

AMERICAN BUILDER

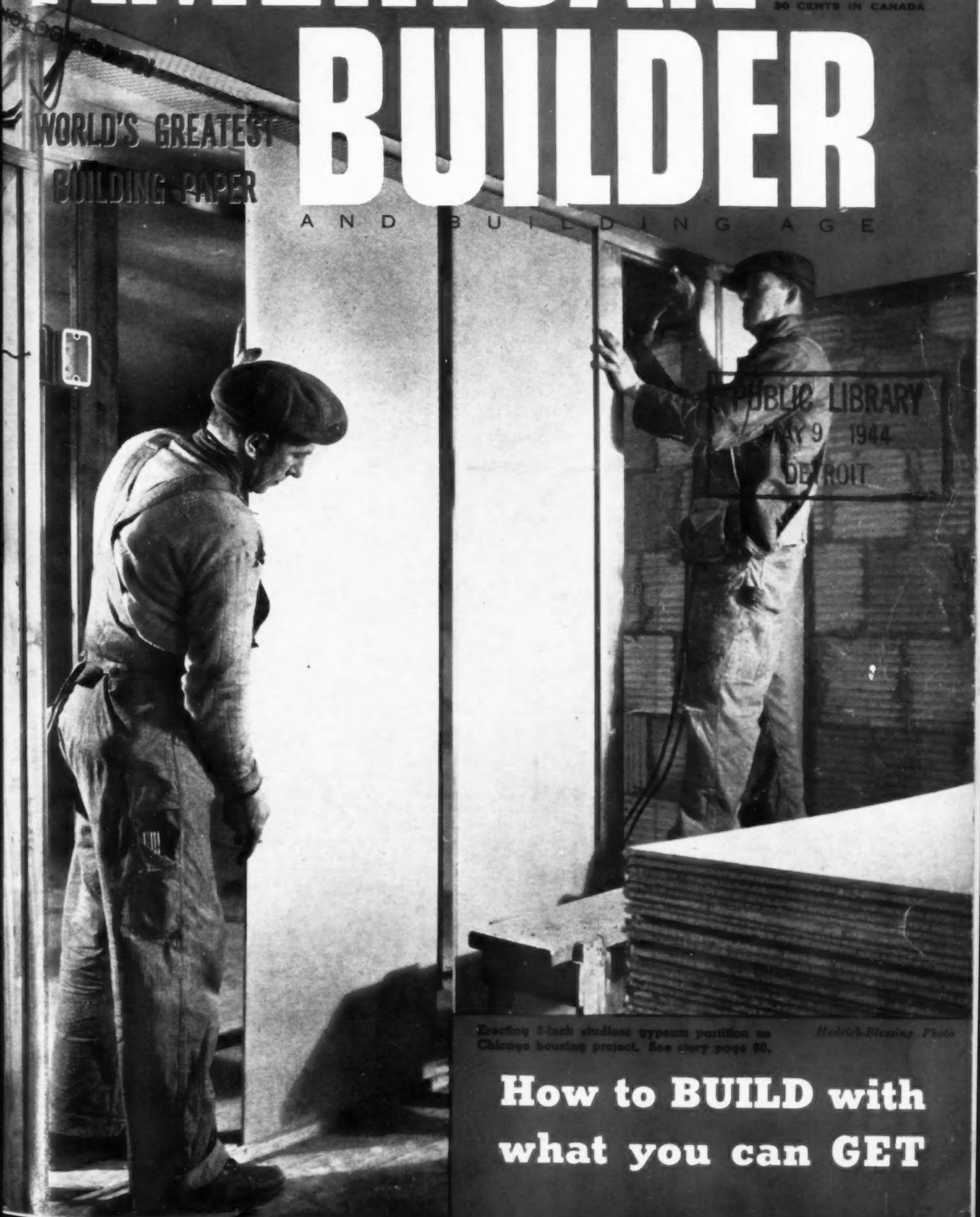
MAY, 1944

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WORLD'S GREATEST
BUILDING PAPER

A N D B U I L D I N G A G E



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MAY 9 1944
DETROIT

Erecting 3-inch studless gypsum partition on Chicago housing project. See story page 60.

Hedrick-Blessing Photo

**How to BUILD with
what you can GET**

CELOTEX PRODUCTS NOW AVAILABLE To Replace Critical Materials

THESE Celotex products replace traditional materials, do a better job as proven in countless factory, farm and housing projects.

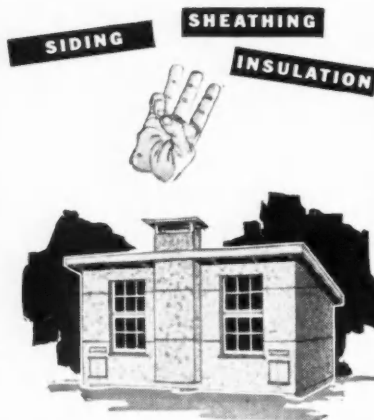
No need to delay farm buildings so badly needed and for which money is available. No need to forsake other needed repairs and remodeling.

You can assure yourself profits with these and other Celotex products which are available now.

CELO-SIDING

THE MULTIPLE-FUNCTION MATERIAL THAT DOES 3 JOBS

Ideal for farm buildings, factories, machine shops, warehouses and general buildings. Combines siding, sheathing and insulation in one weather-resistant, easily applied material. Applied direct to studing, Celotex Siding saves critical lumber, time and labor. Available in buff or green colors and in two thicknesses— $\frac{5}{8}$ " and $\frac{7}{8}$ ". Sizes: $\frac{5}{8}$ " and $\frac{7}{8}$ " in 4' x 8' with square edges; $\frac{7}{8}$ " in 2' x 8' with T&G joints on long edges. Recommend $\frac{7}{8}$ " for greater strength and insulation value; $\frac{5}{8}$ " for lighter, lower cost construction.



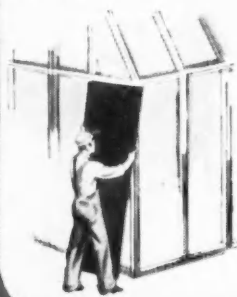
CELO-ROK BOARDS

for Interior and Exterior Construction



CELO-ROK
WALL BOARDS

Use them for conventional double interior wall construction. These gypsum wall boards meet the rigid Celotex tests for quality. Available in $\frac{3}{8}$ ", $\frac{1}{2}$ " and $\frac{1}{4}$ " thicknesses. $\frac{3}{8}$ " and $\frac{1}{2}$ " have square, recessed or beveled edges. $\frac{1}{4}$ " thickness has square edge only.



ASPHALTED SHEATHING

One of the most useful boards for farm buildings, industrial structures and repair work. Comes in $\frac{1}{2}$ " thickness. Here is an excellent material for immediate profitable construction.



CELO-ROK WEATHER-PROOF SIDING

This weather- and fire-resistant gypsum wall board for exterior use combines sheathing, siding and exterior finish. Weather side is green finish. Board is treated on all sides and edges with a waterproof compound. Available in $\frac{1}{2}$ " and in 1" thicknesses.



Now is the Time to Insulate With CELOTEX ROCK WOOL BATTS

This summer, home owners will want to insulate to save fuel next winter and add year-round comfort. Celotex Rock Wool Batts provide insulation of proved efficiency at moderate cost—but with fine profits for you. Urge prospects to insulate now—Celotex Rock Wool Batts are available in quantities at Celotex dealers.

CELOTEX

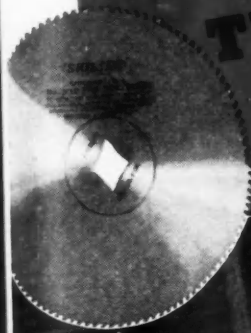
REG. U.S. PAT. OFF.

BUILDING PRODUCTS

THE CELOTEX CORPORATION . . . Chicago 3, Illinois

Did you know THAT YOUR SKILSAW

CAN DO THESE JOBS, TOO?

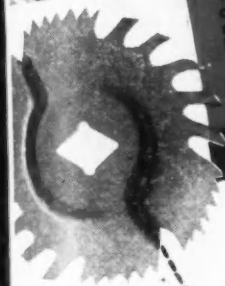


CUT METAL



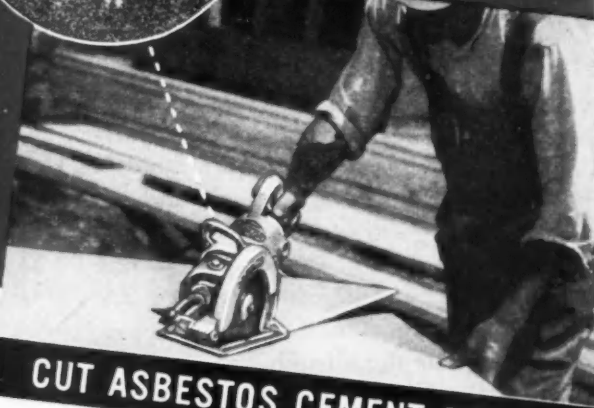
• With a Friction Blade, SKILSAW cuts fast through flat or corrugated metal, through stainless steel, brass, lead and iron.
• Grooves up to 1/2 in. in width are easy to make when you use a Grooving Blade instead of the regular blade.

GROOVE LUMBER



CUT CONCRETE

• With an Abrasive Disc... SKILSAW is ready for fast slicing of concrete, such as "Colocrete" blocks, or slate, tile or limestone.
• With Abrasive Discs, SKILSAW also quickly cuts asbestos cement sheets for walls and ceilings.



CUT ASBESTOS CEMENT SHEETS

• It's no news that your SKILSAW is the finest labor-saving tool you can own for all the ordinary construction cuts in lumber.

But do you realize that there's lots of other work that your SKILSAW can do? . . . and do it easier, better, faster! Grooving, for instance . . . cutting metal and concrete are other examples. And that's just the beginning of many different cutting jobs where SKILSAW can help you build *faster* and *more profitably!*

If you are not using your SKILSAW for ALL cuts in construction, you're not getting all the time and labor saving benefits SKILSAW can give you.

SKILSAW'S new catalog, free on request, will show you how to make a "4-in-1" tool out of your SKILSAW. Send for it today!



SKILSAW, INC.

5033-43 Elston Ave., Chicago 30, Ill.

Sales and Service Branches in All Principal Cities

SKILSAW PORTABLE ELECTRIC TOOLS

MAKE AMERICA'S HANDS MORE PRODUCTIVE

This year - 25,833 Brooklyn Bridges!

There is only one Brooklyn Bridge. It is a mile long, and weighs 24,000 tons.

Yet, this year the nation will need the equivalent in weight of 25,833 Brooklyn Bridges - meaning, about 620,000,000 tons of bituminous coal.

Just where will this coal be needed?

About 125 million tons of it will be needed to heat at least 41% of the nation's homes next winter.

At least 115 million tons will be needed to power the railroads. A ton of coal is required to produce each ton of steel. Bituminous coal is essential to the manufacture of plastics, war chemicals and high explosives, and 62% of the electric power that runs our industries comes from it.

That's how important bituminous coal is and that is why the bituminous producers, with a full sense of their responsibility to the nation, to their customers and to the men who work for them, say:

"Nothing must be allowed to interfere with the steady output of bituminous coal - America's vital fuel."

BUY MORE WAR BONDS

BITUMINOUS COAL *Institute*

60 East 42nd Street, New York 17, N. Y.



"WHAT WOULD YOU LIKE TO KNOW ABOUT COAL?"

Here are a few of our answers to the questions you have asked about coal, and the men who mine it.



How much money can a coal miner make?

In December 1943, bituminous coal miners earned an average of \$52.85 per week. An inside miner who works 48 hours a week will earn a minimum of \$57 a week. This varies up to \$73.36 a week in cases where the base wage is \$9 a day. Pieceworkers can earn as much as \$600 a month. The miners' take-home pay tops that of other workers in non-manufacturing industries, which in December 1943 averaged \$37.43 per week.



Can a coal miner advance himself?

That depends on the man himself. Most important mine officials have come up through the ranks. A great many mines have training programs to fit men for better jobs. Schools and universities offer extension courses on the technical side of mining. A miner who shows promise is always encouraged to advance himself.

PROJECT IN STEEL



The practical and profitable replacement of run-down buildings with modern multiple dwellings will undoubtedly involve many innovations in building methods and materials. It is an assignment for which Stran-Steel is ideally suited.

This light-gauge steel framing material is so versatile and adaptable that architects find it answers many problems of advanced design. Its strength, lightness, resistance to sagging and dry-rot, and the economies it effects in materials, time and labor are of special importance to investment-wise builders.

Stran-Steel's extensive experience in the production of framing systems for multiple dwelling projects, group housing and allied structures, as well as in the manufacture of all-steel military buildings, will be of particular usefulness to the construction industry.

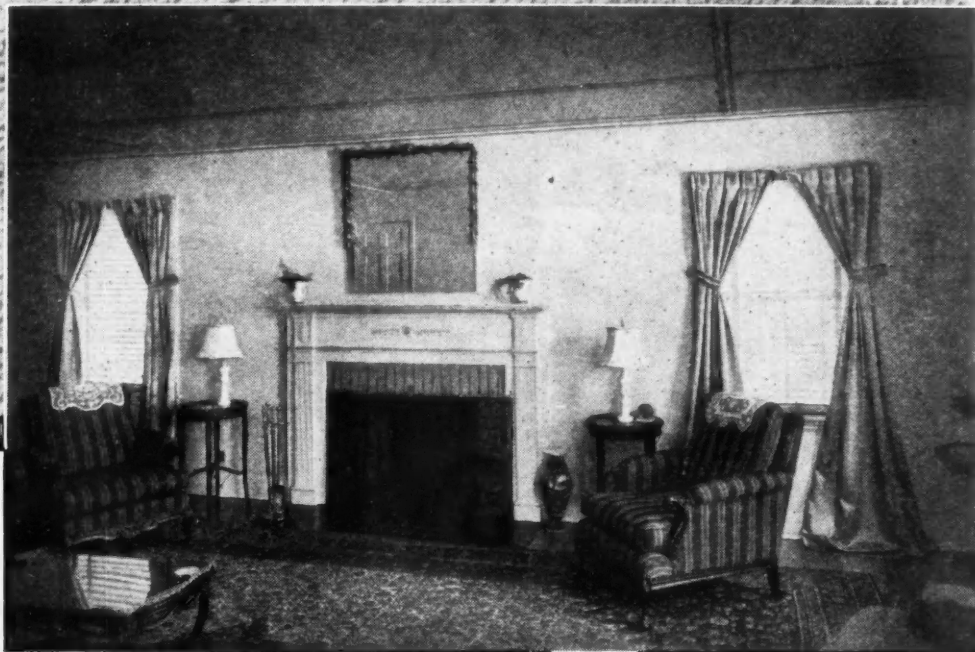


Manufacturer of the U. S.
Navy's Famous Quonset Hut

STRAN STEEL

DIVISION OF GREAT LAKES STEEL CORPORATION
1130 PENOBSCOT BUILDING, DETROIT 26, MICHIGAN

UNIT OF NATIONAL STEEL CORPORATION



Everywhere—The Talk Is “Crackproof Walls”

STRONG, STURDY WALLS—which remain forever free from cracks.

Walls and ceilings of enduring beauty—that go up faster, that give added dollar value to the home.

Because of these and many more advantages, Upson Quality Panels hold a prominent position in the thinking of post-war planners—for remodeling and new home construction.

The various sizes and thicknesses of

Upson Panels are designed for specific needs. *Strong-Bilt Panels*, for instance, were created especially for new construction. They are obtainable in sizes large enough to cover the wall of an average room, thus providing *dry-built full-wall construction*.

Upson Quality Panels are strong and tough—positively will not crack, splinter or chip. Their surface is beautifully pebbled—pre-sized at the factory. No grain. No checking. Painters praise their fine painting surface.

Upson Floating Fasteners anchor the panels securely from the back and compensate for normal structural settlement. No face nailing. No time-consuming system of filling and taping. No nails to countersink. No nail holes to fill. Carpenters do the whole job.

Investigate now by writing for descriptive booklets and full information. The Upson Company, Lockport, New York

STRONG-BILT PANELS — approximately $\frac{3}{8}$ " thick — for new construction. **KUVER-KRAK PANELS** — $\frac{1}{4}$ " thick — for covering cracked plaster. **UPSON-PROCESSED BOARD** — $\frac{3}{16}$ " thick — for miscellaneous uses. **DUBL-THIK FIBRE TILE** — for kitchen and bath.

Upson Quality Products Are Easily Identified By The Famous Blue Center



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LETTERS

To the Editor

Son in the Seabees

To the Editor: In the article about the Seabees in the South Pacific (February issue) I found a picture of my son. He is a carpenter's mate 3rd class, 22 years of age, 6 ft. 3 in. tall and weighs 200 lbs. I sent him the pictures out of my book and would like to have another book or two. I am a builder subscriber and enjoy the book every month.—NORBERT SCHAAF, Schaaf Bros., Erie, Pa.

"Fell in love"

To the Editor: I fell in love with your magazine on first sight at the Public Library last night and am sending in a 2-year subscription at once. But please in the future, include some home designs based on two levels, garages in basement on hillside, and recreation room in hillside basement.—FRED M. GRANVILLE, Detroit 15, Mich.

4 percent and 40 years

To the Editor: What is needed is not only 4 per cent money but a 40-year loan which will reduce the monthly payments such as (Calif.) Senate Bill No. 38—of which I am co-author of the original draft.—ALFRED DEAN BURCK, Hollywood, Calif.

Survey for WPB

To the Editor: Your article, "What About Building Materials," mentions a Survey of Wartime Inventories. This Division is collecting all the information it can find on the present supply of materials and equipment for construction. If you can send us a copy we will appreciate it.—PHILLIP WADSWORTH, War Production Board, Washington, D. C.

"Every builder needs it"

To the Editor: I feel that every builder needs, and will need, the information available in the *American Builder*—more now, than at any time in the past. So please accept my check and continue my subscription in force.—ROY VAN WYE, Columbus, Ind.

Another precutting job

To the Editor: I have a new problem: a project of 60 houses that I intend to pre-cut in job mill. Also want to keep costs on all separate operations. Would appreciate any information you could give me on these two subjects. I also do a little private building of houses for myself but most of my work is large commercial jobs, with some remodeling.—HARVEY EARL SHAW, Kansas City 4, Mo.

Encouraging

To the Editor: If my check was not received, please advise and I will send another. I have taken *American Builder* for many years and don't want to miss a copy while I am in the business. Your editorials alone are worth the price of subscription.—HERBERT J. PECKHAM, Newport, R. I.

How to collect

To the Editor: During our operations over the last two years we think we have perfected one of the weak-

(Continued on page 90)

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FOUNDED—1879

VOL. 66

MAY

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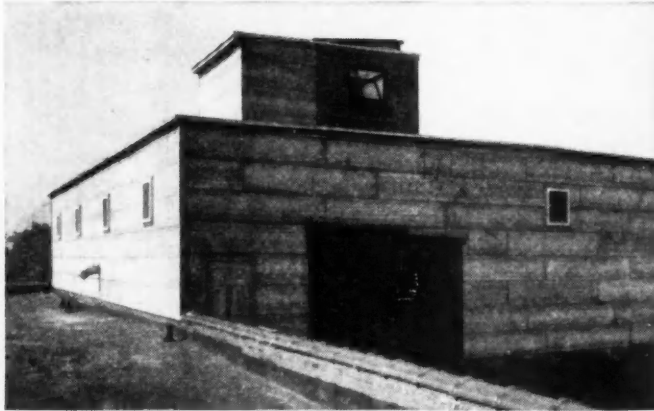
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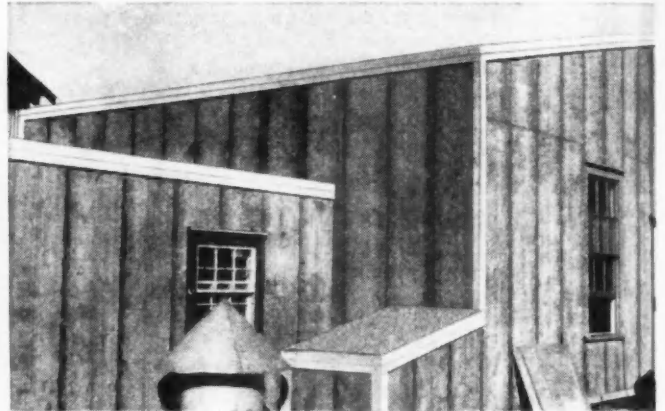
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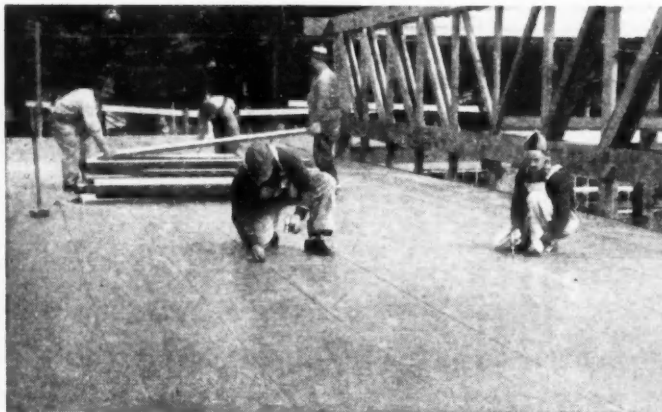
HEAVY DUTY GYPSUM BOARDS ARE MADE-TO-ORDER FOR EMERGENCY JOBS LIKE THESE!



SPEEDS CONSTRUCTION. Here's a roomy warehouse that sprung up over night. For the sheathing and finish Gold Bond A-X Gypsum Board was used. These husky panels come with durable asphalt roofing cemented to the weather side. No other finish needed.



PENTHOUSE MACHINE SHOP. This manufacturer needed more room in a hurry. With buildings smack up against him on all sides, there wasn't an inch of space for expansion. Again, Gold Bond Gypsum Boards came to the rescue with this quickly erected addition on the roof.



A MILE OF ROOF DECK. Gold Bond Gypsum Roof Plank got this building under cover in a fraction of the usual time. Big strapping panels, 2' wide and up to 8' long with shiplap edges for snug fit. The moment the panels are in place, the job is ready for the roofers—no waiting for poured materials to dry.



BUILD WITH AVAILABLE MATERIALS. Don't turn down jobs because of delays and uncertainties in getting lumber and other critical materials. You can get Gold Bond Gypsum Building Boards immediately—all you need—from your local lumber and building supply dealer. Write us for samples.

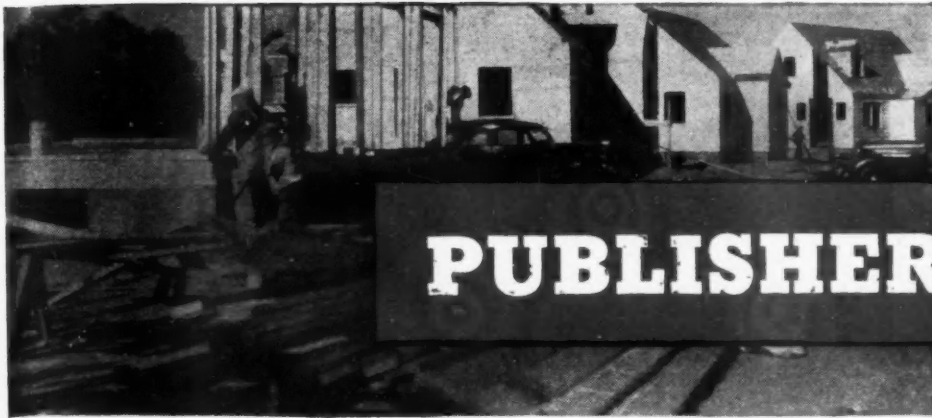
SEE YOUR GOLD BOND DEALER



BUILD BETTER WITH GOLD BOND

Wallboard • Lath • Plaster • Lime • Metal Products • Wall Paint • Insulation • Sound Control

NATIONAL GYPSUM COMPANY • EXECUTIVE OFFICES • BUFFALO, N. Y.



PUBLISHER'S PAGE

Domestic problems in the campaign

NEXT MONTH the conventions will be held and the national political campaign will begin. Will there be more discussion of what our foreign policies should be, or of what our domestic policies should be? And on which class of policies will the election more largely turn?

This paper has no doubt that the future of the United States for generations will be largely determined by this year's election. It has no doubt, either, that the election's effects on our postwar *domestic* policies will be much more important than its effects on our *foreign* policies.

Whoever is elected can be depended on to conduct the war with both Germany and Japan to a victorious conclusion. Why? Because this is the one thing for which the American people are absolutely united. Whoever is elected, it will be good politics to make every effort to speed winning of the war; and all that the politicians elected will need to do to this end will be to give full backing to our war industries and military forces.

Our unity regarding the war is equalled only by our disunity regarding the policies that should be adopted affecting the national welfare after the war. One thing is certain, however. The greatest contribution our government can make to the welfare of our own and other countries will be the adoption of policies conducive to freedom and prosperity in America. Curtailment of freedom and prosperity in this country would be destructive not only of the welfare of our own people, but of our ability to help other peoples.

As means of reestablishing and maintaining prosperity after the war we are being offered two conflicting sets of policies. One of them is based on the claim that the government will have to maintain extensive controls and high taxes, and do a vast amount of spending on "public works," to prevent great post-war depression and unemployment. The other set of policies offered is based upon

the claim that private enterprise can cause unprecedented, adequate and increasing production, employment and prosperity; but that private enterprise must be afforded opportunity to do this by rapid abolition of government controls, by drastic reduction of taxes, and by prevention of huge government spending largely in competition with private investment.

The private construction industry is especially concerned with the threat of socialistic government investment and high taxes, because most of the government investment would compete with private construction. Thomas S. Holden, president of the F. W. Dodge Corporation, on the basis of a survey made by his company, recently told a congressional committee that full revival of private construction awaits only removal of wartime restraints, and that "*artificial stimulation of public works at such a time would merely intensify competition with private construction in the material market, and greatly increase the pressure on the price structure.*" We have more prospect of boom than depression in post-war private construction. The addition of a large amount of government construction would intensify the boom, and thereby help cause, intensify and prolong the depression which always follows a boom.

There is nothing in history that supports, and much in history that refutes, the view that government controls, taxing and spending will be needed as supplements or substitutes for free private enterprise in providing production and employment. Therefore, regardless of the confusing din about what our foreign policies should be, the American people should recognize the paramount importance of our domestic problems, and elect men who favor giving untrammelled opportunity to private enterprise.

Samuel O. Drumm,



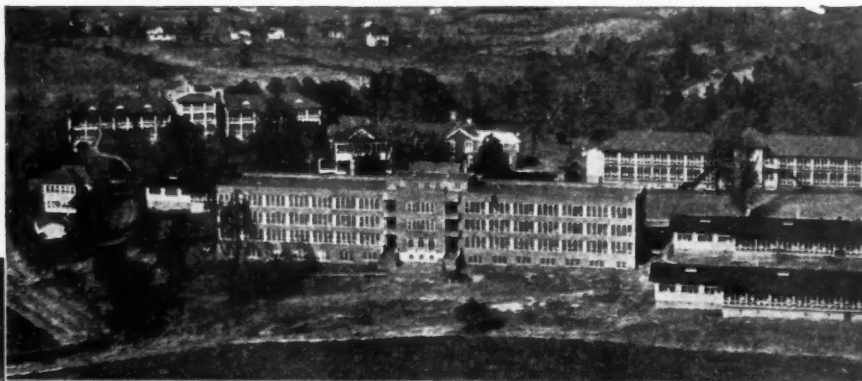
Two facts add up to big savings in construction costs

No contractor or engineer will argue about Fact No. 1. All who have used Lehigh Early Strength Cement will agree with Fact No. 2.

Below are a few actual cases in which the use of Lehigh Early Strength Cement resulted in sizeable cost savings—as well as quicker completion.

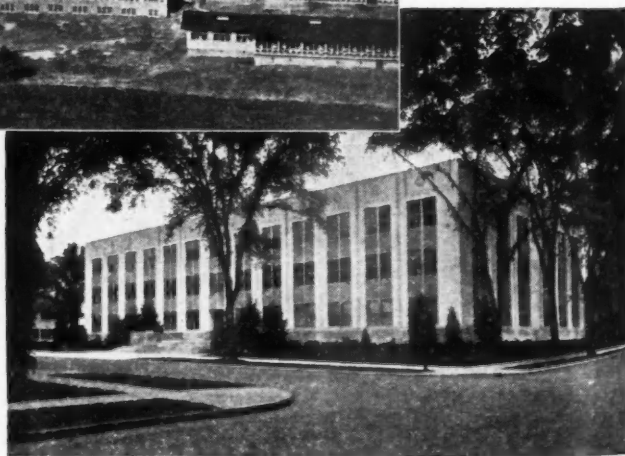
\$2,000 saved on this hospital!

Instead of waiting 21 days before removing forms, only 7 days were required. According to the contractor, Lehigh Early Strength Cement helped put the job back on schedule; saved about \$2,000 in overhead, salary, labor costs and forms.



Saved \$500 a day on this tunnel!

After a race against time, the contractor reported, "By using Lehigh, we were able to strip forms in 10 hours, giving us a pour every day. Completion was imperative to avoid paying a penalty of \$500 per day. By using early strength cement, we were able to keep down our cost of forms, avoid excess penalty and cut cost of overhead."



Saved \$1,100 plus in winter weather!

To speed construction during a Wisconsin winter, the contractor on this office building used Lehigh Early Strength Cement. He reports a 50% saving in cost of temporary heat and another \$1,100 saved in pans and adjustable joists because he could strip forms in three days.



LEHIGH EARLY STRENGTH CEMENT for service-strength concrete in a hurry

LEHIGH PORTLAND CEMENT COMPANY • ALLENTOWN, PA. • CHICAGO, ILL. • SPOKANE, WASH.

DOODLED IN 1886. "Puck" readers thought this plate-glass conversation-box would be a fine idea—got many a guffaw out of it, got nothing else. Theater parties *continued* to chat, chuckle, chaff in the ears of the audience. For, like many another building idea, this early, squirrely preview of sound-proofing never got built.



Are you doodling or planning for that building boom?

HOUSING EXPERTS REPORT that American builders are starry-eyed and boom-happy about our housing needs for tomorrow.

"America will require as many as 1,600,000 new homes a year for a full decade after the war," they croon. "Big boom coming!"

Could be. Maybe there will be a boom after the war.

But, as every clear-headed builder knows, need alone doesn't build houses. Mr. Ira S. Robinson, acting New York State Housing Commissioner, puts it this way:

"... there can be no constructive program to meet postwar housing needs without instituting immediately a definite plan..."

And after your plans are made they must be sold to the kind of people who can buy homes and the building materials that go into them—the kind of people other people copy.

These are the people builders think of when they think of the readers of TIME.

For 57.5% of all TIME-reading families own their own homes (the national home-owning figure is 47.2%). And 21.7% of them own other real estate too.

What's more, the readers of TIME are America's million most influential family heads.* Not only do they buy building materials for themselves, but many of them also have a powerful say in the sale of building products. For

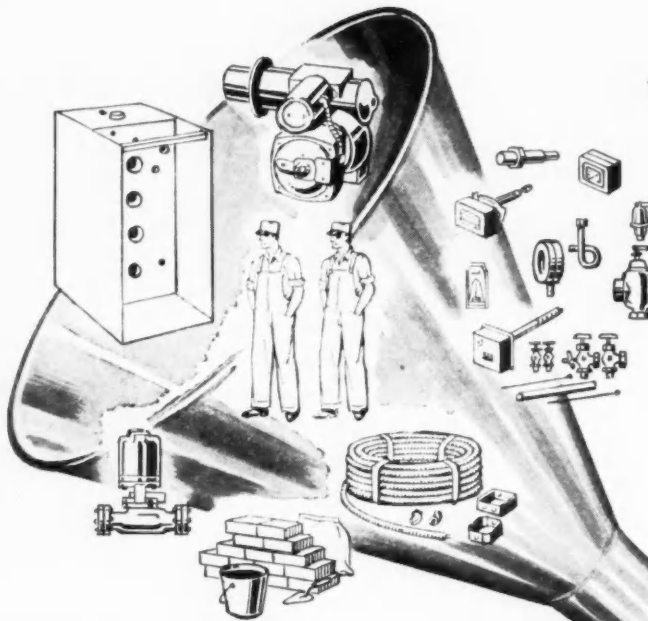
example, federal, state, and city planning commission members—leading realtors in 60 cities—architects—and members of the Mortgage Bank Association—

all vote TIME their first-choice magazine.

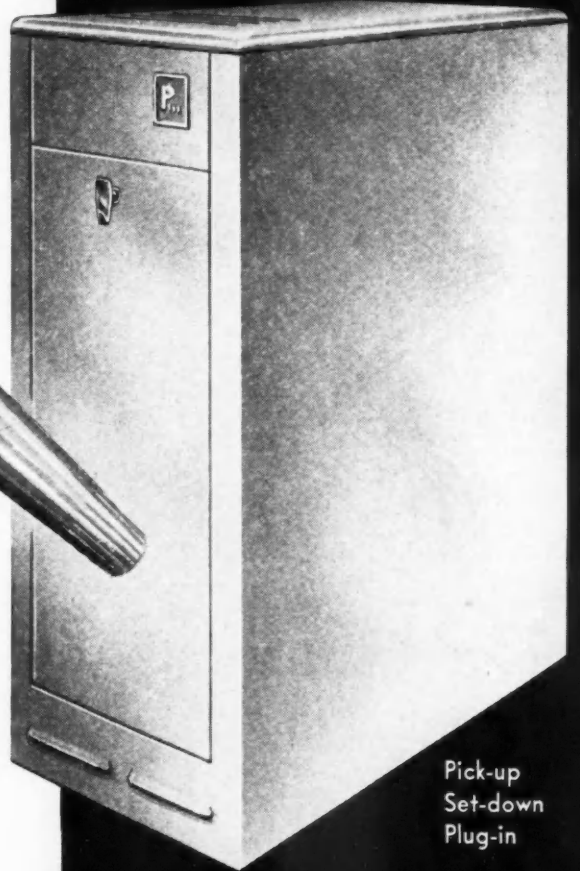
*Among them are executives and engineers, government officials, mayors, bankers, architects, and 22 other groups of leaders who recently voted TIME America's most important magazine.

TIME
GATEWAY TO
THE BUILDING MARKET

PACKAGED by PENN Cuts Cost —



★ PENN Completely Prefabricated Heating
UNITS Save 95% of Installation Work



Pick-up
Set-down
Plug-in

- LOW FIRST COST WILTS COMPETITION
- 100% SELF CONTAINED . . . QUICKLY SET UP
- FEWER AND EASIER SERVICE CALLS
- ATTRACTIVE APPEARANCE . . . SALES APPEAL
- FACTORY PREFABRICATED...A PACKAGED PRODUCT

★ Factory assembly line fabrication of boiler, burner, combustion chamber, controls and wiring reduces installation cost 95% and removes guesswork 100%.

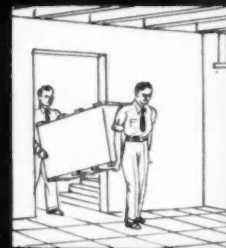
Wide awake builders know that post-war demands for new building and modernization will "turn on the heat" when it comes to competition. Penn packaged oil and gas heating units will be a long jump ahead of the field . . . will help you provide better heating . . . because Penn's self-selling features stand out clear, genuine and impressive.

Packaged by Penn means engineered and built from the ground up at the factory. Penn units require a minimum of time and labor on installation, have fewer, more easily satisfied service calls.

When war needs are satisfied Penn will again build the finest, low cost heat. Penn invites forward looking builders to get the complete story now and incorporate Penn Packaged Heat in post-war building plans. Write today.

PACKAGED
by
PENN

{ BOILER BURNER UNITS
AIR CONDITIONER UNITS
PENNUN WATER HEATERS
HYDRO-AIRE (SPLIT SYSTEMS)



Crated Penn Packaged Units Can Be Carried Easily Through Any Ordinary Doorway



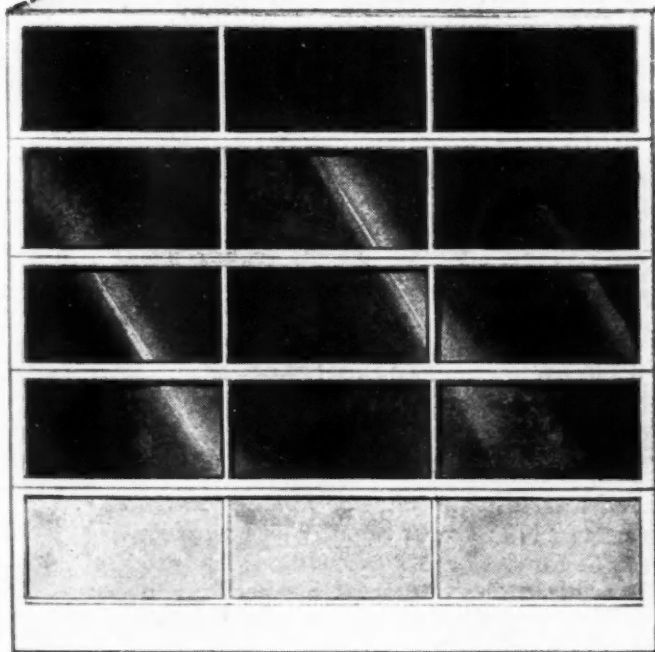
To Install... Just Make Your Connections, Plug In and Turn the Switch

PENN

**BOILER and BURNER
MANUFACTURING CORP.**
LANCASTER, PENNA.



Standard Crawford Door designed for modern service station application. Upper four sections glazed for maximum light and attractive appearance. Lower section solid panels for protection. Easy to install, easy to operate. Built for service.



HERE'S OUR SLANT

on
doors to step up
service station
traffic and profits

● When motoring comes back into its own the volume business will naturally gravitate to those places where the motorist finds the maximum of convenience and service. In this, as all experienced service station operators know, the public is largely guided by appearance. That means there will be many brand new service set-ups—and many more where existing buildings will undergo "face-lifting" operations.

Important in all of these will be doors—and the answer will be ready in Crawford Doors engineered and designed for the job. Substantial in construction, simple and trouble-free in operation, splendid in appearance—Crawford Doors will fill the bill. It's not too early now to get in touch with Crawford. Your inquiry will have our prompt attention.

Crawford Door Company, 401 St. Jean, Detroit 14, Mich.

Crawford

UPWARD - ACTING

DOORS

Residential Garage Doors
Commercial & Industrial Doors
Hand or Power Operated Doors
Craw-Fir Doors



You can put this down in your own plans for the postwar period:

**STEEL SASH WILL BE—
EASIER TO GET
EASIER TO USE**

The hundreds of types and sizes formerly used have been reduced to the few types and sizes shown on the opposite page. Dealers will be able to take care of your needs from stocks on hand.

The number of glass sizes required to glaze steel casements has been reduced from 39 to 8.

FILL ALL OPENINGS COMMONLY USED IN THE PAST

We believe that builders will welcome this simplification. It does not limit choice. This simplification merely cuts out a lot of slight variances in sizes and types that had year by year crept into the lines of all steel window manufacturers.

A RIGHT WINDOW FOR EVERY PURPOSE

Every room in the home has been considered in this planning. For *living rooms, dining rooms and bedrooms*, Fenestra Casement Type 2414 is the most popular size window. For *kitchens*, Type 2313-K is made the right height for over the sink, without any need for raising the header. For *dormers*, Type 2414-D is ideal. The whole line has been planned to make it easier for you to design, specify and install steel sash in your postwar homes.

Fenestra is busy right now on war work. Neither materials, workers nor facilities are available now to make these windows. When they are, Fenestra will get into production as soon as possible.

Meanwhile, we believe this information will serve as a guide to you in planning your own postwar work. And don't forget the importance of starting postwar plans now. Line up prospects and get their plans worked out to blueprint form. It's one thing you can do to make jobs for our fighting men—and help your own postwar business at the same time.

DETROIT STEEL PRODUCTS COMPANY
Now Chiefly Engaged in War Goods Manufacture
Dept. AB-5 · 2260 East Grand Blvd. · Detroit 11, Mich.
Pacific Coast Plant at Oakland, California

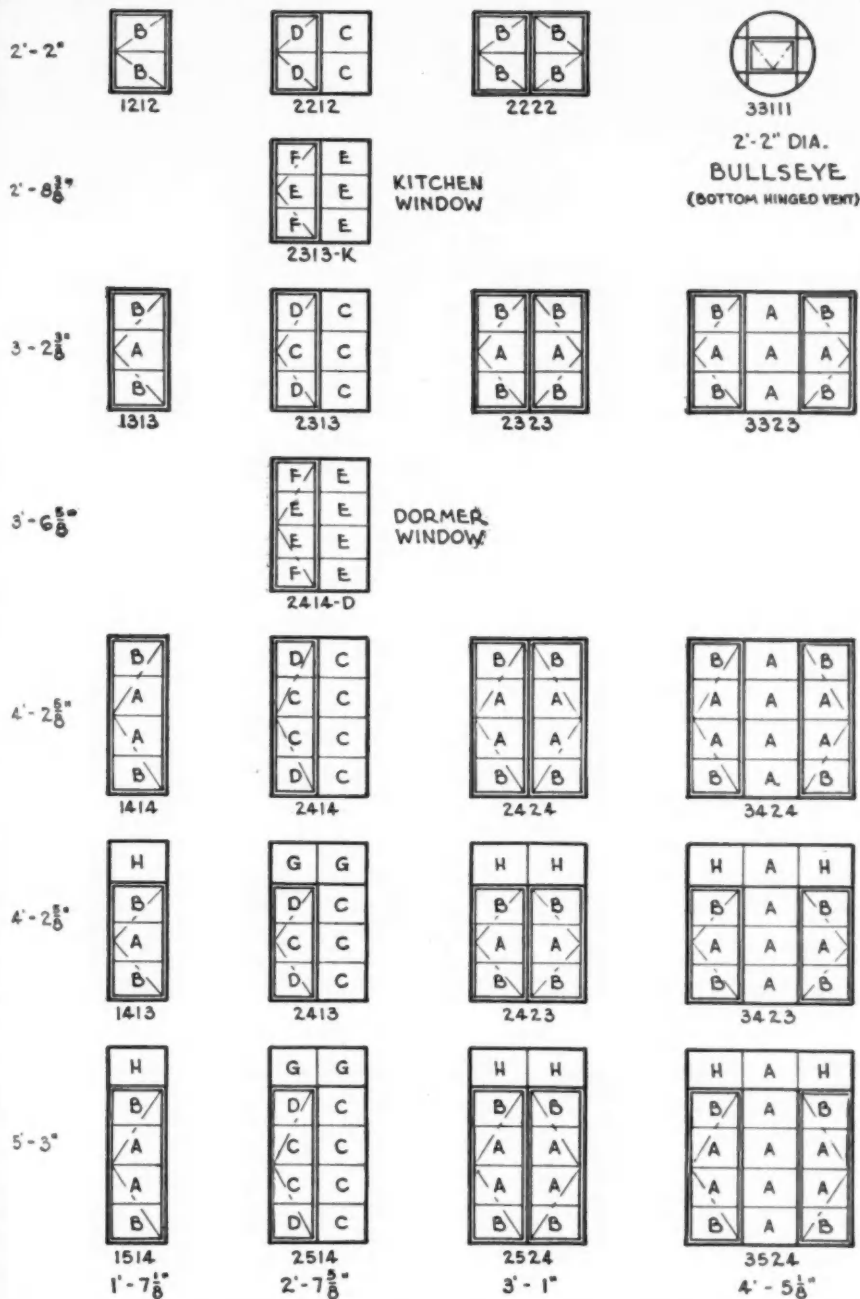
Fenestra **SUGGESTS**

START POSTWAR
HOUSE PLANS
NOW



A SIMPLIFIED POSTWAR LINE OF *Fenestra* STEEL RESIDENCE CASEMENTS

... as approved by members of the metal window industry



GLASS SIZES	
LETTER	SIZE
A	16" x 12"
B	16" x 11 ⁵ / ₁₆ "
C	14" x 12"
D	14" x 11 ⁵ / ₁₆ "
E	14" x 10"
F	14" x 9 ⁵ / ₁₆ "
G	14 ³ / ₄ " x 12"
H	17 ¹ / ₄ " x 12"

GLASS FOR BULLSEYE WINDOW CUT TO TEMPLATES. CONSULT D.S.P. Co. FOR SIZES.

ALL TYPES AND SIZES SHOWN ARE AS APPROVED BY THE METAL WINDOW INSTITUTE FOR POSTWAR WORK

DIMENSIONS SHOWN ARE ACTUAL WINDOW SIZES. FOR CLEARANCES TO MASONRY OR ROUGH OPENING SEE INSTALLATION DETAILS.

NON-OPENING WINDOWS (FIXED) ARE AVAILABLE IN ALL ABOVE SIZES. CONSULT D.S.P. Co. FOR GLASS SIZES.

WINDOWS WITH SINGLE SWING LEAF MAY HAVE HINGES ON EITHER RIGHT OR LEFT SIDE (VIEWED FROM OUTSIDE). IN ORDERING, ALWAYS INCLUDE THE SUFFIX "R" (HINGED AT RIGHT) OR "L" (HINGED AT LEFT), THUS 1413-R OR 1413-L.



Build Post-War Homes Faster and Better with Douglas Fir Plywood

• Yes—Douglas Fir Plywood will save you both time and money in post-war building. With the Dri-Bilt method of construction you'll build a better house for the same money—and in less time. You'll build homes that are warmer, more durable, more rigid, and more attractive—homes that will sell! Investigate the many advantages of building the Dri-Bilt way with Douglas Fir Plywood. Write for detailed literature on the various grades of this "modern miracle in wood"—grades manufactured especially for concrete forms, sub-flooring, wall and roof sheathing, interior walls and ceilings, built-ins and exterior finish.

• Because of its many outstanding qualities, Douglas Fir Plywood today serves the war effort exclusively. When it is no longer so urgently needed it will again serve you in countless ways.

• An attractive home[®] like this—Dri-Bilt with Douglas Fir Plywood—requires no "drying-out" period, is ready for occupancy sooner.



• Douglas Fir Plywood "Plywall" interiors are smooth, modern, beautiful. Wallpaper, paint, stain or natural wood finishes may be specified.

