it is highly resistant to all the hazards encountered such as heat, alkalis, stains, etc. It is also chip proof and will not crack or peel. Decide to investigate the possibility of selling and applying Alumitile in your territory today.

Dealers!! Join Our Profitable Dealer Organization

and be numbered among the successful business men who are selling and applying Hastings Alumitile.

When competition is a factor think of the tremendous advantage that is yours in being able to supply the last word in beautiful durable wall and ceiling tile at a savings up to 50%. With 14 beautiful, sparkling, pastel colors to choose from and the wide range of tile sizes to work with, an almost limitless number of decorative schemes in color, pattern, and design are possible. You can meet the requirements of the modest homes or rental properties as well as the more pretentious homes and apartments.

METAL TILE PRODUCTS CO., INC.

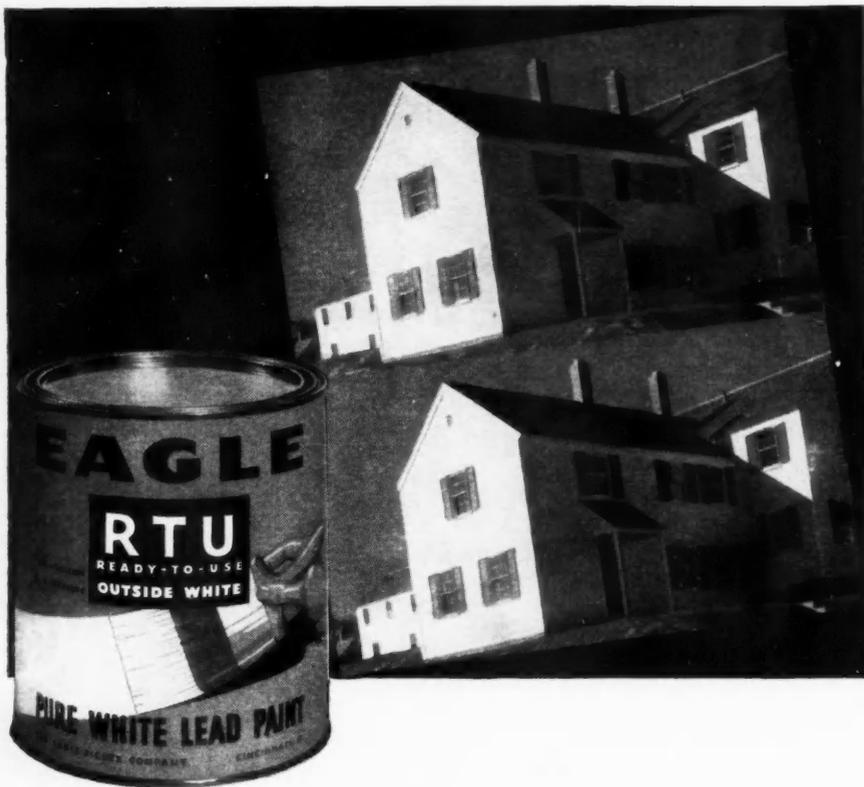
HASTINGS, MICHIGAN.

Note this wide range of tile sizes
 5/8 x 5, 5/8 x 10 Strips 2 1/2 x 5 Caps
 2 1/2 x 5 Corners 2 1/2 x 10 Caps
 2 1/2 x 10 Corners
 5 x 5 Tiles 5 x 5 Base
 5 x 10 Tiles 5 x 10 Base
 10 x 10 10 x 20

METAL TILE PRODUCTS, INC.
 Dep't 27, Hastings, Michigan

I am interested in learning more about Hastings Alumitile. Please send literature and the name of my closest distributor so that I may personally investigate Alumitile.

Name
 Position
 Business
 Address
 City Zone State



does double duty

1. Being pure white lead, Eagle RTU has traditional beauty and durability.
2. It's factory-mixed for new efficiency, goes to jobs in original containers.
1. Eagle RTU's fine brushing and hiding qualities make for easy application.
2. Its smoothly gleaming coat gives lasting distinction to your buildings.
1. Eagle RTU is favored by builders for its time-and-labor-saving convenience.
2. It's preferred by homeowners for its whiter white that stays white longer.
1. Eagle RTU is pure white lead paint in a modern form.
2. It is backed by Eagle-Picher's 104-year-old reputation.

**EAGLE PURE
WHITE LEAD**
Paint



THE EAGLE-PICHER COMPANY
CINCINNATI (1), OHIO
Member of the Lead Industries Association

Dealer Review

(Continued from page 140)

next November at the annual meeting of the NRLDA at Miami Beach.

There Is Magic in the American system of free initiative. Look at these figures showing the amount of living space available for each citizen here and abroad. In Russia with her Communist planning, it is 40 square feet. In England with Socialist management, it is 105 square feet, but in America, with freedom of initiative, it is 410 square feet. Yes, there is magic in the way America does things.

Have You Heard of the plans of a group of retail lumbermen to conduct a program of research into house construction cost reduction? Every dealer from coast to coast is invited to be a part of this progressive movement, to help by contributing funds, and to be among the first to learn what it discovers. Write to Ray Schaub, Northern Indiana Coal & Lumber Co., Whiting, Ind., for details.

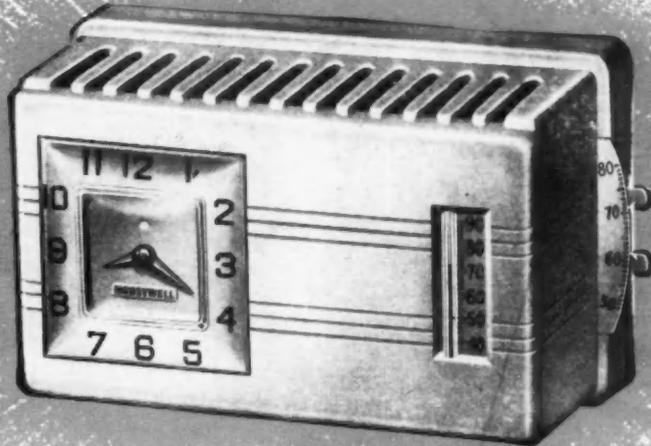
Are Retail Lumbermen Really Retailers? Some in government doubt it. The bureaucrats are still working to control and harass business. Your Association last month found the Bureau of the Census writing a new definition of what constituted a retailer and their draft didn't include most of us. Perhaps there was the fine hand of the Wage and Hour Division underneath. It pays to be wary. While we have a bureaucratic government, it is wise to have a wideawake National Association watching government developments. Perhaps it cannot always bring reason, but at least we do not lose our rights by default.

Whether the Special Session of the Congress was good politics or not cannot be decided as I write this but it did not make President Truman popular with many here in Washington. This city is not the pleasant and invigorating place in July and August that it is in springtime. Vacation plans for Association staffs had to be altered in a hurry, and more than one wife must have had cause for complaint. It is an election year.

The Statistics Prove that the private housing industry is producing the housing we need. Why meddle with federal public housing? Why kill the goose that lays the golden eggs?

LAVISH WITH COMFORT!
A MISER WITH FUEL!

EVERY NIGHT
THIS MIRACLE
THERMOSTAT
SAVES FUEL



THE NEW *Chronotherm*

WITH Chronotherm, Honeywell's handsome new electric clock thermostat, owners of your homes can enjoy the most carefree heating comfort they have ever known—and at the same time save fuel! Chronotherm keeps homes at just the right comfort temperature from morning to night. Then, when the family retires, it automatically switches to lower fuel-saving temperature, or in mild climates, shuts off the heat. In the morning, the desired daytime temperature is

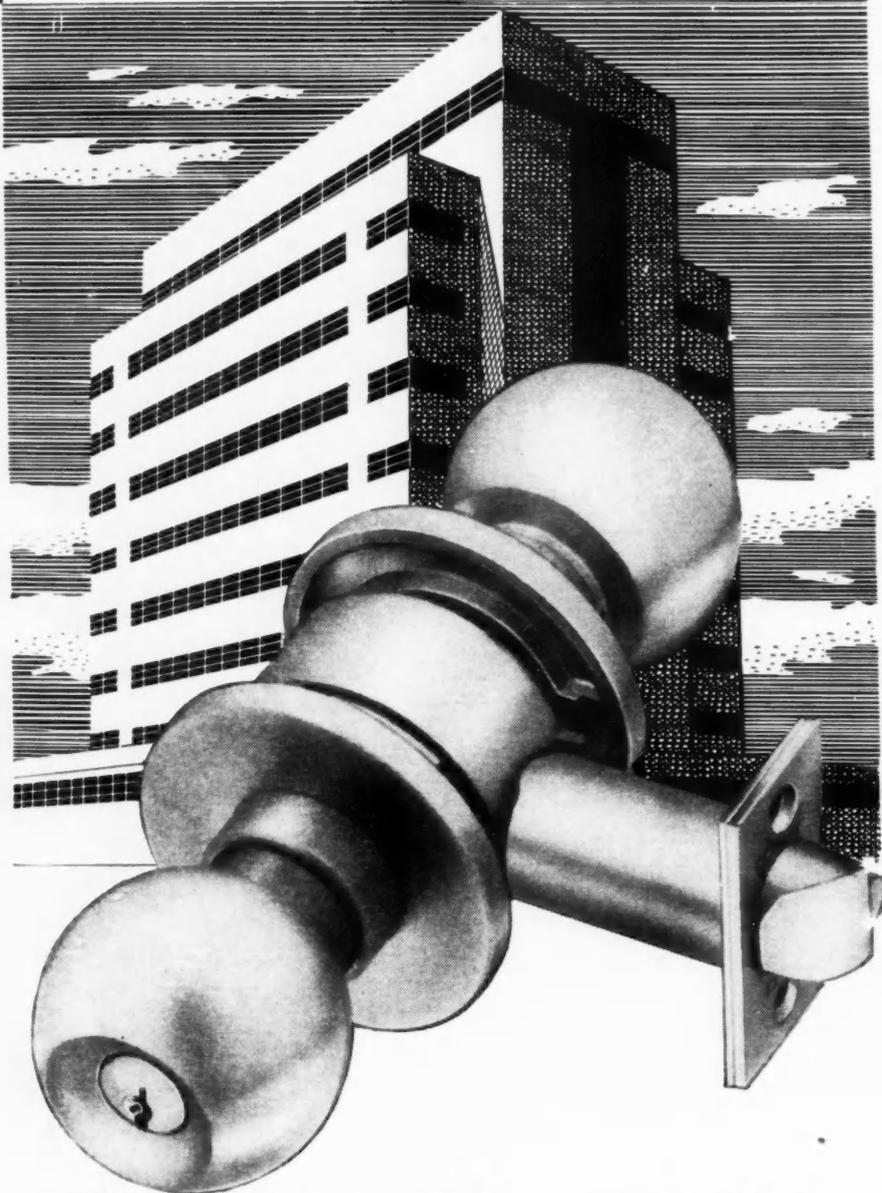
restored gradually, without overshooting. The result, according to government authorities, is savings of 10 per cent or more of the heating bill—with complete comfort and convenience. Make certain you include Honeywell's new, nationally advertised Chronotherm in every house you build. It is another way to provide your homes with the latest in modern improvements. Minneapolis-Honeywell, Minneapolis 8, Minnesota. In Canada: Toronto 12, Ontario.

MINNEAPOLIS
Honeywell
CONTROL SYSTEMS

73 BRANCHES FROM COAST TO COAST WITH SUBSIDIARY COMPANIES IN: TORONTO • LONDON • STOCKHOLM • AMSTERDAM • BRUSSELS • ZURICH • MEXICO CITY

SCHLAGE LOCKS

for buildings well-built



Of course only the finest hardware goes into well-built buildings. That's why so many of the world's outstanding buildings are equipped with Schlage . . . *the finest in quality locks.*

Write for Illustrated Booklet:
"Locks by Schlage"



SCHLAGE

LOCK COMPANY

SAN FRANCISCO NEW YORK

ORIGINATORS OF THE CYLINDRICAL LOCK

Dealer Review

(Continued from page 140)

ers. A Controlling Committee of 100 will be set up to represent every area of the country. This could consist of one dealer and an alternate from each state in the union. This Committee of 100 would then meet at least once a year to allocate the money on hand to specific research projects. All funds of this group are to be kept separate from any association budget—local, state or national. All money raised is to be spent for the single purpose of searching out ways to reduce the cost of new buildings to consumers.

In arriving at proper subjects for research, it is planned to develop a study for determining methods of improving and simplifying home construction. The result should be a reduction in the cost of conventionally-built houses constructed of lumber and other commercially available materials. Research will include an analysis of the structural system; exterior and interior finishes; exterior accessories, both functional and decorative; millwork, heating systems, electrical systems, and the study of dealer-contractor relations.

Dealers or others who wish to participate in this project to lower the costs of conventionally-built houses may obtain further information by contacting Ray Schaub, Northern Indiana Lumber & Coal Co., Whiting, Ind. Checks to help finance the project or pledges of financial assistance should also be addressed to Schaub.

Pomeroy Named Executive Officer of California Dealer Association

J. F. POMEROY was appointed acting executive vice president of the Lumber Merchants Association of Northern California at a recent executive committee meeting at Pleasanton, Calif. He succeeds Robert J. Wright who resigned his position August 1 to enter business for himself.

Pomeroy was with the association for one year before entering military service during World War II and has been Wright's assistant for the past two years. He was in the U. S. Air Force for 3½ years as flight engineer on duty in the North Atlantic area, including Labrador, New Foundland and Iceland. His association activities have included being director of five 30-day training courses, and developer of personnel service as well as extensive field work which has resulted in the addition of many new members.

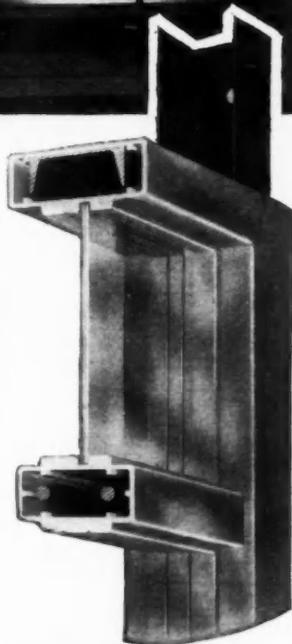
(Continued to page 148)

Beauty, Ruggedness, Ease of-Installation . . .



Architects: Wilson, Morris and Crain, Houston, Texas.

Made of extra-heavy extruded aluminum, highly polished and anodized, this frame is both handsome and rugged. It is heavily reinforced with steel channels and tie rods, as partially shown here.



the new factory-built
HERCULITE
 DOOR-FRAME ASSEMBLY
combines them all!

Gone now are those problems of clearances . . . of setting and fitting door frames; those time- and labor-consuming details associated with custom-made frames. The new Pittsburgh Herculite Door-Frame Assembly is a completely assembled, factory-built, packaged unit, ready to install when it reaches the job. And it is available in twelve standard styles to fill almost every requirement.

"Pittsburgh's" Herculite Door-Frame Assembly is constructed to accommodate standard Herculite Tempered Plate Glass Doors. It's supplied complete with Pittco Checking Floor Hinge, moldings for transom glass, supports for sidelights, strikes for locks, sockets for bolts, and thresholds when specified. Metal craftsmen fabricate this frame to high quality standards, using special checking gauges to assure accuracy of all dimensions. Architectural styling has been combined with structural and mechanical engineering to produce a unit that is both attractive and well-constructed.

You will find our literature on this new and revolutionary door-frame assembly of real value. Why not fill in and return the coupon for your free copy? Do it now.

Pittsburgh Plate Glass Company
 2298-8 Grant Building, Pittsburgh 19, Pa.
 Please send me, without obligation, your literature on "Pittsburgh's" new Herculite Door-Frame Assembly.

Name.....

Address.....

City..... State.....



PAINTS • GLASS • CHEMICALS • BRUSHES • PLASTICS

PITTSBURGH PLATE GLASS COMPANY

Announcing

THE BIRTH OF

THE ONLY GLASS RADIANT HEAT—This is a revolution *within* a revolution! Radiant heating has had the industry on its ear with its miracles, and now Radiant GLASS Heat brings you even bigger and better miracles! It adds to all the advantages of radiant heating, makes it practical for every purse, for every building, old or new, with a source of electricity!

AMAZINGLY ECONOMICAL TO INSTALL AND OPERATE—No need now to lay expensive piping . . . no need at all for a cellar or utility room or a chimney! Radiant Glass Heat conveys its healthful infra-red rays (no ultra-violet rays, no sunburn) directly to you by means of a glass panel set in a metal frame which can be painted to harmonize with any room decor.

The installation cost of approximately \$350 is less than 1/3 the installation cost of conventional systems. No replacement or maintenance costs. Operating cost, with electricity at 1½c or less per k.w.h., compares most favorably with any other type of heating.

ZONE CONTROLLED—Each room, individually, may be kept at the desired temperature. Heat may be shut off entirely in a room not in use. A room heated by Radiant Glass Heat is more comfortable at 68° than at 72° with ordinary heat, because the infra-red rays warm the body *directly*. And the air is not dried out.

Radiant Glass Heat is one of the eagerly-anticipated postwar wonders! It was developed in France in an effort to find for the Maginot Line, a heat that would be attended by no fumes, dust or danger of explosion. The 300-year-old, internationally-known master glass makers, St. Gobain of Paris, devised a method to fuse an aluminum element into tempered glass. This process worked miraculously to solve the problem.

Now the Blue Ridge Glass Company of Kingsport, Tennessee, makes Radiant Glass Heat available in America. It is the cleanest and safest heat known! It is a revolutionary development that will be of the greatest interest to the building industry.

WHO WILL BE INTERESTED IN THE BIRTH OF A NEW SUN?

THE HOMEOWNER—Because thermostatic control in each room gives heat when and where wanted . . . heats that cold room as never before . . . keeps baby's room at the proper temperature. No soot, no film, no dust. Attractive unit blends harmoniously with any type of architecture. An amazing additional use of this miracle heat is in floor panels in garages to heat the car for quick starting during cold weather.

THE BUILDER OR CONTRACTOR—Because he is economy-minded, and Radiant Glass Heat makes possible the elimination of cellar or utility room, chimneys and expensive piping. Saves \$1000 or more per installation.

THE HEATING ENGINEER—Because he is interested in efficiency, and Radiant Glass Heat gives more healthful, more penetrating heat at less cost than any other system. No cold spots. Zone-control means smaller heating bills. No maintenance or replacement charges. No soot, film, dust or fumes, no danger of explosion. Almost no dehydration of air.

THE ARCHITECT—Because he is on the lookout for *news*; and Radiant Glass Heat *is* news. It is the cleanest and safest heating system yet devised by man! It gives greater opportunity for harmonious interior decoration, frees more wall space, makes for a more livable home.

CONTINENTAL RADIANT GLASS HEATING CORP., 521 FIFTH AVE., NEW YORK 17



Metal Wall Tile, Courtesy of Vikon Tile Corp., Washington, N. J.

SEND COUPON
NOW
FOR FURTHER
INFORMATION

Continental Radiant Glass Heating Corp.
 Dept. 1B, 521 Fifth Avenue, New York 17, N. Y.

Gentlemen:

Please send me additional information on this new wonder-heat, without any obligation on my part.

NAME (PLEASE PRINT)

COMPANY (if any)

ADDRESS

CITY ZONE STATE

WHAT HAPPENS INSIDE THE WALL?

In-wall condensation does its dangerous work behind walls, where you can't see the damage until it's too late. Cracked walls, peeling paint and ruined wallpaper, soggy inefficient insulation . . . the penalty is high and repairs are costly.

Bird Neponset Black Vapor Barrier is the permanent answer to in-wall condensation. Placed on the warm side of insulation, it not only ends vapor worries, but it also seals cracks, eliminates sidewall drafts and loss of heat. For about \$20 for a \$10,000 house, positive vapor protection is yours . . . specify Bird Neponset Black Vapor Barrier. Consult Sweets Architectural File 2e-1. For sample write Bird & Son, inc., 16 Pine Street, East Walpole, Mass.

Better roofs are built with Bird Masterbilt® Thick-Butt Shingles. Tough, handsome, fire resistant, Masterbilts give double protection where it counts . . . on exposed tabs. Try them on your next job.



Specifications — Roll width: 36"; square feet: 500; approximate weight: 50 lbs. Asphalt saturated. Coated both sides with glossy asphalt surface. Meets Federal Specifications UU-P-536 Grade B.

**BIRD NEPONSET BLACK
VAPOR BARRIER**
BIRD & SON, inc. East Walpole, Mass.
Chicago • New York • Shreveport



Dealer Review

(Continued from page 144)

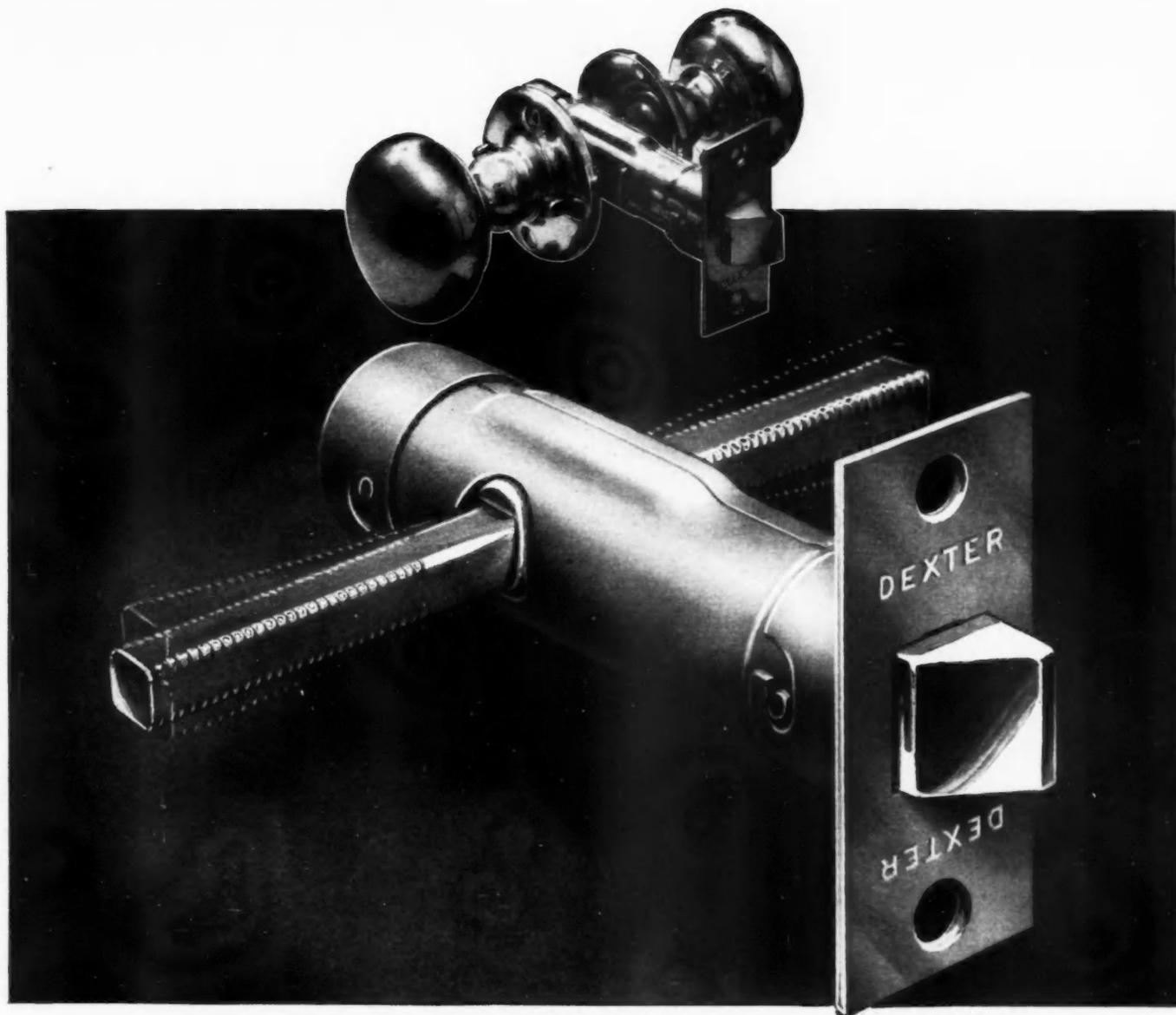
George K. Adams, president of the Association, in making the announcement, said: "While we regret the loss of Bob Wright, who has done such a fine job for the Association, we feel exceedingly fortunate that we have a young man of Pomeroy's ability who can step in and take over." We can look forward to the continued growth and progress of the Association which has now reached the highest point of usefulness to the industry and the largest membership in its history."

Annual Awards by NRLDA For Outstanding Work In Public Relations

A FEATURE on the program at the annual meeting of the National Retail Lumber Dealers Association in Miami Beach, Fla., November 8 to 11 will be formal recognition of outstanding work in public relations by retail lumber dealers. Six awards will be made in the following classifications: Class No. 1—Yards in towns with populations of under 1,000. Class No. 2—Yards in towns with populations of 1,000 to 5,000. Class No. 3—Yards in towns with populations of 5,000 to 50,000. Class No. 4—Yards in towns with populations of 50,000 to 100,000. Class No. 5—Yards in towns with populations of over 100,000. Class No. 6—Dealer group public relations programs.

There will also be a special award for outstanding work with the Industry Engineered Homes Program. All entries in the six classes above which include the construction and promotion of an IE home as part of the public relations program will be automatically entered and judged separately for the IE home award, whether or not such an entry has already received an award in one of the six classes above. Any organization can submit its IE Homes Program as an entry to be judged for this special IE Homes Award.

Any yard with a public relations program can send its entry, including photographs, documents (such as copies of advertising, publicity, and sample letters, the story of the purpose of the promotion, methods used and how they worked directly to the director of public relations of the National Retail Lumber Dealers Association, 302 Ring Building, Washington, D. C. The staffs of federated associations may submit entries of yards in their own areas if they believe from experience and contact these yards merit consideration. All entries must be in the NRLDA office in Washington by October 15.



Only DEXTER TUBULARS have all these 9 features of superiority

DEXTERS are built to allow for slight inaccuracies that so often occur during installation. A *Self-Adjusting Alignment* feature for the spindle does it — overcomes a lot of possible binding.

Another reason why Dexter Tubulars install so easily, operate so smoothly. Another feature — and a big reason — one of the nine big reasons — why your builder contractors who make every minute count prefer Dexter Locks.

- 1 Stay-lite Set Screw
- 2 Two Big Coil Springs
- 3 All Steel Interior
- 4 Solid Brass Trim
- 5 Uniform Boring for Locks and Latches
- 6 Self-Adjusting Alignment
- 7 25 Years Specialized Experience
- 8 Shallow Face Plate Mortise
- 9 Lifetime Guarantee

NATIONAL BRASS COMPANY
Grand Rapids, Michigan

**MAKERS OF BUILDERS, CABINET, SCREEN DOOR
AND SHELF HARDWARE**



Sanitary...

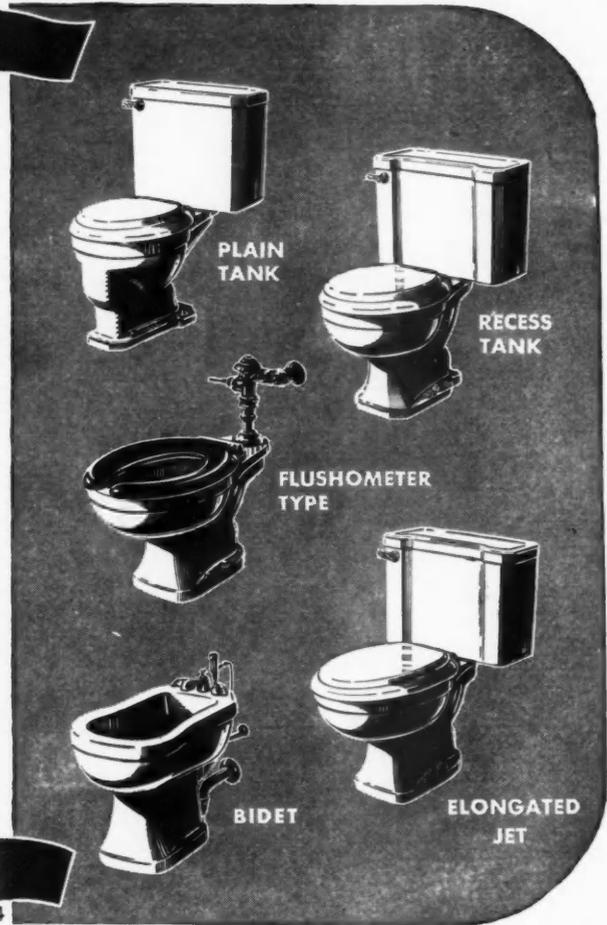
because they're *Lifetime vitreous china!*

"Sanitary" means hygienic, preserving health. Every detail of material process, design construction, installation and operation of Universal toilets is sanitary.

LIFETIME Uni-closets and closet combinations please the most fastidious and assure continuous practical service with enduring beauty of sanitary surfaces.

UNIVERSAL SANITARY MFG. CO.
Camden, N. J. New Castle, Penna. Redlands, Calif.

UNIVERSAL
VITREOUS CHINA CLOSETS



4



Catalogs and HOW-TO-DO-IT INFORMATION

452—LET'S CONSIDER AGGREGATE—the title of Bulletin No. 701 offered by the Walter Maguire Co., Inc., 330 West 42nd St., New York 18, N.Y., is an educational treatise on the most important element of good concrete, the aggregate. The bulletin gives the recommendations of the leading cement companies, and the Portland Cement Assn. for good aggregate and shows comparative strength analyses.

453—ANTHRACITE HEATING—A new booklet has been prepared by the Anthracite Institute in New York City to provide up-to-date information on hard coal heating equipment. Titled "How to Choose the Right Heating Equipment," it describes various types of stoker equipment for industrial, commercial, and apartment installations.

454—RUBBER MATS AND MATING—A new catalog section on rubber mats and matting for factories, offices, stores, institutions and homes is available from The B. F. Goodrich Co., Akron, Ohio. The section gives detailed description of the construction of the various products and pictures of some typical applications.

455—HEAT TRANSFER PRODUCTS—The entire Young line of heat transfer products is graphically pictured and described in catalog No. 148 recently released by the Young Radiator Co., Racine, Wis. The line includes convectors, unit heaters, air conditioning equipment, radiators, aircraft products, heat exchangers, and specialized products.

456—RUBBER TILE—A profusely illustrated brochure on Fremont Rubber Tile, with full color pictures of installations and many suggested patterns is available from the Fremont Rubber Co., 164 McPherson Highway, Fremont,

Ohio. Fremont Rubber Tile is easily installed on an old or new base floor. It is produced in a wide variety of patterns and colors.

457—WOODWORKING MACHINERY—A series of bulletins describing various pieces of woodworking machinery are available from the Hutchinson Manufacturing Co. of Norristown, Pa. One bulletin gives specifications for the Speed Marvel 12-inch bandsaw; a second describes the single, spindle shaper and accessories, and a third gives specifications for the Beaver Combination Woodworker. Other bulletins cover the Model H Safety Saw and band saw.

SERVICE COUPON—CLIP and MAIL to CHICAGO

Readers Service Department (September, 1948)
American Builder,
105 W. Adams St., Chicago 3, Ill.

Please send me additional information on the following product items, or the catalogs, listed in this department:

Numbers.....

Name.....

Street.....

City..... State.....

OCCUPATION*.....

*Please note that occupation must be stated if full service is to be given.

At Last

THE HOUSE PAINT THAT MAKES OLD EXTERIORS SPARKLING NEW



THIS DAZZLING WHITE PAINT MEANS
TREMENDOUS EXTRA PROFITS TO YOU

Now handle more jobs in less time at less cost than ever before... and every job adds to your reputation as a painter!

First on the market—there is no other paint like Devoe One-Coat White House Paint! Proved by performance on 1,861 jobs—year upon year it stood the test of time . . . fulfilled every expectation. The secret is two-fold . . . superlative self-sealing ability and a hiding power exceeding *twice* that of ordinary paints.

Watch your business grow by giving your customers the brightest, whitest, most sparkling repaint job they have ever known. The brilliant beauty of One-Coat House Paint is long lasting, too, for its enamel-like gloss finish is self-cleaning.

Apply Devoe One-Coat House Paint to any previously painted outside surface. See how

easily it brushes, how smoothly it levels and how remarkably it builds up on corners. It dries dust free in 6 to 8 hours and spreads 500 to 550 sq. ft. per gallon.

Cut yourself in on your share of the profits from the biggest paint success in years. Be the first painter in your community to enjoy the advantages of Devoe One-Coat House Paint! Call your Devoe Dealer, today.

DEVOE PAINT



DEVOE & RAYNOLDS COMPANY, INC.
787 First Avenue, New York 17, N. Y.

Four New Patterns



Here are the new patterns of Armstrong's Monowall®. They make the Monowall line more complete and an even easier line to sell.

The new colors are: No. 120 White with Chinese Red Lines, No.

42 Plain Blue, No. 420 Blue with White Lines in Tile-Design, and No. S-420 Blue with White Lines in Streamline-Designs.

All Monowall patterns are fast moving items. The four new ones will be too, because it is an Armstrong policy to add only items of proved demand. This policy helps dealers avoid tying up precious capital in slow moving items, and it enables Armstrong to make more total product available for everyone.

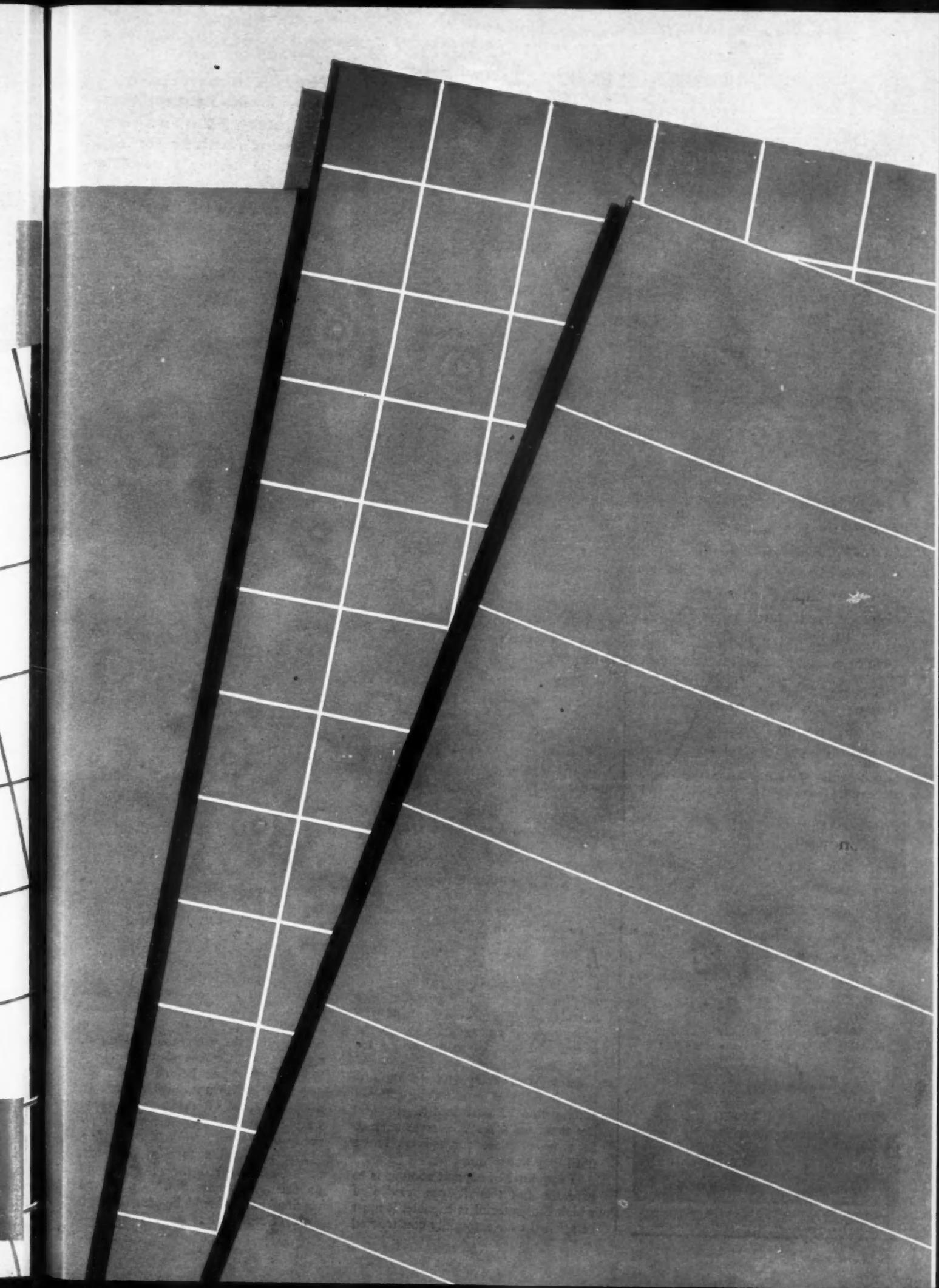
Monowall has particular advantages in remodeling. The big four-foot wide sheets are quickly installed with little muss or bother. They can be cemented to any surface that is level, solid, and sound. The patterns with score lines can also be nailed. In either case Monowall will hide cracks, small holes, or other blemishes in the old wall with very little preparation.

Monowall has a hard high-gloss surface applied to a backing of special water-resistant Masonite. This surface will take years of wear and yet stay bright and smooth. Heat and cold won't cause it to chip, crack, or peel. Even the score lines are made to resist wear. They are smoothly rounded to avoid sharp corners where wear could concentrate.

Ask your Armstrong wholesaler for full information or write Armstrong Cork Company, 1609 Lincoln St., Lancaster, Pennsylvania.



Armstrong's Monowall





Here's Wiring with a Future

Yes, a long future that's full of satisfaction to the home owner. Wiring that you can specify and install with confidence. For the home wired today with Parinite Building Wire—Paraflex—ABC Cable—Service Cable—will be giving the same efficient electrical service in 1998 and beyond. Every bit of Parinite wire or cable is made under the watchful eye of SQC—Statistical Quality Control! Nothing is left to chance. Scores of tests, graphs, measurements—figures and figures—by columns and rows of columns—are compiled and analyzed, while the individual operations are still in progress. With Parinite's goal set high and Statistical Quality Control guarding each individual operation, you can confidently recommend and use Parinite Wires and Cables in all construction.

Building Wire
Types R—RH—RW—T—TW



Service Entrance Cable



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WAREHOUSES* AND SALES OFFICES: *Atlanta, Ga.; *Chicago, Ill.; *Cleveland, Ohio; *Dallas, Texas; *Detroit, Mich.; *Kansas City, Mo.; *Los Angeles, Calif.; *Newark, N. J.; *Philadelphia, Pa.; *St. Louis, Mo.; *San Francisco, Calif.



How-To-Do-It

This fifth article in a series by the Asphalt Roofing Industry Bureau gives recommendations for application of roll roofing by both exposed and concealed nail methods

(Continued from page 134)

How to Apply Roll Roofing

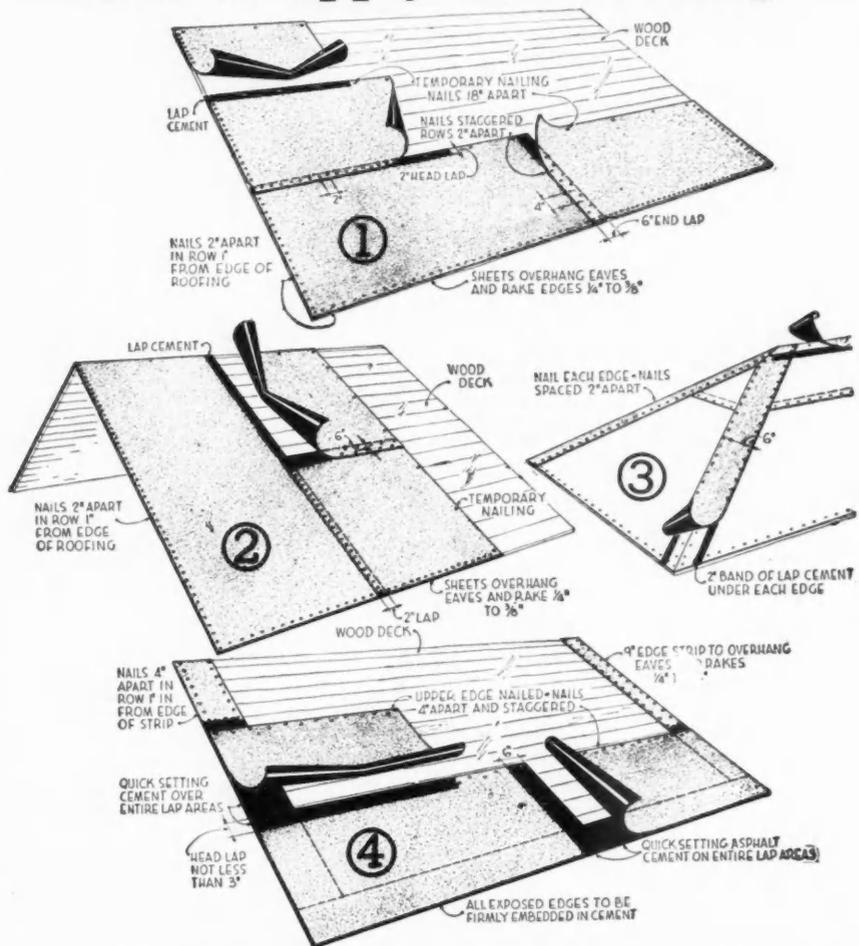


FIGURE 1 illustrates the exposed nail method, parallel to eaves. Figure 2 also shows exposed nail method, parallel to the rakes. Figure 3 is the exposed nail method, hip and ridge application. Figure 4 shows concealed nail method, parallel to the eaves

A PRINCIPLE of asphalt roll roofing application is that work should be done in clear, mild weather. This type of roofing should be applied at outside temperatures below 45 degrees only in emergencies, and then it should be stored in a warm place until ready for use.

As a preliminary step to application, it is good practice to cut roll roofing into 12 to 18-foot lengths and lay them on a smooth, level surface in a warm place for several hours until they flatten out.

If any kind of asphalt roofing is to give the full trouble-free service of which the material is capable, it must be applied over a soundly constructed

roof deck. This is as true for roll roofing as it is for shingles.

Two kinds of asphalt cement are used in roll roofing application—lap cement for the exposed nail method and special plastic or quick-setting cement for the concealed, or blind, nail method. Cement should be kept in a warm place before using. If necessary to warm it quickly, place an unopened can of cement in warm water; never heat asphalt cement directly over a fire.

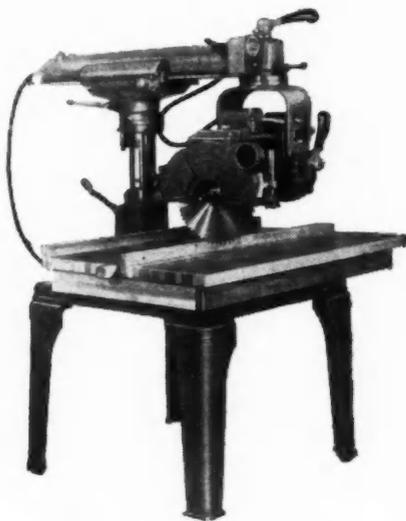
For application to a wood deck, nails 7/8 inch or 1 inch long should be used. If application is over old roofing, nails should be long enough

(Continued to page 158)

FOR EXAMPLE

E. L. BRUCE CO.

MITERS AND DRILLS PRE-FAB PARTS 350% FASTER WITH WALKER-TURNER RADIAL SAWS AND 15" DRILL HEADS



Model RA-1108. Price: with 2 or 3 h.p. motor less base \$445.00*

"Successful production of framing materials for pre-fabricated houses", according to Mr. John F. Sage, Manager of the well known E. L. Bruce Co., Bruce, Miss., "depends upon cutting identical lengths with exacting tolerance. To achieve this, we found it necessary to devise a method of equalizing and mitering in the same operation."

Walker-Turner Radial Saws, installed in tandem and equipped with air-actuated work-holding clamps, *proved the solution and speeded operations 350%, with considerable reduction in man-hour costs.*

Used in conjunction with the Radial Saws is another set-up of 5 Walker-Turner 15" Drill Heads connected in one assembly. Together, the two set-ups perform four operations on each work piece: squaring, boring, mitering and compound mitering. Tolerances are kept to 1/32".

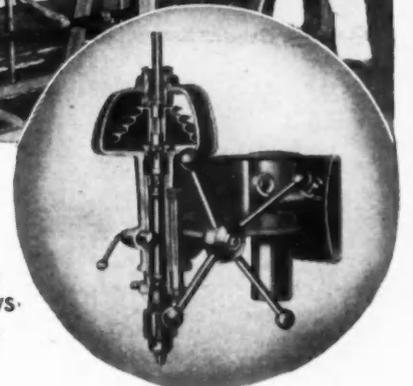
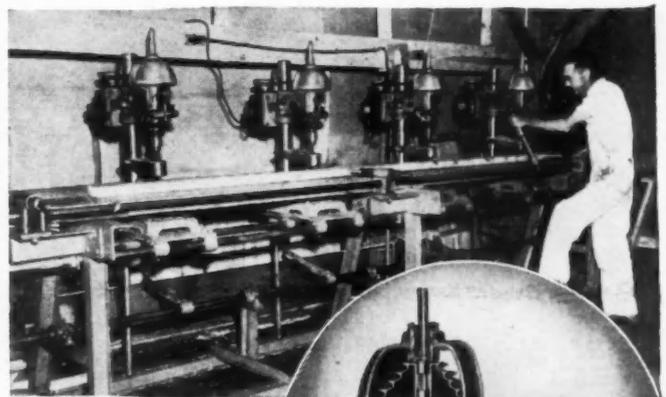
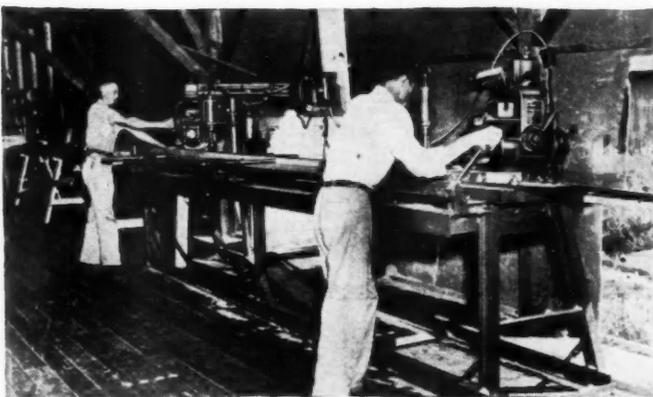
For equal achievements, whether working wood, metals, or plastics, consider the complete line of light weight, compact Walker-Turner Machine Tools. All are low-cost machines, highly adaptable to varied speeds and methods of mounting and control. *For complete catalog, write to Walker-Turner Division, Kearney & Trecker Corp., Plainfield, New Jersey.*

Photo, lower, left: Radial Saws in a tandem set-up for equalizing, squaring and mitering in a single work-handling operation.

Photo, below: 15" Drill Heads in precision set-up drill seven holes on each work piece.

* *Photo, upper left:* Radial Saw, Model RA-1108. Cuts 4 1/4" deep. Rips 38" wide. Ram travel 21 1/2". For any angle, bevel, miter, dado or compound cut—also shaping, tenoning and routing.

** *Photo, lower right:* 15" Drill Head, Model 9-D-13X. 4 ball bearings, 4 1/4" spindle travel, speeds with 1740 r.p.m. motor range from 600 to 5000 r.p.m. Capacity 1/2". Slo-speed motor optional.



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RADIAL SAWS • BAND SAWS • DRILL PRESSES
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JOINTERS • LATHES • BELT & DISC SURFACERS

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Now Eagle
Announces The
Greatest Door Closer
Ever Built

—INCORPORATING EVERY FEATURE YOU ASKED FOR
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The **EAGLE LOCK** *Company*



Eagle Industries, Inc. • National Sales Representative • 110 North Franklin Street, Chicago 6, Illinois



**HERE'S AMERICA'S
FIRST TRULY UNIVERSAL
HYDRAULIC
DOOR CLOSER**

The Only Closer with Right-Hand, Left-Hand, Hold-Open or Non-Hold-Open Operation in One Standardized Unit...Without Mechanical Change

Never before has one hydraulic door closer incorporated such an array of long-awaited features. This Eagle innovation gives you right-hand, left-hand, hold-open and non-hold-open operation in one standardized unit...without mechanical change. Complete

control through all standard swinging arcs. Easiest possible regulation by one screw. Simplified installation by mounting plate. Compact design. Lighter in weight for easier handling. Smartest styling. And—thoroughly proved in actual service.

Builders...

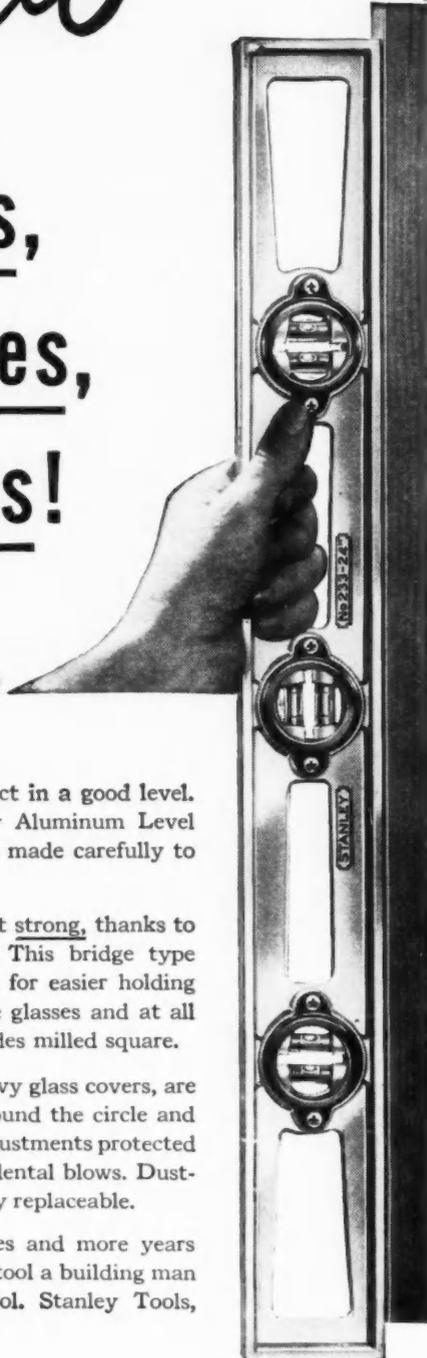
As the men responsible for installation, you will appreciate the easier handling, the simplified installation and the fool-proof regulation of this Eagle Door Closer development. Write for 20-page, four-color illustrated brochure which presents the facts in detail.



Even the Eagle Door Closer package is as outstanding as the Closer itself. Colorful, compact and readily identified, each package contains one complete closer with mounting plate, template, wood and machine screws for easy installation on any standard interior wood or metal doors.

Use-full...

more ways,
more places,
more years!



Stanley No. 233
Aluminum Level

Builders told us what they expect in a good level. That's why we say the Stanley Aluminum Level No. 233 is what you need — it's made carefully to meet builders' requirements.

It's light for easy handling, yet strong, thanks to the Stanley truss construction. This bridge type design narrows the cross section for easier holding and puts extra metal around the glasses and at all points of extra strain. All four sides milled square.

Six cat's-eye glasses, under heavy glass covers, are fully adjustable to any angle around the circle and for degree of pitch to the foot. Adjustments protected by fixed cover plate against accidental blows. Dust-tight. Water-tight. All parts easily replaceable.

Useful more ways, more places and more years than just an ordinary level . . . a tool a building man can respect, a real Stanley Tool. Stanley Tools, New Britain, Conn.

THE TOOL BOX OF THE WORLD

STANLEY

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HARDWARE · HAND TOOLS · ELECTRIC TOOLS



(Continued from page 154)

to penetrate at least $\frac{3}{4}$ inch into the roof deck. Be careful to drive nails straight to avoid cutting the roofing with the edge of the nail head.

Both methods of applying roll roofing—exposed nailing and concealed nailing—can be used whether the roofing is laid parallel to the eaves or parallel to the rakes.

Exposed Nail Method

Parallel to eaves (Figure 1)—Apply the first course the full width of the roll. The lower edge should extend at least $\frac{1}{4}$ inch over the eaves and the end should extend the same distance over the rake. Nail the strip every 18 inches along a line $\frac{1}{2}$ inch from the top edge to hold it in place while rake and eaves nails are being placed. Then nail along the eaves and rake every 2 inches on a line $\frac{3}{4}$ inch from the edge of the roof deck. Nails in rows parallel to the roof boards should be staggered slightly.

Place the next course so that it will lap 2 inches over the lower course. Nail it along the top every 18 inches. Then lift the lower part of the sheet and apply lap cement evenly on the upper 2 inches of the lapped course. Embed the overlapping sheet in the cement and nail through the lap.

Nails should be two inches apart, staggered slightly to avoid splitting the deck sheathing and spaced not less than $\frac{3}{4}$ inch in from the edge of the top sheet.

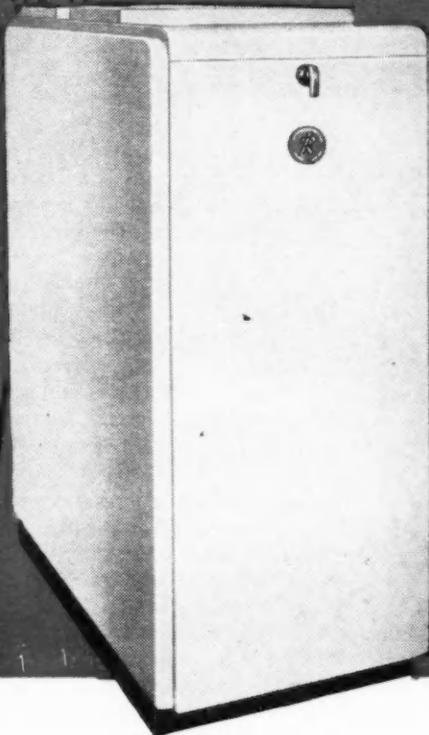
Parallel to rakes (Figure 2)—Start at the ridge at one end of the roof and use strips which have been cut to allow the lower end of each strip to project $\frac{1}{4}$ inch over the eaves. Place the first sheet so that it overhangs the rake $\frac{1}{4}$ inch and nail along the ridge end and the lap edge every 18 inches, $\frac{1}{2}$ inch from the edge of the roofing material. Apply succeeding strips similarly, placing them so that each course overlaps 2 inches.

Lift each overlapping sheet and apply lap cement evenly over a 2-inch strip along the edge of the underlying sheet which will be covered by the lap. Embed the edge of the overlapping sheet in the cement and place nails 2 inches apart and $\frac{3}{4}$ inch from the edge of the top sheet. Nail along the rakes and eaves with nails.

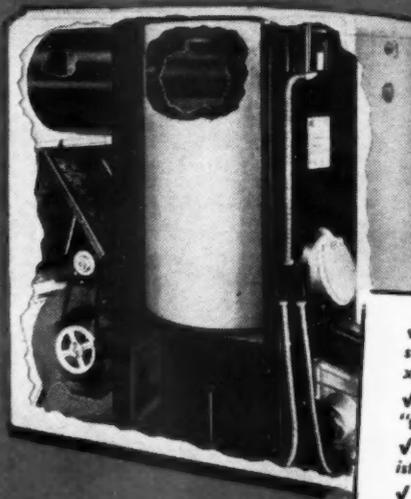
(Continued to page 160)

NEW RICHMOND UNIT

takes an "E" for EASY!



**GUN-TYPE OIL-FIRED
WINTER AIR CONDITIONER!**



- ✓ Whiter-white Richmond enameled steel jacket 54½" LOW!—23" wide x 47" deep
- ✓ Steel base and channels—no "grouting" needed
- ✓ Capacity—90,000 Btu of registers: 140,000 Btu input
- ✓ Oil input 1 gallon per hour
- ✓ Burns No. 3 oil—straight run or catalytic

Now! A Unit Designed with the TRADE in Mind!

Another Richmond "Plus". In the new Richmond Oil-Fired Winter Air Conditioner you get a real installation time-saver. First locate your furnace. Then you simply hook up the burner to the panel and all elements are right where you want them. No time and trouble on unnecessary adjustments—that means \$25 to \$35 saved.

Final Assembly is quick, too. This Richmond unit comes in

three packages—the heaviest weighs only 395 lbs. (appr.). All you do is place combustion and burner assembly in the furnace unit, spin four wing nuts and make electrical connections at junction box. That's all! Now you're ready for supply lines and flue connections. Unit Installed!

Richmond started all this in 1867
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"We've come a long way since then!"



RICHMOND RADIATOR COMPANY
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Plumbing Fixtures: Enameled Cast Iron Ware Vitreous China Porcelain
Heating Equipment: Oil and Gas Winter Air Conditioners Gas Boilers Radiators

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I am interested in the New Richmond Gun-Type Oil-Fired Winter Air Conditioner. Please send me full details. No obligation, of course.

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Company.....
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Write for Free color folder and name of your nearest Duo-Lap dealer

THE American

STAINED SHINGLE CO.

GENERAL OFFICES COR. SPRUCE ST. AND DENNISON AVE.

COLUMBUS 8, OHIO



How- To- Do-It

(Continued from page 158)

inches apart and $\frac{3}{4}$ inch in from the edge of the roof deck.

End laps—All end laps should be 6 inches wide and cemented the full width of the lap. End lap nails should be in two rows, 1 inch and 5 inches from the edge of the overlapping sheet. Stagger the nails and space them 2 inches apart in each row.

Stagger all end laps so that in no case will an end lap in one row be adjacent to or over any part of an end lap in another row.

Hips and ridges (Figure 3)—To finish a hip or a ridge, cut a strip of roll roofing 12 inches wide and long enough to extend from one end of the hip or ridge to the other. Bend it lengthwise along its center. Snap a chalk line $5\frac{1}{2}$ inches down on each side of the hip or ridge and apply a 2-inch band of lap cement along each side with the lower edge of the band of cement even with the chalk line. Place the strip of roofing over the hip or ridge, embedding it firmly into the bands of cement. Space nails 2 inches apart $\frac{3}{4}$ inch above each edge of the strip.

Concealed Nail Method

Parallel to eaves (Figure 4)—Apply 9-inch-wide strips of smooth roll roofing along the rakes and eaves, allowing them to overhang $\frac{1}{4}$ inch. Fasten them with nails 1 inch in from each edge and 4 inches apart. Completely cover these strips with quick-setting asphalt cement as work continues.

Apply a full width strip for the first course, holding it $\frac{1}{4}$ inch back from eaves and rakes. Press it firmly into the cement after securing the upper edge with a staggered row of nails spaced 4 inches apart and placed high enough so that the next course will lap over every nail by at least 1 inch.

Place the second course (the method for all succeeding courses is similar) so that it will lap over the first by the amount required by the pitch of the roof. Fasten it along its upper edge as specified for the first course. Then lift the lower edge of the second course and apply the special cement over the lap. Roll down the lifted portion and press it firmly into the cement at all points

(Continued to page 162)



The dominant distributor of Building Materials in the Southwest, Cameron Wholesale is well equipped to serve the Building Material Dealers in this great market. With 18 conveniently located warehouses, overnight delivery service is available through Cameron's fleet of 76 trucks and Common Carrier Service, to every Building Material Dealer in this marketing area. Well geared to best serve this vast and profitable market, Cameron Wholesale is proud of the part it plays in the building activities of the great Southwest. The fine reputation of the Cameron Company is based on 80 years experience in the Building Material Field.

So Far This Year, Texas Is Second Among All States In Dollar Volume Of Building Construction.

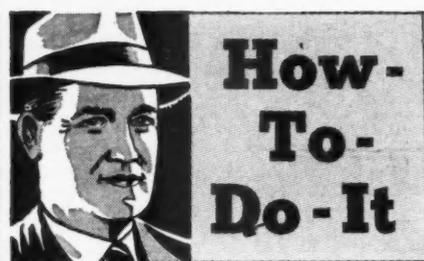
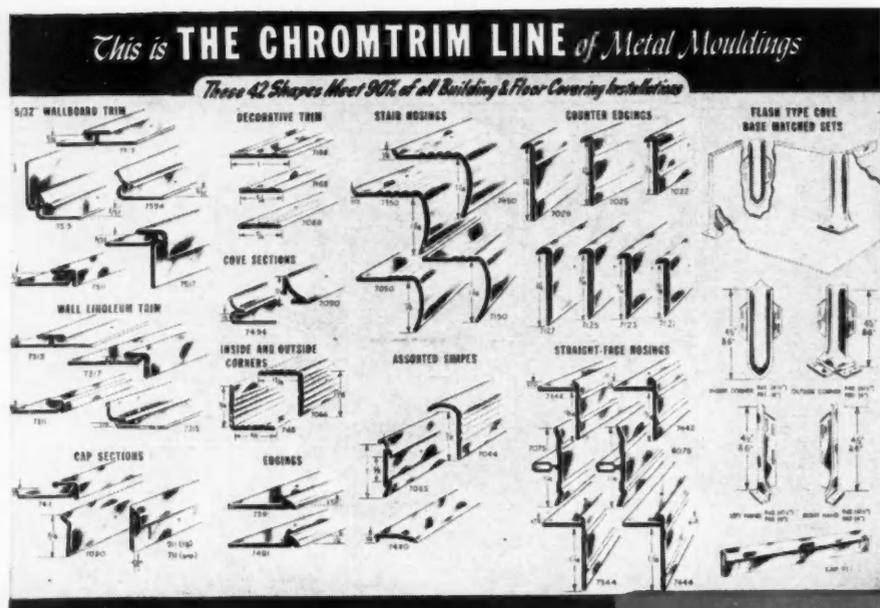
MANUFACTURERS INQUIRIES INVITED
 Manufacturers of products adaptable to distribution to the Building Material Trade are invited to write for information about our facilities.

WM. CAMERON & Co. INC., Wholesale

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Few of the Many Manufacturers Whose Products Cameron Distributes Are:

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- HARDING GLASS CO. • CARTER PAINT CO. • KEASBEY & MATTISON CO. • E. L. BRUCE CO.



(Continued from page 160)

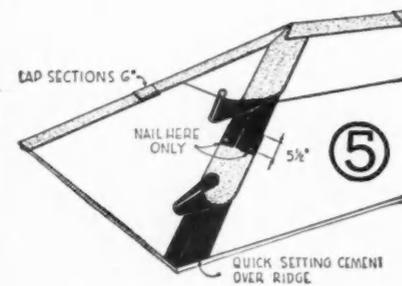
of contact until a small bead of cement appears along the edge of the sheet. This can be accomplished by "stepping" the lapped edges with the feet, by rolling or by "brooming" with a stiff brush. This is the most important part of the process.

Parallel to rake—Directions for application parallel to the eaves apply generally to application parallel to the rakes, except that work is started from the ridge where sheets are fastened at the top with three or four nails. Sheets should be permitted to hang free until they lie smoothly before they are nailed and cemented.

End laps—All end laps should be at least 6 inches wide and nailed every 3 or 4 inches under the overlap. The entire width of the lap is secured with cement.

Hips and ridges (Figure 5)—As sheets of roofing in the regular courses come up on the sides of a hip or ridge, they should touch each other and should be nailed in place.

To finish hips and ridges, cut strips of roofing 12 inches by 36 inches.



Bend these strips lengthwise through the center and "shingle" them on the hip or ridge. Start at the lower end of the hip or at either end of the ridge and lap each strip 6 inches over the lap of the preceding one.

Before applying strips which have been cut, snap a chalk line on each side of the hip or ridge 5½ inches down from the peak. Apply quick-setting asphalt cement over the entire area included between the chalk lines. Fit the folded strips over the hip or ridge, pressing them firmly into the cement. Nail only on the end of each strip which will be covered.

Before leaving the job, check all laps and press down those which might have pulled away.

Chromtrim

The Economy

METAL MOULDING

for Every Building Use!

Chromtrim is a quality product worthy of the enviable reputation which these trademarked metal mouldings bear. There's a Chromtrim profile for 90% of all private, commercial, industrial installation needs.