DOUGLAS FIR PLYWOOD ASSOCIATION
Tacoma 2, Washington



SPECIFY DOUGLAS FIR PLYWOOD BY THESE "GRADE TRADE-MARKS"

PLYPANEL D.F.P.A.
TRADE MARK REG. U. S. PAT. OFF.

EXT.-D.F.P.A.
TRADE MARK REG. U. S. PAT. OFF.



OLD FRIENDS *are the best friends!*



They're the *best sellers*, too!

EVER notice what a warm feeling you get when you meet an old acquaintance? There's a mutual bond of friendship between you ... even though it may have been years since you last met.

Well ... products are like friends. Those we know the best are the ones in which we have the greatest confidence. That's why the products your customers bought *before* the war will be the ones they turn to first *after* Victory is won.

They'll be looking for such familiar old stand-bys as Numetal Weatherstrip ... Nu-Way Weatherstrip ... Nu-Art Numbers and Letters ... Nu-Art Binding and Edging. Those famous brand names are like old friends. Your customers know them. And they'll be wanting to buy them when this war ends.

So remember ... old friends are the best friends ... and the *best-sellers*, too!

These items still available ...



Nu-CALK
CALKING & GLAZING
COMPOUND—will not
dry out, run, crack,
harden or pull away.

Nu-Glaze
GLAZING COMPOUND
Does not dry out, crack
or peel. Not oily. Clean
to handle. Applied like
putty—but not putty.



**VICTORY WOOD & FELT
WEATHERSTRIP**
An efficient, easy-to-install weatherstrip.
Made of high-grade felt and wood.

MADUCO PLASTICS
Maduco Plastic Molding and Trim won
the National Plastic Award for 1941.



MACKLANBURG • DUNCAN CO.

Manufacturers of NUMETAL WEATHERSTRIP • NU-CALK CALKING COMPOUND • NU-ART MOLDINGS AND EDGING
NU-GLAZE GLAZING COMPOUND • NU-WAY WEATHERSTRIP • NU-ART LETTERS AND NUMBERS

OKLAHOMA CITY 1, OKLAHOMA

HUTTIG OF MUSCATINE

RED-E-FIT

RED-E-FIT RESISTAL TREATED

Ponderosa Pine
DOORS

SHIPPED READY TO BE INSTALLED IN ANY FRAME OR JAMB THAT IS SET PLUMB AND SQUARE

HM-836 - 6 Panel Door

These doors are Red-E-Fit, to book size in width and height, with projecting buffer-lugs at bottom to give protection in handling. Top and sides are finished square and smooth with edges of stiles slightly beveled. Height of door may be shortened, if necessary, to compensate for threshold, heavy carpeting, rug, etc., when buffer-lugs are removed.

... INTERIOR AND EXTERIOR PATTERNS

	HM-822 2 panel	
	HM-561 2 vert.—6 lt.	
		HM-606 4 panel—3 lt.

Huttig Red-E-Fit "treated" doors are made for every type of service. Try them! See your dealer or write for information about the complete line.

Developed by the originators of the famous Red-E-Fit Rot-Proof windows—these modern Red-E-Fit doors add another great chapter in the Huttig record of FIRSTS—an important contribution toward speed, economy and efficiency in post-war building.

To prevent excessive shrinking, swelling and warping, and assure long life—order Red-E-Fit doors "treated" with Huttig special "Chemical Treat"—a toxic solution containing both a wood preservative and a water repellent. It serves as a prime coat, giving the door protection until the painter comes. It saves money on the job. The "brand" shown above identifies the genuine.

Don't take chances!
Insist on



. . . . The greatest name in woodwork

HUTTIG MANUFACTURING CO. • Muscatine, Iowa

★ BETTER WIRING FOR BETTER LIVING ★



What's wrong with this picture?

LISTEN to the sad story of Mr. and Mrs. BJones and the dream home that turned into a nightmare.

When Bill BJones built his new home it certainly looked modern—tiled bathrooms—brass pipes—venetian blinds—everything up-to-date in every way.

Well—everything but the electric wiring. This was hidden inside the walls and didn't matter much anyway, said Mr. BJones to the Little Woman.)

So the BJones built their home. And then things began to happen . . .

Whenever Mary BJones turned on more than two electrical kitchen gadgets, a fuse would let go. (BJonesy got a fine crop of callouses running up and down the cellar stairs all the time!)

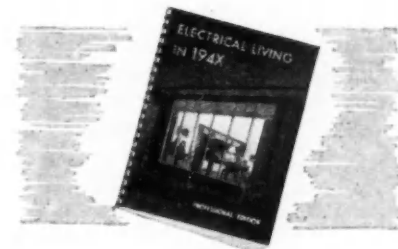
Every time the electric refrigerator started up, Bill grabbed his O.C.D. helmet and dashed outdoors—looking for the blackout. The future certainly looked mighty dim to Mr. and Mrs. B . . .

And that's where we came in—just as the local wireman started to put in a lot of new circuits that Mr. BJones found out, alas, had been needed all along . . .

All this mess and confusion—and needless expense—could have been avoided if the proper

number of electrical circuits had been installed when the home was built!

To help you plan ahead for the greatly increased electrical loads in postwar homes—to help you explain the urgent need for better wiring to present and prospective home owners



—we have prepared a new book, "Electrical Living in 194X."

This big, colorful, 64 page book tells your prospects all about electrical loads in 194X homes—lighting and lighting controls—cir-

cuit protecting devices—entrance equipment and distribution panels.

"Electrical Living in 194X" is free! But the supply is limited. Get your copy now, by writing to the Better Homes Department (AB-54), Westinghouse Electric & Manufacturing Company, Pittsburgh 30, Pa.

And don't forget the Better Homes Department Six-Point Advisory Service!

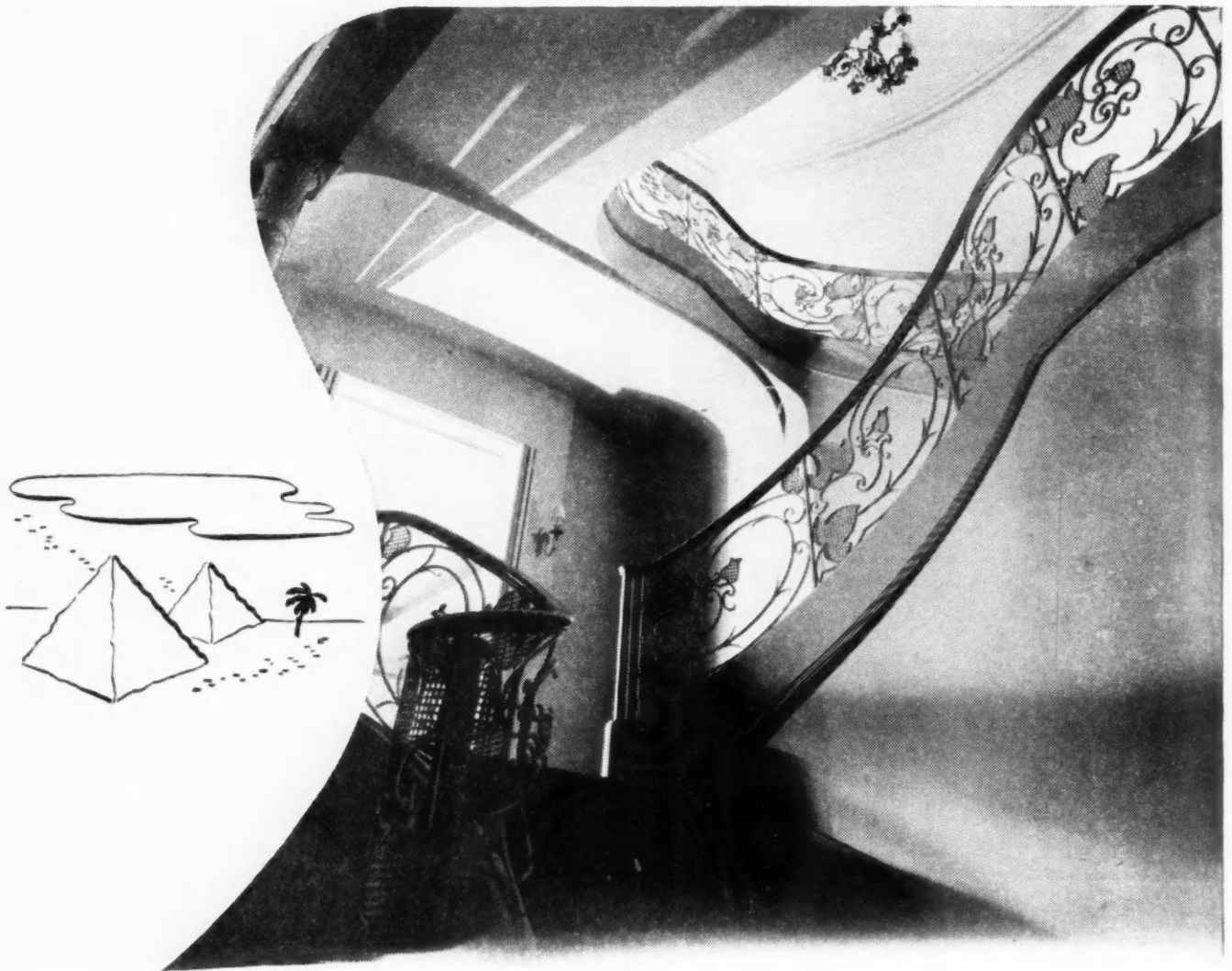
Our housing experts will be glad to give you technical advice on the selection, application, and arrangement of fixed electrical equipment in 194X homes—dimensions and clearances, for proper installation and easy access for servicing—placing of lighting outlets and controls—location and size of electric wiring, water supply and drainage lines.

Send in your problems to the Westinghouse Better Homes Department. You'll get complete, authoritative information—promptly.

Westinghouse

Plants in 25 Cities Offices Everywhere

WESTINGHOUSE PRESENTS John Charles Thomas, Sunday, 2:30 p.m., E.W.T., NBC. "Top of the Evening", Monday, Wednesday, Friday, 10:15 p.m., E.W.T., Blue Network



DURABLE ○ ○ DEMONSTRATED

BY MORE THAN 6,000 YEARS OF SERVICE

For many years, plaster has been doing its job—and doing it better—expressing enduring beauty in sweeping, unbroken surfaces—flowing curves and contours—ornamental relief in molds and casts—quiet dignity resulting from sound-absorbing acoustical plaster.

...And over all gypsum plaster acts as a fire-armor, protecting lives and property—shielding the structural members over which it is applied with a fireproof coat of gypsum, a mineral that will not burn.

Just add up the complete advantages of gyp-

sum plaster—its fire protection, flexibility, enduring beauty, sound absorption, ease of application and decoration. You have a material as old as the Pyramids—modern as tomorrow's sunrise—that fits economically into established building practice.

...And at the very top of the list—Red Top* Plasters have won their way to leadership through research

and development. No wonder gypsum plaster is the most widely used wall and ceiling material in the world—"Plaster Does It Better."

*Trademark Reg. U. S. Pat. Off.

PLASTER

DOES IT BETTER



UNITED STATES GYPSUM
300 WEST ADAMS STREET, CHICAGO, ILLINOIS

This famous trademark identifies products of the United States Gypsum Company—where for 40 years research has developed better, safer building materials

AMERICAN WOMEN DESERVE A SPECIAL FREEDOM -

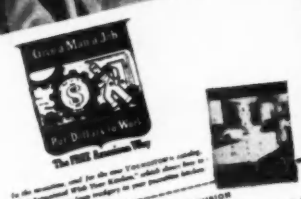
Freedom from Trudgery



This advertisement will appear in:
THE LADIES' HOME JOURNAL
GOOD HOUSEKEEPING
BETTER HOMES & GARDENS
THE AMERICAN HOME
HOUSE BEAUTIFUL
THE PARENTS' MAGAZINE

Trudgery isn't a pretty word, but, it is descriptive of a large part of the housewife's kitchen day. If she is working to an inconvenient, poorly arranged kitchen where the man walks endlessly carrying things from the place in which they are kept to the place where they are to be used. Trudgery implies the fatigue and frustration that begins early in her kitchen day and increases with every soap suds, at the end, she is too tired to do the things she really enjoys doing. Freedom from this trudgery would give her the extra hours and

energy she needs for home and happier living. This freedom from trudgery, which housewives so richly deserve, can be had in a Youngstown pressed steel kitchen—for these kitchens are planned to give plenty of storage space within man's reach of the work surface. Youngstown pressed steel kitchens will be available very soon after the war is over—and they will be worth waiting for. Buy War Bonds, today—Youngstown Kitchens, tomorrow.



For the information used for the new Youngstown's reading "Get Acquainted With Your Kitchen," which shows how to plan the freedom from trudgery in your own kitchen.

YOUNGSTOWN PRESSED STEEL DIVISION
Mullins Mfg. Corp., Dept. AB-544, Warren, Ohio

When you see a YPS kitchen, please send me a coupon for a free booklet. I plan to build.

NAME _____ STATE _____
STREET _____
CITY _____

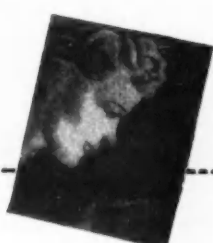
YOUNGSTOWN PRESSED STEEL DIVISION, WALKING MANUFACTURING CORPORATION
Warren, Ohio
Youngstown Kitchens
YPS

**Give American Women a special freedom
FREEDOM FROM TRUDGERY**

THOUSANDS and thousands of American women, in wartime jobs, have learned factory and office efficiency. In the post-war years, they will appreciate and demand this same efficiency in their kitchen routine.

The "Freedom from Trudgery" idea will be featured in Youngstown Kitchen National Advertising. YPS dealers can have the advantage of coupon returns in their own territory.

Youngstown Kitchens
YPS



Please send me YPS booklet, "Get Acquainted with Your Kitchen Business."

YOUNGSTOWN PRESSED STEEL DIVISION
Mullins Mfg. Corp., Dept. AB-544, Warren, Ohio

Name _____
Street _____
City _____ State _____

PICTURE THE FUTURE OF Electric Ranges!



1 OLD ALBUMS (1900-1905) picture the beginning of the Electrical Age, when homeowners began insisting on wiring for "those clean, new electric lights."



2 THE "FLAPPER ERA" saw almost everyone demand Electric Refrigeration. Additional outlets for refrigerators and other appliances became a "must"



3 THE POST-WAR ERA will see the increasing demand for Electric Ranges mount to insistence. The Post-War homes will have to be wired for Electric Ranges.

BEFORE THE WAR—the swing to the speed, safety and cleanliness of electric cooking was already established! 450,000 electric ranges were sold in 1940 . . . 780,000 in 1941 . . . with over 3 million now in use!

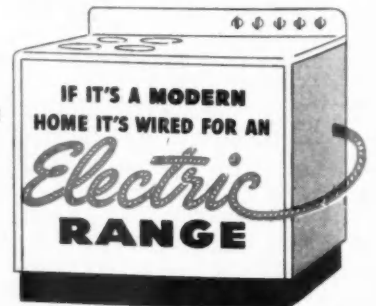
AFTER THE WAR—the increased demand is going to be huge! So plan now to wire the homes you're going to build, for Electric Ranges. Built-in, the cost of such wiring is negligible—the selling power tremendous!

For details on wiring costs and advantages, write for the booklet "WIRING AHEAD". Address:

ELECTRIC RANGE SECTION,
NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
155 East 44th Street, New York 17, New York

Wire your houses

FOR EASIER SALES



A-B STOVES • ESTATE • GENERAL ELECTRIC • GIBSON • HOTPOINT • KELVINATOR • MONARCH • NORGE • QUALITY • UNIVERSAL • WESTINGHOUSE

News, Views
and Comments

On and Off the Record

by **STRUCTOR**

LUMBER AND INGENUITY—

The lumber shortage has brought forth many ingenious ideas. Some dealers have organized their former sales forces into "procurement" crews scouring the countryside. Many farmers have been persuaded to cut back lot stands. Old buildings are being torn down, and half-forgotten supplies uncovered.

WILL GET ALONG—

Builders will get along somehow. Gypsum wall partitions two inches thick without studs are proving successful. Wall boards, insulation boards, and gypsum boards are being widely used. Masonry and concrete is being called on for both walls and floors. Truss roofs that save lumber are employed.

QUICK CORRECTION—

I believe the shortage of lumber is perhaps being overplayed now, but will be quickly corrected after the fall of Germany. For one thing production capacity is slowly being built up to a high level and a sudden end in war demand would affect the picture greatly. Still it's well to plan to build with as little lumber as possible for sometime ahead.

FOUR-INCH LOT—

A building lot only four inches wide was sold recently in New York City for \$1500. This is probably the biggest price for a small piece of land that has ever been paid. The lot was apparently lost about 1844 due to an error in deeds transferring the property and it has been a sort of no man's land ever since.

LARGER LOTS NOW—

The post-war trend is toward larger home sites. There is much talk of the "ranch house style" house which spreads out and rambles over much ground. There is talk of FHA making the minimum lot size 50 feet. Chicago's City Housing Council recently agreed to adopt a 33 foot minimum, which is progress compared to the past. Out in the suburbs, in our opinion, the 60 to 100 foot lots will become much more common.

KAISER ON HOUSING—

In his recent speech in Chicago, Henry Kaiser painted a glowing picture of the future of housing. He described the prefab bathroom of the future as being "completely pre-built and equipped—delivered to the job ready to be fitted into its

pre-planned space and fully connected within an hour. Such a room," he added, "cast almost in one piece out of plastic is no idle dream."

Far be it from me to argue with Henry Kaiser, but I wonder whether he really knows what he is talking about when he describes that little gem.

TWENTIETH CENTURY REPORT

The research report on American housing just released by the Twentieth Century Fund paints a picture of great housing need in this country, saying that "The housing stock as a whole is in an extremely deteriorated condition." The researchers, headed by Miles L. Colean, are sharply critical of many building matters, stating, "The picture is one of barriers built up from every side—from our land system, from taxation, from builder organizations, labor, real estate, mortgage lenders and even from government itself."

OVER-SOLD ON MASS—I believe the study is a worthy job, but its criticism of small building operators and small building jobs is based on a too optimistic picture of what mass production methods can do.

"Tradition has in the past kept house building a feeble enterprise with a limited market," the report says. "The housing industry thus lies between two worlds. Only by creating an industrial environment conducive alike to volume expansion and cost reduction can an approach to meeting the housing need be accomplished in the postwar period."

"NATURE OF THE BEAST"—

There are many opportunities for improvement in the building industry, of course, but in my opinion many of the difficulties spring from the nature of the product and its location. For example, is the deplorable condition of farm housing and of farm buildings generally due to some sinister combination of barriers by industry, labor or building codes? Of course not. Farm homes are widely scattered over many thousands of counties, most of them hard to reach in relation to the sources of supply for the bulky and complicated materials of building.

Similarly, most of the houses built in this country are on individual lots individually selected in scattered locations. Many of the faults and difficulties of the industry spring from this fact.

The MODERN Water Heater is Electric

Post-War Homes will sell Faster if equipped with a modern automatic electric water heater. For an electric water heater is:

CLEAN—Smokeless, sootless.

SAFE—Flameless, fumeless.

EFFICIENT—Because flues or vents are not needed, it can be placed near principal outlets, reducing length of water pipes, decreasing heat loss and supplying hot water at the turn of the faucet.

For instant hot water at extremely low cost, install electric water heaters in every home you build.

ELECTRIC WATER HEATER SECTION
NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION

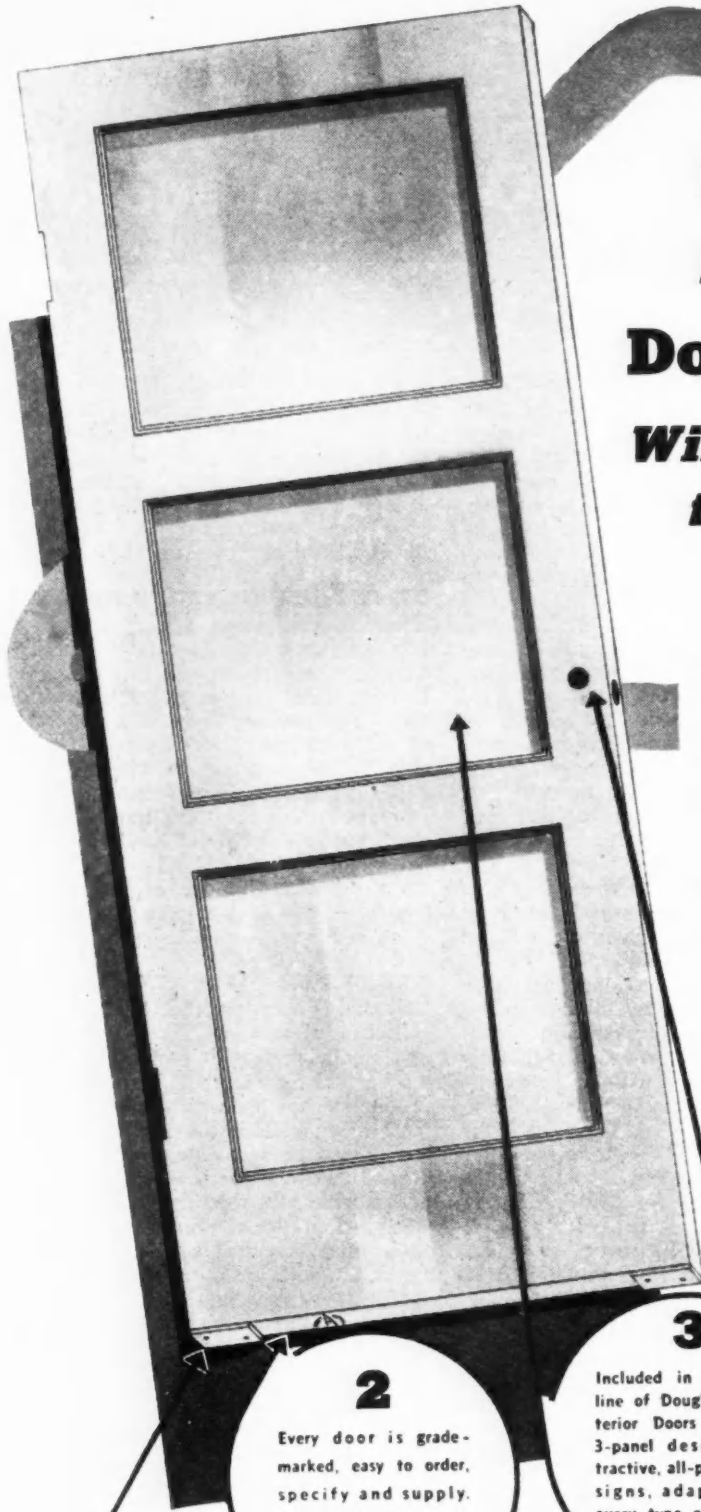
CLARK • GENERAL ELECTRIC • HOTPOINT • HOTSTREAM
KELVINATOR • MONARCH • NORGE • PEMCO • REX •
ELECTRIC • THERMOGRAY • THERMO-WATT •
UNIVERSAL • WESTINGHOUSE

A House Wired For An
ELECTRIC RANGE Is Already

wired
for an
Electric

WATER HEATER!

WESTINGHOUSE



These New, Improved Douglas Fir Doors* Will save hours of time on the job!

Famous Douglas Fir Interior Doors are now available with new FACTRI-FIT features—features that make hanging easier, quicker, more economical. Savings on the job more than off-set the slight additional cost of FACTRI-FIT features. Check these five advantages!

1
FACTRI-FIT doors are scuff-stripped for protection in handling and shipping. Added assurance that the doors will reach the job **READY TO HANG.**

2
Every door is grade-marked, easy to order, specify and supply. Guess-work and confusion are eliminated.

3
Included in the stock line of Douglas Fir Interior Doors are basic 3-panel designs—attractive, all-purpose designs, adaptable to every type of building.

4
New FACTRI-FIT doors may be ordered completely machined if you wish—gained, and bored for locks or mortised by high-speed precision tools.

5
The new FACTRI-FIT line offers Douglas Fir Interior Doors pre-fit at the mill—trimmed, ready to hang. Trimming and fitting are eliminated.

FACTRI-FIT

Precision-Built
Douglas Fir Doors

* Now available only for war needs and other essential building.

FIR DOOR INSTITUTE
Tacoma Building • Tacoma 2, Wash.

Remember!
NATURE MAKES
DOUGLAS FIR
Durable!
Durable Douglas Fir Doors are made from all-heartwood, vertical-grain, soft, old-growth Douglas Fir.

Write for catalog showing complete line of TRU-FIT Entrance doors and other new specialty items.

For Ready Acceptance

. . . BUILD VIKING YEAR-ROUND COMFORT INTO YOUR POSTWAR HOMES

The discriminating home buyer of the postwar era will insist on indoor climate control. Proper temperature, both winter and summer; and clean, desirably humidified air throughout the house, will be the *comfort* demanded Postwar.

Viking offers all of the needed equipment for year round comfort in the homes you build or modernize. Whether your plans favor warm air, vapor or hot water — whether the fuel is oil, gas or coal — Viking offers efficiently engineered heating, cooling and year round air conditioning equipment to fully satisfy the most exacting plans.

Viking Durable, Practical Equipment

Viking products give lastingly satisfactory, trouble free performance. Working parts remain quiet throughout a long life. Maximum heating efficiency is obtained by perfect balance between heating unit and combustion chamber. Units are delivered completely assembled except where they would be too large for easy access to the desired location. You don't have to experiment in the homes you build if you specify Viking.

Efficient methods lower costs

The Viking Wholesale Distributor through Contractor-Dealer distribution plan provides the easily accessible inventories and service you need to get installations made on *your* exact schedules. This teamwork avoids delays and effects worthwhile economies that lower installed costs.

Volume production, plus this economical distribution system, brings Viking products to the building site at strictly competitive prices.

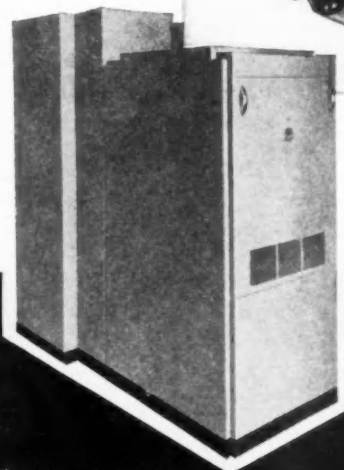
New full line catalog now available

The modern Viking line opens up many new possibilities for planning your postwar building. Write for the new catalog. It will be sent free upon request. (Spec sheets are available for your guidance, of course.)

(Watch future Viking advertising for other modern equipment soon to be announced.)



Viking Year Round Heating, Cooling and Air Conditioning equipment is available in a wide range of capacities to provide automatic indoor climate control in homes both small and large. Viking standard automatic controls free householders of every care.



FOR ALL FUELS: Furnaces
Winter and Year-Round Air Conditioners — Boilers — Floor Furnaces
Space Heaters — Water Heaters — Room Coolers — Condensing Units



THE VIKING

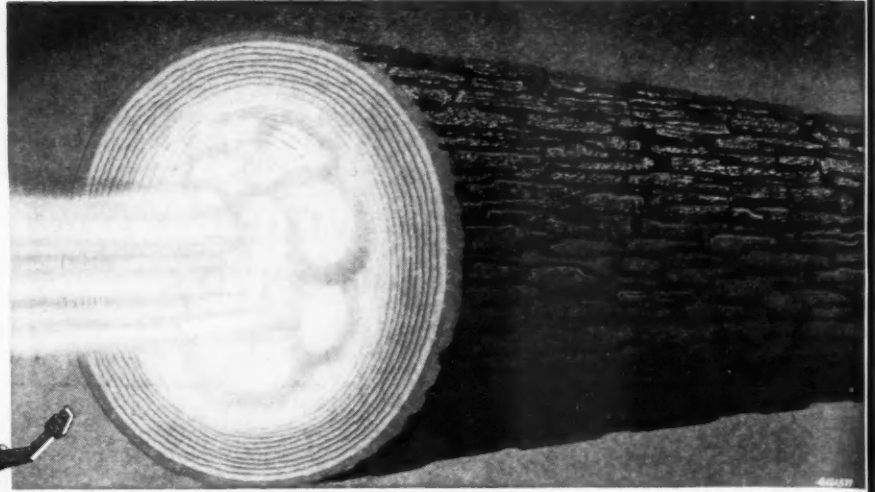
MANUFACTURING CORPORATION
1604 U. B. BLDG. DAYTON 2, OHIO

FIT

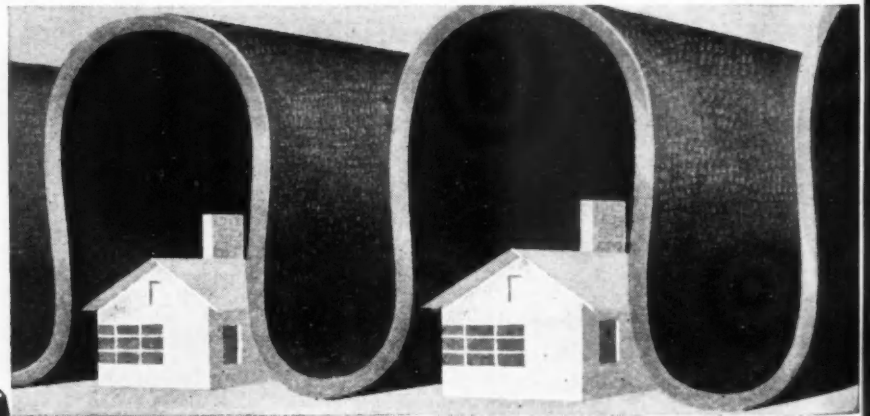
Built Doors

MAKES Me!

Fill a log with air
to make a
BLANKET!



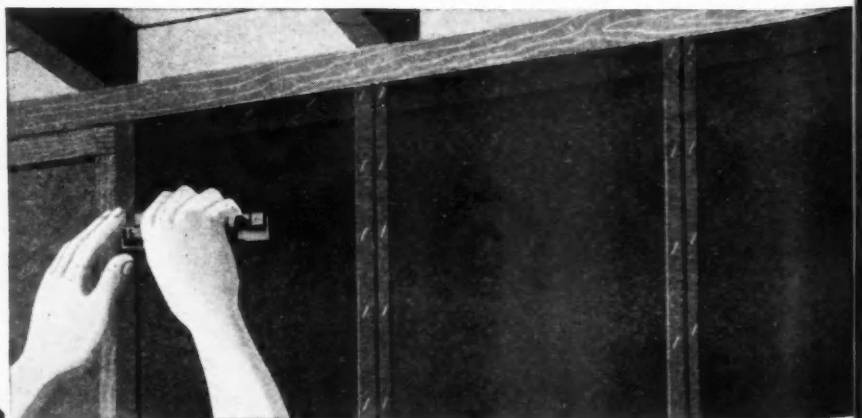
It's a semi-rigid blanket for buildings that keeps heat *in* in winter and *out* in summer. An ingenious Masonite* process uses special foaming agents to build wood's fibers into a cellular structure of millions of tiny air cells—the most efficient type of heat insulation known!



• You can count on Masonite Cell-U-Blanket and the Masonite Presdwoods* for war-essential construction. Government Departments and Services are familiar with their possibilities. For full details and practical information regarding Cell-U-Blanket, write Masonite Corp., Dept. AB-5, 111 W. Washington St., Chicago 2, Ill.

Fuel costs drop and comfort increases wherever this light-weight insulating material is installed. As Masonite Cell-U-Blanket,* it comes in rolls—enclosed in moisture-proof covering—and stays permanently in place in walls and attic framing, flame-proofed, safe from wind or weather.

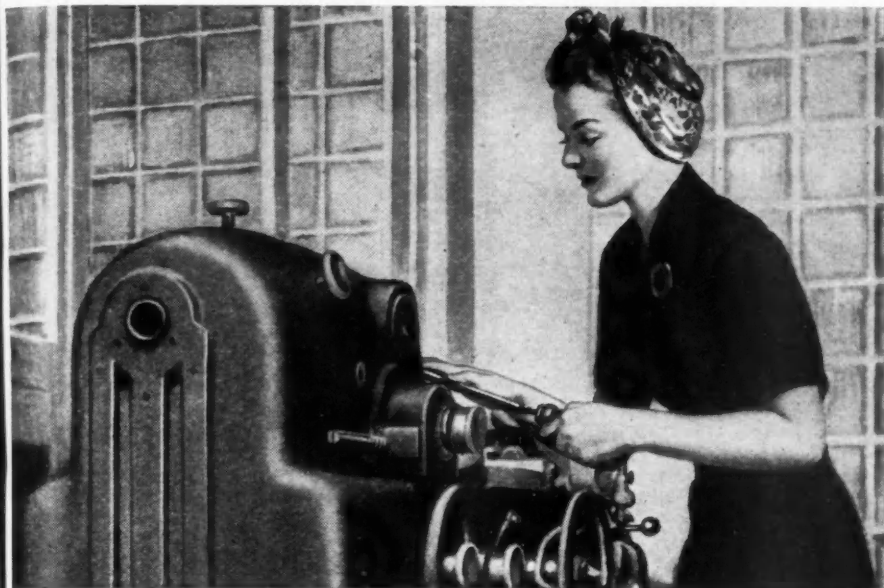
MASONITE
CELL-U-BLANKET



Cell-U-Blanket comes in four widths to fit common spacing between studs, joists or rafters. Lengths are cut with shears, stapled or tacked in place, can be lapped to make a complete heat and vapor barrier that will not shrink or settle. Cell-U-Blanket is available *today* for civilian building and remodeling, in addition to its many jobs in the war effort.



*TRADE-MARK REG. U. S. PAT. OFF.
COPYRIGHT 1944, MASONITE CORPORATION



Working for today

This girl and her sisters—millions of them—are now veterans of the war plants and factories, their efficiency equal to that of the men they replaced, and their output an increasingly important factor in the drive for victory. Enthusiastically and steadfastly they work at their appointed tasks, winning the plaudits and the gratitude of a nation still at war.

Planning for tomorrow

Here at Norge we, too, are working for victory, with our facilities devoted to the production of more than forty items for war. And Norge refrigerators and other appliances in millions of American homes are contributing their bit by conserving and preserving foods, lightening household labors and otherwise adding to the efficiency of war-busy people. But as we work for war today we look ahead and think and plan for peace tomorrow. The Norge postwar products—Rollator refrigerators, gas and electric ranges, washers and home heaters—will be better designed, better engineered and better built because of new lessons learned and new skills developed. They will be, even more so than formerly, *products of experience—better products for the better world to come.* Norge Division, Borg-Warner Corporation, Detroit 26, Michigan.

A BORG-WARNER INDUSTRY

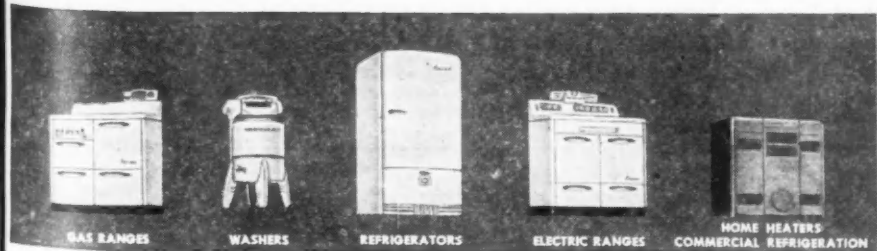
NORGE is the trade-mark of Norge Division, Borg-Warner Corporation, Detroit, Michigan

NORGE

HOUSEHOLD APPLIANCES



BETTER PRODUCTS FOR A BETTER WORLD



When it's over — see Norge before you buy...meanwhile BUY MORE WAR BONDS

"...for outstanding production of war material."

NATIONAL APPLIANCE CONSERVATION PROGRAM

"BETTER CARE—LESS REPAIR"



*After Wartime
Fuel Shortages...*

Just Try to Sell a "Porous" House!

No one has to *sell* insulation anymore.

People have learned the value of insulation the hard way.

Caught in the trap of wartime fuel shortages, they paid for insulation without using it.

All too many have found their porous walls absorbing the cold and damp like a sponge.

So they're wiser today... they've suffered from uninsulated rooms—rooms that lose at least two feet of livable space. They're ready to accept the idea that insulation all around—the Flintkote way—insures far more sealed protection than piling all the insulation on the ceiling alone.

In the Flintkote Insulated Wall, your customers get effective thermal insulation, great structural strength and complete rigidity!

And all in one simple, labor-saving method of construction... at one low cost!

When you build homes to *sell* after the war, figure on Flintkote's Insulation Board Products: Asphalt Sealed Sheathing, Insulation Lath and Decorative Tile and Plank, made in the most modern and up-to-the-minute scientific plant in the entire industry.

Use Flintkote Insulation Board Products



Outside walls, sheathed with Flintkote Asphalt Sealed Sheathing will give you 2 to 3 times the insulation value of ordinary wood sheathing. Providing structural strength, this asphalt coated product builds as it insulates.



Inside walls and ceilings are resilient to shock and movement when Flintkote Insulation Lath is used as a plaster base. An ideal insulator, it provides a much stronger plaster bond than ordinary wood lath.

Living rooms, dining rooms and bedrooms are made beautiful with Flintkote Decorative Insulation Tile and Plank adding color to walls and ceilings. In green, buff, white and the famous Decoblend (blending coral tones). Flintkote's "blind nailing joint" conceals all nail heads.



AND HERE...
AND HERE

Interior walls and ceilings of attic and basement "extra" rooms insulated with Flintkote Building Board and Decorative Tile and Plank have a practical light-reflecting finish.



THE FLINTKOTE COMPANY

30 Rockefeller Plaza, New York 20, N. Y.

Atlanta • Boston • Chicago Heights • Detroit
East Rutherford • Los Angeles • New Orleans • Waco

Figure on FLINTKOTE for 'Forty-Four!



No matter what type
 Tomorrow's Homes
 Should Have The Approved
 Insulite Wall of Protection!



Cape Cod, Modern Colonial, or Modern—no matter what type of home you build in the future, the walls of that home will face added responsibilities.

The homes you build tomorrow, because of modern standards of heat control, must have walls with effective insulation.

The homes you build tomorrow, because of developments in air-conditioning, must have walls so constructed that moisture condensation within the walls is reduced to a minimum. If walls do not do these two jobs—watch out for trouble!

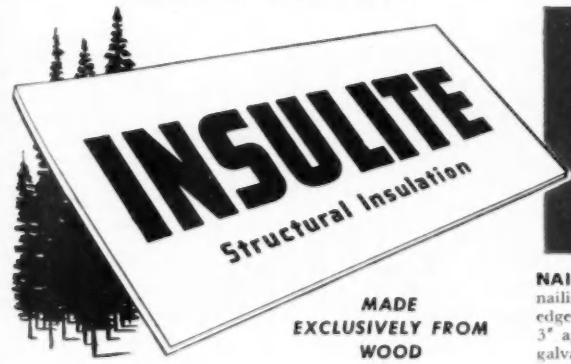
If you build with the Approved Insulite Wall of Protection, you meet these new demands.

This wall gives these effective safeguards:
Double Insulation . . . Superior Bracing Strength . . . Protection against internal moisture condensation.

The detailed drawings below explain why. For further detailed information, write for "Scientific Facts" booklet. Address: Insulite, Minneapolis 2, Minnesota.

INSULITE

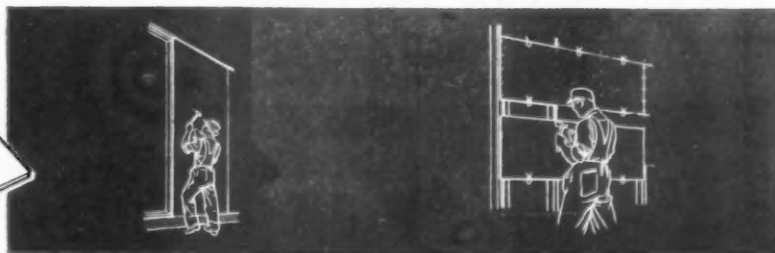
Division of Minnesota and Ontario Paper Company
 MINNEAPOLIS 2, MINNESOTA



● On outer-walls, Bildrite Sheathing. The large boards provide a wind-proofed, weather-tight wall. Bildrite Sheathing has a bracing strength four times that of wood sheathing, horizontally applied.

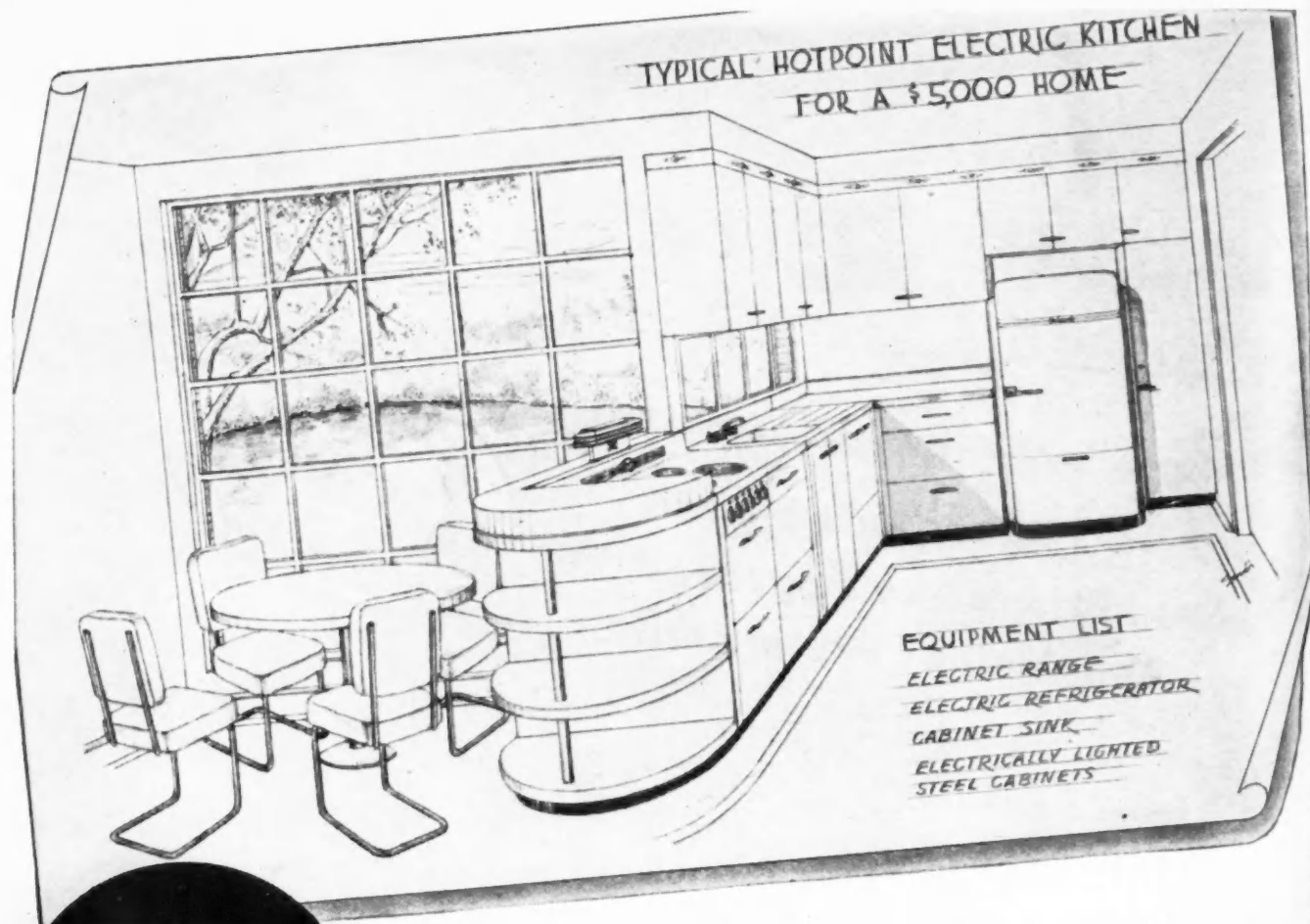
● On inner-walls—Sealed Lok-Joint Lath, furnishes a second wall of insulation. The patented "Lok-Joint" provides a strong, rigid plastering surface, prevents joints from opening under trowel pressure.

● How moisture condensation is effectively minimized in the Approved Insulite Wall of Protection. Sealed Lok-Joint Lath, with asphalt barrier against the studs effectively retards vapor travel. Bildrite Sheathing, being permeable to vapor, permits what little vapor escapes to pass naturally towards the outside.



NAILING BILDRITE SHEATHING—Begin nailing along one of middle studs—not along edges. Space nails 6" apart over "hidden" studs; 3" apart along all edges of Bildrite. Use 1 3/4" galvanized roofing nails or 8d common for nailing Bildrite Sheathing.

FITTING AND CUTTING—Lok-Joint Lath is easy to cut and fit. Work along the usual way, using a lather's hatchet or saw for cutting. Careful fitting to minimize openings or cracks thru the barrier is especially important when Sealed Lok-Joint Lath is used.



77%

of Postwar Homes will be priced to include **ELECTRIC KITCHENS**

"More than seven out of ten postwar homes will cost \$3,000 or over."

That is the prediction of the United States Chamber of Commerce.

Buyers of those homes will be able to afford Hotpoint Electric Kitchens. And results from Hotpoint's advertising during the past two years show that they want them.

NEW POSTWAR HOMES, to be truly modern, must have new kitchen equipment. Appliances in the average kitchen today—like the average automobile—are well beyond the replacement age.

Postwar home buyers don't want the old-style stripped kitchen, but one that is "planned"—complete with all equipment new and modern. To American

women today, "a home is only as modern as its kitchen."

Take advantage of this trend. Homes with Hotpoint Electric Kitchens are *complete* homes...they create satisfied clients...they move faster, because they are truly modern. And financing costs for speculative building are reduced by faster turn-over.

Hotpoint offers you two advantages.

First, modern, finest quality electric kitchen equipment. Second, "Hotpoint Kitchen Planning Service," by an expert staff of kitchen designers—especially for builders and architects. Write for details today.

Edison General Electric Appliance Co., Inc., 5641 West Taylor Street, Chicago 44, Illinois.