This handy wall chart shows you at a glance the 42 most popular Chromtrim shapes. Dealers are selling more and more Chromtrim mouldings to meet new building and remodelling needs.

NOW!

CHROMTRIM'S NEW DRIVE SCREWS FOR THAT PERFECT SMOOTH INSTALLATION WHICH CUSTOMERS DEMAND

Chromtrim is now protected punched for quick, accurate installation with a new type nickel plated drive screw. This new fastener eliminates the extra drilling required for slotted head screws. These drive screws are designed to seat flush without counter-sinking and leave no unsightly burrs or dirt covered slots to mar Chromtrim's lustrous finish. Chromtrim is standardizing on this new type screw only after thorough testing and recommendations of skilled mechanics.

The counter-sink drive nail is supplied with all Chromtrim mouldings where installation is concealed by the covering material. These nails hold with "pull-out" strength without revealing any trace of the nail head over through the thinnest material.

CHROMTRIM WALL-CHART

If you're a Chromtrim dealer be sure to get this fully detailed wall display from your distributor. Available in handy catalog form, too. Write today!

R. D. WERNER CO., INC.

295 FIFTH AVENUE • NEW YORK 16, N. Y.

IN CANADA:

R. D. WERNER CO., Ltd., Port Dalhousie, Ont.

And steel com mod gas. Two enar pane con latic "pla sure mor the Paci mer the



Who knows boilers best?



Architects prefer Pacific—a favorite with them since 1915. They like the uniform high quality! Also, they appreciate the expert installations and prompt service available through the 14,152 contractors who install Pacific.

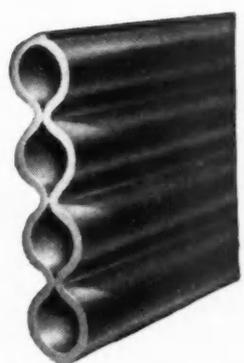
Engineers say Pacific is the best boiler you can buy—at any price. Higher efficiency with any fuel—coal, stoker, oil, or gas—longer life, and a host of unique construction features, make a hit with them.



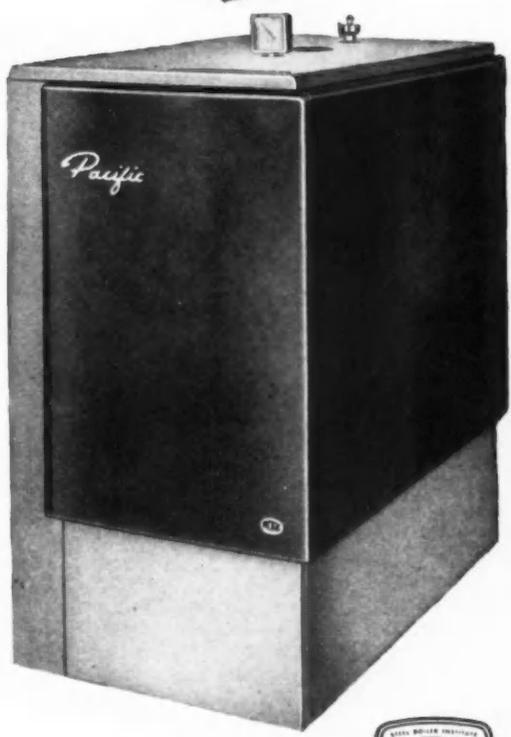
Heating Contractors—14,152 of them—recommend Pacific Residential and Commercial Boilers. They know Pacific Boilers last longer, cost less to maintain, and that Pacific performance wins them new friends and customers by heating better at lower cost.

EVERYONE PREFERS PACIFIC

And no wonder! Pacific is the finest steel boiler money can buy. Here's completely automatic heating at moderate cost for homes with oil or gas. There are features by the dozen: Two-tone, high lustre, baked-enamel finish. Removable front panel for easy access to burner and controls. Thick rock wool insulation. PLUS Pacific's exclusive "plate flue" construction which assures longer flue life and faster, more efficient heat transfer. Want the best in boilers? Then specify Pacific for all residential and commercial needs. Built to conform with the A.S.M.E. Code.



Pacific "plate flue" Boiler, for oil or gas only. Built in four sizes for use with steam, vapor or hot water heating. Inset shows exclusive design of patented "plate flue".



Pacific Steel Boiler



DIVISION • UNITED STATES RADIATOR CORPORATION
GENERAL OFFICES: DETROIT 31, MICHIGAN





**OAK FLOORS WELCOME
ANY *Style Changes***

Because of costs, some of your new home buyers are probably going to use their present furniture for a while. They want new things for their new houses, but they just can't afford them now.

You can make them much happier by pointing out how the warmth and charm of oak flooring bring out the best in any furniture. When they can buy new pieces, oak floors provide a beautiful setting that will enhance any style or color of furniture and furnishings.

To help you point out this value of oak flooring, as well as its beauty, durability and long-time economy, ask your oak flooring dealer for the free booklets—*Oak Floors for Long-time Beauty*. It will help you tell and sell the advantages of oak floors, for now and the future.

Also ask for the new *Builders' Data Book* which provides detailed information and specifications for planning, laying and finishing oak floors.

Tell about oak flooring today . . . and you'll sell more of it tomorrow.



Copyright 1948 . . National Oak Flooring Manufacturers' Association, Memphis, Tenn.

OAK FLOORS
BEAUTY • DURABILITY
ADAPTABILITY • ECONOMY

**A Great New
H&A Tilting
Arbor Saw...**



H & A Model
2800 8" Tilting
Arbor Saw

WITH

- **LARGER TABLE**
- **FASTER ADJUSTMENTS**
- **GREATER PRECISION**
- **BETTER PERFORMANCE**

Here's a streamlined beauty with all the practical features carpenters and woodworkers have been asking for. ● An extra large table with extensions for handling ripping operations up to 24 inch width. ● One piece, full length, roller-glide rip fence. ● Self-locking handwheel adjustments. ● Trundle floor stand for wheelbarrow-like portability.

Precision built to give precision performance, it leads the field in style, all-purpose utility, and simple mechanical efficiency. Use it right on the job or in your shop—you'll do more sawing at lower cost in less time.

Ask your dealer for this new H & A 8" Tilting Arbor Saw or write for complete details.

Heston & Anderson

Established In 1921

608 W. Kirkwood St. Fairfield, Iowa



KENTILE floors make homes **COST LESS** and **SELL FASTER!**

More and more, the floor they pick to save and sell is—Kentile! For instance: Levitt, miracle builder of Long Island, has built 2,000 homes and will build 4,000 more this year—all using Kentile in *every* room. Why?

1

Kentile is low, low priced, and can be laid—tile by tile—with astonishing speed . . . right on concrete, even below grade, without priming. Yet Kentile is so flexible it can also be laid directly on sound wood floors with boards not over 3" wide.

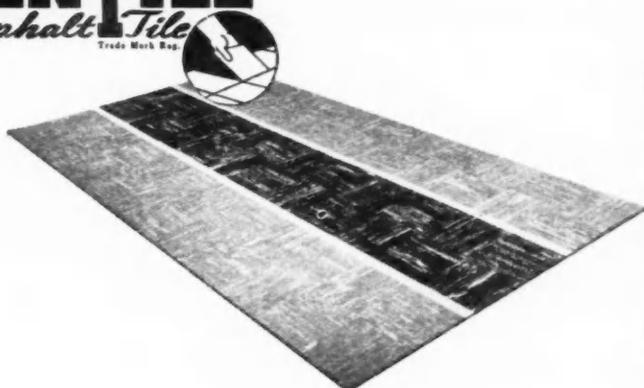
2

Kentile, laid square by square — with 23 colors plus feature strips — offers *unlimited* design possibilities. You can put a different floor in every room—give a house that custom designed look connected with high priced building. And it is definitely MODERN to match today's low price decor.

3

Your customers know the advantages of Kentile—because of full color, full page ads in such magazines as Saturday Evening Post, Better Homes & Gardens, House Beautiful.

KENTILE
Asphalt Tile
Trade Mark Reg.



FIND OUT!

Learn all the unmatched advantages offered today to home builders by Kentile. Look up your local Kentile dealer in the phone directory (under "Floors")—or mail the coupon below and we will have an authorized and experienced Kentile representative give you unbiased and verifiable Kentile facts—without obligation, but with profit to YOU.

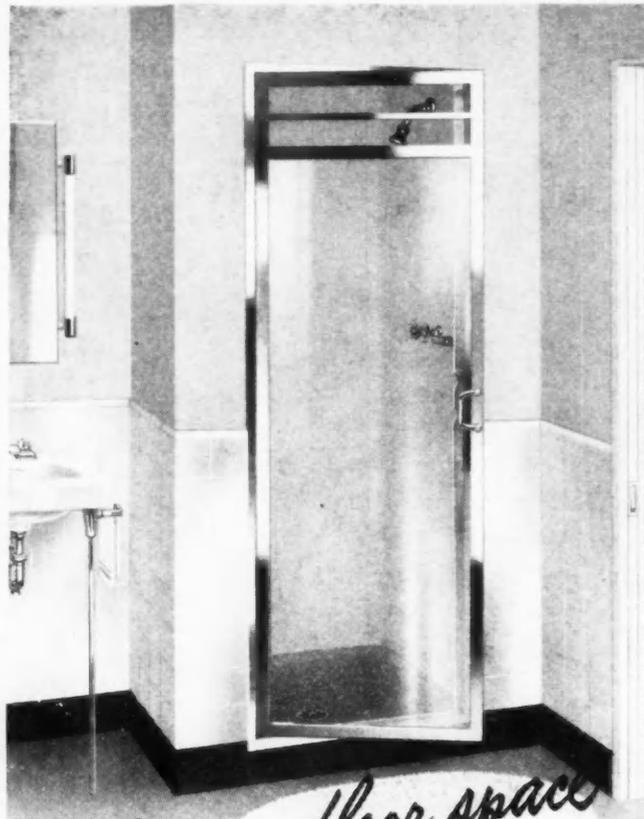
DAVID E. KENNEDY, INC.
61 Second Avenue, Brooklyn 15, N. Y.

I want to know ALL the advantages of Kentile—without obligation.

Name.....

Address.....

City..... State.....



*When bathroom floor space
is at a premium...*

The FIAT BUILT-IN *Cadet* Model 19-B solves the problem easily because when completely recessed it takes up no bathroom floor space at all.

Not only is the Built-In Cadet a champion shower for remodeling where bathrooms are created out of the small space afforded by closets and odd corners, but in new construction it presents stimulating possibilities in bathroom layouts and design particularly interesting to the architect and builder.

The cabinet can be completely recessed or partly set out to line up with lavatory or other fixtures as illustrated. The exclusive Fiat escutcheon type door frame conceals the joint between wall and cabinet stiles providing a clean cut appearance that gives a new look to bathrooms.

In addition, the Built-In Cadet incorporates some of the newest improvements in shower cabinet construction such as the elimination of all exposed screw heads and loose joining seams that collect dirt. The smooth, clean, interior is a distinct advance in shower cabinet construction that owner users will appreciate.

The Zephyr glass door is recommended for Built-In Cadet installations because it adds so much to the appearance and utility of the shower at so little added cost. Owners often refer to the Built-In Cadet as the "glass shower" because the glass door is the only part exposed in the bathroom.

Size 36" x 36" x 80", receptor precast terrazzo with cast-in drain. Walls, bonderized, galvanized steel, finished with white baked-on synthetic enamel. Zephyr or Dolphin glass door, or shower curtain can be installed on the Built-In Cadet.



Metal Manufacturing Company

Chicago 13, Illinois

Long Island City 1, New York

Los Angeles 33, California

IN CANADA—Fiat showers are made by Porcelain and Metal Products, Ltd., Orillia, Ontario

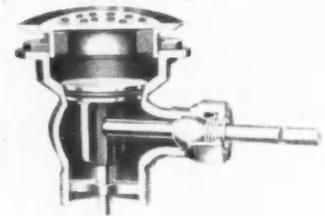
NEW PRODUCTS

(Continued from page 138)

material pushed through the machine to plane 8 inches of the surface. The equalizer bar is then pivoted forward into position, tangent with the knives, and stock is turned end for end so that the planed portion lays on the equalizer bar in starting the finish cut. Material is guided into the cutter-head flush with the first cut, so that the second cut will blend into it without leaving a shoulder or joining mark.

LEVER-HANDLE WASTE AB9802

The designs of the Lever-Handle Waste shown is simple and fool-proof—joints and packing are carefully fitted to assure a positive seal when closed, and a fast draining sink when open. This design also permits the drain to be installed in residential sinks. The O-Ring Seat



is made of a special rubber to resist hot water, grease and acid. Made in two sizes, the Waste is fabricated of the finest materials—the strainer is stainless steel, the flange of stainless, sanitary, dairy-metal, and the body of cast bronze. Product of the Atlantic Brass Works, Inc., 2035 W. Harrison St., Chicago 12, Ill., the Lever-Handle Waste is easily and quickly installed without riveting or soldering.

LINOLEUM BOARD AB9815

A new, linoleum-surfaced plywood board, suitable for walls and counter or work surfaces, is being marketed under the name "Perma-Bord" by the Perma-Bord Corp. of Columbia, S.C. The project is made by bonding Armstrong linoleum to a specially laminated plywood. The bonding agent does not permit the linoleum to crack or blister under the effect of live steam or oven heat, according to the manufacturer. At present, the board comes only in 4x6 foot sheets, but larger size sheets will be added to the line later. Perma-Bord can be handled and cut exactly like plywood. For dry wall installations, it can be nailed directly to the studs without a subwall. A 4D nail, driven through the linoleum into the plywood backing, can be completely concealed by a tap on the plastic surface which seals over the hole where it entered.

(Continued to page 168)

Now!

A complete manual on ...

HOW TO INSTALL METAL CASEMENTS... SCREENS ... STORM WINDOWS



1. **Contains easy-to-read A B C's of Installation.** Easy to follow details, pictures, charts . . . gives all the information for proper installations.
2. **Helps eliminate extra costs.** Shows how to do the job economically . . . cuts losses caused by mishandling and faulty installation methods.
3. **Helps establish customer good will.** Shows how to do the job efficiently . . . gets the right results the first time.

CONTAINS IMPORTANT INSTRUCTIONS

- Erection fittings and hardware
- Proper way to store
- Size of rough openings
- Inside clearance for screens and storms
- Simplified installation details
- How to assure weathertightness
- How to glaze and paint

Here, in simple language, is all the *know-how* needed for the installation of metal casements, storm windows and screens. Ceco offers you this important, instructive manual to help make every job practically fool-proof. It tells you how to cut costs, eliminate damage to windows, avoid loss of time. Write for *free* copy today. If you live in one of the western states, ask for special Pacific Coast Edition. CECO STEEL PRODUCTS CORPORATION, 5601 W. 26th St., Chicago 50, Ill.



CECO STEEL PRODUCTS CORPORATION
5601 W. 26TH ST., CHICAGO 50, ILL.

Please send **FREE** Manual No. 1014 on how to install metal casements, screens and storm windows.

NAME _____
 ADDRESS _____
 CITY _____ STATE _____

In construction products **CECO ENGINEERING** *makes the big difference*



THE BARCOL OVERdoor

WITH ELECTRIC OPERATOR

FOR PUBLIC GARAGE SERVICE ENTRANCES

Barcol OVERdoors and Barber-Colman Electric Door Operators are the ideal combination for openings in public garages, automobile agencies, service stations, and other establishments where traffic is heavy. They operate easily, quickly, efficiently . . . provide convenience and valuable time-saving both to garagemen and their customers.

Only Barcol OVERdoors offer all these distinctive features: exclusive cam-controlled action for weather-tight closing without sticking or binding; tailored twin-torsion

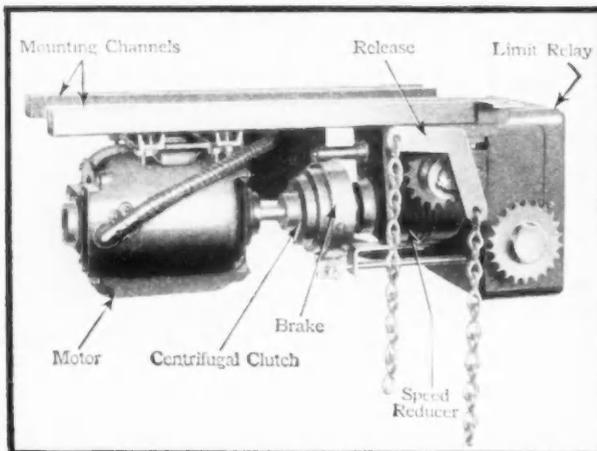
springs for safe, accurate counterbalancing; and continuous vertical track brackets for strength and durability.

Couple these features with quality construction and guaranteed installation by factory-trained representatives and you have doors that give dependable, trouble-free service at lowest maintenance cost. Barcol OVERdoors are adaptable to existing buildings as well as new construction. *Consult your Barcol representative for complete details.*

SEE OUR CATALOG IN SWEET'S

Barcol Electric Door Operators increase convenience; result in minimizing time loss, heat loss, operating costs. Applicable to most types and sizes of swinging, sliding, overhead, and steel rolling doors, and to sliding gates.

Consult classified directory for local Barcol representative.



FACTORY-TRAINED SALES and SERVICE REPRESENTATIVES in PRINCIPAL CITIES



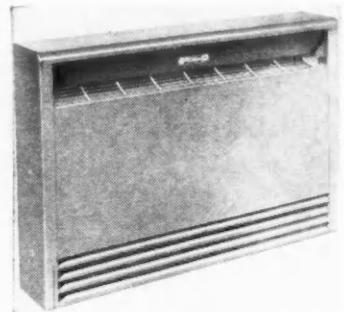
BARBER-COLMAN COMPANY
104 MILL ST. • ROCKFORD, ILLINOIS

NEW PRODUCTS

(Continued from page 166)

CONVECTOR RADIATION AB9834

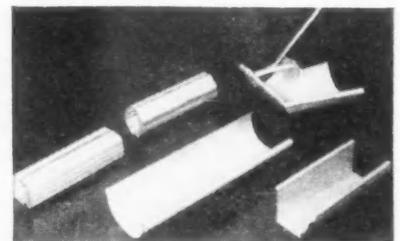
A new type of convector radiation is now offered by the Modine Manufacturing Co., Racine, Wis. Their new convectors, styled by Barnes & Reincke, Chicago designers, include four distinctive enclosure styles available in the standard line, and three in the



heavy-duty institutional line. Performance ratings have been determined in accordance with the new commercial Standard (GS-140-47) for Testing and Rating Convectors, as established by the National Bureau of Standards, United States Department of Commerce. Modine convectors have a curved outlet air grille within the enclosure itself, and a temperature control damper which is adjusted by a touch of the hand. When closed, as in non-operating periods, this damper conceals the outlet grille and blends the enclosure with the adjoining wall.

ROOF DRAINAGE PRODUCTS AB9810

A full line of ready to use stainless steel roof drainage products is now being produced by the Berger Manufacturing Div'n., Republic Steel



Corp., Cleveland, Ohio. Items in the line include "K" gutter; plain round, corrugated round, and corrugated square conductor pipe, "Snaptite" eaves trough and all necessary stainless steel fittings. Drainage equipment is fabricated from satin-finish 28-gauge Enduro stainless steel, type 301. The corrosion-resistant metal will not tarnish or rust; needs little or no maintenance and does not bleed or discolor paint on surrounding surfaces. It is easily soldered and may be painted, if desired.

(Continued to page 172)

Ready for immediate Installation
the revolutionary new
ANTHRATUBE

Anthratube production has been stepped up to meet the greatly increased demand for worry-free Automatic Heating this winter

Now, with the Anthratube, your customers can have completely automatic heat without the worry about fuel shortages and yet save fuel dollars!

This all-in-one unit burns a plentiful, economical size of anthracite. It's completely automatic from bin feed to ash removal.

The Anthratube saves up to 38% on fuel bills because its proved efficiency is over 80%. Its compact design... built-in "heat slinger" and other revolutionary features... give it quicker response and superior performance compared with ordinary types of heating units.

Your customers want clean, comfortable, economical, worry-free heat—and plenty of it! *Now you can give it to them with the Anthratube!*

For more information on the Anthratube write directly to us or to one of the Anthracite Institute approved manufacturers.

APPROVED MANUFACTURERS OF THE ANTHRATUBE

AMERICAN BOILER WORKS CO.
Erie, Pa.

AXEMAN-ANDERSON COMPANY
Williamsport, Pa.

BETHLEHEM FOUNDRY & MACHINE CO.
Bethlehem, Pa.



ANTHRACITE INSTITUTE

101 Park Avenue

New York 17, N. Y.



SPACED SHEATHING *gives* CERTIGRADE SHINGLES *competitive low cost*

Figure it out for yourself! Compute the complete cost per square of roof, using any material that requires solid roof sheathing. Then compute the lower cost of Certigrade cedar shingles, using *spaced* sheathing. Compare these costs for yourself.

Cedar Shingles can be laid on spaced sheathing because of their overlapping "bridging" construction. This saves builders nearly 50% of the costs of sheathing, nails and sheathing application. Cost of materials *including decking* is the only right way to get comparative costs on complete roofing jobs.

Although the unit cost of substitute roofing materials *before application* is sometimes lower than the unit cost of Certigrade No. 1 shingles, the *complete* Certigrade roof usually costs less! And a roof of Red Label Grade Certigrades, on spaced sheathing, is always a money-saver.

Figured by the cost per square, *per year of life*, Certigrades are always your best buy.

For a cost comparison chart on roof construction, write:



RED CEDAR SHINGLE BUREAU

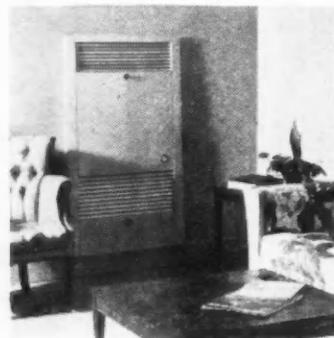
5510 White Building, Seattle 1, Washington, or
Metropolitan Building, Vancouver, B.C., Canada

NEW PRODUCTS

(Continued from page 168)

VENTED WALL HEATER AB9807

Styled to blend into any room treatment, a new vented heater which is installed within a wall for heating on both sides of the partition is being introduced by Holly Manufacturing Co., 875 S. Arroyo Parkway, Pasadena, Calif. The heaters are available with inputs of 37,000 B.T.U. and 45,000 B.T.U. for natural or manufactured gas. They are also available



for LP gas. Designed for use in second story installations or on concrete slab floor construction, the heater requires a wall opening of 28 inches by 51 inches. The bottom of the panel is off the floor, permitting any rug treatment and simplifying cleaning problems. The air inlet is located in a hidden duct beneath the raised panels and efficiently pulls the cold air off the floor. Top panel louvers give a downward and outward direction to warmed air flow, while louvers near the base of the heater give off radiant heat. All internal parts are concealed from view.

PACKAGED HOME FLASHING AB9801

To promote the use and proper grade of sheet metal for weather-proofing low-cost houses, a packaged home flashing system employing specially developed, easily handled, non-rustable sheet copper has been put on the market. The package includes ten sheets of 31-gauge tempered copper, pre-cut to 18 inches by 48 inches, 200 hardware bronze nails, and an instruction booklet. The package was developed by Revere Copper and Brass, Inc., 230 Park Ave., New York 17, N.Y., as a result of extensive research into the use of metal in low-cost residential building. Sold through lumber and building supply dealers, this package marks the first time that copper has been packaged as a building material. In developing the system, Revere not only engineered a special gauge, temper and size of sheet copper but has also worked out sound and simple techniques of application.

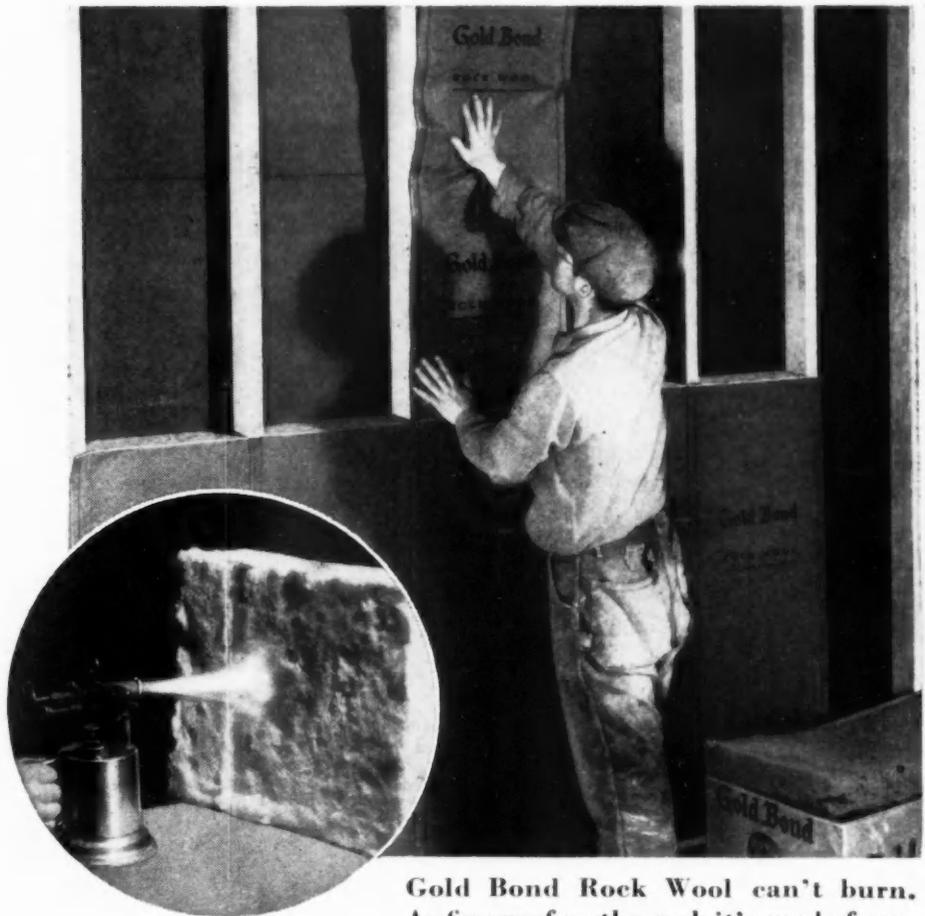
(Continued to page 172)

DON'T EXPECT A BOY TO DO A MAN'S JOB!

Fireproof, full-thick, Gold Bond Rock Wool Batts protect your customers — and your reputation!

EVERY new home owner is always proud to tell friends, "Our house is fully insulated!" What a let-down when they learn the insulation was installed so thin that they are getting only a fraction of the benefits insulation can really provide. Then they go gunning for the builder!

It costs so little more to standardize on full thick insulation, that it isn't worth risking your reputation with thin, flimsy products. Full Thick Gold Bond Rock Wool Batts are built to exacting specifications that insure maximum insulation comfort and fuel savings. And because they fill the stud space and are fireproof, they provide a permanent fire stop. Insist on genuine Full Thick Gold Bond Rock Wool Batts and you'll be giving your clients the best.



Gold Bond Rock Wool can't burn. As fireproof as the rock it's made from.

You'll build or remodel better with

Gold Bond

NATIONAL GYPSUM COMPANY
BUFFALO 2, NEW YORK



Over 150 Gold Bond Products including gypsum lath, plaster, lime, wallboards, gypsum sheathing, rock wool insulation, metal lath products and partition systems, wall paint and acoustical materials.

The beauty of

PAINÉ REZO DOORS

is that

every builder can afford them



U.S. Pat. 1,887,814. The exclusive interlocking grid core within the Rezo door allows constant air circulation, adds extra strength, provides greater rigidity.

Fortunately beauty and economy go hand in hand in

Paine Rezo doors, give you both a sales approach to your customer and a practical approach to your job. Pre-fitted and light in weight, the 1 3/4" Paine Rezo is quickly hung. The clear flush surface takes little time for painting or staining, goes twice as fast as a panel door . . . specific advantages that make the installed cost of Paine Rezo doors no more than ordinary doors.

The air-cell construction features are exclusive and patented—minimize warping and shrinking, provide the greatest dimensional stability of any door. Home buyers benefit, too, from values like this . . . and there is no denying how much these smartly styled doors can do to make small rooms seem more spacious and charming. Because these built-in qualities never fail, over two million Paine Rezo doors are in service today—the choice of America's leading contractors and builders. Ask your dealer for Paine Rezo doors, or write for a factual bulletin.

Manufactured by the

PAINÉ LUMBER CO., Ltd. *Oshkosh Wisconsin*

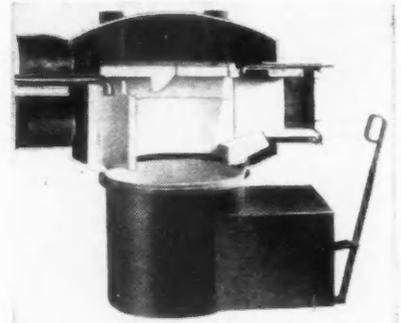
ESTABLISHED 1853

NEW PRODUCTS

(Continued from page 170)

SMOKELESS FURNACE AB9812

A smokeless coal-burning warm air furnace has been developed by the Wheeling Furnace Corp., Martins Ferry, Ohio. Named Smokabator, the furnace operates on a down-draft principle rather than the conventional



up-draft. Thus the primary air enters through the feed or firing door and is drawn down through the hot bed of coal or coke. In traveling down through the fire bed the smoke and gases carried by the air are consumed, resulting in near-perfect combustion. The furnace is approved by the Smoke Abatement Commission of Pittsburgh, Pa. Other features of the Smokabator include an over-sized refractory magazine which reduces the number of firing periods. The more complete combustion in the Smokabator eliminates the need for daily ash and hot clinker removal, and the gravity feed, stoker-like action of the Smokabator reduces the necessity for constant furnace tending.

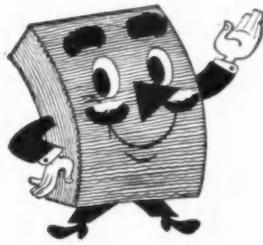
AIR MOVER AB9814

The V. E. Sprouse Company, Inc., Columbus, Ind., has introduced a new 30-inch air mover designed for wide application. For home use, it



is easily installed in the window, or in the attic. In addition, its capacity, rated at approximately 7,000 C.F.M., makes it equally applicable to business and industrial establishments. Powered by a 1/4 H.P. motor, this air mover operates quietly and economically. Its overall dimensions are 36 inches by 36 inches, and it is furnished with an attractive grille.

(Continued to page 174)



Another leading builder
proves that "value pays off"

uses KIMSUL* in 600-home project

Here are a few of the 600 units recently completed by Timely Builders. All are insulated throughout (walls and ceilings) with many-layer KIMSUL* insulation.



SD:cdv

Builders everywhere are finding it out. Value pays off—in fast sales, satisfied buyers. And when you're building for satisfaction, comfortize your homes with many-layer KIMSUL insulation. KIMSUL provides lifetime fuel savings, lifetime home comfort.

Cut to fit standard stud and rafter widths, KIMSUL blankets install quickly, profitably. Avoid delays—eliminate the need of skilled labor or expensive machinery. Compressed to 1/5 actual length, KIMSUL is easy for workmen to handle. It's light in weight, clean—no dust, no sharp particles.

Insulate when you build.

Over-all insulation
means ready salability.



*T. M. Reg. U. S. & Can. Pat. Off. †Trademark

Timely Builders

DEVELOPERS - BUILDERS
RUTHERFORD, NEW JERSEY
ROUTE 2-0410

Developers of
FLORAL GARDENS
FERNDALE
PATENSON MANOR

March 22, 1948

Kimberly-Clark Corporation
Neenah, Wisconsin

Gentlemen:

By September of this year, we will have completed over 600 new homes in Bergen and Passaic Counties. Each of these new homes is completely insulated with "KIMSUL" as installed by the Home Insulation Company of Clifton, New Jersey.

We feel confident that the choice of this well known and efficient "KIMSUL" blanket to insulate the sidewalls and ceilings and therefore preclude the necessity of costly extras later to the purchaser, has been an important factor in the ready sale of these homes.

We have several large new tracts upon which we will erect many more of this type home. In keeping with our policy of attempting to give the purchaser the greatest value for his dollar, you may rest assured that "KIMSUL" will be a standard specification in all of our future plans.

Very truly yours,

Stephen Dudiak, Prop.

KIMSUL has a high thermal efficiency. ("k" factor 0.27). Won't sag or settle. And it's the only brand with the PYROGARD† fire-resistant cover.

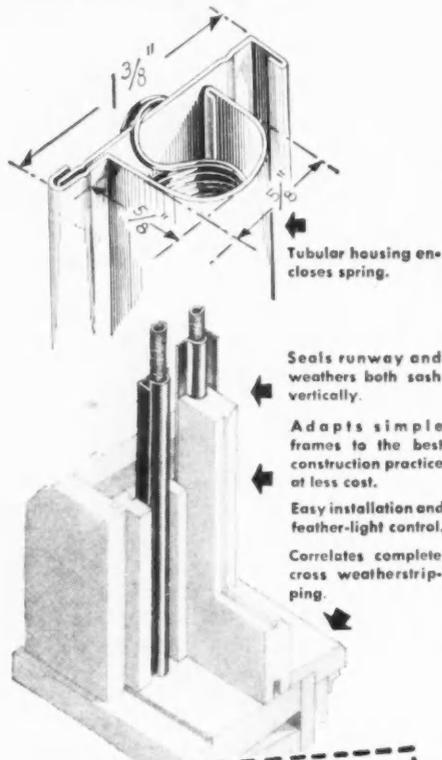
For peak performance at lower cost, specify KIMSUL by thickness. Commercial Thick (about 1/2") and Standard Thick (about 1") for walls, attics, and floors. Double Thick (about 2") for attics.

Free: Write for the new KIMSUL Insulation Application Data File and Technical Booklet. Simply address Kimberly-Clark Corporation, KIMSUL Division, Neenah, Wisconsin.

An announcement

The Allmetal Weatherstrip Company, manufacturers of quality weatherstrip equipment since 1915 announces a NEW and SUPERIOR patented Sash Balance and Weatherstrip Unit. Details are shown below. Here are the features . . .

- 1 Balancing equipment for double-hung sash has always emphasized sash suspension. The Allmetal Unit is engineered to counter-balance sash in two ways; with coil spring tension to overcome gravity and metal housing tension to provide stability. Note that the tubular housing which covers the spring is a free-moving member. Under easy compression in the sash groove it offers maximum surface contact with the wood yet maintains free vertical movement.
- 2 Spring is enclosed and invisible.
- 3 Effective weather protection for the runways is assured with flexible hemmed side rib.
- 4 Non-corrosive and rust-proofed metal construction throughout.



ALLMETAL WEATHERSTRIP CO.
2243 N. Knox Avenue, Chicago 39, Ill.

Gentlemen: Please send me complete information and prices.

Name _____
Address _____
Town _____

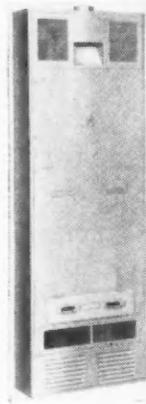
THE ALLMETAL SASH BALANCE & WEATHERSTRIP UNIT

NEW PRODUCTS

(Continued from page 172)

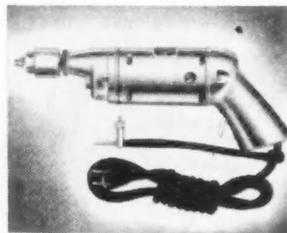
COMPACT WALL HEATER AB9806

A new, gas-fired, forced air, wall heater, with floor-level warm air discharge, is being introduced by the Payne Furnace Co., Beverly Hills, Calif. In a compact casing, the vented heater, named "Panelair," measures 29 $\frac{3}{8}$ inches across the front and 9 $\frac{3}{8}$ inches from front to back. It can be fully or partly recessed in a wall and in direct contact with wood. Warm air discharge is possible from all four sides to heat several rooms. Two fans draw return air from the ceiling, and heated air is forced out near the bottom through small grilles, the only portions of the "Panelair" showing in living areas. This floor-level heat discharge combats cold floors resulting from under-floor ventilation required in non-basement construction. The low-level, forced warm air discharge counteracts the tendency for warm air to collect at the ceiling and cold air to settle to the floor. Fans and electric motors of the "Panelair" are vibration-insulated.



PORTABLE ELECTRIC DRILL AB9813

A new model, light-weight, $\frac{1}{4}$ -inch highpower, portable electric drill, offering handling ease and convenience for industry and home workshop, has been announced by Portable Electric Tools, Inc., 255-259 W. 79th St., Chicago, Ill. It is called Model No. 250. The drill has a comfortable



pistol grip handle with Cutler-Hammer trigger switch. The motor has been redesigned for increased power. It is air-cooled and of the universal type AC-DC, 110-115-volts. The gear case and handle are natural satin finish die-castings. The motor housing is of seamless aluminum tubing with satin finish. The drill is supplied with a 6-foot rubber-covered cable and attachment plug of top quality.

(Continued to page 176)

REZ

for better...easier
...more economical
WOOD FINISHING



REZ Primer and Sealer
...The foundation for all wood finishes. Controls dimensions and provides a perfect hard surface for paint, enamel or varnish.

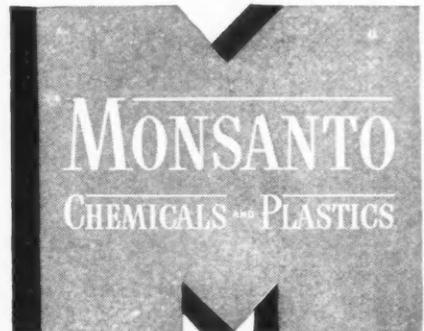


WHITE REZ Intermediate Coat... A superior undercoat to be applied after sealing the wood with REZ. Makes possible beautiful finishes on softwoods, such as Douglas fir plywood and pine.



HI-GLOSS REZ... A clear, transparent, sparkling surface finish for furniture, built-ins, interior woodwork, millwork, panels, toys, paneling, athletic equipment and all kinds of cabinet work.

Ask your dealer or jobber for further information and copies of new folder, "Wood Finishing"—or write direct to **MONSANTO CHEMICAL COMPANY**, Western Division, Seattle 4, Wash. District Sales Offices in Los Angeles, San Francisco, Portland, Lockport, N.Y. Rez: Reg. U.S. Pat. Off.



SERVING INDUSTRY... WHICH SERVES MANKIND

The "Seller" is in the kitchen!

There's nothing that sells Mrs. Home Buyer more quickly than a truly modern, up-to-the-minute kitchen.

There's nothing that says "modern living" more clearly than a General Electric Disposall.*

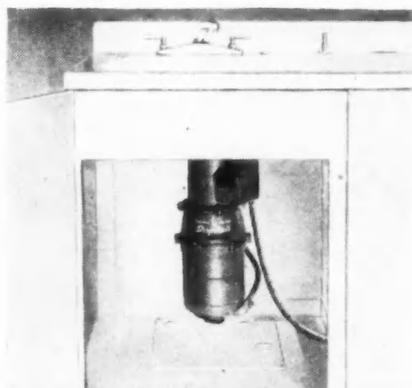
This electrical marvel shreds all food waste, flushes it automatically into sewer or septic tank. It banishes the garbage can, and means a more healthful, more convenient way of living.

Readership checks of national advertising show that women are extremely interested in this new appliance. *They want it in their homes!* It represents the modern way of living to them.

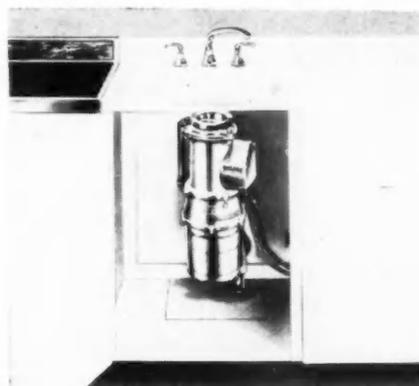
Install Disposalls in your kitchens—and you've installed "extra" sell in your homes!



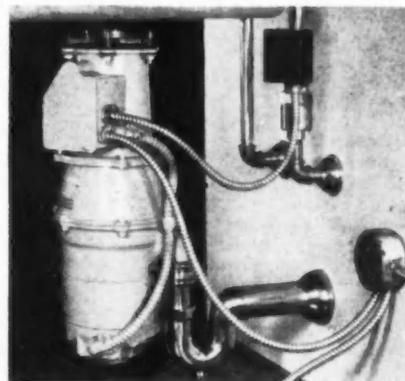
**It's a simple matter
to install a
DISPOSALL!**



• The Disposall fits snugly under kitchen sink—replacing the standard drain.



• Installable in any modern sink with 3½- to 4-inch drain opening, this is how the Disposall looks installed in the General Electric Sink.



• Close-up, under-the-sink view shows all plumbing and electrical connections.

Mail this coupon for complete information.

General Electric Company, Appliance and Merchandise Dept.
1285 Boston Avenue, Bridgeport 2, Conn. Dept. AM489.
Please send me complete information about the G-E Disposall:

NAME _____

ADDRESS _____

CITY _____ STATE _____

*General Electric's registered trade-mark for its food-waste disposal appliance.



DISPOSALL

—means good-by to
garbage, automatically!

GENERAL  ELECTRIC

4 reasons
why you
should use

Cabot's Creosote STAINS

● Give Real Protection

Cabot's Stains contain a high proportion (60-90%) of undiluted creosote oil, the best wood preservative known. This means years of protection from decay and termites.

● Easy to Use

No thinning or preparation necessary... won't peel or blister, even on green wood.

● Economical

Cabot's Stains cost 1/3 as much as good paint... brush on quickly and easily.

● Large Color Selection

The rich, non-fading colors range from clear, brilliant hues to weathering browns and grays... bring out the natural beauty of clapboards, shingles, and siding.

Write today for Color Card and Complete Information.

Samuel Cabot

INCORPORATED

2227 Oliver Building

Boston 9, Mass.



NEW PRODUCTS

(Continued from page 174)

COMBINATION DOOR AB9826

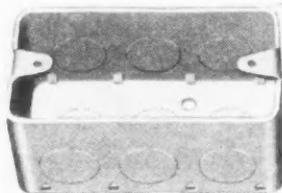
A new, all aluminum, combination storm and screen door is now available, designed by Eagle-Picher Co., Cincinnati, Ohio. The door permits a



quick change as the seasons demand, with removable glass inserts for winter and screens for summer. It is manufactured in standard door opening sizes, and distributed nationally through authorized Eagle-Picher contractors. Like the Eagle-Picher windows, the door is made of extruded aluminum. A soft, non-glare finish gives the door a smart appearance that blends well with home exteriors.

UTILITY BOX AB9809

Through a square corner design in full gauge steel walls, a new type utility box provides ample finger room for installation work. Made by National Electric Products Corp., Pittsburgh, Pa., the new No. 2020 "Redege" flush device utility box is



17 7/8 inches deep, 4 inches long, and 2 1/8 inches wide. Eleven smooth 1/2-inch knockouts are provided—three on the bottom, three on each side, and one on each box end. Rocking is eliminated by a smooth flat back. Ears have been made integral parts of the box, which is electrogalvanized throughout. Lugs are tapped on 3 9/32-inch centers for all standard makes of push button, rectangular rotary switch and flush convenience. The box can be efficiently installed with all types of wiring, including rigid heavy conduit, non-metallic sheathed cable, armored bushed cable and flexible steel conduit.

(Continued to page 178)

SEPTIC TANKS



Two Sizes . . . 300 and 500 gallon capacity. 14 Gauge Steel, Black Asphalt Coating.

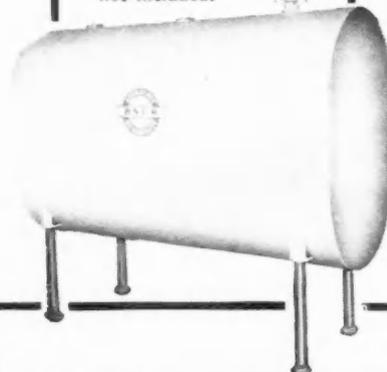
AVAILABLE FOR DELIVERY

Top quality steel tanks, fabricated by a manufacturer with over 55 years' experience. Write today for prices and complete delivery information.

BLACK, SIVALLS & BRYSON
INCORPORATED

24th Floor, Power and Light Building
KANSAS CITY 6, MISSOURI

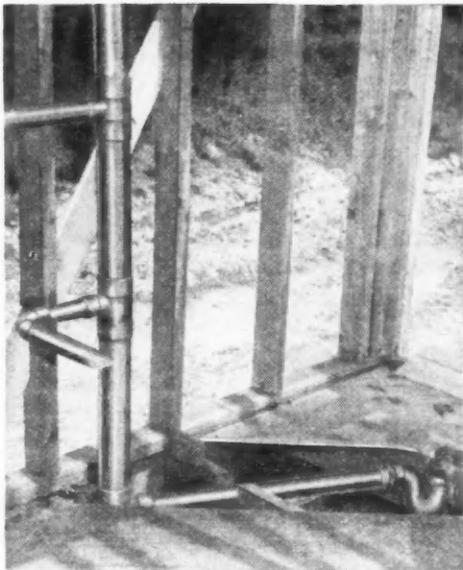
Capacity, 275 gallons. 14 gauge black steel, or aluminum . . . Legs not included.



BASEMENT TANKS



WHAT'S HOLDING YOU UP?



Drainage installation of Chase Copper Tube in one of the 280 homes built by Levitt & Sons, Strathmore at Roslyn; L. I. Distributor: Gar Supply Corporation, Long Island City, N. Y.

CHASE COPPER TUBE for soil, waste and vent lines is IMMEDIATELY AVAILABLE!

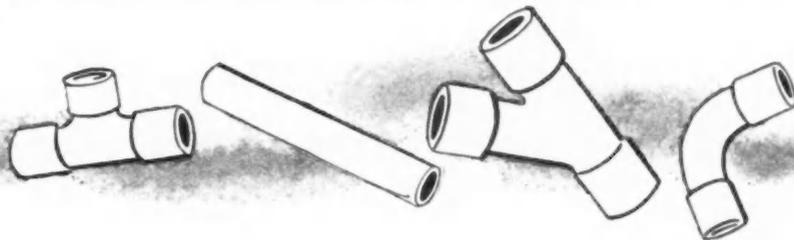
Is YOUR building program bogging down, because pipe for drainage lines is hard to get? Then do as other builders all over the country are doing—switch to Chase Copper Tube. You can get it right away—in all the sizes used for soil, waste and vent lines.

You can install Chase Copper Tube quickly, too. Fewer joints are needed because it comes in 20-foot lengths. The joints you do need are made in a jiffy with solder-type fittings.

Pre-assemble if you like—the assemblies are sturdy units that will stand plenty of rough handling.

And . . . Chase Copper Tube does a better drainage job. Its smooth inner surface offers no obstruction to the flow of wastes—the solder-type fittings eliminate pockets.

Want more details? Write for literature on Chase Copper Tube for drainage lines. Address Dept. AB 98.



Chase



the Nation's Headquarters for BRASS & COPPER

WATERBURY 91, CONNECTICUT

SUBSIDIARY OF KENNECOTT COPPER CORPORATION

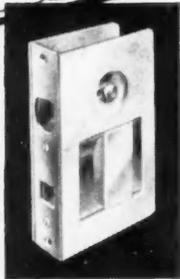
THIS IS THE CHASE NETWORK . . . handiest way to buy brass

ALBANY! ATLANTA BALTIMORE BOSTON CHICAGO CINCINNATI CLEVELAND DETROIT HOUSTON! INDIANAPOLIS KANSAS CITY, MO. LOS ANGELES MILWAUKEE MINNEAPOLIS NEWARK NEW ORLEANS NEW YORK PHILADELPHIA PITTSBURGH PROVIDENCE ROCHESTER! SAN FRANCISCO SEATTLE ST. LOUIS WATERBURY (Indicates Sales Office Only)



THE NEW ADJUSTABLE
RITE-LOCK
FOR SLIDING DOORS

- For Entrance Doors, Bath and Inside Sets.
- Solid Brass Exterior.
- Three Escutcheon Types.



RITE-LOCK adds distinction and convenience to today's sliding doors. It's new, compact, trouble-proof...fits almost any thickness of door. The latching action is positive and releases with a natural sliding movement of the bar in the cup. For convenience and economy a finger pull is formed in the face plate. Look at these advantages:

- ★ Adjustable in width from 1-1/8" to 1-15/16"
- ★ Installs as a single assembly, requiring only a 3-1/2" x 2-5/8" notch
- ★ Adaptable to right or left hand doors
- ★ Outer case measures only 4-1/2" x 2-7/8"
- ★ Pin-tumbler 3/4" diameter cylinder available

Ask your Hardware Consultant or write us for complete details.

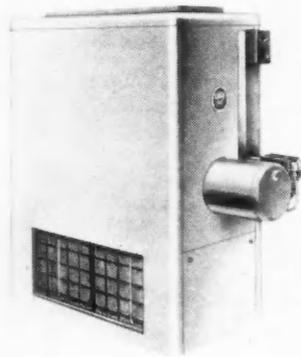


NEW PRODUCTS

(Continued from page 176)

WINTER AIR CONDITIONER AB9824

Efficiency and economy of operation are featured in a new oil-burning, winter air-conditioning unit manufactured by the Conco Engineering Works, Mendota, Ill. The unit, the "Conco VF," has a patented "Conco-Breeze" horizontal burner. The combustion chamber is of tunnel-type construction. Heavy-gauge copper-bearing steel is used for quick transfer of heat by both primary and secondary surfaces. An attractive room thermostat controls the unit. Combi-



nation fan, limit switch and oil control valve are factory installed and wired. The cabinet is smartly styled, and takes up a minimum of space.

FORK TRUCK SHOVEL AB9808

A new type of fork truck shovel attachment now on the market has a pneumatic snubber which minimizes



the shock and strain to the upright assembly when the load is discharged. In addition to the snubber, the shovel has 3-point suspension, with a roller cam lock and a single point hook which permits release of any load with a 15-pound pull. The shovel, made by Clark Equipment Co., Tractor Div'n., Battle Creek Mich., is built of 1/4-inch steel plate. The blade is 6 inches wide, made of specially hardened steel and flame hardened edge. The blade is welded to the bucket. The unit was specially designed for fork truck use in confined areas and for factory service.

(Continued to page 180)

Art in Iron

Artcraft produces the finest, most exacting custom-made ornamental iron work from specifications at amazingly low cost. This is in addition to our regular, low-priced, stock ornamental work. Write today for more information, or send specifications direct.

Delivery: Two weeks for custom work; Immediate delivery for stock items.

Terms: Payment with order or C.O.D.

Artcraft Ornamental Iron Co.
724 E. Hudson Street, Columbus 11, Ohio

Artcraft Ornamental Iron Co.
724 E. Hudson Street, Columbus 11, Ohio
Send me FREE by return mail my copy of your new 40-page catalogue titled "ART in IRON."

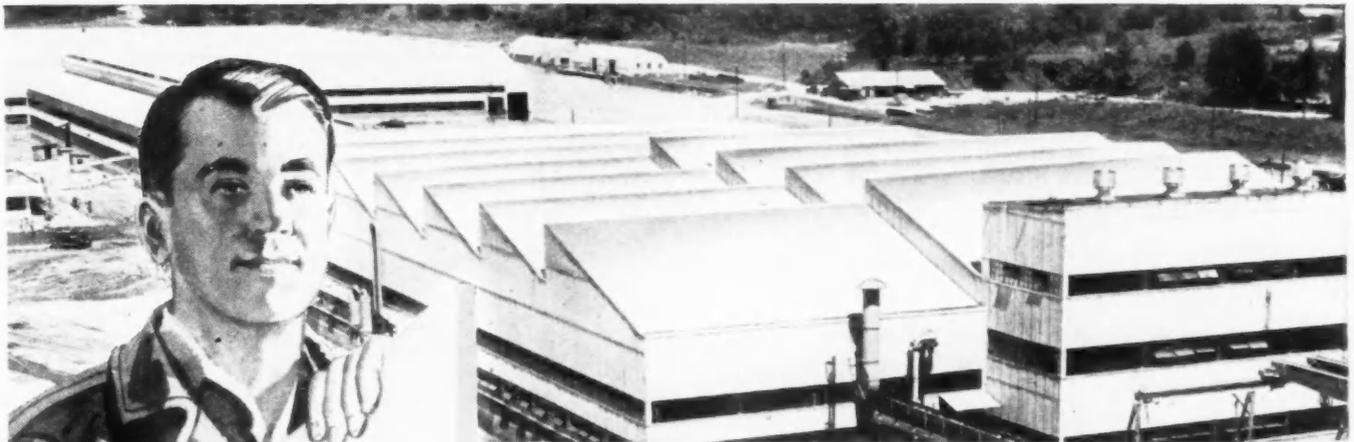
NAME.....
ADDRESS.....
CITY..... STATE.....
OCCUPATION.....

Artcraft manufactures:
Fireplace Equipment, Railings, Grilles, Balconies, Marquee, Theater Lighting, Steel Stairs, Gates, Fire Escapes, Hoods, Drapery Rods, Metal Furniture, Church Lighting, Sign Brackets, plus all kinds of architectural metal work. Write for information.

FREE: New 40-page catalogue, "ART in IRON" showing Artcraft's latest in custom and stock work, with complete prices, is just off the press. Write for your copy, or fill in attached coupon and mail today.

Now in production!

... Johns-Manville's new \$7,000,000 Insulating Board plant at Natchez, Miss.



TWO plants...Natchez, Miss., and Jarratt, Va., are now producing J-M Insulating Board Products...

• Johns-Manville announces the completion of a new plant in Natchez, Miss., which will be devoted entirely to the manufacture of insulating board products.

Located in the heart of Mississippi's pine forests, the new J-M factory has its raw materials right at its doorstep.

From this modern plant will come an ever-increasing flow of J-M Insulating Board products, including Building Board, Decorative Ceiling Panels, and Bevel Planks.

These popular J-M Building Materials have a smooth, finely textured, decorative surface called Glazecoat®, produced by an exclusive J-M process.

Other items in the line include Weathertite® Sheathing and J-M Insulating Lath, widely used to improve construction and cut costs.

All these insulating board products offer the customer many extra advantages. They are structurally strong and tough yet light in weight... are made to exacting standards of uniform density throughout... and have clean sharp edges that help to make a neat job.

For further information about the various sizes and kinds of J-M Insulating Board Products, write to Johns-Manville, Box 290, New York 16, New York. *Reg. U. S. Pat. Off.



Johns-Manville

BUILDING MATERIALS

DUO-FAST
TRADE MARK U.S. PAT. 2,021,722

Take "The Labor" Out
of Tacking

HAMMER TACKERS

DRIVE STAPLES FROM 5-32 TO 9-16" IN LEG LENGTH
FEED AND DRIVE STAPLES AUTOMATICALLY
TACK 2 TO 4 STAPLES PER SECOND
EASY ONE HAND OPERATION



EASY TO CLEAN - EASY TO LOAD

Tacking presents no problem when you use a Duo-Fast Hammer Tacker. It is time-saving, efficient and thorough. One hand does the complete job. This is the easiest, quickest method of tacking insulation, building papers and felts. Write for information on the Duo-Fast hammer, gun and air tackers.

DUO-FAST
FASTENER CORPORATION
880 Fletcher Street Chicago 14, Illinois

12,000,000 SQUARE FEET PLASTIC WALL TILE

This is the industry estimate for production during the past year. "STYRON" BRI*TILE made by Acorn is a leader in the field. Among its installations are many new homes—the LOOK HOUSE—the BLANDING DREAM HOME and restaurants, dairy bars, hospitals and night clubs in New York City. On display at Architects Sample Corporation, New York, N.Y., BRI*TILE has a number of distribution areas open. Write today. Dealers write for name of nearest distributor.

ACORN PLASTIC ENGINEERS, INC.

170 Broadway
New York 7, N. Y.
Rector 2-3469

Factory
561 East 18th St.
Erie, Pennsylvania

NEW PRODUCTS

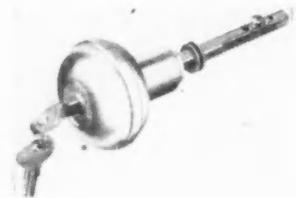
(Continued from page 178)

ALUMINUM NAILS AB9825

Six types and sixteen different sizes of aluminum nails are being made by Reynolds Metals Co., 2500 S. Third St., Louisville, Ky. Aluminum nails are highly resistant to corrosion and stain, and will not discolor. Among the new nails is a 1¼-inch plaster board nail especially suitable for fastening the various types of plaster board currently available. In addition, there is the shingle nail, the felt paper nails, and special roofing nails. All nails are etched to increase their holding power. The common nails include sizes 4, 6, 8, 10 and 16d. The roofing nails, supplied with 7/16-inch heads, come in 7/8, 1, 1¼, 1½, 1¾, 2, and 2½-inch lengths. The special roofing nail is supplied with a barbed 1¾-inch shank with a 7/16-inch head.

DOORKNOB LOCK AB9822

A tumbler-type cylinder lock built into the outer knob is the new product of the LaBelle Industries, Oconomowoc, Wis. The outer knob spins like a bearing when locked, and cannot be jammed or



sprung. A quarter turn with a small milled-type key will lock or unlock the unit. When the outer knob is locked, it will remain locked even after the door is opened from the inside. The inner knob, which cannot be locked, serves as a safeguard against accidentally locking children in rooms or buildings. The lock is designed to fit all door latches.

VERSATILE PAINT AB9803

A new heavy-duty synthetic paint protects concrete surfaces with an abrasion-resisting coating that does not check, crack or dust. The paint dries to a hard, durable, glossy finish in three to four hours. It seals concrete surfaces from moisture above or below grade; expands and contracts easily with the surface covered, and resists acids, alkalis and extreme degrees of heat or cold. Besides forming a protective covering on concrete, the new synthetic paint can also be applied to exposed metals, machinery, boilers and pipes, and to porous masonry surfaces. Introduced by Lowebe Co., Inc., Chicago, Ill., the paint is being marketed under the trade name, "Oncrete for Concrete."

(Continued to page 182)



**FASTER-
LAYING**

THAT'S

BERMICO

SEWER PIPE

QUICK AND EASY TO INSTALL. One-two-three quick hammer blows — that's all it takes to make a tight joint with BERMICO Sewer Pipe. No joining compound necessary. Faster-laying BERMICO is light — easy to carry from truck to trench and easy to handle on the job. It's rugged; there are no delays because of breakage, and you can back-fill right away. BERMICO is made of impregnated fibre and withstands sudden temperature changes or soil settlements. Built for a lifetime of trouble-free service.

BERMICO IS IDEAL FOR HOUSE-TO-SEWER OR SEPTIC TANK CONNECTIONS. Made in a full range of sizes, connections, bends, reducers, adaptors, etc. Nationally advertised. Use BERMICO Perforated pipe for drainage purposes.

SPECIFY BERMICO, the fibre pipe that meets with ample safety-margins all Bureau of Standards' requirements (Commercial Standard—116-44). When you sell BERMICO you help your customers and help your business. For further information write Brown Company, Dept. A-1, 500 Fifth Avenue, New York, N. Y.



**EASY
TO
INSTALL**

8-foot lengths reduce number of joints to be made.



**EASY
TO
HANDLE**

2/3rds lighter than other types of sewer pipe.



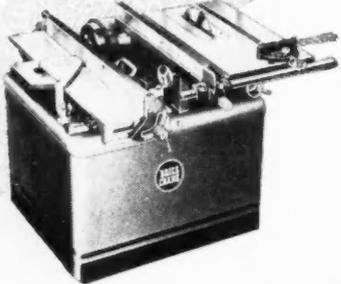
**EASY
TO
JOIN**

Root-proof, machine tapered joints require no packing.



BERMICO - A PRODUCT OF BROWN COMPANY

**A Portable
SAW-JOINTER
FOR DOING
FINISHING
WORK
ON THE JOB**



Also doubles as a production machine in your shop. Particularly useful in finishing cupboards, bookcases and special casements.

Only Boice-Crane makes this popular unit, in which a 10" tilting-arbor saw and a 6" jointer are compactly combined on a steel cabinet stand, and driven by one, rather than two motors. Imitations have saws on which the TABLE not the BLADE tilts. Features improved saw performance by unique drive which permits mounting motor rigidly and separate from machine.

This "complete workshop" rips, cuts-off, makes compound miter cuts, planes, rabbets, grooves, and miters. Longer table and fence equipment on our jointer guarantee perfect work on longer stock than usually handled on 6" machines. Jointer planes or rabbets 1/2" deep. The saw cuts stock up to 3" thick, and rips up to 21" wide with standard bars for fence, or to 37" wide with No. 2537 bars at slight extra cost. Built to last.

Welded steel, cabinet style floor stand arranged to collect sawdust and shavings. Hinged clean-out door. Possible to use both machines at once for maximum production.

Overall size: 47" wide; 45" deep; 39" high.

Boice-Crane, with its complete line of power tools, can, at minimum cost, completely equip a contractor's shop that will make you practically independent of the mill.

For a guarantee of satisfactory service specify only the products of established manufacturers who SPECIALIZE in producing power tools, rather than making them a sideline.

Write for free literature

BOICE-CRANE COMPANY

966 Central Avenue • Toledo 6, Ohio

BAND SAWS • JIG SAWS • SAW JOINTERS • BELT SANDERS
SPINDLE SANDERS • LATHES • THICKNESS PLANERS
SPINDLE SHAPERS • DRILL PRESSES • JOINTERS

NEW PRODUCTS

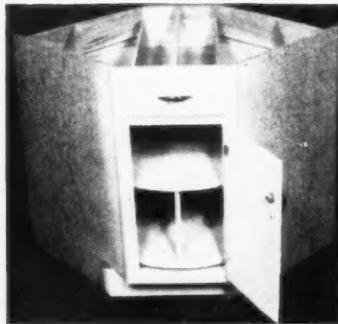
(Continued from page 180)

BASEBOARD GRAVITY REGISTER AB9804

A new gravity register manufactured by Air Control Products, Inc., Coopersville, Mich., has a face that is easily removed for cleaning ducts. A simple balanced damper mechanism, designed for the register, holds in any position without adjustment; requires no screws, and has no friction parts to wear. The register is smartly styled to blend with any interior.

CORNER CABINET AB9836

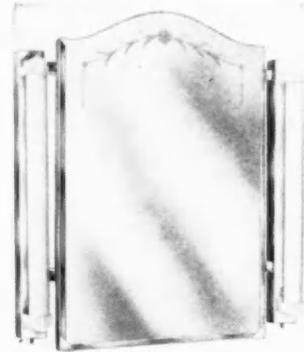
A new revolving corner cabinet now on the market, the "Handy Mandy," has two revolving shelves, 27 5/8 inches in diameter, supported on three ball bearings. Its overall measurement, front to back, is 29 1/4 inches, permitting it to pass through a 2 1/2-foot door. The purpose of the cabinet, mainly, is to utilize dead corners in a



U or L shaped kitchen. The cabinet height is the same as the average stove or sink height. The door is birch-face, with lumber core and door-stock; cabinet front of clear hardwood; sides, shelves and false bottom of 5/8-inch fibre-board. The cabinet is manufactured by the Galion Cabinet Co., 702 Charles St., Galion, Ohio.

COMBINATION SCREEN DOOR AB9805

A new combination storm and screen door of aluminum is now on the market. Designed to resist abuse, particularly from growing youngsters, the door is called the "Alumatic," and is a companion to the Alumatic aluminum combination storm and screen window. The new door is constructed of extruded hollow aluminum sections, which are light in weight and unusually strong. The storm panel insert and the screen insert, with aluminum screen, are easily interchanged for weather changes. The Alumatic door is fitted to the frame of the doorway and may be used on both front and rear doors of homes and apartments. Alumatic combination windows and doors are manufactured by the Aluminum Building Products Co., Milwaukee, Wis.



All chrome, complete unit, Underwriter's Approved, fluorescent medicine cabinet—the only one of its kind on the market. This is not just a medicine cabinet. This unit takes care of the bathroom wiring, bathroom fixtures, switches and outlets all incorporated into one. The only thing necessary is a piece of BX cable to connect to the main line. This arrangement saves money for the owner as all the necessary expense for the bathroom is incorporated in the cabinet.

This Deluxe unit consisting of all chrome with all wiring, switches and outlets and plate engraved Everlast mirror retails at \$43.75.