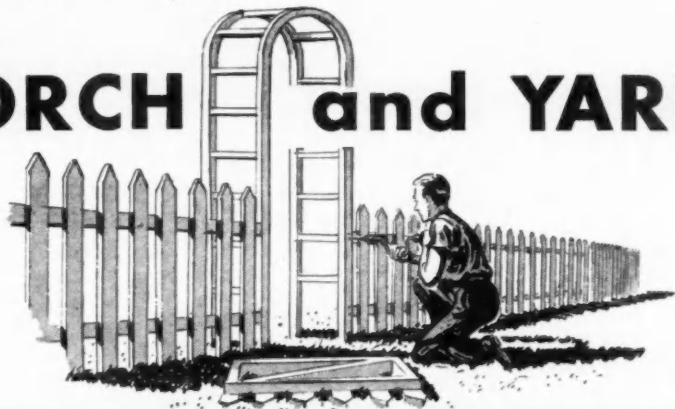
In most states, all Hotpoint Kitchen equipment can be included in F. H. A. loan.

ELECTRIC **Hotpoint** KITCHENS

REFRIGERATORS • RANGES • WATER HEATERS • WASHERS AND IRONERS • CLOTHES DRYERS • AUTOMATIC DISHWASHERS • ELECTRASINK • STEEL CABINETS

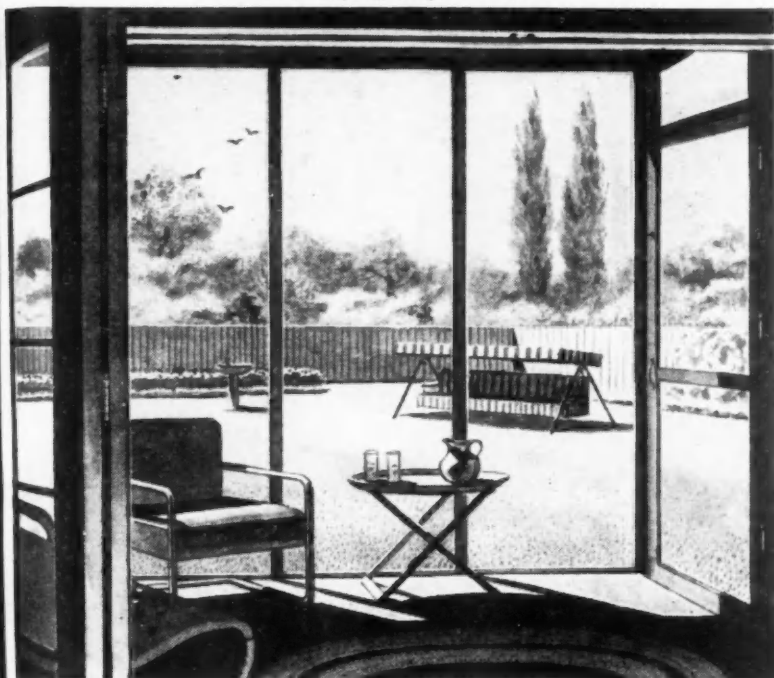
PORCH and YARD PLANNING

Calls for STANLEY HARDWARE

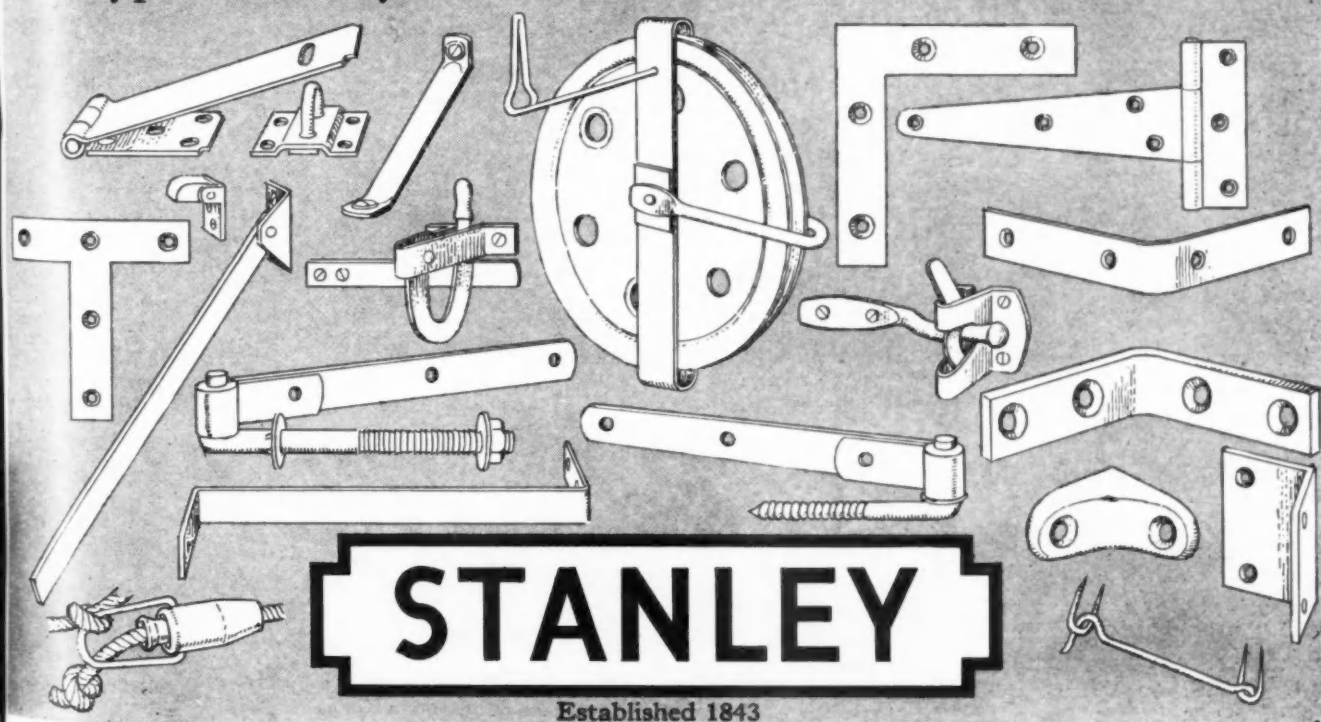


These confining war days have won new respect for cool, screened porches and attractive, practical yards fenced in for privacy. This trend won't be neglected when new home or home addition plans are carried out. Greater attention will be given to "making things livable." And you may be sure that well-known, long-serving Stanley Hardware will fit into this picture.

Stanley items for doors and screens, and in-the-yard uses will be a leading springtime offering by dealers as soon as volume manufacture is permitted. Capitalize on porch popularity and Stanley quality in your post-war sales plans. The Stanley Works, New Britain, Connecticut.



Typical Stanley Hardware Items for Porch and Yard



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Hotpoint
by an expert
especially
Write for

Appliance
for Street,

NS

BINETS

VALUABLE APPLICATION DATA PROVIDED BY **Balsam-Wool**

You'll want a complete set of these helpful Balsam-Wool application data sheets. They represent the latest research on insulation application . . . contain facts and details often hard to find. These application data sheets are part of the Balsam-Wool policy of presenting latest information and findings on insulation to architects and builders. Mail the coupon for your application data sheets.

Balsam-Wool APPLICATION DATA SHEET SEC. F No. 2

SUMMER COOLING TIGHT ATTIC WITH FAN

HINGED DOOR

SCREENED LOUVER

ATTIC FAN SUSPENDED FROM RAFTERS

CANVAS

DOUBLE-THICK BALSAM-WOOL

SECTION

In northern states, Double-Thick Balsam Wool Attic Insulation is often applied primarily for winter comfort and fuel saving, while the potential benefits of summer cooling and fuel saving, completely overlooked. Although natural ventilation of the attic space is beneficial in removing hot air from the attic, resulting in cooler rooms below, greater summer comfort can be easily obtained by the use of an attic fan in combination with Balsam-Wool insulation.

Illustrated here is a method of mounting a fan to the gable wall and is connected to the louver by a canvas duct. The louver may be of the fixed type, either of wood or metal, or may be automatic. An automatic opening is covered with overlapping horizontal shutters, usually of lightweight aluminum. These are hinged along the top so they will open when the fan starts and close when it stops, thereby shutting out wind, rain, and insects.

When the fan is installed in the manner shown, the attic serves as a plenum chamber or suction box, therefore there should be no other openings to the outside. If louvers are located in the opposite gable wall (for winter ventilation), they should be tightly covered when the fan is in use. For winter operation the louvers may be partially covered. To reduce heat loss through the ceiling opening, the grille should be replaced with a removable door panel and the hinged door on top of the opening should be closed.

For successful operation of the fan it is important that the exhaust opening be of adequate size, the net open area being not less than the net open area of the ceiling grille. (For grille size see Sec. F, No. 1.) The fan and louver should be preferably on the side of the house away from the prevailing summer winds. If the net area required for the louver is too great for one opening in the space available, it may be necessary to install the fan in a suction box and ventilate the attic as shown in Sec. F, No. 3.

Form 564-3-44

WOOD CONVERSION COMPANY
First National Bank Building
Saint Paul, Minnesota

BALSAM-WOOL Products of Weyerhaeuser

NU-WOOD

- High Thermal Efficiency
- Built for Permanence
- Non-Settling
- Flame-Proof
- Wind-Proof
- Moisture-Proofed

WOOD CONVERSION COMPANY
Dept. 119-5, First National Bank Bldg.
St. Paul 1, Minn.

Please send me Balsam-Wool application data sheets. I understand there is no charge or obligation.

Name

Address

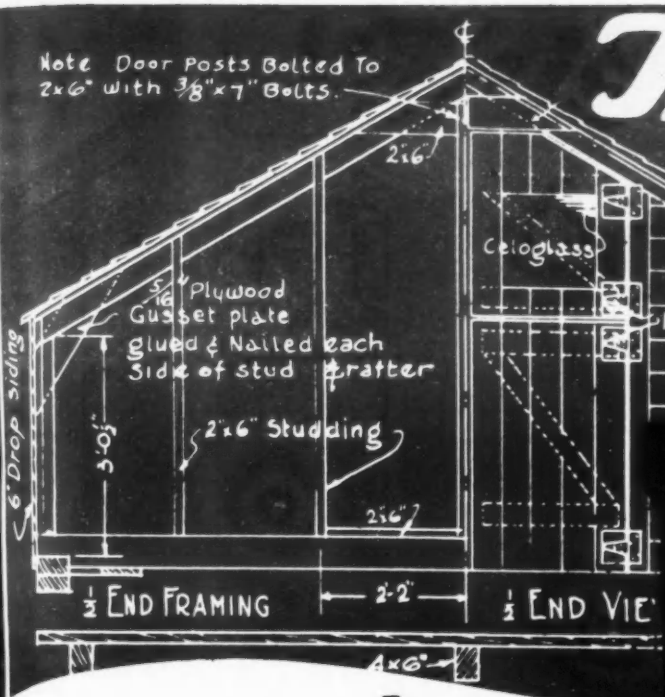
City State

Balsam-Wool

SEALED INSULATION

1. WINDPROOF
2. MOISTURE-PROOFED
3. FIRE RESISTANT
4. LASTING
5. NON-SETTLING
6. HIGHLY EFFICIENT





This + this



= more \$\$\$\$

MONARCH UNI-POINT RADIAL SAW

FOR LARGER PROFITS

Multiple Precutting of individual members for standardized units enables contractors to speed up production and greatly increase business without increasing overhead. This production precutting means more jobs per manweek and more profit per job.

Dealers enjoy much larger profits by selling production-cut lumber ready for assembly, or partially and wholly assembled, than by selling plain lumber in standard lengths on a board foot basis.

Foresighted architects, builders, and dealers—all are concentrating today on means of standardizing home and agricultural units and other types of construction that aid the war effort. At the same time, they are planning for tomorrow's tremendous

surge of postwar residential construction.

For both today and tomorrow, therefore, whether contractor, builder, or lumber dealer, you need the MONARCH UNI-POINT RADIAL SAW for this production cutting and pre-fabrication. Only with a UNI-POINT can you obtain the maximum quantity of accurately cut lumber with a minimum of time and effort. This is due to UNI-POINT's many invaluable exclusive features which are fully explained in our illustrated catalog No. 60.

Note: UNI-POINT means one-point cutting; that is, saw blade always enters the work at same point in table regardless of cross-cut angle, saving up to 200% on some operations. With UNI-POINT you can do multiple notching with one stroke; also scarfing, dapping, ripping, routing, shaping and sanding, all with this one machine. Vital parts of hardened steel assure permanent accuracy, while its unique modern design sets a new standard for safety.

Send for Catalog 60



MONARCH
UNI-POINT RADIAL SAW

AMERICAN SAW MILL MACHINERY CO.

60 MAIN ST. HACKETTSTOWN, N. J. Established 1908

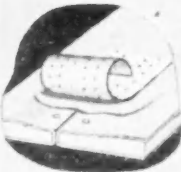
Radial Saws Saw Benches Band Saws Jointers Planers Lathes

Shapers Sanders Millfiles Swing Saws Saw Mill Machinery

Rooms too, Have Faces that Stay Young



FIREPROOF—Made from Gypsum rock that will not burn. Sheetrock walls and ceilings form a fire-armor that fights the spread of fire and protects the building framework underneath.



"WELDED WALLS"—Panel joints concealed and welded together by Perf-A-Tape . . . stronger than the panels of Sheetrock themselves.



VERMIN-PROOF—Sheetrock has a mineral core . . . it does not attract or support vermin of any kind.



WON'T WARP OR BUCKLE—Sheetrock is like a stone wall. It does not twist and pull out of shape with changes in temperature and humidity conditions.

SHEETROCK

Fireproof WALL AND CEILING PANELS

"My face is my fortune" . . . might well be said by Sheetrock* . . . and it can be the good fortune of everyone who uses it in walls and ceilings. For here is beauty that endures . . . that outlaws telltale "wrinkles" and "crow's feet" . . . changes the complexion of old rooms completely and builds smart new ones . . . with "walls and ceilings that stay young."

Over the smooth, scuff-resisting, ivory surface of Sheetrock, an infinite variety of finishes and treatments is possible. Choose your color, texture, design and treatment. Whether it be paint, wallpaper,

or any finish that is sprayed, brushed or pasted on, it may be successfully applied over Sheetrock. Joints may be concealed with Perf-A-Tape* or the beveled edges featured as a planned part of the decorative scheme with "Panel-Wall" method.

—and under this surface-beauty is a core of gypsum—a mineral that will not burn—that fights fire at every turn. Truly, here is a modern material that has won its way to preference. Proved in the past with an eye to the future, Sheetrock is today the best known name—and the most widely used gypsum wallboard in the world.

*Trademarks Reg. U. S. Pat. Off.



UNITED STATES GYPSUM

300 WEST ADAMS STREET, CHICAGO, ILLINOIS

This famous trademark identifies products of United States Gypsum Company—where for 40 years research has developed better, safer building materials

GYPSUM PRODUCTS • STEEL • INSULATION • ROOFING • PAINT

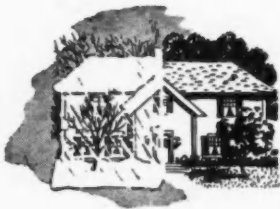
GYPSUM WALLBOARD • SHEATHING • LATH • PLASTER

FIREPROOF GYPSUM

The World's most widely used Mineral for making Fireproof Wall and Ceiling Products

GYPSUM FIREPROOF ROOF DECK AND PARTITION

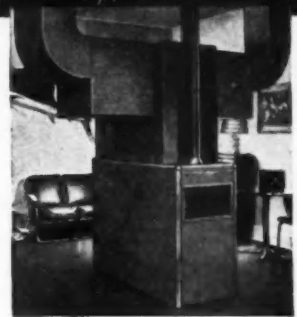
Plus values for the post-war home . . .



QUIET
CLEANLINESS
ECONOMY
HEALTHFULNESS
PRIVACY AND SAFETY



All these — and controlled climate, too — from Servel's *All-Year* Gas Air Conditioner



There are many good reasons—besides year-round freedom from oppressive weather conditions—why your clients will want Servel's New *All-Year* Gas Air Conditioner in their post-war homes.

When this compact unit is installed, homes automatically become quieter, cleaner, healthier. With the need for outside ventilation eliminated, outside noises and dirt are cut off. Windows can be permanently locked, providing new safety, assuring privacy, eliminating the danger of damage from sudden summer storms. Every room in the house is equally usable, equally comfortable, the whole year round.

Drapes, rugs, upholstery, and other house furnishings require less frequent cleaning, last longer. Hay-fever and asthma victims find new relief, too. Filtered air, free from irritating pollen and dust, is circulated

through every room in the house, *the year round.*

You'll be able to offer your clients *All-Year* Gas Air Conditioning with these plus values when the war's over. Mass production of Servel's New *All-Year* Gas Air Conditioner will start just as soon as the necessary materials are released from war work.

Many of your clients will want these comforts for their places of business. So be sure to get complete information about commercial installations, too. Write today for full details on Servel's *All-Year* Gas Air Conditioner—"The Next Essential for the Home of Tomorrow." Address Servel, Inc., Evansville 20, Ind.

SERVEL GAS REFRIGERATORS are standard equipment in the nation's finest apartment houses.

SERVEL Inc.



America's Leading Makers of Modern Gas Appliances

Is a housewives' re



FOR VICTORY

Today, General Electric is working full speed to hasten the day of victory.

You, too, can help, by buying War Bonds Now.



Everything Electrical for After-Victory Homes

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TUN

es' rebellion in the making?

WOMEN HAVE BEEN hearing a lot about the "home of the future."

In movies, in magazines, in newspapers, they've seen homes with electrical appliances that mean better living, more leisure.

They are beginning to take it for granted that an electric range, refrigerator, dishwasher, automatic heating, and other modern appliances will be included as a part of the home *they* buy after the war.

Isn't it likely, therefore, that new houses including complete equipment will have first call on home buyers . . . that the housewife will rebel against houses offered for sale without the equipment on which she has set her heart?

What does this mean to postwar building?

Doesn't it seem logical to design, build, and finance houses in accordance with this demand . . . to build this equipment *right into the house* . . . to install adequate wiring and sufficient outlets for the use of electrical appliances?

You know the advantages of a kitchen planned as a labor-saving, step-saving unit. Picture the added values of a modern electrical laundry, of automatic heating equipment.

"When peace comes," says Architectural Forum in a new article, "the competition for the consumer dollar will be keen. The builder who wins will offer a home fully equipped for convenient and economical living to critical prospects conditioned to the slick smoothness and perfect performance of cars, airplanes, radios, and television sets." Such a plan appears practical, not only

for the \$10,000-and-up house, but for the under-\$5000 house as well.

The idea isn't new. Many homes were designed, built, and financed in this manner before the war started.

Family buying—postwar style

While the average home buyer will be as insistent as ever on full dollar value for his money, it stands to reason that he will spend money for the things he needs . . . has been needing for a long time.

Successful builders believe he will consider the added value in time-saving, labor-saving appliances well worth the few additional dollars a month added to the total cost of the home.

Moreover, experience has shown that the resulting savings in operating expenses usually more than offset any increase in monthly amortization payments.

We'll be glad to help

The situation calls for houses planned from blueprint to mortgage with complete electric equipment.

Since we'll want to supply a good share of all this equipment, we've been studying this problem from many angles. We believe we're in a position to answer some of the questions that confront you.

As an architect, builder, or banker, you'll want to explore this continuing trend. We'll be glad to hear from you.

GENERAL  ELECTRIC

Home Bureau • Bridgeport, Conn.

TUNE IN: "The G-E All-Girl Orchestra," Sunday 10 P.M., E.W.T., NBC—"The World Today" news, every weekday, 6:45 P.M., E.W.T., CBS



What good is a \$10.00 raise ...if it then costs you \$12.00 more to live?

SURE WE ALL want a raise . . . but raises today are bad medicine. Bad medicine for you. Bad medicine for everybody else. And here's why . . .

Suppose you do get a raise . . . and a lot of others get one, too. What happens? The cost of manufacturing goes up. Naturally your boss has to add this increase in cost to the price he asks the retailer. And the retailer, in turn, raises his price to the consumer . . . that's YOU.

Multiply these hundreds of items that everybody has to *pay more for* by the thousands of other workers who want raises . . . and by the thousands of business men and farmers who want more money for their products . . . result . . . you and all the others need another raise to make ends meet.

And so it goes . . . wages and prices chase each other up and up . . . until prices get so high that your dollar isn't worth a dollar any more.

So what good is a raise if your living

costs go up even faster? And there's so little you can buy today anyway . . . with most factories in war production.

Of course it's hard to give up the luxuries of life . . . and even harder to give up some of the necessities. But this is War! And when you think of the sacrifices our fighting men are making . . . many of them giving up their lives for us . . . no sacrifice we can make should be too great.

So if you want to be able to enjoy the good things of life in the peaceful days to come . . . if you want to speed victory and thus save the lives of thousands of fighting men . . . start doing these seven things now . . .

1. **Buy only what you need.** Take care of what you have. Avoid waste.
2. **Don't try to profit from the war.** Don't ask more than you absolutely *must* for what you have to sell . . . whether it's *goods* or your own *labor* you're selling.

3. **Pay no more than ceiling prices.** Buy rationed goods only by exchanging stamps. Otherwise, you're helping the black-market criminals, hurting yourself and all other good Americans.

4. **Pay taxes willingly.** They're the cheapest way of paying for the war.

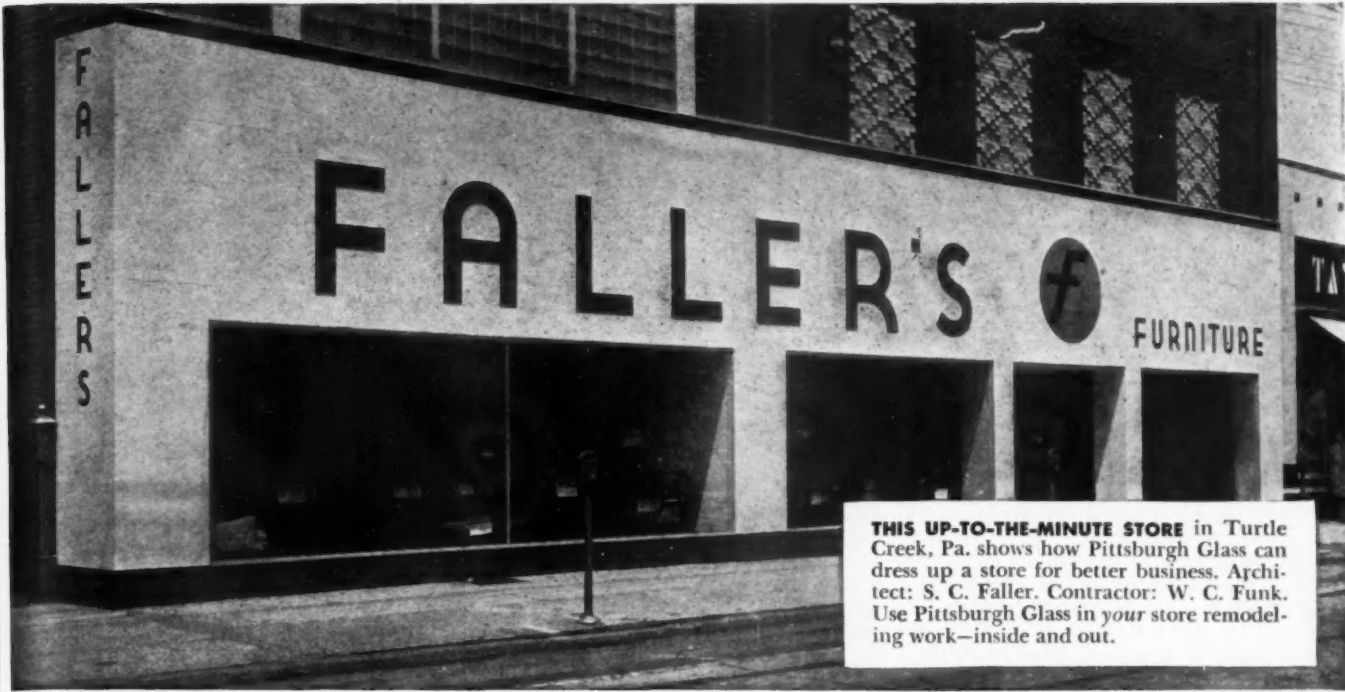
5. **Pay off your old debts**—all of them. Don't make new ones.

6. **If you haven't a savings account,** start one. **If you have an account,** put money in it—regularly. Put money in life insurance, too.

7. **Buy and hold War Bonds.** Don't stop at 10%. Remember—Hitler stops at nothing!

Use it up . . . Wear it out.
Make it do...Or do without.





THIS UP-TO-THE-MINUTE STORE in Turtle Creek, Pa. shows how Pittsburgh Glass can dress up a store for better business. Architect: S. C. Faller. Contractor: W. C. Funk. Use Pittsburgh Glass in *your* store remodeling work—inside and out.

AFTER

Line up store remodeling jobs now!



BEFORE

Then you'll be ready to start profitable modernization work
the minute building restrictions are lifted

NOW is the time to get store-remodeling prospects in your territory all set to go when building restrictions are lifted.

We're helping to "soften-up" these prospects for you. In the favorite trade magazines of 20 of the most important retail fields, we are regularly running full-page advertisements urging store modernization—inside and out.

We're telling these retailers in your territory to get store designs for interiors and fronts made and approved *now* . . . so they'll be among the first to get their modernization work done when construction gets the green light.

Take advantage of this advertising. Start covering your territory today — and getting store modernization jobs lined up.

For store fronts and store interiors, you'll find Pittsburgh Glass Products ideal. They're leaders in their field, well-known and preferred by your prospective clients due to years of advertising.

Meanwhile, send the coupon for our free book of facts, figures and photographs about many actual stores remodeled with Pittsburgh Glass.

"PITTSBURGH" stands for Quality Glass and Paint

PITTSBURGH GLASS

for Store Fronts and Interiors

PITTSBURGH PLATE GLASS COMPANY

Pittsburgh Plate Glass Company
2168-4 Grant Building, Pittsburgh 19, Pa.

Please send me, without obligation, your illustrated booklet on store modernization.

Name.....

Address.....

City..... State.....

HELP US KEEP TOWN
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lack-mar-
f and all
ey're the
war.
of them.
account,
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Don't stop
stops at

"Standard"



A bathroom can be built in less space,
but more bathroom usefulness cannot
be built into the same space. Minimum
floor area recommended for the
Duo-Use Bath is approximately
7'6" x 8'6".

*"Standard" Plumbing Fixtures and AMERICAN Heating Equip-
ment currently available only under government regulations.*

DUO USE Bath...

The bathroom of the *future* can be made more attractive—more useful and more practical. The Duo-Use Bath points the way. It can be a bath and powder room in one. Two persons can use it at the same time, without sacrificing privacy.

The plan is simple. Divide the bathroom into two compartments each a complete unit, with the bathtub and shower in one, the lavatory and water closet in the other. The door between the two compartments provides privacy.

Both compartments can be in use at the same time. When desired as a powder room the doors to one bedroom and the bath section can be closed.

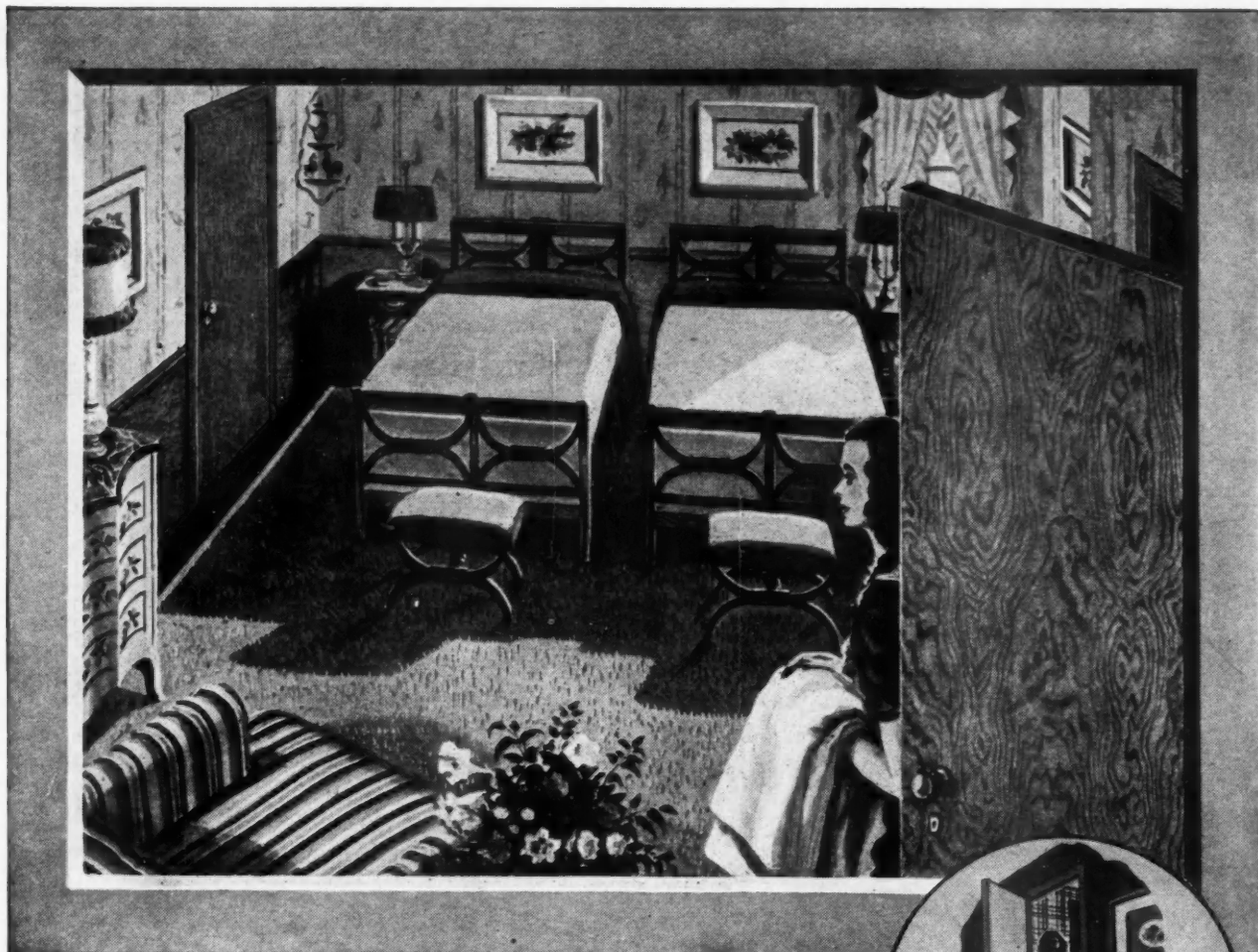
If space permits, the walls heretofore used for fixtures can be used for cabinets reaching from the floor to any practical height, housing the toilet and dress accessories convenient to have at hand. More versatile decorative schemes are also possible.

The "Standard" Duo-Use Bath is ideal for the one bathroom home as well as for multiple bath installations.



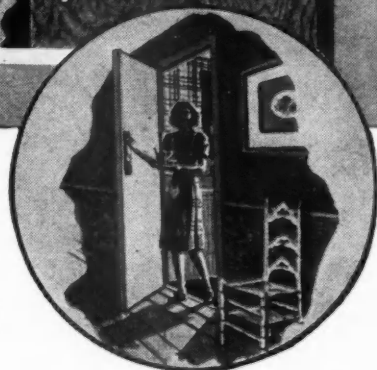
AMERICAN RADIATOR & Standard Sanitary

New York CORPORATION Pittsburgh



Through these *D*oors...

pass the Most Critical Women in the World



From soft, deep-piled rugs to hardwood flush doors, American women are used to demanding — and getting — the utmost in home convenience, beauty and serviceability.

Their critical judgment is acute.

They know what they want.

In doors, as in all other parts of their homes, they want the last word in scientific design.

Mengel Flush Doors, made of Weldwood Plywood, are scientifically designed for "fingertip control" yet they easily survive 25,000 slams in a half-ton slamming machine. Their patented "hollow-grid" construction is permanently sealed against moisture, dirt and air — and every door is fully guaranteed.

American women want smartness and lasting beauty.

Could anything be lovelier than smooth door

faces of Weldwood Plywood in rich mahogany, warm walnut, cool oak, knotty pine, gum or other fine hardwoods — hardwoods that match the Weldwood Plywoods your customers will be ordering for their wood-paneled walls?

And where your specifications call for painted or papered interiors, birch- or gum-faced Mengel Doors are ideal. They never show grain-raise.

"No crannies to catch dust and dirt, either," say American women. And they mean it!

Mengel Flush Doors, unbroken by panels, have no ledges or moulding for dust to cling to.

"We don't want to pay much," they say.

Mass production of Mengel Doors has brought the price of this top-quality door to little, if any, more than doors having none of the Mengel Door advantages.

Your choice of doors for the homes you build will be judged by the high standards of American women.

Mengel Flush Doors meet those standards.

Write now for complete information and detailed specifications of Mengel Flush Doors.



EXCLUSIVE MENGEL DOOR FEATURES

1. Hardwood rails, dovetailed and wedgeloaked to stiles.
2. Hardwood stiles, assuring superior screw-holding qualities.
3. Hardwood lock blocks make locks easier to fit and smoother in operation.
4. Rigid insulation board grid; strips $\frac{1}{8}$ " wide provide greater surface for gluing faces to core.
5. Faces welded to core on hot plate presses.



Mengel Doors



Mengel Flush Doors, Weldwood Plywood and Plywood Products are manufactured and marketed by THE MENGEL COMPANY, Louisville, Ky....THE UNITED STATES PLYWOOD CORPORATION, New York, N.Y. Distributing Units in Boston, Brooklyn, Chicago, Cincinnati, Cleveland, Detroit, High Point, Los Angeles, Louisville, Newark, New York, Oakland, Philadelphia, Rochester, San Francisco, Seattle . . . Send inquiries to nearest point.

REVOLUTIONARY NEW WINDOWPANE FOR EVERY TYPE OF BUILDING

Thermopane

THE WINDOWPANE THAT INSULATES

with the
BONDERMETIC SEAL

Climaxing fourteen years of research, L·O·F THERMOPANE is the first successful windowpane ever made with permanent, built-in insulation. It is made of two panes of glass, separated by an insulating layer of air, and sealed around the edges at the factory with a metal-to-glass bond. This *Bondermetic Seal* has withstood tests up to 4,000 pounds per square inch without failure—dramatic proof of its amazing strength. You install THERMOPANE in a modified single window sash, just as you would ordinary window glass. And what a difference it makes!

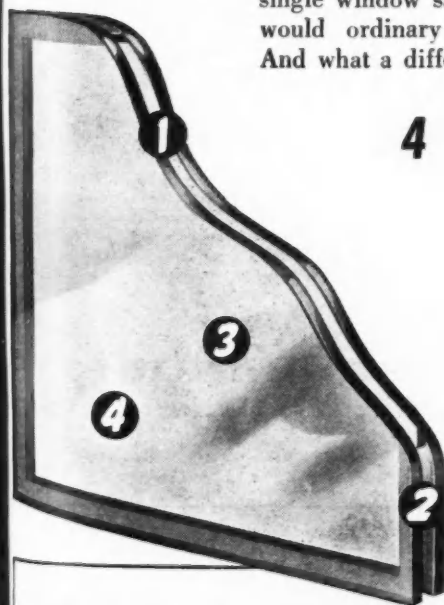
Cuts heating costs amazingly. Deadens street noises. Keeps homes warmer in winter, cooler in summer.

In short, THERMOPANE, the new patented insulating windowpane, makes possible an entirely new standard of comfort and economy in the homes of tomorrow that you design, build or finance. It provides all of the benefits of double-glass insulation without the seasonal problems of putting up and taking down extra sash. There's no *extra* glass to keep clean. For a descriptive booklet, write Libbey-Owens-Ford Glass Company, 1254 Nicholas Building, Toledo 3, Ohio.

4 IMPORTANT FEATURES OF THERMOPANE

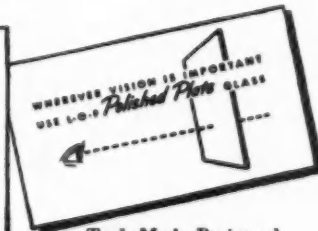
- ① **INSULATING AIR SPACE.** The air inside the Thermopane units is scientifically cleaned, dried and hermetically sealed. This layer of air gives Thermopane its high insulating efficiency.
- ② **BONDERMETIC SEAL.** This metal-to-glass seal permanently bonds two panes of glass into a single unit. Strong and weather-proof, it seals the insulating air space from dirt and moisture.
- ③ **NO FOGGING UP.** Because of the patented *Bondermetic Seal*, and the insulation afforded by the sealed-in air, frosting up and condensation are eliminated on the two inner surfaces.
- ④ **ONLY TWO SURFACES TO CLEAN.** The inner glass surfaces are specially cleaned at the factory . . . always stay clean.

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Longer life . . . more lasting beauty . . . will be built into postwar homes, farm buildings and other structures by using lumber chemically protected. Your customers of the future will appreciate these extra values, making your sales come easier. You will be able to make a profit on the nominal additional cost of chemically protected lumber.

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**TO PROVIDE
MORE BEDROOMS
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"GIVE us more bedrooms in our postwar homes!" That's the plea from war-crowded families throughout the country—especially those with growing children—surveys indicate. But to provide such extra partitioning in small homes often taxes the designer's ingenuity.

Here, again, doors, frames, windows and woodwork of toxic-treated Ponderosa Pine supply a practical, economical answer. In Ponderosa Pine, stock designs provide not only variety, but the assurance of precision manufacture which every home owner wants.

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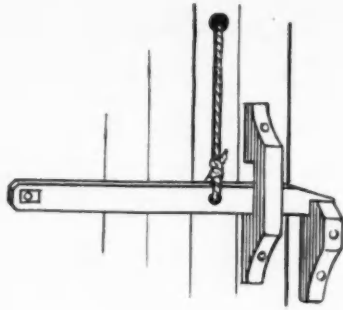
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Famed Southern hospitality started with the latch string out . . . in fact all through the early days of this country the simple bar latch and latch string was popular. To lock the door one just pulled in the latch string.



"Even I know it's easier to drill a round hole than to mortise a square one"

DEXTER TUBULAR LOCKS and LATCHES

Manufactured by **NATIONAL BRASS COMPANY**
GRAND RAPIDS, MICHIGAN

1944 War Housing Calls for DEXTER-TUBULARS

Americans have never been content with old-fashioned methods, when new, progressive ways were available. In fact, it has been the American tradition to originate new improvements, out of sheer dissatisfaction with the old. This is what lay behind the origination by Dexter — 20 years ago — of the *Tubular* lock and latch now accepted by builders as the "last word" in performance, and in the ease, simplicity and time-saving installation. DEXTER TUBULARS are backed with a written **Lifetime Warranty**.

There is a Dexter dealer in your community. Ask him for complete information. Write for your copy of the Commander Line Catalog conforming to revised WPB Order L-236.

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Washington News Summary

Whitlock Proposes Controlled Lifting of Restrictions on Building of Private Homes and Urgently Needed Buildings Before War Ends.

Douglas Whitlock, President of The Producers' Council, proposes that the War Production Board grant permission for the building of private residences, schools, stores and other urgently needed civilian construction without considering the relative essentiality of each individual project in communities where the following conditions prevail:

(1) The construction is to be located in a War Manpower Commission Class III, Class IV or unrated area which has been so rated for one month or longer, and where it may be presumed that an adequate supply of labor is locally available. (2) The applicant for permission to begin construction certifies that the work shall start within 30 days of the date of his application. (3) The applicant certifies that not more than 10 per cent of the value of materials required for the construction shall be obtained on a preference rating of AA-3 (or higher, if specifically applied for and granted for any particular item) and that the remaining materials can be obtained either without a rating or with a rating lower than AA-3.

War Effort Comes First

"There is no thought in the construction industry of asking that civilian building be expanded now, for the war program must come ahead of all other considerations," Whitlock said. "On the other hand, in view of the fact that the war might end suddenly, it is imperative that a sound and workable plan be developed immediately for getting private building under way on short notice, even though the date for executing and expanding the plan may be some months away.

"With the existence of such a plan, the construction industry at least would know what to count on. Home builders and others in the industry could go far toward closing the transitional unemployment gap if the government were to make its decision now," Whitlock said.

What L-335 Means—This order means that all large consumers of lumber must file an application with the War Production Board stating their requirements of 1944. By large

users are meant those who used 50,000 feet in the last quarter of 1943. This order does not include home builders who secure their permission to purchase lumber by priorities issued through FHA acting for the War Production Board.

It further indicates that this is a step toward organizing the distribution of lumber on the controlled materials plan in the same way in which critical metals are being distributed. The purpose is to gain accurate information on lumber demand for specific purposes on a quarterly basis and prevent depletion of the scarce supply of lumber in non-essential uses.

Private War Housing Concentrated—150,000 privately financed dwelling units are scheduled in the 1944 war housing program according to FHA's Administrator Abner H. Ferguson. This housing will be concentrated in a few vital areas, about 65 per cent programmed for 20 localities.

Latest figures show that 8,658 of these units were started in February compared with 6,449 in February 1943, Ferguson announced.

New "Construction" Defined

A prefabricated building located on a permanent foundation where it is intended to remain is "construction" and therefore limited by order L-41 WPB ruled recently. The same building placed in a location for temporary use only, such as a shelter to be moved around for use on different parts of a farm, and not connected up with utilities is not construction in the sense of the order.

More Bathtubs—50,000 cast iron bathtubs have been permitted in the second quarter of 1944 by WPB. Indications are that the same number will be manufactured in the last two quarters.

NHA Expanded—The War Production Board has delegated to National Housing Agency full responsibility for all non-farm housing projects. NHA has full authority to process completely all housing applications, which it is doing through the use of FHA field offices.

Provision is made for NHA to program and process applications

for non-war housing in areas where the cessation of building has worked a general hardship. Machinery for implementing this class of housing has been placed in the files of the FHA but no criteria have yet been provided to facilitate the starting of non-war home building. This is an indication that preparations are being made for a gradual beginning of non-war housing as soon as the war takes a sufficiently favorable turn and the manpower situation in such communities eases sufficiently.

Rentals on War Housing

Builders may now apply to up rents on account of increased costs even after admitting tenants, OPA rules.

Copper For Ball Cocks

More copper will now be used in place of substitutes which have caused frequent replacements, WPB explains in allocating copper for limited production of Ball Cocks for plumbing fixtures.

Steel for Concrete Increased

WPB building regulations are relaxed to permit the use of additional re-enforcing steel in the concrete buildings. The action permits about 5 per cent more re-enforcing and is estimated to save 10 per cent in concrete, lumber and labor.

No Relaxation on Civilian Goods

Military authorities oppose relaxation of restrictions for manufacturing civilian goods. They want America's industrial plant to stand by for war production on a huge scale and desire to maintain large stocks of materials.

Despite this attitude WPB figures show 210,000 tons of steel for civilian use in the second quarter of 1944 as against 155,000 tons for the first quarter.

Dirksen Wants HOLC Out—A bill from Representative Dirksen, of Illinois, would liquidate Home Owners Loan Corporation in two years and transfer its property and loans to reconstruction finance corporation for settlement.

Dirksen seeks to establish precedent for liquidation of unnecessary emergency bureaus after their purpose is fulfilled.

Insulate Now — Pay in winter

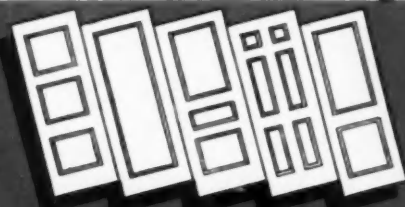
Amended FHA Title I regulations, aimed at conserving fuel, will permit insulating of homes and purchase of storm sash during the summer months with initial payment deferred until November 1, 1944.

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**COMPLETELY MANUFACTURED
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YOU CAN SAVE not only dollars and cents—but *valuable time* as well—when you use **Tru-Sized Doors**... This superior product gives complete satisfaction in every way. Quick installation—perfect fitting—new beauty. Fully machined for standard locks and hinges, **Tru-Sized Doors** help carpenters and builders do a *better job* than ever before, and in less time. You can save from **55 to 70 minutes** on every installation!



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BE WISE—USE TRU-SIZED AMERICA'S MODERN DOOR

AMERICAN BUILDER Editorial

Churchill's housing program

THE FIRST and perhaps best thing to be said about England's housing program is that such a program actually does exist.

In this country there has been an attitude in many places that we should "win the war first"—then worry about peacetime housing.

But in England, housing is a red-hot topic. Prime Minister Churchill put it in the foreground in his recent speech. His description of the proposed postwar construction program, including half a million temporary prefabricated houses for returning soldiers, was startling, to say the least.

Have drawn up 12-year program

Churchill's remarks on housing climaxed a great deal of work and study by the British government on this subject. In contrast with the United States, housing is receiving attention from the highest government officials, including Minister of Reconstruction Woolton, Minister of Labor Bevin, Oliver Lyttelton, Minister of Production, and Lord Portal, Minister of Works.

The English housing situation is, of course, somewhat different from ours. More than a million homes have been destroyed or damaged during the war. Maintenance has been postponed, and vast changes have taken place in the country's industrial setup and living conditions.

As a result of the acute shortage, the subject of housing is one of strong political interest. But the same may be said in this country. Housing is politically a powerful source of either good will or bad will. In this country the party that can stimulate and encourage a vigorous building and rebuilding program without becoming ensnared in the pitfalls of public housing and public subsidies will gain great support.

Britain's government has already drawn up and agreed on a 12-year building program which is described in detail by Lord Portal in another article in this issue. Some four million houses are to be built over the 12-year period. Housing is to have priority over any other capital expenditure. Salient points in the program include: (1) Repair and rebuilding of damaged houses as soon as possible—possibly before the final end of the war. (2) Construction of half a million temporary prefabricated houses. (3) Priority for returning fighting men and bombed-out families. (4) En-

couragement of private enterprise in rebuilding on a permanent basis. (5) Building of experimental and demonstration houses *now* by the Ministry of Works. (6) A vigorous apprentice training course to train 200,000 men for construction work. (7) co-operation of top government ministers in working out *now* details for postwar housing.

Build experimental houses

Particularly striking is the experimental and demonstration house work being conducted by the Ministry of Works and the Building Research Station. This work is being actively carried on now during the war, and is calculated to try out new ideas in home construction as well as the improvement of traditional methods.

Still another striking feature of the British program is the apprentice training program. The Ministry of Works has set up a building apprenticeship and training council representing all sections of the building industry. Lord Portal estimates that more than 200,000 men from the armed forces, from war factories and from war industries will have to be trained for construction work at the rate of possibly 15,000 to 20,000 apprentices a year.