If you are listed with Dun & Bradstreet, you may have this medicine cabinet for approval on request without investing one cent. On receipt of the cabinet, you examine it thoroughly and compare it with other cabinets on the market and see for yourself what a wonderful proposition this is.

Jobbers invited.

FLUORESCENT LIGHTING CO.

MONTICELLO, N. Y.
Telephone: Monticello 1258

NOW YOU CAN DRILL YOUR OWN WELLS!

Sturdily Made—Hundreds of satisfied customers. Purchased and used by U. S. Dept. of Agriculture, U. S. Dept. of Forestry, U. S. Navy and many foreign countries.
Fully Guaranteed
Price Complete \$385.00
Less Motor
F.O.B. Factory
Price includes drill, bailer and 100' cable. 200 ft. of additional length available at extra cost.



Drill your own wells for that needed water—as many as you need—outside—in the cellar—in the barn. The new improved CONSOL Driller—1948 Model—is equipped with a special replaceable Drill Head. It will drill through many feet of solid rock without re-sharpening. Simple to operate, easy to set up. Do the work yourself at small cost.

We offer 3/4 H.P. Electric Motor or 1 1/2 H.P. Gas Engine to operate the "CONSOL" Well Driller at 38 strokes per minute.

Write for free illustrated booklet.

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CONSOLIDATED INDUSTRIES
West Cheshire, Conn.





sure, they're

still moving —

BUT will you be ready when sales slow down? Finished with Pratt & Lambert Paint and Varnish, your houses will be more saleable. Don't wait for the slow-down to come. Offset labor's high cost with these fine products. The new, authoritative P&L Paint colors have superb hiding, excellent spreading and are easy working. Pratt & Lambert-Inc., 80 Tonawanda Street, Buffalo 7, N.Y. In Canada, 6 Courtwright Street, Fort Erie North, Ontario.

PRATT & LAMBERT
paint and varnish



ZINC SERVES YOU

Galvanizing (Zinc coating) insures long-time, low-cost service. For as long as iron or steel is coated with Zinc, it cannot rust. For satisfaction, use galvanized materials. They're "Sealed-in-Zinc" against rust.

ROOFING · SIDING · FENCING

RAILROAD

HEATING · VENTILATION

TIME proves galvanized sheets stay stronger longer. Used as roofing and siding, they give buildings the "strength of steel" . . . the rust protection of Zinc. The "Seal of Quality" (above) is your guide to economy in buying galvanized sheets. It means they carry at least 2 oz. of Zinc per sq. ft. Galvanizing also lengthens fence life and service.

Galvanized products in the railroad industry guard bridges, cars, buildings, etc., against rust.

Strength, workability and resistance to heat as well as rust make galvanized sheets ideal for heating and air-conditioning.

FREE BOOKLETS

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Send me without cost or obligation the illustrated booklets I have checked.

- Repair Manual on Galvanized Roofing and Siding.
- Facts about Galvanized Sheets.
- Use of Metallic Zinc Paint to Protect Metal Surfaces.

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Address _____

Town _____

State _____

Jones & Brown Adds Pittsburgh Interlocking Plastic Tile

FURTHER expansion of product lines by Jones & Brown, Inc., aggressive national distributors of Insulbrick insulating brick siding and Ko-Z-Aire Conditioning Units has been announced by E. N. Rosenthal, president of the Pittsburgh firm. The company is now the exclusive national distributor of Pittsburgh Interlocking Plastic Tile, a patented feature wall tile formerly distributed by Pittsburgh Tile Co.

In discussing Jones & Brown acquisition of a complete line of interlocking plastic wall tile, Mr. Rosenthal said, "We have been interested in the development of plastic wall tile for several years, and we are well aware of the difficulties experienced in the successful application of ordinary plastic tile. The interlocking principle has solved those difficulties and we are swinging the full force of our thirty regional sales offices into the merchandising of this modern plastic tile wall covering."

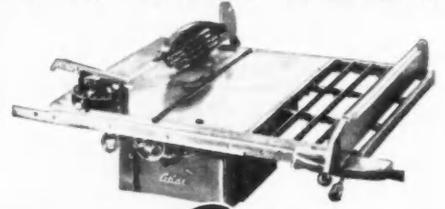
The new Jones & Brown product will be identified by the name "Pittsburgh Interlock Tile." It is a molded 4 1/4 inch by 4 1/4 inch tile, made of Polystyrene which may be permanently affixed to nearly every type of wall through the use of a patented interlocking feature. The tile is available in pastel, solid colors and marbled effects with self-trim or contrasting corners and feature strips.

Much of the personnel of the Pittsburgh Tile Co. has been merged with the Jones & Brown organization headquarters' staff in Pittsburgh. The new Tile Division of Jones & Brown, Inc., will be managed by Richard G. Brown, former president of Pittsburgh Plastic Tile. He will be assisted in the organization and operation of the new Division by H. A. Lamont, former office manager for Pittsburgh Tile.

Free Door Chimes For Demonstration Homes

NUTONE, Inc., Chicago, announces that one of several types of door chimes manufactured by the firm are being made available free to builders for demonstration purposes. The offer is being limited to builders who construct 25 or more homes in 1948. The builder may select the chime he would like to install and one model will be sent him at no cost. The only requirement is that he post a small identification card with the NuTone door chime in the model home in which the door chime is installed.

TAKE IT ON THE JOB!



NEW Atlas 10" Tilt/Arbor Bench Saw

Jobs move along faster and more profitably with a new Atlas 10" Tilt/Arbor Bench Saw on the job. It's ruggedly built to handle heavy sawing . . . precision built for the finest cabinet work . . . light enough for two men to carry. 10" dia. blade cuts 3 1/4" deep, tilts 45° for angle work. Three models, with 25" deep work table in widths of 22", 33 3/4", and 45 1/2". 12 3/4" table surface ahead of blade. Dado capacity, 13/16". Fast positioning rip fence. Send for complete details.

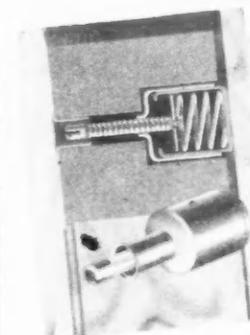
ATLAS PRESS CO.

939 NO. PITCHER ST., KALAMAZOO 13, MICH.



MATCHED PRECISION TOOLS FOR WOODWORKING AND METALWORKING

For Windows Everywhere



VIKRE

NEW ECONOMY SASH-HOLDER

More and more, builders are discovering the true economy of Vikre New Economy Sash Holders. Cost installed compares favorably even with that of spring bolts.

No Weights — no cords — no mortising. Just drill one hole, that's all. No drafty weight pockets to give you insulation headaches. For true economy and lasting satisfaction use Vikre New Economy Sash Holders for windows everywhere.

Tested and proved for years on thousands of construction jobs, Vikre Sash Holders are available through your building supply dealer. For full details, write:

J. N. VIKRE CO.

3016 14th Ave. S. • Minneapolis, Minn.



"I Like *Supertreated* Pol-mer-ik

**because it's the
100% PURE LINSEED OIL
that levels better!"**

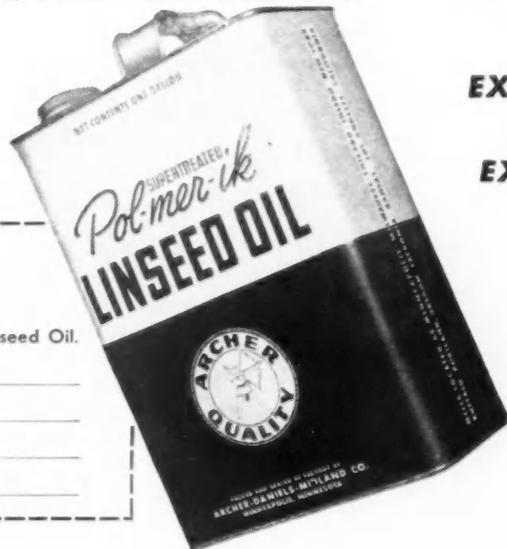
● So says Master Painter M. KISTIN of Cleveland, Ohio. He knows the importance of using a good linseed oil to carry color pigment and supply the protection and beauty of a clear, strong film. Supertreated Pol-mer-ik, the 100% pure linseed oil, does this to perfection and brushes finer, levels faster and better to produce finer paint jobs.

Why? Because Pol-mer-ik is Supertreated. It is given a special processing that strengthens its molecular structure . . . making it the finest linseed oil science has produced. Write for your dealer's name.

Supertreated Pol-mer-ik

100% PURE LINSEED OIL

Raw and Boiled Available in Factory-sealed Cans
5-gallon, 1-gallon, quarts and pints



**EXTRA VALUE
AT NO
EXTRA COST**

Product of **ARCHER-DANIELS-MIDLAND CO.**

680 Roanoke Building, Minneapolis, Minnesota

Send additional information on Supertreated Pol-mer-ik Linseed Oil.

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Firm _____

Address _____

City _____ Zone _____ State _____

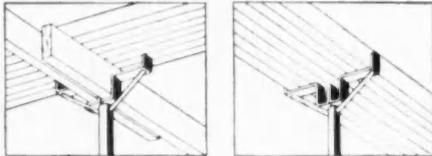
Production
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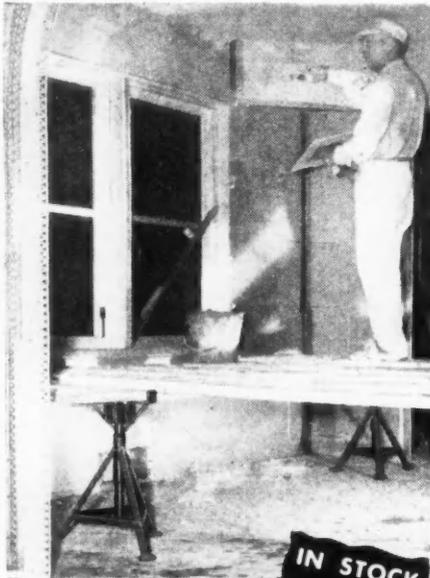
Complete Line of Adjustable Scaffolding for Building and Maintenance Trades

Save 75% of Your Scaffolding Time



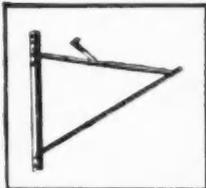
WACO Dual Purpose Head

- Only three models, adjustable every four inches to reach ceilings from 7'6" to 20'.
- Free Standing.
- One man erected.



IN STOCK NOW!

Scaffold Brackets



No. 36 Sidewall



No. R-1 Roof

ASK YOUR DEALER or Write for Information



WILSON-ALBRECHT CO.
MINNEAPOLIS 16, MINN.

Eljer Company Buys More Manufacturing Facilities

ELJER CO., Ford City, Pa., has acquired the manufacturing facilities of the H. B. Salter Manufacturing Co. at Marysville, Ohio, it is announced by David J. Crane, Eljer vice president and sales manager. The purchase includes Salter's subsidiaries.

This transaction adds to the present Eljer facilities a first class modern brass foundry together with complete machining equipment for casting, machine screw



DAVID J. CRANE

parts, die casting, tube bending and plating. The main plant and equipment at Marysville, recently completed, provide facilities that are equal to the best in the industry.

Officials of both the Eljer Co. and the Salter organization believe the merger will result in improved service to Eljer customers, as well as to the customers of the H. B. Salter Co. The newly acquired plants have ample facilities for expansion to take care of increasing needs as they develop from time to time.

H. B. Salter, who has joined Eljer in an executive capacity, is in charge of the new operations.

Plywood Distributors Announce Fall Meetings

FALL meetings of the National Plywood Distributors Association have recently been announced by B. E. Babbitt, managing director.

The midwest meeting is scheduled for September 20 and 21, at Edgewater Beach Hotel, Chicago, Ill.; northeast meeting, September 23 and 24, at Chalfonte Haddon Hall, Atlantic City, N. J.; the southern meeting will be held October 13, 14 and 15, at Tides Hotel, Redington Beach, Fla., and the western meeting will be held October 4 and 5, at Multnomah Hotel, Portland, Ore.

Shevlin-McCloud Lumber Company

Successors to Sherlin Pine Sales Co.
*Member of the Western Pine Association.

MEMBER
Ponderosa Pine Woodwork
DISTRIBUTORS OF

SHEVLIN PINE
REG. U. S. PAT. OFF.

SELLING THE PRODUCTS OF
*The McCloud River Lumber Co.
McCloud, California

*The Shevlin-Hixon Company
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SPECIES

PONDEROSA PINE
(PINUS PONDEROSA)

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EXECUTIVE OFFICE
900 First National Soo Line Building

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DISTRICT SALES OFFICES:

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1604 Graybar Bldg. 1863 LaSalle-Wacker Bldg.
Lexington 2-9117 Central 9182

SAN FRANCISCO 5
1330 Monadnock Bldg.
Exbrook 2-7041



If you want to keep abreast of new developments in building you should have a reference shelf of standard handbooks and new books to consult. No one can keep all this information in his head or in private note books. The information on current developments in the trade press is fragmentary. It is brought together in books after being tested on the job and found worthy of permanent record. The information is stripped down to basic facts and in many instances clearly illustrated or compared with other data in tabular form.

To build up a small reference shelf of building books you need to know what books are available on subjects of particular interest, what they contain, the year of publication or last revision, and their current prices. You will need some good plan books, a few estimating books and forms, and some carpentry and building details books, among others. We have three Recommended Lists of books on these subjects which are free on request. Take our tip and send for them today.

Book Service Department

AMERICAN BUILDER

30 Church Street New York 7, N. Y.

Your "partner"



in quality building!
✓ durable ✓ dependable



Brick

A "partnership" with brick pays off... in many ways.

Brick puts extra-salability into your buildings.

Think of all the extra sales values brick offers... beauty, fire safety, great structural strength, freedom from maintenance and periodic refinishing. These are values that brick keeps, year in and year out, values that mean higher resale value in any type of building.

Brick protects your reputation as a user of dependable materials.

You can be sure of brick's resistance to shrinking and warping, to weathering and decay. And in today's building market such assurance is particularly important.

Brick helps you build better and at less cost.

Look at the all-around economies in brick engineered housing. There's an example of the efficiency you can achieve with brick's modular sizes and easy adaptability to the best in design and construction. If you haven't yet teamed up with brick, here's a good way to begin this profitable partnership...

SEND TODAY FOR "BRICK ENGINEERED HOMES"

Here are practical plans for six beautiful homes all designed on modular coordination. They'll help you put the maximum in value into the houses you build. Send 25¢ to Structural Clay Products Institute, Desk AB-9, 1756 K Street, N. W., Washington 6, D. C.



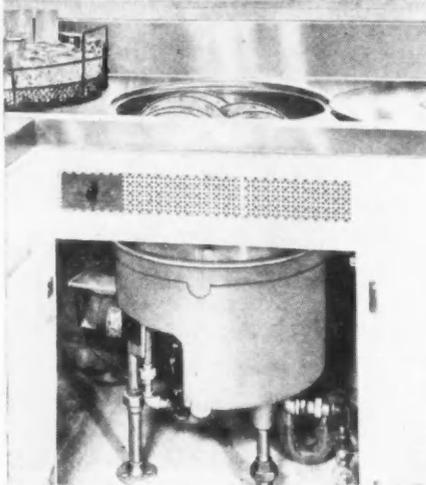
STRUCTURAL CLAY PRODUCTS INSTITUTE

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JACKSON BUILT-IN HOME DISHWASHER

*offers Builders
many advantages!*

1. Easily installed in any 24" space to left or right of sink; in corner locations or under overhead cabinets if desired.
2. A quality machine that will add greatly to the value of the houses you build.
3. The perfect dishwasher for home use—featuring 70 second operation, rugged fool-proof construction. Backed by 23 years' experience in manufacturing dishwashing equipment for commercial use.



Jackson Home Dishwasher installed. Removable Monel metal cover fits flush with drain board. Just two plumbing connections—hot water and drain. One switch controls operation of machine. Designed for installation both in new homes and present drainboards.

GET FULL DETAILS NOW!

Write Today to Dept. AB-3, specifying Model H-1A, for complete information.

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JACKSON DISHWASHER
COMPANY**

DISHWASHING SPECIALISTS SINCE 1925
3703 EAST 93rd STREET CLEVELAND 5, OHIO

Asbestos Cement Group Elects New President

E. W. (PAT) SMITH, vice president in charge of sales, Philip Carey Manufacturing Co., Cincinnati, Ohio, was elected president of the Asbestos Cement Products Association at its recent annual meeting in Skytop, Pa. Smith succeeds Stuart H. Ralph of the Flintkote Co., New York, who has filled the office for two terms.

Vice president for the coming year will be Clifford F. Favrot of Asbestone Corp., New Orleans, La. Samuel P. Moffit of the Ruberoid



E. W. (PAT) SMITH

Co., New York, was re-elected treasurer. Chester C. Kelsey, who became secretary when the association moved its offices to New York early this year, remains in that position.

Directors of the association include Ralph and L. M. Cassidy, Johns-Manville Sales Corp.; R. R. Galloway, Asbestos Limited; Otis Massey, the Asbestos Company of Texas, and R. J. Tobin, Tile Roofing Co., Inc.

Announce Plans For Home Display Exposition

PLANS for "Your 1949 Home Display" have been announced by Home Displays, Inc., Minneapolis, Minn. This organization includes four Minneapolis associations in the home construction and allied fields. The presentation will be a nine-day exposition at the Minneapolis auditorium, October 1-9.

W. F. Buckholz is president of Home Displays, Inc., a new organization with offices at 300 National building, Minneapolis, Minn. Other officers include C. V. Carlson, first vice president; H. R. Rosendahl, second vice president, and W. H. Badeaux, treasurer. F. M. Overby, for the past 12 years associated with the Weyerhaeuser companies as director of all phases of home planning and construction, was

(Continued to page 190)

... Here's the newest Time-Saver to hit the Building Market. Pays for itself on-the-job taping Sheetrock in one average 5-room house.

Tapemaster



Patent Applied For

list price
\$2.95



- High grade Steel holder with adjustable belt
- Size—2 1/2" x 2 1/2" x 12"
- Light in weight
- Handy to carry
- Keeps both hands free at all times
- Write for free descriptive folder today.

Dealers inquiries answered promptly

**DuBrack
Mfg. Co.**
P.O. Box 805
Fort Worth, Texas

LITH-I-BAR CONCRETE JOISTS



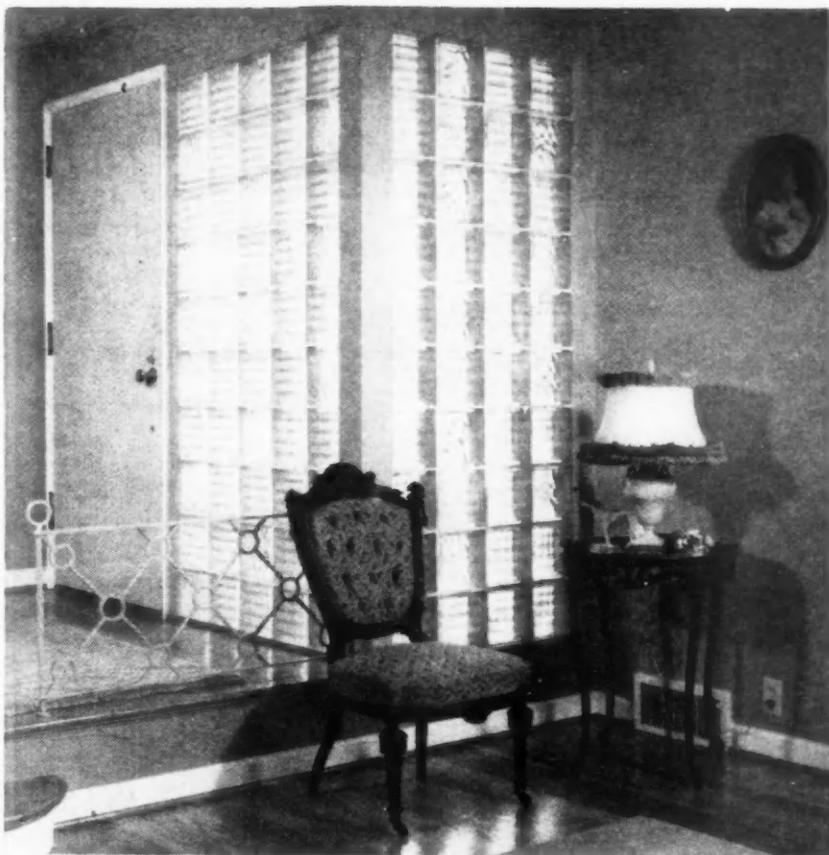
IMMEDIATELY AVAILABLE

For all types of fire-safe buildings. For any type building from small homes to commercial or industrial buildings, the Lith-I-Bar system will provide greater speed, simplicity, minimum in field work, therefore, greater economy. Lith-I-Bar Machine made joists embody electrically welded reinforcements.

Write, or call for location of your nearest licensed manufacturer.

**GET THIS
FREE**

LITH-I-BAR CO.
BOX A-AB HOLLAND, MICH.



This could have been a dark corner. Clever use of Insulux makes it light and cheerful. Insulux Glass Block can be used to advantage in almost any home entrance.

EXPERIENCE PROVES:

Insulux helps sell houses

All over the country, builders who have used Insulux Glass Block agree—*Insulux helps sell houses!*

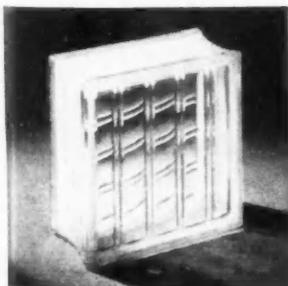
Pictured on this page are only a few samples of the many, many new homes where wise use of Insulux has meant quicker sales.

Insulux is attractive and functional. It can be used in any room in the house, and fits in well with practically every type of architecture.

The price is right, too. Builders who once thought Insulux Glass Block was an expensive material now are saying: "We've found Insulux costs no more than windows."

To the builder, Insulux offers strength plus durability and ease of installation. It is laid similar to ordinary brick and is free from rot, rust and corrosion.

**GREATLY EXPANDED PRODUCTION FACILITIES
MEAN INSULUX IS NOW AVAILABLE FOR IMMEDIATE DELIVERY IN LARGE OR SMALL LOTS.**



INSULUX

GLASS BLOCK®

AMERICAN STRUCTURAL PRODUCTS COMPANY

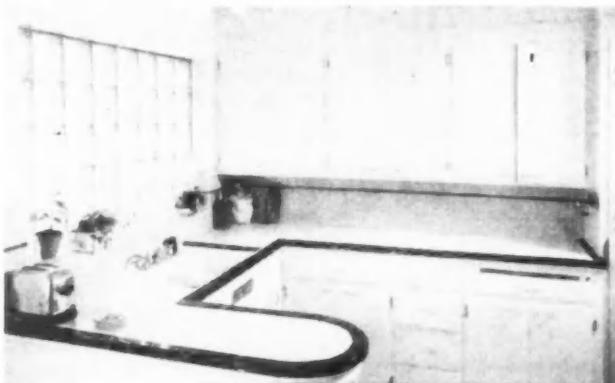
Subsidiary of
OWENS-ILLINOIS GLASS COMPANY



Light with privacy . . . illustration shows typical good use of Insulux in a bathroom.



Garages, too, are better with glass block panels. Insulux resists break-ins and is easy to maintain.



In the kitchen, Insulux panels transmit light, are easy to clean, seldom steam up.

MAIL FOR FREE IDEA BOOK

AMERICAN STRUCTURAL PRODUCTS COMPANY
Dept. E-58, P.O. Box 1035
Toledo 1, Ohio

Gentlemen:

Please send me free, fully-illustrated booklet, "Ideas for Brighter Homes."

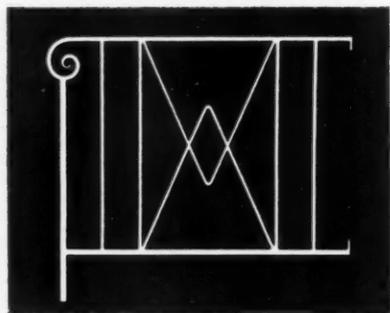
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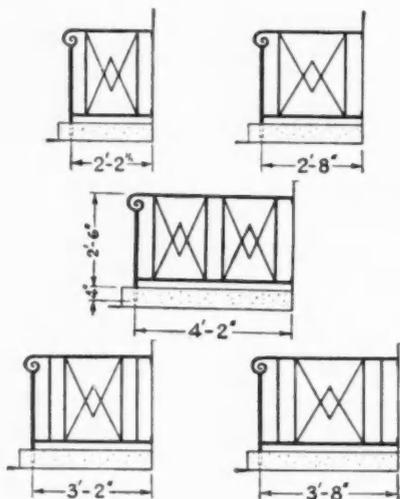
ORNAMENTAL IRON
BY *Coffman*



**LOW COST
ENTRANCE OR
STOOP RAILS**

... In 5 Stock Sizes

INEXPENSIVE—distinctive entrance rails, ideal for front and rear doorway platforms. Available in 5 stock sizes, at low cost, from building supply dealers. They are decorative, practical, and an investment in safety.



So Easy to Install!

Illustration shows extended newel post and conventional attachment knee on top and bottom rail for easy installation. Rugged, solid construction, with distinctive Coffman hand-wrought inside scroll at newel post. Custom railings also available to your dimensions.



The R. G. Coffman Co., Inc., Dept. AB
P. O. Box 259, Orlando, Florida

Send free catalog of designs, sizes, and prices of your complete line of Coffman Ornamental Iron to:

NAME _____
FIRM _____
ADDRESS _____
CITY _____ STATE _____

(Continued from page 188)
named secretary and general manager.

Industrial and trade associations who are sponsoring the exposition include Minneapolis Contractors and Builders association, the Electric Appliance Dealers association, Northwestern Lumbermen's association, and the Minneapolis Builders Exchange.

The exposition, which will be sponsored annually by the newly organized group, will occupy the main and lower floors of the auditorium. Complete presentations of ideas and materials for the planning, construction, remodeling, equipping and furnishing of homes will be offered.

**Vice President-Secretary
Of Simmons-Boardman
Dies**

ROY V. WRIGHT, vice president, secretary, and a director of Simmons-Boardman Publishing Corp., passed away July 9. A former New Jersey State Senator from Essex County, Mr. Wright had also been managing editor of *Railway Age* and editor of *Railway Mechanical Engineer*, Simmons-Boardman publications. Since 1912, he has edited *Locomotive Cyclopaedia* and *Car Builders' Cyclopaedia*, other magazines of the same publishers.

Mr. Wright was a fellow and former president of the American Society of Mechanical Engineers, and chairman of a committee of that society which conducts an educational program for civic responsibility.

**Vermiculite Company
Formed In Texas**

FORMATION of the Texas Vermiculite Co., to process and distribute Zonolite-brand vermiculite products in Texas, has been announced by A. T. Kearney, president, Zonolite Co., Chicago.

Principal interests in the new organization are the Zonolite Co. and Gerald R. Stark, who will serve as president of Texas Vermiculite. Stark was formerly advertising and export sales manager of Flintkote Co., New York, and was also vice president of the Patent and Licensing Corp., a Flintkote subsidiary. Since 1945, he has been vice president of B. F. Nelson Co., Minneapolis.

Texas Vermiculite was formed after the acquisition of the Mineral Products Co., San Antonio, processors of vermiculite in Texas. Robert Rice, former president of Mineral Products, is a director and general counsel of the concern.

**HOW TO GET A Smooth
HAND FINISH
WITHOUT Costly
HAND LABOR**

- ✓ CABINETS
- ✓ DOORS
- ✓ MANTELS
- ✓ TREADS
- ✓ TRIM



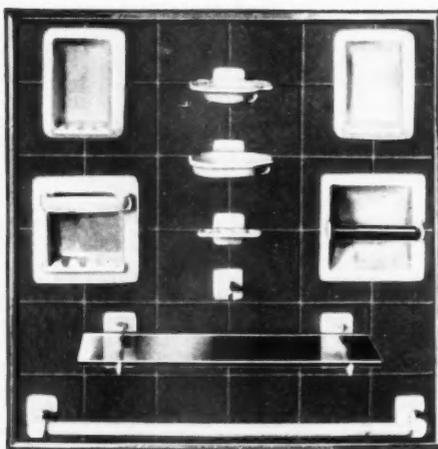
EASY cuts no swirls or other abrasive marks. Straight-line action produces "hand sanding" results on white wood, filler and final coats in 1/3 the time. For CURVED or flat, WET or dry work. EASY is not a disc, belt or orbital sander.

Write for literature.

DETROIT SURFACING MACHINE CO.
7458 West Davison Detroit 4, Michigan

1000's ARE SAVING WITH IT
— Write for Facts!
RECIPROCATING
ELECTRIC SANDER
EASY

AVAILABLE NOW!



**PORCELAIN ENAMELED
CAST IRON
BATHROOM ACCESSORIES**

A complete line of recessed and screw-on type accessories now available in quantities in standard colors—White, Black and Green.

Display board, shown above, No. D-995 furnished at net cost of applied fixtures only, with stock order.

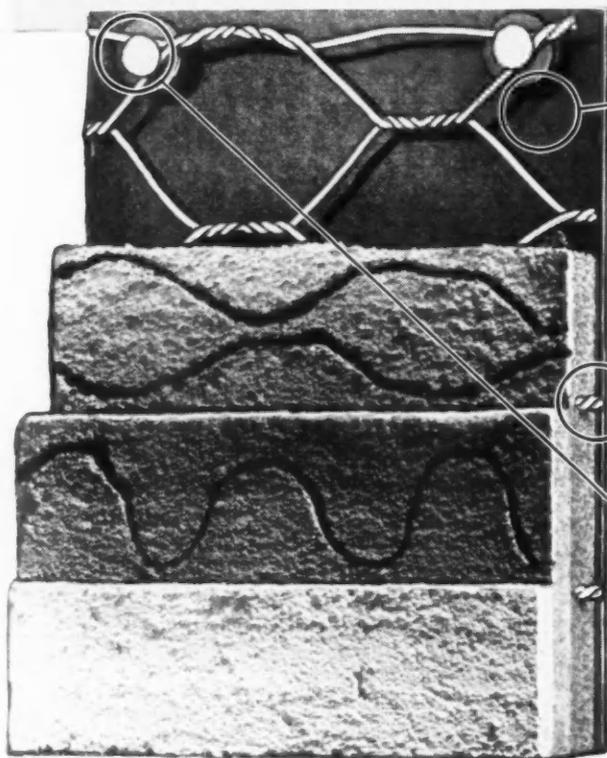


Order from your wholesaler.
ASK FOR CATALOG NO. 9

**ILLINOIS PORCELAIN
ENAMEL CO.**
422 SO. WINCHESTER AVE., CHICAGO 12, ILL.

WHY *Keymesh* REINFORCING FOR STUCCO OVERCOATING & PLASTER

Insures a Stronger, More Durable Wall



Provides stronger reinforcement—Keymesh is made of strong, copper-bearing steel wire. It's specially woven with a reverse twist—Keymesh lays flat when unrolled. No bumps or bulges to cause uneven thickness of the "scratch" coat. Keymesh is heavily galvanized for protection against corrosion.

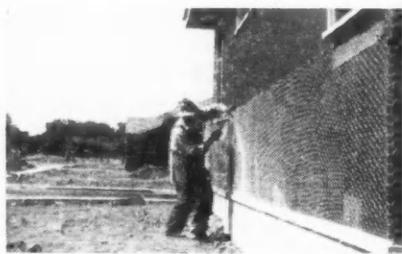
Embeds thoroughly—The special open mesh design of Keymesh allows each steel strand to be completely embedded by the "mud", insuring lasting strength of the wall. Keymesh is the right size for easy troweling, and the right size for holding the scratch coat firmly while setting. Joins easily with compact, smooth laps. No bumps or high spots in the first or following coats.

Keeps distance from wall—Keymesh is easily furred out with special Keymesh furring nails to keep it at a uniform and proper distance from the wall—to insure full thickness of the scratch coat.

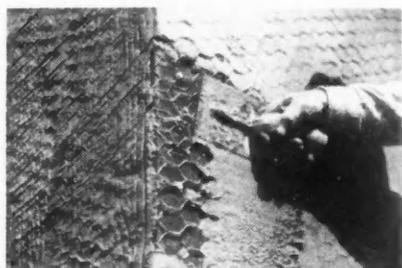
Actual section of finished wall reinforced with Keymesh. Note the protruding ends which show how Keymesh becomes deeply embedded in the scratch coat.

Contractors and builders—Try Keymesh on your next stucco job. It's easy to handle, doesn't cut hands—saves lather's time. Plasterers prefer Keymesh because it lays flat, trowels easily. Find out for yourself why Keymesh can help reduce your costs. And write for new Contractors Data Book on Keymesh Reinforcing.

Shipped in handy sized rolls, 150 feet x 3 feet. For EXTERIOR Stucco or Overcoating, use: Keymesh—1½" hexagon mesh, 17 gauge galvanized wire, or 1" hexagon mesh, 18 gauge wire. For INTERIOR Plaster or Base for Tile, use: Keymesh—1" hexagon mesh, 20 gauge galvanized wire.



Keymesh being applied—note how it unrolls flat without bulging or sagging.



Keymesh easily forms around corners and curved surfaces without buckling.



KEYSTONE STEEL & WIRE COMPANY
PEORIA 7, ILLINOIS

American Floor Machines Opens New York Office

A NEW office has been opened in New York City to handle sales and service exclusively on equipment and supplies manufactured by the American Floor Surfacing Machine Co., Toledo, Ohio, it is announced by W. B. Crew, executive vice president and general manager. T. J. Mueller has been ap-



T. J. MUELLER

pointed manager of the greater New York area. The office is located at 670 Sixth Ave.

Facilities include a complete service department, with factory-trained service men to take care of all types of repairs and replacements.

Prefab Institute Names New Chairmen

NEW chairmen of the standing committees of Prefabricated Home Manufacturers' Institute have been named by President John W. Pease, Cincinnati, Ohio.

The committee chairmen, who will serve for the next year, are Ivon R. Ford, Ivon R. Ford, Inc., McDonough, N. Y., membership committee; L. M. Stevens, Green Lumber Co., Laurel, Miss., technical committee; W. H. Crawford, Crawford Corp., Baton Rouge, La., industry promotion committee; W. A. Shearer, National Homes Corp., Lafayette, Ind., advertising committee; Peter S. Knox, Jr., Knox Corp., Thomson, Ga., convention committee; John W. Dregge, Nichols and Cox Lumber Co., Grand Rapids, Mich., speakers' bureau; J. C. Shuttles, Houston Ready-Cut House Co., Houston, Tex., marketing committee; Robert Ott, Harnishfeger Corp., Port Washington, Wis., employee-employer relations committee; Guy L. McKinney, Ivon R. Ford, Inc., Washington, D. C., material committee; Walter H. Ahrens, Southern Mill and Manufacturing Co., Tulsa, Okla., government relations com-

mittee; Roger Page, Page and Hill Co., Shakopee, Minn., statistics and accounting committee, and Harry J. Tier, Halliday Co., Ltd., Burlington, Ontario, Canadian committee.

New Lighting Fixture Firm Organized

J. H. MILLSTEIN, president of the J. H. Millstein Co., Jeanette, Pa., has announced the organization of a new, wholly-owned subsidiary, the Lightcraft Corp. The new firm manufactures a complete line of lighting fixtures, designed specifically for kitchens, game rooms, dinettes and bedrooms as well as for commercial establishments. It also makes a complete line of portable electric lamps.

Lightcraft Corp. is utilizing the expanded, modern facilities of the parent concern. Production of the new line is already under way and immediate shipments are being made to electrical wholesalers.

Harold L. Pomerantz, formerly with Glasolier Co., has been named sales manager of the new organization.

New Sales Manager For Walker-Turner

KENNETH F. WHITFIELD, formerly assistant general sales manager, has been appointed advertising and sales promotion man-



KENNETH F. WHITEFIELD

ager of Walker-Turner, Division of Kearney & Trecker Corp., Plainfield, N. J. Whitfield is a graduate of Newark College of Engineering and has worked in an executive capacity with Walker-Turner for fifteen years.

Rheem Appoints Two New Vice Presidents

CLIFFORD V. COONS has been appointed vice president in charge of sales, and G. M. Greenwood, vice president and treasurer of Rheem Manufacturing Co., it was recently announced by R. S. Rheem, president.

Coons joined the Rheem Co. in

1934 as a timekeeper at the Richmond, Calif., plant and by 1939 had achieved the rank of manager of the Houston, Texas, plant. In 1941,



CLIFFORD V. COONS



G. M. GREENWOOD

Coons went to New York as manager of container sales, and since 1945 he has been general manager of sales. He will continue to make his headquarters in New York.

Greenwood, who joined the Rheem Co. in 1941 as treasurer, was made a member of the board of directors later that year.

Bryant Produces New Films On Water Heaters

TWO new sound-slide films showing modern water heater production and features have recently been produced by Bryant Heater Co. of Cleveland, Ohio. The films are being shown by Bryant distributors to dealer groups throughout the nation. They feature Bryant's new Blue Seal automatic storage water heater. The films are being made available to utility companies, dealer organizations and association groups at nominal cost.

House Magazine Honored

THE "Marlite Dealer," house magazine published by Marsh Wall Products, Inc., Dover, Ohio, was accorded the Award of Merit by the National Advertising Agency Network and the International Council of Industrial Editors.

CONNECTICUT IN CALIFORNIA . . . Authentic colonial saltbox reproduced in exact detail by the Bel Air Building Company of Los Angeles. Now on exhibition — this prime example of 17th century architecture features that prime 20th century work-saver . . . a "New Freedom Gas Kitchen" *!



Wherever there's
news in building
there's a

"NEW FREEDOM GAS KITCHEN"



"NEW FREEDOM GAS KITCHEN" . . . Compact, cozy — it's as delightful to dine in as it is *easy* to work in. You can see the shining new automatic Gas range built to "CP" standards, the big 8-foot Servel Gas refrigerator. Unseen — but equally work-saving — is the automatic Gas water-heater which supplies the right quantity and quality hot water to the automatic sink.

*Cert. Mark, Amer. Gas Assoc., Inc.

Here they are . . . the four simple requirements that make every "New Freedom Gas Kitchen" a best seller



①

START with one of your best step-saving kitchen designs.



②

SPECIFY a new automatic Gas range built to "CP" standards.



③

PUT IN a silent trouble-free Servel Gas refrigerator.



④

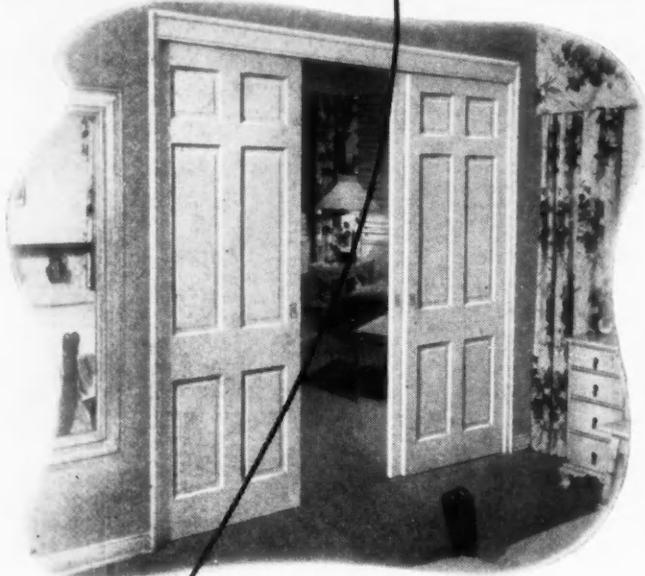
PROVIDE constant hot water from an automatic Gas water-heater.

FROM EVERY ANGLE a "New Freedom Gas Kitchen" smooths your way! Makes designing easier, if you're an architect . . . because new Gas appliances fit smartly into any size or type of layout. Makes your financial risk smaller, if you're a builder . . . because banks, as well as prospective buyers, recognize the

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for
SPACE-SAVING ROLLING DOORS



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ROLLING DOOR HARDWARE

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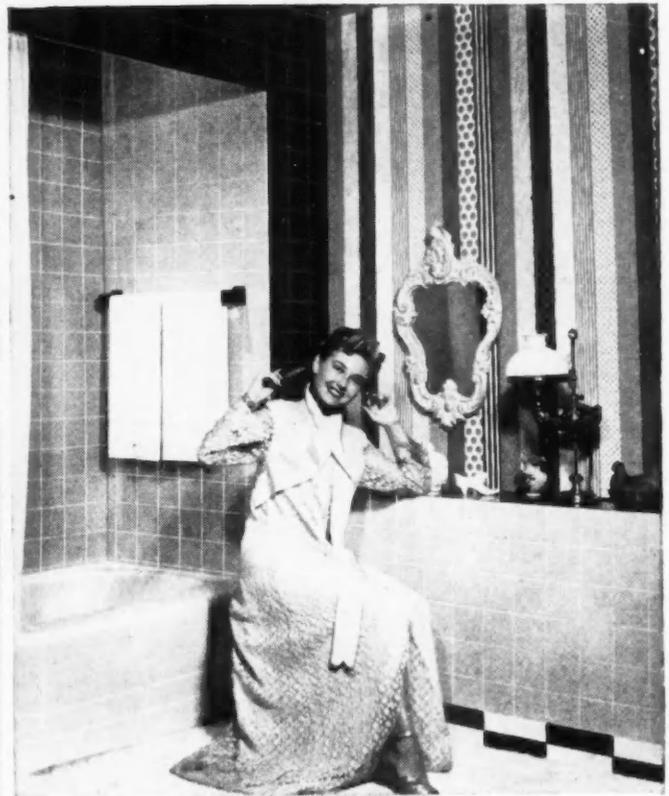
Send today for folder showing varied uses & installation details of rolling doors & complete information on Har-Vey Hardware:

Hardware Division N

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is easy on the estimate!

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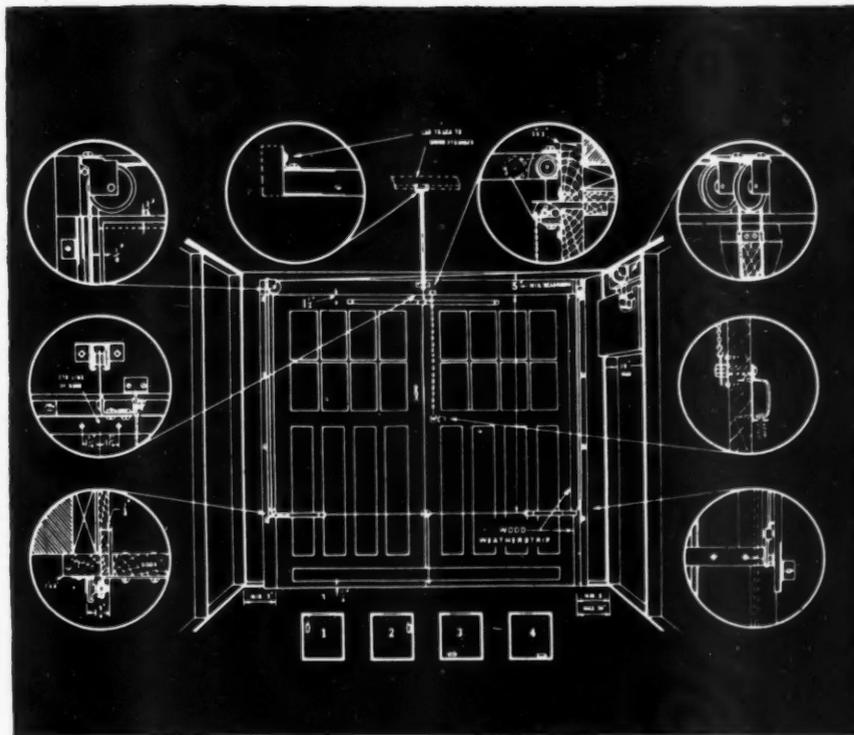
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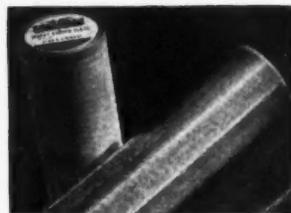
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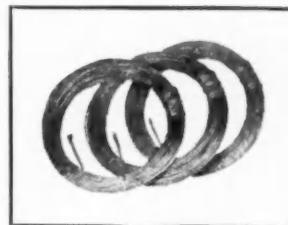
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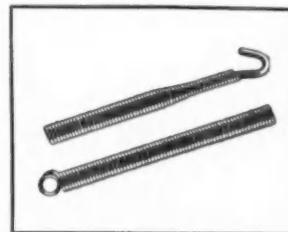
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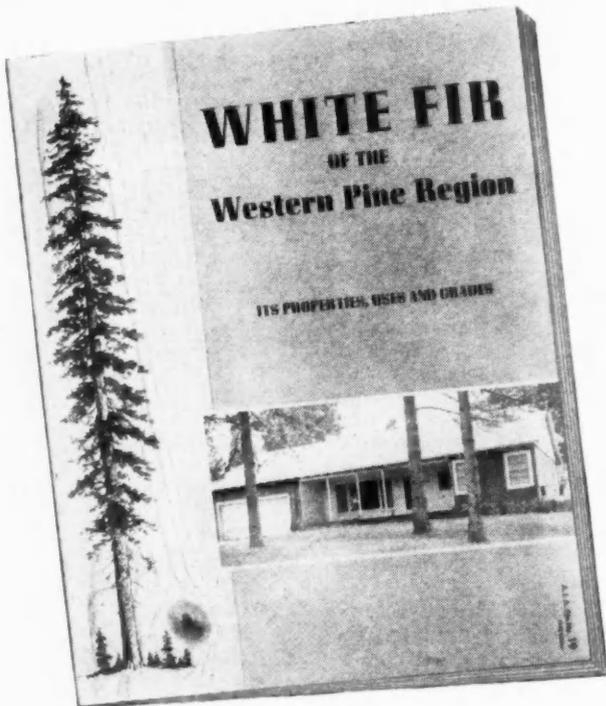
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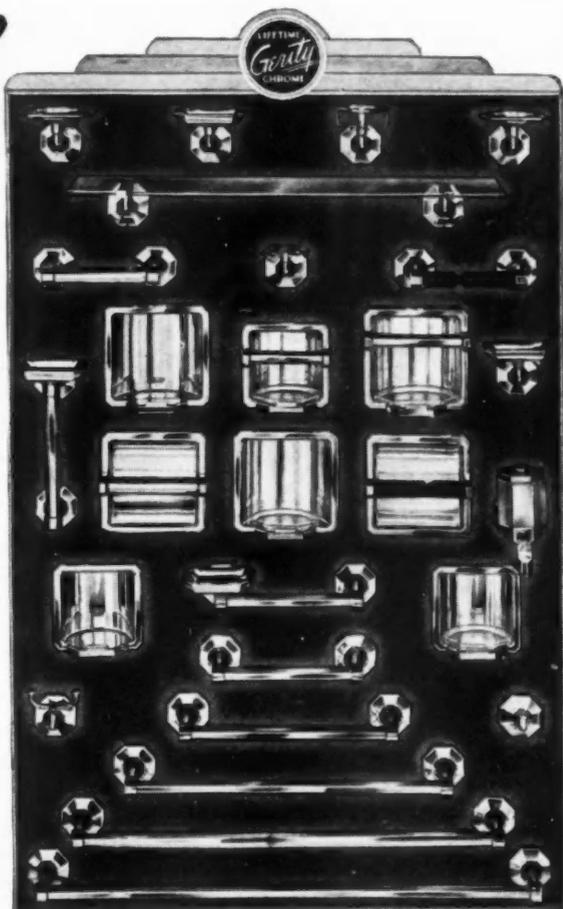
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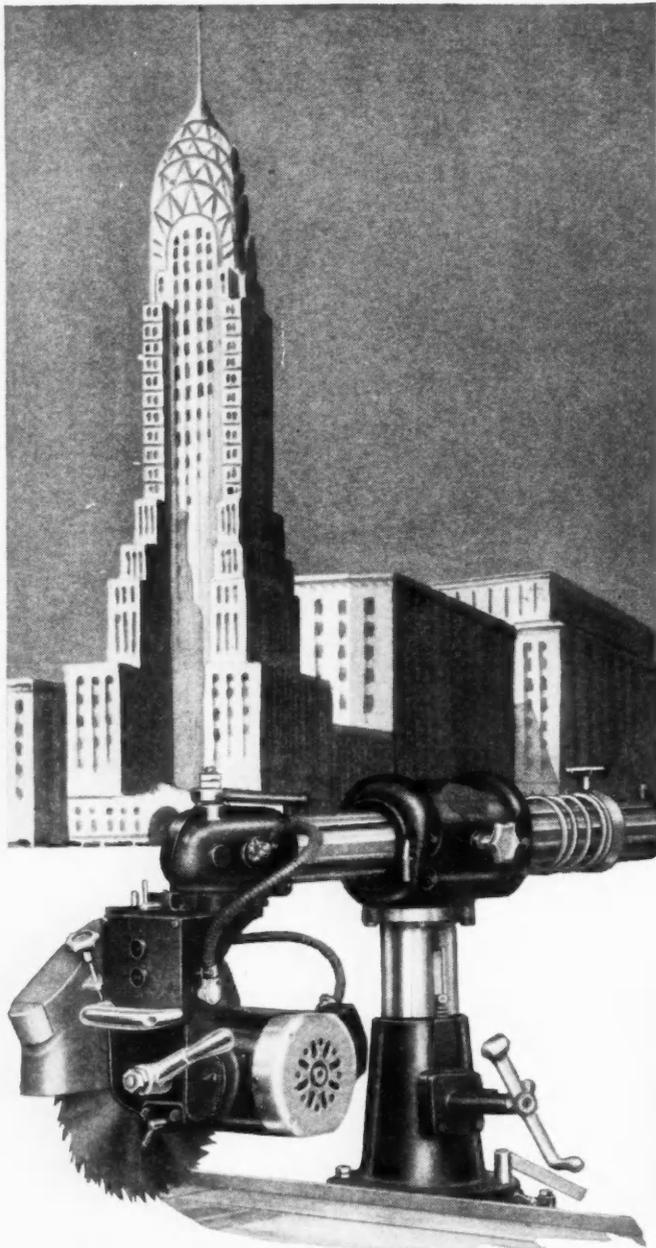
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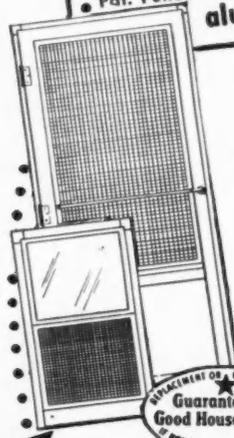
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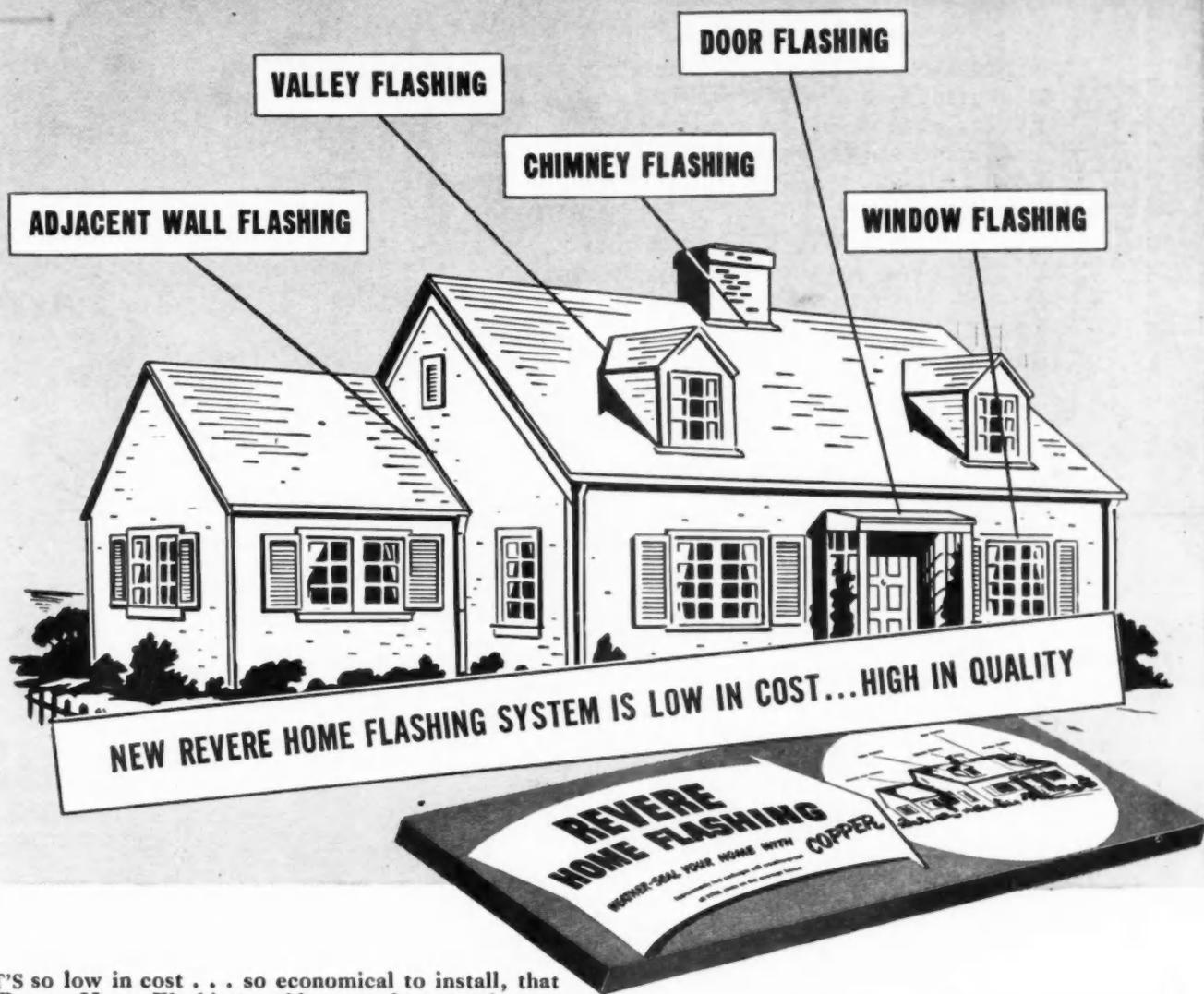


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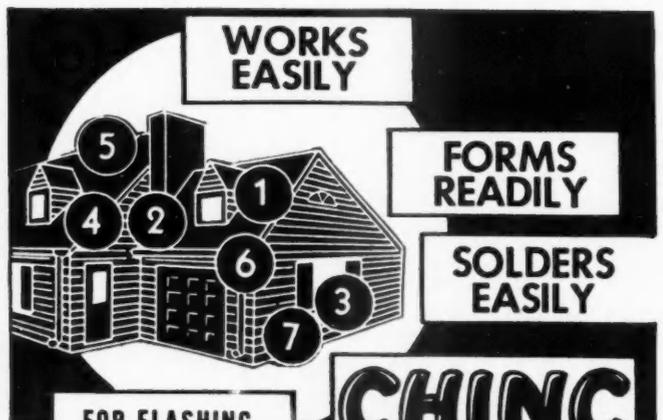
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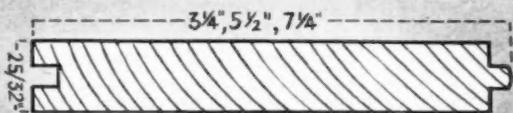
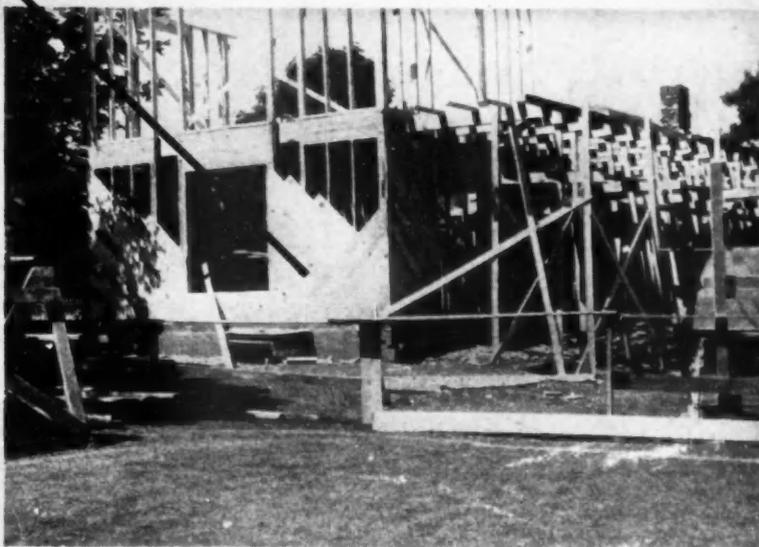
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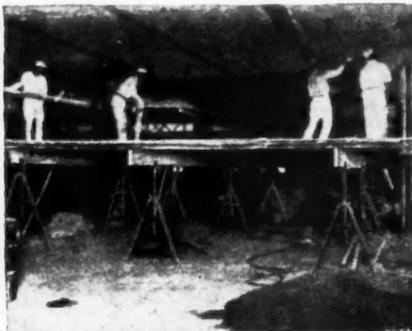


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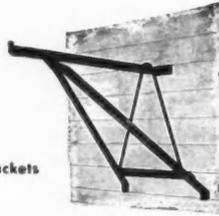
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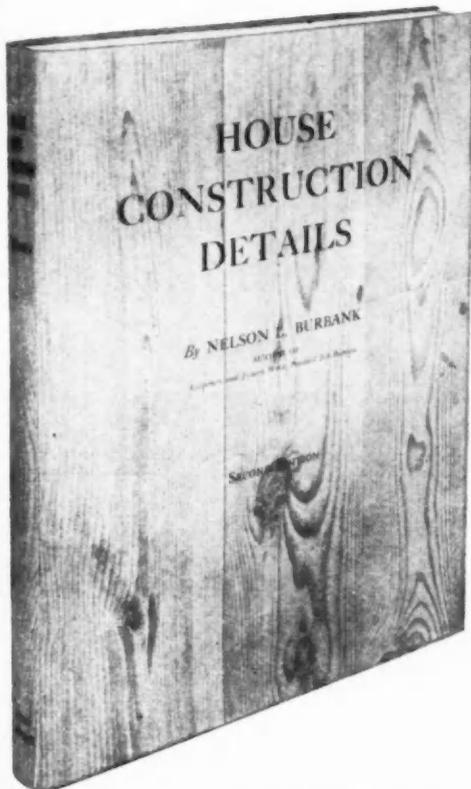
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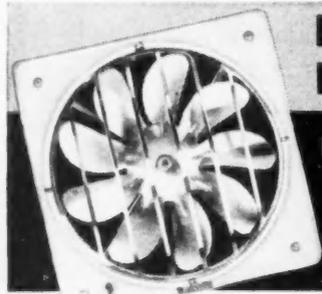
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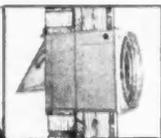
IN THE MODERN HOME

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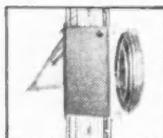
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Easy to Install

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Profitable to handle



CALDWELL Clock-Spring, Adjustable SASH BALANCES

Offer these customer-pleasing advantages

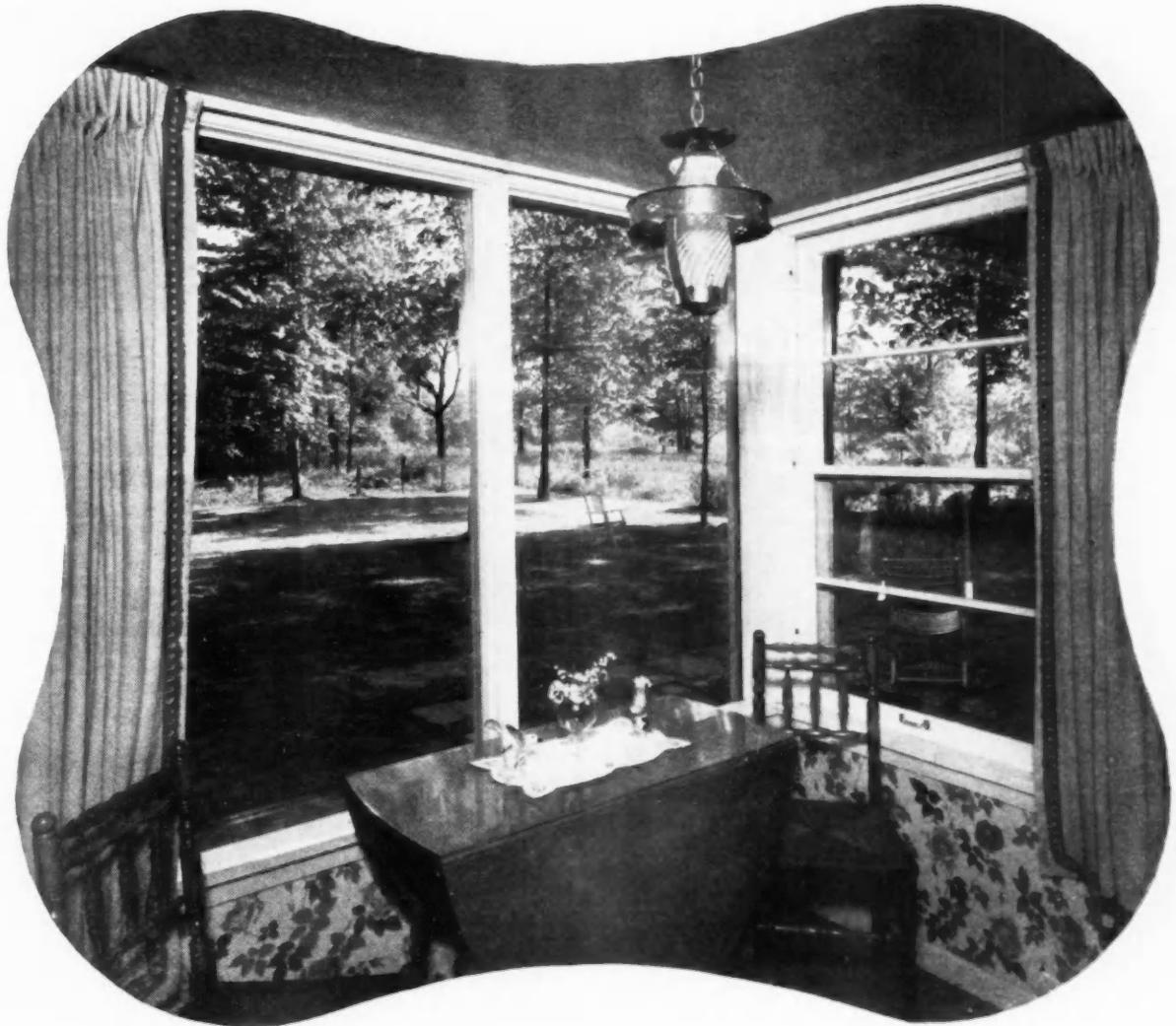
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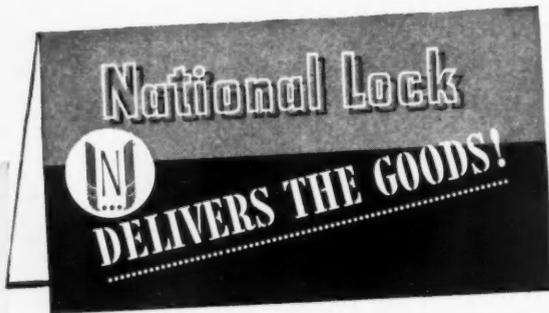
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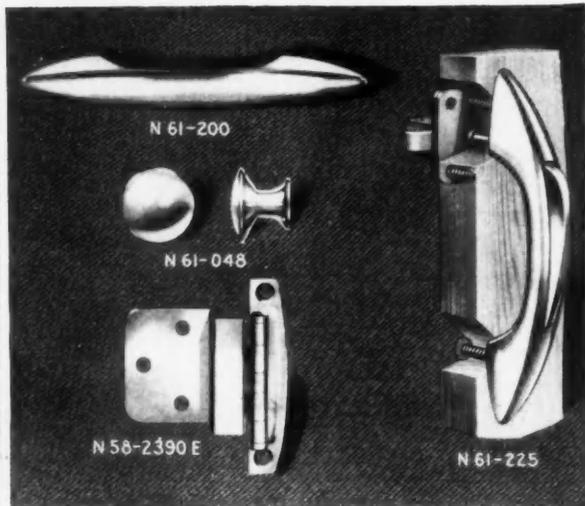


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In easily-identified, easily-handled cartons. Wide range of types and sizes. Unlimited quantity. Ask your jobber about these steady profit-makers. Ready for shipment NOW.