Most striking of all is the fact that England's top government ministers, as well as the Prime Minister himself, consider housing of such paramount importance as to be worthy of thoroughgoing study and careful planning now, as well as considerable actual activity now of a nature that does not conflict with the war effort.

Secretary of Housing here?

It should be pointed out that England's program is by no means primarily a public housing program. Private builders have long been vigorous and effective and have built the majority of England's houses in recent years. The situation is so acute now, however, that Churchill feels it will be necessary to build temporary prefabricated houses with public funds to tide the country over until the permanent reconstruction can be carried out.

Perhaps we should have a Secretary of Housing in this country to head up a sound, well-balanced, progressive program, mainly by private enterprise. Several features of the British program call attention to the need for similar action here.

How to Get Along With What You Can Get



Builders develop ideas and ways to keep going on all types of work—Industry groups show high spirit of co-operation to meet immediate problems.

TRADE representatives displayed co-operative spirit at builders' meeting on lumber scarcity. Shown is Leo Cleary of Edward Hines Lumber Company advising with, left to right, Illinois FHA Acting-Director Edward J. Kelly, Milton M. Bowen, Joseph E. Merrion, executive-secretary and president of Metropolitan Chicago Home Builders.

By John E. McNamara

Associate Editor

BUILDERS have always been endowed with a special faculty for advancing in the face of obstacles. After running the gamut of pre-war and wartime government regulations, the faculty has grown sharp as a razor just honed.

American Builder presents a number of helpful suggestions in this issue to guide builders to new sources of lumber and alternate methods of construction which conserve on the use of lumber. A list of suggestions appears in the box at the bottom of this page. The opposite page shows the latest details for concrete and brick masonry construction as well as a wood truss diagram to conserve on 2" dimensional lumber in roof construction.

In the story on Garden Type Apartments, illustrations and details show the actual operation of installing the 2-inch studless lath and plaster partition. This type of partition has been

used throughout this project from the beginning of construction. It is a proved and satisfactory method for non-load bearing walls.

Other stories illustrate what leading builders are doing during the emergency to get along now with what they can get.

Faced now with what seems to threaten to be an even more acute lumber shortage, builders will evolve methods for conserving as much as possible of this all-vital building material while continuing to build essential war housing and to take care of urgently needed repairs, remodeling and alterations.

This most recent lumber order need not necessarily foreshadow a new emergency as it affects new war housing and remodeling under priorities. The purpose of order L-335, the one about which we are talking, is to put lumber under the Controlled Materials Plan, the plan

under which the production and distribution of critical metals are now successfully controlled. To implement this procedure it is necessary for WPB to secure the answer to these two questions: 1. How much lumber is actually being produced? 2. How much lumber is being used by whom, for what?

To get these answers, to get the facts about lumber, is the purpose of the order. Since WPB already knows how much lumber is allocated to home building, builders are not required to file under order L-335.

When these answers are found, WPB will then have the basis for allocating the known supply to the known users. How essential each use is to the war effort and critical civilian needs will determine the amount which can be allocated to each user.

(Continued to page 52)

Six Suggestions to Help You Get Along

1. Seek out new sources of lumber. Logs can be cut locally in many states. Small sawmills can produce dimensional lumber.

2. Use proved methods of construction which conserve on the use of lumber instead of conventional frame construction.

3. Secure the assistance of local FHA offices in planning new war housing projects. FHA will furnish construction details on acceptable materials and methods.

4. Search local and nearby markets for recut, sound, used lumber. This is acceptable on all FHA work, whether new construction or remodeling.

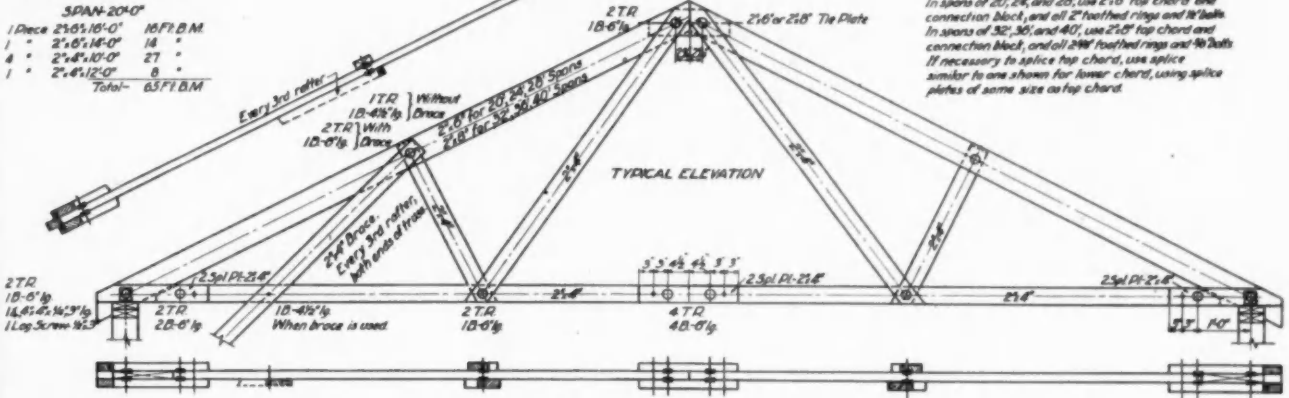
5. Use truss roof construction. This permits the use of studless gypsum plaster partitions as illustrated elsewhere in issue.

6. Provide for greater use of wall boards, insulating boards, and all other acceptable materials to conserve lumber.

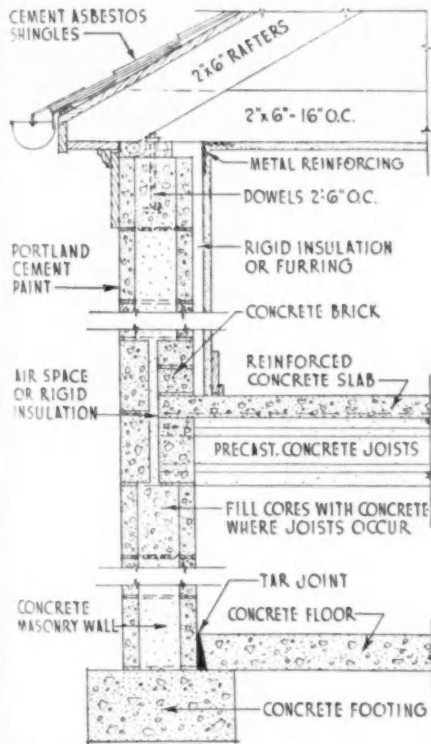
LUMBER LISTS PER TRUSS
Knee Braces not included

SPAN-20'-0"

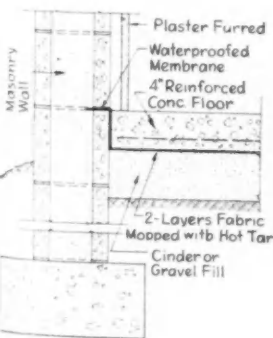
1 Deck	2x6's 16'-0"	16 FT.B.M.
1 "	2x6's 14'-0"	14 "
4 "	2x4's 10'-0"	27 "
1 "	2x4's 12'-0"	8 "
Total-		63 FT.B.M.



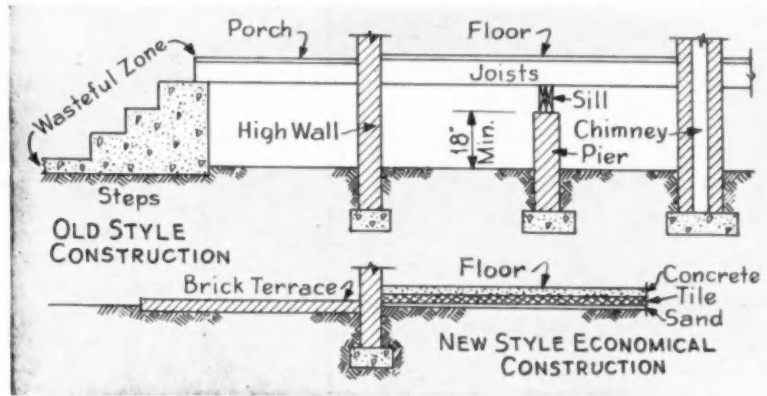
WOOD TRUSS not only shows lumber economy in roof framing but also permits use of non-load bearing partitions, such as the one on the front cover. Timber connectors used in this typical truss are Teco toothed rings made by the Timber Engineering Company.



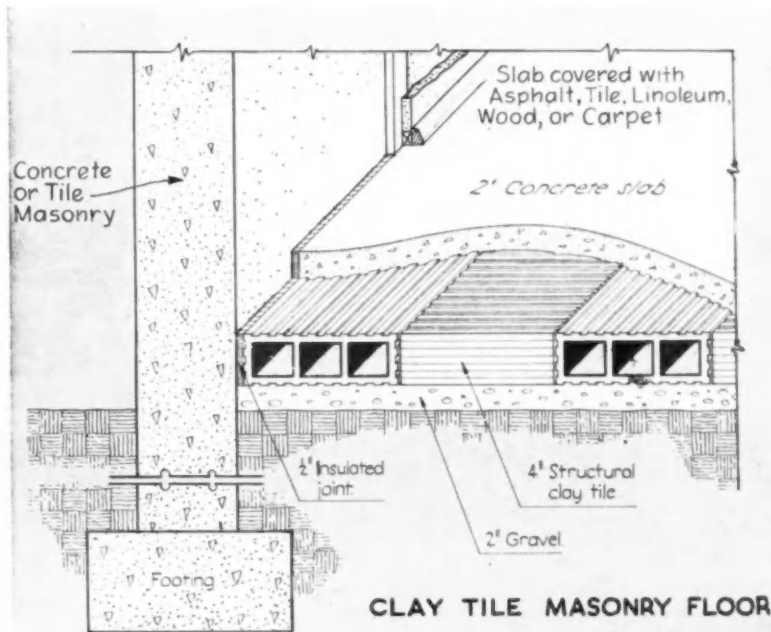
PROVED by use is this type of concrete masonry wall, using precast joist for first floor over basement.



LEFT, this method will help save scarce materials, reduce labor and produce a dry floor in a basements house. Generous fill and good vapor seal are important.



WAR HOUSING can be cut in cost by eliminating the area wasteful of critical materials and labor, and building the first floor directly on grade. Entry door must be well protected from weather.



CLAY TILE MASONRY FLOOR

EMPHASIZES importance of vapor seal in basements, on-grade floor construction. Floor must be moisture-tight to prevent curling of tiles or rotting of other floor coverings.



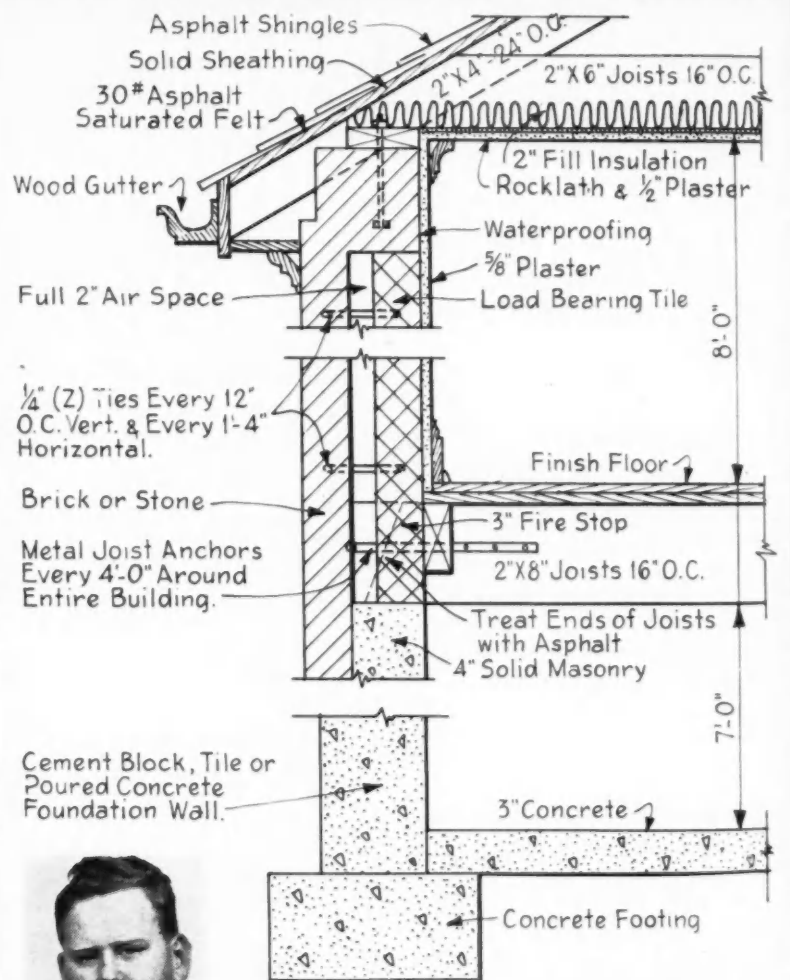
(Continued from page 50)

When all the returns are in, WPB may find more lumber to allocate to essential new building and remodeling than its previous lack of definite information permitted it to indicate. Certainly this use will rank among the first for preferential allocation after immediate military needs are provided for. At least the facts will be known and the present uncertainty banished.

It will be recalled that the old priority system by which users procured scarce metals worked badly. Priorities were issued for many times the available supply of these metals. Each user overstocked when possible to be sure not to be caught short. When later the Controlled Materials Plan was put into effect, many metal users were found to have tremendous overstocks.

The evil of over-buying has been curtailed greatly by the users of critical metals since the adoption of the Controlled Materials Plan. When the need for hoarding metals had been eliminated through the use of this plan, there occurred immediately a great relaxing of the former tight situation in the supply of metals. Could it not be that there may arise a parallel situation in today's critical lumber market?

Whatever the record shows, however, builders can be depended upon to keep the wheels of essential construction turning. They will find new ways of conserving on the use of lumber—as indeed they have lately been doing in cooperation with FHA—if the record demonstrates the need. They will also adapt themselves to the use of other materials which make for good construction though less flexible in their use than lumber.



Selmer A. Solheim, president of Hastings Housing Co., used the "Cain Cavity Wall Construction" shown on most of 110 war houses.

"... on our Hastings (Neb.) project, we were unable to find a fracture of any sort in the masonry bond. We are so pleased with the results of this construction that we are planning to use it almost exclusively in all of our postwar building."

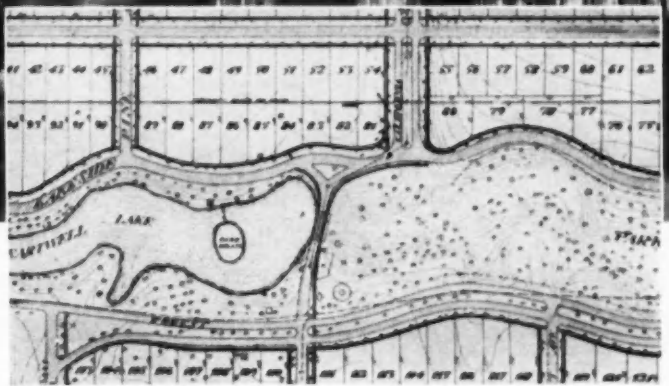
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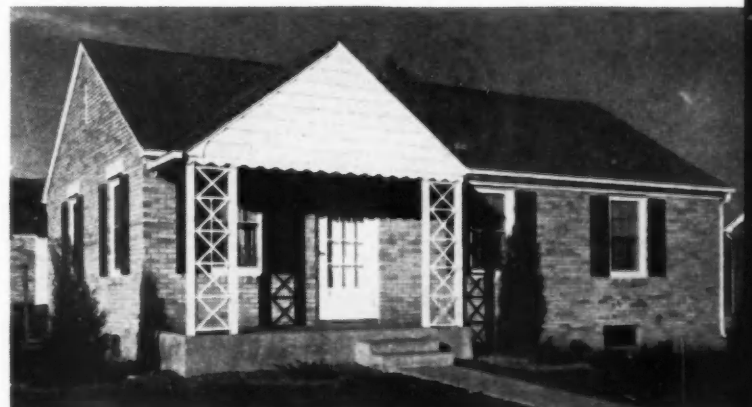
AMERICA'S FINEST WAR HOUSES—the way the above units have been described—are planned and built for permanence on a park-like site in Hastings, Neb. Not surprising, 100% occupancy.

Masonry Homes On Beautiful Setting Privately Built by Nebraska War Housing Firm

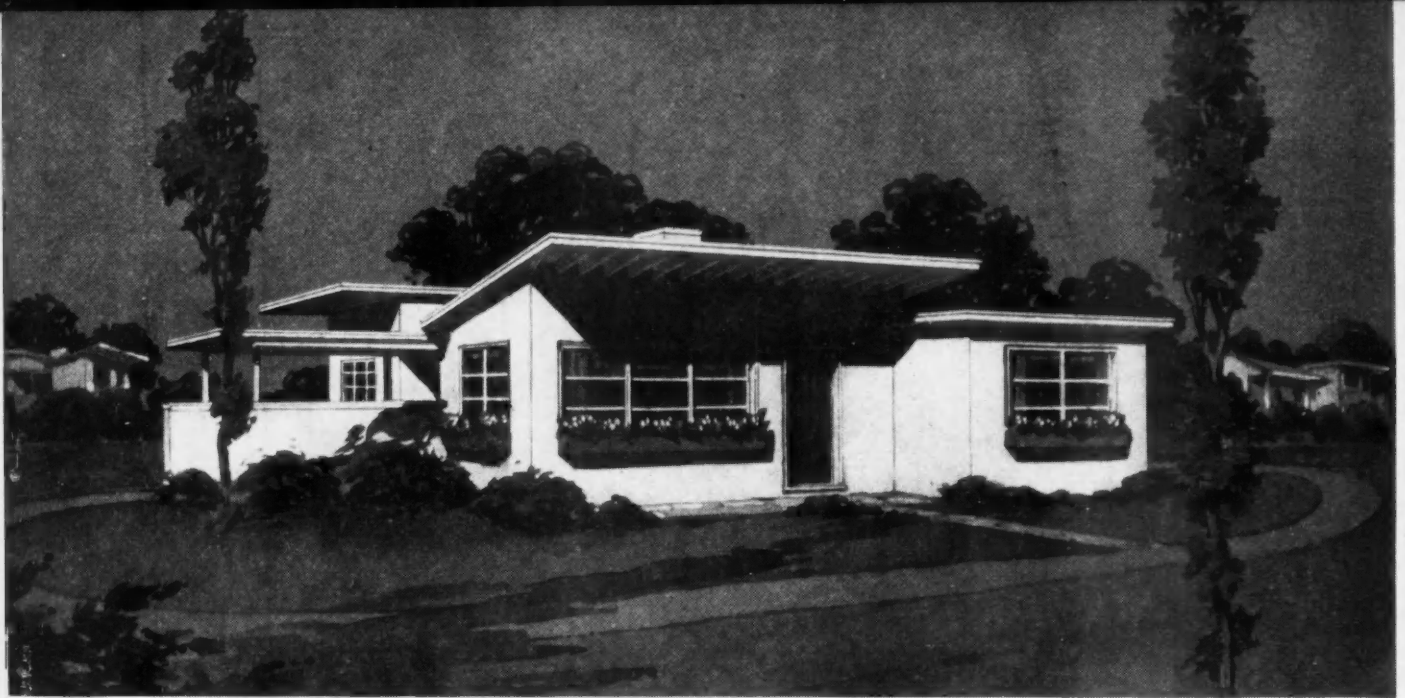
A PATTERN for better privately built war housing, and postwar homes as well, was set by happenstance one day less than two years ago. Out of a casual meeting between a Nebraska builder and an architect in 1942 there grew the Hastings Housing Co., Inc.; since then this firm has built 110 single-family units costing over \$500,000.

Selmer A. Solheim, Thomas M. Sweeney, LaMoine Hillers and W. F. Sweeney combined the talents and assets of architect, realtor, builder, capital and initiative into a corporation. Added assistance came from FHA and the area director, Holger Holm. The results, particularly in the face of recent increasing difficulties, are outstanding. The homes as illustrated here are carefully planned for a permanent development on a lakefront where they will continue to be an asset to the community long after the last shot to be fired is history.

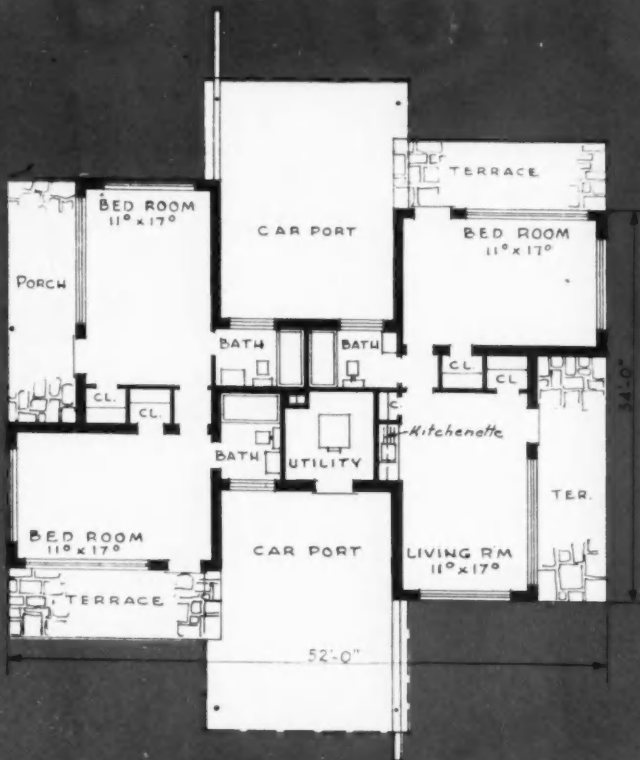
The type of construction used almost exclusively on all of the homes built in this Hastings, Nebraska, project is known as the "Cain Cavity Wall Construction." This construction was used mainly because late in 1942, the War Production Board put a limitation on the purchase and delivery of lumber for war housing. Since it was obvious that costly delays would result, the masonry exterior wall construction was incorporated into the project. The construction is made up of brick, or other masonry units, 4 inches thick for the exterior wall. This unit is then backed up with a 4 x 10½ x 12 inch load-bearing tile laid so that there is a two-inch air space between this tile and the exterior unit. These units are tied together with 5/16-inch steel "Z" ties every 4 courses in height and every 16 inches horizontally to insure solid and permanent construction. The top of the wall is capped at the plate line so that the air space between the units becomes a non-circulating dead air space. The interior face of the back-up tile is waterproofed with a plaster bond to arrest any moisture transfer through the wall. The bed and head joints of the tile are well grouted so that the hollow spaces within the tile also become dead air space and, along with the two-inch cavity, serve as an insulator.



RIGHT: Typical 3-bedroom Title VI design by Hastings Housing Co. Houses offer economical, livable plan; exterior charm and variation; good construction to give satisfaction long after the war.



DELUXE TOURIST UNITS to accommodate up to four parties apiece are planned for grouping on attractive, uncrowded sites.



Plan Now for the postwar Motor Age with American Builder's Blueprint Series

No. 5 of Blueprint Series—American Builder blueprints are presented each month as an educational feature to promote and stimulate sound postwar planning. Previously covered subjects include a rambling Colonial—private garage with architectural charm—postwar home for suburbs—a 6-house postwar community.

Country Club Cabins

THIS MONTH, as promised at the beginning of the blueprint series, is presented the first of the non-residential projects—high-class rental accommodations along a highway. Architects Henry Otis Chapman and Randolph Evans have done here the same job of progressive planning as has been typical of their residential designs. This one provides a new concept of the tourist court for postwar use when again millions of our motorists will be able to satisfy the urge to travel the highways. Thousands of new accommodations will be needed to match the comforts and performance of the new automobiles.

As well as new projects, many of the old rows of unattractive tourist accommodations will need to be replaced, due to lack of proper maintenance during wartime. The type of unit shown here, and detailed in the blueprint, is in line with what can be expected. These units are suitable for such sites as country club grounds where they may be clustered around some focal point of interest such as a clubhouse or swimming pool. While the design pictured here is of a decidedly modern flavor, an alternate exterior with Colonial lines is detailed in the blueprint; the same floor plan is used. This provides for three bedroom units, two of which have connecting baths; the fourth unit has a kitchenette as well, and can be rented as a single or double accommodation. Car ports take four automobiles, and terraces off of each room are placed for privacy. A heating plant provides hot water and required heat independent of other units in a group.

Here is a good start for those looking for advanced planning in this promising field.

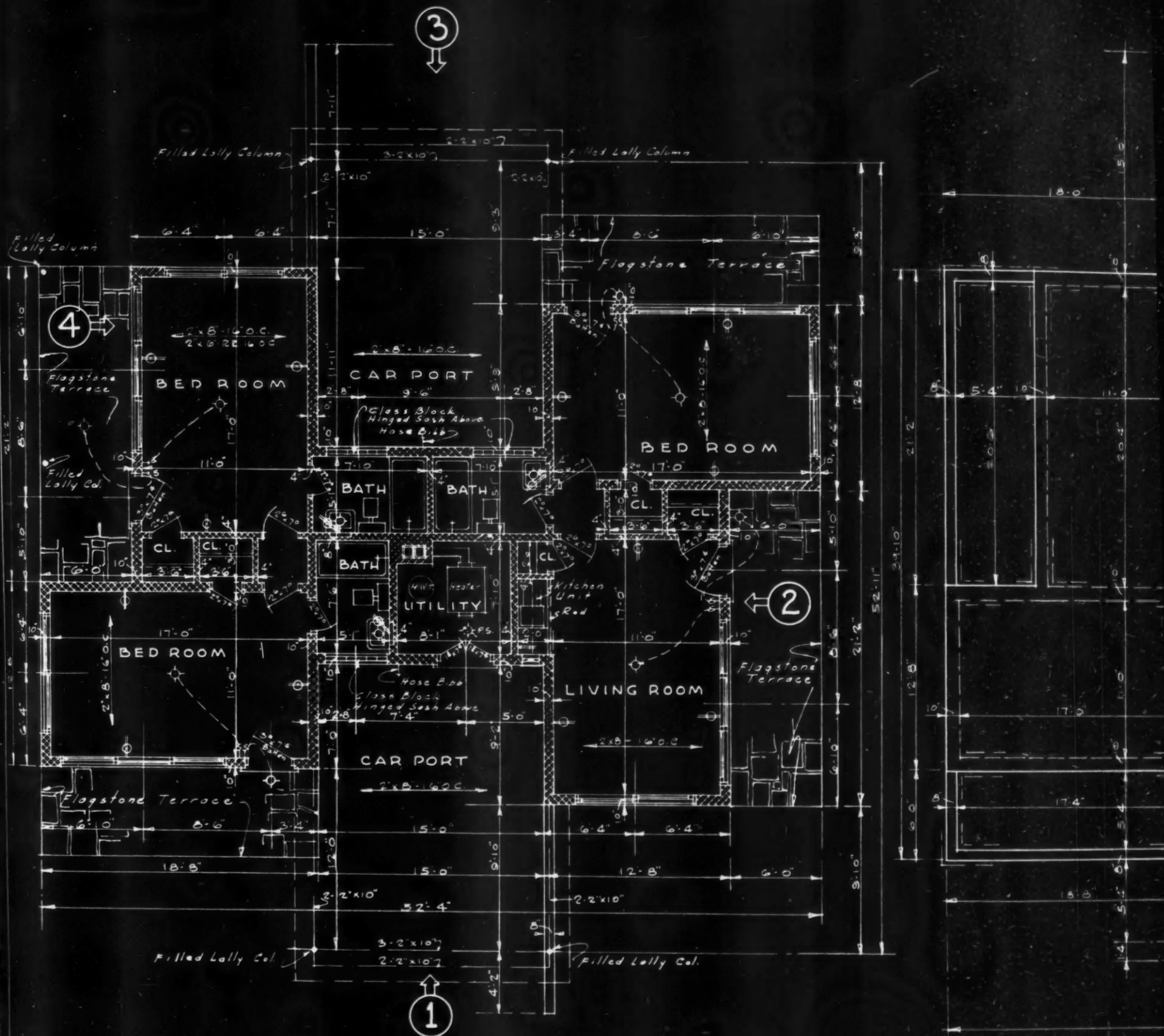
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FLOOR PLAN

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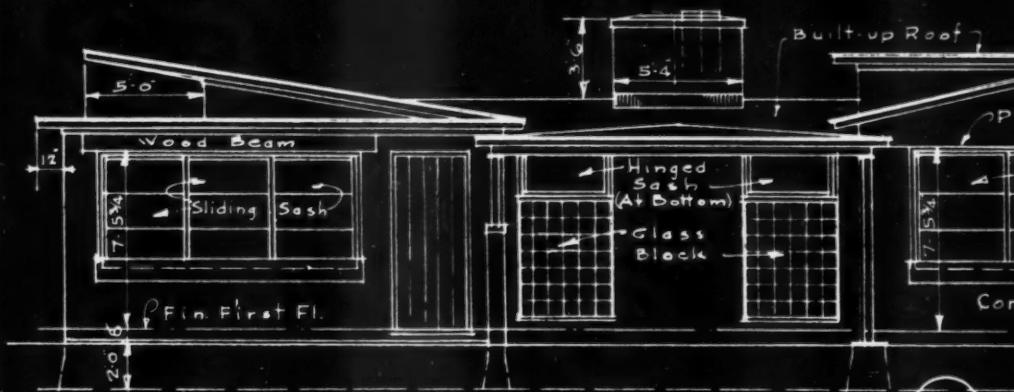
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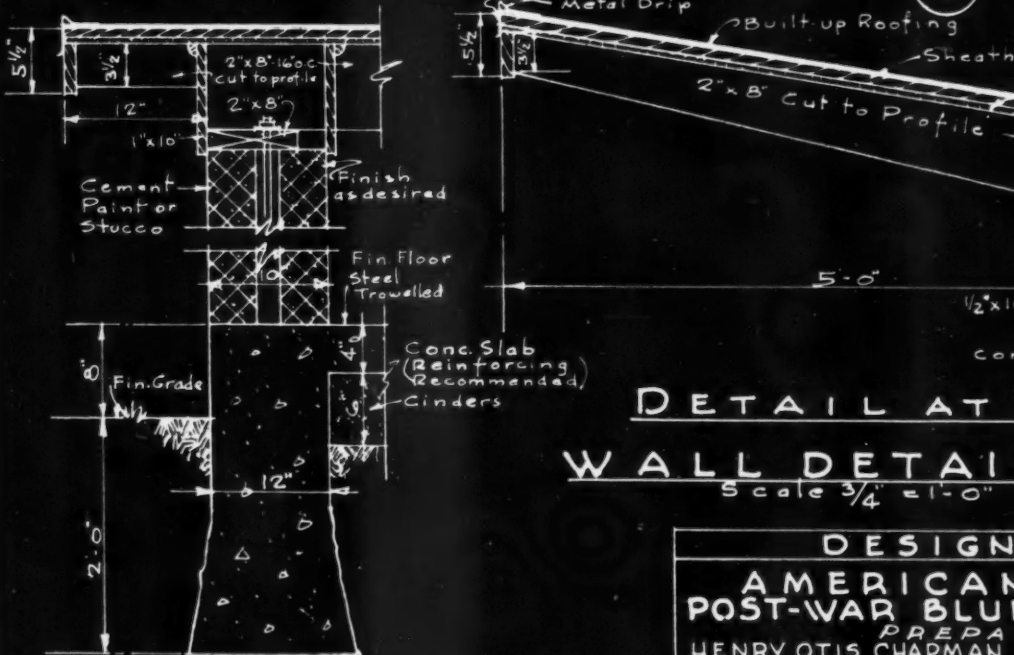


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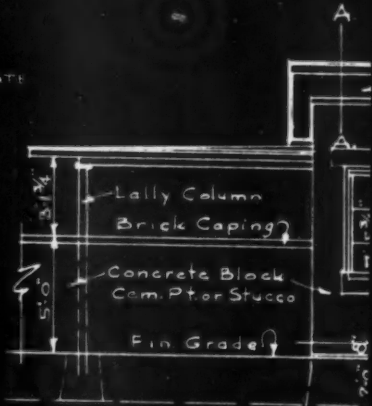
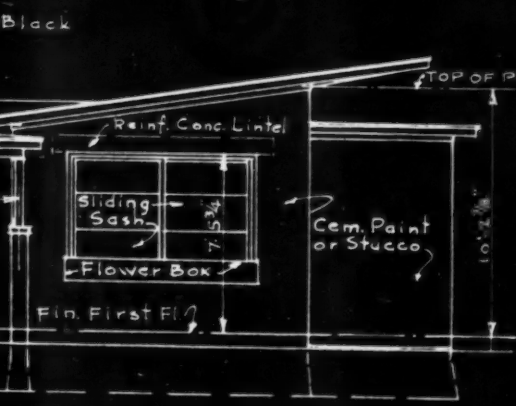
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DETAIL AT WALL DETAIL
Scale 3/4" = 1'-0"

TYPICAL WALL SECTION

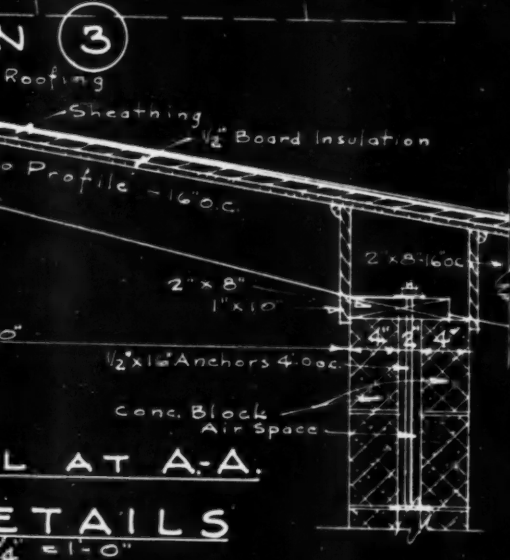
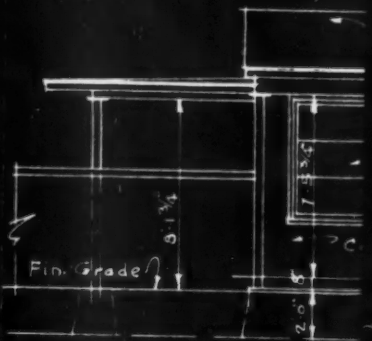
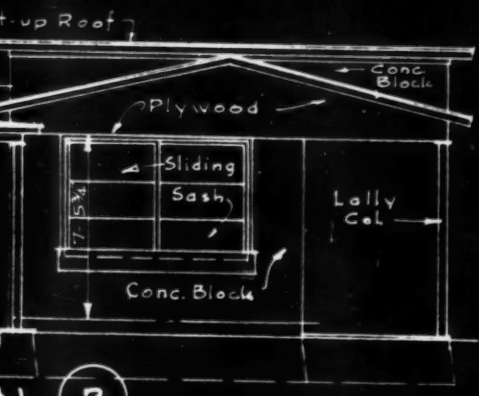
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POST-WAR BLUE
PREPARED BY
HENRY OTIS CHAPMAN
ARCHITECTS
Simmons-Boardman Pub



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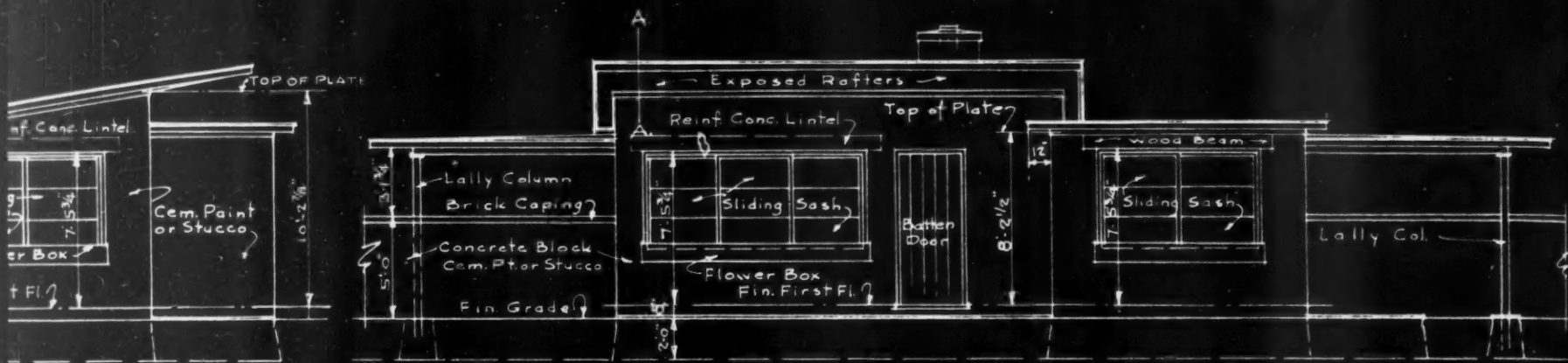


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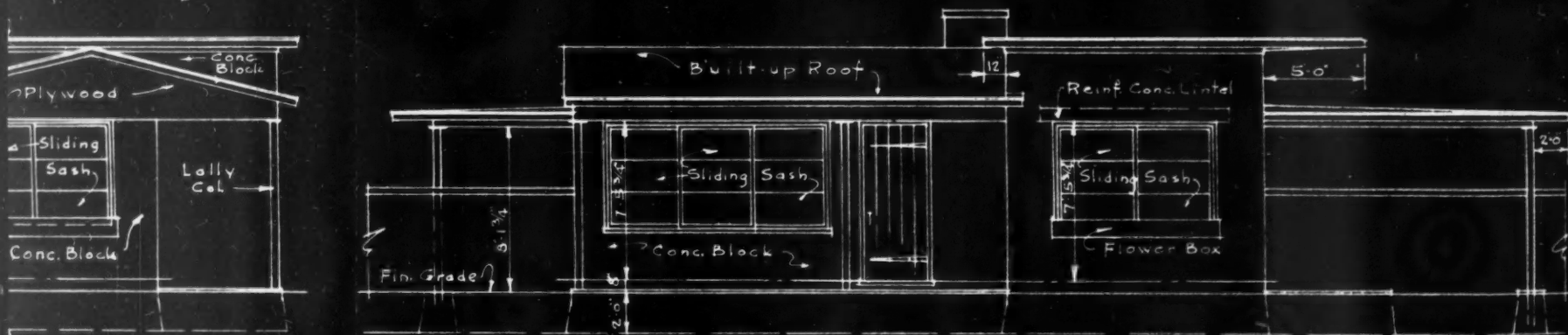
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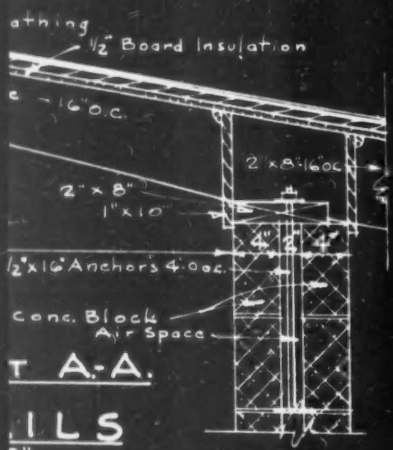


① ELEVATION 2 ②

VARIATION - "A"
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ELEVATION 4 ④



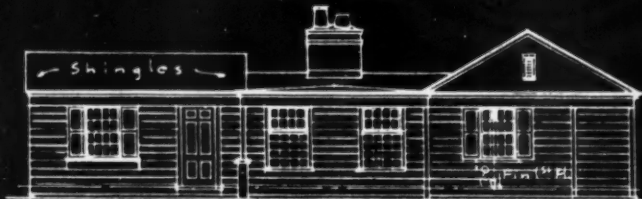
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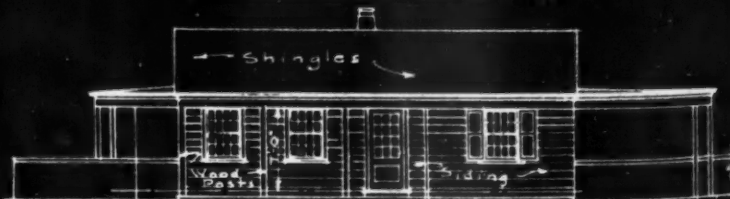
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ELEVATION 3 ③



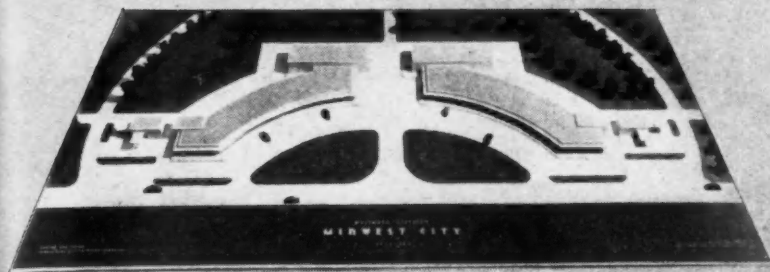
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PEDESTRIAN shoppers of Midwest City, Oklahoma, enjoy safe passage through traffic-free approaches. They also are protected from the sun's intensity by marquee extending all around store front area, as shown in the cut-in picture of a model of the complete business section.

Postwar Shopping Center—the Hub of Midwest City's Land Planning

THE BUSINESS section of Midwest City, Oklahoma, America's newest city, was planned in complete detail with FHA's land-planning division before a ditch digger approached the job. The April issue of *American Builder* told the first of this three-chapter story of a great accomplishment by a group of private co-operating home builders.

Parking space, front and rear, was planned to accommodate the greater use of cars expected "when the lights go on again." Wide walks were provided to take the peak crowds of an increased population years hence.

DISTINGUISHED themselves as builders of a city. Left to right, seated: Amos Bouse, John Lyon, W. P. Atkinson, Steve Pennington, Ben C. Wileman, H. B. Atkinson. Standing: George Epperly, Chas. Stanford, Joe B. Scoggins, S. F. Felix, N. D. Woods, Russell Showalter, D. D. Daugherty. Others not in the picture are Cord Wilson and C. E. Duffner.

The safety and comfort of its citizens was the chief guide to the planners of Midwest City. The curbs of paved circular islands at pedestrian traffic points sidetrack moving vehicles, keep the approaches safe. A marquee reaches out over the entire semi-circular store front area. It too has a planned use—to shield the housewife in her trek from

shop to shop from the intense rays of the sun.

These are desirable points of postwar planning. Here in Midwest City is a living, thriving example, incorporated in a project built to serve a wartime need.

The third chapter of this story will appear in a later issue of *American Builder*.



New Techniques Us

Shows methods employed to conserve scarce materials and labor in Chicago Title VI job—an exclusive American Builder feature.

the building of the non-load bearing plaster partitions, shown in the upper left hand corner of this page.

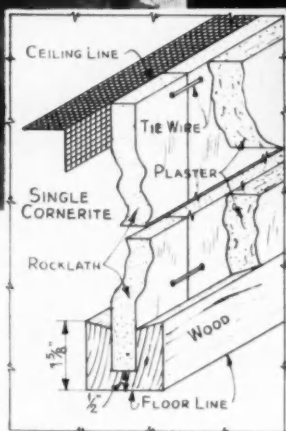
Plastered walls are sand finished and painted. They are purposely made rough so as to discourage children from running their hands along them, thus holding down redecorating costs.

Leaving exposed the 3 x 10 joists and second story sub-flooring not only eliminates the initial cost of lath and plaster but also insures a continuous low maintenance cost.

Occupancy is restricted to negro tenants. The monthly rental of \$47.50 include garbage and ash removal, water, lawn maintenance, some decorating, auto parking space, gas cooking range and automatic refrigerator.

The initial units of Princeton Park are exclusively for rent. Yet each home unit is so planned as to fall within lot lines if it ever becomes desirable to sell the units off separately. (See plot plan.)

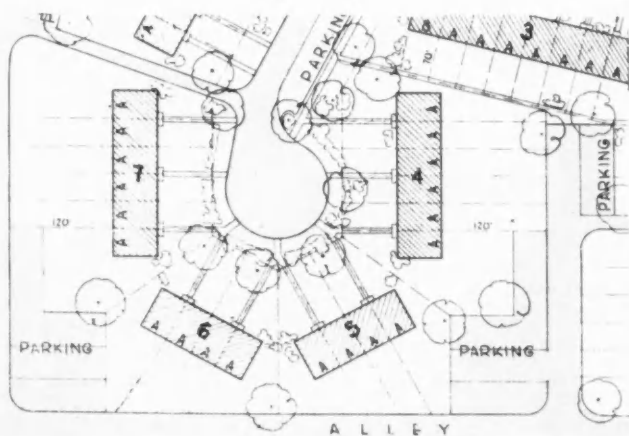
If the homes are ever sold, stringent restrictions will require each purchaser to contribute to the maintenance of the group building, parks and other commonly used areas. The sponsors plan an operation which will permanently preserve the original beauty of the entire project. Some of the lots in the future construction, which is expected to come in the postwar period, are tentatively planned to be sold after the buildings are erected.



GROOVED WOOD runner strip holds Rocklath at floor while it is wired to single cornerite nailed to ceiling. Carpenters install door frame grooved like floor runners to engage vertical edge of lath. Inset shows detail exactly as built in the Princeton Park project, Chicago.

ON THE south side of Chicago the first section of a planned community of over nine hundred dwelling units is under construction. Donald O'Toole and Co. are the sponsors. Holsman and Holsman of Chicago are the architects.