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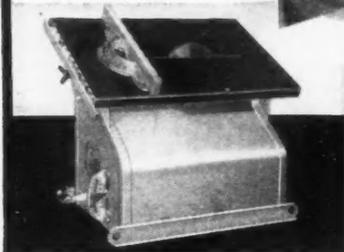
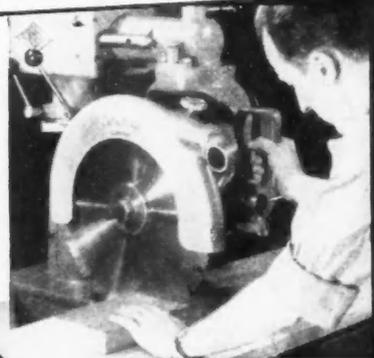


AMERICAN Roof Truss Co.

William and Raymond Waddington
6852 Stony Island Ave., Chicago 49 Plaza 1772
ESTABLISHED 1922

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"RADIAL ARM"—for fast, accurate, cross cutting, mitering, ripping, bevel cutting, dados, shaping, routing, etc. Furnished with steel leg table or Gas-Electric trailer combination on pneumatics.

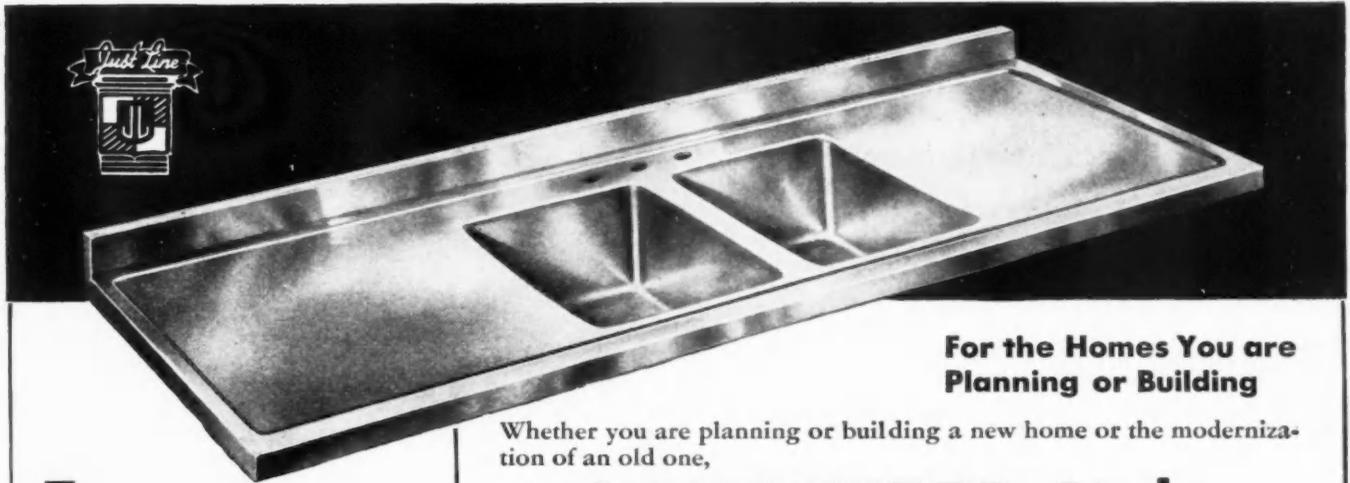


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will not only add lasting charm and beauty to any modern kitchen, but also give a lifetime of service.

Supplied in 8 standard sizes in single and double bowl types on which we can make prompt delivery. We also make a complete line of Custom Built Sinks in any size and shape to meet individual requirements.

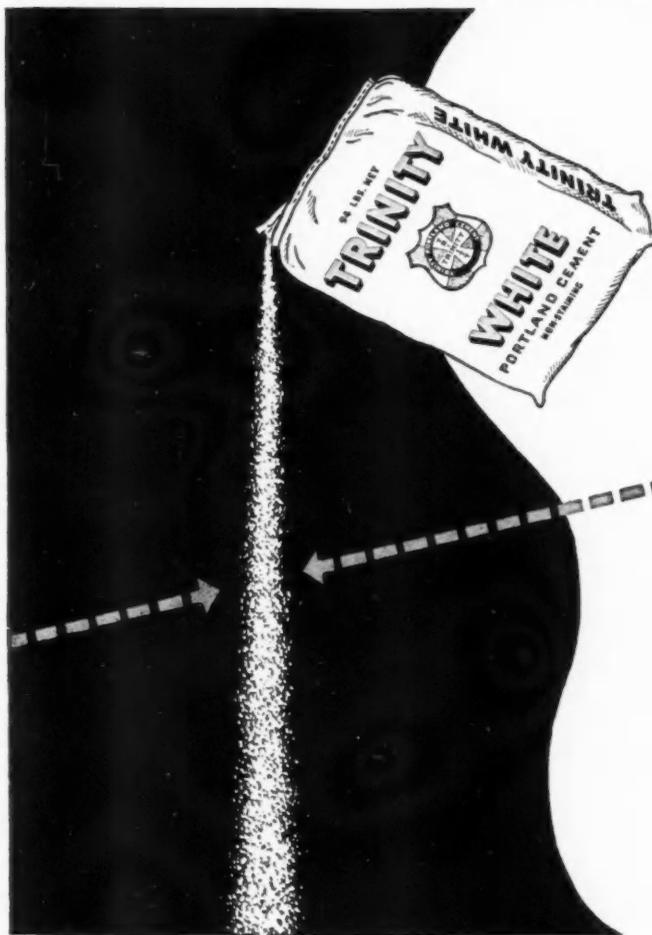
Write today for illustrated Literature B-9 and address of nearest field representative. Our Engineers will gladly cooperate with you in submitting blue prints and estimates.

JUST Manufacturing Co. 4610-20 W. 21st Street, Chicago 50, Illinois



7 Outstanding Features

- Precision built of No. 18 U. S. standard gauge solid stainless steel.
- U-shaped Reinforcing steel channels extend the full length of drainboards.
- Die drawn Raised Edges eliminate soldering of joints and corners.
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- Built-in Anti-Splash Rims on Bowls prevent water from splashing on floors.
- Double pitch Drainboards without grooves assure positive drainage.
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white cement!

Your trade will get fine results with this extra white cement. It's true Portland Cement made to ASTM and Federal Specifications. If you do not have it in stock, write the office nearest you: Trinity Portland Cement Division, General Portland Cement Co., 111 West Monroe St., Chicago; Republic Bank Bldg., Dallas; 816 W. 5th St., Los Angeles.

as white



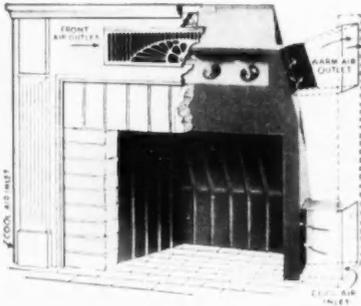
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HEATFORM

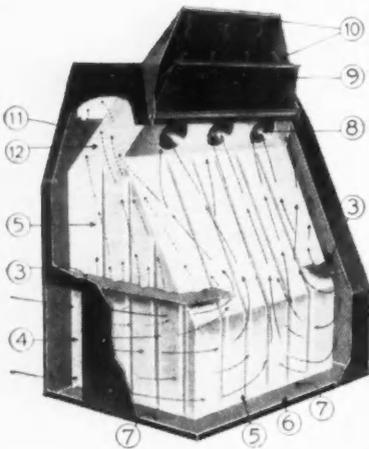
The Superior Heat Circulating Fireplace

Before you recommend a heat circulating fireplace be sure you have complete information on the HEATFORM

- THE MOST EFFICIENT AND DURABLE OF ALL
- Comparison proves HEATFORM has these advantages:



Front view with part of masonry cut away.



Rear and side view — with part of outer metal lining cut away showing the inside lining of firebox. Arrows showing contact and flow of air to and over all heating surfaces.

DEALERS AND DISTRIBUTORS WRITE FOR COMPLETE INFORMATION

The HEATFORM proved by 27 years of use in homes all over America and advertised in nationally circulated magazines.

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BALTIMORE, MARYLAND

1708-C EAST 15TH ST.
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also manufacturers of form dampers, fuel grates, ash dumps, cleanout doors and drap screens.

MORE HEATING SURFACE BECAUSE—

- Heating chambers around the throat as well as the lower firebox.
- Large air passages at each end of throat plus superheating round air flues directly through the throat connecting the lower and upper heating chambers.
- Large cool air inlets and warm air outlets.
- The foregoing results in much larger volume of warm air circulation.

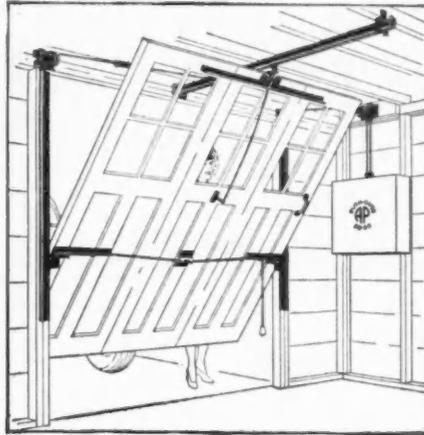
MORE YEARS OF SERVICE BECAUSE—

- Ribbed reinforced boiler-plate firebox controls warpage.
- No exposed metal parts beneath the chimney to rust out.
- Perfect contact of air to all heating surfaces, and unobstructed flow of air removes heat faster and prevents metal from reaching deteriorating temperature.

KEY TO PHOTO AT LEFT:

- Horizontal baffle plates which direct a large volume of air intake to the lower rear heating chamber and over the hottest of the metal.
- Large air inlets at floor level.
- Ribs individually die formed into the boiler plate add strength and neutralize expansion.
- Location of rear cool air inlet.
- Bottom view of air heating chambers.
- Superheating, connecting round air passages through the throat.
- Heat control damper has underslung poker friction control to regulate draft.
- Smoke dome.
- Side air passages from lower to upper heating chamber.
- Inner lining of the throat.

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Heavy duty, well engineered garage door hardware. Result: a quickly installed, easily operated, overhead door. Designed to insure customer satisfaction.

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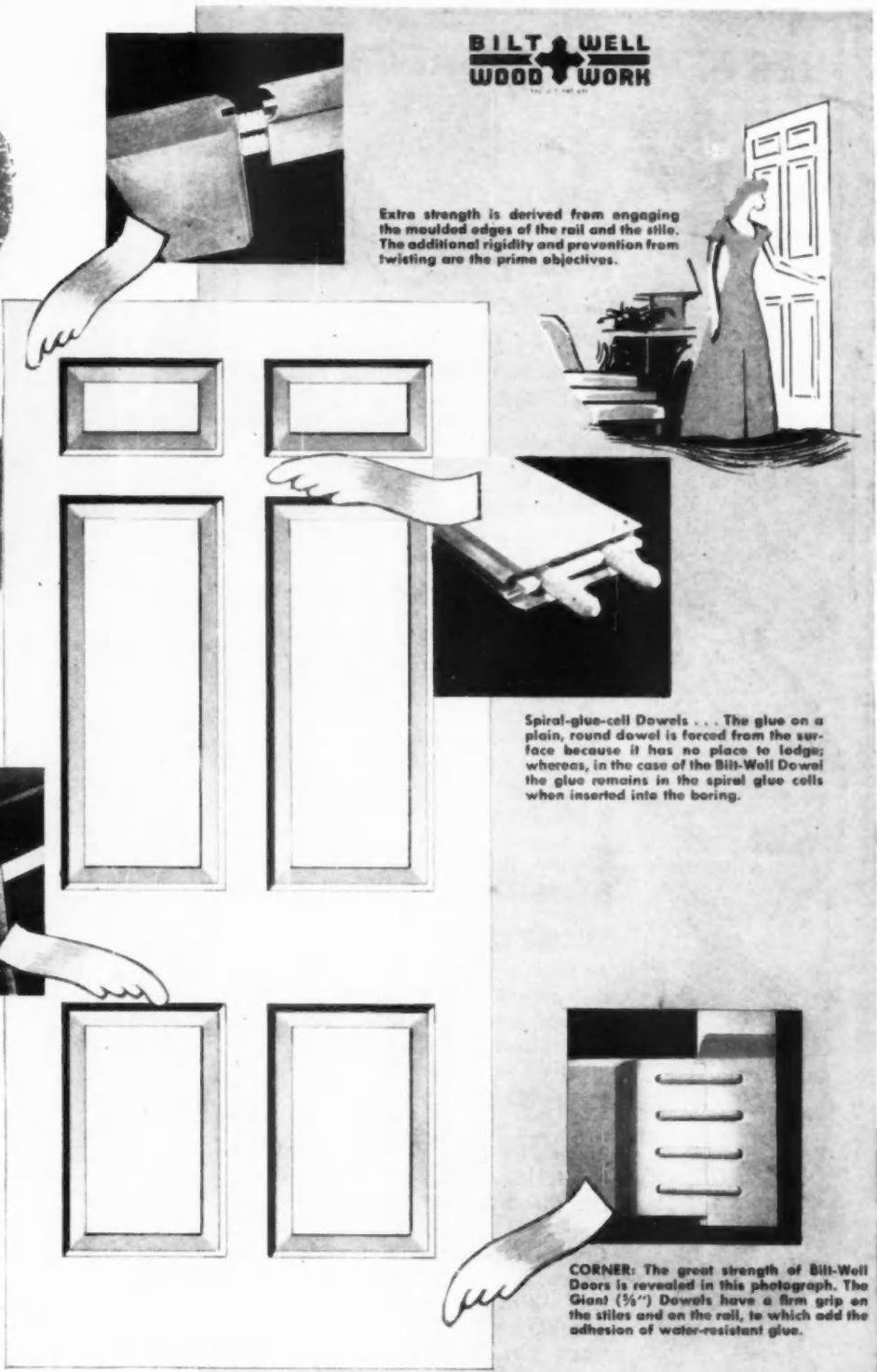
- KEYSTONE Bronze Cloth—both Bright and Antique finish, woven from highest quality commercial bronze wire of 90/10 analysis. Combines beauty, hardness, strength and resistance to atmospheric conditions.

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WHY BILT-WELL DOORS are preferred by so many



**BILT-WELL
WOOD WORK**

Extra strength is derived from engaging the moulded edges of the rail and the stile. The additional rigidity and prevention from twisting are the prime objectives.

Spiral-glue-cell Dowels . . . The glue on a plain, round dowel is forced from the surface because it has no place to lodge; whereas, in the case of the Bilt-Well Dowel the glue remains in the spiral glue cells when inserted into the boring.

A door can be no better than its panels. Bilt-Well is one of the few door manufacturers to adopt 9/16" raised panels. The moulding shown is the standard ovolo sticking used throughout Bilt-Well Doors.

Because extra care goes into making doors better to serve longer . . . because precise machining and careful assembling is done . . . because hardwood (5/8" dia.) spiral glue cell dowels securely grip stiles and rails forming strong, sturdy corners. These 4 points of extra fine craftsmanship are based on 82 years of door manufacturing experience—1866 to 1948.

CORNER: The great strength of Bilt-Well Doors is revealed in this photograph. The Giant (3/4") Dowels have a firm grip on the stiles and on the rail, to which add the adhesion of water-resistant glue.

THE BILT-WELL LINE of outstanding wood products

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|----------------------------|----------------------------------|----------------------------------|
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| Bilt-Well Interior Doors | Bilt-Well Combination Doors | Bilt-Well Ironing Board Cabinets |
| Bilt-Well Exterior Doors | Bilt-Well Louvres and Gable Sash | Bilt-Well Mantels |
| Nu-Style Kitchen Cabinets | Carr-dor Overhead Garage Doors | Bilt-Well Telephone Cabinets |
| Bilt-Well Entrances | Bilt-Well Corner Cabinets | Bilt-Well Stair Parts |
| Bilt-Well Shutters | Bilt-Well Storm Sash | Bilt-Well Unit Linen Cabinets |
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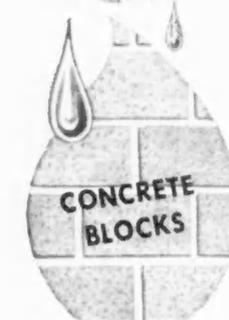
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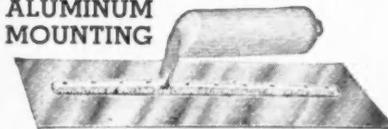
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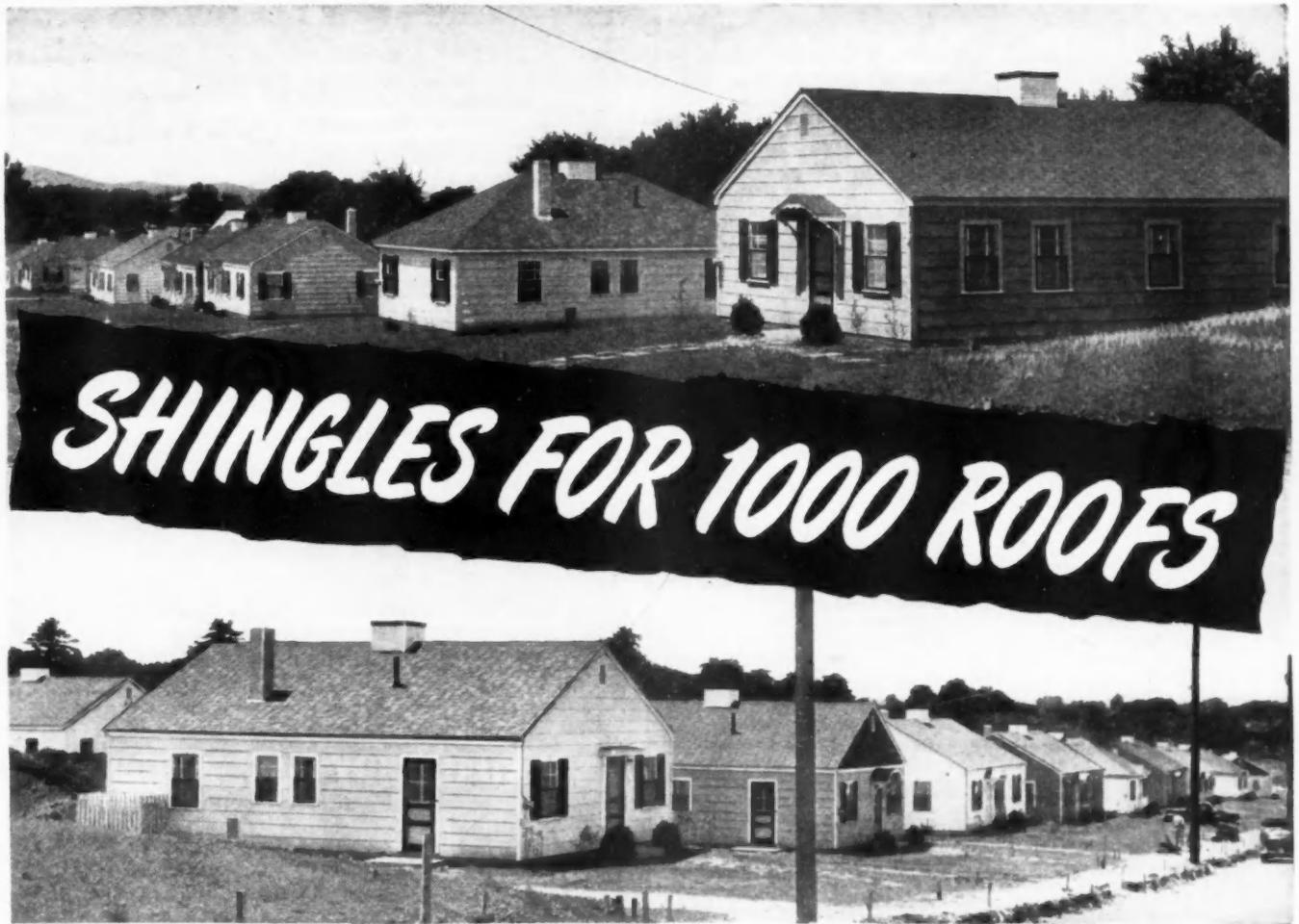
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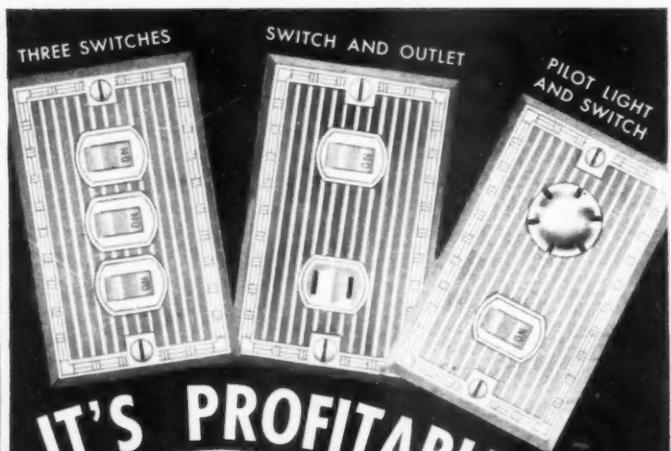


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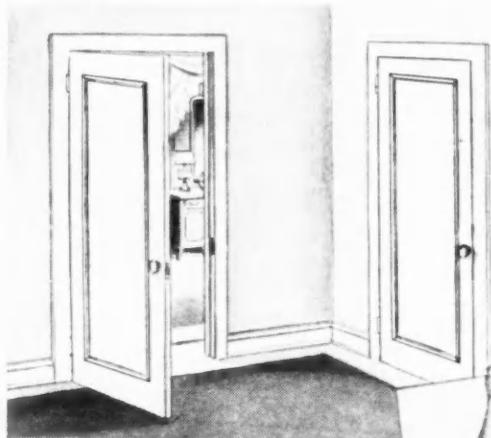


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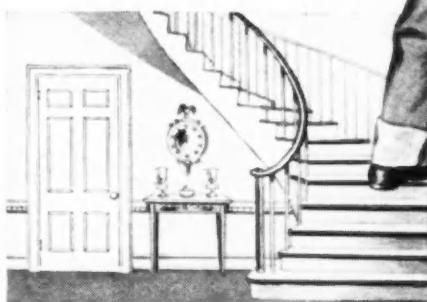
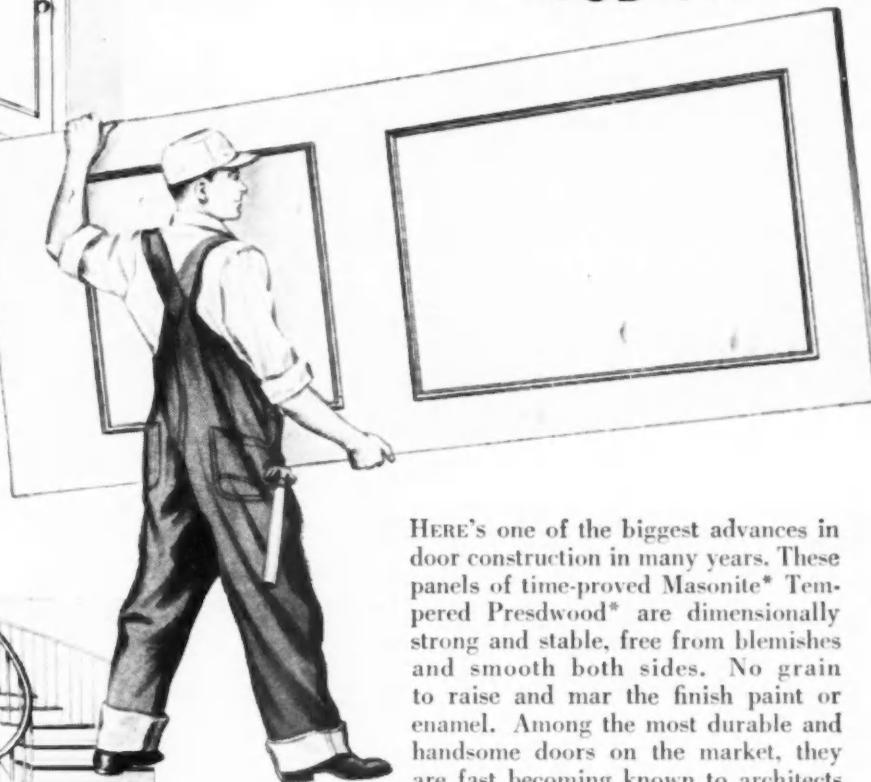
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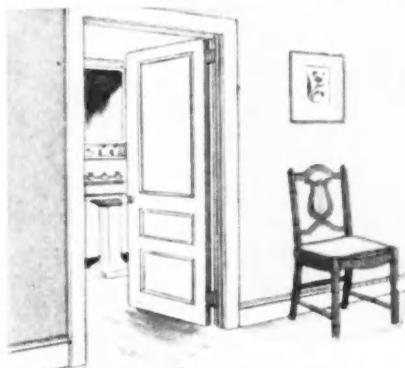


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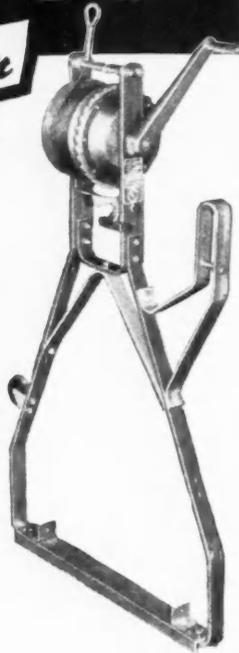
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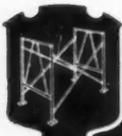
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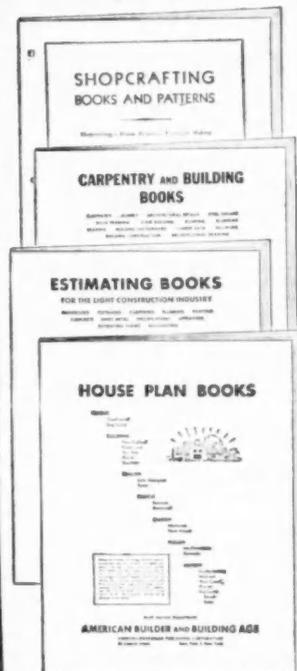
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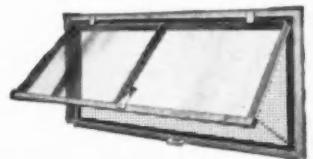
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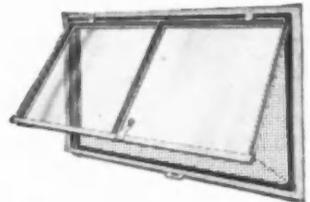
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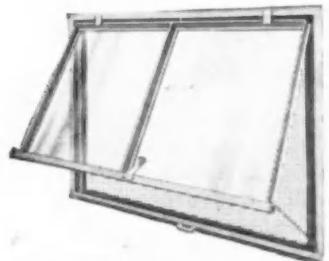
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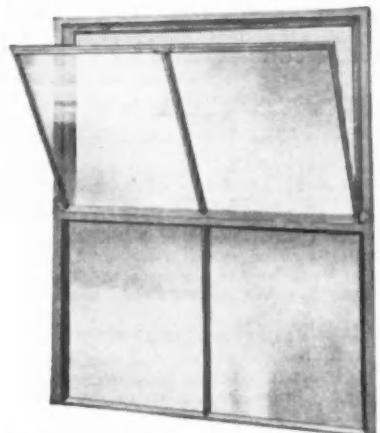
Basement Window
Two-Light, 15" x 12"



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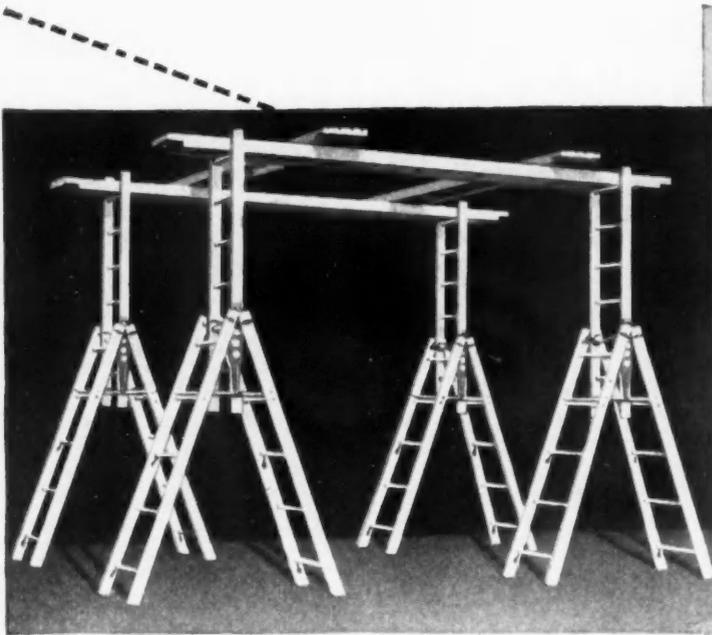