A low-rent project, many economies were planned into the construction. A truss roof is used to allow

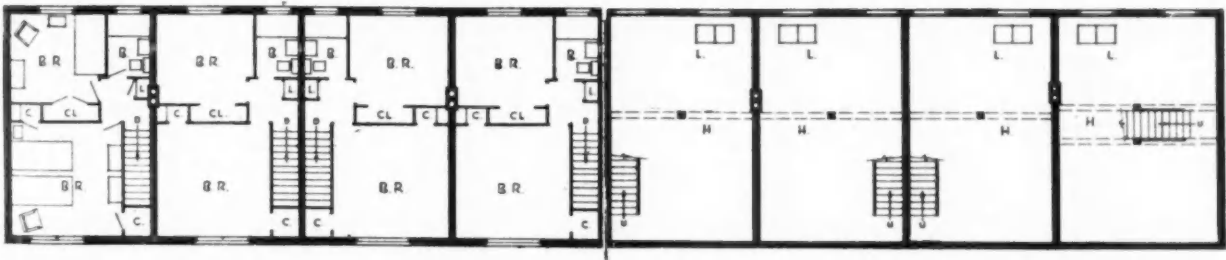
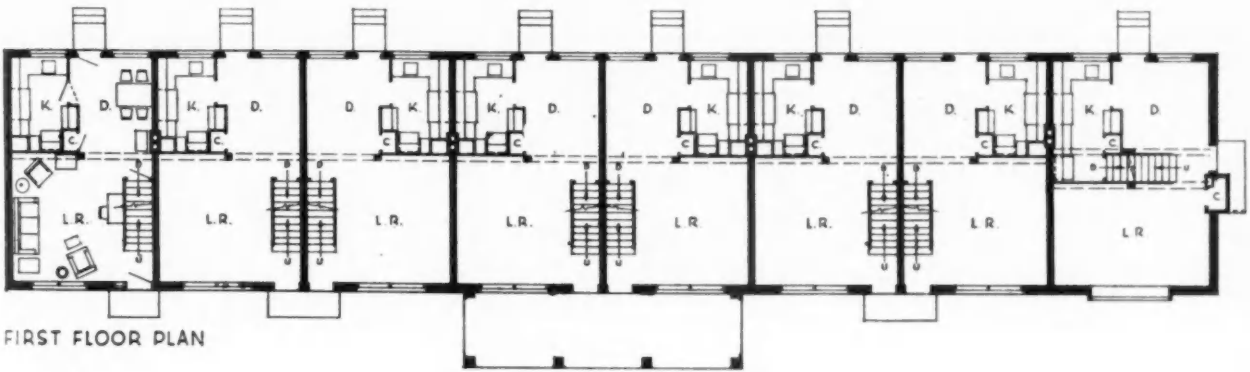


A SECTION of plot plan shows good cul-de-sac arrangement typical of advanced land planning required in co-operation with FHA.



JOISTS, 3 x 10, five feet on center, support second story subflooring which, when painted, will also serve as finished first floor ceiling.

es Used in **FHA Garden-Type Apartment**



ARCHITECT'S rendering with floor plans showing backed-up plumbing and one chimney for each two flues. Proposed furniture arrangement for both floors appears at left end. Location of heating unit and laundry trays leaves considerable free area in basements. Princeton Park is a low-rent project of 900 dwelling units with many planned economies.



VIEW of one of incompleted eight-family apartments. Wide window openings provide for plenty of daylight and fresh air.

How to Plan Wiring for Your "Silent Servant" Home

PART II—This article presents the technical side of adequate wiring required to handle available post-war convenience equipment, continuing April feature.

GENERALLY agreed is the expected installation of more convenience equipment in homes to be built after the war. More "silent servants" will give the housewife the assistance she longs for, needs, and that which she can depend on getting—all items here will be available.

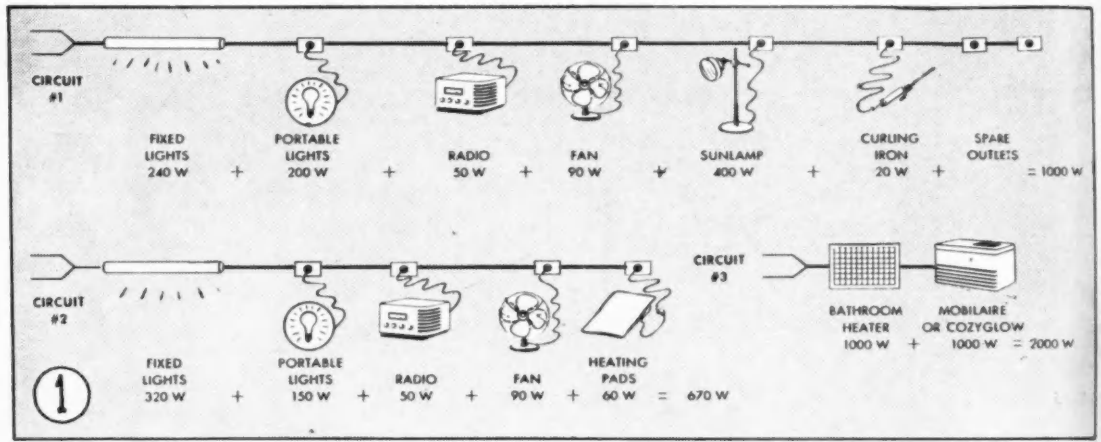
However, builders must plan proper wiring to carry the expected load, even if all equipment is not built into the house but might be added later. This load has been increasing over the last 20 years from what was needed to carry electric lights and a few appliances to an an-

ticipated average load of 10 kilowatts and more.

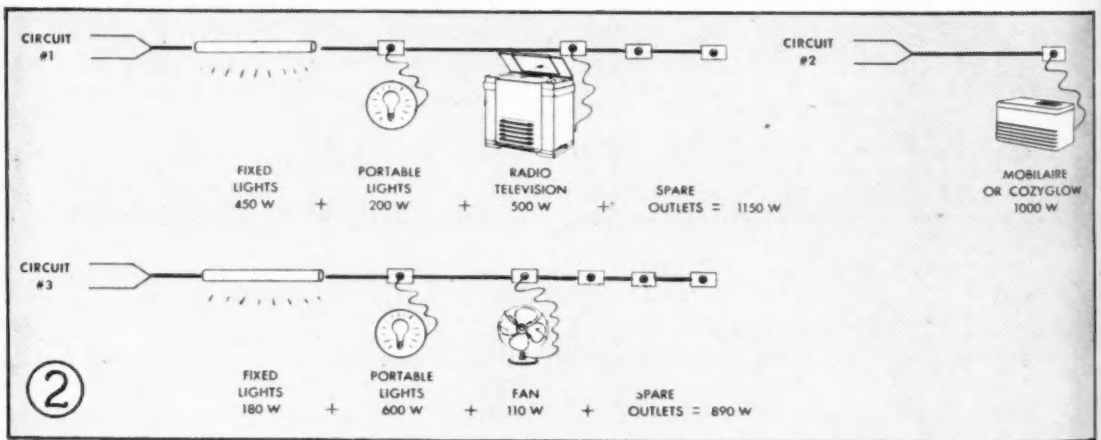
So in the "new electrical age" about to be entered, homes will need more electric service than ever before; electricity will be the "life blood" of the post-victory home. The wiring diagrams on these pages for the five-room electrical home give a good idea of what can be expected in the way of wider use of equipment, not only in the high-

(Continued to page 106)

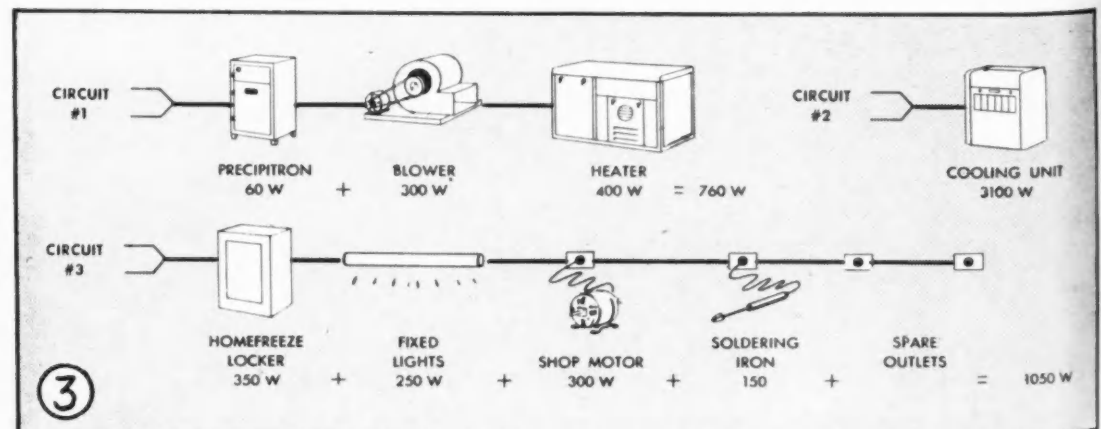
FOR TWO BED-ROOMS AND BATH, as on floor plan, expected complete electrical equipment for a post-victory home would require 3 circuits to sufficiently handle this load, and furnish some reserve capacity. Pre-war practice would generally indicate only 2 circuits.



THE COMBINATION LIVING - DINING ROOM also should be provided with 3 circuits to carry the 3000-watt load indicated here. The usual single circuit would not be sufficient for these items.



IN THE UTILITY ROOM an extra heavy duty circuit is required if a cooling unit is to be put in at some future date. Two other circuits are required to carry heating plant and miscellaneous equipment, including a home-freeze locker.



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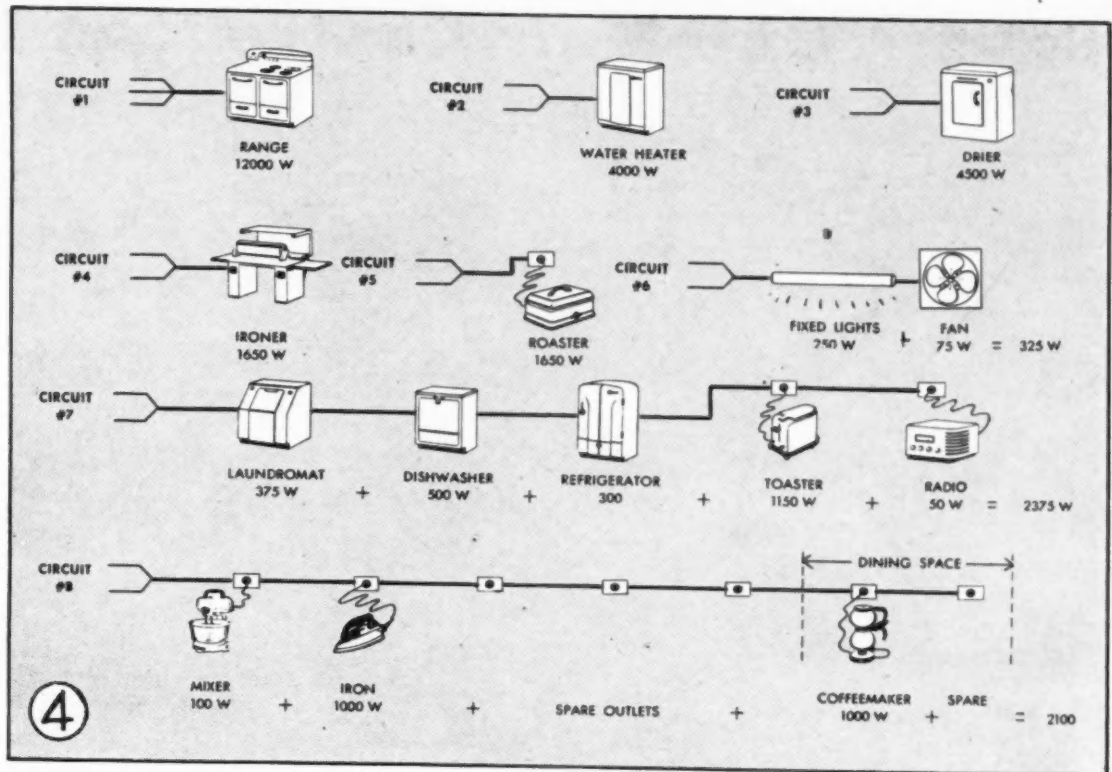
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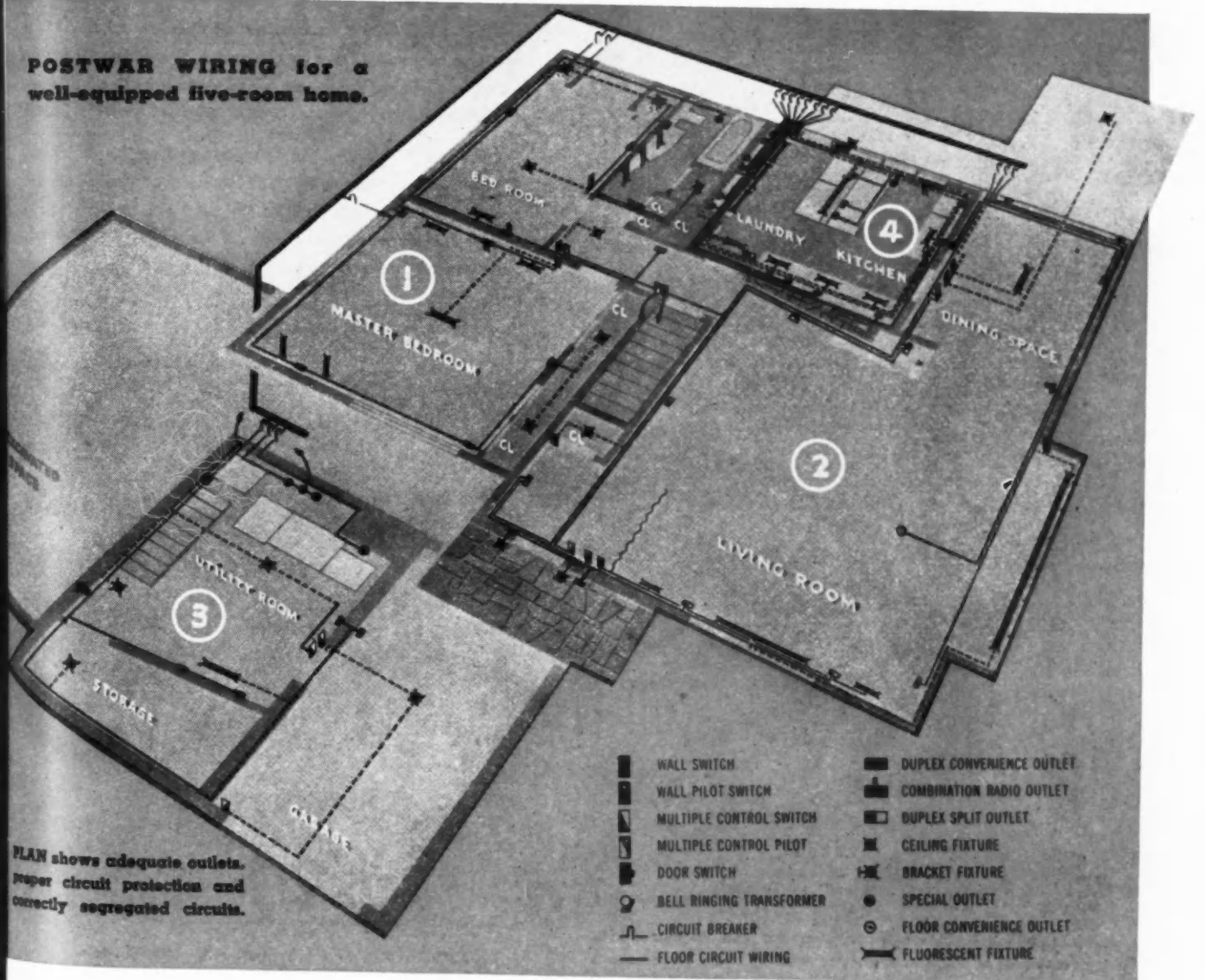
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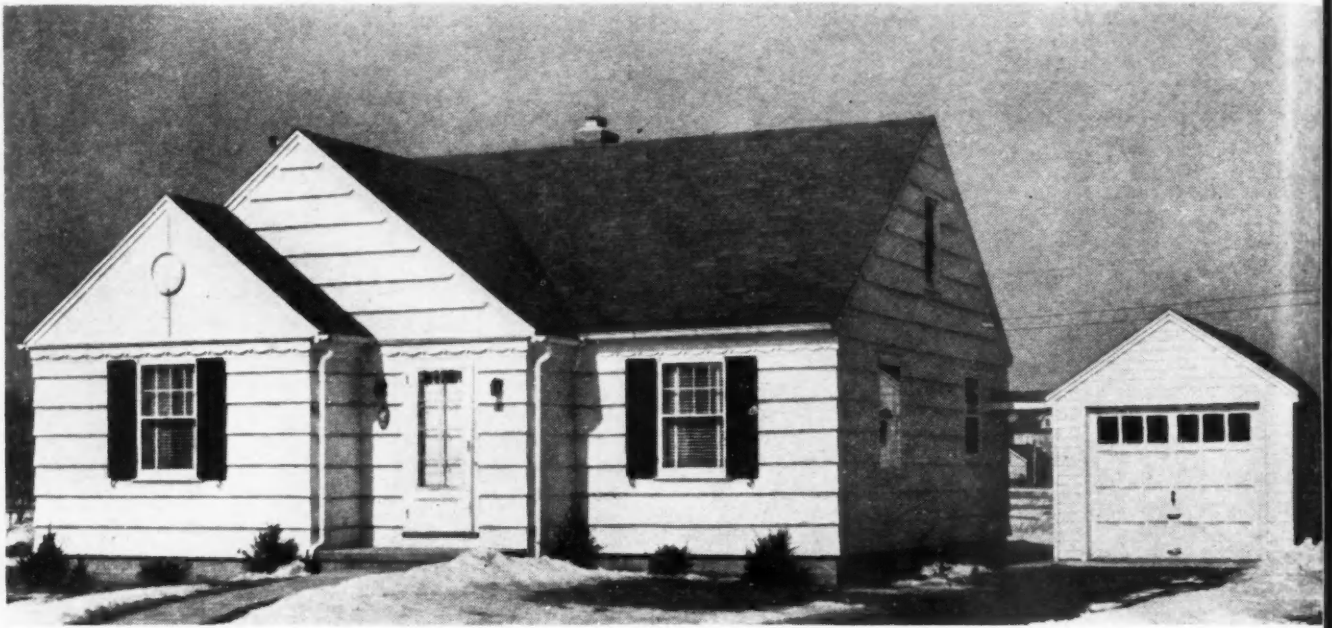
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POSTWAR WIRING for a well-equipped five-room home.

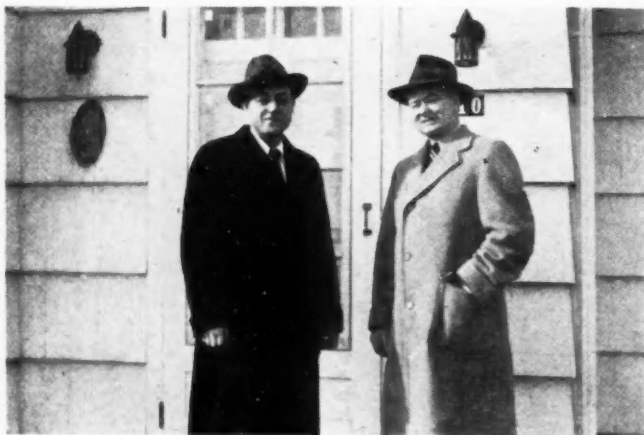


Says "One-Man Control" Insures a Fir



LONG-LASTING qualities of design characterize the architecture of the small home pictured above. Pflanz personally designed all the hundred and fifty homes built in this subdivision.

STEP-SAVING features are emphasized in the floor plan, shown at the left. Note direct access from kitchen to dining alcove, cellar stair, rear door and living room; how available the bath is to both bedrooms and the living room.



EDITOR Joseph B. Mason inspects project with Builder Pflanz on occasion of addressing Rochester Home Builders Association.



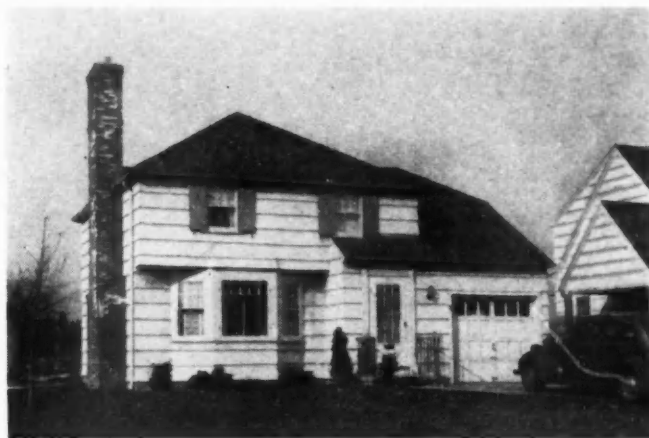
ADVANCED land planning with sixty-foot lots, gently

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From preliminary planning to the sale of the completed homes, every step must come under the direction of the sponsor. Only in this way can a generally desirable community of homes be produced. This is the philosophy—and the practice—of Leland T. Pflanz, developer of Green Acres near Rochester, N. Y.



FOUR MILES from the center of Rochester, N.Y., in a developed suburban community, stands an integrated group of architecturally individual homes—Green Acres subdivision—planned and built by Leland T. Pflanz, private home builder and director of the National Association of Home Builders.

Green Acres enjoys excellent bus service, has a fine shopping center nearby. Schools are located opposite the tract. Winding streets slow traffic, keep it safe for playing children.

Thirty-five houses completed in late fall of 1942, of type illustrated on opposite page, were sold for \$6,000 with \$600 down payment. Monthly cost is \$42, including interest, principal, taxes and insurance with a 25-year FHA mortgage.

Every house is supplied with Superflex oil air conditioned heat, Kitchen-Main cabinets, Rezo doors finished with hand rubbed varnish, tile bath with shower, rock wool ceiling insulation, weatherstripped doors and windows, brass hardware, Arvon walls in kitchen and bath, and Imperial wallpaper. The garage has overhead door with the Miracle Wedge. Asphalt shingles of 240 pounds were used for roofing.

First Postwar Will Be Last Pre-war

"**SOUND** the signal to begin again and this is the style with which I'll start," says builder Pflanz, referring to the higher priced houses shown above, his latest before building restrictions. He plans to install latest improvements as rapidly as they prove themselves practical.



winding streets and cul-de-sacs, accommodates proper orientation of houses in "Green Acres" subdivision



NON-LOAD bearing screening wall of glass block, as shown above, gives privacy to dining space in home or apartment without blackout in passageway. Note highly decorative effect, and modern sliding wardrobe doors behind the panel to save space in hallway.



A LARGE plate glass mirror in the nursery adds apparent size and light; with frame marked for heights, it catches the children's fancy.

It's All Done With Mirrors and Glass

WHAT jobs can be handled now under wartime restrictions and supplies of materials? What items will be among postwar design highlights? On these pages are some suggestions that give one set of answers to both these questions. Here are ways to take care of wartime conversion problems where larger units are to be cut up, to make single rooms serve as living quarters, to dress up with maintenance ideas; also file items for your postwar planning.

Glass block started use as an exterior wall material, but has now moved inside for use as screening, decoration, and partitions that do not cut out light. More and more mirrors add to practically any room in the house with their cheerful reflections and aid to dressing. Glass-covered work surfaces and large window areas have been increasingly popular. In fact, the trend has been toward more glass for every practical use. Perhaps we'll need a new adage to apply to all the people who will live in "glass houses" after the war.

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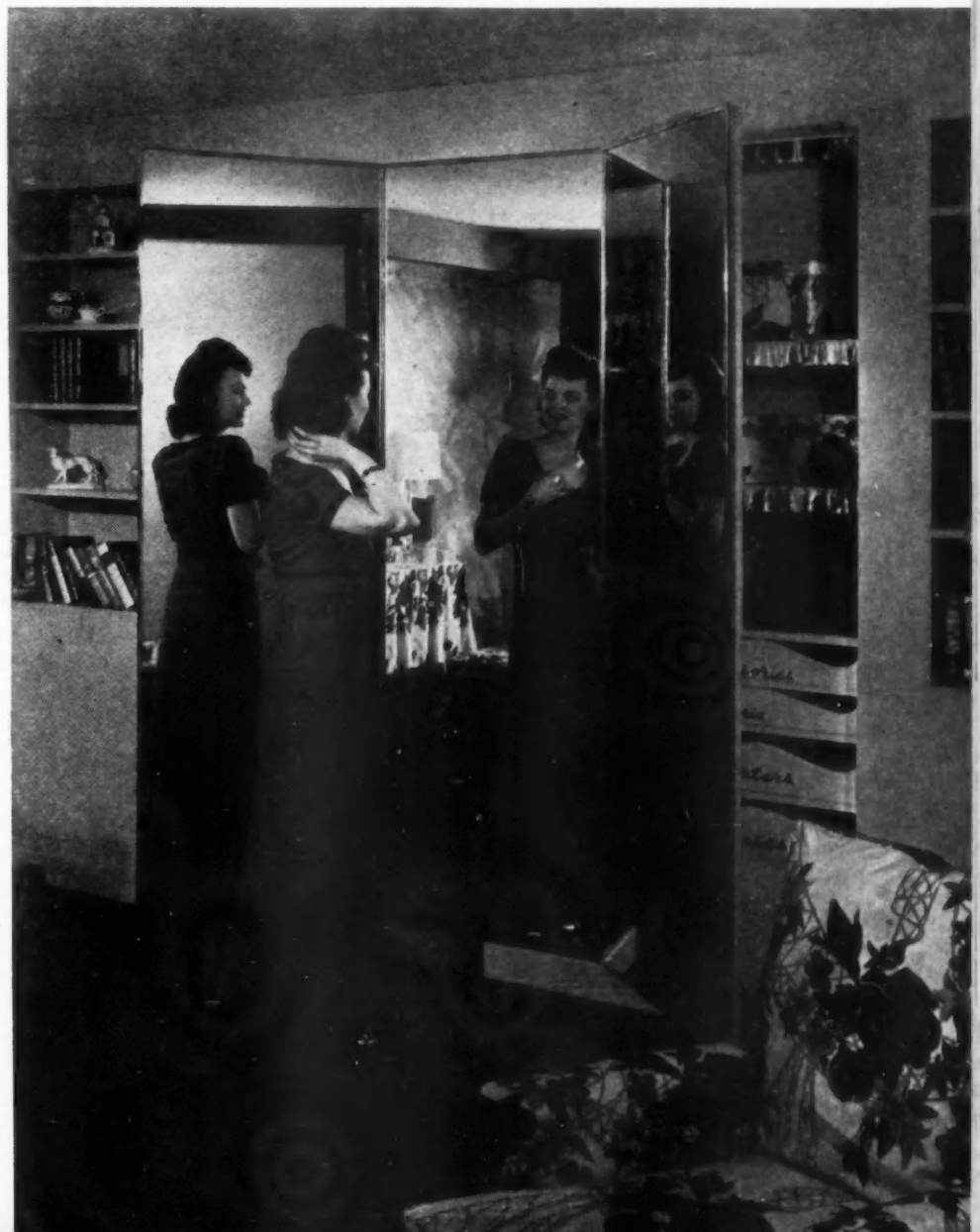


LEFT: In this kitchen a panel of beveled-edged mirror, on which a clock is mounted, reflects colorful interior. Novel curved-end work counter with roll-type sliding doors, upper shelf and matching, convenient breakfast bar have easy-to-clean Vitrolite glass surfaces.



RIGHT: A bank of double-hung sash arranged in corner of living room makes this spot the equivalent of a sun parlor—plenty of light, air, and view. Modern, horizontal lines add design possibilities; weathertight construction, plus storm sash in winter, assure comfort.

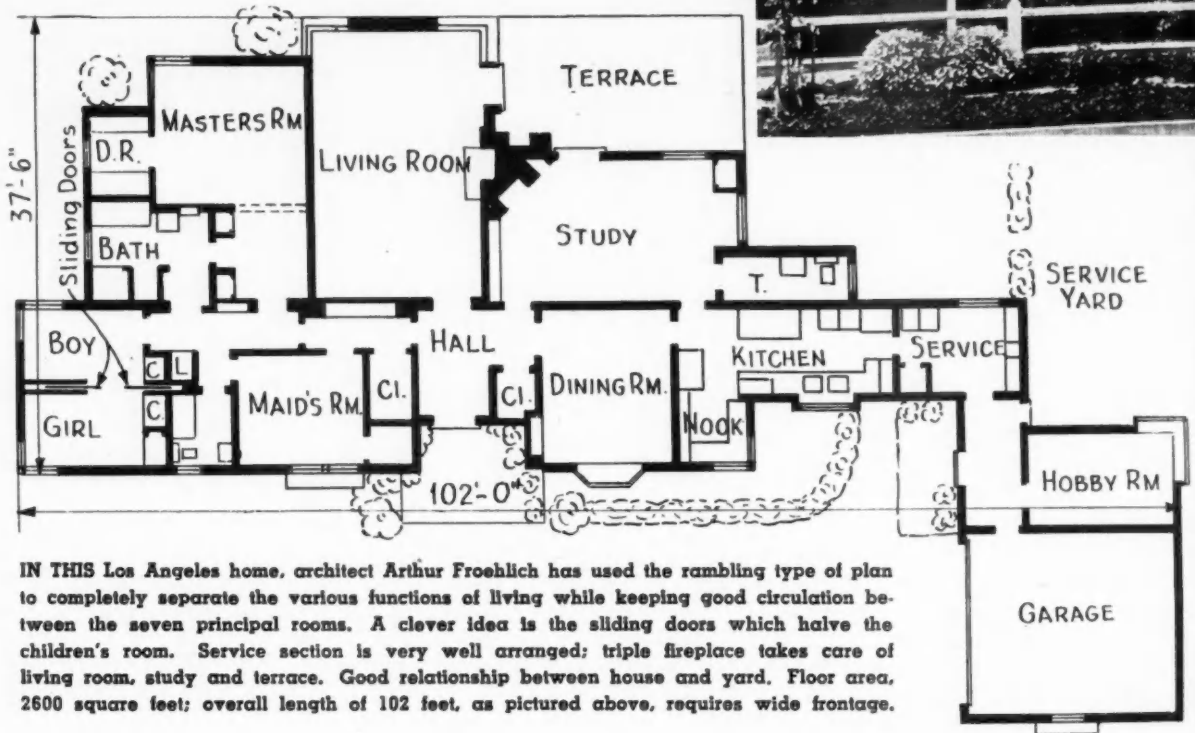
TIMELY suggestions for wartime fix-up jobs and ideas to plan into your postwar homes; new life can be added to old structures, pre-war standards raised by use of these highlights.



HERE is a skillful piece of camouflage in the form of a triple mirror, the end panels concealing built-in wardrobes—a good stunt for conversion of one-room apartments or combination library-guest room. When mirror is back against wall it is flanked by built-in bookcases and reflects the opposite side of the room, again giving apparent increase in size. Illustration: La Salle and Koch's, Toledo—L-O-F display—Hedrich-Blessing photo.

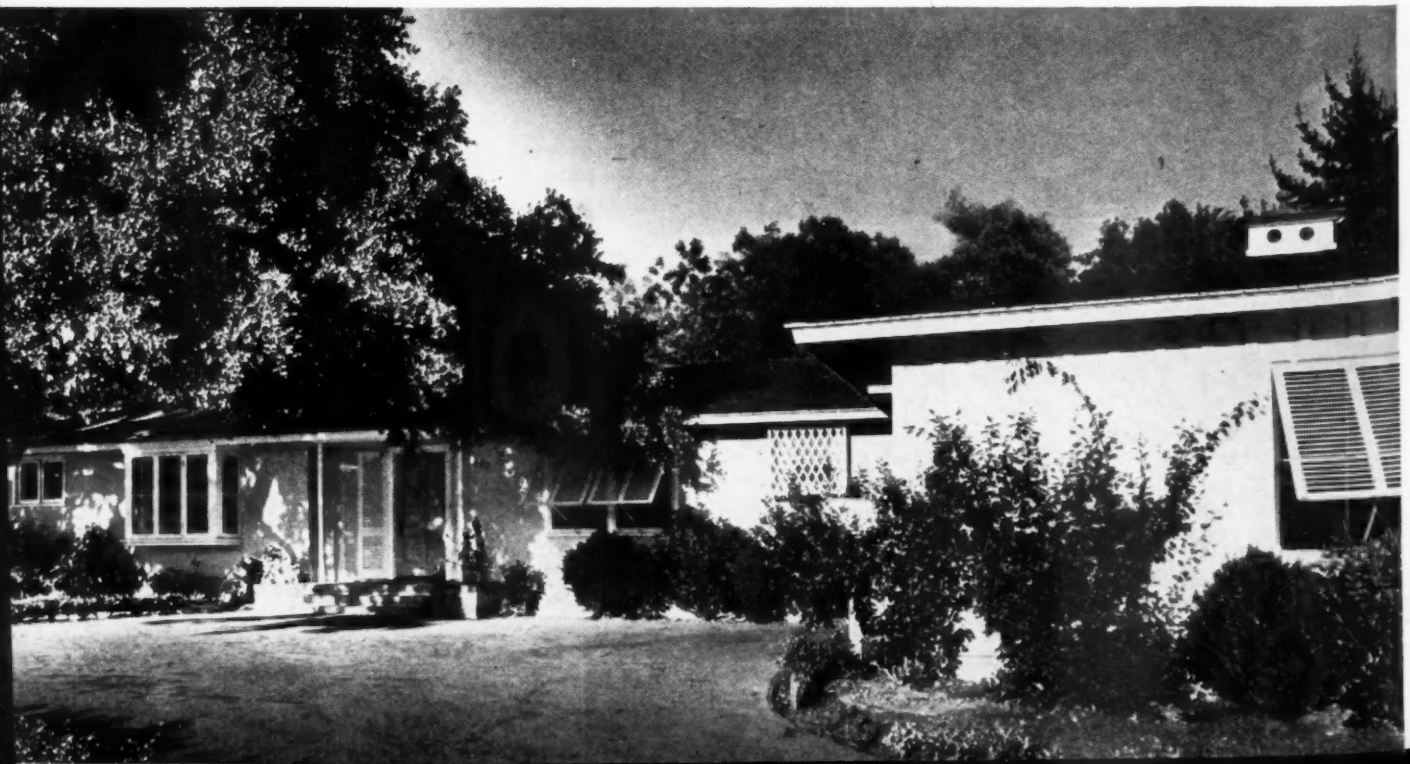
California Sets Pace with What Postwar Home Buyers Will Want

Rambling ranch-house style on large lots will be in good demand in all sections, builders report

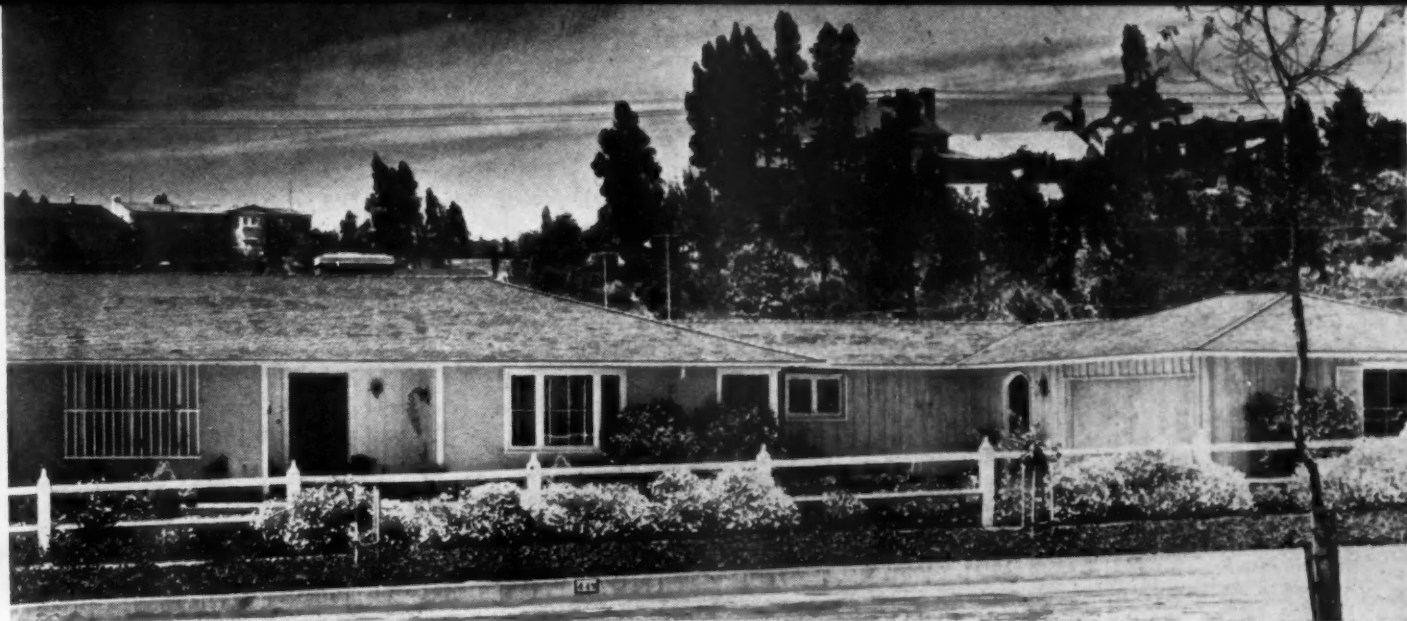


IN THIS Los Angeles home, architect Arthur Froehlich has used the rambling type of plan to completely separate the various functions of living while keeping good circulation between the seven principal rooms. A clever idea is the sliding doors which halve the children's room. Service section is very well arranged; triple fireplace takes care of living room, study and terrace. Good relationship between house and yard. Floor area, 2600 square feet; overall length of 102 feet, as pictured above, requires wide frontage.

BELOW: Another California ranch-house styled home by Architect Froehlich. More compact than the 7-room design, it was built at about one-third less cost; however, the plan (on opposite page) retains advantages of good light and air, ample storage and bath facilities.



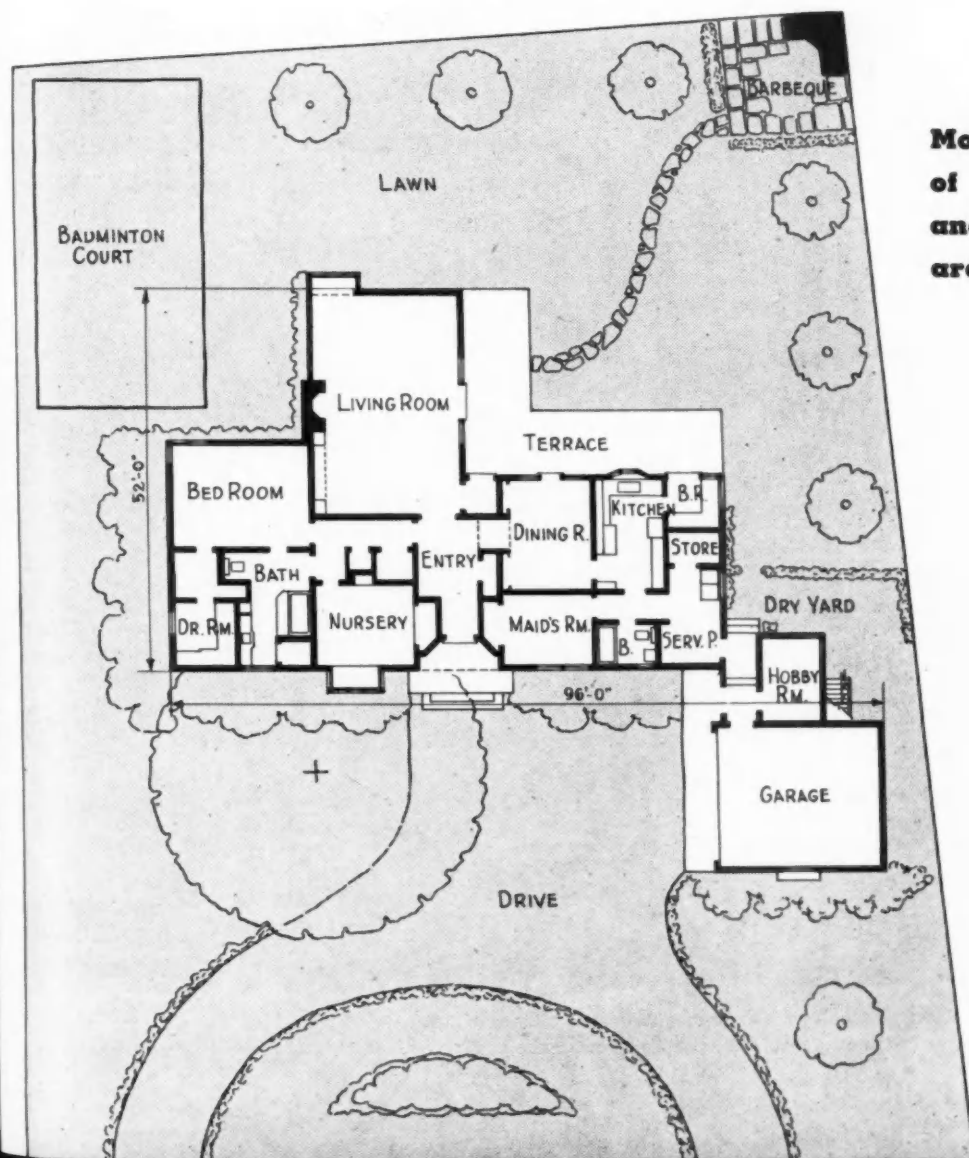
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TWO EXTREMES in post-victory home design have come to the fore in surveys taken during the war. One is the trend toward more compact planning for maximum use of cubage in low-cost houses. The other is in the direction of the rambling, single-story design, which is typical of the western sections, and satisfies the primary desires of the middle-cost range of buyers. This latter provides all functions on one level, including

laundry and heating, living, sleeping and service. It requires a large lot, generally farther out for lower land costs, but allows for gardens, light and ventilation, outdoor living and recreation.

The two houses shown here are California designs of this style—one above the \$10,000 range, the other below. Both definitely follow a postwar pattern of straightforward functional design.



More light and air, privacy of plan, outdoor living and convenience equipment are offered in these designs



AFTER the war the trend toward larger lots and better planning of yards for closely related outdoor living and use is expected to continue. Here principal rooms overlook rear garden and open on terrace. Recreation is featured. Service yard to one side is screened with shrubbery, and is near garage, laundry. Built by John Flanagan.

Edison Builders Say, "Add a Flat"

The Country Is Full of Potential Conversion Jobs, According to Edison Co., Doing a Hundred or More Every Year

ONE way to make the most of what you can get and keep on the job these days is to get around after some of these conversion jobs. Add a flat or a room, or remodel an interior to create more living space for more people, is necessary work in many localities. It takes a minimum of materials for the amount of living space added.

The Edison Building and Construction Co., has been specializing on this job of adding a flat or an apartment in the half-basements of the type of house shown for fourteen years. Right now they have 11 jobs under way. They average from 100 to 125 jobs per year of this type.

As Mr. M. L. Cable says, either he or his partner, D. J. Casey, points out to a home owner that he can convert his semi-old house into an income property without any down payment and have 7 years to pay the cost. During this time the rent from the added quarters will cover the mortgage payments. This is the FHA 7-year plan. The proposition for the home

owner is a sound one, and not hard to sell to him.

Such jobs run from \$3000 to \$3500, for the approximate size shown in the plans, depending upon the type of heat installed. In most cases the upstairs heat is taken from existing equipment in one way or another, depending upon the type of system. The side walls and roof of the new part are insulated.

The general method of procedure is to cut away the overhang of the roof and build up the second floor walls and install a temporarily-covered roof before the existing roof is dismantled. All material except roofing is used over. The old roof boards are used for sub-flooring. Rafters are used again. In fact, there is no scrap lumber left but for short ends. On the job shown in the photo on the next page, an electric saw was used to speed up the work.



THE bare attic space before "face lifting."



THIS comfortable bedroom is located exactly in the space shown in the small picture of the attic above. With the old roof raised 8 feet and a set of 4 casement windows in the front, the old home "ain't what she used to be." Such conversion jobs are practical.

**Build An
ATTIC FLAT
Or Basement \$20
Apartment**
FOR AS LOW AS **\$20**
Per Month

Regardless of the type or size of your present roof, your present mortgage, or cold winter weather we can still erect a beautiful, income-producing attic or basement apartment Now

LET OUR ENGINEER HELP YOU

Our experienced engineer will visit your home, without obligation, explain how he can plan, estimate, obtain priorities and build your job. TENANTS ARE WAITING FOR THE COMPLETION OF YOUR JOB AND THE RENTAL INCOME WILL PAY FOR THE ENTIRE CONSTRUCTION.

Phone BRUnswick 4450

South Side Office HYDe Pl 3932

EDISON BLDG. & CONSTR. CO.
1241 N. Ashland Ave.

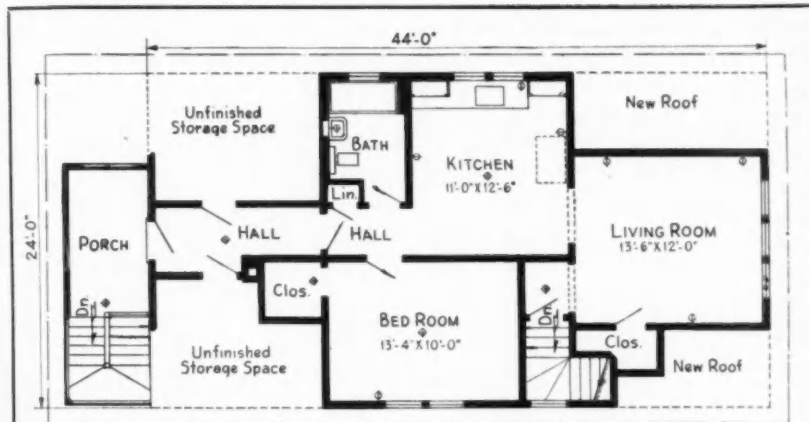
ADVERTISING is one way the Edison Co. gets business. This ad was placed in the Chicago downtown shopping newspaper which has a circulation of over 300,000. At the same time the paper gave a write-up about one of the Edison Co., jobs. Satisfied customers is the other means of getting new conversion jobs to do.



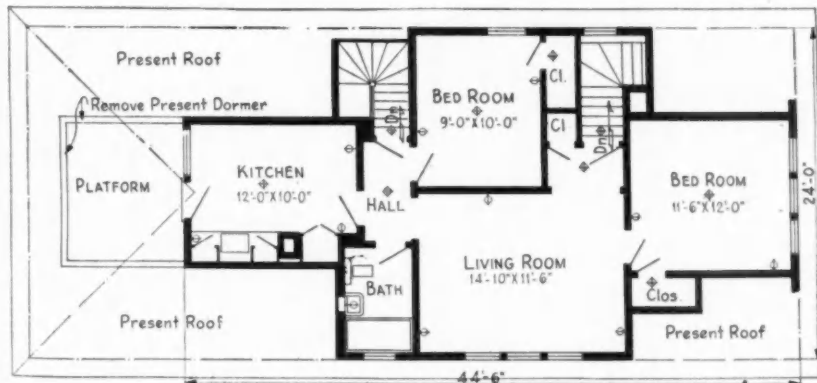
THE present roof is left on until the walls are up and a temporary roof laid to keep weather out.

Each job of this nature is different than the one before it. The existing floor plan, with its plumbing, chimney, and stairways definitely set, dictates how the proposed upstairs must be laid out. The entrance hall to the existing house must be altered to provide privacy for the downstairs family.

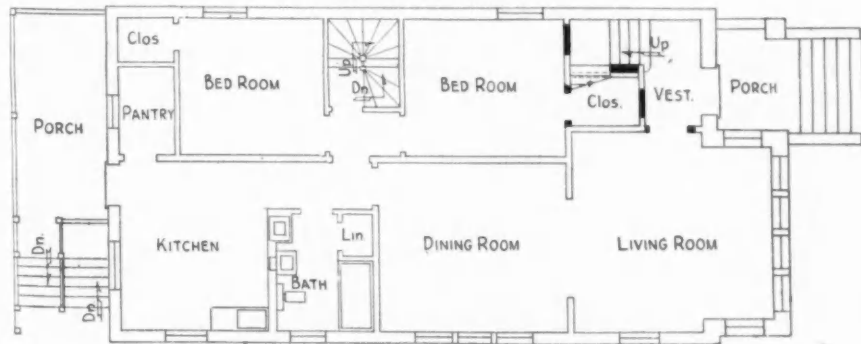
On conversion jobs of any kind it is not difficult to work in considerable non-critical materials that can be got by picking them up here and there locally.



FIRST floor of an existing house controls what the upper one can be.



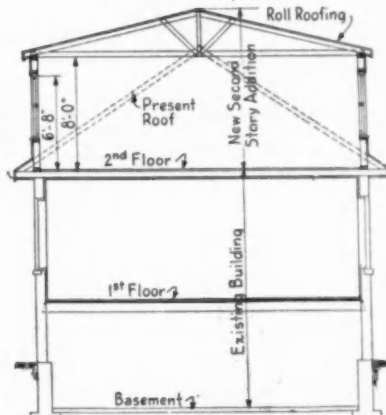
NEW SECOND STORY ADDITION



PRESENT FIRST FLOOR PLAN



FRONT ELEVATION



CROSS SECTION

ABOVE are plans of a typical "add a flat" job. The locations of kitchen and bath room upstairs correspond to those existing on the first floor. Stair wells and stairs are not changed, although the front hall of the first floor had to be altered to create privacy.



"Garden Home Apartments— Close In—Are My Specialty"

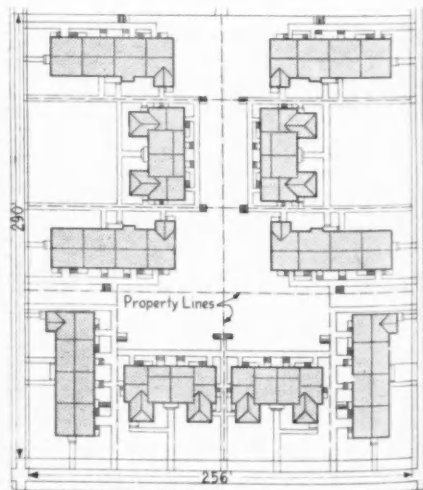
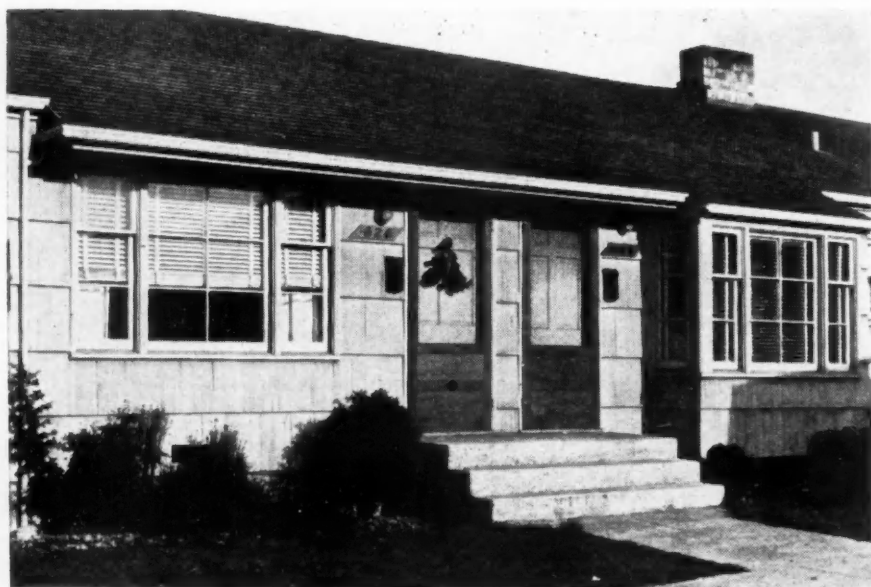
Reports S. H. ERICKSSON of Seattle

Stresses investment appeal of attractive rental units with little janitor service; finds suitable sites low-priced in old developed neighborhoods

EVEN UNDER present OPA rent ceilings the return from money invested in well-placed rental property is most satisfactory, according to S. H. Ericksson, prominent builder and operator of the garden-home type of small apartments in Seattle, Wash. His method is to

acquire a large enough tract, preferably an entire city block, to permit landscaping all around and the use of 1-story and 2-story buildings without crowding. He stays within walking distance or short bus ride of the city-center and finds that such sites, with all improvements in, can often be picked up at a surprisingly low figure—even as compared with undeveloped tracts in the more fashionable outskirts. He uses 3-room and 3½-room units, each with its own individual basement laundry space and tenant-operated heating plant.

Such a project is illustrated here—40 apartments in a group of 10 buildings at West Roy St. between 2nd and 3rd Avenues, W., in the close-in Queen Anne Hill section of Seattle. Stuart & Durham, architects, were responsible



PLOT PLAN 256' by 290'; 6 1-story and 4 2-story buildings, each with 4 apartments. At left, close-up of 1-story entrances.



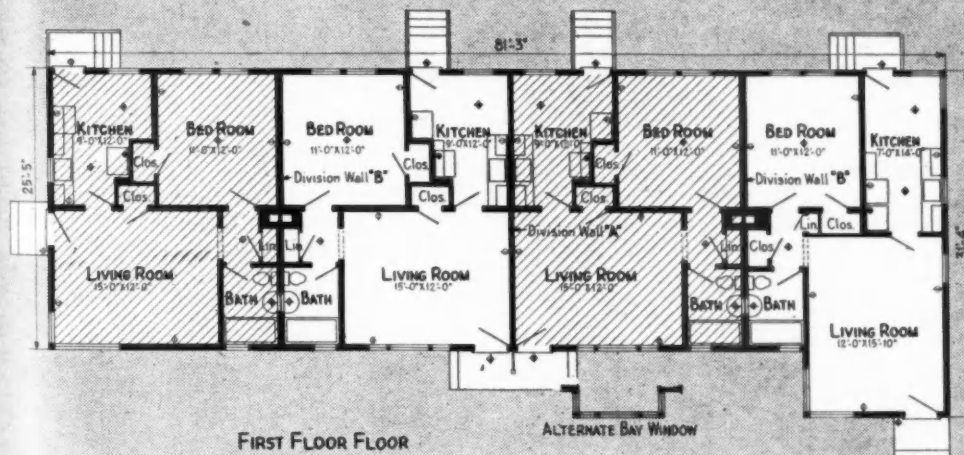
ERIKSSON garden-type apartments feature wide fore-court 86 by 100 feet; Stuart & Durham, architects, Seattle. 1-STORY UNIT has four 3-room apartments, as shown in drawings below; sound-proofing of party walls and fire-proofing of center wall in each building (Seattle code) are important.

for the design. Four of the buildings have a 2-story central section with bedroom and bath upstairs, making the two inside apartments duplexes. All others are "flats." This was an FHA Title VI multi-family war housing project completed late in '42. The size of rooms was

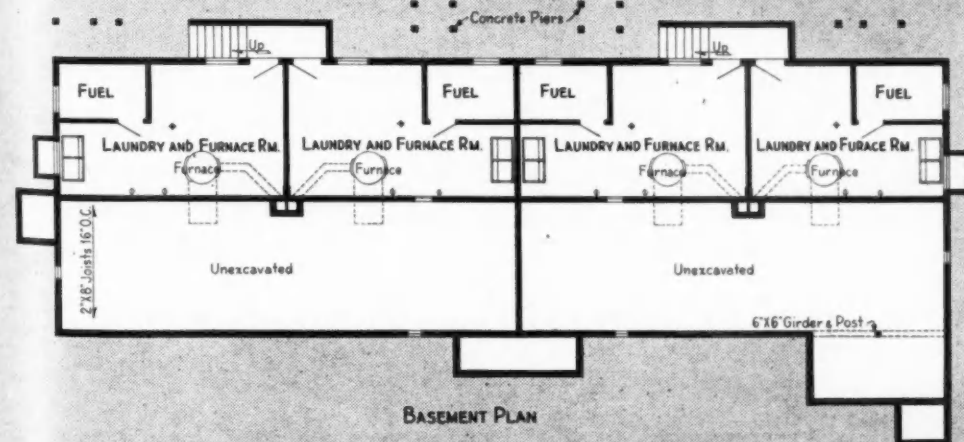
restricted by WPB order; Ericksson says he will use larger living rooms in similar postwar work to give even greater attractiveness to tenants. Details of construction and plans of 2-story units will follow in a later issue.



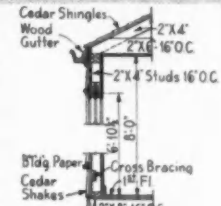
FRONT ELEVATION



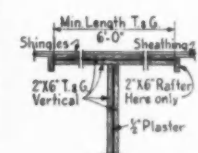
FIRST FLOOR FLOOR



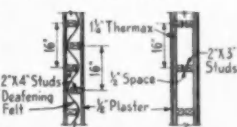
BASEMENT PLAN



WALL SECTION



DETAIL OF DIVISION WALL "A"
SEATTLE CODE-SLOW BURNING PARTY WALL



ALTERNATE DETAILS FOR SOUND-PROOFING DIVISION WALL "B"

GENERAL NOTES

DIVISION WALLS "A" - SLOW BURNING SEATTLE CODE
2 Layers 2x6 T & G Planking Vertical, Plasterboard Between, Extending From Foundation Wall To Rafter. Roof To Be Of Same Construction For 3'-0" Each Side Of Division Wall All Joints To Be Staggered. See Detail.
All Woodwork To Be Kept 1 1/2" Away From Chimneys.
All Walls and Ceiling, Except Concrete Walls in Basement To Be Plastered With Wood Lath and Plaster.
2" Brick Wall Between Flues In Chimneys
Joists Under Partitions To Be Doubled
Joists Over 8'-0" Span To Be Bridged With 2x3 Or 1x4 Bridging
Lintels Over Windows
Up To 4'-0" To Be 2-2x4 On Edge
4'-0" To 6'-0" - 2-2x6
6'-0" To 8'-0" - 2-2x8



IT takes about a tenth of the time to cut studs with a power tool

WHILE going around over the Gerholz Healy Co. jobs in Flint, Michigan, the greatest impression I brought back to my office was the hum of power tools. I watched a hand power saw rip a 1 by 12 inch board 18 feet long. I couldn't help but compare the speed with the time it would take with a hand saw.

Power tools on the job have much to do with the ability of any builder to build better houses for less money. That is what these men are doing, and making a good job of it. Their houses, first of all, are all off the same floor plan although variations are made on the fronts to eliminate monotony.

Another feature, although it costs a little more money, is the way they have set back every other pair of houses to avoid the otherwise unpleasant straight-row look. The differences in appearance are due to the fact that dormers and gables vary, as well as shapes and sizes of windows and also kinds of front doors. Some houses have large, stationary living room windows in front, and others have two front windows, and one side window, that measure 32 by 24 top sash, and 32 by 36 bottom sash.

The houses are built under Title VI of FHA and are in the \$6000 bracket. Those houses that have been sold instead of rented, sold with a \$650 down payment. That is a good buy for any family, especially as the improvements in regard to streets are good. The site is next to a large park, and the drive into the downtown section is over boulevard streets.

Specifications for the houses call for many items to make them attractive and livable, and inexpensive to heat. All side walls have board insulation and the ceiling is completely covered with blanket insulation. The houses are 24 by 30 feet, and the coal consumption is 6 tons or less per year, which is a good record for the climate of that part of Michigan. Heating plants

Power Tooling



vary in type as to fuel although all are of the warm air type with diffusion-type registers. Some furnaces burn oil and some gas. All windows are weather-stripped.

Living rooms have cove ceilings and picture molding, making a pleasant-looking room even before being furnished. (A plan of the houses was shown on page 71 of last month's issue.) The kitchen, as shown in the photo on the opposite page, has a job in it which makes a convenient spot for a breakfast table and chairs. A large, stationary picture window makes this kitchen rise from the ordinary and pleases the prospective renter or buyer. The kitchen is completely equipped with built-in sink and cupboards, stove, refrigerator, electric exhaust fan, package receiver between side door and window, and a shelf for phone. There is fluorescent lighting in the center of the ceiling and a light over the sink. The floor is covered with linoleum with a cove baseboard and toe space under cupboards.

All of these items are partly made possible by the use of electrical horsepower on the job. The cutting of all sorts of parts with power tools reduces the time element to a minimum. Not only can a job be completed faster, but at less labor cost per job. Skilled labor has learned to welcome the power tool. The work is easier, which does away with much of the fatigue of a day's work.

The use of power tools efficiently, however, is the result of office planning and scheduled production of the job. There is no use sawing studs and joists to length and then have men standing around waiting for a load of rafters to be delivered. There is plenty of building going to be done and now is the time to get busy figuring out a program using power tools to lessen costs and get your jobs done at a profit.

Along the Site Are Good Business



ABOVE is a view of one of the Gerholz Healy Company's war housing streets showing the desirable effect obtained with varying set-backs.

By James H. Hawkins, Assistant Editor

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weather

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A PAIR of sanding machines make short work of floors after all else is done.

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OS GERHOLZ, President of the National Association of Home Builders, says that private home builders can build adequate housing for low-income families at costs from 20 to 35 per cent less than the same dwelling units could be provided by public housing agencies. Experience gained during war building, and the use of power tools on the job, have shown many private builders for the first time that they can afford to build and rent such properties built in sufficiently large quantities.



THE kitchen shown in the photograph above is typical of the houses under construction as pictured at the top of the page. Built under title VI of FHA, the kitchens of these houses are fully equipped, including ventilator, package receiver, fluorescent lighting and telephone shelf. Toe space is provided and the floor has linoleum cove base.

HANDY NOTEBOOK WORK SHEETS

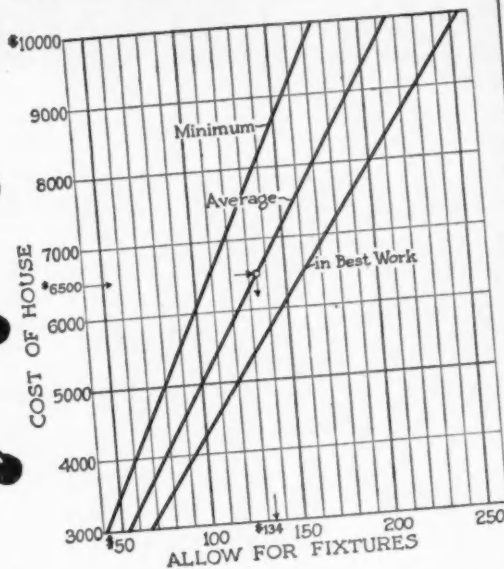
American Builder JOB HELPS

Prepared by
Don Graf

Builders' short cuts, time savers and how-to-do-it ideas shown in convenient 3x5 notebook size for use in office or on the job. A continuing editorial feature appearing monthly. Sheets or notebooks are not for sale or available from any other source than the editorial pages of American Builder.

HOW TO ESTIMATE FIXTURE COSTS

AMERICAN BUILDER FOR MAY 1944

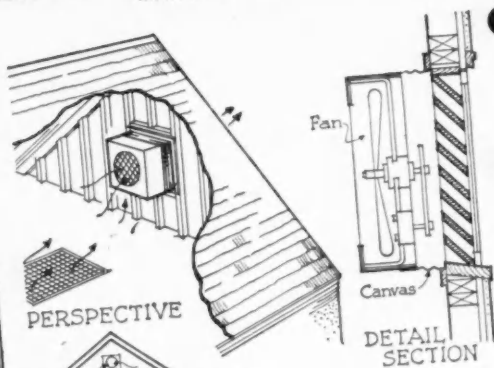


The modern, efficient light sources, the mazda and fluorescent lamps, provide inexpensive light for seeing. When proper shades and fixtures are chosen, the lighting devices become an important part of the decorative scheme as well.

The chart shows quickly the allowance that should be included for lighting fixtures. For example, a \$6500 house, having average quality and number of light fixtures, would require \$134 allowance. If the same house was to have best quality fixtures, the chart shows that \$160 should be allowed.

HOW TO INSTALL SUMMER COOLING

AMERICAN BUILDER FOR MAY 1944



COOLING A HOUSE THAT HAS A TIGHT ATTIC

By dividing the volume of the house in cubic feet by the number of minutes in which a complete air change is desired, you will get the size fan you should have. For example, a house of 15,000 cubic feet to have a complete air change in 3 minutes would require a fan of 5000 cu. ft. per min.

The ceiling grille and the outside louver should have one square foot of FREE AREA for each 500 cubic feet of air per minute discharged by the fan. In the case above this would mean a free area of 10 sq. ft.

During summer months outside air temperatures are 10 to 30 degrees cooler than the daytime inside house temperature. The fan system shown with 3 minute air changes in northern areas will cool a house at night.

HOW TO INCREASE RENTALS

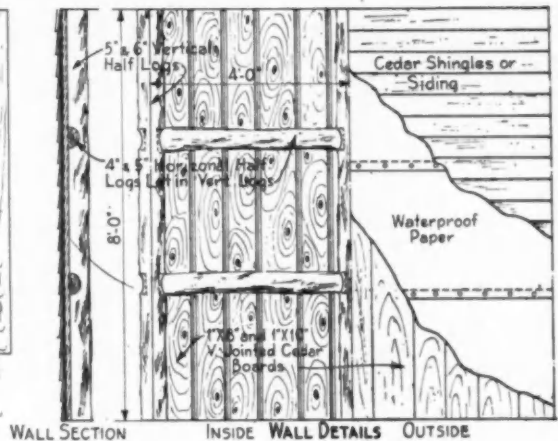
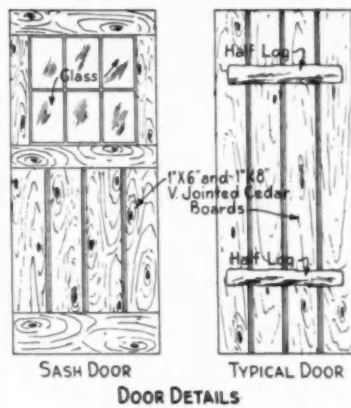
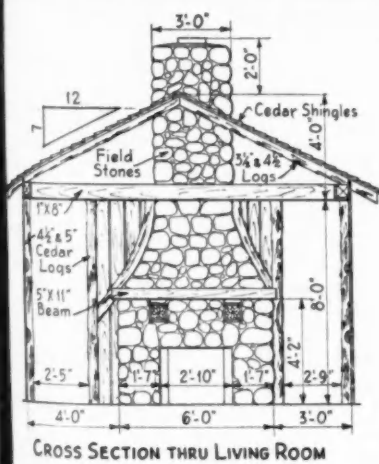
AMERICAN BUILDER FOR MAY 1944

TYPE OF REMODELING	AVERAGE RENT INCREASE
Adding an extra bathroom	13.74%
Modernizing the present bathroom	8.88%
Modernizing the kitchen	10.66%
Installing automatic heat	13.40%
Building new, or enlarging present, garage	9.00%
Adding a sleeping or sun porch	11.07%
Refinishing walls, trim, floors, ceilings	13.22%
Resurfacing or painting exterior	10.87%
Insulating walls and attic	9.80%
Finishing the basement	9.91%
Finishing the attic	11.40%
Adding a third bedroom	15.35%
Improving floor plan by rearrangement	17.38%

As the result of a nation-wide study, it was shown that real estate operators believed that the foregoing increases would result from the types of remodeling itemized. For example, if the basement were finished off by the installation of a recreation room, workroom, bar, etc., the rental value would be 9.91%.

In the same way, the addition of an extra bathroom to a house renting for \$40 per month could be expected, on the average, to rent for 13.74% more. This would be \$66 per year! If the cost of the added bathroom was \$350, the return on the investment would be 19%. $(\$40 \times 12 \text{ mos.} \times 13.74\% = \$66; \$66 + \$350 = 19\%)$

Suppose it costs \$600 to finish off the attic by installing a maid's room, game room, extra bedroom, etc., and the rental is at present \$55 per month. The average increased annual rental could be $11.4\% \times 12 \text{ mos.} \times \$55 = \$75$. If the owner borrows money to do the work for less than $12\frac{1}{2}\%$ he will have a profit, because $\$75 + \$600 = 12\frac{1}{2}\%$.



Rustic Cabin Details

NATIVE fir logs, split and peeled, form the framework of this rustic inexpensive cabin on Elk Lake, Michigan, owned by Dr. Lowell Cogeshall, famous authority on tropical diseases. V-joint white cedar boards in random width were applied vertically over the timber frame, oiled on the outside and left natural on the inside. This produces a cottage with attractive rustic exterior as well as a most pleasing interior.

The 5 x 6 ft. fireplace, the focal point of the room, is built of native stone around a metal unit. The rustic doors are built of random width cedar boards held together with log slabs.

Entire roof area is open, and the fireplace separates the living room from two small bedrooms beyond. Roof is built of 3 1/2 to 4 1/2 inch cedar logs sawed with smooth top over which is laid 1 x 8 and 1 x 6 V-joint white cedar boards with the finished side facing down.

This is a truly restful and comfortable little cabin with great charm.

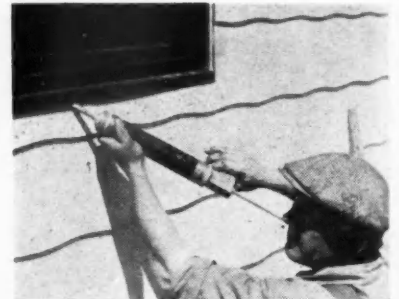


Available Materials Still Make Possible Rehabilitation Work

Get your share of repair jobs by using materials you can get now

Readers are invited to submit how-to-do-it items for this department. \$3.00 will be paid for each item when published. Include sketch or photo.

How to Apply Asbestos Siding Over Old Outside Walls



ASBESTOS siding is an excellent material for recovering outside walls that have seen their best days. And the material is available for that use. The first thing to do is to nail down all loose pieces of siding or shingles before applying a layer of thin insulating board, or a layer of thick roofer's felt, nailing it securely to the wall. Corner boards are either removed and replaced with thicker ones, or left off and the asbestos sid-

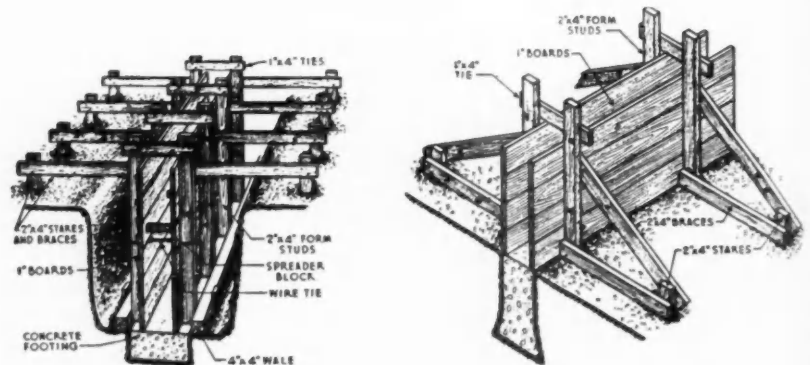
ing butted tightly at the corners, alternating the lapping of the courses. Vertical joints of asbestos siding are staggered, starting at one corner first with a whole piece of siding, and next either a half piece, or a two-thirds piece, then a one-third piece, according to U. S. gypsum engineers. An asphalt backer strip, which is furnished by the manufacturer, is placed behind each vertical joint just so that its bottom end over-laps the siding

below it yet does not lap far enough to show below the piece of siding being applied. Calking compound is used freely at all joints between the siding and the house, such as at window and door frames. At most places it is best to calk the crevice before applying the siding, and then do it again after the siding has been applied. White compound is available for white asbestos siding.

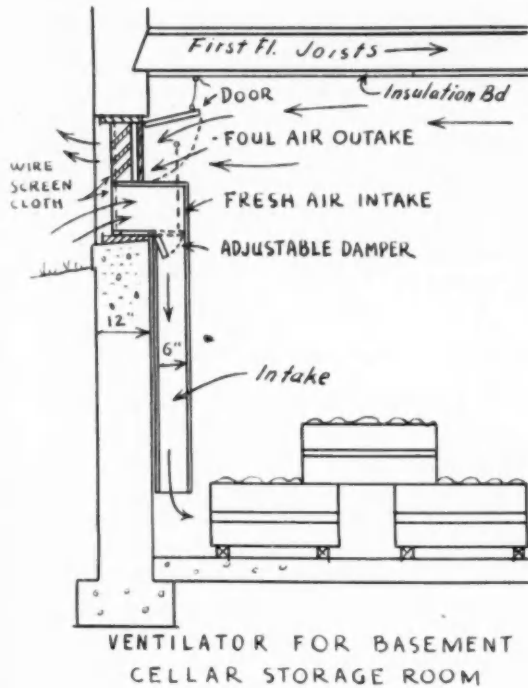
Photos courtesy of U.S. Gypsum Co.

How to Build Concrete Footings and Foundation Walls Without Reinforcing Steel

FORMS shown are 1 inch boards on either 2 x 4s or 4 x 4s spaced 16 inches apart. Forms on opposite sides of the wall are tied together with No. 12 wires looped around each opposite form stud, spacing them about 24 inches apart up the studs. Small spreaders or spacer blocks equal in length to the thickness of the wall are placed in the forms and the wire ties are twisted to hold the blocks in place. As the form is filled with concrete, the blocks are removed. The inside of the form should be coated with oil (used motor oil will do) to prevent the concrete from sticking.



How to Build a Basement Storage Room and Practical Ventilating System



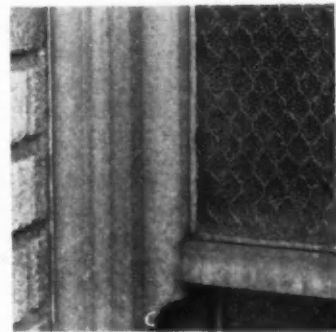
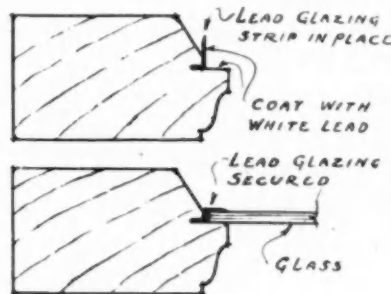
BECAUSE there will be more Victory gardening this year than ever before, there will be an increasing need for suitable and practical storage space. It is necessary to do the job right if all kinds of canned, dehydrated and raw vegetables and fruits are to be kept through the late fall and winter months. An adequate storage room requires a minimum of critical materials, and what may be needed can be picked up here and there, or perhaps secured through the local representative of the War Food Administration.

Select a corner of the basement farthest away from the heating plant, and a corner that has a window in one of the walls. The two other walls of the storage room can be built up of concrete blocks, or framed with 2 x 4s. In either case, the walls need to be insulated. In building a frame wall, lay a 2 x 4 sill and set 2 x 4 studs on 16-inch centers, with a plate along the top. Use insulating board in 4-foot widths and place the joints along the center of a stud. If the basement is unusually warm, it will be wise to line the inside of the frame walls with insulating board as well. Nail along the center of the board first, at 12-inch intervals, then along the edges. Insulate the ceiling of the room, using the same board and nailing at intervals of 6 inches. A simple batten door will do, but it must also be covered with insulation, and fit tight in the frame.

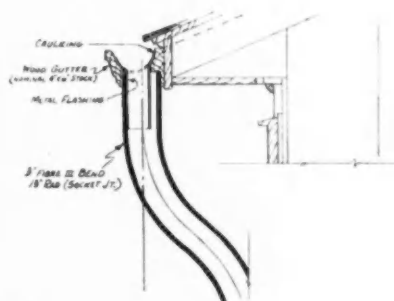
Ventilation is all important. Make a box frame to fit into the window frame. Divide the box frame into two portions, fitting a louver in the top half and leaving the bottom half open so that a fresh air intake shaft will fit snugly into it. See the illustration at the left. The box frame is removed and the window closed in severely cold weather.

How to Use Lead Glazing Strips for Wood Sash on Both New and Reglazing Jobs

LEAD glazing strips have been used for 25 years and remain practical and pliable. The extruded lead strip fits into a groove milled into the sash. The glass rabbet and the upstanding leg of the lead angle are coated with white lead, the glass is set in place, and the upstanding leg of the angle is bent down over the edge of the glass. To replace a pane of glass that is held with lead strips, merely insert a putty knife under the edge of the strip and bend it back to its original position and reglaze as described above.



How to Handle, Cut and Fit Fiber Piping



FIBER piping is non-critical, being made of 25 per cent cellulose and 75 per cent pitch. It is light weight, tough, and can be cut with a carpenter's hand saw. Joints are made by driving a piece of pipe into a coupling and then a length of pipe into the other end of the coupling, using a block of wood and a light sledge. A small hand tooling lathe is used to taper the end of a length of pipe that has been cut to make it fit into the slight bevel of the coupling.

Illustrations courtesy of Orangeburg Fiber Pipe

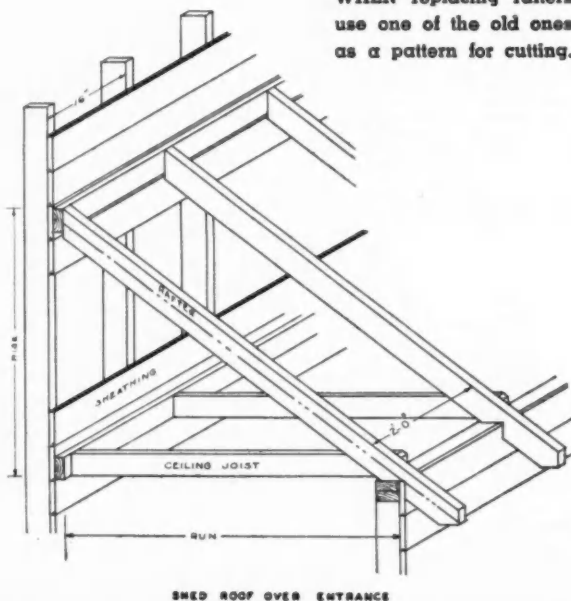
TWO EXCELLENT VOLUMES of courses in home construction entitled, "Framing, Sheathing and Insulation," and "Interior and Exterior Trim" have been prepared by the State Educational Department of the University of the State of New York. Permission has been granted AMERICAN BUILDER to publish this practical how-to-do-it data in this and future issues of the magazine. Much of the material on these two pages was taken from one of the two volumes covering the complete carpentry course prepared by the University.

How To Frame Porch Floor and Shed Roof

MUCH of the upkeep and repair work that normally would have been carried on during the past few years has been let go until some later date. That idea is all right for a limited length of time but Old Man Weather works faster at deterioration when a roof or porch gets rickety, and now is the time to do something about it.

Loan funds are available for necessary repairs and replacements, and there is a tremendous amount of such work to be done. Because of this fact, the methods of framing both roof and porch are illustrated and described. It may not be necessary to completely frame either one or both on a repair job, but it is good common sense to know how to do it and to fix the old porch or roof up as it should be.

Rafters and ceiling joists that need replacing can be cut using one of the old ones for a pattern. All rotted wood must be torn out and loose boards, such as sheathing, securely nailed down. The illustration of the shed roof framing shows plainly the best method of construc-

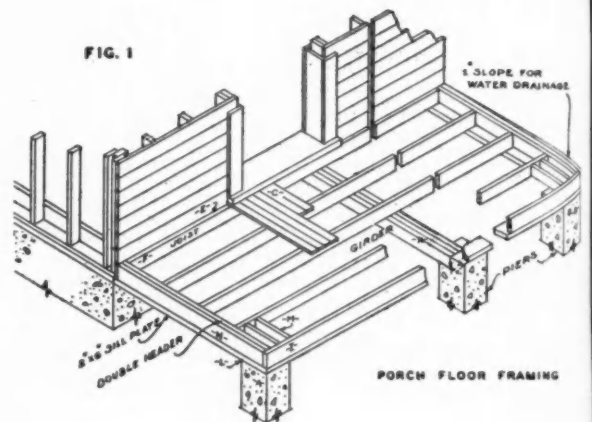


tion for this type of shelter over a porch or entranceway. Care must be taken to properly flash the joint between roof boards and sheathing before siding and porch roofing are applied.

Porches are particularly subject to decay due to moisture. The most practical measure which can be taken by carpenters to prevent decay in porch framing is to keep all headers and supporting members slightly separated except at the connecting ends. This allows for the free circulation of air around the members. Cores and trusses, when cased, should be furred to allow an air space between the face of the core or truss and the inside face of the casing. There should be drainage holes in all enclosed structural members so that water or moisture cannot become trapped around the supporting members. Wooden members placed close to the ground should be creosoted or treated to prevent rot and termite damage.

The top of a porch floor at the building line is established by the door sill. To lay out a porch, snap a chalk line along the sheathing at a distance below the sill of the thickness of the porch flooring to be used. This will be the top of the joists. Spike a straight stringer level along the chalk line, seeing to it that the spikes go into the studs of the main building. Use two spikes in each stud.

Nail up a center girder, as shown in the plan, and install it and the front and two side sill plates. Keep the face edge of the sill plate flush with the pier or foundation face. Shim the plate level on the side and from



piers. Measure the distance from the top of the plate to the top of the stringer spiked to the building. Deduct 1 inch from this measurement to find the width of the front header (I). This deduction provides drainage for the porch floor. Put the front header in place and taper the end headers so their tops are flush with the top of the front header and the stringer.

Install the floor joists 16 inches on centers. It may be necessary to notch them where they rest on the sill plate and over the girder so the tops of the joists are flush with the tops of the end headers. Use a straightedge to line up the tops of the joists, and shim them if necessary. Next install the cross bridging between joists. Spike in short lengths of joists where the porch columns will come.

Porch flooring is laid in the same manner as tongue and groove subflooring with the exception that porch flooring is toenailed through the tongue edge of the boards. Care is needed not to mar the edge of the flooring board. Use 8d rosin coated nails and drive one at every joist. It is a good idea to paint the edges and under side of the flooring with white lead before laying them.

Rough porch columns should be built of 2 x 4s or 2 x 6s depending upon the amount of load they will carry, and spiked together their entire length.

How to Apply Bevel Siding With Mitered Joints

ALLOW a piece of siding of the first course to project beyond the end of the building. Make a mark on the outside face at the bottom of the siding at a distance from the corner of the building equal to the thickness of the bottom edge of the siding. (A. Fig. 2)

Make a mark at the top of the siding at a distance from the corner of the building equal to the thickness of the top edge of the siding. (B. Fig. 2). Connect these points with a straight line on the face of the siding. This gives the long point of the miter cut. Mark a 45 degree angle from this line across the edge of the piece. Cut the board along this line with a fine tooth saw.

Mark and cut the siding for the opposite side of the corner in a simi-

lar manner and nail both boards in place. Place a board for the next course in position. (A. Fig. 3). Place a short piece of siding (B) underneath the piece (A) and against the face of the first course in the position shown in figure 3. Mark the outside face of piece (A) opposite the outside edge of piece (B). Put the short piece (B) in the position shown at (E) with the thin edge down. Mark the top of the outside face of piece (A) opposite the outside edge of (E). Draw the line connecting the two marks, lay out the angle and make the cut as before. Mark and cut the piece for the other side of the corner and for succeeding courses in the same manner. Nail the boards in position as cut. Use siding hook as shown in Fig. 1.

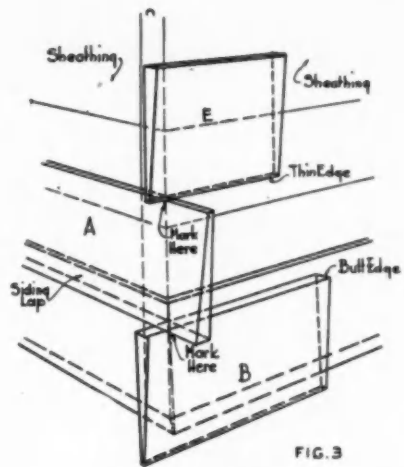
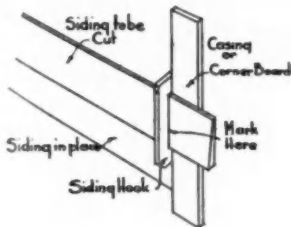


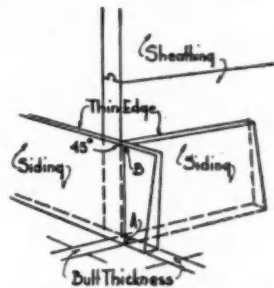
FIG. 3
CUT OF BEVEL FOR SUCCEEDING COURSES

The proper spacing of siding is done with a spacing rod. Secure a piece of stock to reach from the bottom of the sheathing to above the top of a first floor window. With one end of this rod one-half inch below the bottom of the sheathing, mark the location of the bottom of the window sill and the top of the drip cap. Mark the spacing of the courses of siding on the rod with dividers. The width of these spacings will be determined by the type of siding and the exposure of each course. The dividers should be adjusted so that the spaces are equal and so that the bottom edge of the siding comes to the sill and to the drip cap of the window. If the spacing below the windows does not come out equal, they should be changed slightly.



USE OF SIDING HOOK

FIG. 1

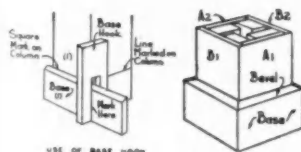


MITER CUT OF BEVEL SIDING FOR STARTING COURSE

FIG. 2

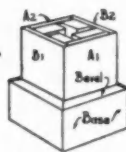
How to Apply the Base of a Column

SELECT the stock and cut 4 pieces 4 inches longer than the width of the column shaft. Bevel the top edges 10 degrees. Square a line around the column at top of baseboards. To simplify the marking, make a base hook, as shown in figure 2. Temporarily nail a piece in position. Place the hook in position and mark along the outside edge of the hook on the base. Mark the top edge at the corner of the column. This determines the miter cut. Use a fine crosscut saw and saw along the outside of the line to leave stock for a little



USE OF BASE HOOK

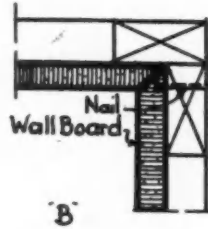
FIG. 2



SQUARE COLUMN

FIG. 1

planning for fitting. Mark the opposite end of the base in the same manner. Place, mark and cut the other three sides in the same manner, marking each one so to be sure to put it back on the column shaft in its right place. Replace each piece in its respective position and check joints. Plane if necessary. Leave the base nailed temporarily because it will be removed when the column is set in position on the porch.



Three Ways to Fasten Wallboard in Corners

MOST wallboards should be applied with small allowances between joints. It is a good precaution to let the boards stand in the room for a day or two before applying to allow them to equalize the moisture content of the room. Measure the boards accurately by holding them vertical at the corners and scribing the edge to fit the wall. Then cut and finish the edge in one of the three ways shown in the sketches above. The butt joint (A) is the most common type used, with or without a molding.

Building News Review

By Frank W. Cortright

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



Speed Title VI Increase—Failure in the past to increase insurance authorization for private war housing has delayed this urgently needed program. Present allotment will run out about the middle of June. NHA and FHA officials hesitate to move on increase without further study. In our opinion this delay is extremely unwise. It has happened three times in last two years and should not happen again.

Revival of Title II Possible—By midsummer the critical material situation will undoubtedly improve to the point that housing standards can be raised and Title II financing revived. Of course the dark spot on this horizon is lumber and there is even some hope that this situation will improve too. Before FHA takes an official stand in the matter, however, WPB must give its sanction in an increased allotment of materials.

Housing-Hardship Communities—The new H-2 classification now used by NHA permits communities rather than individuals to be defined as hardship cases. Thus priorities would be granted for a limited resumption of normal construction, if it could be shown that a hardship has been imposed on the entire community by reason of a critical housing shortage.

Counteracting Misconceptions on Postwar Homes—A false concept of the character and cost of postwar homes, already widely publicized, is more likely to injure early postwar home building than any other single item.

We commend to you the recent advertisements of the National Gypsum Company, producers of Gold Bond building materials. They are setting in this campaign a high standard for the industry to follow in debunking the misconceptions and scatter-brained ideas presented in the advertising and publicity releases of other manufacturers who should know better. Only in this way can potential home owners be made to know that the postwar home, like the automobile of tomorrow, will be a 1941 model with some improvements.

Klutznick Replaces Emmerick—It is good news that Philip Klutznick has taken the reins formerly held by Herbert Emmerick as head of FPHA. The former's housing ideology is sympathetic to the private enterprise viewpoint. Emmerick, an able administrator, returns to the Public Administration

Clearing House, which is concerned with the administrative procedures of state and local governments.

Conference of NAHB's Directors—Matters of vital importance to the home building industry will occupy the attention of the directors of the National Association of Home Builders at a four day meeting in Washington's Statler Hotel beginning May 8. High officials of government agencies having to do with housing will meet with the group to discuss remedial measures for present urgent problems.

"Dedicated to Victory"—NAHB's Past President, Fritz Burns, has done an outstanding publicity job in his latest war housing development, Burbank Gardens. Large, attractive signboards have been placed around the property announcing in red and blue lettering on a white background that Burbank Gardens is a "Win the War Community." One board states "400 Privately Built Wartime Dwellings to Speed Up Victory." Another, attractively embellished with white stars on a blue background, informs the public that "Good Housing Means Good War Work." Another, "Private Enterprise Builds Under F.H.A." and the project is "Dedicated to Victory."

Home Buyers Institute—The Dime Savings Bank of Brooklyn, N. Y., has established a permanent exhibit in support of a savings plan for deposits on purchasing postwar homes. The Bank urges savings for this purpose and offers assistance and certain services including house plans, the location of attractive lots available, and assistance in matters of financing. Readers interested in further details should contact Mr. George C. Johnson, Treasurer, at DeKalb Avenue and Fulton Street, Brooklyn, N. Y.

Welcome Toledo Builders—The Buckeye State's fifth Association of Home Builders has affiliated with the NAHB. To Joe Haverstick, Dayton's aggressive Director, goes much of the credit for spreading the gospel among the builders in Ohio.

May Relax L-41 Come S-Day—The WPB officials expressed the hope that some relaxations of L-41 may be made on "S-Day" and are again seeking informed opinions and definite proposals from our industry. "S-Day," we understand, is the time between a successful invasion of Europe and the fall of Germany.

Lumber Will Be the Key—It is now recognized that even when war production requirements permit, lumber will be the final determining factor. Unless this lumber problem is satisfactorily solved, home building will not be resumed at as early a date as would otherwise be possible.

Private Builders Not Affected—No serious retarding influence on war housing is expected from the latest lumber freeze order issued to enable the Armed Services to catch up with their need. This order exempted Form 27-20 applications previously submitted by builders to obtain permission to place lumber orders with the larger mills—those cutting more than 10,000 board feet a day.

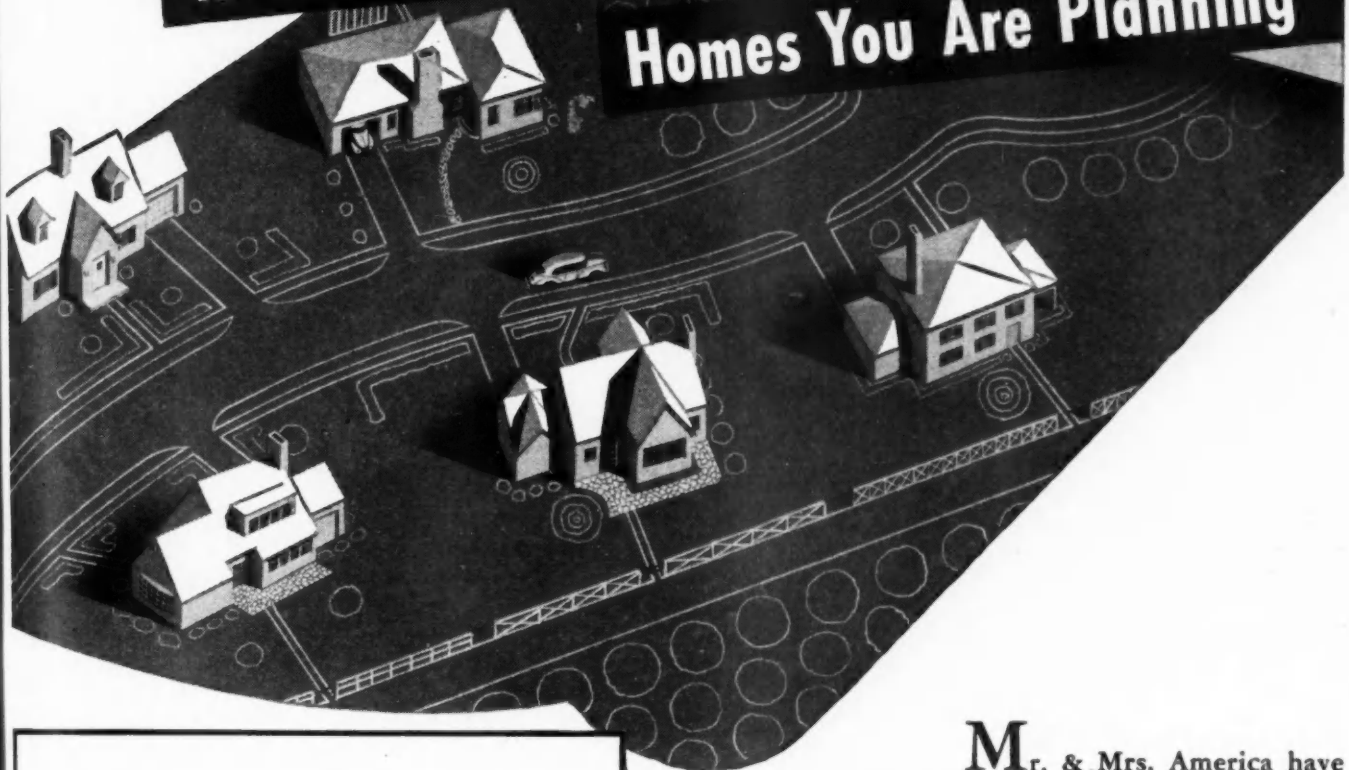
Testify to Senate Committee—Washington home builders presented their case against public housing recently before the Senate Burton Committee. In past letters we have explained that the National Capital Housing Authority has asked for funds to construct 20,000 new units, and have described the McCarran Bill calling for an initial revolving fund of \$20,000,000.