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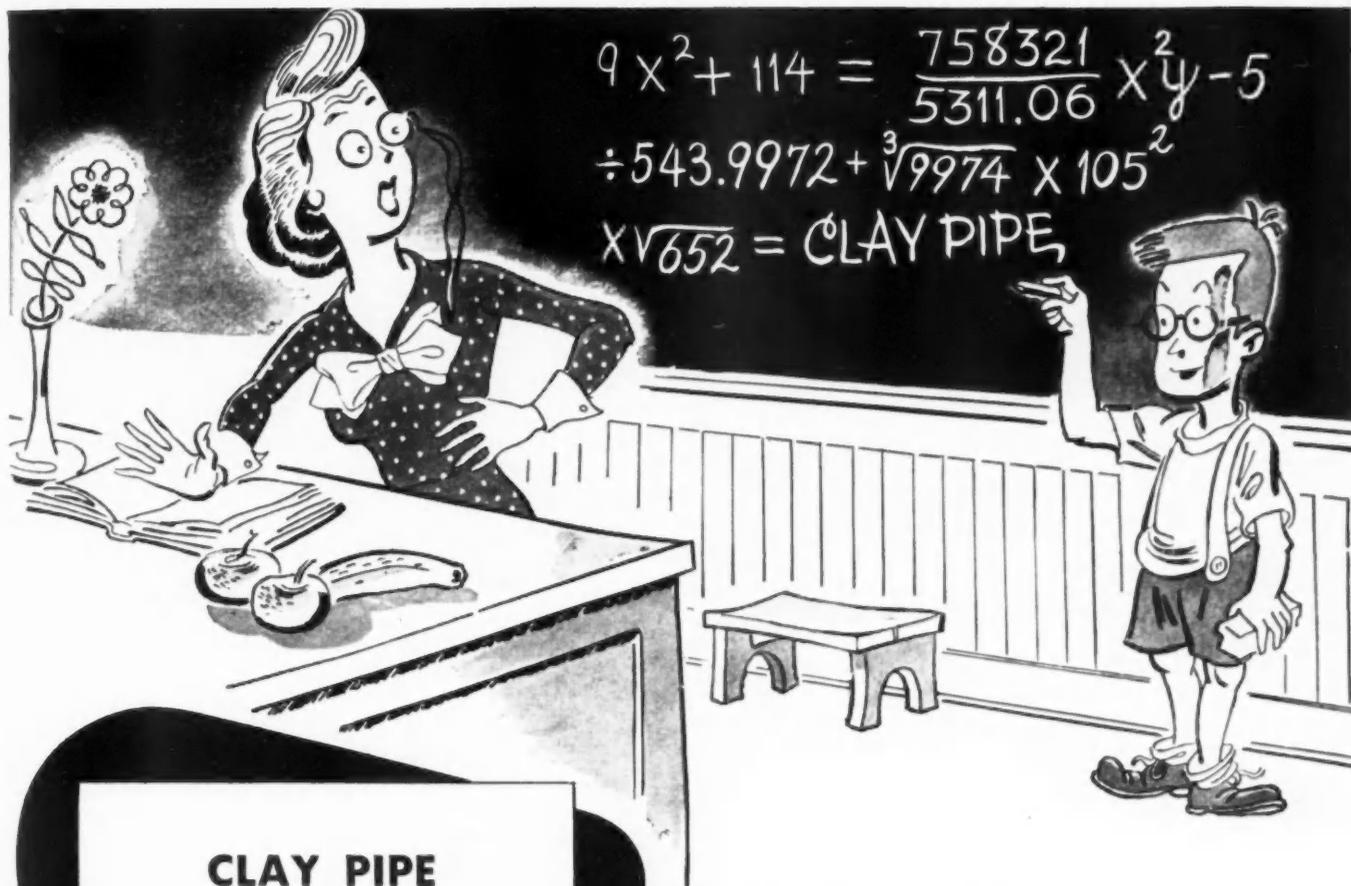
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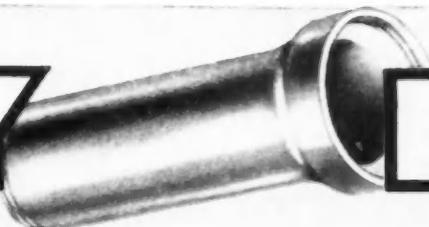
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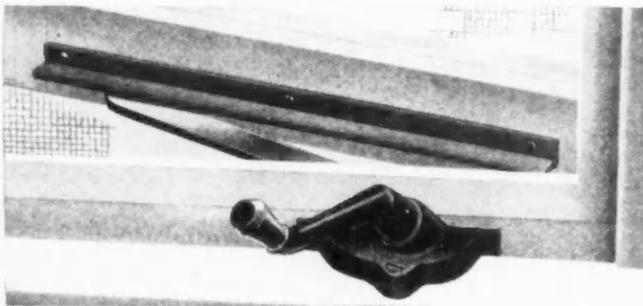
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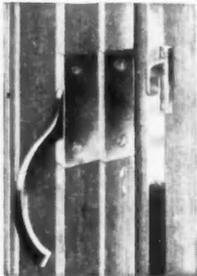
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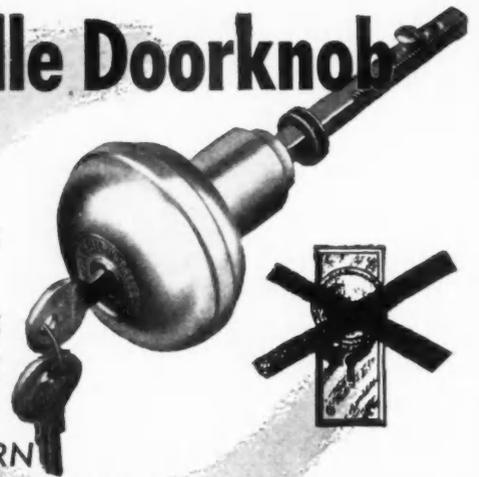
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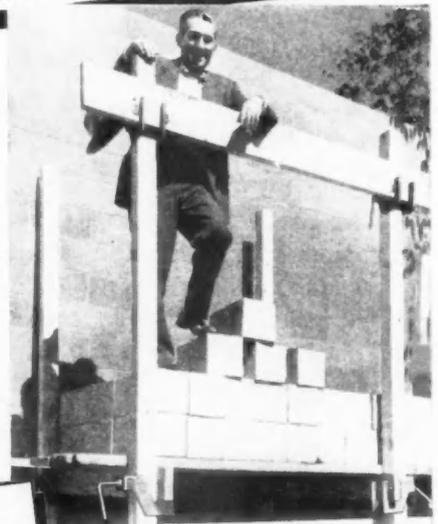
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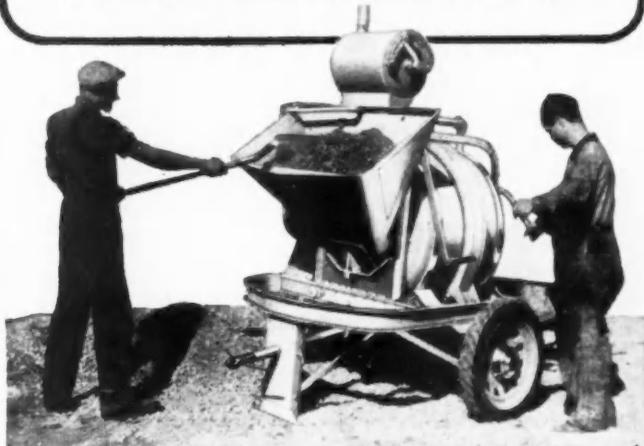
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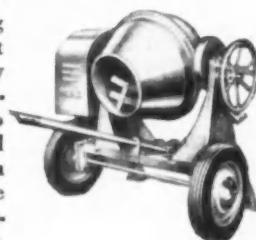


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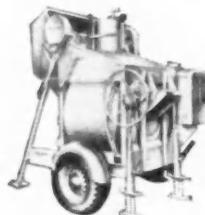
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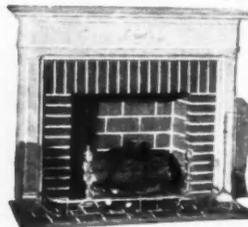
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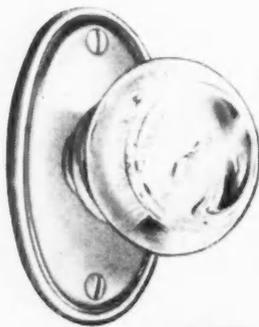
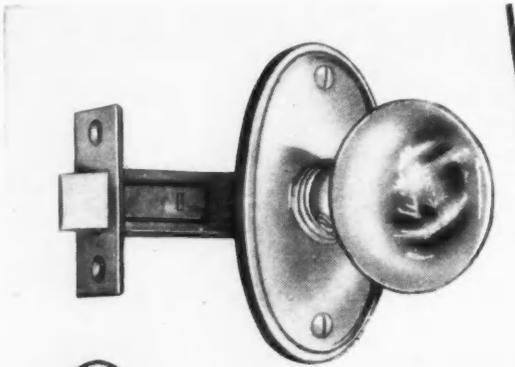


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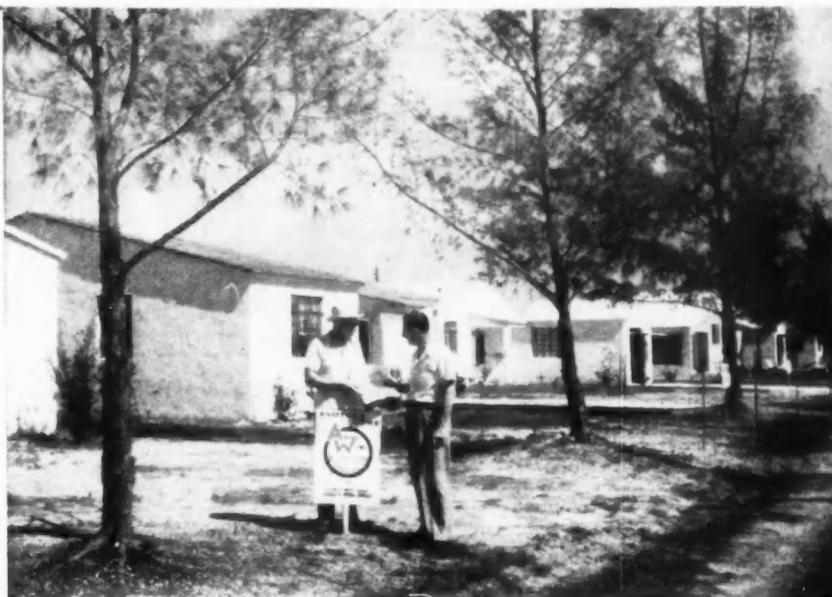
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another home-building project featuring **Certified Adequate Wiring**—by Karnes & Karnes, Inc., St. Petersburg, Fla.

What It Means To You: Certified Adequate Wiring makes today's home buyers tomorrow's boosters. It helps you build houses that stay modern for years. It helps you sell houses easier and quicker because: (1) it overcomes today's buyer resistance; (2) it assures promotional support from your electrical industry.

What It Means To The Home Buyer: Adequate Wiring makes even a moderate-cost house, or a remodeled home, *modern*. It provides not only for today's electrical needs but for those of tomorrow—including such things as kitchen and laundry appliances which can be covered by a "packaged mortgage."

What "Adequate Wiring" Means: An adequate electric service entrance; enough circuits; enough convenience outlets; permanent lights and switches.

Here's What You Can Do About It:

1. Use the services of your local Adequate Wiring Bureau in preparing complete wiring layout for every floor plan.
2. Install Adequate Wiring in accordance with this layout.
3. Obtain your "Proof Adequate"—a certificate for each deed.
4. If there is no Adequate Wiring Bureau in your area, *write us* for details of how to use "Adequate Wiring" as a sales feature.

**NATIONAL
adequate wiring
BUREAU**

CLIP AND MAIL TODAY for free information and material!

NATIONAL ADEQUATE WIRING BUREAU, Dept. AB-9
155 E. 44th Street, New York 17, N. Y.

Please send me, without charge, information on how to take advantage of Adequate Wiring as a sales feature.

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TITLE.....

STREET ADDRESS.....

CITY..... STATE.....

IF YOU CAN MATCH THE BID •• AND BUILD IT QUICKER THE JOB IS YOURS!



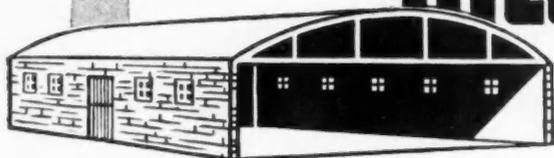
BOWSTRING TRUSS

● Glued laminated wood rafters and trusses help you to edge into important jobs. Rilco framing goes up fast . . . and immediate delivery will get you off to a flying start.

Strong Rilco framing members just naturally fit into the planning of a warehouse, garage, factory, or recreation center. That's because Rilco construction provides framing that is free of posts and braces.

Investigate Rilco Laminated wood rafters and trusses for all types of commercial buildings. Write for literature.

RILCO Laminated PRODUCTS, INC.
1667 First National Bank Bldg., St. Paul 1, Minnesota



TYPE 70 TIED RAFTER

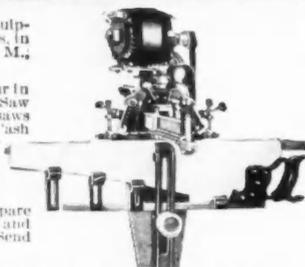
Made \$900 IN SPARE TIME

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Carpenters make up to \$2 or \$3 an hour in Spare Time. With a Foley Automatic Saw Filer you can file hand, band and circular saws better than the most expert hand filer. Cash business—no canvassing. No eyestrain, no experience needed.

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shows just how you can start at home in spare time, with small investment, no overhead—and develop into a full-time repair shop. Send coupon today for this practical plan.



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Send FREE BOOK—"Independence After 40".

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CARBOLOY TIPPED
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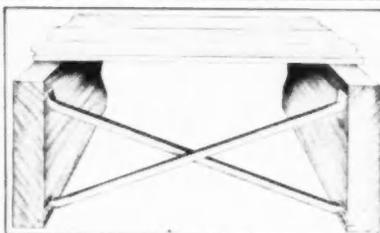


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is made of half-hardened channel steel with flanged ends that hold firmly so floors can't buckle or bulge. Shrinking or sagging of joists tightens instead of loosens Sta-Tite bridging. Easily installed with only one nail required in each end. High efficiency for low cost!

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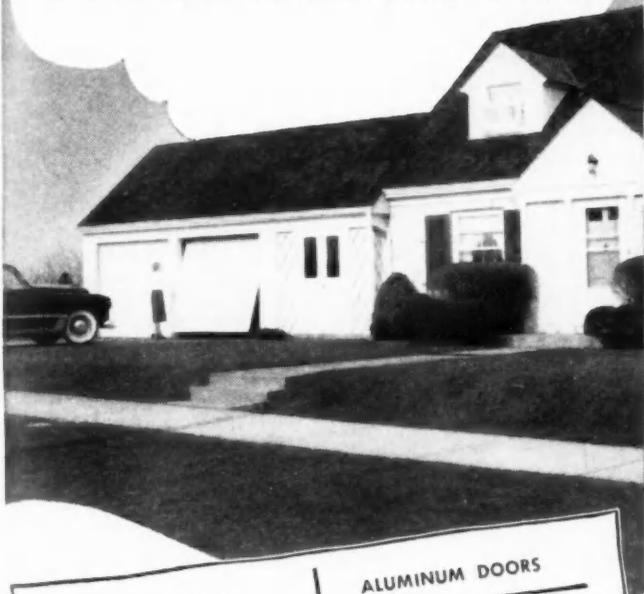
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(TRADE MARK REG. U.S. PAT. OFF.)

**COMPLETE DOOR UNITS
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● Here's the way to give home owners the extra convenience of overhead garage doors at surprisingly low cost. Use "Over-the-Top" Complete Units, with wood or aluminum doors. They'll fit any building budget and specifications; styled for today's architecture. These Frantz Units come complete with hardware and are prefitted . . . even bolt holes are bored. They require only 2" of headroom; door is carried completely in, out of the weather. Aluminum door units offer light, sturdy construction, plus "Over-the-Top" smooth, trouble-free operation. Write today for full details.

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In a scientifically controlled test, a sash equipped with HIDALIFT Sash Balances was subjected to a full continuous movement for 270 hours. This test is equivalent to opening and closing the sash once a day for 715 years. The balance disclosed no signs of wear.

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Hidalift is the quickest, easiest sash balance to install. Simply plough the sash and attach with two screws. A self centering guide bushing maintains perfect balance . . . prevents jamming . . . eliminates the use of templates in installation.

.. and Economy

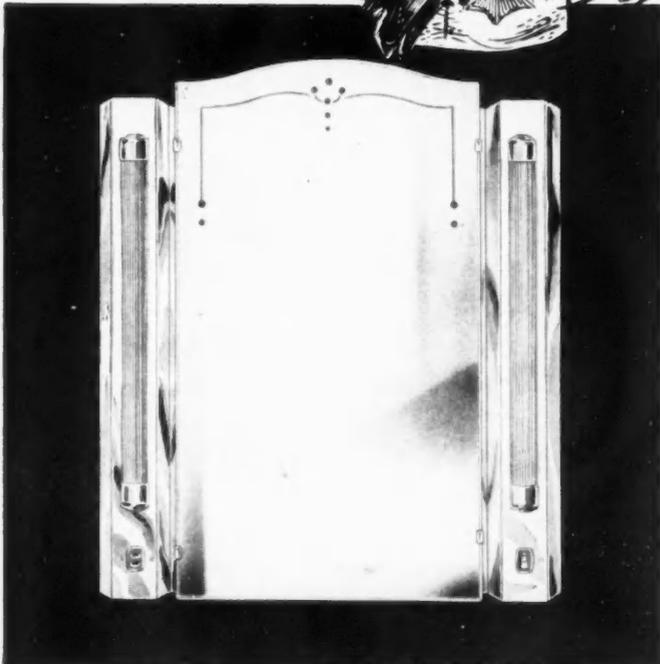
In these days of costly hard-to-get labor, HIDALIFT which cuts installation time in two, offers you real savings in time and money on the job. The building owner will appreciate the freedom from maintenance costs. Tenants will like the lowered fuel costs afforded by weather tight windows. With HIDALIFT Sash balances there's true economy all around.

WRITE for name of your nearest dealer. Completely descriptive literature showing installation and sizes and specifications available.

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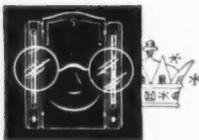
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Classic beauty, superior engineering and quality material are skillfully combined by Mirro-Glo to enable you to supply your clientele with the quality merchandise they want—at the price they will pay.

For additional information concerning our line, write for our Royal Family folder. We also produce the Stan-forted line of perforated metal and the Bend-zy line of finer air registers.

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Bulb edge glass shelves are safe and adjustable.



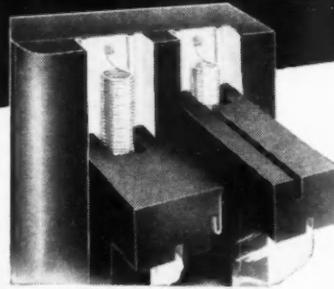
Bar spring door stop protects contents and mirrors.



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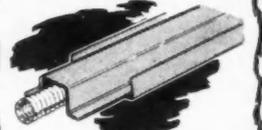
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The Milwaukee Combination
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- ★ EFFICIENT
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- ★ FOR OLD OR NEW BUILDING

Now Available!



Bronze Spring Cover

Bronze covers that completely hide springs are now available, if desired. No sacrifice of basic simplicity. You still get smooth, positive action; accurate balance; seal against draft, dust, moisture.

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MILWAUKEE STRIP SERVICE, INC.
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Today's public are demanding quality and we are giving them just that. Admiral Homes meet all building codes., FHA, VA and Building and Loan financing. Furnished conventionally framed, fully insulated and weatherstripped. Will build to builder's plans and specifications in lots of 10 or more. Ask for details.

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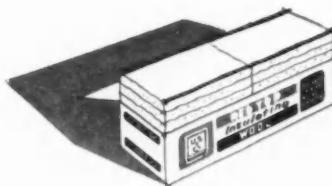
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at the All-Star game in Chicago, it's spotlighting each college player.

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MINERAL WOOL BATTS



You build better homes—the homes demanded by today's increasing number of critical buyers—when you insulate with RED TOP mineral wool batts.

For in the consideration of *any* insulation—even mineral wool—two factors are necessary for a complete and permanently effective job. RED TOP batts offer you both: (1) *an efficient vapor barrier*, and, (2) *assured thickness and density* that only a machine-made, factory-checked product can give you. Result—effective condensation control and high insulation value that lasts the *life* of the house.

Remember, too, that RED TOP batts arrive on the job in strong, easily handled cartons.

Join the hundreds of alert builders who already know RED TOP mineral wool batts mean better insulated homes.



United States Gypsum

For Building • For Industry

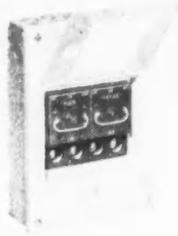
Gypsum • Lime • Steel • Insulation • Roofing • Paint

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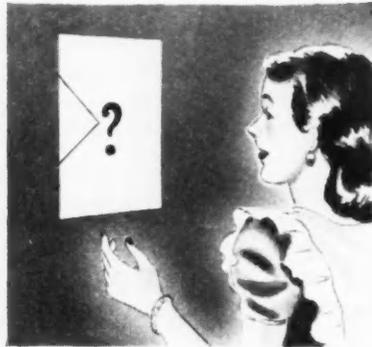
Which
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her to have?



Ⓐ Circuit Breaker Load Centers provide automatic protection against overload and short circuits. To restore service, simply flip handle to "ON" position.



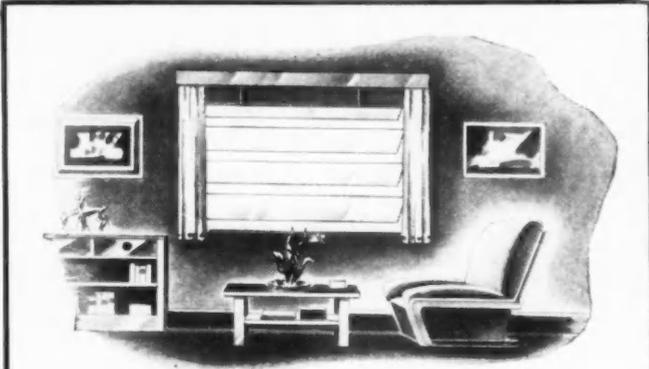
Ⓑ Main and Range Units provide fuse protection in a dead front, safety type unit.



Both of these Ⓐ circuit protectors are safe and sound for any home... both protect against the hazards of short circuits and dangerous overloads... and both provide all the electrical capacity needed for household appliances.

To help you make a wise choice, send for our Service Equipment Bulletins No. 76 and No. 202.

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ILLUSTRATED IS THE NEW *Lemco*
PANORAMIC VISUALITE AWNING WINDOW

Cat. Type 2413 (Approximate Builder's Price)

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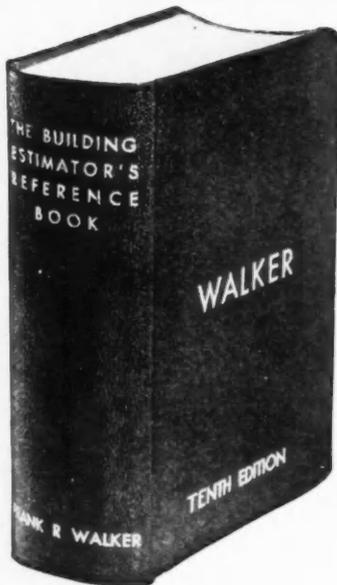
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Lemco Awning Windows are manufactured from solid section aluminum extrusions. Lemco is the only experienced manufacturer of metal Awning Windows—installation everywhere. Designed for modern and futuramic homes, institutional buildings.

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So effective! So

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SOLVAY Calcium Chloride eliminates dust with minimum effort . . . and maximum efficiency. SOLVAY Calcium Chloride is clean, colorless, odorless; requires no special equipment or experience. For low-cost dust control, get SOLVAY Calcium Chloride.



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What do your Flooring Specifications call for on jobs like these?

RANCH HOUSE DEVELOPMENT...



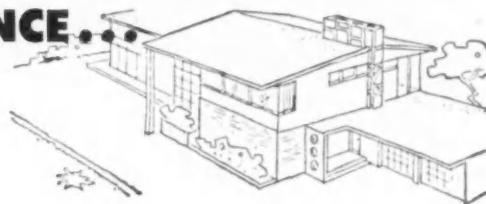
Basementless, concrete slab construction. More and more cost-conscious operative builders are turning to Tile-Tex* Asphalt Tile as the all purpose flooring for a one story ranch house. It's low in cost, has an amazing record of long life . . . and is the only type of resilient flooring which can be installed with perfect safety over a non-waterproofed concrete slab. No other sub-flooring required. Can be installed in gay, colorful patterns or solid tones. Appeals to home owners because it can be used with or without rugs or carpeting.

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On the main street of town, where store traffic is heavy, and tenants require different decorative effects. With Tile-Tex Asphalt Tile you can offer the commercial user an almost endless variety of designs, patterns and custom accessories around which to plan colorful and functional floors. Yet your client pays no maintenance penalty for high style. Tile-Tex is exceptionally easy to clean and keep clean.

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Two stories and a basement, for upper income purchaser. For kitchen, bathroom, basement recreation room, foyer, children's bedrooms . . . specify Tile-Tex Asphalt Tile, by all means. It's the right floor for heavily used areas. It brings bright, spirit-lifting color to many areas of the home. It lightens the cleaning burden. And it helps sell your homes

Tile-Tex Asphalt Tile is installed by expert flooring contractors located in principal cities and towns. Write The Tile-Tex Company, Inc., (subsidiary of The Flintkote Company), Chicago Heights, Illinois for the name of the flooring contractor nearest you. Sales offices in Chicago, New York, Los Angeles and New Orleans.



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*REGISTERED TRADEMARK OF THE TILE-TEX COMPANY

Feature the G-E Way of Living



Show the General Electric Kitchen—including the G-E Electric Sink with the Automatic Dishwasher and Disposall* that elimi-

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Show the General Electric All-Electric Laundry, or the Kitchen-Laundry combination, for another convincing demonstration of

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ng during National Home Week—Sept. 5-11

Here's your opportunity to build new prestige and sales during National Home Week. Demonstrate modern electrical living in homes fully equipped with General Electric appliances. They cost the buyer only up to \$4.80 more a month. Your cost: zero!

This year, the American home building industry will benefit from a dramatically conceived program of public relations and merchandising, sponsored by the National Association of Home Builders.

During National Home Week you, the local home builder, can profit in sales *and* reputation, by tying in with this great national promotion—and demonstrating your latest projects to a new-home-hungry public.

And first in the thoughts of home-buyers is the desire for more leisure, more conveniences, and fewer chores in their future homes.

That's why the General Electric way of living has become a powerful force in designing and selling today's homes.

It offers the countless advantages of *electrical* living—easy, clean, safe, more economical living!

So, this National Home Week, show the visiting public what it *wants* to see—and plans to *buy*!

In a nationwide survey, 51 per cent of the men and 53 per cent of the women said they prefer G-E Appliances. Each appliance means an *extra profit* for you—since you buy for resale.

Show a home that's completely equipped with modern General Electric appliances—a home where people can live the "electrical life of Reilly!"

All these dependable electrical servants can be included in the average home for an estimated average of only \$4.80 extra a month in a "packaged mortgage."

The economies of owning General Electric Appliances are often enough to cover the slight, extra monthly charge.

So be sure to feature the General Electric way of living during National Home Week.

The G-E way of living sells homes *fast*—brings extra opportunity for *profit*—and adds to your reputation as a progressive builder!

THE HOME BUREAU SUCCESS STORY OF THE MONTH

G-E equipped homes are selling so fast, the Bonforte Construction Company of Colorado Springs can't keep up with the veterans' families who want to buy them.

Here's why! These \$8,000 to \$9,000 homes include G-E Automatic Clothes Washer, Refrigerator and Electric Range.

The "packaged mortgage" plan makes these electrically equipped homes available to low-income groups.

Let General Electric Home Bureau tell you the whole story!

Write to the Home Bureau, General Electric Company, Appliance and Merchandise Dept., Bridgeport 2, Connecticut.



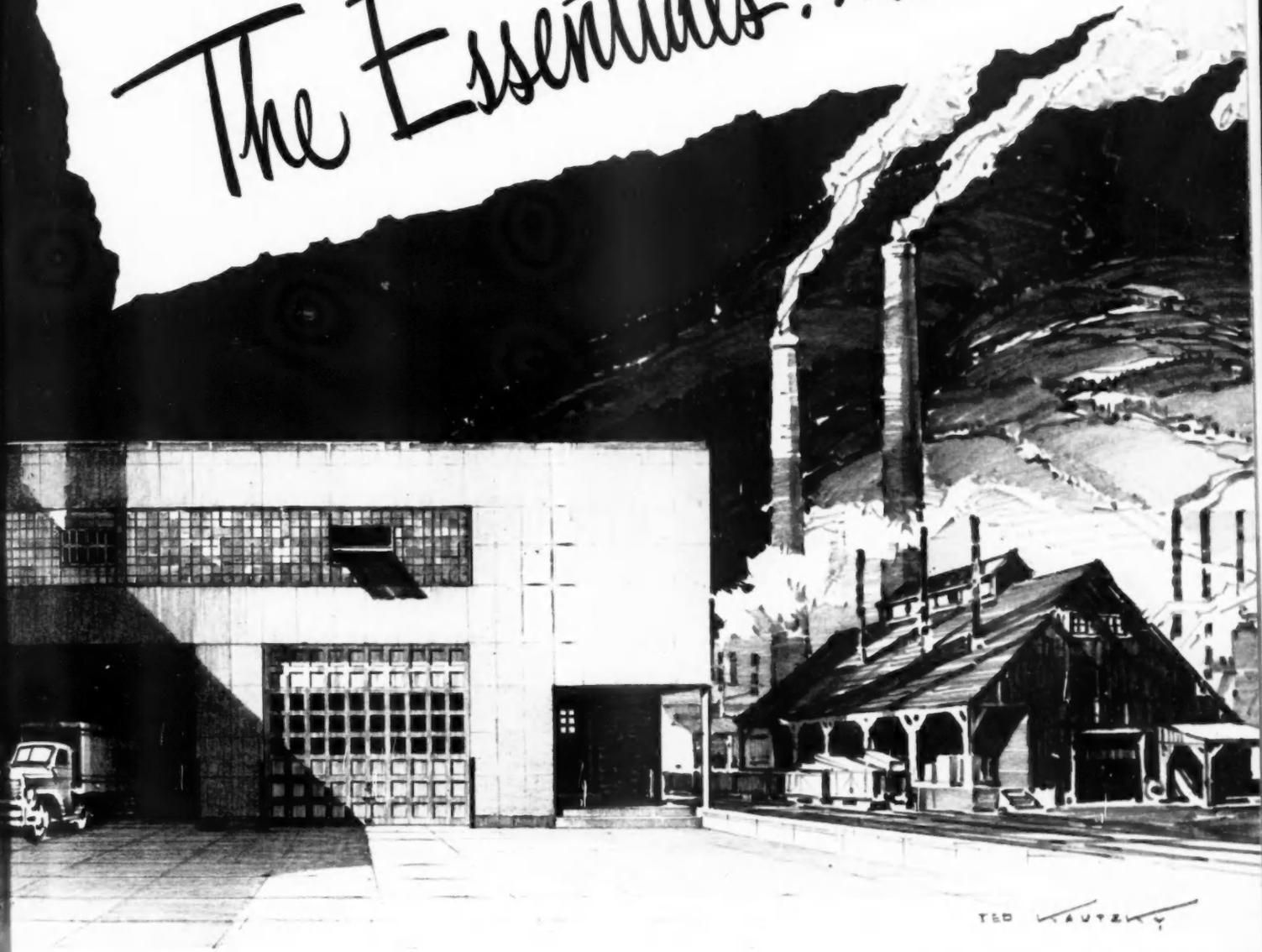
Mr. John Bonforte



THE APPLIANCES MOST WOMEN WANT MOST

The Essentials...and more

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● Weathertight, strong, and fast operating, The "OVERHEAD DOOR" with the Miracle Wedge possesses all the qualities essential to satisfactory service. This door is constructed throughout from the finest materials, and is perfectly balanced to insure long life and economy of maintenance.

The "OVERHEAD DOOR" is pleasing in appearance, in either new or remodeled structures. For these reasons, millions of users select it for industrial, commercial, and residential buildings. It is a door of extra values. Any "OVERHEAD DOOR" may be manually or electrically operated.

TRACKS AND HARDWARE OF SALT SPRAY STEEL

The **OVERHEAD DOOR** TRADE MARK WITH THE MIRACLE WEDGE

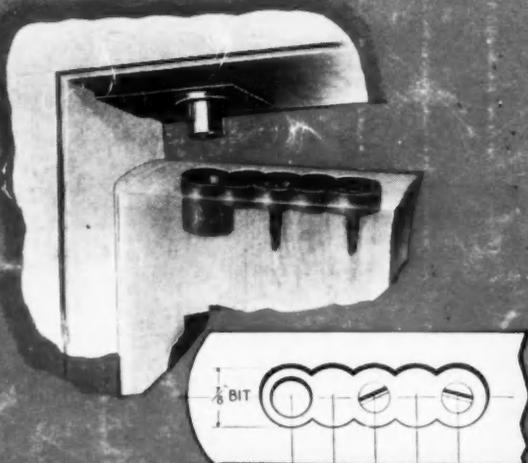
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Builders' Hardware



No. 240 Ball-Bearing Floor Hinge



Pivot for No. 240 Floor Hinge



No. 225 Push Plate

ALTHOUGH the present astonishing demand for National Builders' Hardware is partly due to today's exceptional hardware requirements, National Hardware has always met with wide sales and distribution. This is because every National item is designed and constructed to provide the best possible application and service. For example:

The National No. 240 Ball-Bearing Floor Hinge construction is radically different from other floor hinges. The part which bears the weight of the door and the spring closing feature are independent of each other, although necessarily combined. In this hinge the pressure of the spring is not against the bearing carrying the weight of the door, but is absorbed by a 1-inch case-hardened roller, which prevents wear on the hinge bearing. Keeps the door firmly in center of opening when at rest. Pivot for the top is attached by simply boring five $\frac{7}{8}$ -inch holes. Requires no chiseling. No measuring or mortising is required to install pivot plate to head jamb. Simply place end against jamb and insert three screws.

Reversible side plates are furnished with this hinge. A jamb plate can be furnished when concrete floors are used.

No. 225 Push Plate—Made of wrought steel with wide beveled edges. Highly polished. Slightly bowed to force center and ends tightly against door when screws are inserted.

Your National Dealer will co-operate in supplying as many of your hardware requirements as possible.

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