Carr Outlines Story—The substance of the presentation was outlined by the first witness, Edward R. Carr, a prominent Washington builder. He stated that succeeding witnesses would prove the following facts: 1. Public housing construction has cost from 27% to 35% more than comparable private construction. 2. For a number of reasons (one of which is NCHA's annual overhead of \$400,000) private enterprise can manage housing far more economically than government. 3. It is a fallacy that public housing is built without profit since there is always a contractor's profit. 4. Public housing always costs more than estimates submitted. 5. Because of lower construction and management costs, the economic rent for private housing can be less than for public. 6. Federal and District taxes on the profitable local business will return large sums of tax money. 7. Local real estate taxes paid by private enterprise over a period of years will liquidate the initial loss represented by the difference between the acquisition price and the use value of the land. 8. Much of the substandard housing can be brought up to a proper standard by enforcement of safety and sanitation codes. 9. Private builders here will submit a complete plan by which they can provide the necessary housing.

Prove Private Costs Lower—As evidence of the local builders' capacity for volume construction, Mr. Carr informed the committee that during 1942 and 1943 the Washington builders constructed more than 27,000 units of permanent housing. In spite of rising costs and red tape, these were built to sell for \$6,000 or less and to rent for \$50 or less. At the same time the Defense Homes

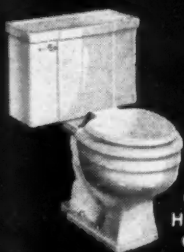
(Continued on page 84)

Include CRANE QUALITY in the Homes You Are Planning



Quality Plumbing NOW AVAILABLE

The bathroom and kitchen fixtures shown here are typical of the many non-critical plumbing-items you may obtain now without priority for today's construction projects. Orders will be filled as rapidly as production facilities permit.



Crane Hanover Closet



Crane Cottage Sink



Crane Norwich Lavatory



Crane Conservor Bath

Mr. & Mrs. America have definite ideas about the plumbing for their postwar homes! They want *quality*—more beauty, more comfort, more convenience. That's why it's good business—shrewd foresight—to include Crane quality plumbing in the homes you are planning for tomorrow.

There's another reason, too, why Crane plumbing will have powerful appeal for your postwar prospects. For Crane has made extensive, nation-wide surveys to determine what people will want in plumbing equipment. Findings of this survey will be embodied in the Crane line of tomorrow—a line that is already far past the experimental stage.

Through colorful, national advertising, Crane is today stimulating a desire for new homes—"pre-selling" your future customers by urging them to step-plan their homes now. And to translate that desire into action, a portfolio of ideas on bathroom and kitchen planning is being offered.

Let Crane products work for you to make your postwar sales more profitable!

CRANE

NATION-WIDE SERVICE THROUGH BRANCHES, WHOLESALERS, PLUMBING AND HEATING CONTRACTORS

CRANE CO., GENERAL OFFICES:
836 S. MICHIGAN AVE., CHICAGO 5

VALVES • FITTINGS • PIPE
PLUMBING • HEATING • PUMPS



STANLEY TOOLS

Anvil Tools
 Awls
 Bars — Ripping
 Bit Braces
 Boring Tools
 Breast Drills
 Chisels — Cold
 Chisels — Wood
 Dolly Blocks
 Hammers
 Hand Drills
 Knife
 Levels
 Marking Gauges
 Mitre Boxes
 Planes
 Punches
 Rules
 Saw Sets
 Scrapers
 Screw Drivers
 Sledges
 Soldering Irons (Electric)
 Spoke Shaves
 Squares
 Vises

Tackling the "impossible" job, and getting it done; has been a specialty of the men who build America. But no job in the past ever required the near-miracles of construction and production America's craftsmen have performed in the past two years. And no job has ever used Stanley Tools in such tremendous quantities.

Meeting this endless demand necessitated that some Stanley Tools be "stripped for action." Though their endurance and efficiency is unchanged, the finish has been simplified to speed production and save scarce metals. But, once the war is won, you'll again see Stanley Tools in their former familiar finish—ready to turn your postwar planning into profitable construction.

STANLEY TOOLS

133 Elm St., New Britain, Conn.

STANLEY

THE TOOL BOX OF THE WORLD

(Continued from page 82)

Corporation, planning to build to a maximum \$45 a month level, ended up with apartment units priced as high as \$89.50.

Taxpayers Are the Losers—Gross waste of taxpayers' money was proven in a comparative study by Myron Davy, President of the Home Builders Association of Metropolitan Washington. Selecting an outstanding public project, the "V" Street Houses, and a project constructed by Mr. Davy at the same time, a complete comparison of the costs and quality of a single unit in both projects was made. The public unit 16' by 27' excluding land cost \$3,848; the private unit 16' by 26' cost \$3,017. This sold for \$3,990 including builder's profit. The flat-roofed public house was heated by a large stove in the living room; had the cheapest type of range, side-arm hot water heater and kitchen sink; linoleum floor in the bathroom; no showerhead; wooden stair rail; no closet doors, etc. The private house with attractive varying front elevations, had hidden automatic gas furnace, all electric modern kitchen with metal cabinets, wrought iron stair rail, tile bathroom with showerhead, and many other desirable features. The public unit rents for \$24.50 while the private unit, sold on a down-payment of 10%, requires a monthly payment of only \$25.05 to cover reduction of principal, payment of interest and taxes. Going one step further, Mr. Davy made a careful estimate of what the construction cost by his firm of the public unit would have been. This figure came to \$2,976.77, 29½ percent less than NCHA's contract cost.

The Third Witness, Preston E. Wire, made an equally devastating case against NCHA. As the builder and the owner of more than 700 housing units for colored tenants, his testimony carried unusual authority. A detailed study disclosed that the average room cost of the "Parkside" project was \$1,072 compared with \$676 room cost on one of his projects built at the same time on costlier land. His land cost per room was \$75.17 while the public land cost per room was \$255.70. On a cubic foot basis the public cost was 50 cts. while on his it was 30 cts. per cubic foot. The public project of 1870 rooms has only 363 baths, kitchens and hot air heating plants—one for every 5.15 rooms. The private project of 1,060 rooms has a bath, kitchen and hot water heating plant for every 3.03 rooms.

"Ground Maintenance" Allowed—NHA general order No. 60-9A, which limits the total monthly payments for war housing, has been revised to include "ground maintenance" as a permissible charge for tenant services. The \$3 per month per room maximum is not changed, however.

NHA Controls Non-War Housing—By securing full processing authority from WPB, effective April 1, NHA moves into the position of controlling non-war housing construction, alteration and improvements subject to WPB's

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▲ This all-Kohler bathroom includes the matched set—Cosmopolitan "Bench Bath" with Triton mixer fitting for both hot and cold bath and shower; Gramercy shelf lavatory, towel bars; one-piece Integra closet.



▲ Here's a handsome Kohler Lavette, including Strand lavatory and one-piece Integra closet. Ideal for the first-floor "under the stairs."

WHEN home building gets under way again, people are going to count on you—not only to build homes for them — but also to anticipate their needs and make the necessary provisions.

Many builders, realtors and others have sounded out the public and have found that emphasis will be on more living space, greater utility with increased comfort.

Bathrooms will be larger and with planned cabinets for storage and shelves for towels and other articles in daily use. A first-floor Lavette (washroom) is practically a must for the small home; two or more bathrooms for the larger home. The tub with overhead shower is overwhelmingly the favorite. Many bathrooms will have built-in dressing tables, some with two lavatories. Many bedrooms will have lavatories and toilets built in. A shower stall with lavatory and toilet are possibilities for the basement.

Of course, as always, those who will design and build tomorrow's America are going to rely on the sales values and acceptance of known-brand products. Then, as in the past, those who specify Kohler will be sure of the highest quality and newest designs in bathroom and kitchen fixtures and fittings. . . . Kohler Co., Kohler, Wisconsin.

★ BUY UNITED STATES WAR BONDS ★

KOHLER OF KOHLER
PLUMBING FIXTURES AND FITTINGS • HEATING EQUIPMENT • ELECTRIC PLANTS

(Continued from page 84)

conservation controls on critical materials. Following are the four classes of housing affected:

1. Housing programmed specifically for essential war workers;
2. Housing to relieve situations of extreme general hardship in communities resulting from a lack of housing accommodations. (No materials for this type of construction are being made available at this time);
3. Housing to relieve present or impending personal hardship to a specific individual or his family; and
4. Reconstruction or replacement of housing damaged or destroyed, or removed by condemnation.

FHA Will Process—Although NHA is given the right of approval or denial, the War Housing Critical List and the War Housing Construction Standards are still in effect. Actually, FHA will continue to do most of the job. Whether they will be helped or hampered by NHA remains to be seen.

War Prisoners for Logging—In Wisconsin and Minnesota war prisoners have been used. The major problems involved are (a) labor unions have put up strong opposition; (b) the Geneva Conventions on hazardous employment are responsible for the Army's

reluctance. Even when used in the non-hazardous part of logging, it is feared that reprisals may be made by Germany.

Chicago Builders Lumber Clinic—Recognizing the extreme gravity of the lumber situation and the necessity of using substitutes wherever possible, this meeting established a precedent which should be followed throughout the country. Once again NAHB's First Vice President, Joseph Merrion, and Milt Bowen, top flight Executive Secretary of the Metropolitan Chicago Home Builders Association, have set the pace.

Washington Builders Complete Case Before Burton Senate Subcommittee—In a smashing finale the

home builders presented a score of witnesses to support their claim that private builders, privately financed, can meet the low-cost housing need here. Briefly their plan follows: (a) Congress create a public agency of representatives of government, qualified citizens of the District, civic-minded business leaders including a practical builder, a representative from the mortgage lending field and a representative from both the white and colored citizens groups. (b) This agency to determine the location of slum areas, the order in which they should be acquired, the appropriate use to be made of each area, and the conditions under which it shall be sold or leased by competitive bidding to private enterprise (which shall build, own and operate the housing). (c) Private enterprise should have the first opportunity to build, own and operate all rental housing, including that on the slum-cleared land. (d) All buildings erected for rental housing should be subject to local real estate tax. (e) The government should specify in a general way the type of improvements to be erected and fix a ceiling on rents for a period of time to be determined. (f) Recognizing that new housing cannot be made available by either public agencies or private enterprise at rentals slum dwellers can pay, public assistance must be granted through the office of the Director of Public Welfare for aid in the payment of rent, food, medical attention and other necessities.

Building and Loans Make Financing Commitment—Clarence E. Ke-fauver, President of the District of Columbia Building and Loan League, testified for a group of associations representing total resources in excess of \$100,000,000. This official indicated that these associations would loan a large amount of money on a 90 per cent basis, at interest rates from 3½ to 4 per cent, for a period of 33 years. They realize that lower interest rates, higher percentage loans and a longer period of amortization will be required on this type of loan. Nevertheless, they are prepared to invest substantial sums in this kind of loan, because they are certain these homes will provide sound security for the loans.

(Continued to page 88)

SHRINKAGE! IS JUST
ANOTHER WORD FOR HEADACHE
TO BUILDERS



Use TRU-BILT EXTERIOR PLYWOOD to Reduce Shrinkage Danger



No builder wants to go back to a construction job and see the excellence of his workmanship marred by shrinkage. West Coast Plywood Company has taken far-reaching precautions to reduce shrinkage in its TRU-BILT Plywood.

1 TRU-BILT is made for exterior use—to withstand dampness and changing humidity.

2 The TRU-BILT process controls moisture content—assures uniform resistance to weather conditions.

3 We use pure phenolic resin glue and a superior hot press manufacturing method.

To reduce shrinkage danger, use . . .

TRU-BILT

WEST COAST PLYWOOD CO.

ABERDEEN, WASHINGTON

Manufacturers of

HOT PRESSED—DOUGLAS FIR PLYWOOD



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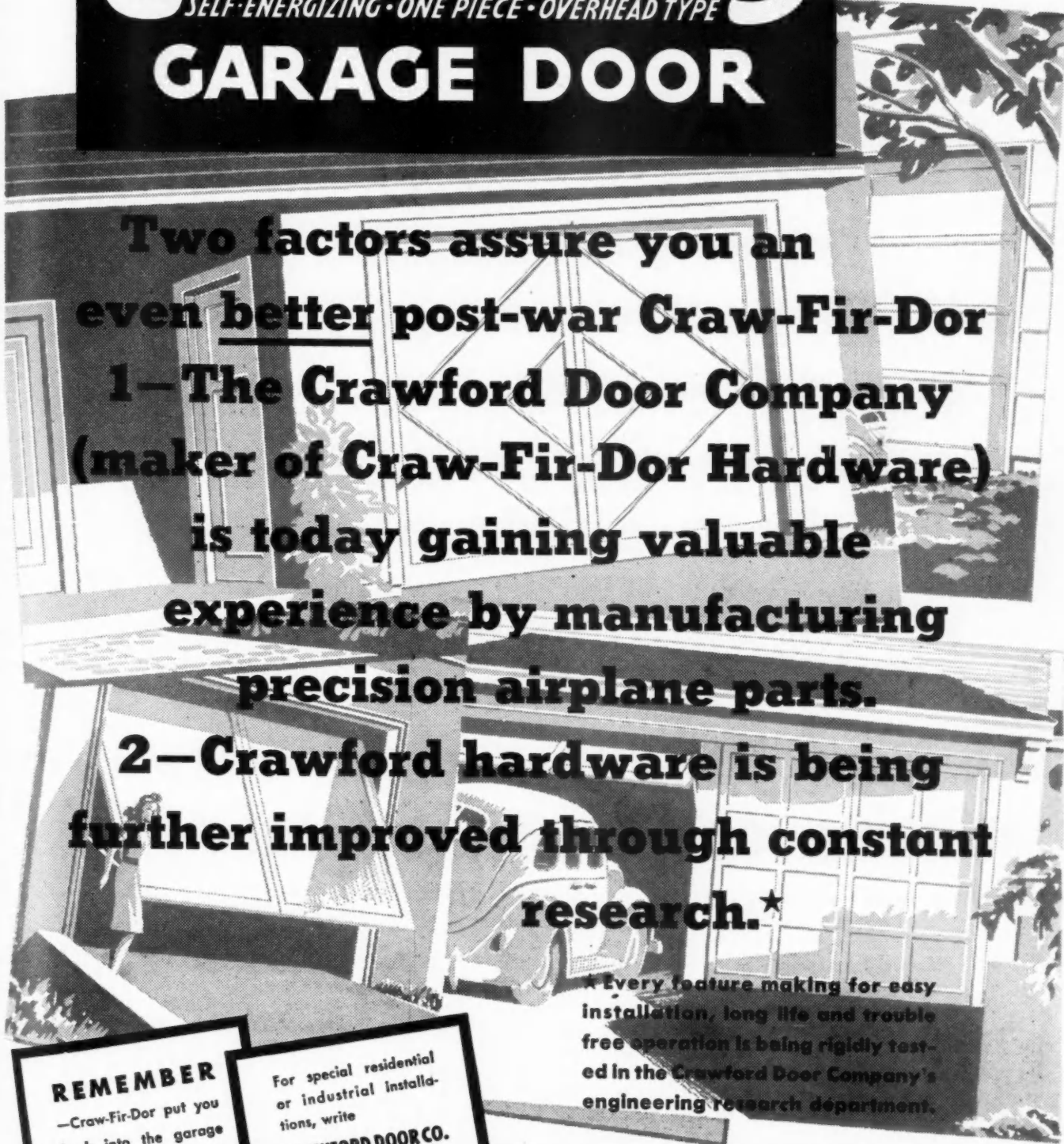
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Craw-Fir-Dor

SELF-ENERGIZING · ONE PIECE · OVERHEAD TYPE

GARAGE DOOR



Two factors assure you an even better post-war **Craw-Fir-Dor 1—The Crawford Door Company (maker of Craw-Fir-Dor Hardware) is today gaining valuable experience by manufacturing precision airplane parts.**

2—Crawford hardware is being further improved through constant research.★

★ Every feature making for easy installation, long life and trouble free operation is being rigidly tested in the Crawford Door Company's engineering research department.

REMEMBER
—Craw-Fir-Dor put you back into the garage door business. Be ready to "cash in" on its post-war profit possibilities.

For special residential or industrial installations, write
CRAWFORD DOOR CO.
DETROIT, MICH.
who make a complete line of sectional overhead-type doors.

FIR DOOR INSTITUTE
Tacoma 2, Washington

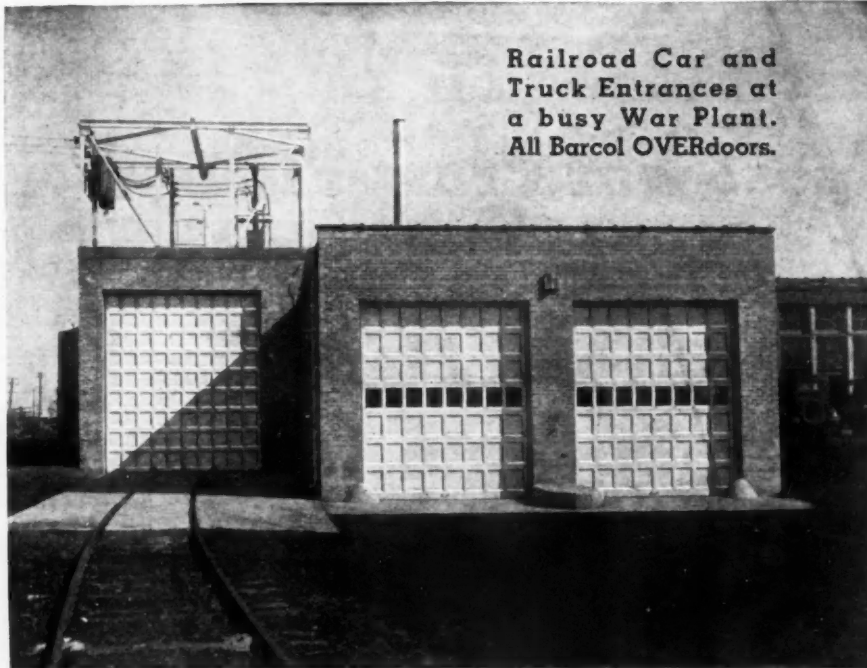
(Continued from page 86)

Evidence of the Builders' Willingness to Assume Responsibility

for rehousing 12,000 local alley slum dwellers was given by 54 private builders who appeared before the Committee. They testified that they would construct 4,000 low-cost dwelling units in the first year after civilian construction is permitted, and 4,000 in each of the next five years. The total volume of 24,000 units, twice the number required, is in contrast with the National Capital Housing Authority's expressed hope that it can build 1,000 units per year for 20 years. There is growing optimism that the Committee will recom-

mend that private enterprise be given adequate opportunity to solve the low-cost problem by the methods proposed.

NHA Defends Occupancy Status—NHA claims that at least 94% of all family quarters completed for three months or more are currently occupied. NHA claims that shifting war contracts, improved production methods, and delays in labor recruitment drives have resulted in the lack of need for a part of this two billion dollar investment of public funds. Only 70% of the dormitories are occupied, and 85% of temporary public projects. Practically no vacancies exist in private war housing (\$4,000,000,000 worth).



Railroad Car and
Truck Entrances at
a busy War Plant.
All Barcol OVERdoors.

The Barcol OVERdoor

... a Better Door
... for War... and Postwar

This picture shows a recent installation at a moderate-sized plant making essential war products, where it became necessary to improve the freight-handling facilities. This plant has a simple conversion problem so, in installing these new doors, they were looking forward to benefits for peacetime as well as wartime production. The Barcol OVERdoor has proved its ability, in many important installations, to provide lasting, dependable service with minimum maintenance. This is due to construction and engineering features which are of outstanding value on large doors such as these. Be sure you have the data on Barcol OVERdoors and ELECTRIC DOOR OPERATORS... write us, or see your Barcol representative.



FACTORY-TRAINED SALES and SERVICE REPRESENTATIVES IN PRINCIPAL CITIES

BARBER-COLMAN COMPANY

104 MILL ST.

• ROCKFORD, ILL.

Cost of Public Housing—Washington Taxpayers Association President, Rufus S. Lusk, appearing before the Burton Committee of the Senate, submitted estimates of the overall cost of the \$100 million program urged by the National Capital Housing Authority. For each \$5,000 unit, Mr. Lusk stated, cost to Federal and local taxpayers over a sixty-year period reaches the staggering total of \$13,143. In a detailed statement this is broken down to show the approximate loss of local real estate taxes, \$5,250; loan and subsidy, \$6,450; losses in social security payroll tax, unemployment tax, income taxes, license fees, etc., increase it still more.

Dewey Signs Public Housing Bill

—Proponents of private enterprise in the housing field will be interested to learn that the Mitchell Bill, increasing the State debt in the sum of \$35 million for public housing in the city of New York, has just been approved by Governor Dewey.

On Partial Payments—Regulation permitting partial payment issued by FHA applies only to mortgages insured under Section 603 of the National Housing Act, and retroactively includes all cases. Prior to this time, partial payments received could not be applied to delinquent interest to the exclusion of delinquent principal. From now on, subject to the Commissioner's consent, up to 2½% of partial payments can be applied to interest (the same amount the lenders would receive from debentures if foreclosure action were initiated).

Can Now Adjust Initial Rent

Builders may apply to NHA for upward adjustment in their rents to compensate for increasing construction costs regardless of whether or not the property is occupied. Until now the rent has been frozen by OPA at the amount originally specified in the application for construction priorities as soon as occupancy occurred.

Reduced Interest, Long Amortization

—To meet the total housing need. Milton L. Ehrlich, Vice President of the Joseph P. Day Construction Corporation of New York, suggests that one of the tools by which private enterprise can supply low-cost housing is that of lower interest rates and longer periods of amortization.

\$115,000,000 for Facilities—The first Deficiency Bill, just signed by the President, carries emergency appropriations for a number of government agencies. These include the \$7,500,000 installment of funds for public temporary housing under the Lanham Act program, and \$115,000,000 to be used by the Federal Works Agency in constructing and operating essential public services in congested war production communities. In large part, the FWA program covers such facilities as schools, street paving, and addi-

(Continued to page 90)



This illustration, taken from a Barrett Saturday Evening Post advertisement, points out the tremendous task which faces the nation in providing adequate housing after the war.

ONE THIRD OF A NATION

One third of this nation still lives in comfortless, inefficient, unhealthful homes.

Today the demand for improved living conditions in America constitutes the greatest single market in the world—a need for comfort, convenience and beauty that must be faced when this war is won.

What kind of homes will satisfy this need? Houses that are better built, more enduring and more cheerful to live in—homes that once were the hope of the few, priced within the reach of the many.

Barrett has helped to make these homes possible. For the wide range of shingles, roll roofings and other building materials which the company has developed has contributed substantially to reducing the cost of home construction and maintenance.

In the post-war future, already far advanced in planning, building supply dealers and roofing applicators will be called upon to provide guidance, materials and workmanship for the biggest construction program ever undertaken. Now is the time to prepare yourself for a share in this profitable market by allying your business with Barrett—the greatest name in roofing—a sound, successful manufacturer with a progressive, practical approach to tomorrow's critical problems. Consult the Barrett representative at your earliest opportunity.

THE BARRETT DIVISION

ALLIED CHEMICAL & DYE CORPORATION

40 RECTOR STREET, NEW YORK 6, N. Y.

2800 So. Sacramento Ave.
Chicago 23, Ill.

Birmingham,
Alabama

Barrett Asphalt Shingles and Sidings . . . Roll Roofings . . . Rock Wool
Insulation . . . Black Paints . . . Roof Coatings and Protective Products.



ONE OF
AMERICA'S
GREAT BASIC
BUSINESSES

(Continued from page 88)

tions to water and sewer systems. The sum of \$5,000,000 may be spent for stores, beauty parlors, barber shops, etc. for private operation.

Civilian Construction Studied—

We recently referred to conferences between the Construction Industry Advisory Group of the Chamber of Commerce and officials of the War Production Board. We predicted that L-41 will not be relaxed until the invasion of Germany is well underway. It is agreed, however, that when this time is reached a satisfactory plan for the distribution of materials and manpower must be available. The War Production

Board has set up a ten-man committee to consult with the construction industry and make recommendations regarding the relative order of importance of construction needs. We are glad to report that working conferences have been started between this group and a five-man sub-committee of the Construction Industry Advisory Group, one member of which is NAHB President.

LETTERS—

(Continued from page 7)

est spots in a builder's series of operations. That is the collection of the final amount of money from the buyer.

We will continue this system, and

believe if other builders don't do this, we will have that much more sales resistance, and the usual high percentage of bankruptcies will occur among our competitors.

Will be glad to place the attached suggestions or system where it will reach the maximum number of builders.

In fact, everybody would win if the loaning organizations and material dealers would make this system mandatory and a prerequisite to a loan or credit to any builder.—REUEL B. MOONEY, Kenmore, N. Y.

* * *

Less-Than-Truck Load Delivery—Building material dealers are adopting a new policy—not to make more than one less-than-truck load delivery in any single day to any one point of destination. The purpose is to conserve on manpower, truck miles and repair parts for the duration, in co-operation with the Office of Defense Transportation. They have agreed also to make no less-than-truck load delivery on the same day an order is placed unless the order is received before noon. They will accumulate orders wherever possible to avoid part load deliveries.

Millwork Ceilings Upped—OPA has authorized new ceiling prices for jobber sales of stock millwork, varying from 1.2 to 5.8 per cent above current lists. The price, of course, will be passed on to retail channels and ultimate consumers. The purpose, explains OPA, is to relieve jobbers from a "squeeze" caused by increases in manufacturers' prices and increased labor costs.

Object to Relaxing Controls—WPB officials were surprised recently when they proposed to remove all controls on shellac to the Shellac Industry Advisory Committee. The members of the committee objected to the removal of the controls. They argued that since controls of the industry had been established on a gradual basis, it was the duty of the government likewise to release its controls gradually.

Emmerick versus Blandford—Though his boss, NHA Administrator John B. Blandford, Jr., recently told Congress that home building and housing is a job for private industry, Herbert Emmerick, in charge of Federal Public Housing Administration, appears to disagree with Blandford. In a recent Chicago speech he carried the torch for public housing.

Klutznick heads FPFA—In announcement about to be released as we go to press, NHA Blandford will announce appointment of Philip M. Klutznick as administrator of Federal Public Housing Administration. Formerly with NHA, Klutznick succeeds Herbert Emmerick, identified in item above.



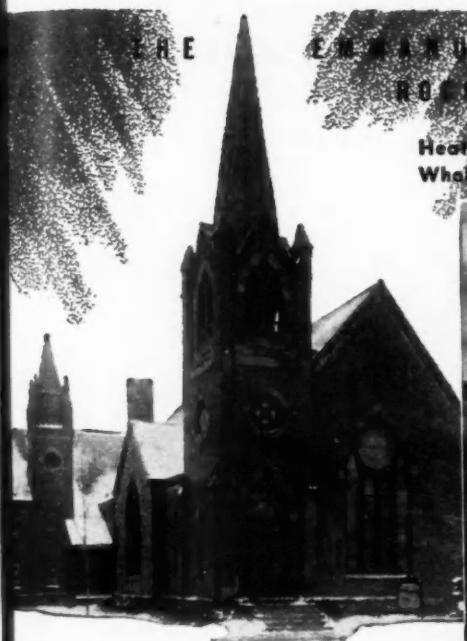
CHECK LIST for Post-War Builders

- ✓ **LONG LIFE**—Red Cedar Shingles are endowed by nature with natural preservative qualities which insure long life; low upkeep.
- ✓ **COMFORT**—Double-coursed Red Cedar Shingles on the sidewalls give your home extra protection; extra insulation; extra comfort.
- ✓ **STYLE**—Red Cedar Shingles are adaptable to any style of architecture. Their appearance is always neat, trim and "homey."
- ✓ **ECONOMY**—Red Cedar Shingles are easy to apply; reasonable in cost, and require a minimum of upkeep as the years go by.

**RED CEDAR
SHINGLE BUREAU**
White Building, Seattle 1, Wash.
Canadian Office, Vancouver, B. C.



**Red Cedar
SHINGLES**



EMMANUEL EVANGELICAL AND REFORMED CHURCH
ROCHESTER, N. Y.

Heating Contractor, W. J. Ferguson
Wholesaler, The Hunting Company

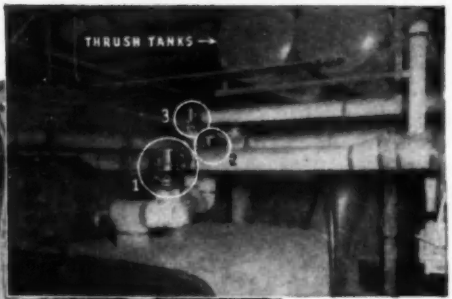
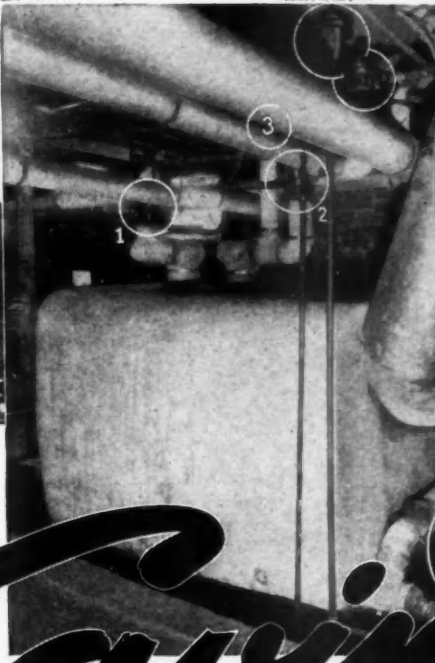


Illustration above shows Thrush Flow Control Valve for each zone and Thrush Tank.

Illustration below left shows Thrush Water Circulator for each zone. Illustration below right shows Thrush Flow Control Valve for each zone. Thrush Flow Control Valves are available in 1/2, 3/4, 1, 1 1/2, 2, 3, 4, 6, 8, 10, 12, 15, 20, 24, 30, 36, 42, 48, 54, 60, 72, 84, 96, 108, 120, 144, 168, 192, 216, 240, 270, 300, 324, 360, 396, 432, 468, 504, 540, 576, 612, 648, 684, 720, 756, 792, 828, 864, 900, 936, 972, 1008, 1044, 1080, 1116, 1152, 1188, 1224, 1260, 1296, 1332, 1368, 1404, 1440, 1476, 1512, 1548, 1584, 1620, 1656, 1692, 1728, 1764, 1800, 1836, 1872, 1908, 1944, 1980, 2016, 2052, 2088, 2124, 2160, 2196, 2232, 2268, 2304, 2340, 2376, 2412, 2448, 2484, 2520, 2556, 2592, 2628, 2664, 2700, 2736, 2772, 2808, 2844, 2880, 2916, 2952, 2988, 3024, 3060, 3096, 3132, 3168, 3204, 3240, 3276, 3312, 3348, 3384, 3420, 3456, 3492, 3528, 3564, 3600, 3636, 3672, 3708, 3744, 3780, 3816, 3852, 3888, 3924, 3960, 3996, 4032, 4068, 4104, 4140, 4176, 4212, 4248, 4284, 4320, 4356, 4392, 4428, 4464, 4500, 4536, 4572, 4608, 4644, 4680, 4716, 4752, 4788, 4824, 4860, 4896, 4932, 4968, 5004, 5040, 5076, 5112, 5148, 5184, 5220, 5256, 5292, 5328, 5364, 5400, 5436, 5472, 5508, 5544, 5580, 5616, 5652, 5688, 5724, 5760, 5796, 5832, 5868, 5904, 5940, 5976, 6012, 6048, 6084, 6120, 6156, 6192, 6228, 6264, 6300, 6336, 6372, 6408, 6444, 6480, 6516, 6552, 6588, 6624, 6660, 6696, 6732, 6768, 6804, 6840, 6876, 6912, 6948, 6984, 7020, 7056, 7092, 7128, 7164, 7200, 7236, 7272, 7308, 7344, 7380, 7416, 7452, 7488, 7524, 7560, 7596, 7632, 7668, 7704, 7740, 7776, 7812, 7848, 7884, 7920, 7956, 7992, 8028, 8064, 8100, 8136, 8172, 8208, 8244, 8280, 8316, 8352, 8388, 8424, 8460, 8496, 8532, 8568, 8604, 8640, 8676, 8712, 8748, 8784, 8820, 8856, 8892, 8928, 8964, 9000, 9036, 9072, 9108, 9144, 9180, 9216, 9252, 9288, 9324, 9360, 9396, 9432, 9468, 9504, 9540, 9576, 9612, 9648, 9684, 9720, 9756, 9792, 9828, 9864, 9900, 9936, 9972, 10008, 10044, 10080, 10116, 10152, 10188, 10224, 10260, 10296, 10332, 10368, 10404, 10440, 10476, 10512, 10548, 10584, 10620, 10656, 10692, 10728, 10764, 10800, 10836, 10872, 10908, 10944, 10980, 11016, 11052, 11088, 11124, 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MORE HEATING
COMFORT PLUS...

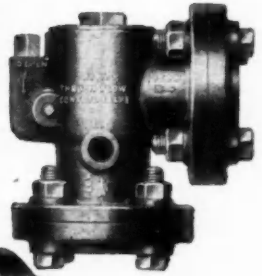
A FUEL

Saving of 37%

WITH THRUSH Forced Circulating
ZONE CONTROLLED HOT WATER!



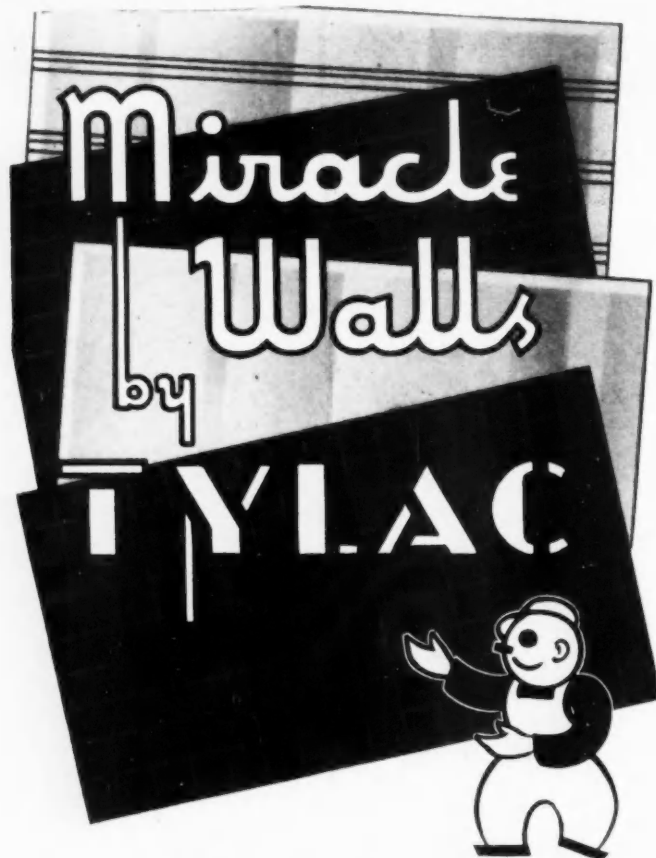
THRUSH
WATER
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THRUSH
FLOW CONTROL
VALVE

WHY heat the entire church every time just a part of it's to be used? With simple, inexpensive, automatic Thrush equipment, you can zone any hot water heating plant so that just the part needed is heated and the extra fuel is saved! The Emmanuel Church heating system has three zones, the Auditorium, the Sunday School Rooms, and the Recreation Rooms. The Board reports more real heating comfort and an actual saving of around three hundred dollars a year on fuel since it was installed four or five years ago. That's big money in any heating budget! Churches and apartment houses in your community would like to know about Thrush Zone Control, too. Ask your wholesaler about it, or write Dept. G-5.

H. A. THRUSH & COMPANY . . . PERU, INDIANA



A MESSAGE FROM *Tim Tylac*

MILLIONS of people have ear-marked WAR BOND DOLLARS for building or remodeling after "V" Day . . . they will demand a wall covering that is BEAUTIFUL . . . DURABLE . . . ECONOMICAL . . . Be ready with fast-selling TYLAC for KITCHEN and BATH . . . Easy-to-install . . . Easy-to-clean . . . Four basic patterns in a wide range of standard colors that can be adapted to the owner's taste — insuring customer satisfaction and pride of ownership that lead to increased sales.

No dealer in the wall products field will have a shorter lapse of time between "V" Day and "SEE" Day than the TYLAC dealer.

TYLAC COMPANY
MONTICELLO, ILLINOIS

MANUFACTURERS OF ENDURING-MODERN WALL COVERING

Catalogs and How-to-do-it Information

23—EVER TRY A SAW GUN?—Here is a tool which brings more horsepower on the job to do a lot of tricks that ordinary tools would take many times more hours to accomplish. The Saw Gun saws wood, plastics, light and heavy gauge metals, corrugated or plain. It files as well, and operates by electricity, compressed air or flexible shaft, as may be desired. The manufacturer, Mid States Equipment Co., has leaflet available which explains the tool and contains photos of it.

24—YOU CAN USE THIS WALL MATERIAL NOW—because as the Ruberoid Co., says, "It's available." Stonewall building board is particularly suitable for small farm buildings—for which there is an ever-growing market—because the board is proof against fire, rot, rats, rust, termites, vermin and all sorts of weather. Send for a folder telling how to use this versatile material.

25—HOW TO ADEQUATELY WIRE YOUR 194X HOMES—the practical information contained in Westinghouse's new and colorful 64-page book "Electrical Living in 194x." This free book gives you a personally conducted tour through a completely wired postwar home, and also contains complete information on the installation and application of both fixed and portable electrical appliances. The supply is limited, so send in today.

26—POSTWAR HOMES WILL INCLUDE MUCH ALUMINUM—As this is bound to be a fact, it is wise to get the know-how now and be ready when the time comes. For instance, the Aluminum Company of America has a booklet available giving construction design details, along with standard shapes, of aluminum sill and coping. There's no question but that it pays to know about these new things.

27—SCIENTIFIC HEAT CONTROL REACHES INTO HOMES—By scientific is meant the "Moduflow Control System" as just made available for future homes by Minneapolis-Honeywell Regulator Company. A booklet for the public and one for the trade are on the presses. How to zone a house from 50 degrees up to 72 degrees or more, and control the temperatures with regulators, as outlined in a booklet, is an outstanding development in home heat control.

28—"IT'S A HONEY!" THIS NEW FOLDING LADDER—because it fits into present needs of much transportation from one small job to another. With heavy-duty and light-weight characteristics, yet folding to a bundle measuring 3 by 3 inches, this ladder will simplify the usual ladder-juggling task of outside repair and remodeling work. Made by the Duo-Safety Ladder Corp., it is ready for immediate purchase.

29—PRACTICAL DATA ON SHOWER BATHS—is the subject of an illustrated booklet by Fiat Metal Manufacturing Co., entitled, "Why Take a Shower Bath?" Amusingly decorated yet full of facts and figures, this booklet gives suggestions for postwar installations in homes that answer a lot of down-to-earth planning questions as well as sales promotion thoughts.

SERVICE COUPON—CLIP and MAIL to CHICAGO

Readers Service Department,
American Builder,
105 W. Adams St., Chicago 3, Ill.

(May, 1944)

Please send me additional information on the following products, items, or the catalogs, listed in this department:

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NOW — Positive, Permanent WATER-HAMMER SILENCER

by GENERAL Fittings Company



FOR COLD WATER LINES

FOR HOT WATER LINES

Here's a compact, easily-installed unit that puts a definite stop to water-hammer nuisance in any plumbing system!

Adjustable to any water pressure, the GENERAL Silencer entirely eliminates make-shift air chambers . . . and does a better job. A non-corrosive diaphragm in this engineered unit absorbs the shock of pressure when valves or faucets are suddenly closed. Stops the noise . . . prevents destructive vibration . . . can't become water-logged.

GENERAL Water-Hammer Silencers are

made in 2 sizes for service lines from 1/2" to 2" capacity. Equally effective on rigid pipe and copper tubing. Ruggedly constructed . . . permanently leak-proof. The only silencers with all these advantages . . . yet actually cost less!

Install these proven Silencers in new construction and modernization jobs. They'll stop water hammer for good, and give you an added talking point in selling. Write for Catalog 15, containing details of Silencers and other quality products by: General Fittings Company, Dept. F, 123 Georgia Ave., Providence 5, R. I.

GENERAL

WATER HEATERS AND HEATING SPECIALTIES

Water-Hammer Silencers

Indirect Water Heaters

Thermostatic Mixing Valves

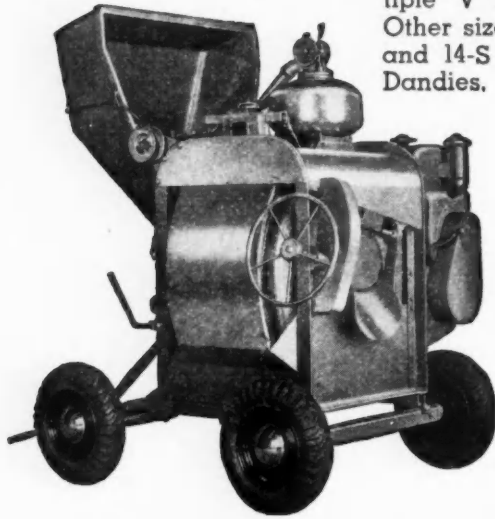
Tankless Water Heaters

Built-in Water Heaters for Boilers

Pipe Unions

KWIK-MIX MIXERS

Kwik-Mix convertible 10-S Dandie . . . side or end discharge . . . change can be made in the field to suit pouring conditions. Special features are: easily accessible drum drive shaft . . . flow-line discharge chute . . . simplified skip-flow shaker . . . enclosed reduction gear assembly in oil . . . multiple "V" belt drive. Other sizes are 7-S and 14-S Kwik-Mix Dandies.



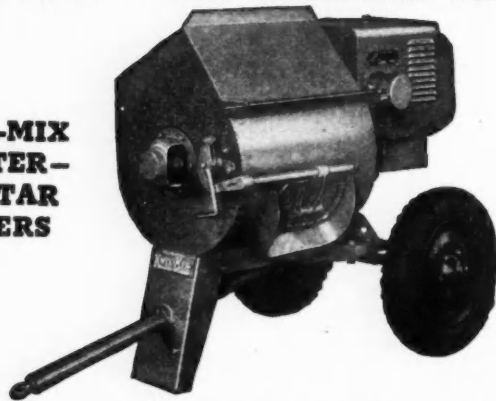
KWIK-MIX 10-S DANDIE



Kwik-Mix 3 1/2-S Concrete Mixers . . . side or end discharge . . . tilting or non-tilting . . . anti-friction bearings . . . spring mounting . . . high speed trailing . . . welded construction.

KWIK-MIX 3 1/2-S END DISCHARGE TILTER

KWIK-MIX PLASTER-MORTAR MIXERS



Kwik-Mix Non-Tilting 6-P Plaster or Mortar Mixer . . . fast discharge, 7 seconds . . . light weight, only 850 pounds . . . air cooled engine . . . V-belt and worm drive . . . low shoveling height. Also 4 wheel 10-P tilting model.

KWIK-MIX CONCRETE MIXER CO.
PORT WASHINGTON . . . WISCONSIN



FROM AN UNKNOWN SEABEE*

So you're tired of working, Mister, and you think you'll rest a bit,
You've been working pretty steady, and you're getting sick of it;
You think the War is ending, so you're slowing down the pace?—
That's what you may be thinking, Sir, but it just is not the case!
Would you like it if because we're tired we up and quit it too?
Well we're flesh and blood and human, and we're just as tired as you!

* * * * *

Did you ever dig a foxhole and climb down deep inside—And wish it went to China, so you'd have some place to hide—
While motored buzzards packed with guns were circling overhead, spraying every crack of ground with hot exploding lead?
(You feel yourself all over as you burrow in the dirt To find out how and where and when your carcass has been hurt;
And find although you scarce can move you are not hurt at all, but so twisted, shocked and shaky that you almost want to bawl.)
Were you ever hungry, Mister—not the kind that food soon gluts—But a grinding, biting hunger that tears and twists your guts?
It's a homesick hunger, Mister, that attacks you deep inside—And there ain't no way of dodging it—there ain't no place to hide!
Were you ever dirty, Mister—not the wilty collar kind—But an oozy slimy messy dirt, and the gritty kind that grinds?
Did you ever mind the wind, Sir—not the usual home-ly blows—But those searing, maddening, crippling gales in the lands of ice and snows?
Were you ever weary, Mister—just downright wholly numb—When your feet ain't got no feeling, and your legs are weak as gum?
Well we've been tired and hungry, seared with frost and broiled in sun,
Mired in mud and stench and oozy slime, peppered by Jap and Hun.
And we've often felt like quitting—throwing down the tools of War,
For we don't see sense in FIGHTING for the things you won't WORK for!
Of course that's just plain grouching—for WE won't quit you know,
Until we have Berlin in hand and march in Tokyo!
And so we keep agoing, Sir—you can bet your life we do—
And let me tell you, Mister—we expect the same of you.

(*Reprinted from BILDOR)



MIAMI WOOD CABINETS

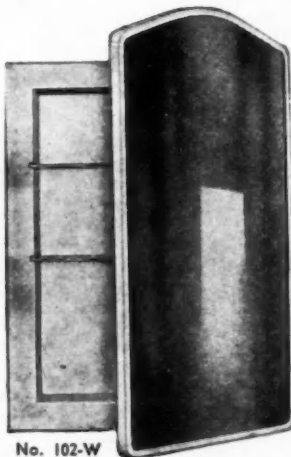
Show Bathrooms to Advantage

Miami Wood Bathroom Cabinets are smartly modern in every detail—of trim, streamlined beauty, with mirrors framed in steel (by permission of WPB). These attractive Wood Cabinets, now available in quantity, are doing a real war-time job . . . "filling the gap" left by discontinued production of Miami Metal Cabinets for the duration.

Prompt shipment. New illustrated folder, giving complete information, sent on request. Write Dept. AB.

3 Attractive CABINET MODELS

The MIAMI Line consists of three smartly designed, completely equipped wood cabinet models; also wood-framed wall mirrors in six sizes . . . Cabinet bodies are made of kiln-dried hardwood, with joints double-locked, glued, and tenoned; door back of moisture-proof composition board; mirrors framed in STEEL, finished to match cabinets.



MIAMI CABINET DIVISION
The Philip Carey Mfg. Company — Dependable Products Since 1873
MIDDLETOWN, OHIO

THIS
Modern Kitchen
IS AVAILABLE NOW!



**FOR WAR HOUSING—
POST-WAR PLANNING**

● Here's a Kitchen Maid modern kitchen—a combination of units from its line of advanced cabinetry which is available today for war housing; ready to be specified in peace-time plans as well. With Kitchen Maid's factory producing 50,000 war kitchens, there is no serious re-conversion problem, and the entire line will be quickly available for all residential purposes after V-Day.

Developed before the war, proved by extensive war housing experience, this new cabinetry is the fulfillment of present and early post-war needs. It is constantly being specified for projects of all types. And *composite construction* is the principal reason for its wide acceptance.

Made of hardwood, plywood, and other compositions, Kitchen Maid Cabinetry combines all the advantages of the best materials available—each used where it serves best, gives greatest strength and longest life. Remarkably flexible, too—with standard units to fit practically any arrangement. Before planning another war or post-war job, see your Kitchen Maid dealer, or—

WRITE FOR THIS NEW FOLDER



The Kitchen Maid Corp., 545 Snowden Street, Andrews, Indiana.
Please send new folder on "Kitchen Maid War and Post-War Cabinetry."

Name _____
Address _____
 Architect Builder Dealer Owner

KITCHEN MAID
FOUNDER OF MODERN KITCHEN UNITS



**What woman
doesn't want
less K. P. duty?**



MANY families in your community will use some of their War Bond savings to build or remodel when the war ends. There's the kitchen, for example. Women were thinking and talking about the advantages of a modern all-steel kitchen before the war — and they haven't forgotten. They're right, too, because studies show it saves them about 95 miles of kitchen walking every year.

Steel cabinets will come in a variety of sizes, which will enable you to create convenient *work centers* around the sink, refrigerator and range. You can fit these units into any size or shape room.

Steel cabinets have many advantages. Every part fits together perfectly. Drawers will not warp or rot. Doors open and close easily and quietly. The cabinets are vermin-proof, dust-proof and easy to clean. They are readily installed at low cost and provide more usable space.

Many such cabinets will be made of ARMCO Prime-Quality Steel. It is strong without being bulky and is especially processed to take a beautiful, durable baked enamel finish. The American Rolling Mill Company, 1301 Curtis Street, Middletown, Ohio.

FOR EXPORT:
THE ARMCO INTERNATIONAL CORPORATION

**HELP FINISH THE FIGHT—
WITH WAR BONDS**



SPECIAL PURPOSE STEELS FOR TOMORROW'S BUILDINGS

England's 12-Year Building Program

By Lord Portal, D.S.O., M.V.O.,

Britain's Minister of Works

WHILE the full story of the war-time achievement in construction work in Britain cannot yet be told for security reasons, the following facts give some indication of what has been carried out.

With a building labor force of less than half the pre-war strength, hundreds of airfields, with miles of concrete runways and modern equipment, camps, hospitals, and millions of square feet of factory and storage space have been added to the capital equipment of the country, all with the single purpose of defeating the common enemy. In addition the building labor of the country is proud of having kept pace with clearing up and repairing where possible the damage inflicted on Britain's cities by the Nazi Luftwaffe at all stages of the war.

This program could not have been carried out without sacrificing normal civilian needs. Maintenance work has been far below normal requirements, and house building—except for the provision of temporary accommodation for war workers—has been virtually suspended. The result of these war-time sacrifices is that the Government is preparing plans for a large building program in the years immediately after the war.

The building industry's labor force after the war is to be planned to reach a ceiling of 1,250,000 men,—a high figure in relation to the total industrial man-power of Britain. A twelve years' balanced program has been envisaged by the Government.

The full co-operation of the British trade union movement can only be secured if labor leaders can be convinced that some security of employment is guaranteed over a number of years for the particular industry or craft that they represent.

It will be necessary for the Ministry of Labor to train some 200,000 men from the Armed Forces and war factories. The greatest care will be exercised to adjust this intake to the amount of work to be performed. This has been the subject of thorough study during the war and there is now

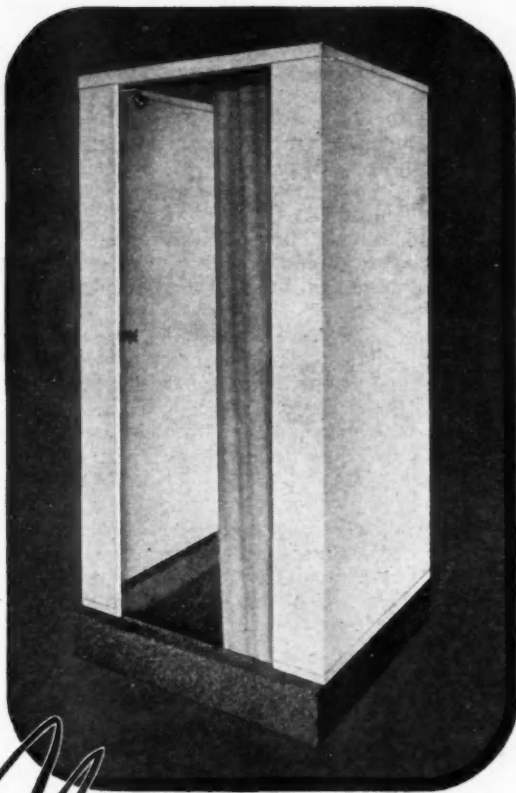
(Continued to page 98)

* * *



FRANTIC to find living quarters where children are permitted, Mr. and Mrs. Daniel Ogren advertised in Aurora, Ill., *Beacon News*: "Wanted, a four or five room house or apartment by two adults and one cute two-year-old boy. Will drown him if necessary." Here they illustrated their offer, but young Barry only laughs at the threat. To add to their difficulties, papa has a date with the draft board soon.

"Acme" Photo



No. 85 **ENSIGN TYPE**
FIAT
SHOWER CABINET

A Better Shower—Standard Size 36"x36"x78"

now available for immediate delivery under low priority. Conforms to government regulations restricting the use of critical materials.

The No. 85 fills the need for a good quality shower cabinet for homes, clubs, hospitals and public buildings. Designed along the lines of our Ensign model, using the regular Ensign deep type receptor, the No. 85 compares very favorably with our standard Ensign cabinet and is the best shower we have been able to build under government material restrictions. Extra heavy treated fibre board wall panels are joined on all four corners with the Fiat tension locking joint which provides a rigid, permanent, water-proof structure that can be quickly erected on the job, as no additional fastenings are required for the corner joints.

The No. 85 was originally designed for use in military hospitals where a permanent type of construction is required. Many of these showers have been installed and have proved their value in practical use. Now we are able to offer this high grade shower cabinet for civilian use through the plumbing trade.

SPECIFICATIONS—WALLS: Heavy duty 1/4" S-2-S masonite hard board, coated inside and out with waterproof baked-on enamel. Metal frame pieces 20 gauge steel. Head rail 16 gauge steel. All parts formed to eliminate rough edges within the interior of the cabinet. Furnished in white only.

RECEPTOR: Regular Ensign type, precast, reinforced terrazzo. Height 6" with cast-in wall flange and drain. Leakproof and sanitary.

SIZE: Over-all dimensions 36" x 36" x 78". One size only.



FIAT METAL MANUFACTURING CO.

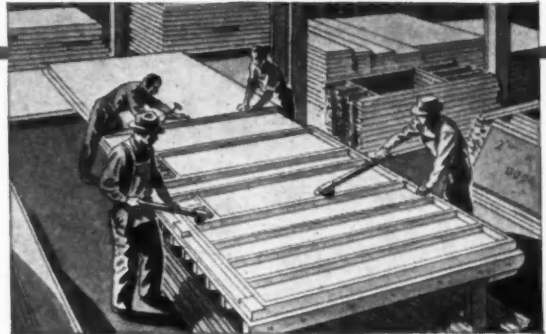


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PREFABRICATION started with the question—"How can we build a house with sectionalized, factory-built, standardized panels?" **Precision-Built Construction** started just the other way around—"How can we build sectionalized panels to execute *any design?*"

When you employ Precision-Building, *your client gets the home he wants*—any size, any style, any place, and for any climate. It looks no different from the same house conventionally built, yet your client gets all the benefits of mass production and engineering technique.

The basic difference between Prefabrication and Precision-Building is due to the difference between Prefabrication's "standard jig tables" and Homasote* Precision Tables. On each standard jig table, pre-cut materials are assembled into a standard panel of one design only. The table dictates the design. On a Precision Wall-Section Table, for example—any wall can be built, up to the total dimensions of the table. Nothing in the design needs to be standardized.

When you use Prefabrication, you build with *standardized panels*—usually in 4-foot widths. A logical simile is that you are building a house out of blocks. You can place the blocks anywhere you wish, but you cannot alter their original size or shape or design. When you use Precision-Building, you have no design limitations of any kind.

Homasote Precision-Built Construction—already proved by \$8,000,000 of private homes and \$30,000,000 of Government housing—will provide profits for hundreds of well-established, independent builders. Write for the details. ^{*}Trade Mark

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WITH BEVELING FENCE FOR DOOR WORK

One man and a Portable Electric MALL Plane can do the work of 10 men equipped with hand propelled jack planes and do a smoother, better job. The operator simply guides the plane across the work and the heavy duty motor does the rest. MALL Planes make cuts up to 1/8" and 2 1/2" wide in both pine and hardwood with speed and precision. The cutter is under constant control and can be raised or lowered while cutting to vary depth of cut. A hairbreadth adjustment 0" to 1/8" is easily made by turning the handle.

MALL Planes are full ball-bearing mounted . . . grease incased gears transmit the power to cutter head . . . and a trigger switch places full control at one's finger tips. Comfortable handles plus perfect balance make for easier handling. A removable beveling fence can be supplied for fitting, sash and doors. With skilled hands at a premium, you can do hand planing faster and cut costs with Portable Electric MALL Planes.



Ask your Dealer or Write for Literature

MALL TOOL COMPANY

7737 South Chicago Ave., Chicago 19, Ill.

(Continued from page 96)

in existence the Building Apprenticeship and Training Council, set up by the Ministry of Works. This Council consists chiefly of representatives of all sections of the building industry and has the responsibility of regulating the influx of boys, and of securing for them sound training while at school and apprenticeships when ready. The Council estimates that the industry will require between 15,000 and 20,000 apprentices a year, indefinitely.

The Government has indicated in a White Paper that operatives and employers should endeavor to formulate an agreed scheme for a guaranteed week, thereby eliminating casual employment.

Meanwhile local authorities have been asked to prepare plans of house building that they could immediately undertake in the first year after the war; that is plans relating to land already in their possession or immediately purchasable. A program on which immediate action can be taken, as soon as labor once more becomes available, will thus be in existence.

The Ministry of Works is building some demonstration houses to show different methods of construction. In conjunction with the Building Research Station (which is a branch of the Department for Scientific and Industrial Research) the Ministry is also building a number of houses for full-scale experimental work on traditional methods.

Meanwhile the position of the traditional building materials in Britain—brick, timber and concrete—is being carefully looked after; brick works have had to be closed down during the war, but have kept on a care and maintenance basis. Cement has been plentifully required during the war, and is not likely to give rise to any serious postwar difficulties. Timber, which was before the war a very substantial fraction out of the total weight of Britain's imported commodities, is giving rise to some anxiety, but steps have been taken to secure the necessary supplies. Apart from timber, building materials as a whole should present a relatively manageable problem, since pipes and internal fittings may be made out of a variety of alternative substances.

Plans for standardization are being worked out to cover such things as cookers, cupboards, baths, basins, sinks, refrigerators, laundry equipment, and in addition in many directions our war effort has been focused upon the invention and development of new methods and materials. When the time is ripe for the application of these new techniques to peace activities it will be found that vast strides have been made in many fields. Plastics is one of these, though it is too early yet to see exactly how far the advances made will be applicable in building. The use of the greatly improved synthetic glues, however, will clearly make sweeping changes in the use of timber and plywood.

The great advances in aircraft and ship design also have taught us much. Copper, aluminum and light alloys generally have multiplied their output and will find increased use in building. The shortage of metal working labor gave us the motive to develop the rubber die press, a modern miracle with its finger-tip control of pressures up to 10,000 tons.

Building needs in Britain arise not only as the result of the natural increase of the population; an even bigger cause of building demand is the constant geographical changes of location arising from new industrial developments.

The enormous shifts of population from one district to another that took place before the war were one of the major causes of the building demand of the 1930's, and if our industry is flexible, and new developments—possibly better planned developments—are taking place, it is possible that shifts similar in magnitude may again be necessary.

The point to remember is that even in a small country like Britain a shift of the residence and place of work of the population means just as much new building if the movement is over a small distance as if it were over a vast space, and furthermore, the very smallness of Britain, and the fact that she is a long established industrial country that has grown up piecemeal, mean that to re-plan the towns and the industries may possibly involve a considerable demolition of existing buildings and a slum clearance such as had already begun before the war.

To sum up, Britain has many grave building problems to face after the war, but the war itself has been a stimulus to new forms of organization and building technique.

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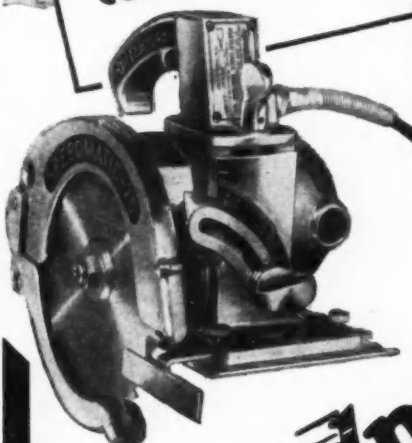


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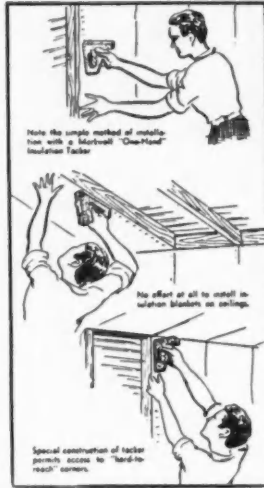
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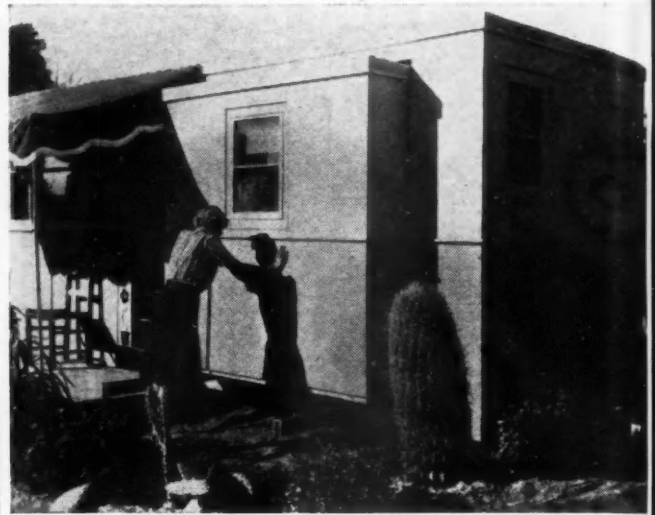


Note the simple method of installation with a Markwell "One-Hand" Insulation Tacker.

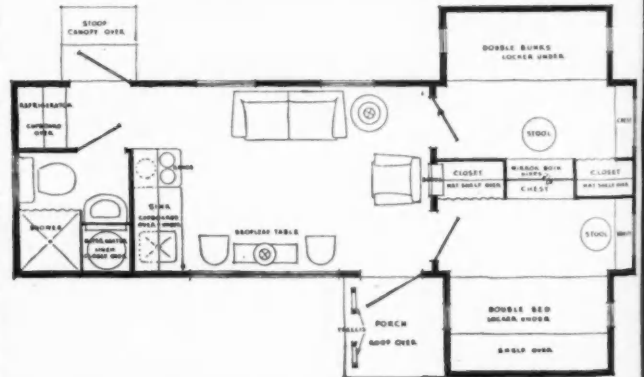
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Special construction of tacker permits access to "hard-to-reach" corners.

"Don't Confuse This With Prefabricated Houses or Trailers," Sponsor Warns. Says it's Conventional Construction!



THE BEDROOM EXTENSION of the Goodyear Tire and Rubber Company's "Wingfoot" home can be pushed back into line with the main walls of the house. This permits loading it on truck or flatcar for ready transportation to any desired location.



FLOOR PLAN shows the arrangement of the "Wingfoot" home. The house is 26 feet long and 8 feet wide when telescoped. It opens up to 15 feet in width when ready for occupancy.

THE "WINGFOOT" home, developed by Goodyear Tire and Rubber Company, is scheduled for quantity production as soon as possible after the war. "Actual living" tests are now being conducted at Litchfield Park, Arizona, according to company officials.

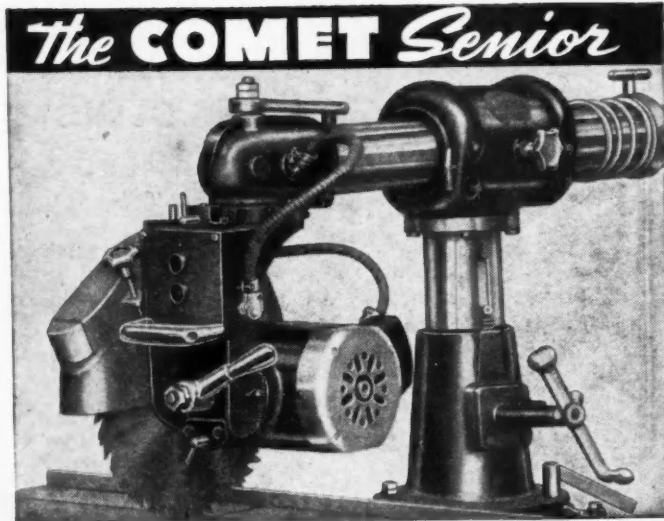
A whole new segment of the population, people who would like to own their own home but are reluctant or unable to spend the considerably larger sum required for the permanently located house and lot, will make up the market for this new type of house, the Goodyear Company believes.

Distribution will be through the building supply dealer. Transportation arrangements will be maintained by the Goodyear Company at predetermined flat rates.

Long-Sought-For Tool Makes Insulating Easier

INSULATION contractors will be glad to get hold of one of these new tools for cutting blow-pipe holes in sheathing. The tool is designed for use in a portable electric drill, and the four cutting blades are ground and tapered to eliminate friction and binding. Put on the market by the CIRCO Tool Co., 902 W. Vliet St., Milwaukee

(Continued to page 102)



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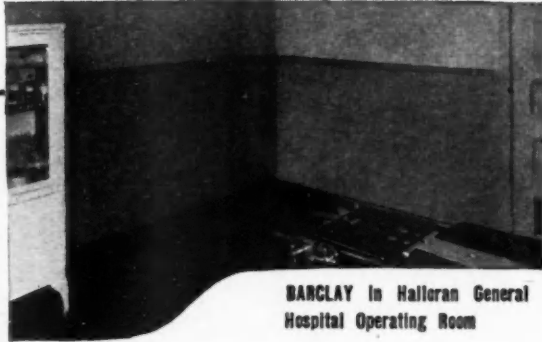
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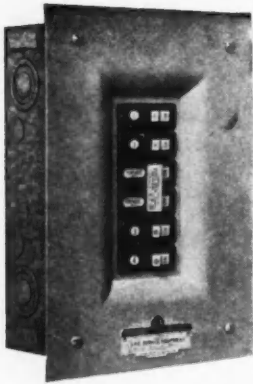
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The exclusive interlocking grid core within the Rezo door provides constant air circulation adds extra strength and greater rigidity.

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Residential construction particularly multiplies the advantages to be found in Paine Rezo doors. In any home they become important decorative elements in themselves, add to the impression of spaciousness. Yet with beauty, they combine patented features in construction that mean no swelling or shrinking, nor future alignment troubles for the lifetime of the building. . . You can specify Paine Rezo doors with confidence, for Paine is no newcomer to flush door manufacture. Back of them is America's largest producer of flush type doors, with a record of nearly half a century of successful installations from coast to coast. Write today for an illustrated, factual bulletin.

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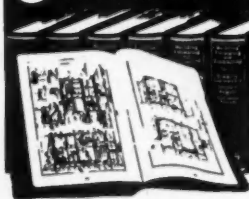


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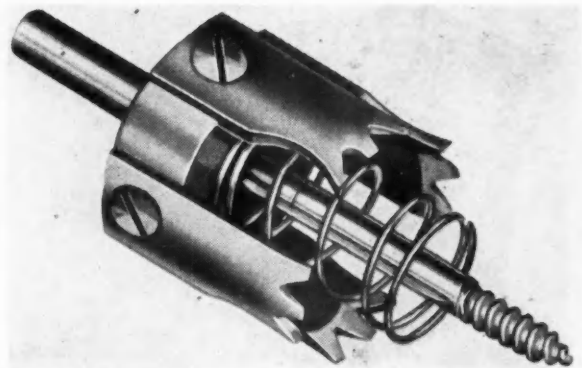
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Please attach a letter stating your age, occupation, employer's name and address, and that of at least one business man as a reference. Men in service, also give home address.

(Continued from page 100)

kee, this cutter has a self-starting screw point for ease in starting, and an ejector spring that throws the block out as the hole is cut. A 2½ inch hole is cut in 1 inch sheathing in a matter of seconds.



CIRCO hole cutter for use of insulation contractors as well as roofers and carpenters.

Keeping Up Appearances, and More

OBSOLESCENCE is taking a dreadful toll of many buildings these last few years. Masonry walls, like all kinds of exterior walls, are deteriorating rapidly. To hold this back, the A. C. Horn Co., Long Island City, N. Y., have made a scientific contribution to masonry protection in introducing a new product called Waterfoil. The material is made of irreversible inorganic gels, and when applied to masonry they react chemically with the lime hydrate of the masonry to form a fine, hard heavy coating which literally "welds" itself to the structure. Waterfoil is applied with a stiff brush and definitely lengthens the life of any building.

Importance of Colors in Houses and Other Buildings

EVERYWHERE bright pigments now take the place of the drab hues of other days. Today, more than at any time, color is an important factor in the construction of all buildings—homes, commercial structures, hospitals and sick-rooms. The color that a wall is painted or a piece of furniture upholstered, is usually chosen for its esthetic effects. But the right colors and color combinations in our homes, offices, shops and travel accommodations are important both for health and efficiency.

An unusual dinner party was given some time ago by Samuel G. Hibben, illumination engineer. This party was supposed to demonstrate the effect of color not only upon the sense of sight, but upon the related senses of taste, touch and smell. After the guests sat down at a banquet table loaded down with appetizing looking dishes, the lighting was suddenly switched, changing the color of all the food into disturbing hues. The steaks were a sickly gray, the celery a gaudy pink, salads an ashen violet, fresh green peas looked like black caviar. Milk was blood red, eggs a distressing shade of blue, the coffee a sickly yellow. Most of the guests could not eat. Some who did became ill. The experiment though not the dinner, was a complete success.

The psychological needs of the occupants of the rooms must be considered. Light colors have a stimulating and cheering influence on most people—producing very much the same effect as would friendly words of encouragement. Dark colors are not so stimulating. Few people are conscious of these psychologic factors. All they know is that they feel attracted by one room or one interior decoration in preference to another.

This unconscious or subconscious factor is obvious from an experience described by James Lambert, superintendent of the botanic gardens of the University of

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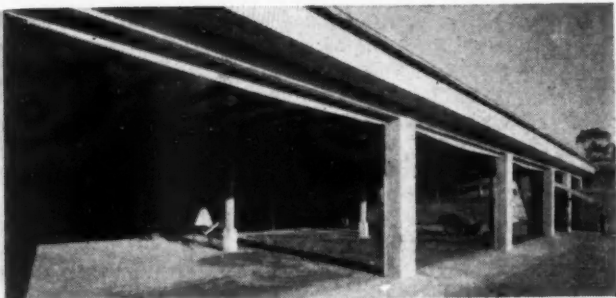


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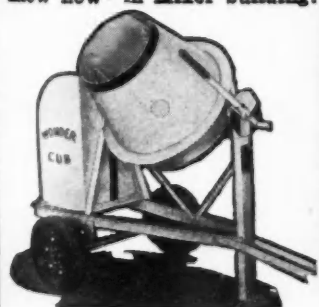
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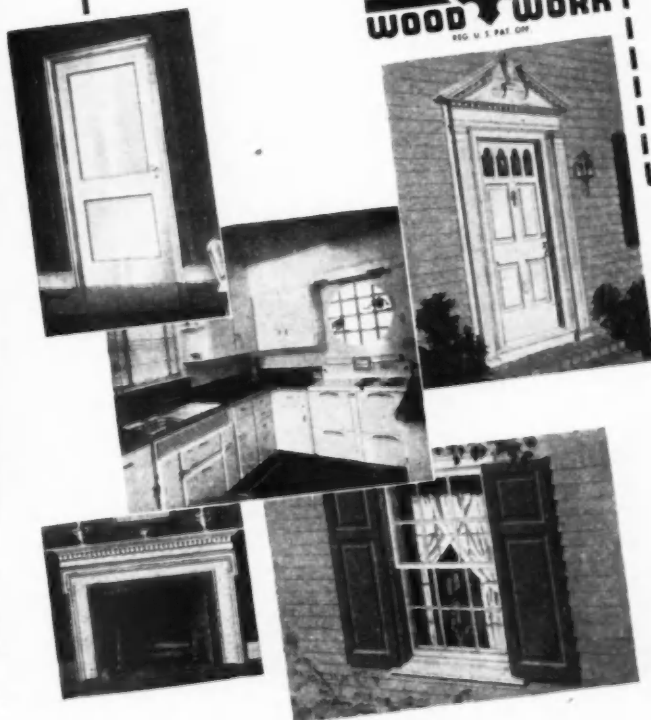
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Metal Trims
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Pennsylvania. He told of a resort hotel to which business men went for week-ends to get away from cares and worries. The hotel management began to feel a gradual lessening in business, but for some time nobody could find out the reason.

What had happened was that a new flower garden had been laid out. Red was the predominant color of the flowers. The red flowers were removed and the garden redesigned in blue and white flowers. Gradually the businessmen returned as guests. Mr. Lambet stated that even he, familiar with flowers, had been violently irritated after an hour on the hotel verandah gazing at the red flowers, but that gazing at the subsequent white and blue flowers gave him a mental peace and relaxation hard to define.

Howard Ketcham, a color engineer, active with the Pan-American Airlines to arrange the interior decorations of planes, has found out that a green motif might be able to prevent air-sickness, whereas brown and yellow colors may induce it. He even advises the airlines to avoid serving coffee and mayonnaise because of their sickening color effects in the air.

Most young children prefer red; it is the favorite color of very young people. In later years, however, colors are preferred which have a generally soothing influence, such as blue and green. Blue color is known to usually have good effect on neurotic persons and neurasthenics. The following effects of colors on human moods are considered an average:

Red: A stimulating color which excites and increases the working power of the brain.

Yellow: A stimulating color which helps energize the brain; in color therapy it aids in treating colds, paralysis and chronic conditions.

Green: Not necessarily depressing; possesses cooling effects, useful in the abatement of excitement. Counteracts brightness of sunlight.

Black: Useful for toning strong colors, not actually depressing. Best used in combinations.

White: Cheery, attracts sunlight; but alone, is cold. Stimulating if used with red, yellow or orange.

Brown: Restful and warming,—depressed if used alone. Best effects are combined with orange, yellow and gold.

Purple and mauve are sedative, soothing and conducive to sleep.—Waldemar Schweisheimer, M.D.

Gear-Driven Saw Goes to Town

AN improved model of the Wallace No. 11 saw has lately been made available by J. D. Wallace & Co., 136 S. California Avenue, Chicago, Ill. The saw accommodates extension tables providing ripping capacities of 24", 36" or 48" wide. These extension tables are designed to handle large plywood panels. Also, handling time is cut down on smaller pieces, for the larger extensions provide a convenient work table for stacking the raw material or the dimensioned stock after it has been sawed to size. The saw is available with one or two horsepower motors, which tilt for bevel work.



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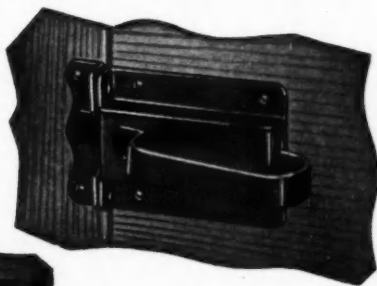
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Some persons may think that the timber supply ends when the parent tree is cut. Nature is generous in her provisions to re-stock harvested forest lands. Not all young trees survive but the more vigorous provide the crop for tomorrow, while the mature Western Pines* furnish the supply for today.

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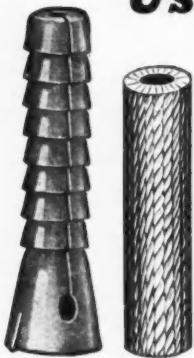
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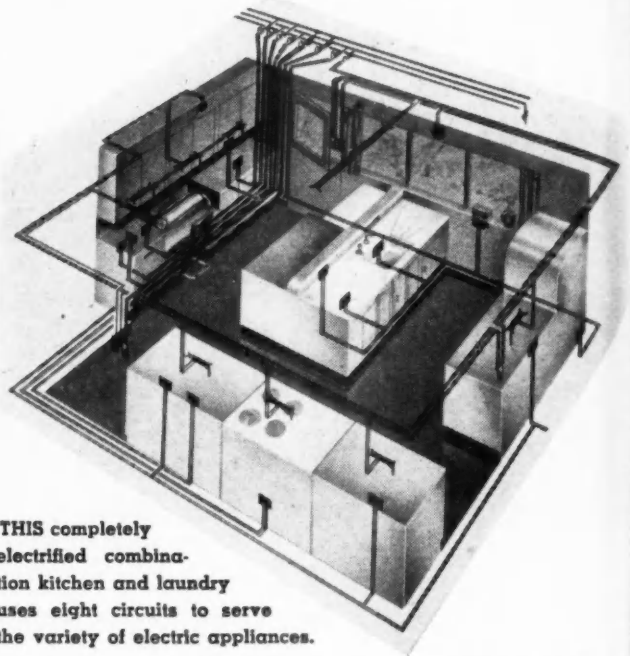
How to Plan Wiring—

(Continued from page 62)

priced home, but in the average unit. Even the lower-cost market will enjoy the use of more of these helps than ever before.

That wiring in 95 per cent of existing homes is inadequate for present equipment points out the extent of the change which must be made in planning approach.

New housing, however, is only a part of the story. When the war is over, fifteen years will have elapsed since there has been any important amount of modernization or repair. A crying need for fundamental repairs and a tremendous demand for modernization of our present housing structures have existed for many years. With proper stimulation, the number of dollars which will be spent in the first one or two years immediately following the war for modernization and repair will not only equal, but will



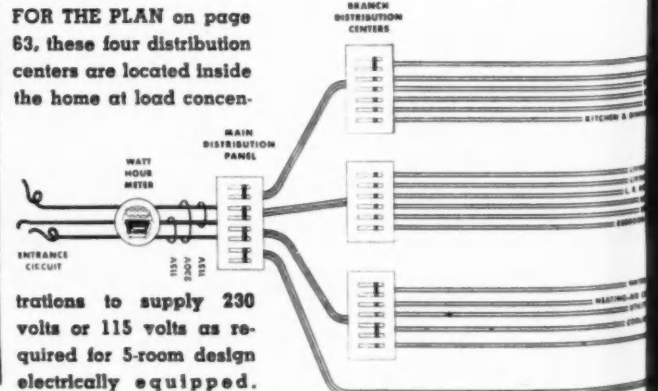
THIS completely electrified combination kitchen and laundry uses eight circuits to serve the variety of electric appliances.

probably exceed by from twenty-five per cent to fifty per cent, the number of dollars spent on new housing construction. So, postwar modernizing jobs now being planned should also be brought up to date with proper wiring for "Silent Servant" convenience equipment.

The following table rates electrical service up to the averages computed according to sizes of dwellings. It also provides for full power for the operation of any domestic appliance on the market today; this table is recommended to home builders as a reliable assurance against electrical obsolescence. All services should be three-wire:

Floor Area of Dwelling sq. ft.	Number of Rooms	Size of Service Conductors	Rating of Service Equipment (Amperes)		
		Gauge No.	Switch	Fuse	Circuit Brk
Up to 1,000	4	6	60	50	50
1,000-1,500	5	4	60	60	70
1,500-3,000	6-9	4	100	70	70
3,000-4,000	10-13	2	100	90	90

FOR THE PLAN on page 63, these four distribution centers are located inside the home at load concen-



trations to supply 230 volts or 115 volts as required for 5-room design electrically equipped.

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SAVE MAN POWER**



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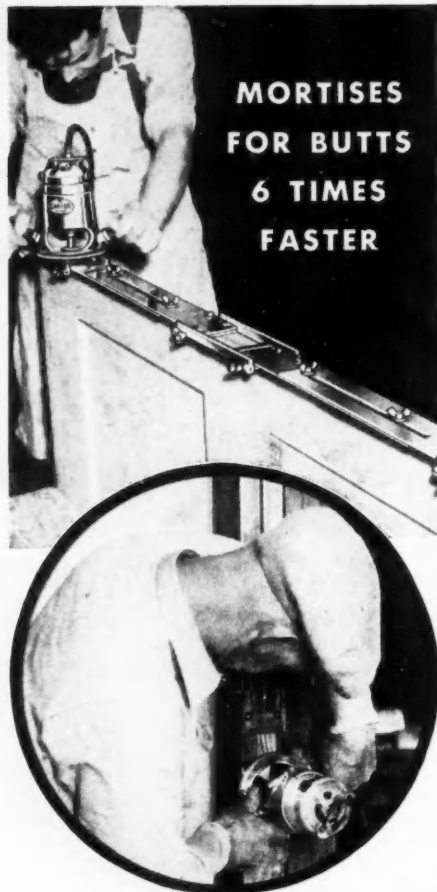
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The illustration in the circle above shows the Carter T3 Templet mounted on the jamb, guiding the Router for hinge recesses. The upper photo shows the templet reversed and mounted on the door, for cutting mortises that match accurately. For complete information write **R. L. Carter Division, The Stanley Works, New Britain, Conn.**



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TIME-SAVING
TOOLS**

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about—**

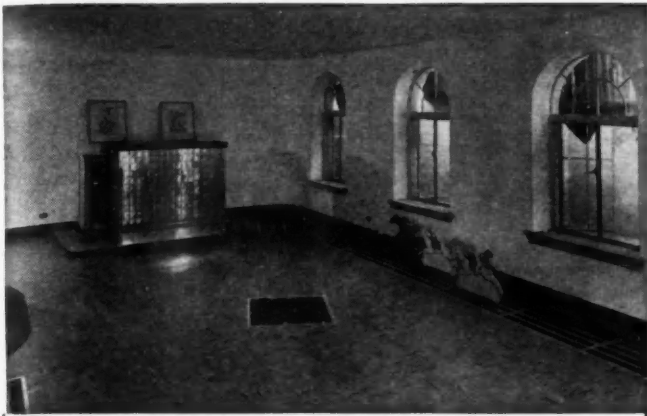
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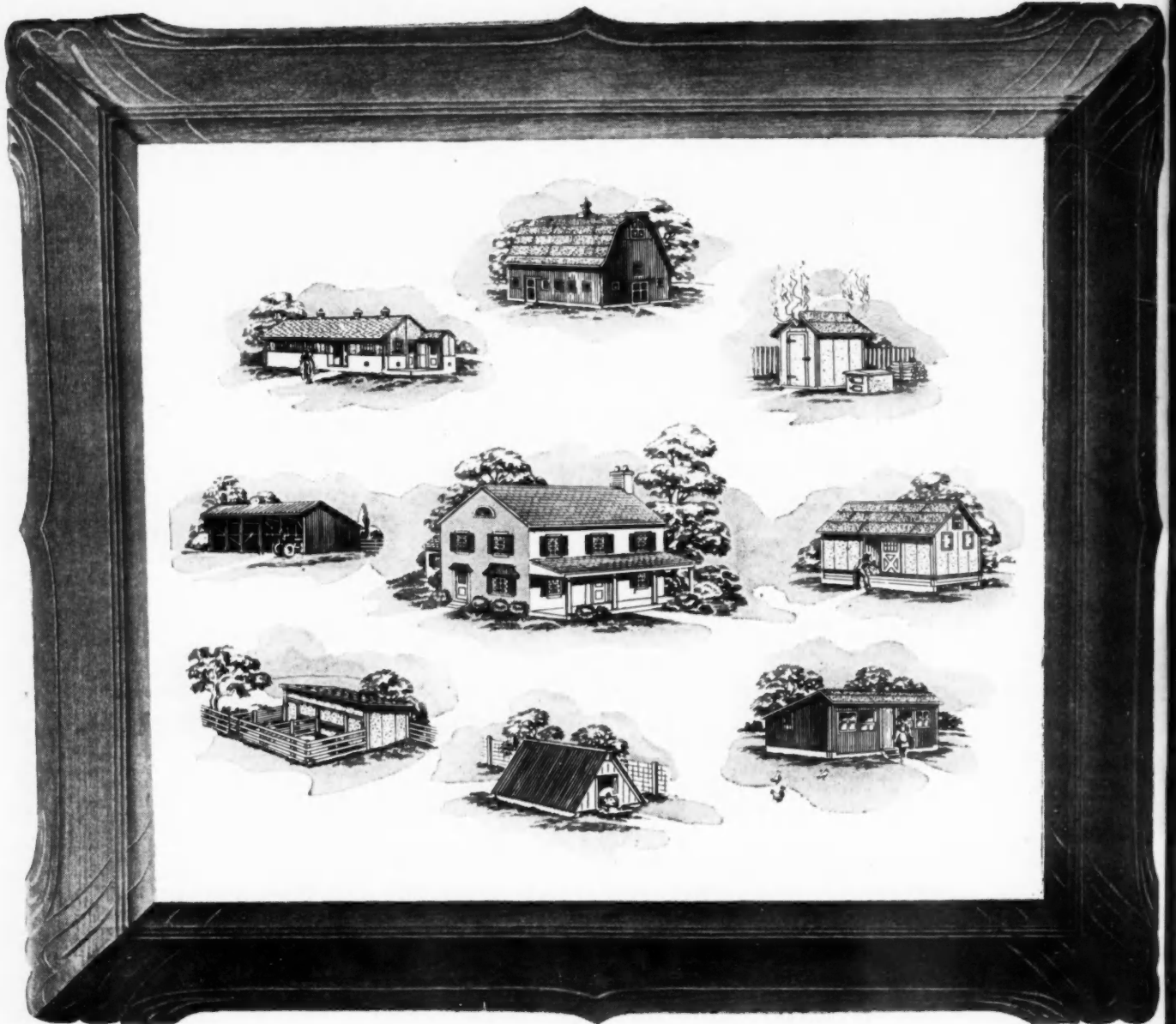
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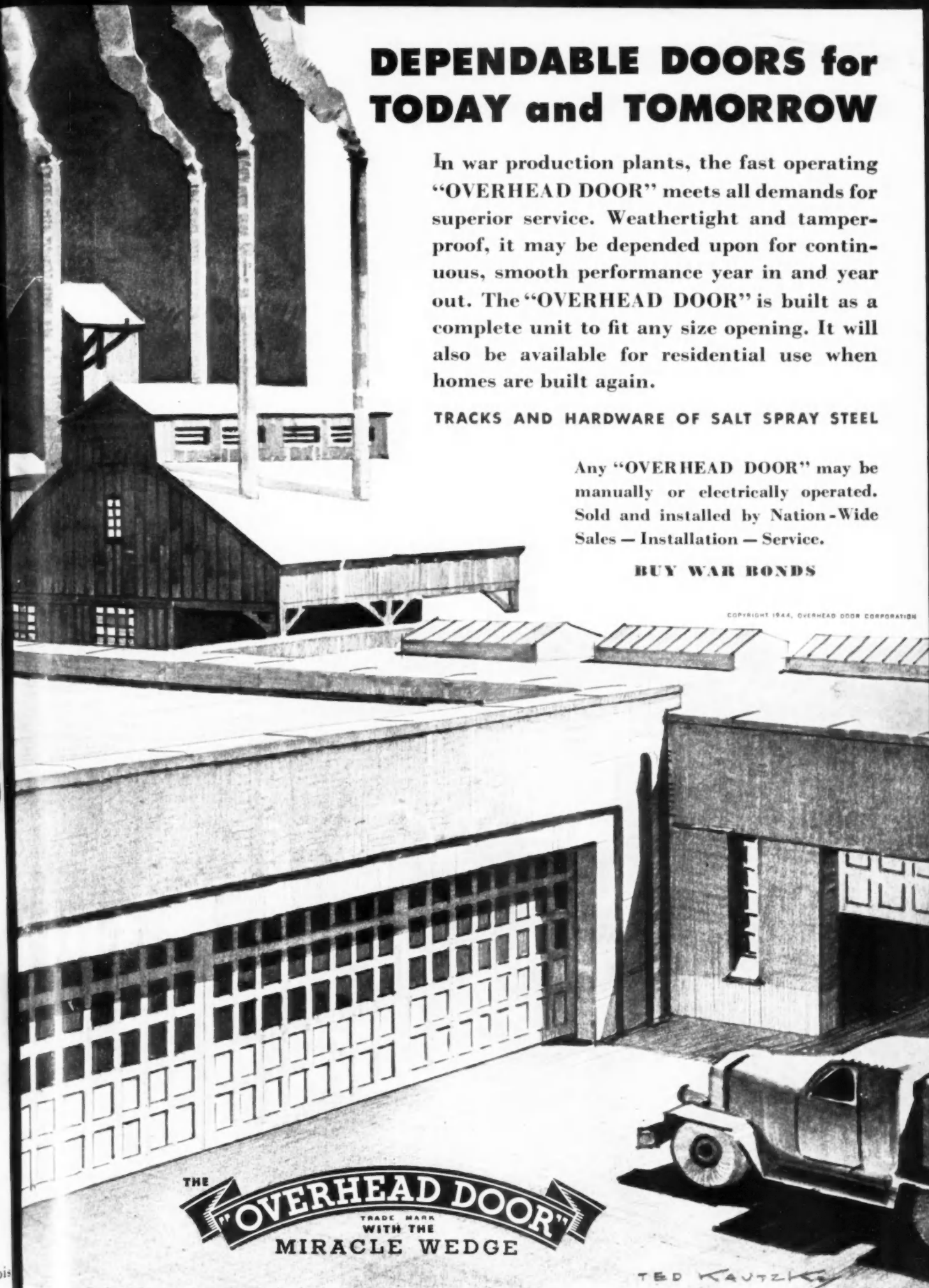
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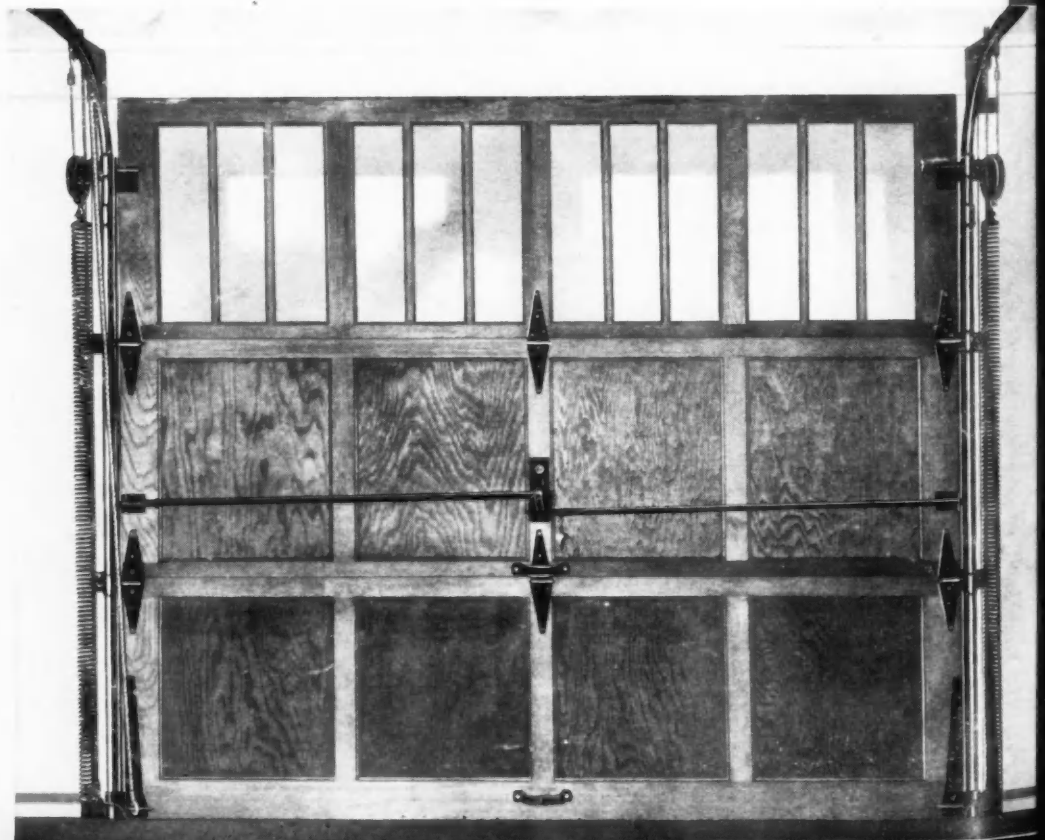
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